Appendix J
FAS Preliminary Investigation Sampling and Analysis Completion Report

NORMAN Y. MINETA
SAN JOSE
INTERNATIONAL
AIRPORT
SILICON VALLEY'S AIRPORT

January 31, 2020

Michael Montgomery
Executive Officer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: PFAS Preliminary Investigation Sampling & Analysis Completion Report in Response to Water Code Section 13267 Order WQ-2019-0005-DWQ for the Determination of the Presence of Per- and Polyfluoroalkyl Substances at Norman Y. Mineta San Jose International Airport, Airport ID SJC, Santa Clara County, T10000012766

Please find attached the Completion Report for a one-time preliminary site investigation of per- and polyfluoroalkyl substances (PFAS) impacts at SJC Airport. This Completion Report meets the requirements of the Water Code Section 13267 Order WQ-2019-0005-DWQ.

If you have any questions, please contact myself, Patrick Hansen, at 408-392-3626 or phansen@sjc.org.

I, Patrick Hansen, certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision, and the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information.

Sincerely,

Patrick Hansen
Environmental Services Program Manager
Planning and Development Division, Mineta San Jose International Airport

Enclosure: PFAS Preliminary Investigation Sampling & Analysis Completion Report

Cc: Alec Naugle, San Francisco Bay Regional Water Quality Control Board
Erica Kalve, San Francisco Bay Regional Water Quality Control Board
John Aitken, A.A.E., Director of Aviation, Mineta San Jose International Airport
Judy Ross, A.A.E., Assistant Director of Aviation, Mineta San Jose International Airport
Drew Niemeyer, Deputy Director of Planning & Development, Mineta San Jose International Airport

PFAS PRELIMINARY INVESTIGATION SAMPLING & ANALYSIS COMPLETION REPORT

Norman Y. Mineta San José International Airport
1701 Airport Blvd.
San Jose, California

2175 N California Blvd | Suite 315
Walnut Creek, California 94596
925.627.4100

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0232401.01
Kimley-Horn and Associates
January 30, 2020

PFAS Preliminary Investigation Sampling & Analysis Completion Report
Norman Y. Mineta San José International Airport
1701 Airport Blvd, San José, California

Prepared for

Kimley-Horn and Associates

Project No. 0232401.01

Kevin Almestad, GIT
Scientist 2

1/30/2020
Date

Samantha Olney, PG
Project Geologist

1/30/2020
Date

CERTIFIED HYDROGEOLOGIST
JAMES F. STRANDBERG
No. 800
Exp. 06-30-21
STATE OF CALIFORNIA

James F. Strandberg, PG, CHG
Senior Project Manager

1/30/2020
Date

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LIST OF ACRONYMS

4:2 FTS	4:2 Fluorotelomer Sulfonic Acid
6:2 FTS	6:2 Fluorotelomer Sulfonic Acid
8:2 FTS	8:2 Fluorotelomer Sulfonic Acid
AFFF	Aqueous Film-Forming Foam
ARFF	Aircraft Rescue and Firefighting
bgs	Below Ground Surface
C	Degrees Celsius
EDD	Electronic Data Deliverable
FAA	Federal Aviation Administration
HDPE	High-Density Polyethylene
IDW	Investigation-derived Waste
LCS/LCSD	Laboratory Control Spike/Laboratory Control Spike Duplicate
LHA	Lifetime Health Advisory
µS/cm	Microsiemens per Centimeter
mg/L	Milligrams per Liter
mL	Milliliters
mL/min	Milliliter per Minute
MS/MSD	Matrix Spike/Matrix Spike Duplicate
mV	Millivolts
NELAP	National Environmental Laboratory Accreditation Program
NEtFOSAA	N-Ethyl Perfluorooctanesulfonamidoacetic Acid
ng/L	Nanograms per Liter
NMeFOSAA	N-Methyl Perfluorooctanesulfonamidoacetic Acid
NL	Notification Level
NTU	Nephelometric Turbidity Units
OEHHA	Office of Environmental Health Hazard Assessment
PDF	Portable Document Format
PFAS	Per- And Polyfluorinated Alkyl Substances
PFBA	Perfluorobutanoic Acid
PFBS	Perfluorobutanesulfonic Acid
PFCAs	Perfluoroalkylcarboxylic Acids
PFDA	Perfluorodecanoic Acid
PFDS	Perfluorodecanesulfonic Acid

PFHpA	Perfluoroheptanoic Acid
PFHpS	Perfluoroheptanesulfonic Acid
PFHxA	Perfluorohexanoic Acid
PFHxS	Perfluorohexanesulfonic Acid
PFNA	Perfluorononanoic Acid
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctane Sulfonate
PFOSAm	Perfluorooctansulfonamide
PFPeA	Perfluoropentanoic Acid
PFPeS	Perfluoropentanesulfonic Acid
PFSAs	Perfluoroalkyl Sulfonic Acids
PFUnDA	Perfluoroundecanoic Acid
PFDoDA	Perfluorododecanoic Acid
PFTrDA	Perfluorotridecanoic Acid
PFTeDA	Perfluorotetradecanoic Acid
PPE	Personal Protective Equipment
PVC	Polyvinyl Chloride
QA/QC	Quality Assurance/Quality Control
SCVWD	Santa Clara Valley Water District
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
USDA	US Department of Agriculture
USEPA	United States Environmental Protection Agency

EXECUTIVE SUMMARY

This Per- and Polyfluoroalkyl Substances (PFAS) Preliminary Investigation Sampling and Analysis Report (Completion Report) presents the results of preliminary investigation activities conducted for the Norman Y. Mineta San José International Airport (Airport or SJC) in response to requirements from the State Water Resources Control Board (SWRCB) in the March 25, 2019 Water Code Section 13267 *Order WQ-2019-0005-DWQ Determination of the Presence of Per- and Polyfluoroalkyl Substances* (Order) to certain airports in California (SWRCB, 2019a). The Order required the City of San José (City) to submit a work plan for a one-time preliminary investigation of potential PFAS impacts at SJC. On June 14, 2019, the Airport submitted the *PFAS Preliminary Investigation Work Plan* (Work Plan), prepared on its behalf by Woodard & Curran, to the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) (Woodard & Curran, 2019). On July 18, 2019, the Regional Water Board provided a conditional approval of the Work Plan to the Airport (2019a). This Completion Report also provides responses to comments in the conditional approval letter.

The Airport is located on an approximately 1,050-acre site in Santa Clara County, California, bounded to the north by Highway 101, to the south by Highway 880, to the northeast by the Guadalupe River, and to the west by Coleman Avenue. The public Airport is owned and operated as a Department of the City. The Airport operates two runways, 12L/30R and 12R/30L, with dimensions of 11,000 feet by 150 feet. The east side of the Airport supports commercial flights that depart from Terminals A and B, while the west side of the Airport is dedicated to fixed based operators. Cargo aircraft also utilize areas in the northeast and southeast of the Airport.

As part of Work Plan development, the Airport identified 15 locations where Aqueous Film-Forming Foam (AFFF) was stored, used, or released by the Airport and tenants. Approximately one-half of the locations were used for AFFF storage with no record of use or release. The remaining eight locations were used by the Airport for aircraft rescue and firefighting (ARFF) equipment testing, locations of incidents where AFFF was deployed in response to emergencies, and locations of accidental spills and discharges by the Airport and tenants.

As required by the Order, the Work Plan provided the identification of sensitive receptors such as municipal supply wells, domestic wells, and surface water bodies within a one-mile radius of the 15 locations where AFFF has been stored, used, or released at the Airport. Woodard & Curran identified 18 public and domestic water supply wells and one surface water body within the one-mile radius.

Soil and groundwater samples were collected from October 16 to October 24, 2019 in areas where AFFF was used or released to the land surface to evaluate the potential presence and preliminary characterization of PFAS compounds at the Airport. Consistent with the approved Work Plan, soil and groundwater samples were collected in the following eight locations:

Locations 3 and 4: Former Fire Training Areas 1 and 2.

Locations 8 and 9: Ground Support Equipment Wash Rack with Oil-Water Separator used for ARFF testing (Location 8) and a release at the wash rack during testing on 12/19/18 (Location 9).

Location 10: Dilute discharges of AFFF from rinsing ARFF equipment.

Locations 11 and 12: Incidents requiring the use of AFFF on 6/24/12 and 3/24/16, respectively.

Location 14: Accidental release on 11/18/16.

Twenty-eight soil borings were advanced by PeneCore Drilling of Woodland, California using the direct push drilling method for the collection of 84 discrete soil samples in these eight locations. Three to six soil borings were advanced

in each location depending on size. Three discrete soil samples were collected from each boring at depths of approximately 1 foot, 5 feet and 10 feet below ground surface (bgs) to characterize the vertical extent of PFAS compounds and, specifically, to assess vertical attenuation above the water table. Grab groundwater samples were collected from 10 temporary monitoring wells installed in one or more soil borings in the hydraulically downgradient portion of each location (i.e., north-northwest).

The subsurface lithology at these locations consists of fine-grained silts and clays with varying amounts of fine-grained sands. At Location 14, however, the fine-grained soils abruptly transition to poorly sorted gravelly sands and sandy gravels at about 10 feet bgs, indicating buried stream channel deposits within the predominantly fine-grained soils. Depth to groundwater at the eight locations typically rose above the depth of saturated soils observed during advancement of the borings (10.5 to 14 feet bgs), indicating semi-confined to confined groundwater conditions beneath the Airport.

Soil and groundwater samples were submitted to Vista Analytical Laboratory of El Dorado Hills, California for analysis of the required 23 PFAS compounds by modified USEPA Method 537 Isotope Dilution Method. Groundwater samples were also analyzed for the required general chemistry parameters: chloride, nitrate, sulfate, total dissolved solids, calcium, magnesium, potassium, sodium, and alkalinity.

PFAS compounds were detected in soil and groundwater in each of the investigation locations except for soil samples collected at Location 11 and groundwater samples collected at Location 14. PFAS concentrations were elevated in soil samples collected at Location 4, Locations 8 and 9, and Location 10 compared to concentrations in other investigation locations. Groundwater analytical results indicated a higher number of PFAS compounds detected above laboratory reporting limits than soil analytical results at the same location. Correspondingly, PFAS compounds detected in soil were generally also detected in groundwater at each location. The PFAS compounds detected in soil and groundwater are consistent with the composition of AFFF.

In the absence of regulatory standards applicable to groundwater, PFAS detections are compared to federal and state standards established for two PFAS compounds in drinking water. The USEPA has adopted an LHA of 70 ng/L for PFOA and PFOS individually and combined (i.e., summation of the two compounds). California has established NLs of 5.1 ng/L for PFOA and 6.5 ng/L for PFOS. Groundwater analytical results for PFOA and PFOS individually or combined exceeded the LHA in Location 4 and Location 10. Concentrations of PFOA exceeded the NL in Location 4 and Location 10. Concentrations of PFOS exceeded the NL in Locations 3, 4, 10, and 12.

As required by the Order, the Work Plan identified sensitive receptors such as municipal supply wells, domestic wells, and surface water bodies within a one-mile radius of the 15 locations where AFFF has been stored, used, or released at the Airport. Woodard & Curran identified 18 public and domestic water supply wells and one surface water body. The closest sensitive receptor is the Guadalupe River on the northeastern boundary of the Airport. The public and domestic water supply wells are located further from the Airport within the one-mile radius. Based on the current understanding of northerly groundwater flow in the vicinity of the Airport, the Guadalupe River is the closest sensitive receptor to impacted groundwater at the eight locations investigated.

1. INTRODUCTION

Woodard & Curran has prepared this Per- and Polyfluoroalkyl Substances (PFAS) Preliminary Investigation Sampling and Analysis Report (Completion Report) for the Norman Y. Mineta San José International Airport (Airport or SJC) in response to requirements from the State Water Resources Control Board (SWRCB) and the San Francisco Bay Regional Water Quality Control Board (Regional Water Board).

On March 20, 2019, the SWRCB issued Water Code Section 13267 *Order WQ-2019-0005-DWQ Determination of the Presence of Per- and Polyfluoroalkyl Substances* (Order) (SWRCB, 2019a) to certain airports in California. SJC received the Order on March 25, 2019. The Order applies to Title 14, Code of Federal Regulations, Part 139 certified airports that are required to provide aircraft rescue and firefighting services and that are certified by the Federal Aviation Administration (FAA) to use Aqueous Film-Forming Foam (AFFF). The Order required the City of San José (City) to submit a work plan for a one-time preliminary investigation of potential PFAS impacts at SJC to the Regional Water Board no later than 60 days following the date of the Order (i.e., by May 19, 2019) and a final sampling and analysis report no later than 90 days following acceptance of the work plan. In response to requests by the California Airports Council, the SWRCB approved time extensions for the work plan and report on May 9, 2019 (SWRCB, 2019d). On June 14, 2019, the Airport submitted the *PFAS Preliminary Investigation Work Plan* (Work Plan), prepared on its behalf by Woodard & Curran, to the Regional Water Board (Woodard & Curran, 2019).

On July 18, 2019, the Regional Water Board provided a conditional approval of the Work Plan to the Airport (Regional Water Board, 2019a). The Regional Water Board also required the Airport to address specific comments provided with the conditional approval letter in a final report which was required to be submitted by October 18, 2019. On September 16, 2019, the Regional Water Board approved the submittal of a final report by November 15, 2019, as originally proposed in the Work Plan (Regional Water Board, 2019b). On December 9, 2019, the Regional Water Board approved the Airport's extension request dated November 12, 2019 (SJC, 2019) for submittal of a final report by January 31, 2020 (Regional Water Board, 2019c). Correspondence referenced above is provided in Appendix A.

The Order identifies the minimum information to be included in a final report (i.e., Completion Report). These requirements and the corresponding location of the information in this Completion Report are listed below:

- Description of sampling activities (Section 3);
- Summary tables of analytical results (Tables 4 to 7);
- Copies of Chain-of-Custody forms (Appendix B);
- Field sampling logs (Table 3);
- Soil boring logs and temporary well construction details (Appendix C and Section 3);
- Site maps showing the sampling/monitoring locations (Figures 4a to 4g); and
- Laboratory analytical reports (Appendix D).

In accordance with the Order, this Completion Report has been submitted to the Regional Water Board in a searchable electronic format, with transmittal letter from the Airport, text, tables, figures, laboratory analytical data, and appendices in Portable Document Format (PDF) format (one PDF for the entire report) as well as in electronic data deliverable (EDD) format. The Work Plan, Completion Report, analytical laboratory reports, and EDD has been uploaded to GeoTracker via the Electronic Submittal of Information Portals, as stipulated by California State law.

2. SITE BACKGROUND & RELEASE HISTORY

2.1 Location and General Characteristics

The Airport is located on an approximately 1,050-acre site in Santa Clara County, California, bounded to the north by Highway 101, to the south by Highway 880, to the northeast by the Guadalupe River, and to the west by Coleman Avenue (Figure 1). The public Airport is owned and operated as a Department of the City. The Airport operates two runways, 12L/30R and 12R/30L, with dimensions of 11,000 feet by 150 feet. The east side of the Airport supports commercial flights that depart from Terminals A and B, while the west side of the Airport is dedicated to fixed based operators. Cargo aircraft also utilize areas in the northeast and southeast of the Airport.

The topography of the Airport is essentially flat with surface water flow generally to the north and east. The Guadalupe River is the receiving water for stormwater discharges. Safe drains, which are closed during dry periods, have been installed in most storm drain inlets.

2.2 AFFF Storage, Use, and Release History

As part of Work Plan development, the Airport identified 15 locations where AFFF was stored, used, or released by the Airport and tenants. Approximate locations were used by the Airport for aircraft rescue and firefighting (ARFF) equipment testing, locations of incidents where AFFF was deployed in response to emergencies, and locations of accidental spills and discharges by the Airport and tenants. These 15 locations are identified below and shown on Figure 2.

Location 1: Fire Station #20, located at 1433 Airport Boulevard in the southeastern area of SJC.

Location 2: Building 1000, located immediately southeast of Fire Station #20.

Location 3: Former Fire Training Area 1, located in the northeastern area of SJC.

Location 4: Former Fire Training Area 2, located immediately south of the Air Traffic Control Tower on the west side of SJC.

Location 5: Signature Flight Support Hangars 1 to 7, located at 323 Martin Avenue in the northwest area of SJC.

Location 6: Atlantic Aviation Hangars A to D, located at 1250 Aviation Avenue on the west side of SJC.

Location 7a: Swissport Fueling airside fuel rack, located in the northeastern area of SJC.

Location 7b: Swissport Fueling offsite tank farm, located at 2500 Seaboard Avenue northeast of SJC across Highway 101.

Location 8: Ground Support Equipment Wash Rack with Oil-water Separator, located at 1207 Airport Boulevard in the southeast area of SJC.

Location 9: A release of AFFF during fire apparatus testing on December 19, 2018 at Location 8.

Location 10: AFFF discharges northwest of the Ground Support Equipment Wash Rack in the southeast area of SJC, near the intersection of Taxiways B and Z.

Location 11: Incident on 6/24/12 in the southeast area of SJC.

Location 12: Incident on 3/24/16 in the central area of SJC.

Location 13: Gate 18 tug fire on 10/19/18 on the east side of SJC.

Location 14: Accidental releases on 11/18/16 and 2/6/18 in the northwestern area of SJC.

Location 15: Hewlett Packard Enterprise Hangar, located near Aviation Avenue in the south-western area of SJC.

Descriptions of these locations are provided in Section 3. The Airport currently uses ChemGuard 3% AFFF Airport ARFF emergency response.

According to the Airport, two additional discharges of AFFF occurred after the Work Plan was submitted on June 14, 2019. On October 8, 2019 an emergency discharge of AFFF occurred in response to a fuel truck fire at Gate 31. Facilities staff immediately conducted cleanup via sweeper truck of all residual AFFF and disposed of it in the oil-water separator (Location 8). The Airport's hazardous materials/waste contractor was immediately contacted and the contents of the oil-water separator was pumped out and disposed of offsite as hazardous waste on the same day. On October 9th, directly related to the emergency incident on October 8th, a minimal amount of dilute residual AFFF was discharged onto the pavement in front of Fire Station #20 on the Airside as part of routine water apparatus testing. Based on the minimal amount of dilute discharge, confirmation that the discharge remained on the pavement and a de minimus amount of foam observed, the Airport's hazardous materials/waste contractor was not dispatched to conduct a cleanup.

On December 12, 2019 the required annual testing of ARFF trucks was conducted at the oil-water separator (Location 8). Testing was coordinated with the Airport's hazardous materials/waste contractor to ensure proper containment, cleanup, and offsite disposal of all discharged AFFF.

2.3 Sensitive Receptors

As required by the Order, the Work Plan provided the identification of sensitive receptors such as municipal supply wells, domestic wells, and surface water bodies within a one-mile radius of the locations where AFFF has been stored, used, or released by the Airport and tenants (Figure 3). Woodard & Curran identified 18 public or domestic water supply wells and one surface water body within the one-mile radius. The closest sensitive receptor is the Guadalupe River. The water supply wells are located further from the Airport. The well locations shown on Figure 3 should be considered approximate because many of the federal- and state-identified well locations were mapped based on California Department of Water Resources Well Completion Reports, which may be incomplete or inaccurate. Additional information regarding the use and construction of each well is provided in the Work Plan.

3. SUMMARY OF PRELIMINARY INVESTIGATION ACTIVITIES

3.1 Investigation Approach

Consistent with the approved Work Plan, soil and groundwater samples were collected in eight locations where AFFF was used or released to the land surface to evaluate the presence and preliminary characterization of PFAS compounds at the Airport.

Three discrete soil samples from each soil boring were collected at approximate depths of 1, 5, and 10 feet below ground surface (bgs) to characterize the lateral and vertical extent of PFAS compounds and, specifically, to assess vertical attenuation in soil above the water table. Grab groundwater samples were collected from 10 temporary monitoring wells installed in one or more soil borings in the hydraulically downgradient portion of each location (i.e., north-northwest). The rationale for sampling the eight locations is summarized below. Soil and groundwater samples were collected during the day or night on October 16 to October 18, 2019 at Locations 10, 11 and 12 and October 22 to October 24, 2019 at Locations 3, 4, 8, 9 and 14.

Locations 3 and 4: Selected for sampling because of the history of fire training with AFFF at these approximate locations. Fire training was reportedly conducted in a concrete-lined pit in both locations. Fire training at Location 3, located in the northeastern area of SJC, was reportedly discontinued prior to 1983 after which it was covered with an 18inch-thick concrete apron. Location 4, located immediately south of the Air Traffic Control Tower on the west side of SJC, was reportedly discontinued prior to 1996 after which the area was paved for aircraft parking.

Locations 8 and 9: Selected for sampling because of the history of ARFF testing with AFFF and discharge of water from cleanup activities at locations where AFFF was used and released. Location 8 consists of a concrete-lined wash rack for the Airport's ground support equipment. The wash pad drains to a below ground oil-water separator which drains to the City's sanitary sewer system. Historically, the wash rack drain inlet for the oil-water separator was used as a disposal location for excess AFFF and rinsate from the ARFF. Location 9 consists of an area around Location 8 where a release of AFFF occurred during ARFF testing in 2018. Foam directed towards the wash rack drain inlet overshot the wash rack and spread to the adjacent vehicle access road and maintenance yard.

Location 10: Selected for sampling because of the history of discharging rinse water from ARFF equipment testing in this unpaved area near the intersection of Taxiways B and Z. Fire trucks containing AFFF reportedly sprayed rinse water from tanks and fire hoses in this area.

Locations 11 and 12: Selected for sampling because of AFFF use in these areas. The use of AFFF at Location 11, located in the southeast area of SJC, was the result of an incident at the intersection of Runway 30L and Taxiway B where the landing gear tires of an aircraft caught on fire. The use of AFFF at Location 12, located in the central area of SJC, was the result of an incident on Runway 30L where the landing gear tires of a small aircraft caught on fire. At both locations, AFFF was deployed to distinguish the fires and was subsequently sprayed with water to remove it from the runway resulting in the discharge of AFFF to adjacent unpaved areas.

Location 14: Selected for sampling because of an accidental release of AFFF outside Hangar 7. The release was due to an accidental activation of the AFFF sprinkler system inside the hangar. The accidental release resulted in AFFF spreading outside the hangar to paved areas, including Martin Avenue, and landscaped areas adjacent to Martin Avenue.

Details of soil and groundwater sampling conducted at each location are provided below.

3.2 Field Quality Control

Field quality control measures were implemented to minimize the potential for cross-contamination during sampling. These measures were also implemented to verify whether any cross-contamination occurred during the mobilization of drilling and sampling equipment to the Airport and during the transportation of samples from the Airport to the analytical laboratory. Those measures are summarized in this section.

3.2.1 Designated Work Areas

At each location, three areas were designated prior to the commencement of work, including:

- Sample area within the immediate vicinity of soil borings, an approximately 20-foot by 20-foot footprint around each soil boring;
- Staging area immediately beyond the sampling area; and
- Support area immediately beyond the staging area.

Only PFAS-free materials and decontaminated equipment was allowed in the sampling area to the maximum extent practical taking into consideration health and safety requirements. The staging area was used for donning and removing personal protective equipment (PPE), applying sunscreen, and decontamination of drill rods and all non-dedicated downhole equipment. Vehicles and all PFAS-containing materials, including food and beverage packaging, remained in support areas during sampling activities.

3.2.2 Personal Protective Equipment and Field Supplies

PPE and field supplies allowed in the sampling area were consistent with the recommended materials listed in the *Per- and Polyfluoroalkyl (PFAS) Substances Sampling Guidelines* (SWRCB, 2019b). PPE included:

- Well-laundered synthetic or 100% cotton clothing (with most recent launderings not using fabric softeners);
- PFAS-free sunscreen (Banana Boat© Sport Performance© Lotion SPF 30);
- Powderless nitrile gloves;
- Head lamp;
- Hard hat;
- Safety glasses;
- Reflective safety vest;
- Steel-toed boots; and
- Ear plugs.

PFAS-free Field supplies included:

- Polypropylene resealable bags;
- Aluminum clipboards;
- Non-waterproofed paper;
- Laboratory-provided sample coolers and regular (wet) ice;

- Untreated paper towels;
- Ball point pens, pencils and Ultra-Fine Point Sharpie® markers; and
- Stainless steel tools.

3.2.3 Decontamination

Soil and groundwater sampling equipment was thoroughly decontaminated between the collection of each sample. Each piece of sampling equipment was washed with Liquinox® and triple rinsed with laboratory-supplied, PFAS-free water. Larger equipment (e.g., drill rig and rods) was scrubbed with a PVC brush to remove particulates, triple washed with Liquinox® detergent in three separate stainless-steel buckets, and triple rinsed with laboratory-supplied, PFAS-free water.

3.2.4 Quality Assurance and Quality Control Samples

Consistent with the approved Work Plan, quality assurance and quality control (QA/QC) samples were collected to evaluate data reliability pertaining to sample representativeness. The following QC samples were collected:

- **Field Duplicates** – One field duplicate for groundwater was collected each day of sampling for analysis of PFAS compounds.
- **Field Blanks** – One field blank for groundwater was collected each day of sampling for analysis of PFAS compounds. These samples were collected by pouring laboratory-supplied PFAS-free deionized water into an empty sample container with the intention of exposing the sample to the same field environment as the actual samples.
- **Equipment Blanks** – Equipment blanks were collected from the sampling equipment prior to the start of drilling activities for the analysis of PFAS compounds. Two additional equipment blanks were collected, one after approximately one-half of the groundwater samples were collected and the other at the end of the field program.
- **Trip Blanks** – Three trip blanks included in the sample coolers for analysis of PFAS compounds. The trip blanks were prepared in the laboratory using PFAS-free deionized water.

3.3 Soil Sampling

Woodard & Curran retained PeneCore Drilling Inc. of Woodland, California, a State of California-licensed water well driller (California C-57 License), for drilling and sampling services. A Woodard & Curran State of California-licensed Professional Geologist provided supervision of drilling and sampling activities.

In accordance with the approved Work Plan, soil samples were collected at eight locations where AFFF was used or released. As summarized in Table 1, a total of 28 soil borings were advanced for the collection of 84 discrete soil samples in these eight locations for the characterization of the presence and extent of PFAS compounds. The number of soil borings ranged from three borings in small locations (e.g., Location 10) to six borings in the largest location (i.e., Location 14). Three discrete soil samples were collected from each boring at depths of approximately 1 foot, 5 feet and 10 feet bgs. At Location 3 where the concrete and gravel fill are approximately 28 inches thick, soil samples were collected at 2.5 feet, 6.5 feet and 11.5 feet bgs.

Soil borings were advanced with a GeoProbe® direct push rig to total boring depth. The 2 ½-inch outer diameter core barrel was equipped with approximately 1 3/8-inch-diameter clear DT 22 acetate liners for the collection of continuous cores to total boring depth. Soil borings at Location 4 and one or more at Locations 8/9 and 14, required the removal of 4-inch-diameter concrete cores prior to advancement of the soil borings with the GeoProbe rig.

Soil samples were removed from the acetate liners with a clean stainless spoon and placed directly in 8-ounce High Density Polyethylene (HDPE) jars with an unlined HDPE cap provided by Vista Analytical Laboratory (Vista Laboratory) of El Dorado Hills, California. Vista Laboratory is certified through the National Environmental Laboratory Accreditation Program (NELAP). Each soil sample was assigned a unique sample identification number in the format "Location Number – Soil Boring Number – Sample Depth." For example, sample identification number L4-2-1 was used for the soil sample collected at Location 4, soil boring 2, at a depth of one-foot bgs. Soil sample containers were labelled using an Ultra-Fine Point Sharpie® with the sample identification number, date and time of sample collection, initials of the sampler(s), and requested analyses. Samples were stored with regular (wet) ice in an ice chest and shipped overnight to Vista Laboratory under chain-of-custody procedures at the end of each day or night of sampling.

Soil borings advanced at each Location are summarized below.

Location 3: Former Fire Training Area 1 (Figure 4a). Three soil borings were advanced in the estimated footprint of the former AFFF fire training area.

Location 4: Former Fire Training Area 2 (Figure 4b). Three soil borings were advanced in the estimated footprint of the former AFFF fire training area.

Location 8: Ground Support Equipment Wash Rack with Oil-Water Separator (Figure 4c). Two soil borings were advanced adjacent to and downgradient of the equipment wash rack used for ARFF testing (L8/9-3 and L8/9-4, respectively).

Location 9: AFFF Testing Release on 12/19/18 (Figure 4c). Three soil borings were advanced throughout the estimated footprint of the AFFF release.

Location 10: Dilute AFFF Discharges (Figure 4d). Three soil borings were advanced in the estimated unpaved area used for discharge of AFFF after ARFF testing at Location 8. One soil boring (L10-3) was advanced adjacent to a storm drain.

Location 11: Incident on 6/24/12 (Figure 4e). Four soil borings were advanced in two unpaved areas adjacent to Runway 30L where AFFF was washed off the runway.

Location 12: Incident on 3/24/16 (Figure 4f). Same as Location 11.

Location 14: Accidental Release on 11/18/16 (Figure 4g). Six soil borings were advanced in the estimated footprint of the AFFF release. Three soil borings were advanced in a paved parking area (L14-1, L14-2, and L14-4). The other three soil borings were advanced in the landscaping planter adjacent to Martin Avenue.

Two of the six soil borings at Location 14 were originally located adjacent to Martin Avenue. Due to delays in permitting by the subcontractor for a lane closure in Martin Avenue, the Regional Water Board verbally approved the Airport's request to move these two borings to the current locations of L14-2 and L14-5 (Personal Communication, 2019).

All soil borings were backfilled with a neat cement slurry from total depth to ground surface in unpaved areas. In paved areas, borings were backfilled with a neat cement slurry from total depth to the bottom of the aggregate base beneath the pavement. The borings were backfilled to ground surface with high-strength, rapid-set concrete colored to match the existing surface pavement.

3.4 Temporary Well Installation and Groundwater Sampling

A total of 10 temporary monitoring wells were installed in the eight locations for the collection of grab groundwater samples to characterize the potential presence of PFAS compounds. Nine of the soil borings were advanced to a depth

of 20 feet bgs. One soil boring (L8/9-4) was advanced to 25 feet bgs to ensure an adequate volume of groundwater for sampling.

3.4.1 Temporary Well Installation

As summarized in Table 1 and shown on Figures 4a to 4g, one to three soil borings in the hydraulically downgradient portion of the eight locations (i.e., north-northwest) were completed with a temporary groundwater monitoring well. The temporary monitoring wells were constructed with a 3/4-inch-diameter Schedule 40 PVC blank casing and 10 feet of 0.010-inch factory slotted well screen at 10 to 20 feet bgs with two exceptions. The well screens for temporary monitoring wells L3-3 and L8/9-4 were set at 11.5 to 21.5 feet bgs and 15 to 25 feet bgs, respectively.

The PVC well casing and screen were removed from the temporary well locations following sample collection. Soil borings with temporary groundwater monitoring wells were backfilled with a neat cement slurry consistent with the soil borings described above.

3.4.2 Groundwater Sampling

The temporary groundwater monitoring wells were purged and sampled using low-flow techniques generally consistent with the *Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells* (United States Environmental Protection Agency [USEPA], 2017c). A peristaltic pump was connected with HDPE tubing to an in-line flow cell which contains a multi-parameter instrument (YSI® ProDSS) that continuously measured field water quality parameters during purging. Field parameters recorded using the multi-parameter instrument at approximately five-minute intervals included temperature, specific conductivity, pH, turbidity, oxidation-reduction potential, and dissolved oxygen. Initial and final depth to groundwater measurements using an electronic water-level interface probe (Solinst® Model 101) were recorded for total drawdown during purging.

Temporary groundwater monitoring wells were purged for a minimum of 20 minutes to reduce turbidity prior to sampling. Upon completion of purging, final field water quality parameter readings were recorded. The HDPE tubing was disconnected from the flow cell and discarded. New HDPE tubing was connected to the pump head tubing. Samples were collected from the new HDPE tubing directly into two 250-milliliter HPDE sample containers with unlined HDPE caps provided by Vista Laboratory. One 500-milliliter HDPE sample container for analysis of general chemistry was also collected. Groundwater samples were assigned a unique identification number in the format "Location Number – Soil Boring Number – GW." For example, sample identification number L4-2-GW was used for a groundwater sample collected from Location 4 at soil boring 2. Groundwater sample containers were labelled with an Ultra-Fine Point Sharpie® including the sample identification number, date and time of sample collection, initials of the sampler(s), and requested analyses. Samples were packed on regular (wet) ice in an ice chest and shipped overnight to Vista Laboratory for analysis of PFAS compounds consistent with the SWRCB's *Revised Table 1. PFAS Analytes Subject to* Analysis issued on April 5, 2019 (SWRCB, 2019c). The 500-milliliter HDPE sample containers were shipped overnight to NELAP-certified California Laboratory Services of Rancho Cordova, California for analysis of general chemistry constituents. Samples were shipped under chain-of-custody procedures at the end of each day or night of sampling.

3.5 Investigation-derived Waste

Investigation-derived waste (IDW) generated during the work included soil cuttings, purge water and decontamination water. The solid and liquid IDWs were contained separately in US Department of Transportation-certified 55-gallon drums labeled with the date of generation, contents, and soil boring and/or temporary monitoring well identification number. The drums were placed in a secure hazardous waste storage cage designated by SJC. Other IDW generated during the work, including PVC pipe and screen, tubing, disposable PPE, and trash was disposed of with regular Airport solid waste.

4. GEOLOGY AND HYDROGEOLOGY

4.1 Regional Geology

The Airport is located in the Santa Clara Valley physiographic province, a structural trough filled in by continental and marine sediments associated with the south end of the San Francisco Bay, which is characterized by northwesterly trending valleys and mountains.

Based on review of the California Department of Conservation, Division of Mines and Geology, *Geologic Map of the San Francisco - San José Quadrangle* (1991), the Santa Clara Valley is bounded by three of the larger fault zones in the region; the San Andreas (approximately 13 miles west) and the Hayward and Calaveras (approximately 5 miles east).

According to the Santa Clara Valley Water District (SCVWD) document *Standards for the Construction and Destruction of Wells and Other Deep Excavations in Santa Clara County* (SCVWD, 1989), Santa Clara Valley is a down-dropped structural block, filled in by continental and marine sediments. Due to tectonic uplift to the south and west, and subsidence in the older valley sediments, deposits are frequently down warped, reworked, and subsequently covered with more recent deposits. The depositional environments and resulting sediments occurring at different times in the geologic record vary depending on the height of sea level relative to the valley block and the erosion rate of the surrounding mountain ranges.

The California Geological Survey, *Geologic Map of California*, dated 2010 (California Geological Survey, 2010), indicates the Airport is underlain with Quaternary-age alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated sediments; and mostly non-marine sediments.

According to the US Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey (USDA, 2019) soils beneath the Airport are classified as Hagerone Complex soils in the central and northeastern portions of the Airport and Campbell Complex soils in the southwestern area of the Airport. Hagerone Complex soils consist primarily of poorly drained clay with moderate infiltration rates. Campbell Complex soils consist primarily of moderately well-drained silt loam and silty clay with moderate infiltration rates.

4.2 Observations from Preliminary Investigation Activities

Woodard & Curran described the soil lithology using the Unified Soil Classification System (ASTM D2488) and a Munsell Soil Color Book (Munsell, 2015).

The native lithology encountered at the sampling locations was primarily fine-grained soils (silts and clays) with varying amounts of fine-grained sands. At Location 14, however, fine-grained soils abruptly transition to poorly sorted gravelly sands and sandy gravels at about 10 feet bgs, indicating buried stream channel deposits within the predominately fine-grained soils. Depth to groundwater at the eight locations typically rose above the depth of saturated soils observed during advancement of the borings (10.5 to 14 feet bgs), indicating semi-confined to confined groundwater conditions beneath the Airport.

Location 3: The subsurface lithology encountered to depths of 21.5 feet bgs generally consists of native soils overlain by 16 inches of concrete and 12 inches of gravel fill. Native soils are primarily fine-grained including clay, silty clay, and clayey silt textures. The clay-rich soils ranged from medium stiff to stiff with low to medium plasticity; silt-rich soils had low to no plasticity. At this location, clay content tends to increase with depth. Fine-grained sand is present in clays from approximately 10 to 14 feet bgs. Colors range from black to grayish brown, with varying degrees of iron oxide staining below 15 feet bgs. Saturated soil was first encountered at approximately 11.5 feet bgs. The stabilized depth to groundwater was measured at 8.87 feet bgs.

Location 4: The subsurface lithology encountered to depths of 20 feet bgs generally consists of native soils overlain by 4 inches of asphalt and approximately 5 feet of non-native gravelly sand fill. Native soils consist of clay, silty clay, and clayey silts with some fine-grained sands encountered at approximately 15 feet bgs. The clay-rich soils were soft with moderate to high plasticity; silt-rich soils had low plasticity. Colors range from dark brown to dark gray. Saturated soil was first encountered at approximately 11 feet bgs. The stabilized depth to groundwater was measured at 10.41 feet bgs.

Location 8/9: The subsurface lithology encountered to depths of 25 feet bgs generally consists of native soils overlain by 4 inches of asphalt and 8 inches of gravel fill. One boring (L8/9-3) located adjacent to the Wash Rack encountered 12 inches of concrete over approximately 12 inches of gravel fill above native soils. Native soils primarily include clay, silty clay, fine-grained sandy clay and fine-grained sand textures. Clay-rich soils were soft with low to high plasticity increasing with depth. Fine-grained sandy clay is present from approximately 6 to 9 feet bgs and fine-grained sand lenses (approximately 6 inches thick) are present in clays from 16 to19 feet bgs. Colors range from dark brown to light olive brown. Saturated soil was encountered at approximately 13.5 to 14 feet bgs (L8/9-5 and L8/9-4). The stabilized depth to groundwater was measured from 15.2 feet bgs (L8/9-4) to 18.5 feet bgs (L8/9-5).

Location 10: The subsurface lithology encountered to depths of 20 feet bgs consists of native soils beneath topsoil and sparse vegetation. Native soils are generally fine-grained and include clay, silty clay and clayey silt, silt and sandy silt textures. The clay-rich soils tend to range from soft to medium stiff with medium to high plasticity; silt-rich soils were stiff with low to no plasticity. At this location, silt- and clay-rich layers tend to alternate with depth. Colors range from black to very dark grayish brown, with varying degrees of iron oxide staining below 10 feet bgs. Saturated soil was encountered at approximately 12.5 feet bgs. The stabilized depth to groundwater was measured at 11.9 feet bgs.

Location 11: The subsurface lithology encountered to depths of 20 feet bgs consists of native soil beneath topsoil and sparse vegetation. Native soils are generally fine-grained and include clay, silty clay, clayey silt, silt and silty fine-grained sand textures. The clay-rich soils range from soft with medium to low plasticity; silt-rich soils were stiff with low to no plasticity. Similar to Location 10, silt- and clay-rich layers tend to alternate with depth. Clayey fine-grained sand was encountered at depths of approximately 7 to 12 feet bgs. Colors range from black to light olive/yellow brown. Saturated soil was encountered at approximately 10.5 feet bgs. The stabilized depth to groundwater was measured at 6.6 feet bgs.

Location 12: The subsurface lithology encountered to depths of 20 feet bgs consists of native soils beneath topsoil and sparse vegetation. Native soils are generally fine-grained and include clay, silty clay and clayey silt and silt textures. The clayey soils were soft with high plasticity. Silty soils were medium stiff to stiff with little to no plasticity. Silty soils were encountered to depths of approximately 10 feet bgs, grading to clayey soils with further depth. Colors range from dark brown to light gray. Saturated soil was encountered at approximately 12 feet bgs. The stabilized depth to groundwater was measured at 11.5 feet bgs.

Location 14: The subsurface lithology encountered to depths to 20 feet bgs generally consists of native soils beneath 4 inches of asphalt and 8 inches of gravel fill (L14-1, L14-2, and L14-4) or topsoil and sparse vegetation (L14-3, L14-5, and L14-6). Native soils are a mix of fine- and coarse-grained soils including clay, sandy clay, gravelly sand and sandy gravel textures. Fine-grained soils range from soft to medium stiff with low to high plasticity. Coarse-grained soils are loose, poorly sorted gravels and sands. At this location, clay is generally encountered to depths of 10 feet bgs where the lithology abruptly transitions to poorly sorted gravelly sands and sandy gravels, indicating buried stream channel deposits within the predominantly fine-grained soils. Root casts were observed in soils above 5 feet bgs. Colors range from black to light olive brown with varying degrees of iron oxide staining to total depth. Saturated soil was first encountered at approximately 11 feet bgs (L14-4) to 12 feet bgs (L14-1 and L14-2). The stabilized depth to groundwater was measured at 7.9 feet bgs (L14-1) to 7.56 feet bgs (L14-4).

5. SUMMARY OF FINDINGS

This section presents the analytical results from the investigation and an overview of the current understanding of the nature and extent of subsurface PFAS impacts. Soil and groundwater samples were analyzed for the 23 PFAS compounds listed in Table 2 as well as general chemistry parameters. Eight locations were targeted for sampling at the Airport based on current and former AFFF uses and/or releases. Figures 5a through 5g show the distribution of PFAS analytical results at each soil boring and temporary monitoring well. Soil and groundwater analytical results for each location are provided in Tables 5a through 5g. Groundwater analytical results are summarized in Table 4 (general chemistry) and Table 6 (all PFAS results). Laboratory analytical reports are provided in Appendix D.

No federal or State regulatory standards exist for PFAS compounds in soil and groundwater. Therefore, the analytical results provided in this Completion Report cannot be compared to any standards for an assessment of potential risks to human health and the environment.

Federal and State standards have been established for two PFAS compounds in drinking water. The USEPA has adopted a Lifetime Health Advisory (LHA) of 70 nanograms per liter (ng/L) for PFOA and PFOS individually and combined (i.e., summation of the two compounds) (USEPA 2016a and 2016b). The California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA) has established a Notification Level (NL) for PFOA of 5.1 ng/L and 6.5 ng/L for PFOS (California EPA, 2019). Federal and State standards have not been established other PFAS compounds. In the absence of regulatory standards applicable to groundwater, PFAS detections are compared to these drinking water standards.

5.1 Data Usability Assessment

5.1.1 Field and Laboratory Quality Control Samples

Field QC sampling was conducted as outlined in the Work Plan and described above in Section 3.2.4. Sampling included the collection of field duplicates, field blanks, equipment blanks, and trip blanks for analysis of PFAS. Field duplicates were collected from five of the eight sample locations as follows:

Primary Sample ID	Associated Field Duplicate
L4-2-GW	L4-20-GW
L8/9-4-GW	L8/9-40-GW
L10-1-GW	L10-10-GW
L12-3-GW	L12-30-GW
L14-2-GW	L14-20-GW

Vista Laboratory followed its internal QA/QC standards which included method blanks, surrogate recoveries, blank spike/blank spike duplicates, and matrix spike/matrix spike duplicates (MS/MSD). QC samples were used to verify the precision of the methods applied and confirm the validity of the data as described below.

5.1.2 Data Validation

Data validation evaluated the precision and accuracy of the PFAS analytical results. The data validation procedures were generally consistent with those referenced in the 2017 National Functional Guidelines for Inorganic Methods Data Review (USEPA, 2017a) and the 2017 National Functional Guidelines for Organic Methods Data Review (USEPA, 2017b). As outlined in the Work Plan, data were validated for the following:

- Trip blanks, field blanks, and equipment blanks were reviewed for detections above laboratory reporting limits;
- Methods blanks were reviewed for detections above the laboratory reporting limits and surrogate recoveries were compared to laboratory control limits;
- Blank spike/blank spike duplicates had percent recoveries and relative percent differences calculated and compared to laboratory control limits; and
- MS/MSDs had percent recoveries and relative percent differences calculated and compared to laboratory control limits and surrogate recoveries were compared to laboratory control limits.

Detailed data validation results for the individual laboratory reports are provided in Appendix E. The QA review did not identify any aspects of the analytical data that required qualification beyond the qualifications identified in the laboratory reports.

5.2 General Chemistry Results

Groundwater samples collected from the 10 temporary monitoring wells were analyzed for the following general chemistry parameters: TDS, sulfate, nitrate, chloride, calcium, magnesium, potassium, sodium, carbonate, and bicarbonate. The results are summarized as follows:

- TDS was detected above laboratory reporting limits in all groundwater samples at concentrations ranging from 680 to 1,800 milligrams per liter (mg/L). The lowest concentrations occurred in samples collected from Location 14; the highest concentrations occurred in the sample collected from Location 12.
- Sulfate was detected above laboratory reporting limits in all groundwater samples at concentrations ranging from 130 to 630 mg/L. The lowest concentration occurred in samples collected from Location 14; the highest concentration occurred in the sample collected from Location 12.
- Nitrate was detected above laboratory reporting limits in 7 of the 10 groundwater samples at concentrations ranging from 0.5 to 6.1 mg/L. The lowest concentrations occurred in the samples collected at Locations 8 and 9; the highest concentration occurred in the sample collected at Location 10.
- Chloride was detected above laboratory reporting limits in all groundwater samples at concentrations ranging from 8.5 to 95 mg/L. The lowest concentration occurred in the sample collected from Location 11; the highest concentration occurred in a sample collected from Locations 8 and 9.
- Calcium was detected above laboratory reporting limits in all groundwater samples at concentrations ranging from 24 to 410 mg/L. The lowest concentration occurred in the sample collected from Location 4; the highest concentration occurred in a sample collected from Locations 8 and 9.
- Magnesium was detected above laboratory reporting limits in all groundwater samples at concentrations ranging from 55 to 450 mg/L. The lowest concentration occurred in the samples collected from Location 14; the highest concentration occurred in a sample collected from Locations 8 and 9.

- Potassium was detected above laboratory reporting limits in 7 of the 10 groundwater samples at concentrations ranging from 2.6 to 66 mg/L. The lowest concentration occurred in the sample collected at Location 10; the highest concentration occurred in a sample collected at Locations 8 and 9.
- Sodium was detected above laboratory reporting limits in all groundwater samples at concentrations ranging from 16 to 100 mg/L. The lowest concentration occurred in the sample collected from Location 11; the highest concentration occurred in the sample collected from Location 10.
- Alkalinity was detected as bicarbonate above laboratory reporting limits in all groundwater samples at concentrations ranging from 390 to 1,100 mg/L. The lowest concentration occurred in the sample collected from Location 11; the highest concentrations occurred in the samples collected from Locations 8 and 9. Carbonate was not detected above laboratory reporting limits in any of the groundwater samples.

5.3 PFAS Analytical Results

The soil and groundwater results for PFHxS, PFOA, PFOS, NMeFOSAA, and NEtFOSAA include both linear and branched isomers. Results for all other PFAS compounds include the linear isomers only.

5.3.1 Locations 3 & 4

Locations 3 and 4 were selected for sampling because of the history of fire training at these approximate locations. Three soil borings were advanced in each location with one soil boring completed as a temporary monitoring well. Soil samples at each location were collected from three depth intervals in each boring, 1, 5, and 10 feet bgs. Figures 5a and 5b display the analytical results for Location 3 and Location 4, respectively. Tables 5a and 5b provide the complete soil and groundwater analytical results for Location 3 and Location 4, respectively.

5.3.1.1 Soil

At Location 3, soil samples were collected from borings L3-1, L3-2, and L3-3. Concentrations of PFAS compounds were not detected above laboratory reporting limits with the following exceptions:

- At soil borings L3-1 and L3-3, concentrations of PFOS were detected above laboratory reporting limits from the samples collected from 1-foot bgs. PFOS was reported at 14.8 ng/L in sample L3-1-1 and 4.67 ng/L in sample L3-3-1.
- At soil boring L3-2, concentrations of PFHxS and PFOS were detected above laboratory reporting limits in the sample collected from 1-foot bgs (L3-2-1; 9.56 and 26.7 ng/L, respectively) and concentrations of PFHxA, PFBS, and PFHxS were detected in the 5-foot sample (L3-2-5; 5.16 ng/L, 3.09 ng/L, and 2.19 ng/L, respectively).

At Location 4, soil samples were collected from borings L4-1, L4-2, and L4-3. Concentrations of PFAS compounds were not detected above laboratory reporting limits with the following exceptions:

- Soil boring L4-1:
    - The 5-foot sample (L4-1-5) had concentrations of PFHxA and PFHxS at 2.71 ng/L and 3.14 ng/L, respectively.
    - The sample collected from 10-feet bgs (L4-1-10) had concentrations of PFHxS and PFOS of 4.53 ng/L and 82.5 ng/L, respectively.

- Soil boring L4-2:
    - PFOS was detected in the samples collected from 1-foot bgs (L4-2-1; 5.69 ng/L) and 10-feet bgs (L4-2-10; 9.99 ng/L).
    - The 5-foot sample from L4-2 (L4-2-5) had concentrations of the following Perfluoroalkylcarboxylic Acids (PFCAs): PFBA (2.21 ng/L), PFPeA (4.10 ng/L) and PFHxA (10.1 ng/L) in addition to concentrations of the following Perfluoroalkyl Sulfonic Acids (PFSAs): PFBS (6.36 ng/L), PFPeS (3.50 ug/L), PFHxS (5.24 ng/L).
- Soil boring L4-3:
    - The 5-foot sample (L4-3-5) had concentrations of the following PFCAs: PFBA, PFPeA, PFHxA, PFHpA, and PFOA ranging from 3.59 ng/L (PFHpA) to 26.0 ng/L (PFHxA); concentrations of the following PFSAs: PFBS, PFPeS, PFHxS, PFHpS, and PFOS ranging from 10.1 ng/L (PFHps) to 482 ng/L (PFOS); and 6:2 FTS (9.99 ng/L).
    - The 10-foot sample from L4-3 (L4-3-10) had concentrations of PFHxS (8.57 ng/L) and PFOS (63.0 ng/L).

5.3.1.2 Groundwater

Groundwater samples were collected from one temporary monitoring well installed at the northernmost soil boring at each location. Both samples were collected from an intake depth of 18 feet bgs. At Location 3, a groundwater sample was collected from soil boring L3-3. Results showed concentrations detected above laboratory reporting limits for 10 of the 23 PFAS compounds. The detected compounds generally included the following PFCAs: PFBA, PFPeA, PFHxA, PFHpA, and PFOA at concentrations ranging from 3.28 ng/L (PFHpA) to 29.7 ng/L (PFOA); the following PFSAs: PFBS, PFPeS, PFHxS, and PFOS at concentrations ranging from 5.55 ng/L (PFPeS) to 37.9 ng/L (PFOS); and 6:2 FTS fluorotelomer at a concentration of 2.58 ng/L. The total PFOA and PFOS concentration was calculated at 67.6 ng/L, below the USEPA LHA of 70 ng/L.

At Location 4, a groundwater sample was collected from soil boring L4-2. Results showed concentrations detected above laboratory reporting limits for 13 of the 23 PFAS compounds. The detected compounds generally included the following PFCAs: PFBA, PFPeA, PFHxA, PFHpA, PFOA and PFNA at concentrations ranging from 14.3 ng/L (PFHpA) to 168 ng/L (PFHxA); the following PFSAs: PFBS, PFPeS, PFHxS, PFHpS and PFOS at concentrations ranging from 30.9 ng/L (PFHpS) to 1,740 ng/L (PFOS); and the 6:2 FTS and 8:2 FTS fluorotelomers at concentrations of 12.4 ng/L and 9.83 ng/L, respectively. The total PFOA and PFOS concentration was calculated at 1,766 ng/L. The reported concentrations of PFOS and Total PFOA and PFOS exceed the USEPA LHA of 70 ng/L.

5.3.2 Locations 8 & 9

Locations 8 and 9 were selected for sampling because of the history of ARFF testing. Five soil borings were advanced at Locations 8 and 9 with two borings completed as temporary monitoring wells. Soil samples at each boring were collected from three depth intervals, 1, 5, and 10 feet bgs. Figure 5c displays the analytical results for Locations 8 and 9. Table 5c provides the complete soil and groundwater analytical results.

5.3.2.1 Soil

Results indicate that none of the 23 PFAS compounds were detected above laboratory reporting limits in samples collected from boring locations L8/9-1 and L8/9-2. Concentrations of PFAS compounds were not detected above laboratory reporting limits in samples collected at the remaining boring locations with the following exceptions:

- Soil boring L8/9-3:
    - In the 1-foot sample (L8/9-3-1), concentrations of 5 of the 23 PFAS compounds were detected above laboratory reporting limits including the following PFCAs: PFBA, PFPeA, PFHxA, and PFHpA at concentrations ranging from 2.1 ng/L (PFBA) to 15.5 ng/L (PFPeA) and the 6:2 FTS telomer (161 ng/L).
    - In the 5-foot sample (L8/9-3-5), concentrations PFBA (1.39 ng/L) and PFPeA (5.93 ng/L) only were detected above laboratory reporting limits.
    - In the 10-foot sample (L8/9-3-10), concentrations of PFPeA (9.21 ng/L) and PFHxA (4.29 ng/L) only were detected above laboratory reporting limits.
- Soil boring L8/9-4: Concentrations of 5 of the 23 PFAS compounds were detected above laboratory reporting limits in the sample collected from 1-foot bgs (L8/9-4-1) including the following PFCAs: PFBA, PFPeA, PFHxA, and PFHpA at concentrations ranging from 2.51 ng/L (PFHpA) to 23.7 ng/L (PFPeA) and the 6:2 FTS telomer (81.4 ng/L).
- Soil boring L8/9-5: Concentrations of PFBA (7.95 ng/L), PFPeA (26.3 ng/L), PFHxA (11.1 ng/L) and 6:2 FTS (2.53 ng/L) were detected above laboratory reporting limits in the 1-foot sample (L8/9-5-1).

5.3.2.2 Groundwater

Groundwater samples at Locations 8 and 9 were collected from two temporary groundwater monitoring wells installed at sample locations L8/9-4 and L8/9-5. The groundwater sample collected at L8/9-4 was collected from a depth of 23 ft bgs. Results from this sample showed concentrations detected above laboratory reporting limits for 8 of the 23 PFAS compounds. The detected compounds generally included the following PFCAs: PFBA, PFPeA, PFHxA, PFHpA, and PFOA at concentrations ranging from 2.4 ng/L (PFOA) to 231 ng/L (PFPeA); PFBS at a concentration of 6.58 ng/L; and the 6:2 FTS and 8:2 FTS fluorotelomers at concentrations of 81.3 ng/L and 2.2 ng/L, respectively. Total PFOA and PFOS was calculated at 2.4 ng/L. No exceedances of the USEPA LHA of 70 ng/L were reported.

The groundwater sample collected from L8/9-5 was collected from a depth of 18 feet bgs. Results from this sample showed concentrations detected above laboratory reporting limits for 11 of the 23 PFAS compounds. The detected compounds generally included the following PFCAs: PFBA, PFPeA, PFHxA, PFHpA, and PFOA at concentrations ranging from 4.75 ng/L (PFOA) to 4,970 ng/L (PFPeA); the following PFSAs: PFBS, PFPeS, and PFHxS at concentrations ranging from 11.9 ng/L (PFHxS) to 44.5 ng/L (PFBS); and the 4:2 FTS, 6:2 FTS and 8:2 FTS fluorotelomers at concentrations of 2.48 ng/L, 560 ng/L and 4.88 ng/L, respectively. The total PFOA and PFOS concentration was calculated at 4.75 ng/L, below the USEPA LHA of 70 ng/L.

5.3.3 Location 10

Location 10 was selected for sampling because of discharges of rinse water from ARFF equipment. Three soil borings were advanced at Location 10 with one soil boring being completed as a temporary monitoring well. Soil samples at each boring location were collected from three depth intervals, 1, 5, and 10 feet bgs. Figure 5d provides the analytical results for Location 10. Table 5d provides the complete soil and groundwater analytical results for Location 10.

5.3.3.1 Soil

Soil samples collected from Location 10 had concentrations of PFAS compounds detected above laboratory reporting limits in each of the samples collected. These results are summarized as follows:

- Soil boring L10-1:
    - In the 1-foot sample (L10-1-1), concentrations of 8 of the 23 PFAS compounds were detected above laboratory reporting limits including the following PFCAs: PFPeA, PFHxA, PFOA and PFDA at concentrations ranging from 5.1 ng/L (PFOA) to 10.8 ng/L (PFHxA); PFHxS and PFOS at concentrations of 7.69 ng/L and 368 ng/L, respectively; and the 6:2 FTS and 8:2 FTS fluorotelomers at concentrations of 322 ng/L and 286 ng/L, respectively.
    - In the 5-foot sample (L10-1-5), concentrations of 5 of the 23 PFAS compounds were detected above laboratory reporting limits including PFPeA (7.74 ng/L), PFHxA (12.2 ng/L), PFOA (7.29 ng/L), PFHxS (30 ng/L) and 6:2 FTS (606 ng/L).
    - In the 10-foot sample (L10-1-10), concentrations of PFPeA (7.67 ng/L), PFHxA (7.75 ng/L), PFOA (2.91 ng/L), PFHxS (14 ng/L) and 6:2 FTS (323 ng/L) were detected above laboratory reporting limits.
- Soil boring L10-2:
    - In the1-foot sample (L10-2-1), concentrations of 10 of the 23 PFAS compounds were detected above laboratory reporting limits including the following PFCAs: PFBA, PFPeA, PFHxA, PFHpA and PFOA at concentrations ranging from 6.13 ng/L (PFHpA) to 61.4 ng/L (PFHxA); the following PFSAs: PFBS, PFPeS, PFHxS, and PFOS at concentrations ranging from 2.97 ng/L (PFOS) to 45.8 ng/L (PFHxS); and the 6:2 FTS Telomer at a concentration of 762 ng/L.
    - In the 5-foot sample (L10-2-5), concentrations of 6 of the 23 PFAS compounds were detected above laboratory reporting limits including the following PFCAs: PFBA, PFPeA, PFHxA, and PFHpA at concentrations ranging from 4.6 ng/L (PFHpA) to 76.8 ng/L (PFHxA); PFBS at a concentration of 4.24 ng/L; and 6:2 FTS at a concentration of 7.73 ng/L.
    - In the 10-foot sample (L10-2-10) concentrations of PFBA (3.59 ng/L), PFPeA (17.4 ng/L), PFHxA (19.6 ng/L), PFHxS (2.36 ng/L) and 6:2 FTS (62.9 ng/L) were detected at concentrations above laboratory reporting limits.
- Soil boring L10-3:
    - In the 1-foot sample (L10-3-1), concentrations of 9 of the 23 PFAS compounds were detected above laboratory reporting limits including the following PFCAs: PFPeA, PFHxA, PFOA, PFNA and PFDA at concentrations ranging from 3.98 ng/L (PFNA) to 6.67 ng/L (PFDA); PFHxS and PFOS at concentrations of 8.82 ng/L and 369 ng/L, respectively; and the 6:2 FTS and 8:2 FTS fluorotelomers at concentrations of 122 ng/L and 157 ng/L, respectively.
    - In the 5-foot sample (L10-3-5), concentrations of 8 of the 23 PFAS compounds were detected above laboratory reporting limits including the following PFCAs: PFPeA, PFHxA and PFOA at concentrations ranging from 5.31 ng/L (PFHxA) to 6.79 ng/L (PFPeA); the following PFASs: PFHxS, PFHpS and PFOS at concentrations ranging from 2.02 ng/L (PFHpS) to 62.1 ng/L (PFOS); and the 6:2 FTS and 8:2 FTS fluorotelomers at concentrations of 205 ng/L and 13.5 ng/L, respectively.
    - In the 10-foot sample (L10-3-10) concentrations of PFPeA (3.6 ng/L), PFHxA (2.76 ng/L), PFOS (9.72 ng/L), 6:2 FTS (29.8 ng/L) and 8:2 FTS (53.6 ng/L) were detected above laboratory reporting limits.

5.3.3.2 Groundwater

The groundwater sample at Location 10 was collected from a temporary groundwater monitoring well installed at sample location L10-1 from a depth of 18 feet bgs. Results from this sample had concentrations detected above laboratory reporting limits for 15 of the 23 PFAS compounds. The detected compounds generally included the following PFCAs: PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFNA and PFDA at concentrations ranging from 2.24 ng/L (PFDA) to 7,980 ng/L (PFHxA); the following PFSAs: PFBS, PFPeS, PFHxS, PFHpS and PFOS at concentrations ranging from 49.8 ng/L (PFHpS) to 3,850 ng/L (PFHxS); and the 4:2 FTS, 6:2 FTS and 8:2 FTS fluorotelomers at concentrations ranging from 40.2 ng/L (4:2 FTS) to 8,880 ng/L (6:2 FTS).

The concentration of PFOA was reported at 585 ng/L. The concentration of PFOS was reported at 163 ng/L. The Total PFOA and PFOS concentration was calculated at 748 ng/L. The individual and total concentrations exceed the USEPA LHA of 70 ng/L.

5.3.4 Locations 11 & 12

Locations 11 and 12 were selected for sampling because of the history of AFFF use in these areas. Four soil borings were advanced in each Location with one soil boring completed as a temporary monitoring well. Soil samples at each location were collected from three depth intervals, 1, 5, and 10 feet bgs. Figures 5e and 5f display the analytical results for Location 11 and Location 12, respectively. Tables 5e and 5f provide the complete soil and groundwater analytical results for Location 11 and Location 12, respectively.

5.3.4.1 Soil

Results indicate that concentrations of PFAS compounds were not detected above laboratory reporting limits in soil samples collected from all four borings at Location 11. Similarly, concentrations of PFAS compounds were not detected above laboratory reporting limits in soil samples collected from all four borings at Location 12 with one exception. The sample collected at 1-foot bgs at boring L12-1 (L12-1-1) had concentrations of PFHpA (2.02 ng/L), PFOA (2.32 ng/L), PFNA (2.25 ng/L), PFDA (6.24 ng/L) and PFOS (2.49 ng/L) reported above laboratory reporting limits.

5.3.4.2 Groundwater

Groundwater samples were collected from a temporary monitoring well installed in one soil boring at each location. Both samples were collected from an intake depth of 18 feet bgs. At Location 11, the groundwater sample was collected from boring L11-3. Results showed concentrations detected above laboratory reporting limits for PFBA (10.2 ng/L) and PFOA (3.14 ng/L) only. The total PFOA and PFOS concentration was calculated to be 3.14 ng/L, below the USEPA LHA of 70 ng/L.

At Location 12, a groundwater sample was collected from boring L12-3. Results showed concentrations detected above laboratory reporting limits for 6 of the 23 PFAS compounds. The detected compounds generally included the following PFCAs: PFBA at a concentration of 11 ng/L and PFOA at a concentration of 3.55 ng/L, and the following PFSAs: PFBS, PFPeS, PFHxS, and PFOS at concentrations ranging from 12.3 ng/L (PFBS) to 41.7 ng/L (PFHxS). The total PFOA and PFOS concentration was calculated at 44.05 ng/L, below the USEPA LHA of 70 ng/L.

5.3.5 Location 14

Location 14 was selected for sampling because of a large accidental release of AFFF. Six soil borings (L14-1 through L14-6) were advanced at Location 14 with three soil borings completed as temporary monitoring wells (L14-1, L14-2 and L14-4). Soil samples at each boring were collected from three depth intervals: 1, 5, and 10 feet bgs.

Soil analytical results from samples collected at Location 14 had concentrations of PFAS compounds below laboratory reporting limits with the exception of concentrations of PFOS detected in the 1-foot sample at borings L14-2 (L14-2-1: 3.91 ng/L), L14-3 (L14-3-1: 3.07 ng/L) and L14-4 (L14-4-1: 5.57 ng/L). PFAS compounds were not detected above laboratory reporting limits in groundwater samples collected at Location 14.

Figure 5g displays the analytical results for Location 14. Table 5g provides the complete soil and groundwater analytical results for Location 14.

5.4 Summary of PFAS Analytical Results

5.4.1 Comparison to Available Regulatory Standards

Groundwater analytical results exceeded the USEPA LHA of 70 ng/L for PFOA, PFOS and/or the summation of the two compounds in samples collected from Location 4 and Location 10. Elevated concentrations of PFAS were reported in groundwater samples collected from Locations 8 and 9, however, the primary constituents at these locations were PFPeA and PFHxA.

Groundwater analytical results for PFAS at all locations are summarized in Table 6. Table 7 provides a comparison of the concentrations of PFOA and PFOS at each location to the USEPA LHA and State NLs. Concentrations of PFOA exceeded the NL of 5.1 ng/L in groundwater samples collected from Location 4 and Location 10. Concentrations of PFOS exceeded the NL of 6.5 ng/L in groundwater samples collected from Locations 3, 4, 10, and 12.

5.4.2 Distribution of PFAS Compounds

Analytical results show concentrations of a variety of PFAS compounds detected at concentrations above laboratory reporting limits at the Airport. PFCAs and PFSAs were the most frequently detected compounds, followed by the fluorotelomers. The precursor compounds, including PFOSAm, NMeFOSAA, and NEtFOSAA, were not detected above laboratory reporting limits in soil or groundwater samples. The distribution of PFAS compounds detected at the eight investigation locations is summarized as follows:

- In general, a variety of PFCAs, PFSAs, and certain fluorotelomers were detected in groundwater samples collected at Location 3, and in both soil and groundwater samples collected at Location 4. Soil samples collected at Location 3 contain almost exclusively PFSAs.
- At Locations 8 and 9, soil samples contain PFCAs and fluorotelomers only. Relatively low concentrations of certain PFSAs were detected in groundwater samples collected at these locations.
- Elevated concentrations of a wide variety of PFCAs, PFSAs, and fluorotelomers were reported in both soil and groundwater samples collected at Location 10.
- Low-level concentrations of some PFCAs were reported in the groundwater sample collected at Location 11.
- At Location 12, concentrations of PFSAs, primarily, were detected in groundwater with relatively low-level concentrations of PFCAs. The limited detections in soil samples at Location 12 contain almost exclusively very low-level concentrations of PFCAs.
- Low-level concentrations of PFOS, only, were reported in soil samples collected at Location 14.

In summary, PFAS compounds were detected in soil and groundwater at each of the eight investigation locations with two exceptions: soil samples collected at Location 11 and groundwater samples collected at Location 14. Analytical results from soil samples collected at Location 4, Locations 8 and 9, and Location 10 were generally elevated (i.e.,

concentrations of single PFAS compounds greater than100 ng/L) compared to soil samples collected at the other investigation locations. In general, groundwater results at each investigation location show a higher number of PFAS compounds detected above laboratory reporting limits than soil results at the same location. Similarly, PFAS compounds detected in soil were generally also detected in groundwater at each location. The highest number of different PFAS compounds detected in soil samples (14 of 23 PFAS compounds) and groundwater samples (15 of 23 PFAS compounds) were collected at Location 10. The highest concentrations of PFAS compounds in soil were generally reported in samples collected from the upper 5 feet of each boring.

6. RESPONSES TO COMMENTS ON THE WORK PLAN

This section provides responses to the Specific Comments in Attachment 1 of the Regional Water Board's Conditional Approval letter (Regional Water Board, 2019).

6.1 Comment 1

Page 2-1: The Workplan states that the Guadalupe River is the receiving water for stormwater discharges. Given the fact that PFAS have been shown to stick to surfaces (e.g., concrete and asphalt), they have the potential to act as a long-term source of PFAS to the environment. As such, it is appropriate for an evaluation of potential surface water impacts due to stormwater discharges and provide recommendations for site assessment. Further assessment of this pathway may include sediment and surface water sampling of stormwater lines and ditches that lead to the river, and/or sampling of sediment and surface water at outfalls along Guadalupe River.

Response: The locations selected for sampling in this preliminary investigation were based on the documentation of actual discharges of AFFF to unpaved and paved surfaces. The focus on unpaved surfaces was intended to address the concern expressed by the Regional Water Board that PFAS may infiltrate into the soils and leach to groundwater. The storm drainage system at the Airport accepts large flows from offsite/non-airport drainage areas. Most of the storm drain pipelines where samples could be collected receive commingled storm water runoff from offsite locations, including many industrial areas. The stormwater outfalls along the Guadalupe River at the Airport generally do not drain only Airport industrial activity areas. For this reason, most sampling locations in the Airport's Stormwater Pollution Prevention Plan were relocated to collect surface flows that are representative of Airport industrial runoff. Discharges of AFFF for emergency responses on paved surfaces at the Terminals were cleaned from the pavement by Airport personnel via sweeper truck.

6.2 Comment 2

Page 3-1: The Workplan states that the current volume of AFFF stored at SJC does not include AFFF owned by Airport tenants. Please clarify if additional AFFF storage and use areas are present but not addressed by the Workplan. If additional AFFF storage and use areas are present, provide detailed information regarding storage, use, disposal, and potential spills or releases to lands of your facility and recommendations for additional site assessment.

Response: The Airport provided all known locations and quantities of AFFF stored on Airport property in the Work Plan (Woodard & Curran, 2019).

6.3 Comment 3

Page 3-1: The Workplan indicates that ARFF engine water proportioning and fire testing was conducted offsite at a City of San Jose (City) location. Provide additional documentation regarding off-site ARFF engine and fire testing (e.g., location and approximate frequency of use). Clarify if vehicle maintenance was also conducted at this facility and if not, where the ARFF vehicles are maintained.

Response: ARFF fire engine testing occurred at the City's Central Service Yard located at 1661 Senter Road from 2010 to 2017 twice a year, generally in February/March and August/September. During these tests, AFFF was discharged to a vacant lot located near the northwest corner of the Central Service Yard. ARFF and other City vehicle maintenance activities, have historically been conducted and continue to be conducted at the Central Service Yard.

Offsite ARFF testing was also conducted at a Fire Department training facility located at 255 South Montgomery Street in San Jose. This location is already being investigated for PFAS contamination by the City's Environmental Services Department under oversight by the Regional Water Board.

6.4 Comment 4

Page 3-2: The Workplan provides information regarding SJCs intent to research containment processes and procedures to ensure AFFF associated with future ARFF engine and fire testing will be contained and properly disposed. The Water Board appreciates this discussion regarding airport foam management plans.

Response: The Airport is currently moving forward with the procurement of a No Foam Testing Trailer from No Foam Systems. The No Foam Trailer will allow the Airport to conduct the required annual ARFF tests without discharging AFFF.

As noted in Section 2.2, the FAA-required annual testing of ARFF trucks took place at the oil-water separator (Location 8) on 12/12/19. The testing was coordinated with the Airport's hazardous materials/waste contractor to ensure proper containment, cleanup, and offsite disposal of all discharged AFFF.

For large quantities of AFFF discharged during an emergency response, the Airport will coordinate cleanup with the hazardous materials/waste contractor to ensure proper containment, cleanup, and offsite disposal of all discharged AFFF.

6.5 Comment 5

Pages 3-2, 3-3, 4-1: The Workplan provides a detailed summary of AFFF storage, use, and release locations that are not proposed for sampling because the areas are paved and there have been no reported releases or spills (except for Location 13 where a release was documented). In areas where releases were not reported, incidental spills could have occurred and resulted in impacts to soil and groundwater. Additionally, PFAS have been shown to stick to concrete surfaces and act as a long-term source of PFAS to the environment. Further consideration of site investigation in these areas is recommended to confirm that soil and groundwater are not impacted.

Response: As noted above, the eight locations selected for sampling in the preliminary investigation focused primarily on unpaved surfaces where documented discharges occurred to address the concern expressed by the Regional Water Board that PFAS may infiltrate into soils and leach to groundwater. Two paved locations, 3 and 4, may potentially have been unpaved or partially paved while ARFF testing was conducted. Three unpaved locations, 10, 11, and 12, were unpaved during the discharge(s) of AFFF. These five locations are thought to have the highest probability of soil and groundwater impacts from PFAS compounds.

However, three paved locations, 8, 9, and 14, were also selected for soil and groundwater sampling. These paved areas were selected because of the higher probability of soil and groundwater impacts based on the documented release or releases. Location 8 is well-paved but was selected because of the high number of AFFF discharges to the oil-water separator relative to all other paved areas. Locations 9 and 14 were selected because of the size of the one-time AFFF discharges. Sampling was also conducted in the landscaped portion of Location 14. These three paved areas were also sampled more than the other locations. A total of 11 soil borings were advanced at locations 8, 9, and 14 for the collection of 33 soil samples. Five of the 10 temporary monitoring wells (i.e., 50 percent) were also sampled in these paved areas.

The other seven areas identified in the Work Plan and Section 2.2 of this Completion Report (except for Location 13) only store AFFF and have no documented releases, unlike the release at Location 14. Location 13 was not selected for sampling because the discharge of AFFF occurred once and the residual foam was cleaned up by Airport staff using a sweeper truck. The foam removed from the pavement was discharged to the oil-water separator, Location 8, which was sampled.

6.6 Comment 6

Page 3-3: The Workplan states that the oil-water separator at Location 8 has been a disposal location for excess AFFF and rinsate. Soil and groundwater sample collection is proposed at Location 8. In addition to the proposed investigation activities, provide a detailed summary of waste management procedures associated with the oil-water separator.

Response: In the past, the City's Department of Transportation (CSJ DOT) has maintained and pumped-out the oil-water separator using a Vactor truck. The liquid contents were disposed in the sanitary sewer dump station at the City's Mabury Yard located at 1404 Mabury Road. If solids were present, the liquid was decanted and disposed as described, and the separated solids were disposed as general municipal, non-hazardous waste.

6.7 Comment 7

Page 6-6: The Workplan states that the final report, analytical reports, and an electronic data deliverable (EDD) will be uploaded to GeoTracker via the Electronic Submittal of Information (ESI) Portals. Ensure that the EDD submittal includes the minimum requirements for survey data summarized in the document titled, GeoTracker Survey XYZ, Well Data, and Site Map Guidelines & Restrictions, Revision 6.1 dated April 2005 available at https://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/docs/geotrackersurvey_xyz_4_14_05.pdf.

Response: The EDD submittal will include the minimum requirements for survey data for upload to GeoTracker as summarized in the reference guidance document.

6.8 Additional Recommendation and Request in the Regional Water Board's Conditional Approval letter (Regional Water Board, 2019)

It is recommended that additional potential sources of PFAS other than AFFF be considered, including onsite maintenance facilities that may have operation processes that generate PFAS-containing waste (e.g., metal plating, aircraft maintenance including the use of hydraulic fluids). Additionally, Water Board staff request additional information regarding the potential for PFAS to be present in the high-expansion fire suppressant foams present in Hangar 7.

Response: The Airport understands the Order from the SWRCB (2019a) was issued to SJC and other FAA-regulated airports in California for the express purpose of conducting a one-time preliminary investigation of potential PFAS impacts to soil and groundwater from the use or accidental release of AFFF. While it is known that PFAS compounds have been used in countless industrial, commercial, and residential products, the dominant source of PFAS compounds at the Airport is in AFFF.

Another potential major source of PFAS noted in the above-referenced letter is metal plating which is not conducted at SJC. Heavy maintenance of commercial aircraft is also not conducted at SJC. However, some maintenance is conducted on private aircraft on the west side of the Airport. With limited resources, the Airport feels the focus of the investigation should remain on the use and release of AFFF consistent with the intent of the Order.

As per as-built plans and record drawings, the Signature Hangars use Ansulite 3% AFFF in the fire suppression systems.

7. CONCLUSIONS

This Completion Report presents the results of preliminary PFAS investigation activities conducted at the Airport in response to requirements in the Order from the SWRCB (2019a). Field sampling was conducted from October 16 to October 24, 2019 in accordance with the Work Plan (Woodard & Curran, 2019) which was conditionally approved by the Regional Water Board (2019a). Conclusions from the findings of the preliminary investigation are presented below.

Preliminary investigation activities were conducted in eight locations where AFFF was used or released to the land surface to evaluate the presence and preliminary characterization of PFAS compounds at the Airport. The investigation included the advancement of 28 soil borings and installation of 10 temporary groundwater monitoring wells in eight locations (3, 4, 8, 9, 10, 11, 12, and 14). Three soil samples were collected from each soil boring at approximate depths of 1, 5, and 10 feet bgs to characterize the lateral and vertical extent of PFAS compounds and, specifically, to assess vertical attenuation in soil above the water table. Grab groundwater samples were collected from temporary monitoring wells installed in one or more soil borings in the hydraulically downgradient portion of each location (i.e., north-northwest).

The subsurface lithology at these locations consists of fine-grained silts and clays with varying amounts of fine-grained sands. At Location 14, however, the fine-grained soils abruptly transition to poorly sorted gravelly sands and sandy gravels at about 10 feet bgs, indicating buried stream channel deposits within the predominantly fine-grained soils. Depth to groundwater at the eight locations typically rose above the depth of saturated soils observed during advancement of the borings (10.5 to 14 feet bgs), indicating semi-confined to confined groundwater conditions beneath the Airport.

PFAS compounds were detected in soil and groundwater in each of the investigation locations except for soil samples collected at Location 11 and groundwater samples collected at Location 14. PFAS concentrations were elevated in soil samples collected at Location 4, Locations 8 and 9, and Location 10 compared to concentrations in other investigation locations. Groundwater analytical results indicated a higher number of PFAS compounds detected above laboratory reporting limits than soil analytical results at the same location. Correspondingly, PFAS compounds detected in soil were generally also detected in groundwater at each location. The PFAS compounds detected in soil and groundwater are consistent with the composition of AFFF.

In the absence of regulatory standards applicable to groundwater, PFAS detections are compared to federal and state standards established for two PFAS compounds in drinking water. The USEPA has adopted an LHA of 70 ng/L for PFOA and PFOS individually and combined (i.e., summation of the two compounds). California has established NLs of 5.1 ng/L for PFOA and 6.5 ng/L for PFOS. Groundwater analytical results for PFOA and PFOS individually or combined exceeded the LHA in Location 4 and Location 10. Concentrations of PFOA exceeded the NL in in Location 4 and Location 10. Concentrations of PFOS exceeded the NL in Locations 3, 4, 10, and 12.

Sensitive receptors such as municipal supply wells, domestic wells, and surface water bodies were identified within a one-mile radius of the 15 locations where AFFF has been stored, used, or released at the Airport. The closest sensitive receptor is the Guadalupe River on the northeastern boundary of the Airport. Eighteen public and domestic water supply wells are located further from the Airport within the one-mile radius. Based on the current understanding of northerly groundwater flow in the vicinity of the Airport, the Guadalupe River is the closest sensitive receptor to impacted groundwater from the locations investigated at the Airport.

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TABLES

Table 1: Soil and Groundwater Sampling and Analysis Program

Table 2: PFAS Analyte List

Table 3: Summary of Groundwater Field Parameters

Table 4: General Chemistry Groundwater Analytical Results

Table 5a: PFAS Analytical Results at Location 3

Table 5b: PFAS Analytical Results at Location 4

Table 5c: PFAS Analytical Results at Locations 8 & 9

Table 5d: PFAS Analytical Results at Location 10

Table 5e: PFAS Analytical Results at Location 11

Table 5f: PFAS Analytical Results at Location 12

Table 5g: PFAS Analytical Results at Location 14

Table 6: PFAS Analytical Results for Groundwater

Table 7: Federal and State Advisory and Notification Levels for PFOA and PFOS in Drinking Water

Table 1
Soil and Groundwater Sampling and Analysis Program
Norman Y. Mineta San José International Airport
1701 Airport Boulevard, San Jose, California

Sample Location	Sampling Rationale	Number of Soil Borings	Number of Soil Samples[1]	Number of Temporary Wells/Groundwater Samples[2]
Location 3	Former Fire Training Area 1	3	9	1
Location 4	Former Fire Training Area 2	3	9	1
Locations 8 & 9	Ground Support Equipment Wash Rack with Oil-Water Separator[3] and AFFF Testing Release on 12/19/18	5	15	2
Location 10	Dilute AFFF Discharge	3	9	1
Location 11	Incident on 6/24/12	4	12	1
Location 12	Incident on 3/24/16	4	12	1
Location 14	Accidental Release on 11/18/16	6	18	3
		Total	**Total**	**Total**
		28	84	10

Notes:
AFFF = Aqueous Film-Forming Foam
[1] Soil sample depths below concrete and road base, as applicable: 1 foot, 5 feet and 10 feet. Analyzed for PFAS compounds.
[2] Temporary wells constructed to a total depth of 20 feet with a 5- to 10-foot screen interval. Analyzed for PFAS compounds and general chemistry parameters.
[3]Current Fire Testing/Disposal Area

Table 2
PFAS Analyte List
Norman Y. Mineta San José International Airport
1701 Airport Boulevard, San Jose, California

Analyte Name	CAS Number	Acronym	Flourinated Alkane Carbon Chain Length
Perfluoroalkylcarboxylic acids (PFCAs)			
Perfluorobutanoic acid	375-22-4	PFBA	C4
Perfluoropentanoic acid	2706-90-3	PFPeA	C5
Perfluorohexanoic acid	307-24-4	PFHxA	C6
Perfluoroheptanoic acid	375-85-9	PFHpA	C7
Perfluorooctanoic acid	335-67-1	PFOA	C8
Perfluorononanoic acid	375-95-1	PFNA	C9
Perfluorodecanoic acid	335-76-2	PFDA	C10
Perfluoroundecanoic acid	2058-94-8	PFUnDA	C11
Perfluorododecanoic acid	307-55-1	PFDoDA	C12
Perfluorotridecanoic acid	72629-94-8	PFTrDA	C13
Perfluorotetradecanoic acid	376-06-7	PFTeDA	C14
Perfluorinated sulfonic acids (PFSAs)			
Perfluorobutanesulfonic acid	375-73-5	PFBS	C4
Perfluoropentanesulfonic acid	2706-91-4	PFPeS	C5
Perfluorohexanesulfonic acid	355-46-4	PFHxS	C6
Perfluoroheptanesulfonic acid	375-92-8	PFHpS	C7
Perfluorooctanesulfonic acid	1763-23-1	PFOS	C8
Perfluorodecanesulfonic acid	335-77-3	PFDS	C10
Perfluoroocante Sulfonamide and Sulfonoamidoacetic Acids			
Perfluorooctanesulfonamide	754-91-6	PFOSAm	C8
N-methylperfluorooctanesulfonamidoacetic acid	2355-31-9	NMeFOSAA	C8 Precursor
N-ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	NEtFOSAA	C8 Precursor
Fluorotelomer sulfonates (FTS)			
4:2 Flourotelomer sulfonic acid	757124-72-4	4:2 FTS	C4* Precursor
6:2 Flourotelomer sulfonic acid	27619-97-2	6:2 FTS	C6* Precursor
8:2 Flourotelomer sulfonic acid	39108-34-4	8:2 FTS	C8* Precursor

Notes:
PFAS = Per- & Polyfluoroalkyl Substances.
* = and shorter carbon chain length terminal degradation products.

Table 3
Summary of Groundwater Field Parameters
Norman Y. Mineta San José International Airport
1701 Airport Boulevard, San Jose, California

Sample ID		Purge Log and Groundwater Parameters												
	Sampler Initials	Initial Depth to Water (feet bgs)	Final Depth to Water (feet bgs)	Date	Time	Temperature (C)	pH	Specific Conductivity (µS/cm)	Oxidation-Reduction Potential (mV)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Purge Rate (mL/min)	Total Volume Purged (mL)	Purge Notes
L3-3-GW	CL	10.41	10.21	10/23/2019	1255	23.1	7.74	1,859	-301.1	0.48	3,454.0	200	400	--
					1300	23.4	7.48	1,858	-304.6	0.48	3,954.0	200	1,400	--
					1305	22.9	7.38	1,858	-271.5	0.38	2,022.5	200	2,400	--
					1310	22.9	7.33	1,896	-296.9	0.37	1,672.3	200	3,400	--
					1315	22.8	7.32	1,896	-243.5	0.37	1,598.4	200	4,400	--
L4-2-GW	KA	8.81	9.05	10/22/2019	0410	22.9	7.11	2,690	-9.4	3.43	5,677.3	150	750	Cloudy
					0415	23.2	7.08	2,707	-34.5	2.44	5,646.4	150	1,500	Cloudy
					0420	23.2	7.07	2,709	-37.6	2.10	4,604.4	150	2,250	Cloudy
					0425	23.6	7.03	2,732	-38.7	1.37	2,531.0	150	3,000	Cloudy
					0430	23.5	7.02	2,806	-40.8	1.14	1,877.0	150	3,750	Cloudy
L8/9-4-GW	CL	15.15	15.91	10/24/2019	1156	23.5	7.61	3,508	-16.8	1.45	2,585.1	200	200	--
					1201	23.3	7.35	3,515	-177.5	0.66	1,911.2	200	1,200	--
					1206	23.3	7.25	3,508	-182.5	0.55	872.5	200	2,200	--
					1211	23.1	7.27	3,479	-176.4	0.50	2,192.3	200	3,200	--
					1216	23.1	7.26	3,462	-166.4	0.52	771.4	200	4,200	--
L8/9-5-GW[a]	CL	18.56	19.31	10/24/2019	1007	22.7	7.46	2,877	-9.5	2.03	1,240.2	210	210	--
L10-1-GW[b]	KA	11.85	12.69	10/16/2019	2301	21.0	6.91	2,210	-24.2	1.47	1,909.0	500	2,500	Cloudy
					2330	20.8	7.16	2,401	-27.6	1.68	118.3	250	7,000	Clear
L11-3-GW	KA	6.55	7.06	10/16/2019	0245	20.7	6.53	2,227	-139.1	0.62	906.4	200	1,000	Cloudy
					0250	20.9	6.48	2,087	-153.3	0.51	295.4	200	2,000	Slightly Cloudy
					0255	20.9	6.40	2,218	-156.5	0.49	206.1	200	3,000	Slightly Cloudy
					0300	21.0	6.38	2,189	-175.3	0.47	148.9	200	4,000	Clear
L12-3-GW	KA	11.54	11.56	10/18/2019	0050	18.8	6.87	2,742	-183.4	0.69	3,850.2	200	1,000	Cloudy
					0055	18.3	6.79	2,701	-175.3	0.56	3,892.1	200	2,000	Cloudy
					0100	18.7	6.76	2,726	-174.8	0.51	3,427.3	200	3,000	Cloudy
					0105	18.9	6.75	2,744	-168.6	0.45	2,302.8	200	4,000	Slightly Cloudy
					0110	18.6	6.73	2,727	-165.8	0.43	1,616.7	200	5,000	Slightly Cloudy
					0115	18.7	6.72	2,733	-167.6	0.42	1,491.4	200	6,000	Slightly Cloudy
					0120	18.8	6.72	2,746	-164.5	0.41	1,152.4	200	7,000	Slightly Cloudy
					0125	18.9	6.71	3,101	-163.8	0.41	984.5	200	8,000	Slightly Cloudy
L14-1-GW	CL	7.90	7.86	10/23/2019	0821	20.9	7.46	1,770	-227.5	0.80	3,294.5	200	200	--
					0826	21.0	7.19	1,775	-284.6	0.51	3,443.4	200	1,200	--
					0831	20.9	7.13	1,781	-270.2	0.45	1,243.7	200	2,200	--
					0836	20.9	7.12	1,783	-241.8	0.46	839.4	200	3,200	--

Table 3
Summary of Groundwater Field Parameters
Norman Y. Mineta San José International Airport
1701 Airport Boulevard, San Jose, California

Sample ID		Purge Log and Groundwater Parameters												
	Sampler Initials	Initial Depth to Water (feet bgs)	Final Depth to Water (feet bgs)	Date	Time	Temperature (C)	pH	Specific Conductivity (µS/cm)	Oxidation-Reduction Potential (mV)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Purge Rate (mL/min)	Total Volume Purged (mL)	Purge Notes
L14-2-GW	CL	7.15	7.12	10/23/2019	0934	21.6	7.72	1,808	-241.3	NR	5,219.0	200	0	--
					0939	21.1	7.10	1,704	-201.0	NR	2,730.1	200	1,000	--
					0944	20.9	7.04	1,781	-268.0	NR	2,125.3	200	2,000	--
					0949	20.9	7.02	1,783	-259.2	NR	1,700.2	200	3,000	--
L14-4-GW	CL	7.59	7.58	10/23/2019	1459	21.9	7.57	1,783	-256.7	0.68	75.9	200	400	Clear
					1504	21.7	7.22	1,778	-250.6	0.51	89.8	200	1,400	Clear
					1509	21.6	7.10	1,776	-268.5	0.44	102.4	200	2,400	Clear
					1514	21.4	7.09	1,776	-266.0	0.42	65.1	200	3,400	Clear
					1519	21.3	7.08	1,772	-244.0	0.40	28.2	200	4,400	Clear

Notes:

[a]: Well pumped dry at 1008 and was allowed to recharge for 7 minutes prior to sample collection.

[b]: Well pumped dry at 2306 and was allowed to recharge for 19 minutes prior to final parameter readings and sample collection.

Field parameters reflect the final parameter measurement at each location during well purging.

Abbreviations:

C: Degrees Celsius
feet bgs: feet below ground surface
µS/cm: microsiemens per centimeter
mg/L: milligrams per liter
mL: milliliter
mL/min: milliliters per minute
mV: millivolt
NTU: Nephelometric Turbidity Units
NR: Not recorded

Table 4
General Chemistry Groundwater Analytical Results
Norman Y. Mineta San José International Airport
1701 Airport Boulevard, San Jose, California

Sample ID	Sample Date	Sample Intake Depth (feet bgs)	Analytical Results (mg/L)									
			Total Dissolved Solids	Sulfate as SO_4	Nitrate as N	Chloride	Calcium	Magnesium	Potassium	Sodium	Carbonate, HT-5	Bicarbonate, HT-5
L3-3-GW	10/23/2019	18	740	210	2.2	59	180	84	13.0	48	<5	450
L4-2-GW	10/22/2019	18	1,300	510	<0.40	93	24	78	11	57	<5	500
L8/9-4-GW	10/24/2019	23	1,200	230	0.5	95	180	220	4.5	64	<5	1,100
L8/9-5-GW	10/24/2019	18	1,100	190	0.54	74	410	450	66	56	<5	970
L10-1-GW	10/16/2019	18	930	160	6.1	39	110	82	2.6	100	<5	750
L11-3-GW	10/17/2019	18	1,100	560	<0.40	8.5	200	90	4.0	16	<5	390
L12-3-GW	10/18/2019	18	1,800	630	<0.40, HT-1	70	290	94	9.2	50	<5	620
L14-1-GW	10/23/2019	18	680	140	3.7	68	170	68	<10, A-COM	38	<5	440
L14-2-GW	10/23/2019	18	700	140	3.8	69	140	73	<10, A-COM	40	<5	410
L14-4-GW	10/23/2019	18	680	130	3.8	69	130	55	<10, A-COM	36	<5	440

Notes:

< : indicates analyte not detected above the laboratory reporting limit following the "<"

Abbreviations:

feet bgs: feet below ground surface

mg/L: milligrams per liter

CCV: Continuing Calibration Verification

Analytical Qualifiers

HT-1: The sample was received outside of the EPA recommended hold time.

HT-5: The samples were analyzed outside of the EPA recommended hold time.

A-COM: The reporting limit was raised for this analyte because the sample was originally analyzed with no dilution but the CCVs were ouside the method criteria. The sample was re-analyzed with a dilution and the CCVs were in control.

Table 5a
PFAS Analytical Results at Location 3
Norman Y. Mineta San José International Airport
1701 Airport Boulevard, San Jose, California

Sample ID	Sample Date	Sample Intake Depth (feet bgs)	Groundwater Analytical Results (ng/L)																					
			PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFDS	PFOSAm	NMeFOSAA	NEtFOSAA	4:2 FTS	6:2 FTS	8:2 FTS
L3-3-GW	10/23/2019	18	**10.2**	**7.78**	**15.1**	**3.28**	**29.7**	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	**12.6**	**5.55**	**37.2**	<2.10	**37.9**	<2.10	<2.10	<2.10	<2.10	<2.10	**2.58**	<2.10

Notes

< : indicates analyte not detected above the laboratory reporting limit following the "<".

Bold indicates analytes detected above the laboratory reporting limit.

Abbreviations:

feet bgs: feet below ground surface

ng/L: nanograms per liter

Sample ID	Sample Date	Sample Depth (feet bgs)	Soil Analytical Results (ng/g)																					
			PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFDS	PFOSAm	NMeFOSAA	NEtFOSAA	4:2 FTS	6:2 FTS	8:2 FTS
L3-1-1	10/23/2019	1	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	**14.8**	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96
L3-1-5	10/23/2019	5	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97
L3-1-10	10/23/2019	10	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
L3-2-1	10/23/2019	1	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	**9.56**	<1.99	**26.7**	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99
L3-2-5	10/23/2019	5	<2.00	<2.00	**5.16**	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	**3.09**	<2.00	**2.19 Q**	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
L3-2-10	10/23/2019	10	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01
L3-3-1	10/23/2019	1	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	**4.67**	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97
L3-3-5	10/23/2019	5	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99
L3-3-10	10/23/2019	10	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99

Notes

< : indicates analyte not detected above the laboratory reporting limit following the "<".

Bold indicates analytes detected above the laboratory reporting limit.

Abbreviations:

feet bgs: feet below ground surface

ng/g: nanograms per gram

Analytical Qualifiers

Q: The ion transition ratio is outside of the acceptance criteria.

Table 5b
PFAS Analytical Results at Location 4
Norman Y. Mineta San José International Airport
1701 Airport Boulevard, San Jose, California

Sample ID	Sample Date	Sample Intake Depth (feet bgs)	Groundwater Analytical Results (ng/L)																					
			PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFDS	PFOSAm	NMeFOSAA	NEtFOSAA	4:2 FTS	6:2 FTS	8:2 FTS
L4-2-GW	10/22/2019	18	**31.4**	**39.5**	**168**	**14.3**	**25.6**	**21.8**	<2.16	<2.16	<2.16	<2.16	<2.16	**152**	**90.6**	**442**	**30.9**	**1,740**	<2.16	<2.16	<2.16	<2.16	<2.16	**12.4**	**9.83**
L4-20-GW	10/22/2019	18	**32.1**	**42.2**	**170**	**13.9**	**26.0**	**23.2**	<2.12	<2.12	<2.12	<2.12	<2.12	**149**	**87.4**	**448**	**36.9**	**2,190 D**	<2.12	<2.12	<2.12	<2.12	<2.12	**11.7**	**12.6**

Notes

< : indicates analyte not detected above the laboratory reporting limit following the "<".

Bold indicates analytes detected above the laboratory reporting limit.

Analytical Qualifiers

D: Sample was diluted.

Abbreviations:

feet bgs: feet below ground surface

ng/L: nanograms per liter

Sample ID	Sample Date	Sample Depth (feet bgs)	Soil Analytical Results (ng/g)																					
			PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFDS	PFOSAm	NMeFOSAA	NEtFOSAA	4:2 FTS	6:2 FTS	8:2 FTS
L4-1-1	10/22/2019	1	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94
L4-1-5	10/22/2019	5	<1.98	<1.98	**2.71 Q**	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	**3.14**	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98
L4-1-10	10/22/2019	10	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	**4.53**	<1.99	**82.5**	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99
L4-2-1	10/22/2019	1	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	**5.69**	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95
L4-2-5	10/22/2019	5	**2.21**	**4.10**	**10.1 Q**	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	**6.36**	**3.50**	**5.24**	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98
L4-2-10	10/22/2019	10	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	**9.99**	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95
L4-3-1	10/22/2019	1	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93
L4-3-5	10/22/2019	5	**4.34**	**8.12**	**26.0 Q**	**3.59 Q**	**9.10**	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	**14.6**	**16.1 Q**	**165**	**10.1**	**482 D**	<2.01	<2.01	<2.01	<2.01	<2.01	**9.99**	<2.01
L4-3-10	10/22/2019	10	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	**8.57**	<1.96	**63.0**	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96

Notes

< : indicates analyte not detected above the laboratory reporting limit following the "<".

Bold indicates analytes detected above the laboratory reporting limit.

Analytical Qualifiers

Q: The ion transition ratio is outside of the acceptance criteria.

D: Sample was diluted.

Abbreviations:

feet bgs: feet below ground surface

ng/g: nanograms per gram

Table 5c
PFAS Analytical Results at Location 8 & 9
Norman Y. Mineta San José International Airport
1701 Airport Boulevard, San Jose, California

Sample ID	Sample Date	Sample Intake Depth (feet bgs)	Groundwater Analytical Results (ng/L)																					
			PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFDS	PFOSAm	NMeFOSAA	NEtFOSAA	4:2 FTS	6:2 FTS	8:2 FTS
L8/9-4-GW	10/24/2019	23	**85.6**	**231**	**75.0**	**3.58 Q**	**2.40**	<2.14	<2.14	<2.14	<2.14	<2.14	<2.14	**6.58**	<2.14	<2.14	<2.14	<2.14	<2.14	<2.14	<2.14	<2.14	<2.14	**81.3**	**2.20**
L8/9-40-GW	10/24/2019	23	**85.5**	**232**	**70.2**	**3.66 Q**	**2.20**	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	**6.06**	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	**79.6**	**2.36**
L8/9-5-GW	10/24/2019	18	**814**	**4,970 D**	**1,620**	**134**	**4.75**	<2.23	<2.23	<2.23	<2.23	<2.23	<2.23	**44.5**	**11.9**	**15.0**	<2.23	<2.23	<2.23	<2.23	<2.23	<2.23	**2.48**	**560**	**4.88**

Notes

< : indicates analyte not detected above the laboratory reporting limit following the "<".

Bold indicates analytes detected above the laboratory reporting limit.

Analytical Qualifiers

D: Sample was diluted.

Q: The ion transition ratio is outside of the acceptance criteria.

Abbreviations:

feet bgs: feet below ground surface

ng/L: nanograms per liter

Sample ID	Sample Date	Sample Depth (feet bgs)	Soil Analytical Results (ng/g)																					
			PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFDS	PFOSAm	NMeFOSAA	NEtFOSAA	4:2 FTS	6:2 FTS	8:2 FTS
L8/9-1-1	10/24/2019	1	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
L8/9-1-5	10/24/2019	5	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01
L8/9-1-10	10/24/2019	10	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99
L8/9-2-1	10/24/2019	1	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99
L8/9-2-5	10/24/2019	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
L8/9-2-10	10/24/2019	10	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98
L8/9-3-1	10/24/2019	1	**2.10**	**15.5**	**10.2**	**3.58**	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	**161**	<2.00
L8/9-3-5	10/24/2019	5	**1.39**	**5.93**	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<0.994	<1.98	<1.98	<1.98	<1.98	<1.98
L8/9-3-10	10/24/2019	10	<1.98	**9.21**	**4.29**	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<0.997	<1.98	<1.98	<1.98	<1.98	<1.98
L8/9-4-1	10/24/2019	1	**5.49**	**23.7**	**15.6**	**2.51 Q**	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<0.996	<1.97	<1.97	<1.97	**81.4**	<1.97
L8/9-4-5	10/24/2019	5	<0.993	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<0.993	<2.00	<2.00	<2.00	<2.00	<2.00
L8/9-4-10	10/24/2019	10	<1.00	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.00	<1.93	<1.93	<1.93	<1.93	<1.93
L8/9-5-1	10/24/2019	1	**7.95**	**26.3**	**11.1**	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<0.999	<1.99	<1.99	<1.99	**2.53**	<1.99
L8/9-5-5	10/24/2019	5	<0.999	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<0.999	<1.95	<1.95	<1.95	<1.95	<1.95
L8/9-5-10	10/24/2019	10	<0.994	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<0.994	<1.96	<1.96	<1.96	<1.96	<1.96

Notes

< : indicates analyte not detected above the laboratory reporting limit following the "<".

Bold indicates analytes detected above the laboratory reporting limit.

Analytical Qualifiers

Q: The ion transition ratio is outside of the acceptance criteria.

Abbreviations:

feet bgs: feet below ground surface

ng/g: nanograms per gram

Table 5d
PFAS Analytical Results at Location 10
Norman Y. Mineta San José International Airport
1701 Airport Boulevard, San Jose, California

Sample ID	Sample Date	Sample Intake Depth (feet bgs)	Groundwater Analytical Results (ng/L)																					
			PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFDS	PFOSAm	NMeFOSAA	NEtFOSAA	4:2 FTS	6:2 FTS	8:2 FTS
L10-1-GW	10/16/2019	18	**2,340 D**	**7,730 D**	**7,980 D**	**1330**	**585**	**3.96**	**2.24**	<2.09	<2.09	<2.09	<2.09	**518**	**497**	**3,850 D**	**49.8**	**163**	<2.09	<2.09	<2.09	<2.09	**40.2**	**8,880 D**	**61.7**
L10-10-GW	10/16/2019	18	**2,180 D**	**7,080 D**	**8,820 D**	**1240**	**456**	<2.17	**2.19**	<2.17	<2.17	<2.17	<2.17	**515**	**477**	**3,560 D**	**40.5**	**137 Q**	<2.17	<2.17	<2.17	<2.17	**45.1**	**9,040 D**	**56.4**

Notes

< : indicates analyte not detected above the laboratory reporting limit fo
Bold indicates analytes detected above the laboratory reporting limit.

Analytical Qualifiers

D: Sample was diluted.
Q: The ion transition ratio is outside of the acceptance criteria.

Abbreviations:

feet bgs: feet below ground surface
ng/L: nanograms per liter

Sample ID	Sample Date	Sample Depth (feet bgs)	Soil Analytical Results (ng/g)																					
			PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFDS	PFOSAm	NMeFOSAA	NEtFOSAA	4:2 FTS	6:2 FTS	8:2 FTS
L10-1-1	10/16/2019	1	<1.99	**6.77**	**10.8**	<1.99	**5.10**	<1.99	**7.48**	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	**7.69**	<1.99	**368**	<1.99	<1.99	<1.99	<1.99	<1.99	**322**	**286**
L10-1-5	10/16/2019	5	<1.98	**7.74**	**12.2**	<1.98	**7.29**	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	**30.0**	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	**606 D**	<1.98
L10-1-10	10/16/2019	10	<2.00	**7.67**	**7.75**	<2.00	**2.91**	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	**14.0**	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	**323**	<2.00
L10-2-1	10/17/2019	1	**8.59**	**50.4**	**61.4**	**6.13**	**9.96**	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	**7.43**	**5.21**	**45.8**	<1.95	**2.97 Q**	<1.95	<1.95	<1.95	<1.95	<1.95	**762 D**	<1.95
L10-2-5	10/17/2019	5	**10.4**	**59.2**	**76.8 Q**	**4.60 Q**	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	**4.24**	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	**7.73**	<2.00
L10-2-10	10/17/2019	10	**3.59**	**17.4**	**19.6**	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	**2.36**	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	**62.9**	<2.00
L10-3-1	10/17/2019	1	<2.00	**5.27**	**4.36**	<2.00	**4.02**	**3.98**	**6.67**	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	**8.82**	<2.00	**369**	<2.00	<2.00	<2.00	<2.00	<2.00	**122**	**157**
L10-3-5	10/17/2019	5	<2.00	**6.79**	**5.31**	<2.00	**6.29**	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	**23.9**	**2.02**	**62.1**	<2.00	<2.00	<2.00	<2.00	<2.00	**205**	**13.5**
L10-3-10	10/17/2019	10	<1.96	**3.60**	**2.76**	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	**9.72**	<1.96	<1.96	<1.96	<1.96	<1.96	**29.8**	**53.6**

Notes

< : indicates analyte not detected above the laboratory reporting limit following the "<".
Bold indicates analytes detected above the laboratory reporting limit.

Analytical Qualifiers

D: Sample was diluted.
Q: The ion transition ratio is outside of the acceptance criteria.

Abbreviations:

feet bgs: feet below ground surface
ng/g: nanograms per gram

Table 5e
PFAS Analytical Results at Location 11
Norman Y. Mineta San José International Airport
1701 Airport Boulevard, San Jose, California

Sample ID	Sample Date	Sample Intake Depth (feet bgs)	Groundwater Analytical Results (ng/L)																					
			PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFDS	PFOSAm	NMeFOSAA	NEtFOSAA	4:2 FTS	6:2 FTS	8:2 FTS
L11-3-GW	10/17/2019	18	**10.2**	<2.10	<2.10	<2.10	**3.14**	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10

Notes

< : indicates analyte not detected above the laboratory reporting limit following the "<".

Bold indicates analytes detected above the laboratory reporting limit.

Abbreviations:

feet bgs: feet below ground surface

ng/L: nanograms per liter

Sample ID	Sample Date	Sample Depth (feet bgs)	Soil Analytical Results (ng/g)																					
			PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFDS	PFOSAm	NMeFOSAA	NEtFOSAA	4:2 FTS	6:2 FTS	8:2 FTS
L11-1-1	10/17/2019	1	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96
L11 -1-5	10/17/2019	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
L11-1-10	10/17/2019	10	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
L11-2-1	10/17/2019	1	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99
L11-2-5	10/17/2019	5	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96
L11-2-10	10/17/2019	10	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94
L11-3-1	10/17/2019	1	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
L11-3-5	10/17/2019	5	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93
L11-3-10	10/17/2019	10	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98
L11-4-1	10/17/2019	1	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97
L11-4-5	10/17/2019	5	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97
L11-4-10	10/17/2019	10	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95

Notes

< : indicates analyte not detected above the laboratory reporting limit following the "<".

Bold indicates analytes detected above the laboratory reporting limit.

Abbreviations:

feet bgs: feet below ground surface

ng/g: nanograms per gram

Table 5f
PFAS Analytical Results at Location 12
Norman Y. Mineta San José International Airport
1701 Airport Boulevard, San Jose, California

Sample ID	Sample Date	Sample Intake Depth (feet bgs)	Groundwater Analytical Results (ng/L)																					
			PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFDS	PFOSAm	NMeFOSAA	NEtFOSAA	4:2 FTS	6:2 FTS	8:2 FTS
L12-3-GW	10/18/2019	18	**11.0**	<2.14	<2.14	<2.14	**3.55**	<2.14	<2.14	<2.14	<2.14	<2.14	<2.14	**12.3**	**7.85**	**41.7**	<2.14	**40.5**	<2.14	<2.14	<2.14	<2.14	<2.14	<2.14	<2.14
L12-30-GW	10/18/2019	18	**10.5**	<2.13	<2.13	<2.13	**3.00**	<2.13	<2.13	<2.13	<2.13	<2.13	<2.13	**12.5**	**9.05**	**45.1**	<2.13	**3.43**	<2.13	<2.13	<2.13	<2.13	<2.13	<2.13	<2.13

Notes

< : indicates analyte not detected above the laboratory reporting limit following the "<".

Bold indicates analytes detected above the laboratory reporting limit.

Abbreviations:

feet bgs: feet below ground surface

ng/L: nanograms per liter

Sample ID	Sample Date	Sample Depth (feet bgs)	Soil Analytical Results (ng/g)																					
			PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFDS	PFOSAm	NMeFOSAA	NEtFOSAA	4:2 FTS	6:2 FTS	8:2 FTS
L12-1-1	10/18/2019	1	<1.95	<1.95	<1.95	**2.02**	**2.32**	**2.25**	**6.24**	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	**2.49**	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95
L12-1-5	10/18/2019	5	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94
L12-1-10	10/18/2019	10	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
L12-2-1	10/18/2019	1	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96
L12-2-5	10/18/2019	5	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96
L12-2-10	10/18/2019	10	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95
L12-3-1	10/18/2019	1	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97
L12-3-5	10/18/2019	5	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99
L12-3-10	10/18/2019	10	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
L12-4-1	10/18/2019	1	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99
L12-4-5	10/18/2019	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
L12-4-10	10/18/2019	10	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92

Notes

< : indicates analyte not detected above the laboratory reporting limit following the "<".

Bold indicates analytes detected above the laboratory reporting limit.

Abbreviations:

feet bgs: feet below ground surface

ng/g: nanograms per gram

Table 5g
PFAS Analytical Results at Location 14
Norman Y. Mineta San José International Airport
1701 Airport Boulevard, San Jose, California

Sample ID	Sample Date	Sample Intake Depth (feet bgs)	Groundwater Analytical Results (ng/L)																					
			PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFDS	PFOSAm	NMeFOSAA	NEtFOSAA	4:2 FTS	6:2 FTS	8:2 FTS
L14-1-GW	10/23/2019	18	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09
L14-2-GW	10/23/2019	18	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15
L14-20-GW	10/23/2019	18	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15
L14-4-GW	10/23/2019	18	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99

Notes

< : indicates analyte not detected above the laboratory reporting limit following the "<".

Bold indicates analytes detected above the laboratory reporting limit.

Abbreviations:

feet bgs: feet below ground surface

ng/L: nanograms per liter

Sample ID	Sample Date	Sample Depth (feet bgs)	Soil Analytical Results (ng/g)																					
			PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFDS	PFOSAm	NMeFOSAA	NEtFOSAA	4:2 FTS	6:2 FTS	8:2 FTS
L14-1-1	10/23/2019	1	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01
L14-1-5	10/23/2019	5	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97
L14-1-10	10/23/2019	10	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93
L14-2-1	10/23/2019	1	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	**3.91 Q**	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95
L14-2-5	10/23/2019	5	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99
L14-2-10	10/23/2019	10	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
L14-3-1	10/24/2019	1	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	**3.07 Q**	<2.00	<0.991	<2.00	<2.00	<2.00	<2.00	<2.00
L14-3-5	10/24/2019	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<0.997	<2.00	<2.00	<2.00	<2.00	<2.00
L14-3-10	10/24/2019	10	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<0.990	<1.98	<1.98	<1.98	<1.98	<1.98
L14-4-1	10/23/2019	1	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	**5.57 Q**	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95
L14-4-5	10/23/2019	5	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94
L14-4-10	10/23/2019	10	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93
L14-5-1	10/24/2019	1	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<0.995	<1.99	<1.99	<1.99	<1.99	<1.99
L14-5-5	10/24/2019	5	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<0.992	<1.94	<1.94	<1.94	<1.94	<1.94
L14-5-10	10/24/2019	10	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<0.992	<1.98	<1.98	<1.98	<1.98	<1.98
L14-6-1	10/24/2019	1	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<0.992	<1.96	<1.96	<1.96	<1.96	<1.96
L14-6-5	10/24/2019	5	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<0.992	<1.96	<1.96	<1.96	<1.96	<1.96
L14-6-10	10/24/2019	10	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<0.994	<1.95	<1.95	<1.95	<1.95	<1.95

Notes

< : indicates analyte not detected above the laboratory reporting limit following the "<".

Bold indicates analytes detected above the laboratory reporting limit.

Analytical Qualifiers

Q: The ion transition ratio is outside of the acceptance criteria.

Abbreviations:

feet bgs: feet below ground surface

ng/g: nanograms per gram

Table 6
PFAS Analytical Results for Groundwater
Norman Y. Mineta San José International Airport
1701 Airport Boulevard, San Jose, California

Location Number	Sample ID	Sample Date	Sample Intake Depth (feet bgs)	Groundwater Analytical Results (ng/L)																						
				PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFDS	PFOSAm	NMeFOSAA	NEtFOSAA	4:2 FTS	6:2 FTS	8:2 FTS
3	L3-3-GW	10/23/2019	18	**10.2**	**7.78**	**15.1**	**3.28**	**29.7**	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	**12.6**	**5.55**	**37.2**	<2.10	**37.9**	<2.10	<2.10	<2.10	<2.10	<2.10	**2.58**	<2.10
4	L4-2-GW	10/22/2019	18	**31.4**	**39.5**	**168**	**14.3**	**25.6**	**21.8**	<2.16	<2.16	<2.16	<2.16	<2.16	**152**	**90.6**	**442**	**30.9**	**1,740**	<2.16	<2.16	<2.16	<2.16	<2.16	**12.4**	**9.83**
	L4-20-GW	10/22/2019	18	**32.1**	**42.2**	**170**	**13.9**	**26.0**	**23.2**	<2.12	<2.12	<2.12	<2.12	<2.12	**149**	**87.4**	**448**	**36.9**	**2,190 D**	<2.12	<2.12	<2.12	<2.12	<2.12	**11.7**	**12.6**
8/9	L8/9-4-GW	10/24/2019	23	**85.6**	**231**	**75.0**	**3.58 Q**	**2.40**	<2.14	<2.14	<2.14	<2.14	<2.14	<2.14	**6.58**	<2.14	<2.14	<2.14	<2.14	<2.14	<2.14	<2.14	<2.14	<2.14	**81.3**	**2.20**
	L8/9-40-GW	10/24/2019	23	**85.5**	**232**	**70.2**	**3.66 Q**	**2.20**	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	**6.06**	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	**79.6**	**2.36**
	L8/9-5-GW	10/24/2019	18	**814**	**4,970 D**	**1,620**	**134**	**4.75**	<2.23	<2.23	<2.23	<2.23	<2.23	<2.23	**44.5**	**11.9**	**15.0**	<2.23	<2.23	<2.23	<2.23	<2.23	<2.23	**2.48**	**560**	**4.88**
10	L10-1-GW	10/16/2019	18	**2,340 D**	**7,730 D**	**7,980 D**	**1,330**	**585**	**3.96**	**2.24**	<2.09	<2.09	<2.09	<2.09	**518**	**497**	**3,850 D**	**49.8**	**163**	<2.09	<2.09	<2.09	<2.09	**40.2**	**8,880 D**	**61.7**
	L10-10-GW	10/16/2019	18	**2,180 D**	**7,080 D**	**8,820 D**	**1,240**	**456**	<2.17	**2.19**	<2.17	<2.17	<2.17	<2.17	**515**	**477**	**3,560 D**	**40.5**	**137 Q**	<2.17	<2.17	<2.17	<2.17	**45.1**	**9,040 D**	**56.4**
11	L11-3-GW	10/17/2019	18	**10.2**	<2.10	<2.10	<2.10	**3.14**	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10
12	L12-3-GW	10/18/2019	18	**11.0**	<2.14	<2.14	<2.14	**3.55**	<2.14	<2.14	<2.14	<2.14	<2.14	<2.14	**12.3**	**7.85**	**41.7**	<2.14	**40.5**	<2.14	<2.14	<2.14	<2.14	<2.14	<2.14	<2.14
	L12-30-GW	10/18/2019	18	**10.5**	<2.13	<2.13	<2.13	**3.00**	<2.13	<2.13	<2.13	<2.13	<2.13	<2.13	**12.5**	**9.05**	**45.1**	<2.13	**3.43**	<2.13	<2.13	<2.13	<2.13	<2.13	<2.13	<2.13
14	L14-1-GW	10/23/2019	18	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09	<2.09
	L14-2-GW	10/23/2019	18	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15
	L14-20-GW	10/23/2019	18	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15	<2.15
	L14-4-GW	10/23/2019	18	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99

Notes

< : indicates analyte not detected above the laboratory reporting limit following the "<".

Bold indicates analytes detected above the laboratory reporting limit.

Analytical Qualifiers

D: Sample was diluted.

Q: The ion transition ratio is outside of the acceptance criteria.

Abbreviations:

feet bgs: feet below ground surface

ng/L: nanograms per liter

Table 7
Federal and State Advisory and Notification Levels for PFOA and PFOS in Drinking Water
Norman Y. Mineta San José International Airport
1701 Airport Boulevard, San Jose, California

Location Number	Sample ID	Sample Date	Sample Intake Depth (feet bgs)	U.S. EPA LHA (PFOA + PFAS)	CA NL (PFOA)	CA NL (PFOS)	PFOA and PFOS Groundwater Analytical Results (ng/L)		
							PFOA	PFOS	PFOA + PFOS*
3	L3-3-GW	10/23/2019	18	70	5.1	6.5	**29.7**	**37.9**	**67.6**
4	L4-2-GW	10/22/2019	18	70	5.1	6.5	**25.6**	**1,740**	**1,765.6**
	L4-20-GW	10/22/2019	18	70	5.1	6.5	**26**	**2,190**	**2216**
8/9	L8/9-4-GW	10/24/2019	23	70	5.1	6.5	**2.4**	<2.14	**2.4**
	L8/9-40-GW	10/24/2019	23	70	5.1	6.5	**2.2**	<2.09	**2.2**
	L8/9-5-GW	10/24/2019	18	70	5.1	6.5	**4.75**	<2.23	**4.75**
10	L10-1-GW	10/16/2019	18	70	5.1	6.5	**585**	**163**	**748**
	L10-10-GW	10/16/2019	18	70	5.1	6.5	**456**	**137**	**593**
11	L11-3-GW	10/17/2019	18	70	5.1	6.5	**3.14**	<2.10	**3.14**
12	L12-3-GW	10/18/2019	18	70	5.1	6.5	**3.55**	**40.5**	**44.05**
	L12-30-GW	10/18/2019	18	70	5.1	6.5	**3**	**3.43**	**6.43**
14	L14-1-GW	10/23/2019	18	70	5.1	6.5	<2.09	<2.09	0
	L14-2-GW	10/23/2019	18	70	5.1	6.5	<2.15	<2.15	0
	L14-20-GW	10/23/2019	18	70	5.1	6.5	<2.15	<2.15	0
	L14-4-GW	10/23/2019	18	70	5.1	6.5	<1.99	<1.99	0

Notes

< : indicates analyte not detected above the laboratory reporting limit following the "<".

Bold indicates analytes detected above the laboratory reporting limit.

Indicates analyte was detected above the USEPA LHA (for the sum of PFOA and PFOS concentrations in groundwater).

Indicates analyte was detected above the California Notification Levels (for PFOA and PFOS concentrations in groundwater, individually).

* = PFOA and PFOS analytes not detected above the laboratory reporting limit were assigned a value of 0 for calculation of the sum of PFOA and PFOS concentrations in groundwater.

Abbreviations:

feet bgs: feet below ground surface

ng/L: nanograms per liter

U.S. EPA LHA: United States Environmental Protection Agency Lifetime Health Advisory for Drinking Water.

CA NL: California Notification Level for Drinking Water.

References

United States Environmetnal Protection Agency, Office of Water, Health and Ecological Criteria Division. 2016. *Drinking Water Health Advisory for Perfluorooctanoic Acid (PFOA)* . May.

United States Environmetnal Protection Agency, Office of Water, Health and Ecological Criteria Division. 2016. *Drinking Water Health Advisory for Perfluorooctane Sulfonate (PFOS)* . May.

California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, Pesticide and Environmental Toxicology Branch. 2019. *Notification Level Recommendation Perfluorooctanoic Acid and Perfluorooctane Sulfonate in Drinking Water.* August.

FIGURES

Figure 1: Site Location

Figure 2: Site Plan

Figure 3: Sensitive Receptors

Figure 4a: Soil and Groundwater Sampling at Location 3

Figure 4b: Soil and Groundwater Sampling at Location 4

Figure 4c: Soil and Groundwater Sampling at Locations 8 & 9

Figure 4d: Soil and Groundwater Sampling at Location 10

Figure 4e: Soil and Groundwater Sampling at Location 11

Figure 4f: Soil and Groundwater Sampling at Location 12

Figure 4g: Soil and Groundwater Sampling at Location 14

Figure 5a: PFAS Analytical Results at Location 3

Figure 5b: PFAS Analytical Results at Location 4

Figure 5c: PFAS Analytical Results at Locations 8 & 9

Figure 5d: PFAS Analytical Results at Location 10

Figure 5e: PFAS Analytical Results at Location 11

Figure 5f: PFAS Analytical Results at Location 12

Figure 5g: PFAS Analytical Results at Location 14

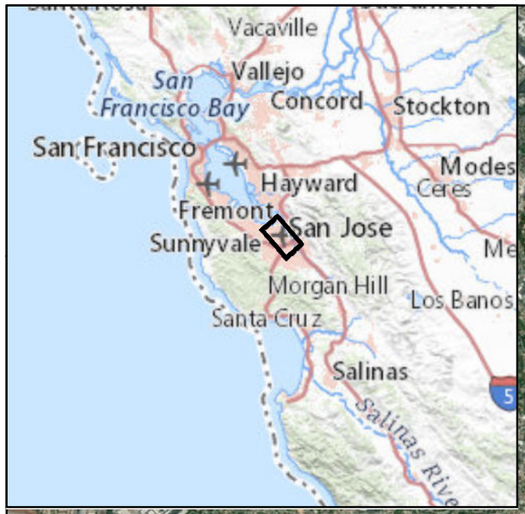


Figure 1. Site Location

1701 Airport Blvd,
San Jose, CA 95110

PFAS Completion Report

Legend

Norman Y. Mineta San Jose International Airport

0 0.5 1 2 Miles

N

WOODARD &CURRAN

Project #: 0232401.01
Map Created: Jan. 2020

Figure Exported: 1/30/2020 By: sashley Using: \\woodardcurran.net\shared\Projects\02.3401.01 Kimley Horn PFAS Completion Rev\gis\GIS\Figure 1 - Site Location Map.mxd

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions.
Any reliance upon the map or data contained herein shall be at the user's sole risk. **Data Sources: ESRI**

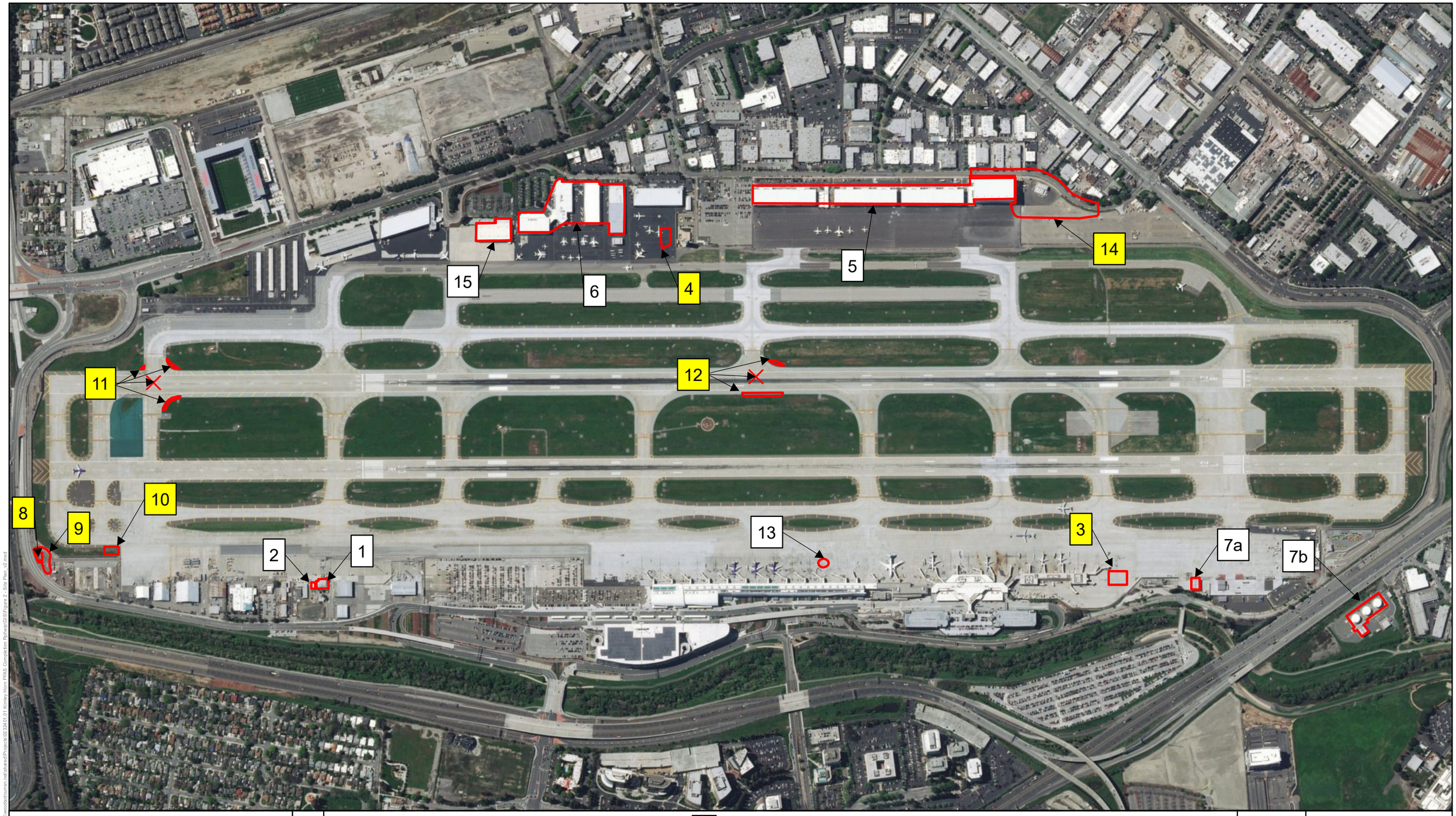


Figure 2. Site Plan

1701 Airport Blvd,
San Jose, CA 95110

PFAS Completion Report

Legend

AFFF Storage, Use and Release Locations

12 AFFF Use and Release Locations Selected for Sampling

0 0.1 0.2 0.4 Miles

1. Fire Station #20
2. Building 1000
3. Former Fire Training Area 1
4. Former Fire Training Area 2
5. Signature Flight Support Hangars
6. Atlantic Aviation Hangars
7a. Swissport Fueling, Airside Fuel Rack
7b. Swissport Fueling, Offsite Fuel Tank Farm
8. Ground Support Equipment Wash Rack with Oil-water Separator
9. AFFF Testing Release on 12/19/18
10. Dilute AFFF Discharge
11. Incident on 6/24/12
12. Incident on 3/24/16
13. Gate 18 Tug Fire on 10/19/18
14. Accidental Releases on 2/6/18 (inside Hangar 7) and 11/18/16 (inside and outside Hangar 7)
15. Hewlett Packard Enterprise Hangar

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Project #: 0232401.01
Map Created: Jan. 2020

Figure Exported: 1/21/2020 By: ashley Using: \\woodardcurran.net\shared\Projects\0232401.01 Kimley Horn PFAS Completion Report\GIS\Figure 2 - Site Plan_v2.mxd

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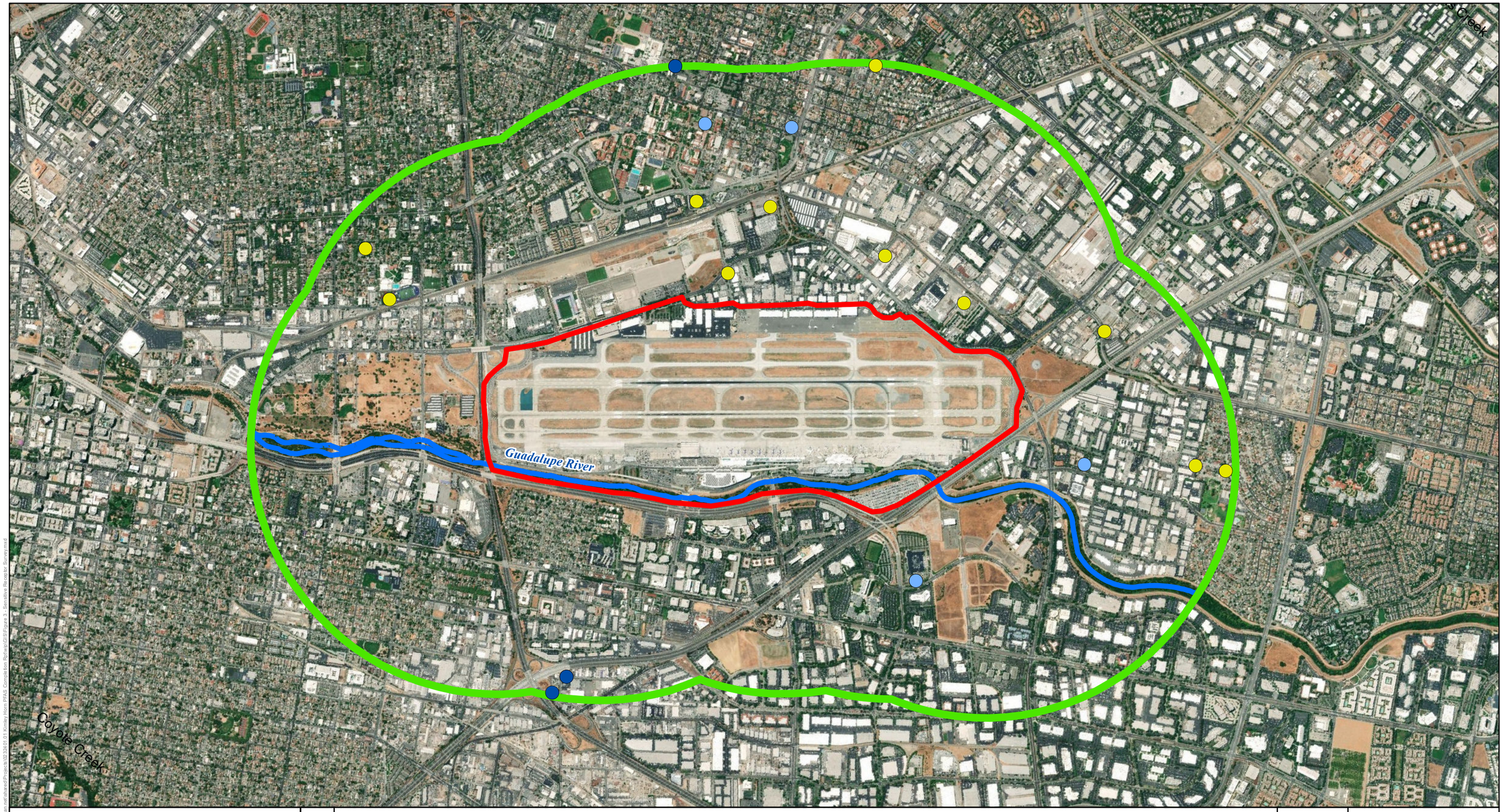


Figure 3.
Sensitive Receptors

1701 Airport Blvd,
San Jose, CA 95110

PFAS Completion Report

Legend

- Surface Water
- Combined 1-mile Radius Search Area for All Storage, Use and Release Locations
- Norman Y. Mineta San Jose International Airport

Santa Clara Valley Water District Identified Wells

- Water Supply

State/Federal Identified Wells

- Water Supply Domestic
- Water Supply Public

Note: Combined 1-mile Radius Search Area is based off the sensitive receptor survey completed in the PFAS Preliminary Investigation Work Plan (Woodard & Curran, 2019)

0 0.15 0.3 0.6 Miles

N

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Map Created: Jan. 2020

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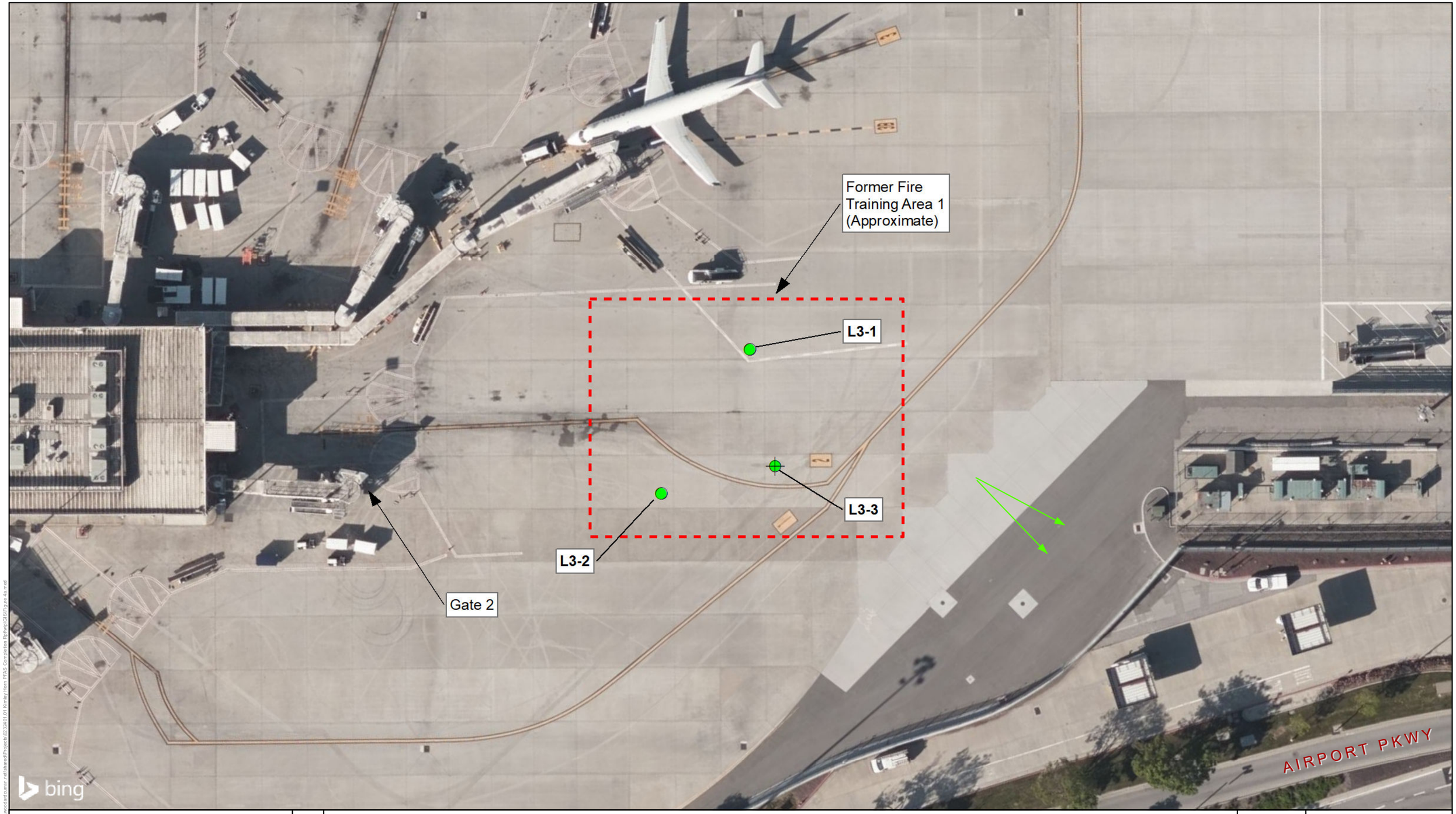


Figure 4a. Soil and Groundwater Samples at Location 3

1701 Airport Blvd,
San Jose, CA 95110

PFAS Completion Report

Legend

- AFFF Use Location, Dashed Where Estimated
- Soil Boring
- Soil Boring and Temporary Groundwater Well
- Approximate Groundwater Flow Direction

0 25 50 100 Feet

WOODARD &CURRAN

Project #: 0232401.01
Map Created: Jan. 2020

Figure Exported: 1/30/2020 By: sidney Using: \\woodardcurran.net\shares\Projects\0232401.01 Kimley Horn PFAS Completion Report\GIS\Figure 4a.mxd

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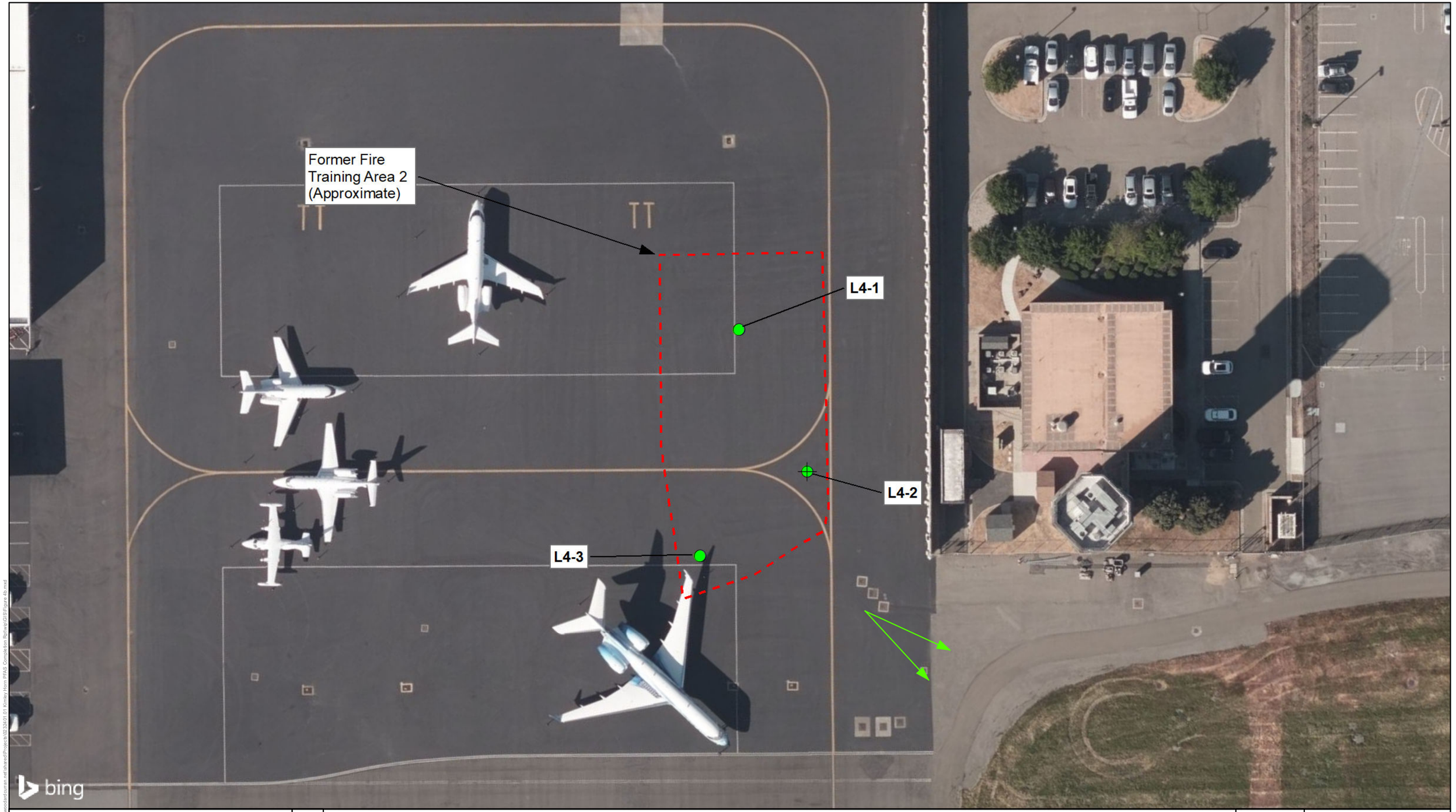


Figure 4b. Soil and Groundwater Samples at Location 4

1701 Airport Blvd,
San Jose, CA 95110

PFAS Completion Report

Legend

- AFFF Use Location, Dashed Where Estimated
- Soil Boring
- Soil Boring and Temporary Groundwater Well
- Approximate Groundwater Flow Direction

0 25 50 100 Feet

WOODARD &CURRAN

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Map Created: Jan. 2020

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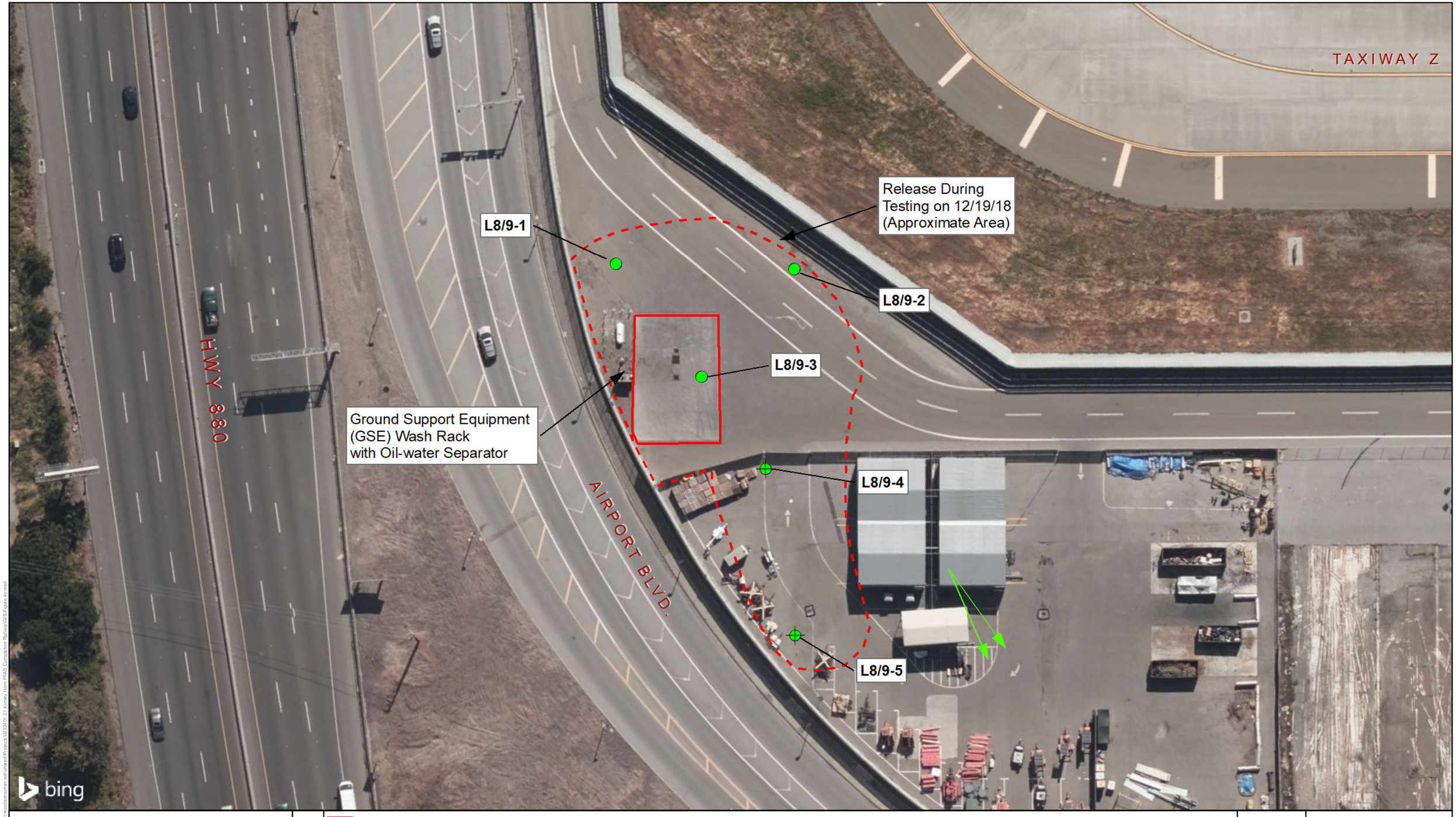


Figure 4c. Soil and Groundwater Samples at Locations 8 and 9

1701 Airport Blvd.
San Jose, CA 95110

PFAS Completion Report

Legend

- AFFF Use Locations, Dashed Where Estimated
- Soil Boring
- Soil Boring and Temporary Groundwater Well
- Approximate Groundwater Flow Direction

0 25 50 100 Feet

N

WOODARD &CURRAN

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Map Created: Jan. 2020

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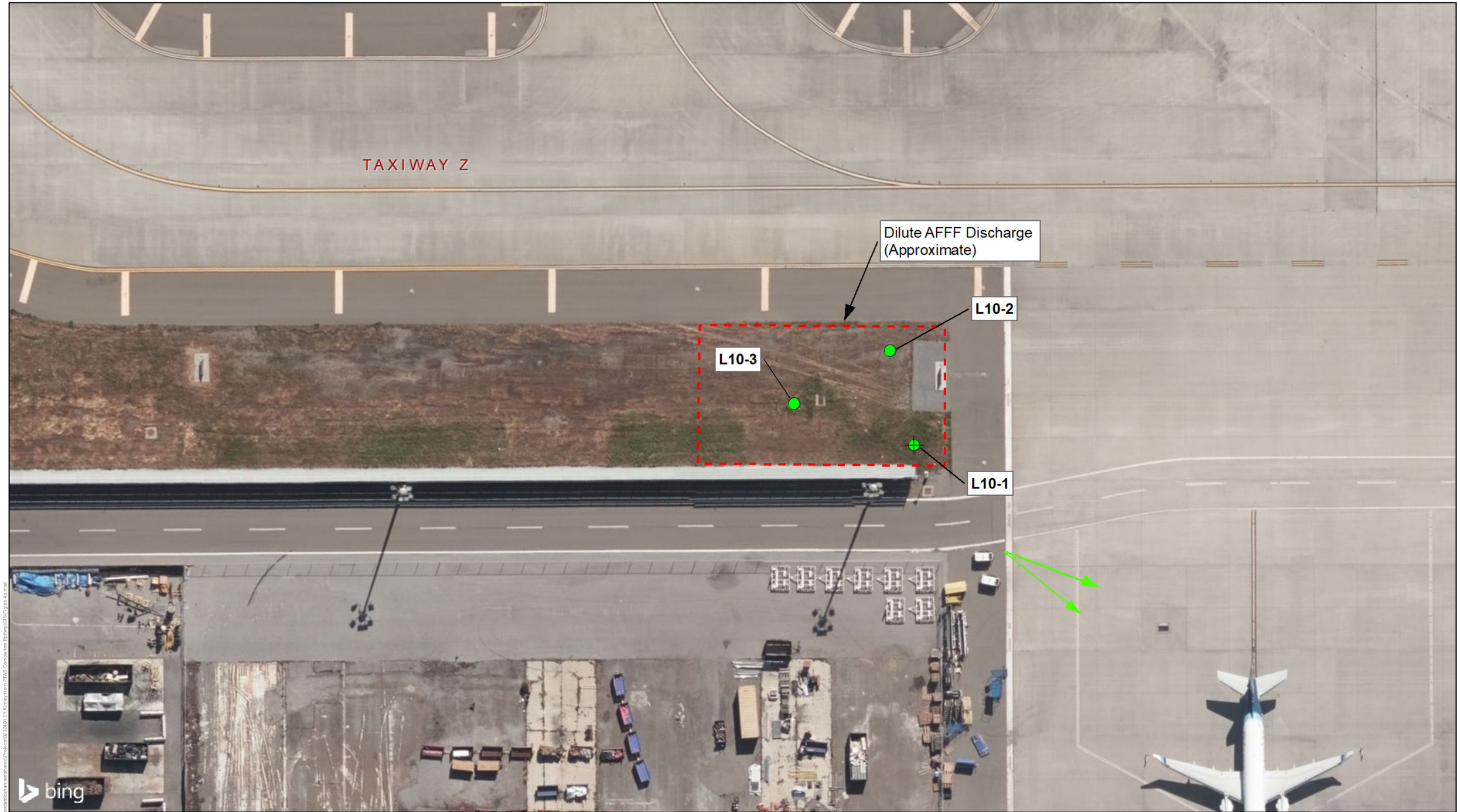


Figure 4d. Soil and Groundwater Samples at Location 10

1701 Airport Blvd.
San Jose, CA 95110

PFAS Completion Report

Legend

- AFFF Use Location, Dashed Where Estimated
- Soil Boring
- Soil Boring and Temporary Groundwater Well
- Approximate Groundwater Flow Direction

0 25 50 100 Feet

N

WOODARD &CURRAN

Project #: 0232401.01
Map Created: Jan. 2020

Figure Exported: 1/30/2020 By: ashley Using: \\woodardcurran.net\shared\Projects\0232401.01 Kimley Horn PFAS Completion Report\GIS\Figure 4d.mxd

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Runoff of AFFF From Sloped Runway (Approximate)

L11-1

Incident on 6/24/12

30L

L11-2

L11-3

B

L11-4

12R-30L

30L-12R

bing

Figure 4e. Soil and Groundwater Samples at Location 11

1701 Airport Blvd.
San Jose, CA 95110

PFAS Completion Report

Legend

- AFFF Use Location, Dashed Where Estimated
- Soil Boring
- Soil Boring and Temporary Groundwater Well
- Approximate Groundwater Flow Direction

0 40 80 160 Feet

N

WOODARD &CURRAN

Project #: 0232401.01
Map Created: Jan. 2020

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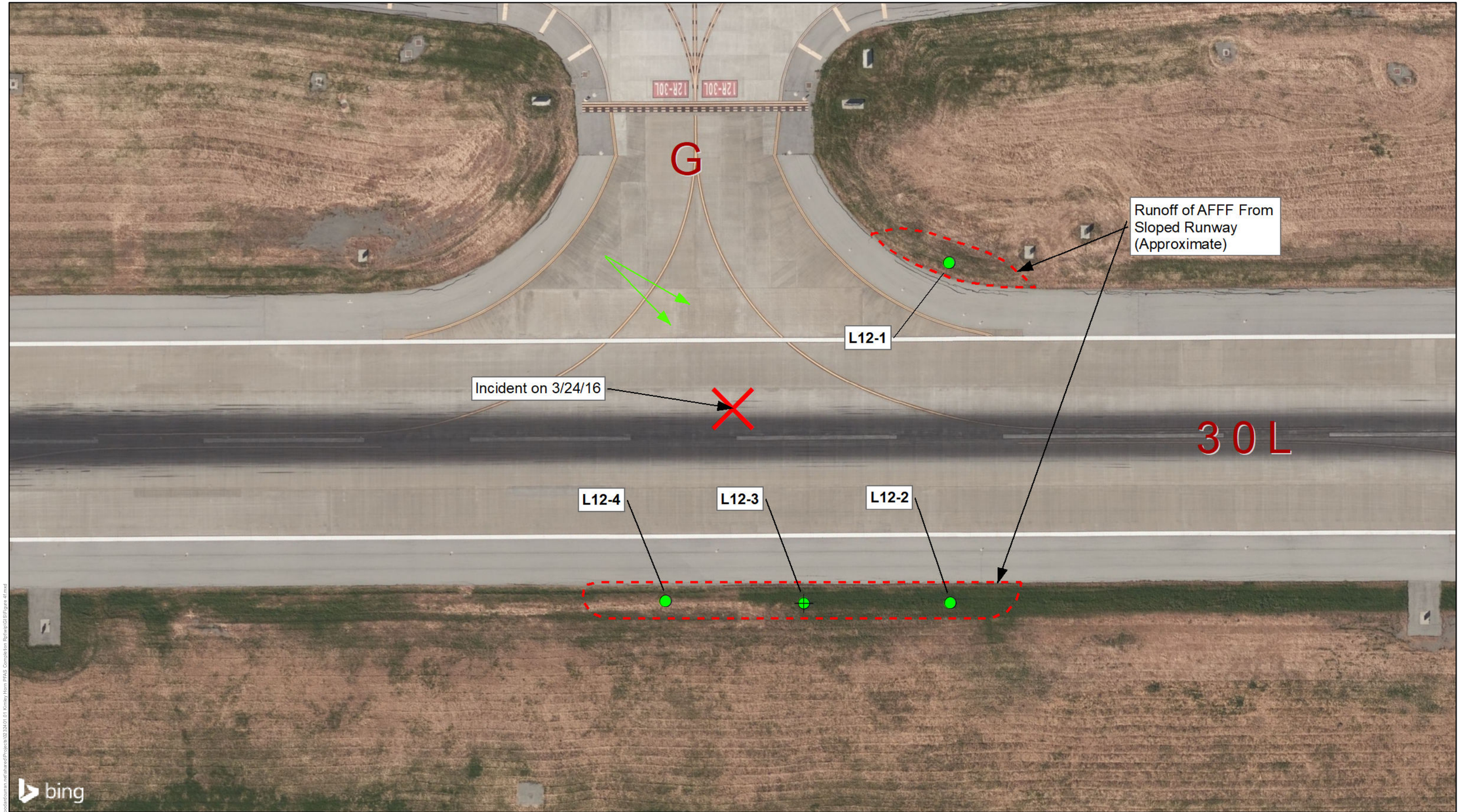


Figure 4f. Soil and Groundwater Samples at Location 12

1701 Airport Blvd.
San Jose, CA 95110

PFAS Completion Report

Legend

- AFFF Use Location, Dashed Where Estimated
- Soil Boring
- Soil Boring and Temporary Groundwater Well
- Approximate Groundwater Flow Direction

0 40 80 160 Feet

N

WOODARD &CURRAN

Project #: 0232401.01
Map Created: Jan. 2020

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Figure 4g. Soil and Groundwater Samples at Location 14

1701 Airport Blvd.
San Jose, CA 95110

PFAS Completion Report

Legend

- AFFF Storage and Release Locations, Dashed Where Estimated
- Soil Boring
- Soil Boring and Temporary Groundwater Well
- Approximate Groundwater Flow Direction

0 50 100 200 Feet

N

WOODARD &CURRAN

Project #: 0232401.01
Map Created: Jan. 2020

Figure Exported: 1/30/2020 By: ashley Using: \\woodardcurran.net\shared\Projects\02324\01.01 Kimley Horn PFAS Completion Rpt\wip\GIS\Figure 4g.mxd

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Former Fire Training Area 1 (Approximate)

Gate 2

AIRPORT PKWY

bing

Location	Depth	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFBS	PFPeS	PFHxS	PFOS	6:2 FTS
L3-1	1	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	**14.8**	<1.96
	5	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97
	10	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00

Location	Depth	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFBS	PFPeS	PFHxS	PFOS	6:2 FTS
L3-2	1	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	**9.56**	**26.7**	<1.99
	5	<2.00	<2.00	**5.16**	<2.00	<2.00	**3.09**	<2.00	**2.19**	<2.00	<2.00
	10	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01

Location	Depth	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFBS	PFPeS	PFHxS	PFOS	6:2 FTS	PFOA + PFOS
L3-3	GW	**10.2**	**7.78**	**15.1**	**3.28**	**29.7**	**12.6**	**5.55**	**37.2**	**37.9**	**2.58**	**67.6**
	1	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	**4.67**	<1.97	
	5	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	
	10	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	

Figure 5a. PFAS Analytical Results at Location 3

1701 Airport Blvd,
San Jose, CA 95110

PFAS Completion Report

Legend

- AFFF Use Location, Dashed Where Estimated
- Soil Boring
- Soil Boring and Temporary Groundwater Well
- Approximate Groundwater Flow Direction

Notes:
1. Only constituents with a result detected above the laboratory reporting limit in at least one sample per location are shown.
2. Results reported in ng/L.
3. Sample depths in feet below groundsurface.

0 25 50 100 Feet

N

WOODARD & CURRAN

Project #: 0232401.01
Map Created: Jan. 2020

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Former Fire Training Area 2 (Approximate)

Location	Depth	PFHxA	PFHxS	PFOS
L4-1	1	<1.94	<1.94	<1.94
	5	**2.71**	**3.14**	<1.98
	10	<1.99	**4.53**	**82.5**

Location	Depth	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	6:2 FTS	8:2 FTS	PFOA + PFOS
L4-2	GW	**31.4**	**39.5**	**168**	**14.3**	**25.6**	**21.8**	**152**	**90.6**	**442**	**30.9**	1,740	**12.4**	**9.83**	1,765.60
	1	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	**5.69**	<1.95	<1.95	
	5	**2.21**	**4.10**	**10.1**	<1.98	<1.98	<1.98	**6.36**	**3.50**	**5.24**	<1.98	<1.98	<1.98	<1.98	
	10	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	**9.99**	<1.95	<1.95	

Location	Depth	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	6:2 FTS
L4-3	1	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93
	5	4.34	**8.12**	**26**	**3.59**	**9.1**	**14.6**	**16.1**	**165**	**10.1**	**482**	**9.99**
	10	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	**8.57**	<1.96	**63**	<1.96

bing

Figure 5b. PFAS Analytical Results at Location 4

1701 Airport Blvd,
San Jose, CA 95110

PFAS Completion Report

Legend

- AFFF Use Location, Dashed Where Estimated
- Soil Boring
- Soil Boring and Temporary Groundwater Well
- Approximate Groundwater Flow Direction

Notes:
1. Only constituents with a result detected above the laboratory reporting limit in at least one sample per location are shown.
2. Results reported in ng/L.
3. Sample depths in feet below groundsurface.
4. Concentrations in RED exceed the USEPA Health Advisory of 70 ng/L for PFOA, PFOS, and a sum of the two.

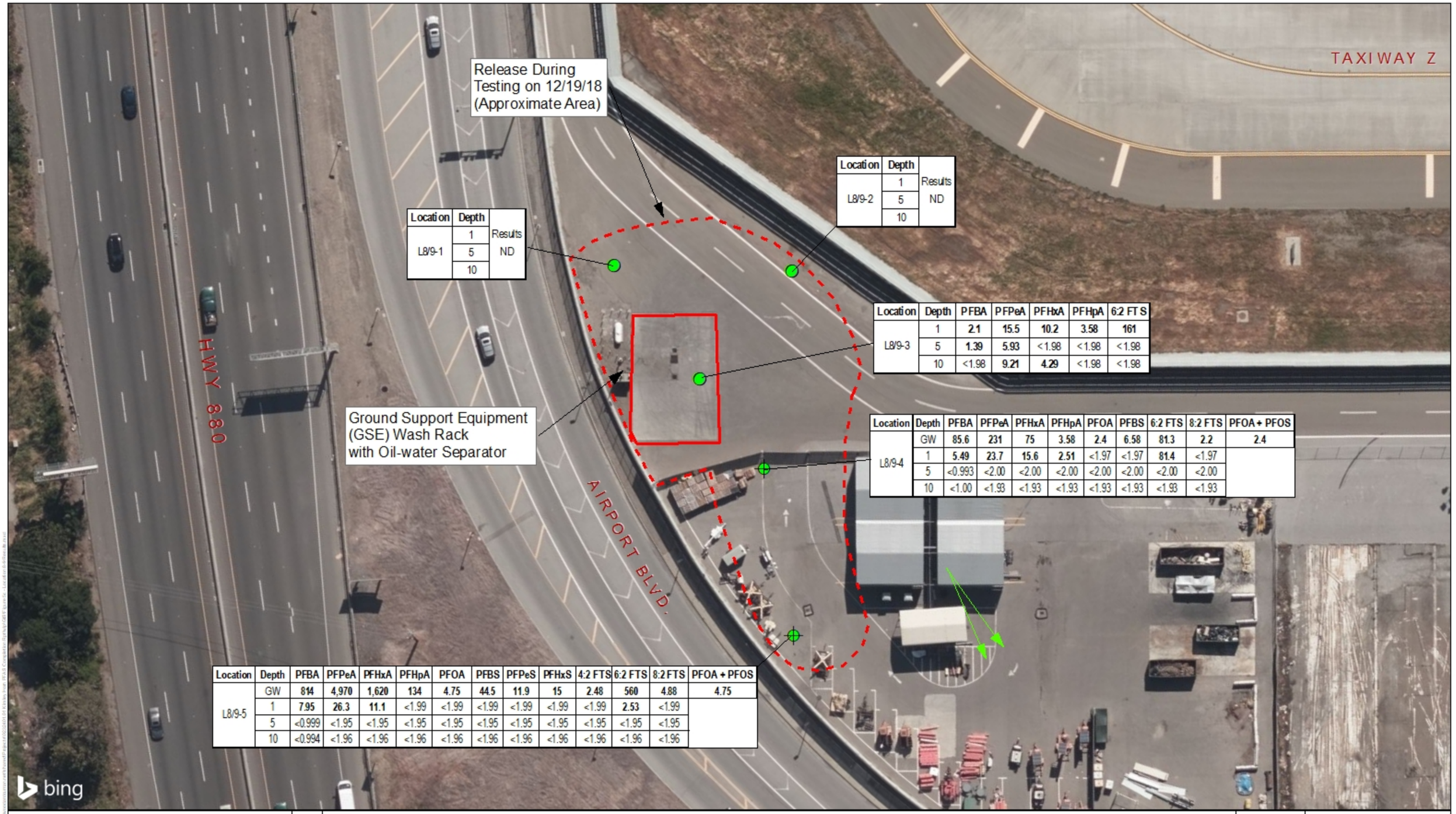
0 25 50 100 Feet

N

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Project #: 0232401.01
Map Created: Jan. 2020

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Location	Depth	Results
L8/9-1	1	ND
	5	
	10	

Location	Depth	Results
L8/9-2	1	ND
	5	
	10	

Location	Depth	PFBA	PFPeA	PFHxA	PFHpA	6:2 FTS
L8/9-3	1	**2.1**	**15.5**	**10.2**	**3.58**	**161**
	5	**1.39**	**5.93**	<1.98	<1.98	<1.98
	10	<1.98	**9.21**	**4.29**	<1.98	<1.98

Location	Depth	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFBS	6:2 FTS	8:2 FTS	PFOA + PFOS
L8/9-4	GW	**85.6**	**231**	**75**	**3.58**	**2.4**	**6.58**	**81.3**	**2.2**	**2.4**
	1	**5.49**	**23.7**	**15.6**	**2.51**	<1.97	<1.97	**81.4**	<1.97	
	5	<0.993	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	
	10	<1.00	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	<1.93	

Location	Depth	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFBS	PFPeS	PFHxS	4:2 FTS	6:2 FTS	8:2 FTS	PFOA + PFOS
L8/9-5	GW	**814**	**4,970**	**1,620**	**134**	**4.75**	**44.5**	**11.9**	**15**	**2.48**	**560**	**4.88**	**4.75**
	1	**7.95**	**26.3**	**11.1**	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	**2.53**	<1.99	
	5	<0.999	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	
	10	<0.994	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	

Figure 5c. PFAS Analytical Results at Locations 8 and 9

1701 Airport Blvd.
San Jose, CA 95110

PFAS Completion Report

Legend

- AFFF Use Locations, Dashed Where Estimated
- Soil Boring
- Soil Boring and Temporary Groundwater Well
- Approximate Groundwater Flow Direction

Notes:
1. Only constituents with a result detected above the laboratory reporting limit in at least one sample per location are shown.
2. Results reported in ng/L.
3. Sample depths in feet below groundsurface.

0 25 50 100 Feet

WOODARD & CURRAN

Project #: 0232401.01
Map Created: Jan. 2020

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TAXIWAY Z

Dilute AFFF Discharge (Approximate)

Location	Depth	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFBS	PFPeS	PFHxS	PFOS	6:2 FTS
L10-2	1	8.59	50.4	61.4	6.13	9.96	7.43	5.21	45.8	2.97	762
	5	10.4	59.2	76.8	4.6	<2.00	4.24	<2.00	<2.00	<2.00	7.73
	10	3.59	17.4	19.6	<2.00	<2.00	<2.00	<2.00	2.36	<2.00	62.9

Location	Depth	PFPeA	PFHxA	PFOA	PFNA	PFDA	PFHxS	PFHpS	PFOS	6:2 FTS
L10-3	1	5.27	4.36	4.02	3.98	6.67	8.82	<2.00	369	762
	5	6.79	5.31	6.29	<2.00	<2.00	23.9	2.02	62.1	7.73
	10	3.6	2.76	<1.96	<1.96	<1.96	<1.96	<1.96	9.72	62.9

Location	Depth	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	4:2 FTS	6:2 FTS	8:2 FTS	PFOA+PFOS
L10-1	GW	2,340	7,730	7,980	1,330	585	3.96	2.24	518	497	3,850	49.8	163	40.2	8,880	61.7	748
	1	<1.99	6.77	10.8	<1.99	5.1	<1.99	7.48	<1.99	<1.99	7.69	<1.99	368	<1.99	322	286	
	5	<1.98	7.74	12.2	<1.98	7.29	<1.98	<1.98	<1.98	<1.98	30	<1.98	<1.98	<1.98	606	<1.98	
	10	<2.00	7.67	7.75	<2.00	2.91	<2.00	<2.00	<2.00	<2.00	14	<2.00	<2.00	<2.00	323	<2.00	

bing

Figure 5d. PFAS Analytical Results at Location 10

1701 Airport Blvd.
San Jose, CA 95110

PFAS Completion Report

Legend

- AFFF Use Location, Dashed Where Estimated
- Soil Boring
- Soil Boring and Temporary Groundwater Well
- Approximate Groundwater Flow Direction

Notes:
1. Only constituents with a result detected above the laboratory reporting limit in at least one sample per location are shown.
2. Results reported in ng/L.
3. Sample depths in feet below groundsurface.
4. Concentrations in RED exceed the USEPA Health Advisory of 70 ng/L for PFOA, PFOS, and a sum of the two.

0 25 50 100 Feet

N

WOODARD & CURRAN

Project #: 0232401.01
Map Created: Jan. 2020

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Runoff of AFFF From Sloped Runway (Approximate)

Location	Depth	Results
L11-1	1	ND
	5	
	10	

Incident on 6/24/12

30L

Location	Depth	Results
L11-2	1	ND
	5	
	10	

B

Location	Depth	PFBA	PFOA	PFOA + PFOS
L11-3	GW	**10.2**	**3.14**	**3.14**
	1	<2.00	<2.00	
	5	<1.93	<1.93	
	10	<1.98	<1.98	

Location	Depth	Results
L11-4	1	ND
	5	
	10	

30L-12R 30L-12R

bing

Figure 5e. PFAS Analytical Results at Location 11

1701 Airport Blvd.
San Jose, CA 95110

PFAS Completion Report

Legend

- AFFF Use Location, Dashed Where Estimated
- Soil Boring
- Soil Boring and Temporary Groundwater Well
- Approximate Groundwater Flow Direction

Notes:
1. Only constituents with a result detected above the laboratory reporting limit in at least one sample per location are shown.
2. Results reported in ng/L.
3. Sample depths in feet below groundsurface.

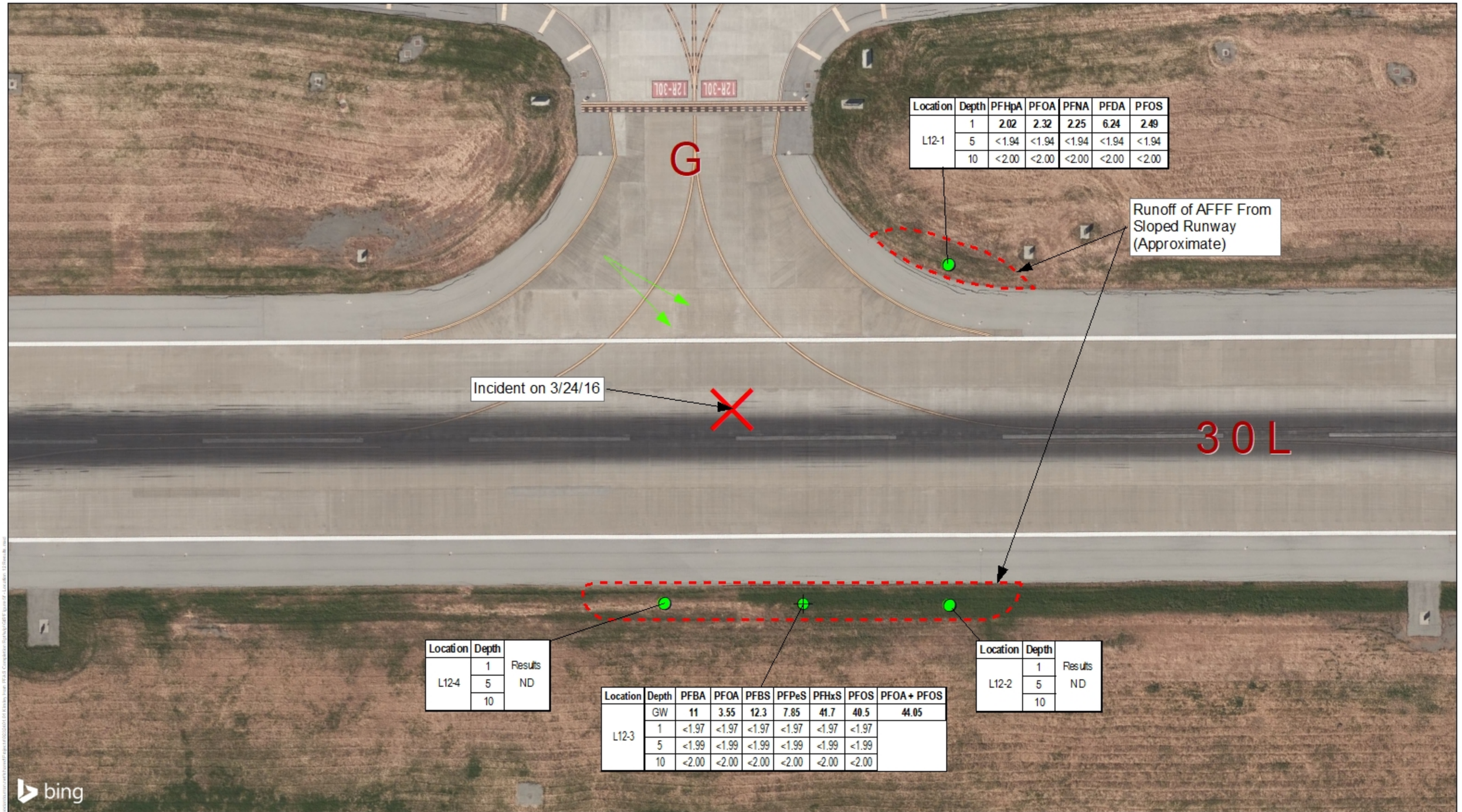
0 40 80 160 Feet

N

WOODARD & CURRAN

Project #: 0232401.01
Map Created: Jan. 2020

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Location	Depth	PFHpA	PFOA	PFNA	PFDA	PFOS
L12-1	1	**2.02**	**2.32**	**2.25**	**6.24**	**2.49**
	5	<1.94	<1.94	<1.94	<1.94	<1.94
	10	<2.00	<2.00	<2.00	<2.00	<2.00

Location	Depth	Results
L12-4	1	ND
	5	
	10	

Location	Depth	PFBA	PFOA	PFBS	PFPeS	PFHxS	PFOS	PFOA + PFOS
L12-3	GW	**11**	**3.55**	**12.3**	**7.85**	**41.7**	**40.5**	**44.05**
	1	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	
	5	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	
	10	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	

Location	Depth	Results
L12-2	1	ND
	5	
	10	

Figure 5f. PFAS Analytical Results at Location 12

1701 Airport Blvd.
San Jose, CA 95110

PFAS Completion Report

Legend

- AFFF Use Location, Dashed Where Estimated
- Soil Boring
- Soil Boring and Temporary Groundwater Well
- Approximate Groundwater Flow Direction

Notes:
1. Only constituents with a result detected above the laboratory reporting limit in at least one sample per location are shown.
2. Results reported in ng/L.
3. Sample depths in feet below groundsurface.

0 40 80 160 Feet

N

WOODARD & CURRAN

Project #: 0232401.01
Map Created: Jan. 2020

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions.
Any reliance upon the map or data contained herein shall be at the user's sole risk. **Data Sources: ESRI, Bing.**

MARTIN AVE

Signature Flight
Support Hangar 7

Location	Depth	Results
L14-6	1	ND
	5	
	10	

Location	Depth	Results
L14-5	1	ND
	5	
	10	

Location	Depth	PFOS
L14-3	1	**3.07**
	5	<2.00
	10	<1.98

Accidental Release #1
on 2/6/18

Location	Depth	Results
L14-1	GW	ND
	1	
	5	
	10	

Location	Depth	PFOS	PFOA + PFOS
L14-2	GW	<2.15	<2.15
	1	**3.91**	
	5	<1.99	
	10	<2.00	

Location	Depth	PFOS	PFOA + PFOS
L14-4	GW	<1.99	<1.99
	1	**5.57**	
	5	<1.94	
	10	<1.93	

Accidental Release #2
on 11/18/16
(Approximate Area)

bing

Figure 5g. PFAS Analytical Results at Location 14

1701 Airport Blvd.
San Jose, CA 95110

PFAS Completion Report

Legend

- AFFF Storage and Release Locations, Dashed Where Estimated
- Soil Boring
- Soil Boring and Temporary Groundwater Well
- Approximate Groundwater Flow Direction

Notes:
1. Only constituents with a result detected above the laboratory reporting limit in at least one sample per location are shown.
2. Results reported in ng/L.
3. Sample depths in feet below groundsurface.

0 50 100 200 Feet

N

WOODARD & CURRAN

Project #: 0232401.01
Map Created: Jan. 2020

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APPENDIX A: CORRESPONDENCE WITH REGULATORY AGENCIES

State Water Resources Control Board Order WQ-2019-0005-DWQ dated March 20, 2019

State Water Resources Control Board Revised Table 1 for the Landfill and Airport 13267 Investigative Orders dated April 5, 2019

State Water Resources Control Board Deadline Extension Approval dated May 9, 2019

San Francisco Bay Regional Water Quality Control Board Conditional Workplan Approval dated July 18, 2019

San Francisco Bay Regional Water Quality Control Board Due Date Extension Approval dated September 9, 2019

Norman Y. Mineta San Jose International Airport Due Date Extension Request dated November 12

San Francisco Bay Regional Water Quality Control Board Due Date Extension Approval dated December 9, 2019

WATER CODE SECTION 13267 ORDER FOR THE DETERMINATION OF THE PRESENCE OF PER- AND POLYFLUOROALKYL SUBSTANCES

ORDER WQ 2019-0005-DWQ

Pursuant to Water Code section 13267, The State Water Resources Control Board (State Water Board) requires you to submit information as described below. Failure to comply with this Order may subject you to civil liability of up to $5,000 per day for each day in which the violation occurs.

Your site is identified in **Attachment 1** as a facility that has accepted, stored, or used materials that may contain per- and polyfluoroalkyl substances (PFAS). Therefore, you are required to submit the information in **Attachment 2** to the appropriate Regional Water Quality Control Board (Regional Water Board) identified in the cover letter.

I. BACKGROUND

A. WHAT ARE PFAS?

PFAS is a family of more than 3,000 man-made and mostly unregulated chemicals that have been produced since the mid-1900s. They are mobile, persistent, and bioaccumulative. They are resistant to degradation in the environment and when degradation occurs, it often results in the formation of other PFAS compounds. The PFAS compounds have very different physical and chemical properties. Currently the key classes of concern are perfluoroalkyl sulfonic acids such as the long-chain, more commonly known PFAS, perfluorooctanesulfonate (PFOS) and perfluorooctanoic acid (PFOA).

PFAS are manufactured globally and have been used in the production of a wide range of industrial and household products. PFAS are found in many products such as dental floss, non-stick cookware, food packaging materials, non-stick products (e.g., Teflon™), waterproof and water repellant textiles, water repellant furniture, carpet, polishes, waxes, paints, cleaning products, medical garments, and fire-fighting foams (Aqueous Film-Forming Foams or AFFF). PFAS are used in the Aerospace, Automotive, Chemical, Electronics, Metal Coatings and Plating, and Textiles industries due to their friction-reducing characteristics. Potential firefighting sources of PFAS include airports

and aviation facilities, military bases and training centers, petroleum refineries and terminals, and petrochemical production facilities. Non-industrial PFAS sources include Waste Disposal Facilities, Wastewater Treatment Plant Operations, and Biosolids Application to Agriculture. Secondary sources of PFAS include waste streams such as landfills and wastewater treatment plants. More information on PFAS chemicals can be found at United States Environmental Protection Agency (U.S. EPA) website at: https://www.epa.gov/pfas.

PFAS are extremely persistent in the environment and highly mobile in water. People are exposed to PFOS and PFOA through food, food packaging, consumer products, house dust, and drinking water. Since these chemicals have been used in an array of consumer products, scientists have found PFOA and PFOS in the blood of nearly all people tested. Exposure through drinking water has become an increasing concern due to the tendency of PFAS to accumulate in groundwater.

Based on the current available peer-reviewed studies on laboratory animals and epidemiological evidence in human populations, the U.S. EPA released the following statement:

> *"These studies indicate that exposure to PFOA and PFOS over certain levels may result in adverse health effects, including developmental effects to fetuses during pregnancy or to breastfed infants (e.g., low birth weight, accelerated puberty, skeletal variations), cancer (e.g., testicular, kidney), liver effects (e.g., tissue damage), immune effects (e.g., antibody production and immunity), thyroid effects and other effects (e.g., cholesterol changes)."*

Please see U.S. EPA Technical Note for more information:
https://www.epa.gov/sites/production/files/2017-12/documents/ffrrofactsheet_contaminants_pfos_pfoa_11-20-17_508_0.pdf

B. WHICH PFAS?

We are interested in all PFAS that exist in the environment. Due to analytical limitations, the focus of this order is on 39 PFAS analytes including PFOA and PFOS listed in **Attachment 2.** The PFAS analyte list is not exhaustive but is intended to serve as a minimum requirement for sampling pursuant to this Order. Some laboratories may be capable of analyzing additional PFAS that are not included on the list.

C. WHY IS THIS ACTIVITY REQUIRED?

The State Water Board and the Regional Water Boards are charged with the protection of the beneficial uses of water in California, including water used or intended for use as drinking water. If PFAS were used, or materials suspected of containing PFAS were disposed at your facility, technical reports are required to investigate the presence of PFAS. This is part of a statewide effort to determine whether the groundwater is impacted by PFAS and obtain a preliminary understanding of PFAS concentrations at facilities. The State Water Board intends to direct other dischargers identified as potential PFAS sources in the state to perform PFAS testing. The State Water Board and the Regional Water Boards will evaluate the data collected to make informed

decisions in implementing appropriate regulatory action, in anticipation of emerging regulatory standards for PFAS.

In May 2016, the United States Environmental Protection Agency (U.S. EPA) established Health Advisory Levels of 70 parts per trillion (ppt) (0.07 micrograms per liter (µg/L)) for PFOA and 70 ppt for PFOS. These concentrations are now considered a screening level. For more information on these advisories see U.S. EPA's website at: https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos.

Additionally, in July 2018, the State Water Board's Division of Drinking Water (DDW) issued drinking water notification levels for PFOS and PFOA at 13 ppt and 14 ppt, respectively, per recommendations from California's Office of Environmental Health Hazard Assessment (OEHHA). DDW requires a combined PFOS/PFOA response level of 70 ppt. More information on notification levels for PFAS compounds can be found at: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/PFOA_PFOS.html.

Water Code section 106.3 indicates it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by directing investigations to determine the presence of PFAS in and near waters that could be used for drinking water purposes.

Additional justification supporting the need for the investigation is included in **Attachment 2**.

II. WATER CODE SECTION 13267 ORDER FOR TECHNICAL REPORTS

Water Code section 13267(b), provides that "a regional board may require any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region… or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of water within its region shall furnish, under penalty of perjury, technical or monitoring reports which the regional board requires… In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports."

Water Code section 13267(f) authorizes the State Water Board to require this information if it consults with the Regional Water Boards and determines that it will not duplicate the efforts of the Regional Water Boards. The State Water Board has consulted with the Regional Water Boards and made this determination. The release of PFAS into the environment or the disposal of wastes containing PFAS constitutes a discharge of waste as defined in Water Code section 13050(d).

Pursuant to this authority, **you are hereby ordered to submit technical reports identified in Attachment 2.** Additional information regarding requirements for submitting technical reports under Section 13267 of the Water Code is included as **Attachment 3**.

III. COST AND BENEFIT OF TECHNICAL REPORTS

Water Code section 13267(b) specifies that the burden, including costs, of these reports must bear a reasonable relationship to the State Water Board's need for the reports and the benefits to be obtained from the reports.

The cost of the technical reports bears a reasonable relationship to the benefit to be gained because, in terms of public health and environmental harm, contamination of groundwater must be identified before corrective action can be taken, if appropriate.

IV. CALIFORNIA ENVIRONMENTAL QUALITY ACT

The issuance of this Order is an action to protect the environment and is categorically exempt from the provisions of the California Environmental Quality Act pursuant to sections 15304 and 15308, Chapter 3, Title 14 of the California Code of Regulations.

V. PENALTIES

Water Code section 13268 provides that failure to submit the required information by the specified compliance date, or falsifying any information provided therein, is a misdemeanor and may result in civil liability. Noncompliance may subject you to civil liability in the amount of up to $5,000 for each day of violation. Please be advised that compliance with this Order is not a substitute for compliance with other applicable laws.

Perjury Statement

Pursuant to Water Code section 13267(b)(1), the Water Board requires you to include the following perjury statement, signed by a duly authorized representative, in all reports submitted pursuant to this Order:

> "I, [NAME], certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision, and the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant civil penalties for submitting false information."

March 20, 2019

Date

Eileen Sobeck
Executive Director

ATTACHMENTS:

Attachment 1 - List of Facilities

Attachment 2 - Technical Report Requirements & Questionnaire

Attachment 3 - Fact Sheet – Requirements for Submitting Technical Reports under Section 13267 of the Water Code

ATTACHMENT 1
LIST OF AIRPORT FACILITIES

CALIFORNIA WATER CODE SECTION 13267 ORDER FOR THE DETERMINATION OF THE PRESENCE OF PER- AND POLYFLUOROALKYL SUBSTANCES

AIRPORTS CERTIFIED FOR AQUEOUS FILM FORMING FOAM (AFFF) USE

FACILITY NAME[1] (AIRPORT ID)	GEOTRACKER GLOBAL ID	PROPERTY ADDRESS	OWNER[1]
JACK MC NAMARA FIELD (CEC)	T10000012761	150 DALE RUPERT RD CRESCENT CITY, CA 95531	BORDER COAST REGIONAL ARPT AUTH 150 DALE RUPERT ROAD CRESCENT CITY, CA 95531
CALIFORNIA REDWOOD COAST-HUMBOLDT COUNTY (ACV)	T10000012762	3561 BOEING AVE. MCKINLEYVILLE, CA 95519	HUMBOLDT COUNTY 1106 SECOND ST EUREKA, CA 95501
CHARLES M SCHULZ - SONOMA COUNTY (STS)	T10000012763	2290 AIRPORT BLVD SANTA ROSA, CA 95403	SONOMA COUNTY 2290 AIRPORT BLVD SANTA ROSA, CA 95403
METROPOLITAN OAKLAND INTL (OAK)	T10000012764	1 Airport Dr, OAKLAND, CA 94621	PORT OF OAKLAND 530 WATER ST. OAKLAND, CA 94607
BUCHANAN FIELD (CCR)	T10000012765	550 SALLY RIDE DR. CONCORD, CA 94520	CONTRA COSTA COUNTY 550 SALLY RIDE DR. CONCORD, CA 94520
SAN FRANCISCO INTL (SFO)	T10000012790	SAN FRANCISCO, CA 94128	CITY & COUNTY OF SAN FRANCISCO PO BOX 8097 SAN FRANCISCO, CA 94128
NORMAN Y MINETA SAN JOSE INTL (SJC)	T10000012766	1701 AIRPORT BLVD., SUITE B-1130 SAN JOSE, CA 95110-1206	CITY OF SAN JOSE 200 E. SANTA CLARA STREET SAN JOSE, CA 95113
MONTEREY RGNL (MRY)	T10000012767	200 FRED KANE DR., SUITE 200 MONTEREY, CA 93940	MONTEREY PENIN ARPT DIST 200 FRED KANE DR., SUITE 200 MONTEREY, CA 93940
SAN LUIS COUNTY RGNL (SBP)	T10000012768	975 AIRPORT DRIVE, SUITE 1 SAN LUIS OBISPO, CA 93401	SAN LUIS OBISPO COUNTY COUNTY GOVERNMENT CENTER SAN LUIS OBISPO, CA 93408

FACILITY NAME[1] (AIRPORT ID)	GEOTRACKER GLOBAL ID	PROPERTY ADDRESS	OWNER[1]
SANTA BARBARA MUNI (SBA)	T10000012769	601 FIRESTONE RD GOLETA, CA 93117	CITY OF SANTA BARBARA CITY HALL SANTA BARBARA, CA 93101
SANTA MARIA PUB/CAPT G ALLAN HANCOCK FLD (SMX)	T10000012770	3217 TERMINAL DR SANTA MARIA, CA 93455	SANTA MARIA PUBLIC ARPT DIST 3217 TERMINAL DR SANTA MARIA, CA 93455
BOB HOPE (BUR)	T10000012771	2627 HOLLYWOOD WAY BURBANK, CA 91505	BURBANK-GLENDALE-PASADENA ARPT 2627 HOLLYWOOD WAY BURBANK, CA 91505
LONG BEACH /DAUGHERTY FIELD/ (LGB)	T10000012772	4100 DONALD DOUGLAS DR LONG BEACH, CA 90808	CITY OF LONG BEACH CITY HALL 333 W. OCEAN LONG BEACH, CA 90802
LOS ANGELES INTL (LAX)	T10000012773	ONE WORLD WAY LOS ANGELES, CA 90009	CITY OF LOS ANGELES 1 WORLD WAY BOX 92216 LOS ANGELES, CA 90009-2216
OXNARD (OXR)	T10000012774	2889 W 5TH ST OXNARD, CA 93030	COUNTY OF VENTURA 555 AIRPORT WAY CAMARILLO, CA 93010
CHICO MUNI (CIC)	T10000012788	150 Airpark Blvd CHICO, CA 95927	CITY OF CHICO PO BOX 3420 CHICO, CA 95927
FRESNO YOSEMITE INTL (FAT)	T10000012775	4995 E CLINTON WAY FRESNO, CA 93727	CITY OF FRESNO 4995 E CLINTON WAY FRESNO, CA 93727
MEADOWS FIELD (BFL)	T10000012776	3701 WINGS WAY, #300 BAKERSFIELD, CA 93308	COUNTY OF KERN DEPT OF ARPTS, 3701 WINGS WAY, #300, 3701 WINGS WAY, SUITE 300 BAKERSFIELD, CA 93308
SACRAMENTO INTL (SMF)	T10000012777	6900 AIRPORT BLVD SACRAMENTO, CA 95837	COUNTY OF SACRAMENTO 6900 AIRPORT BLVD SACRAMENTO, CA 95837

FACILITY NAME[1] (AIRPORT ID)	GEOTRACKER GLOBAL ID	PROPERTY ADDRESS	OWNER[1]
STOCKTON METROPOLITAN (SCK)	T10000012778	5000 S. AIRPORT WAY ROOM 202 STOCKTON, CA 95206	COUNTY OF SAN JOAQUIN 5000 S AIRPORT WAY STOCKTON, CA 95206
REDDING MUNI (RDD)	T10000012779	REDDING MUNI AIRPORT, 6751 WOODRUM CIRCLE SUITE 200 REDDING, CA 96002	CITY OF REDDING AIRPORTS DIVISION, 6751 WOODRUM CIRCLE, #200 REDDING, CA 96002-6071
MAMMOTH YOSEMITE (MMH)	T10000012789	1300 Airport Road MAMMOTH LAKES, CA 93546	TOWN OF MAMMOTH LAKES 1300 AIRPORT ROAD MAMMOTH LAKES, CA 93546 760-934-3813
SOUTHERN CALIFORNIA LOGISTICS (VCV)	T10000012780	18374 PHANTOM WEST VICTORVILLE, CA 92394	SOUTHERN CA LOGISTICS ARPT AUTH 18374 PHANTOM VICTORVILLE, CA 92394
IMPERIAL COUNTY (IPL)	T10000012781	1099 AIRPORT ROAD IMPERIAL, CA 92251	IMPERIAL COUNTY 1099 AIRPORT ROAD IMPERIAL, CA 92251
PALM SPRINGS INTL (PSP)	T10000012782	3400 E. TAHQUITZ-CANYON WAY, SUITE OFC PALM SPRINGS, CA 92262	CITY OF PALM SPRINGS 3400 E. TAHQUITZ CANYON WAY PALM SPRINGS, CA 92262
MC CLELLAN-PALOMAR (CRQ)	T10000012786	2192 PALOMAR AIRPORT ROAD CARLSBAD, CA 92011-4409	COUNTY OF SAN DIEGO 1960 JOE CROSSON DRIVE EL CAJON, CA 92020-1235
SAN DIEGO INTL (SAN)	T10000012787	3225 N HARBOR DRIVE SAN DIEGO, CA 92101-1022	SAN DIEGO CNTY REG ARPT AUTHORITY 3225 N HARBOR DRIVE SAN DIEGO, CA 92101-1022

[1] Facility name and owner are those listed on the U.S. Department of Transportation Federal Aviation Administration Airport Master Record (FAA FORM 5010-1) and were obtained from https://www.gcr1.com/5010WEB/.

ATTACHMENT 2

TECHNICAL REPORT REQUIREMENTS AND QUESTIONNAIRE FOR AIRPORTS

WATER CODE SECTION 13267 ORDER FOR THE DETERMINATION OF THE PRESENCE OF PER- AND POLYFLUOROALKYL SUBSTANCES

Contents:

A. Justification for the Need for Technical Reports
B. Technical Report Requirements
C. Airport Operator Questionnaire

A. JUSTIFICATION FOR THE NEED FOR TECHNICAL REPORTS

As indicated by the Federal Aviation Administration (FAA)[1], all Title 14, Code of Federal Regulations, Part 139 certified airports are required to provide aircraft rescue and firefighting services. Your facility has been certified by the FAA to use AFFF compounds. If AFFF or other PFAS compounds were disposed of, discharged to, spilled, or released in any way to lands of your facility, a work plan is required for the preliminary investigation of soil and groundwater impacts (Section B). The State Water Board seeks to determine whether the groundwater and/or soil at your location is impacted by PFAS and obtain a preliminary understanding of PFAS concentrations in the soil and/or groundwater at your facility.

The State Water Board intends to direct other dischargers identified as potential PFAS sources in the state to perform PFAS testing. The State Water Board and the Regional Water Boards will evaluate the data collected to make informed decisions in implementing appropriate regulatory action, in anticipation of emerging regulatory standards for PFAS.

B. TECHNICAL REPORT REQUIREMENTS

Work Plan

You are required to submit a work plan for a one-time preliminary site investigation of PFAS impacts at your facility to the Regional Water Board specified in the Order cover letter **no later than 60 days following the date of this Order**. This attachment provides specific requirements to include in the technical report.

[1] https://www.faa.gov/airports/airport_safety/part139_cert/

At a minimum, provide the following in your work plan:

1. A site map with sample locations, PFAS material storage and use areas, probable release areas including firefighting training areas, crash sites, and spills from handling.

2. Identify sensitive receptors such as municipal supply wells, domestic wells, and/or surface water bodies within a one-mile radius of a suspected source area.

3. Proposed surface and subsurface soil sampling locations to delineate surficial and vertical extent of impacts where PFAS were applied to land.

4. Proposed representative groundwater sample locations in proximity to a suspected source area. Existing monitoring wells for your facility may be used if located in proximity to PFAS source(s) and groundwater samples would be representative of groundwater conditions. If groundwater gradient is unknown, at a minimum, three groundwater samples must be collected around the source area.

5. Sampling and Analysis Plan for compounds and parameters specified in Tables 1 and 2 that includes quality assurance and quality control procedures necessary to ensure valid and representative data is obtained and reported. Specify the appropriate sampling procedures, including sampling equipment, sampling containers, the quality of water used for blank preparation and equipment decontamination, sample holding times, and quantities for sampling PFAS compounds. To minimize contamination, all sampling materials, equipment, blanks, containers, and equipment decontamination reagents must be PFAS-free, to the maximum extent practicable. Additional guidance for preventing sample contamination can be found at: https://www.waterboards.ca.gov/water_issues/programs/pfas/.
6. Reporting limits for PFAS.

7. Signature, stamp, and contact information for the California-licensed Professional Geologist or Professional Engineer acting in responsible charge for the content of the Work Plan.

Final Report

A final sampling and analysis report, including at least the following information, must be submitted **no later than 90 days** following the State or Regional Water Board acceptance of the Work Plan:

a) A description of the sampling activities;
b) A summary table of analytical results;

c) A copy of the Chain of Custody;
d) A copy of the field sampling log;
e) A copy of boring logs and any temporary/permanent monitoring well construction details
f) A copy of the site map showing the sampling/monitoring locations; and
g) A copy of laboratory analytical results of the monitored media.

Questionnaire

If you 1) have not discharged, disposed of, spilled, or released in any way, AFFF or other PFAS containing materials to land at your facility, or 2) have already conducted sampling for these constituents in compliance with the minimum work plan requirements listed below, please complete the questionnaire (Section C) with relevant information supporting your response and return to the Regional Water Board specified in the Order cover letter **no later than 30 days following the date of this Order.**

Report Submittal

Reports must be submitted in a searchable electronic format, with transmittal letter, text, tables, figures, laboratory analytical data, and appendices in Portable Document Format (PDF) format (one PDF for the entire report) as well as in electronic data deliverable (EDD) format. The Questionnaire, Work Plan, Final Report, and Analytical Reports and EDD must be uploaded into GeoTracker via the Electronic Submittal of Information (ESI) Portal, as stipulated by California State law. GeoTracker ESI guidance, general information and Help Desk assistance can be on the ESI homepage at: https://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/

The analytical laboratory must be accredited by the California Environmental Laboratory Accreditation Program (ELAP) to perform the analytical method for PFAS compliant with Department of Defense (DoD) Table B-15 of Quality Systems Manual (QSM), dated 2017, version 5.1 or later. The laboratory must have the capacity to quantify the target PFAS analytes listed in Table 1, and must be capable of achieving the quality control/quality assurance requirements specified in Table B-15 of the DoD QSM, version 5.1 or later. DoD's QSM version 5.1 can be found at: https://www.denix.osd.mil/edqw/documents/documents/qsm-version-5-1-final/ as well as on the State Water Board's PFAS informational website: https://www.waterboards.ca.gov/water_issues/programs/pfas/. A list of laboratories that are accredited by ELAP can be found on the State Water Board ELAP webpage: https://www.waterboards.ca.gov/drinking_water/certlic/labs/. For the general parameters listed in Table 2, the method of analysis shall be appropriate for the expected concentrations.

TABLE 1. PFAS Analytes Subject to Analysis

Chemical Name	Abbreviation	Chemical Abstracts Service (CAS) No.
2,3,3,3-Tetrafluoro-2-(heptafluoropropoxy)propanoic acid	HFPO-DA	13252-13-6*
10:2 Fluorotelomer sulfonic acid	10:2 FTS	120226-60-0*
2,3,3,3-tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy) propanoic Acid	HFPA-DA	13252-13-6 *
Perfluorooctadecanoic acid	PFOcDA	16517-11-6*
N-Ethyl perfluorooctane sulfonamidoethanol	EtFOSE	1691-99-2*
Perfluorooctane sulfonic acid	PFOS	1763-23-1
Perfluoroundecanoic acid	PFUnDA	2058-94-8
N-Methyl perfluorooctane sulfonamidoacetic acid	NMeFOSAA	2355-31-9
N-Methyl perfluorooctane sulfonamidoethanol	MeFOSE	24448-09-7*
Perfluoropentanoiic Acid	PFPeA	2706-90-3
Perfluoropentane sulfonoic acid	PFPeS	2706-91-4
6:2 Fluorotelomer sulfonic acid	6:2 FTS	27619-97-2
N-Ethyl perfluorooctane sulfonamidoacetic acid	NEtFOSAA	2991-50-6
Perfluorohexanoic acid	PFHxA	307-24-4
1.0Perfluorododecanoic acid	PFDoDA	307-55-1
N-Methyl perfluorooctane sulfonamide	MeFOSA	31506-32-8*
Perfluorooctanoic acid	PFOA	335-67-1
Perfluorodecanoic acid	PFDA	335-76-2
Perfluorodecane sulfonic acid	PFDS	335-77-3
4,4,5,5,6,6,6-Heptafluorohexanoic Acid	3:3 FTCA	356-02-5*
Perfluorohexane sulfonic acid	PFHxS	355-46-4
Perfluorobutanoic acid	PFBA	375-22-4
Perfluorobutane sulfonic acid	PFBS	375-73-5
Perfluoroheptanoic acid	PFHpA	375-85-9
Perfluoroheptane sulfonic acid	PFHpS	375-92-8
Perfluorononanoic acid	PFNA	375-95-1
Perfluorotetradecanoic acid	PFTeDA	376-06-7
2H,2H,3H,3H-Perfluorodecanoic acid	7:3 FTCA	812-70-4*
8:2 Fluorotelomer sulfonic acid	8:2 FTS	39108-34-4
N-Ethyl perfluorooctane sulfonamide	EtFOSA	4151-50-2*
Perfluorononane sulfonic acid	PFNS	474511-07-4*
Perfluorohexadecanoic acid	PFHxDA	67905-19-5*
Perfluorotridecanoic acid	PFTrDA	72629-94-8
Perfluorooctanesulfonamide	FOSA	754-91-6
4:2 Fluorotelomer sulfonic acid	4:2 FTS	757124-72-4
Perfluoro(2-((6-chlorohexyl)oxy)ethanesulfonic acid)	9Cl-PF3ONS	756426-58-1*
2-[(8-Chloro-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-hexadecafluorooctyl)oxy]-1,1,2,2-tetrafluoroethanesulfonic acid	11Cl-PF3OUdS	763051-92-9*
2H,2H,3H,3H-Perfluorooctanoic Acid (CAS 914637-49-3)	5:3 FTCA	914637-49-3*
4,8-Dioxa-3H-perfluorononanoic acid	Adona	919005-14-4*

Note: Only the 23 analytes without the asterisk (*) are required to be analyzed as part of this Order. The analytes with the asterisk (*) are included in some but not all lists provided by accredited laboratories and are encouraged to be analyzed as part of this effort.

TABLE 2
Field Parameters and General Chemistry for Groundwater

Parameter	Units
Field Parameters	
Depth to Groundwater	Feet, bgs
Temperature	Degrees C
Electrical Conductivity	µmhos/cm
pH	units
Turbidity	NTU
General Chemistry	
Total Dissolved Solids	mg/L
Chloride	mg/L
Carbonate	mg/L
Bicarbonate	mg/L
Nitrate-Nitrogen	mg/L
Sulfate	mg/L
Calcium	mg/L
Magnesium	mg/L
Potassium	mg/L
Sodium	mg/L

Notes:
bgs – below ground surface
C – Celsius
mg/L – milligrams
NTU – nephelometric turbidity units
µmhos/cm – micromhos per centimeter

C. AIRPORT OPERATOR QUESTIONNAIRE

Operator/Principal Name:		Title:	
Name of Facility:			
Facility's Address:			
City/County/State/Zip:			
Phone Number:		Fax:	
Email Address:			
PER- AND POLY-FLUOROALKYL SUBSTANCES (PFAS) - CONSTITUENT SCREENING			
1.	Have PFAS, including fire-fighting foams (i.e. Aqueous Film-Forming Foam [AFFF]), or any other PFAS compounds been used or stored at your facility?	☐ YES	☐ NO
	If yes, please attach additional sheets to describe where they were/are stored, handling processes utilized, and how long you have used/stored those PFAS at your facility.		
2.	Have PFAS been discharged, spilled, disposed of, released in any way, or applied to land at your facility?	☐ YES	☐ NO
3.	If PFAS were discharged, spilled, disposed of, released in any way, or applied to land at your facility, have any investigations to identify the impacts of PFAS to soil and groundwater been conducted at your facility?	☐ YES	☐ NO
	If yes, please attach additional sheets to describe where and when PFAS were discharged, spilled, disposed of, released in any way, or applied to land, the quantity, the method of analysis, a summary table of analytical results, as well as the laboratory analytical report.		

CERTIFICATION

This form is only required to be completed if your facility did not discharge, spill, dispose, release in any way, or apply PFAS compounds to land, or you have already conducted sampling for PFAS compounds. This form and supporting documentation must be provided to the appropriate Regional Water Board and uploaded to GeoTracker by the date specified in the Order.

I, _____, certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision, and the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant civil penalties for submitting false information.

Signature:
Title:
Date:

ATTACHMENT 3

Fact Sheet – Requirements for Submitting Technical Reports Under Section 13267 of the Water Code

What does it mean when the Regional Water Board or the State Water Board (jointly referred to as the Water Boards) require a technical report?
Section 13267[1] of the Water Code provides that "…the regional board may require that any person who has discharged, discharges, or who is suspected of having discharged or discharging, or who proposes to discharge waste...that could affect the quality of waters...shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires." Additionally, the state water board may carry out the authority granted to a regional board pursuant to Section 13267 if, after consulting with the regional board, the state board determines that it will not duplicate the efforts of the regional board.

This requirement for a technical report seems to mean that I am guilty of something, or at least responsible for cleaning something up. What if that is not so?
The requirement for a technical report is a tool the Water Boards use to investigate water quality issues or problems. The information provided can be used by the Regional Water Board to clarify whether a given party has responsibility.

Are there limits to what the Water Boards can ask for?
Yes. The information required must relate to an actual or suspected or proposed discharge of waste (including discharges of waste where the initial discharge occurred many years ago), and the burden of compliance must bear a reasonable relationship to the need for the report and the benefits obtained. The Water Boards are required to explain the reasons for its request.

What if I can provide the information, but not by the date specified?
A time extension may be given for good cause. Your request should be promptly submitted in writing, giving reasons.

Are there penalties if I don't comply?
Depending on the situation, the Water Boards can impose a fine of up to $5,000 per day, and a court can impose fines of up to $25,000 per day as well as criminal penalties. A person who submits false information or fails to comply with a requirement to submit a technical report may be found guilty of a misdemeanor. For some reports, submission of false information may be a felony.

Do I have to use a consultant or attorney to comply?
There is no legal requirement for this, but as a practical matter, in most cases the specialized nature of the information required makes use of a consultant and/or attorney advisable.

If I have more questions, whom do I ask?
Requirements for technical reports include the name, telephone number, and email address of the Regional Water Board staff contact.

[1] All code sections referenced herein can be found by going to www.leginfo.legislature.ca.gov.

REVISED TABLE 1. PFAS Analytes Subject to Analysis

Chemical Name	Abbreviation	Chemical Abstracts Service (CAS) No.
~~2,3,3,3-Tetrafluoro-2-(heptafluoropropoxy)propanoic acid~~ Hexafluoropropylene Oxide Dimer Acid	HFPO-DA	13252-13-6*
10:2 Fluorotelomer sulfonic acid	10:2 FTS	120226-60-0*
~~2,3,3,3-tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic Acid~~	~~HFPA-DA~~	~~13252-13-6 *~~
Perfluorooctadecanoic acid	~~PFOcDA~~ PFODA	16517-11-6*
N-Ethyl perfluorooctane sulfonamide ethanol	EtFOSE	1691-99-2*
Perfluorooctane sulfonic acid	PFOS	1763-23-1
Perfluoroundecanoic acid	PFUnDA	2058-94-8
N-Methyl perfluorooctane sulfonamidoacetic acid	NMeFOSAA	2355-31-9
N-Methyl perfluorooctane sulfonamide ethanol	MeFOSE	24448-09-7*
Perfluoropentanoiic acid	PFPeA	2706-90-3
Perfluoropentane sulfonoic acid	PFPeS	2706-91-4
6:2 Fluorotelomer sulfonic acid	6:2 FTS	27619-97-2
N-Ethyl perfluorooctane sulfonamidoacetic acid	NEtFOSAA	2991-50-6
Perfluorohexanoic acid	PFHxA	307-24-4
~~1.0~~ Perfluorododecanoic acid	PFDoDA	307-55-1
N-Methyl perfluorooctane sulfonamide	MeFOSAm	31506-32-8*
Perfluorooctanoic acid	PFOA	335-67-1
Perfluorodecanoic acid	PFDA	335-76-2
Perfluorodecane sulfonic acid	PFDS	335-77-3
~~4,4,5,5,6,6,6-Heptafluorohexanoic Acid~~ 2H,2H,3H,3H-Perfluorohexanoic acid	3:3 FTCA	356-02-5*
Perfluorohexane sulfonic acid	PFHxS	355-46-4
Perfluorobutanoic acid	PFBA	375-22-4
Perfluorobutane sulfonic acid	PFBS	375-73-5
Perfluoroheptanoic acid	PFHpA	375-85-9
Perfluoroheptane sulfonic acid	PFHpS	375-92-8
Perfluorononanoic acid	PFNA	375-95-1
Perfluorotetradecanoic acid	PFTeDA	376-06-7
2H,2H,3H,3H-Perfluorodecanoic acid	7:3 FTCA	812-70-4*
8:2 Fluorotelomer sulfonic acid	8:2 FTS	39108-34-4
N-Ethyl perfluorooctane sulfonamide	EtFOSAm	4151-50-2*
Perfluorononane sulfonic acid	PFNS	474511-07-4*
Perfluorohexadecanoic acid	PFHxDA	67905-19-5*
Perfluorotridecanoic acid	PFTrDA	72629-94-8
Perfluorooctanesulfonamide	~~FOSA~~ PFOSAm	754-91-6
4:2 Fluorotelomer sulfonic acid	4:2 FTS	757124-72-4
~~Perfluoro(2-((6-chlorohexyl)oxy)ethanesulfonic acid)~~ 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9-Cl-PF3ONS	756426-58-1*

REVISED TABLE 1. PFAS Analytes Subject to Analysis (cont'd)

Chemical Name	Abbreviation	Chemical Abstracts Service (CAS) No.
~~2-[(8-Chloro-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-hexadecafluorooctyl)oxy]-1,1,2,2-tetrafluoroethanesulfonic acid~~ 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11-Cl-PF3OUdS	763051-92-9*
2H,2H,3H,3H-Perfluorooctanoic Acid ~~(CAS 914637-49-3)~~	5:3 FTCA	914637-49-3*
4,8-Dioxa-3H-perfluorononanoic acid	ADONA	919005-14-4*
Note: Only the 23 analytes without the asterisk (*) are required to be analyzed as part of this Order. The analytes with the asterisk (*) are included in some but not all lists provided by accredited laboratories and are encouraged to be analyzed as part of this effort.		

CALIFORNIA
Water Boards

GAVIN NEWSOM
GOVERNOR

JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

MAY - 9 2019

Mr. Ivar Satero, Mr. Jon Stout, and Mr. Jim Lites
California Airports Council
980 9th Street, Suite 2000
Sacramento, CA 95814

EXTENSION APPROVAL OF DEADLINES FOR SUBMITTING SITE-SPECIFIC AIRPORT WORK PLANS AND FINAL SAMPLING AND ANALYSIS REPORTS TO DETERMINE THE PRESENCE OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) SUBJECT TO THE MARCH 20, 2019, STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2019-0005-DWQ

The State Water Resources Control Board (State Water Board) issued Water Code Section 13267 Order WQ 2019-0005-DWQ (Order) for the Determination of the Presence of Per- and Polyfluoroalkyl Substances on March 20, 2019. The Order includes requirements for submitting a work plan, questionnaire, and a final sampling and analysis report to the applicable Regional Water Quality Control Board (Regional Water Board) for a one-time preliminary site investigation of PFAS impacts to groundwater and soil for the twenty-seven airport facilities identified in Attachment 1 of the Order. The questionnaire, work plan, and final sampling and analysis report must be submitted no later than 30, 60 and 90 days, respectively, following the date of the Order. However, the Water Code and the Order allows a time extension for good cause.

On April 23, 2019, you submitted a letter to the State Water Board requesting an extension to the compliance deadlines stated in the Order. Your letter indicates that the extension was requested to ensure adequate time to go through a formal multiweek public Request for Proposals process, address resources, coordination among multiple entities and stakeholders, acquire permits, limited availability and responsiveness of local laboratories, address all requirements in the Order for the development of the work plans and testing for PFAS, and allow time for smaller airports to budget appropriately.

We have evaluated the information provided and believe the proposed deadline extensions for submitting work plans according to airport size are warranted and are hereby extended as follows. Deadline extension requests for final sampling and analysis reports should be submitted as part of the work plan.

Airport Size	Effective Start Date	Work Plans Due (Days After Receipt of Order)
Large-Hub	4/1/2019	60
Medium-Hub	4/1/2019	75
Small-Hub	4/1/2019	120
Non-Hub	4/1/2019	120

Please note this extension request approval is only subject to airports identified in Order WQ 2019-0005-DWQ. Water Code Section 13267 orders sent to airports by our Santa Ana Regional Water Board are not subject to this extension request approval. Please contact Mr. Nick Amini at (951) 782-7958 with our Santa Ana Regional Water Board for this extension request.

If you have any questions or need additional information, please contact Mr. Steve McMasters, Site Cleanup & Department of Defense Program Unit Chief, State Water Board at (916) 341-5518.

Eileen Sobeck
Executive Director

Attachment:
California Airports Council. April 23, 2019 Due Date Extension Request Letter:
"Extension Request for Soil and Groundwater Investigation Concerning
Per and Poly-fluoroalkyl Substances (PFAS) at California Airports"

cc: Annalisa Kihara, State Water Board
Brianna St. Pierre, State Water Board
Josh Munn, State Water Board
Shahla Farahnak, State Water Board
Charles Reed, North Coast Regional Water Board
Alec Naugle, San Francisco Bay Regional Water Board
Greg Bishop, Central Coast Regional Water Board
Dr. Arthur Heath, Los Angeles Regional Water Board
Alex MacDonald, Central Valley Regional Water Board
Jan Zimmerman, Lahontan Regional Water Board
Joan Storm, Colorado River Basin Regional Water Board
Nick Amini, Santa Ana Regional Water Board
John Anderson, San Diego Regional Water Board
Jim Lites, California Strategies (via email)
Sarah Johnson, California Strategies (via email)

CAC
CALIFORNIA AIRPORTS COUNCIL

4/23/19

Steven McMasters
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Charles Reed
California Regional Water Boards
North Coast – Region 1
5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403

Alec Naugle
California Regional Water Boards
San Francisco Bay – Region 2
1515 Clay Street, Suite 1400
Oakland, CA 94612

Greg Bishop
Chair, California Regional Water Boards
Central Coast – Region 3
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

Dr. Arthur Heath
California Regional Water Boards
Los Angeles – Region 4
320 W. Fourth Street, Suite 200
Los Angeles, CA 90013

Alex MacDonald
California Regional Water Boards
Central Valley – Region 5
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670-6114

Jan Zimmerman
California Regional Water Boards
Lahontan – Region 6
14440 Civic Drive, Suite 200
Victorville, CA 92392

Joan Stormo
California Regional Water Boards
Colorado River Basin – Region 7
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

Nick Amini
California Regional Water Boards
Santa Ana – Region 8
3737 Main Street, Suite 500
Riverside, CA 92501-3339

John Anderson
California Regional Water Boards
San Diego – Region 9
2375 Northside Drive, Suite 100
San Diego, CA 92108

RE: Extension Request for Soil and Groundwater Investigation Concerning Per and Poly-fluoroalkyl Substances (PFAS) at California Airports

On behalf of the California Airports Council (CAC), we write to request an extension of the compliance deadlines detailed in the Water Code Section 13267 Order for the Determination of the Presence of PFAS Order WQ 2019-0005-DWQ (Order) distributed to California airports by the Regional Water Quality Control Boards (RWQCBs), dated March 20, 2019. The CAC represents the 31 commercial service airports in the state with Part 139 certification from the Federal Aviation Administration (FAA). As such, the CAC represents all airports that have received an Order from the RWQCBs.

Rationale for Extension

It was not until an informational hearing on March 6, 2019, that airports learned that the State Water Resources Control Board intended to investigate the presence of PFAS at airport facilities. The Order was dated March 20, 2019, however, it is not clear whether all of the letters were actually sent on this date. In many cases the Order was sent to the wrong department, delayed in receipt, or in some cases, not received at all. The timeline for completing workplans began on the date of the Order's release, so delay in receiving letters has cut into the already limited time airports have to respond to the Order. Airports who received the Order later, or not at all, need a corresponding schedule accommodation to provide equal time to undertake the Order's requirements.

In addition to delayed and unreceived Orders, airports are also concerned about the resources available to develop workplans and test for PFAS in the timeframe outlined. Most airports are public agencies, which must go through a formal multiweek public Request for Proposals (RFP) process before selecting and retaining a consultant.

Further, testing for PFAS will require coordination among multiple entities as well. For example, airports must obtain permits from local agencies before they can drill wells for testing, many airports will also have to contract with drilling companies. Progress moving forward will depend on the promptness of local agencies and availability of contractors. Availability and responsiveness of local laboratories to analyze for PFAS is limited also; if the bottleneck leaves airports to use out of state labs, additional time will be needed to identify, engage and ship to these labs.

The Order impacts all 31 airports, but the size of the facilities, activities, and airport staffing varies dramatically from the largest to the smallest airports. California has the second busiest airport in the nation, but it also has several airports that have Part 139 certification with no commercial activity. Smaller airports tend to have fewer personnel and in most cases, no dedicated environmental staff. These small airports do not have the technical expertise or training to sufficiently accomplish the work ordered by the RWQCBs. Therefore, they must rely heavily on city or county staff which are often oversubscribed and require additional technical support from outside consultants, and airport working groups.

Smaller airports simply do not have the budget available to hire a consultant and conduct testing immediately. Due to limited operating revenues, these airports must carefully budget expenditures in advance of the fiscal year. An extension will allow these airports to budget appropriately for this effort and coordinate with city and county departments if additional funding resources are necessary.

The PFAS concerns raised by the Order are new to most airports. Many are already beginning to collaborate with each other to share resources and best practices to review historic operational information, identify appropriate sampling locations, learn new sampling methods and equipment, and develop appropriate approaches to other details of the Order.

Proposed Extension Timeline

We respectfully request an extension to allow for more time for airports to conduct their public processes to retain consultants and coordinate stakeholders. All airports intend to cooperate and fully comply with the Order, however, limited resources and experience on this issue will require a heightened level of partnership throughout the industry. As such, we suggest addressing the extension timelines based on a uniform date for all airports, and airport size, which generally dictates resources and capacity to respond (See Attachment A).

We propose the following modified schedule:

Airport Size	Effective Start Date	Work Plans Due (days after receipt of Order)[1]	Results Due After Water Board Approval of the Work Plan[2] (Days after plan accepted)
Large-Hub	4/1/2019	60	90
Medium-Hub	4/1/2019	75	120
Small-Hub	4/1/2019	120	150
Non-Hub	4/1/2019	120	180

[1] Assumes the airport has received the Order. Airports may request an additional extension if they have not received the Order by the time this letter is submitted.
[2] Subject to change. Airports will outline a schedule in the Work Plan and/or request a time extension if there were delays or impacts during implementation of the Work Plan.

This preferred approach provides equivalent time frames for all airports and standardizes response time considering delays in receiving the Order. Alternatively, individual schedules could be arranged for each airport that did not timely receive the Order after March 20, 2019, but this requires more time for Regional Board Staff, and will result in disparate extension periods.

The requested extension will treat all airports equally and allow time to share resources and best practices, undertake public contracting processes, coordinate with airport operations, secure competent certified labs, and enable airport staff, consultants, and labs time to undertake a properly designed investigation and produce meaningful results.

We would appreciate your prompt response to this request. Airports are working as quickly as possible to respond to the Order, but many do not expect to meet the current timeline. We strongly encourage flexibility, as the industry shares resources and approaches this effort in a collaborative manner. Feel free to email Jim Lites

(jlites@calstrat.com) and Sarah Johnson (sjohnson@calstrat.com) with any questions or comments about our requested timeline.

Sincerely,

Ivar Satero
CAC President

Jon Stout
CAC Vice-President

Jim Lites
CAC Executive Director

On behalf of the following airports:

Arcata/Eureka Airport (ACV)
Buchanan Field Airport (CCR)
Hollywood Burbank Airport (BUR)
Charles M. Schulz – Sonoma County Airport (STS)
Chico Municipal Airport (CIC)
Del Norte County Regional Airport, Jack McNamara Field (CEC)
Fresno Yosemite International Airport (FAT)
Imperial County Airport (IPL)
John Wayne Airport, Orange County (SNA)
Kern County Dept. of Airports – Meadows Field Airport (BFL)
Long Beach Airport (LGB)
Los Angeles World Airports (LAX)
Mammoth Yosemite Airport (MMH)
Monterey Regional Airport (MRY)
Norman Y. Mineta – San José International Airport (SJC)
Oakland International Airport (OAK)
Ontario International Airport (ONT)
Palm Springs International Airport (PSP)
Redding Municipal Airport (RDD)
Sacramento International Airport (SMF)
San Bernardino International Airport (SBD)
San Diego International Airport (SAN)
San Francisco International Airport (SFO)
San Luis Obispo County Regional Airport (SBP)
Santa Barbara Municipal Airport (SBA)
Santa Maria Public Airport (SMX)
Southern California Logistics Airport (VCV)
Stockton Metropolitan Airport (SCK)
Ventura County Airports (OXR)

ATTACHMENT A

Airport Classifications		Hub Type: Percentage of Annual Passenger Boardings	Common Name
Commercial Service: Publicly owned airports that have *at least 2,500* passenger boardings each calendar year and receive scheduled passenger service **§47102(7)**	**Primary:** Have *more than 10,000* passenger boardings each year **§47102(16)**	**Large:** 1% or more	**Large Hub**
		Medium: At least 0.25%, but less than 1%	**Medium Hub**
		Small: At least 0.05%, but less than 0.25%	**Small Hub**
		Nonhub: More than 10,000, but less than 0.05%	**Nonhub Primary**
	Nonprimary	**Nonhub:** At least 2,500 and no more than 10,000	**Nonprimary Commercial Service**

(Source: Federal Aviation Administration – Airport Categories)

ST	Locid	City	Airport Name	S/L	Hub
CA	LAX	Los Angeles	Los Angeles International	P	L
CA	SFO	San Francisco International Airport	San Francisco International	P	L
CA	SAN	San Diego	San Diego International	P	L
CA	OAK	Oakland	Metropolitan Oakland International	P	M
CA	SJC	San Jose	Norman Y Mineta San Jose International	P	M

CA	SMF	Sacramento	Sacramento International	P	M
CA	SNA	Santa Ana	John Wayne Airport-Orange County	P	M
CA	BUR	Burbank	Bob Hope	P	M
CA	ONT	Ontario	Ontario International	P	M
CA	LGB	Long Beach	Long Beach /Daugherty Field/	P	S
CA	PSP	Palm Springs	Palm Springs International	P	S
CA	FAT	Fresno	Fresno Yosemite International	P	S
CA	SBA	Santa Barbara	Santa Barbara Municipal	P	N
CA	SBP	San Luis Obispo	San Luis County Regional	P	N
CA	MRY	Monterey	Monterey Regional	P	N
CA	STS	Santa Rosa	Charles M Schulz - Sonoma County	P	N
CA	BFL	Bakersfield	Meadows Field	P	N
CA	SCK	Stockton	Stockton Metropolitan	P	N
CA	ACV	Arcata	California Redwood Coast-Humboldt County	P	N
CA	RDD	Redding	Redding Municipal	P	N
CA	SMX	Santa Maria	Santa Maria Public/Capt G Allan Hancock Field	P	N
CA	MMH	Mammoth Lakes	Mammoth Yosemite	P	N
CA	CCR	Concord	Buchanan Field	P	N
CA	VCV	Victorville	Southern California Logistics	GA	None
CA	CEC	Crescent City	Jack McNamara Field	CS	None
CA	IPL	Imperial	Imperial County	CS	None
CA	CRQ	Carlsbad	McClellan-Palomar	CS	None
CA	NKX	San Diego	Miramar MCAS (Joe Foss Field)	GA	None
CA	SBD	San Bernardino	San Bernardino International	GA	None
CA	OXR	Oxnard	Oxnard	GA	None
CA	CIC	Chico	Chico Municipal	GA	None

(Source: Federal Aviation Administration – CY2017 Enplanement Data. Includes Hub classification)

CALIFORNIA
Water Boards

GAVIN NEWSOM
GOVERNOR

JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

San Francisco Bay Regional Water Quality Control Board

July 18, 2019
GeoTracker No.: T10000012766

Norman Y. Mineta San Jose International Airport
Planning and Development Division
Attn: Patrick Hansen, Environmental Services Program Manager
1701 Airport Blvd, Suite B-1130
San Jose, CA 95110
phansen@sjc.org

Subject: **Conditional Approval of Per- and Polyfluoroalkyl Substances Preliminary Investigation Workplan and Requirements for Completion Report – Norman Y. Mineta San Jose International Airport (SJC), Santa Clara County**

Dear Mr. Hansen:

This letter responds to the Per- and Polyfluoroalkyl Substances (PFAS) Preliminary Investigation Workplan (Workplan), dated June 14, 2019, submitted by Woodard & Curran on behalf of the Norman Y. Mineta San Jose International Airport (SJC). As explained below, I approve the Workplan with conditions. In accordance with the Regional Water Board 13267 Order WQ-2019-0005-DWQ (Order), and as explained below, SJC must submit a Completion Report for the proposed work by **October 18, 2019.**

Background

The Workplan provides a site map of potential and proposed PFAS investigation areas. The Workplan proposes collecting 84 soil samples and 10 groundwater samples from areas of known past releases of aqueous film-forming foam (AFFF). Soil samples are proposed in 28 locations at three depths, one sample at 1 foot below ground surface (bgs), one sample at 5 feet bgs, and an additional soil sample at approximately 10 feet bgs or the lowermost portion of the unsaturated zone at each location. Groundwater collection is proposed at each boring with the installation of temporary monitoring wells. Section 6.6 of the Workplan describes the sample analysis plan and Section 6.7 describes the quality assurance and quality control protocols to be implemented in accordance with the requirements of the Order. Sensitive receptors within a one-mile radius of the suspected source areas are identified on an area map and discussed in the Workplan.

Approval of Workplan with Comments
The Workplan complies with the minimum requirements of the Order and is appropriate to provide initial data on the impacts of PFAS releases at SJC. However, the Workplan provides a summary of several AFFF storage areas where no reports of releases occurred but where incidental spills could have occurred. This includes areas where AFFF was transferred from drums to aircraft rescue and firefighting (ARFF) vehicles. Additionally, the potential presence of PFAS sources other than AFFF was not discussed. These data gaps and Water Board staff comments are presented in Attachment 1.

I approve the Workplan subject to the condition that the attached comments are addressed in the Completion Report.

Requirement for Completion Report
Pursuant to the Order, SJC is required to submit a Completion Report for the Workplan no later than 90 days following this approval, thus by **October 18, 2019.** The report shall address the comments presented in Attachment 1 and document completion of the approved workplan tasks and present implementation results. The report must include the following elements:

- description of sampling activities;
- summary table of analytical results;
- chain-of-custody;
- copy of the field sampling logs;
- boring logs and any temporary/permanent monitoring well construction details;
- site map(s) showing the sampling/monitoring locations and data; and
- laboratory analytical results.

SJC is required to submit all documents in electronic format to the State Water Resources Control Board's GeoTracker database, pursuant to the California Code of Regulations (Title 23, Section 3890, et.seq.). Guidance for electronic information submittal to GeoTracker is available at: http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/. Please note that this requirement includes all analytical data, monitoring well information (latitudes, longitudes, elevations, and water depth), site maps, and boring logs.

Basis for Requirement
The information required in this report is needed to define the potential impacts and magnitude of releases and assess any immediate threats they pose to human health or water quality.

SJC is owned and operated as a Department of the City of San Jose (City). The City is the current airport operator and operated SJC during the period when the releases occurred.

This requirement for an additional report is made pursuant to Water Code Section 13267, which allows the Regional Water Board to require technical or monitoring

program reports from any person who has discharged, discharges, proposes to discharge, or is suspected of discharging waste that could affect water quality. Attachment 2 provides additional information about Section 13267 requirements. Any extension in the above deadline must be confirmed in writing by Water Board staff.

If you have any questions, please contact Erica Kalve of my staff at (510) 622-2064 or erica.kalve@waterboards.ca.gov.

Sincerely,

Terry Seward for

Digitally signed by tsfor
Date: 2019.07.18 11:55:19 -07'00'

Michael Montgomery
Executive Officer

Attachment 1: Specific Comments
Attachment 2: Section 13267 Fact Sheet

Copy by email with attachment:

John Aitken, A.A.E., Director of Aviation, Mineta San Jose International Airport
Judy Ross, A.A.E., Assistant Director of Aviation, Mineta San Jose International Airport
Patrick Magnotta, Airport Planning and Environment Division, Federal Aviation Administration
Anthony Butters, Airport Safety and Operations Division, Federal Aviation Administration

Attachment 1: Specific Comments

This attachment contains the Water Board's specific comments on the Per- and Polyfluoroalkyl Substances (PFAS) Preliminary Investigation Workplan for the Norman Y. Mineta San Jose International Airport (SJC) (Workplan) dated June 14, 2019. Satisfactorily addressing these comments is a condition of Workplan approval and is necessary for submittal of an adequate Completion Report by **October 18, 2019.**

1. Page 2-1: The Workplan states that the Guadalupe River is the receiving water for stormwater discharges. Given the fact that PFAS have been shown to stick to surfaces (e.g., concrete and asphalt), they have the potential to act as a long-term source of PFAS to the environment. As such, it is appropriate for an evaluation of potential surface water impacts due to stormwater discharges and provide recommendations for site assessment. Further assessment of this pathway may include sediment and surface water sampling of stormwater lines and ditches that lead to the river, and/or sampling of sediment and surface water along at outfalls along Guadalupe River.

2. Page 3-1: The Workplan states that the current volume of AFFF stored at SJC does not include AFFF owned by Airport tenants. Please clarify if additional AFFF storage and use areas are present but not addressed by the Workplan. If additional AFFF storage and use areas are present, provide detailed information regarding storage, use, disposal, and potential spills or releases to lands of your facility and recommendations for additional site assessment.

3. Page 3-1: The Workplan indicates that ARFF engine water proportioning and fire testing was conducted offsite at a City of San Jose (City) location. Provide additional documentation regarding off-site ARFF engine and fire testing (e.g., location and approximate frequency of use). Clarify if vehicle maintenance was also conducted at this facility and if not, where the ARFF vehicles are maintained.

4. Page 3-2. The Workplan provides information regarding SJCs intent to research containment processes and procedures to ensure AFFF associated with future ARFF engine and fire testing will be contained and properly disposed. The Water Board appreciates this discussion regarding airport foam management plans.

5. Pages 3-2, 3-3, 4-1: The Workplan provides a detailed summary of AFFF storage, use, and release locations that are not proposed for sampling because the areas are paved and there have been no reported releases or spills (except for Location 13 where a release was documented). In areas where releases were not reported, incidental spills could have occurred and resulted in impacts to soil and groundwater. Additionally, PFAS have been shown to stick to concrete surfaces and act as a long-term source of PFAS to the environment. Further consideration of site investigation in these areas is recommended to confirm that soil and groundwater are not impacted.

6. Page 3-3: The Workplan states that the oil-water separator at Location 8 has been a disposal location for excess AFFF and rinsate. Soil and groundwater sample collection is proposed at Location 8. In addition to the proposed investigation activities, provide a detailed summary of waste management procedures associated with the oil-water separator.

7. Page 6-6: The Workplan states that the final report, analytical reports, and an electronic data deliverable (EDD) will be uploaded to GeoTracker via the Electronic Submittal of Information (ESI) Portals. Ensure that the EDD submittal includes the minimum requirements for survey data summarized in the document titled, GeoTracker Survey XYZ, Well Data, and Site Map Guidelines & Restrictions, Revision 6.1 dated April 2005 available at https://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/docs/geotrackersurvey_xyz_4_14_05.pdf.

It is recommended that additional potential sources of PFAS other than AFFF be considered, including onsite maintenance facilities that may have operation processes that generate PFAS-containing waste (e.g., metal plating, aircraft maintenance including the use of hydraulic fluids). Additionally, Water Board staff request additional information regarding the potential for PFAS to be present in the high-expansion fire suppressant foams present in Hangar 7.

Fact Sheet – Requirements for Submitting Technical Reports Under Section 13267 of the California Water Code

What does it mean when the Regional Water Board requires a technical report?

Section 13267[1] of the California Water Code provides that "…the regional board may require that any person who has discharged, discharges, or who is suspected of having discharged or discharging, or who proposes to discharge waste...that could affect the quality of waters...shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires."

This requirement for a technical report seems to mean that I am guilty of something, or at least responsible for cleaning something up. What if that is not so?

The requirement for a technical report is a tool the Regional Water Board uses to investigate water quality issues or problems. The information provided can be used by the Regional Water Board to clarify whether a given party has responsibility.

Are there limits to what the Regional Water Board can ask for?

Yes. The information required must relate to an actual or suspected or proposed discharge of waste (including discharges of waste where the initial discharge occurred many years ago), and the burden of compliance must bear a reasonable relationship to the need for the report and the benefits obtained. The Regional Water Board is required to explain the reasons for its requirement.

What if I can provide the information, but not by the date specified?

A time extension may be given for good cause. Your request should be promptly submitted in writing, giving reasons.

Are there penalties if I don't comply?

Depending on the situation, the Regional Water Board can impose a fine of up to $5,000 per day, and a court can impose fines of up to $25,000 per day as well as criminal penalties. A person who submits false information or fails to comply with a requirement to submit a technical report may be found guilty of a misdemeanor. For some reports, submission of false information may be a felony.

Do I have to use a consultant or attorney to comply?

There is no legal requirement for this, but as a practical matter, in most cases the specialized nature of the information required makes use of a consultant and/or attorney advisable.

What if I disagree with the 13267 requirements and the Regional Water Board staff will not change the requirement and/or date to comply?

You may ask that the Regional Water Board reconsider the requirement, and/or submit a petition to the State Water Resources Control Board. See California Water Code sections 13320 and 13321 for details. A request for reconsideration to the Regional Water Board does not affect the 30-day deadline within which to file a petition to the State Water Resources Control Board.

If I have more questions, whom do I ask?

Requirements for technical reports include the name, telephone number, and email address of the Regional Water Board staff contact.

Revised March 2014

[1] All code sections referenced herein can be found by going to California Legislative Code Section search at http://leginfo.legislature.ca.gov/faces/codes.xhtml

September 16, 2019
GeoTracker ID: T10000012766 (EK)

Norman Y. Mineta San Jose International Airport
Planning and Development Division
Attn: Patrick Hansen, Environmental Services Program Manager
1701 Airport Blvd, Suite B-1130
San Jose, CA 95110
phansen@sjc.org

Subject: Approved Due Date Extension of Per- and Polyfluoroalkyl Substances Completion Report Requirement – Norman Y. Mineta San Jose International Airport (SJC), Santa Clara County

Dear Mr. Hansen:

This letter is in regard to the approved Per- and Polyfluoroalkyl Substances (PFAS) Preliminary Investigation Workplan (Workplan), dated June 14, 2019, submitted by Woodard & Curran on behalf of the Norman Y. Mineta San Jose International Airport (SJC). The Regional Water Board approved the Workplan in a letter dated July 18, 2019 and required SJC to submit a Completion Report 90-days following the approval of the Workplan. However, the original Workplan included a request for a 120-day timeline for the implementation and reporting of the Workplan. As discussed via telephone conversation, the original request is granted and SJC is required to submit a Completion Report for the proposed work by **November 15, 2019**.

If you have any questions, please contact me at (510) 622-2064 or by email at erica.kalve@waterboards.ca.gov.

Sincerely,

Digitally signed by Erica Kalve
Date: 2019.09.16 13:17:39 -07'00'

Erica Kalve
Engineering Geologist
Groundwater Protection Division

Copy by email with Attachments:
John Aitken, A.A.E., Director of Aviation, Mineta San Jose International Airport
Judy Ross, A.A.E., Assistant Director of Aviation, Mineta San Jose International Airport

Patrick Magnotta, Airport Planning and Environment Division, Federal Aviation Administration
Anthony Butters, Airport Safety and Operations Division, Federal Aviation Administration

NORMAN Y. MINETA
SAN JOSE
INTERNATIONAL
AIRPORT
SILICON VALLEY'S AIRPORT

November 12, 2019

Submitted via email to erica.kalve@waterboards.ca.gov

Erica Kalve
San Francisco Bay Regional Water Quality Control Board
1515 Clay St., Suite 1400
Oakland, CA 94612

SUBJECT: Request for Due Date Extension for Submittal of Completion Report for the Approved Per- and Polyfluoroalkyl Substances (PFAS) Workplan Implementation

Dear Ms. Kalve,

This letter is to officially request an extension for the submittal of the Per- and Polyfluoroalkyl Substances (PFAS) Workplan Implementation Completion Report until **January 31st, 2020**. As we discussed during your site visit on October 24th, 2019, the Mineta San José International Airport has worked diligently to expedite the drilling, coring, and sampling process, which required complex coordination between consultants, sub-consultants, contractors, Airport tenants, Airport Security, and the Federal Aviation Administration (FAA).

All drilling, coring, and sampling activities were completed as of October 25th, 2019. We are currently awaiting the sample results from the Lab and anticipate receipt of the results before the end of November. To allow sufficient time to write the Completion Report after receipt of the sample results, and to respond to the Water Board's comments noted in the Conditional Approval Letter, dated July 18th, 2019, the Airport is requesting an extension for the submittal of the Completion Report until **January 31st, 2020**.

I look forward to your response to the Airport's request. If you have any questions, please feel free to contact myself at 408.392.3626 or at phansen@sjc.org.

Sincerely,

Patrick Hansen
Environmental Services Program Manager
Mineta San José International Airport
1701 Airport Blvd., Suite B-1130
San José, CA 95110

Cc: Drew Niemeyer, Deputy Director of Planning & Development, Mineta San José International Airport

December 9, 2019
GeoTracker ID: T10000012766 (EK)

Norman Y. Mineta San Jose International Airport
Planning and Development Division
Attn: Patrick Hansen, Environmental Services Program Manager
1701 Airport Blvd, Suite B-1130
San Jose, CA 95110
phansen@sjc.org

Subject: Approved Due Date Extension of Per- and Polyfluoroalkyl Substances Completion Report Requirement – Norman Y. Mineta San Jose International Airport (SJC), Santa Clara County

Dear Mr. Hansen:

This letter is in regard to your extension request dated November 12, 2019 for submittal of the Completion Report following implementation of the approved Per- and Polyfluoroalkyl Substances (PFAS) Preliminary Investigation Workplan (Workplan), dated June 14, 2019, submitted by Woodard & Curran on behalf of the Norman Y. Mineta San Jose International Airport (SJC). As stated in an email dated November 13, 2019, the extension request is approved. SJC is required to submit the Completion Report by **January 31, 2020**.

If you have any questions, please contact me at (510) 622-2064 or by email at erica.kalve@waterboards.ca.gov.

Sincerely,

Erica Kalve Digitally signed by Erica Kalve
Date: 2019.12.09 13:06:06 -08'00'

Erica Kalve
Engineering Geologist
Groundwater Protection Division

APPENDIX B: CHAIN-OF-CUSTODY FORMS

Rev. No.: 0
Rev. Date: 06/27/2017

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1903732 Temp: 2.0 °C
Storage ID: R-13, WR-2 Storage Secured: Yes ☑ No ☐

Project ID: SJC PFAS Investigation PO#: Sampler: Kevin Almestad/ (name) George Vukelich

TAT (check one): Standard: ☒ 21 days; Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify:

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Jim Strandberg	Woodard & Curran	2175 N California Blvd, Ste 315	Walnut Creek	CA	925-627-4100	925-627-4101

KA

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Kevin Almestad	10/17/19	1815	FedEX	10/18/19	0724
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
recieved KA Fedex	10/17/19	1815	Ashley Mason	10/18/19	0724

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

Method of Shipment: Fedex

ATTN: Jade

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below: CA Airport 24 List	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
LID-1-1	10/16/19	2000	Location 10	1	PJ	SO					X				
LID-1-5		2005		1	PJ	SO									
LID-1-10		2010		1	PJ	SO									
LID-1-GW		2307		2	P	AQ									
LID-10-GW		2317		2	P	AQ									
EB-1		2250		2	P	AQ									
FB-1		2245		2	P	AQ									
LII-4-1	10/17/19	0137	Location 11	1	PJ	SO									
LII-4-10		0143		1	PJ	SO									
LII-4-5		0140		1	PJ	SO									

Special Instructions/Comments: Geotracker EDF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc.
Address: 2175 N California Blvd, Suite 315
City: Walnut Creek State: CA Zip: 94597
Phone: (510)-301-3776 Fax:
Email: JStrandberg@woodardcurran.com

Container Types: P= HDPE, PJ= HDPE Jar, O = Other:

Bottle Preservation Type: T = Thiosulfate, TZ = Trizma:

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other:

Page: 1 of 2

Rev. No.: 0
Rev. Date: 06/27/2017

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1903732 Temp: 2.0 °C
Storage ID: R-13, WR-2 Storage Secured: Yes ☑ No ☐

Project ID: SSC PFAS Investigation PO#: _____ Sampler: KA/GV (name)

TAT (check one): Standard: ☒ 21 days; Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify: _____

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Jim Strandberg	Woodard & Curran	2175 N California Blvd, ste 315	Walnut Creek	CA	925-627-4100	925-627-4101

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Kevin Ahnstad	10/17/19	1815	Fedex	10/17/19	1615
FedEx	10/18/19	0724	Ashley Mason	10/18/19	0724

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

ATTN: Jade

Method of Shipment: Fedex

Tracking No.: _____

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/ PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below: CA Airport 24 list	EPA Method 537(DW only): PFOA/ PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
L11-1-1	10/17/19	0033	Location 11	1	PJ	SO					X				
L11-1-5		0036		1	PJ	SO									
L11-1-10		0040		1	PJ	SO									
L11-2-1		0115		1	PJ	SO									
L11-2-5		0118		1	PJ	SO									
L11-2-10		0120		1	PJ	SO									
L11-3-1		0213		1	PJ	SO									
L11-3-5		0216		1	PJ	SO									
L11-3-10		0218		1	PJ	SO									
L11-3-6W		0300		2	P	AQ									

Special Instructions/Comments: Geotracker EDF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc.
Address: 2175 N California Blvd, ste 315
City: Walnut Creek State: CA Zip: 94597
Phone: (510)-301-3776 Fax: _____
Email: JStrandberg@woodardcurran.com

Container Types: P= HDPE, PJ= HDPE Jar, O = Other: _____

Bottle Preservation Type: T = Thiosulfate, TZ = Trizma: _____

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: _____

Page: 2 of 2

Rev. No.: 0
Rev. Date: 06/27/2017

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1903734 Temp: 0.8 °C
Storage ID: R-13, WR-2 Storage Secured: Yes ☒ No ☐

Project ID: SSC PFAS Investigation PO#: _____ Sampler: KA/GV (name)

TAT (check one): Standard: ☒ 21 days; Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify: _____

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Jim Strandberg	Woodard & Curran	2175 N. California Blvd, Ste 315	Walnut Creek	CA	(925) 627-4122	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Kevin Almestad	10/18/19	1345	Fedex Kevin Almestad	10/18/19	1345
FEDEX →			Kim Eric	10/19/19	0958

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

ATTN: Jennifer Miller

Method of Shipment: Fedex

Tracking No.: _____

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List 6	537 List: 14	Full List of 26	Other: Please List Below: CA Airport List (23)	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List 6	PFAS List: 14	Comments
LD-2-1	10/17/19	2201	Location 10	1	PJ	SO					X				
L10-2-5		2203		1	PJ	SO									
L10-2-10		2207		1	PJ	SO									
L10-3-1		2143		1	PJ	SO									
L10-3-5		2146		1	PJ	SO									
L10-3-10		2150		1	PJ	SO									
L12-1-1		2312		1	PJ	SO									
L12-1-5		2316		1	PJ	SO									
L12-1-10		2319		1	PJ	SO									
FB-2	10/18/19	0035	Location 12	2	P	AQ									

Special Instructions/Comments: Geotracker EDF

Fedex wouldn't sign chain, signed for them

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc.
Address: 2175 N California Blvd, Ste 315
City: Walnut Creek State: CA Zip: 94597
Phone: (510) 310-3776 Fax: (925)-627-4101
Email: Jstrandberg@woodardcurran.com

Container Types: P= HDPE, PJ= HDPE Jar
O = Other: _____

Bottle Preservation Type: T = Thiosulfate,
TZ = Trizma: _____

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: _____

Page: 1 of 2

Rev. No.: 0
Rev. Date: 06/27/2017

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only 10/21/19
Work Order #: 19037345 Temp: 0.8 °C
Storage ID: R-13, WR-2 Storage Secured: Yes ☑ No ☐

Project ID: SJC PFAS Investigation PO#: Sampler: KAV (name)

TAT (check one): Standard: ☒ 21 days; Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify:

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Jim Strandberg	Woodard & Curran	2175 N California Blvd, Ste 315	Walnut Creek	CA	(925) 627-4122	(925)-627-410

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Kevin Almestad	10/18/19	1345	Fedex Kevin Almestad	10/18/19	1345
Fedex	Date	Time	Received by (printed name and signature)	Date	Time
			Kim Burr	10/19/19	0958

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

ATTN: Jennifer Miller

Method of Shipment: Fedex

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/ PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below (CA Airport List (23))	EPA Method 537(DW only): PFOA/ PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
L12-2-1	10/17/19	2337	Location 12	1	PJ	SO					X				
L12-2-5		2341		1											
L12-2-10		2344		1											
L12-4-1		2350		1											
L12-4-5		2355		1											
L12-4-10		2359		1											
L12-3-1	10/18/19	0002		1											
L12-3-5		0007		1											
L12-3-10		0010		1											
L12-3-6W		0130		2	P	AQ									
L12-30-6W		0130		2	P	AQ									

Special Instructions/Comments: Geotracker EDF

Fedex wouldn't sign chain, signed for them

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc.
Address: 2175 N California Blvd, Ste 315
City: Walnut Creek State: CA Zip: 94597
Phone: (510) 320-3776 Fax: (925) -627-410
Email: JStrandberg@woodardcurran.com

Container Types: P= HDPE, PJ= HDPE Jar
O = Other:

Bottle Preservation Type: T = Thiosulfate,
TZ = Trizma:

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other:

Page: 1 of 1

Rev. No.: 0
Rev. Date: 06/27/2017

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1903773 Temp: 2.4 °C
Storage ID: WR-2 / R-13 Storage Secured: Yes [X] No [ ]

Project ID: SJC PFAS Investigation PO#: 0232401.01 Sampler: Kevin Almestad (name)

TAT (check one): Standard: [X] 21 days Rush (surcharge may apply) [ ] 14 days [ ] 7 days Specify:

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Jim Strandberg	Woodard & Curran	2175 N California Blvd, Ste 315	Walnut Creek	CA	(925)-627-4122	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Kevin Almestad /	10/22/19	17:15	FedEx /	10/22/19	17:15
FedEx	10/23/19	0921	Ashley Mason	10/23/19	0921

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

Method of Shipment: FedEx

ATTN: Jade White-Dobbs / Jennifer Miller

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below: CA Airport PFAS 534 (23)	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
L4-2-1	10/22/19	0223	Loc. 4	1	SO	PS					X				
L4-2-5		0225	Loc. 4	1											
L4-2-10		0228	Loc. 4	1											
L4-1-1		0240		1											
L4-1-5		0242		1											
L4-1-10		0244		1											
L4-3-1		0320		1											
L4-3-5		0322		1											
L4-3-10		0324		1											
FB-3		0115		2	AQ	P									

Special Instructions/Comments: Geotracker EDF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc.
Address: 2175 N California Blvd, Ste 315
City: Walnut Creek State: CA Zip: 94597
Phone: (925)-627-4122 Fax: (925)-627-4101
Email: JStrandberg@woodardcurran.com

Container Types: P= HDPE, PJ= HDPE Jar, O = Other:

Bottle Preservation Type: T = Thiosulfate, TZ = Trizma:

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other:

Page: 1 of 2

Rev. No.: 0
Rev. Date: 06/27/2017

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1903773 Temp: 2.4 °C
Storage ID: R-13/WR-2 Storage Secured: Yes ☒ No ☐

Project ID: SJC PFAS Investigation PO#: 0232401.01 Sampler: Kevin Almestad (name)

TAT (check one): Standard: ☒ 21 days; Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify:

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Jim Strandberg	Woodard & Curran	2175 N California Blvd, Ste 315	Walnut Creek	CA	(925)-627-4122	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Kevin Almestad	10/22/19	17:15	Fedex	10/22/19	1715
Fedex	10/23/19	0921	Ashley Mason AM	10/23/19	0921

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

ATTN: Jade White-Dobbs/ Jennifer Miller

Method of Shipment: Fedex

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below: CA Airport PFAS List (23)	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
L4-2-GW	10/22/19	0430	Loc. 4	2	P	AQ									
L4-20-GW	↓	0430	↓	2	P	AQ									
EB-3	↓	0400	↓	2	P	AQ									

Special Instructions/Comments: Geotracker EDF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc
Address: 2175 N California Blvd, Ste 315
City: Walnut Creek State: CA Zip: 94597
Phone: (925)-627-4122 Fax: (925)-627-4101
Email: JStrandberg@woodardcurran.com

Container Types: P= HDPE, PJ= HDPE Jar, O = Other:

Bottle Preservation Type: T = Thiosulfate, TZ = Trizma:

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other:

Page: 2 of 2

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1903822 Temp: 0.6 °C
Storage ID: VR-2, R-13 Storage Secured: Yes ☑ No ☐

Project ID: SJC PFAS Investigation PO#: 02324401.01 Sampler: KA/CL (name)

TAT (check one): Standard: ☒ 21 days; Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify:

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Kevin Almestad	10/24/19	17:30	Fedex	10/24/19	
Fedex			Marissa Sparks	10/25/19	0840
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

ATTN:

Method of Shipment: Fedex
Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/ Sample Description	Container(s) Quantity	Type	Matrix	PFAS by Isotope Dilution: PFOA/ PFOS	UCMR3 PFAS List:6	537.1 List: 14 or 18 (Circle One)	EPA Draft List of 24	OTHER: Please attach analyte list (CA PFAS List (23))	EPA Method 537 (DW only): PFOA/ PFOS	UCMR3 PFAS List:6	537.1 List of 14	537.1 List of 18	Comments
L14-1-1	10/23/19	0745	14	1	PJ	SO					X					
L14-1-5		0748	14	1	PJ											
L14-1-10		0750	14	1												
L14-2-1		0830	14	1												
L14-2-5		0832	14	1												
L14-2-10		0834	14	1												
L14-4-1		0950		1												
L14-4-5		0952		1												
L14-4-10		0954		1												
L14-1-GW		0838		2	P	AQ										

Special Instructions/Comments: Geotracker EDF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc.
Address: 2175 N California Blvd, Ste 315
City: Walnut Creek CA 94597
Phone: (510)-310-3776 (925)-627-4101
Email: JStrandberg@woodardcurran.com

Container Types: P= HDPE, PJ= HDPE Jar, PY= Polypropylene, O = Other:

Bottle Preservation Type: TZ = Trizma:

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other:

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1903823 Temp: 0.6 °C
Storage ID: R-13, WR-2 Storage Secured: Yes ☑ No ☐

Project ID: SJC PFAS Investigation PO#: 0232401.01 Sampler: KA/CL (name)

TAT (check one): Standard: ☒ 21 days; Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify:

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Kevin Almestad	10/24/19	17:30	Fedex	10/24/19	17:30
FedEx			Morissa Sparks MSparks	10/25/19	0840
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106
ATTN: Jade White-Dobbs

Method of Shipment: Fedex
Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/ Sample Description	Container(s) Quantity	Type	Matrix	PFAS by Isotope Dilution: PFOA/ PFOS	UCMR3 PFAS List:6	537.1 List: 14 or 18 (Circle One)	EPA Draft List of 24	OTHER: Please attach analyte list: CA Report PFAS List (23)	EPA Method 537 (DW only): PFOA/ PFOS	UCMR3 PFAS List:6	537.1 List of 14	537.1 List of 18	Comments
L14-2-6W	10/23/19	0951	14	2	P	AQ					X					
L14-20-6W		0951	14	2												
L14-4-6W		1521	14	2												
L14-3-1	~~10/24/19~~	1356		1	PJ	SO										10/24/19
L14-3-5	~~10/24/19~~	1401		1												10/24/19
L14-3-10	~~10/24/19~~	1406		1												10/24/19
L14-5-1	10/24/19	1416		1												
L14-5-5		1419		1												
L14-5-10		1423		1												
L14-6-1		1429		1												

Special Instructions/Comments: Geotracker EPF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc.
Address: 2175 N California Blvd, Ste 315
City: Walnut Creek CA 94597
Phone: (510)-310-3776 (925)-627-4101
Email: JStrandberg@woodardcurran.com

Container Types: P= HDPE, PJ= HDPE Jar, PY= Polypropylene, O = Other: _____

Bottle Preservation Type: TZ = Trizma: _____

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: _____

Vista

Submit by Email

Print Form

CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY

Laboratory Project ID: 1903823 Temp 0.6 °C

Storage ID: WR-2, R-13 Storage Secured: Yes ☑ No ☐

TAT: (Check One)
Standard ☒ 21 days
Rush (surcharge may apply)
◯ 14 days ◯ 7 days Specify:

Project I.D.: SJC PFAS Investigation P.O. #: 0232401.01 Sampler: KA/CL (Name)

Invoice to: Name / Company / Address / City / State / Zip / Ph# / Fax #

Relinquished by: (Printed Name and Signature) Kevin Attested 10/24/19 17:30 / Fedex 10/24/19 17:30
Date: Time: Received by: (Signature and Printed Name) Date: Time:

Relinquished by: (Printed Name and Signature) FedEx Date: Time: Received by: (Signature and Printed Name) Marissa Sparks Date: 10/25/19 Time: 0840

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

Method of Shipment: Fedex

Tracking No.:

ATTN: Jade White-Dobbs

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	EPA1613 2378-TCDD	EPA1613 2378-TCDD/TCDF	EPA1613 PCDD/PCDF	EPA8290 2378-TCDD	EPA8290 2378-TCDD/TCDF	EPA8290 PCDD/PCDF	EPA8280 2378-TCDD	EPA8280 2378-TCDD/TCDF	EPA8280 PCDD/PCDF	EPA1668 TOTALS	EPA1668 COPLANAR PCBs	EPA1668 209 CONGENERS	EPA1614 PBDE	CARB429 PAH	CARB429 WHO-29	CARB429 Arsenic (EPA 6020A) (23)
L14-6-5	10/24/19	1434	14	1	PJ	SO																X
L14-6-10	10/24/19	1437	14	1	PJ	SO																X

Special Instructions/Comments: Geotracker EDF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc.
Address: 2175 N California Blvd, Ste 315
City: Walnut Creek State: CA Zip: 94597
Phone: (510)-310-3776 Fax: (925)-627-4101
Email: JStrandberg@woodardcurran.com

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MM5 Train, O = Other

***Bottle Preservative Type:** ☐ T = Thiosulfate,
☐ O = Other

Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B=Blood/Serum
O = Other

Vista

Print Form

CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY

Laboratory Project ID: 1903824 Temp 0.6 °C

Storage ID: WR2, R-13 Storage Secured: Yes ☑ No ☐

TAT: (Check One)
Standard ☒ 21 days
Rush (surcharge may apply)
◯ 14 days ◯ 7 days Specify:

Project I.D.: SJC PFAS Investigation P.O. #: 0232401.01 Sampler: KA/CL (Name)

Invoice to: Name	Company	Address	City	State	Zip	Ph#	Fax #
Cori Fy Caleb Lucy	10/24/19	17:30	Cell / Fed Ex		10/24/2019		

Relinquished by: (Printed Name and Signature) Date: Time: Received by: (Signature and Printed Name) Date: Time:

Relinquished by: (Printed Name and Signature) Date: Time: Received by: (Signature and Printed Name) Date: Time:

FEDEX 10/25/19 08:40 Hayden Canas 10/25/19 08:40

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

Method of Shipment: Fed Ex

ATTN: Jade White-Dobbs

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	EPA1613 2378-TCDD	EPA1613 2378-TCDD/TCDF	EPA1613 PCDD/PCDF	EPA8290 2378-TCDD	EPA8290 2378-TCDD/TCDF	EPA8290 PCDD/PCDF	EPA8280 2378-TCDD	EPA8280 2378-TCDD/TCDF	EPA8280 PCDD/PCDF	EPA1668 TOTALS	EPA1668 COPLANAR PCBs	EPA1668 209 CONGENERS	EPA1614 PBDE	EPA1614 PAH	CARB429 WHO-29	CA Arbor PFAS L&M (23)
EB-4	10/24/19	1145	8/9	2	P	AQ																X
FB-5	10/24/19	0929	8/9	2	P	AQ																
L3-3-1	10/23/19	1228	3	1	PJ	SO																
FB-4	10/23/19	1201	~~8/9~~ 14	2	P	AQ																
L3-3-5	10/23/19	1230	3	1	PJ	SO																
L3-3-10	10/23/19	1232	3	1	PJ	SO																
L3-3-GW	10/23/19	1316	3	2	P	AQ																
L3-1-1	↓	1342	3	1	PJ	SO																
L3-1-5		1346	3	1	PJ	SO																
L3-1-10	↓	1355	3	1	PJ	SO																

Special Instructions/Comments: GeoTracker EDF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard and Curran, Inc.
Address: 2175 N. California Blvd, Ste. 315
City: Walnut Creek State: CA Zip: 94597
Phone: (510) 310-3776 Fax: (925) 627-4101
Email: jstrandberg@woodardcurran.com

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MM5 Train, O = Other

***Bottle Preservative Type:** ☐ T = Thiosulfate,
☐ O = Other

Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B=Blood/Serum
O = Other

Vista

Print Form

CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY

Laboratory Project ID: 1903824 Temp 0.6 °C

Storage ID: WR-2, R-13 Storage Secured: Yes ☑ No ☐

Project I.D.: SJC PFAS Investigation P.O. #: 0232401.01 Sampler: KA/CL (Name)

TAT: (Check One)
Standard ☒ 21 days
Rush (surcharge may apply)
☐ 14 days ☐ 7 days Specify:

Invoice to: Name Caleb Lucy Company Cal Fly Address 10/24/19 City 17:30 State Fed Ex Zip Ph# 10/24/2019 Fax #

Relinquished by: (Printed Name and Signature) Caleb Lucy Date: 10/24/19 Time: 17:30 Received by: (Signature and Printed Name) Fed Ex Date: 10/24/2019 Time:

Relinquished by: (Printed Name and Signature) FEDEX Date: 10/25/19 Time: 08:40 Received by: (Signature and Printed Name) Hayden Canal Date: 10/25/19 Time: 08:40

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

Method of Shipment: Fed Ex

ATTN: Jade White - Dobbs

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Container(s) Type	Container(s) Matrix	EPA1613 2378-TCDD	EPA1613 2378-TCDD/TCDF	EPA8290 PCDD/PCDF	EPA8290 2378-TCDD	EPA8290 2378-TCDD/TCDF	EPA8280 PCDD/PCDF	EPA8280 2378-TCDD	EPA8280 2378-TCDD/TCDF	EPA1668 PCDD/PCDF	EPA1668 TOTALS	EPA1668 COPLANAR PCBs	EPA1668 209 CONGENERS	EPA1614 PBDE	CARB429 PAH	CARB429 WHO-29	CARB429 CA Airport PFAS L-54 (23)
L3-2-1	10/23/19	1311	3	1	PJ	SO																X
L3-2-5	↓	1318	3	1	↓	↓																↓
L3-2-10	↓	1320	3	1																		
L8/9-1-1	10/24/19	0811	8/9	1																		
L8/9-1-5	↓	0815	8/9	1																		
L8/9-1-10	↓	0819	8/9	1																		
L8/9-2-1	↓	0833	8/9	1																		
L8/9-2-5	↓	0837	8/9	1																		
L8/9-2-10	↓	0841	8/9	1																		
L8/9-3-1	↓	0856	8/9	1	↓	↓																↓

Special Instructions/Comments: GeoTracker EDF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard + Curran
Address: 2175 N. California Blvd.; Ste. 315
City: Walnut Creek State: CA Zip: 94597
Phone: (510) 310-3776 Fax: (925) 627-4101
Email: JStrandberg@woodardcurran.com

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MM5 Train, O = Other

***Bottle Preservative Type:** ☐ T = Thiosulfate,
☐ O = Other

Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B=Blood/Serum
O = Other

Vista

Print Form

CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY

Laboratory Project ID: 1903825 Temp 0.6 °C

Storage ID: WR-2, R-13 Storage Secured: Yes ☑ No ☐

TAT: (Check One)
Standard ◯ 21 days
Rush (surcharge may apply)
◯ 14 days ◯ 7 days Specify:

Project I.D.: STC PFAS Investigation P.O. #: 0232401.01 Sampler: KA/CL (Name)

Invoice to: Name	Company	Address	City	State	Zip	Ph#	Fax #
Erin Ly							

Relinquished by: (Printed Name and Signature)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Erin Ly	10/24/2019	17:30	Erin Ly Fed EX	10/24/2019	
Relinquished by: (Printed Name and Signature)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
FedEx	10/25/19	08:40	Hayden Camas	10/25/19	08:40

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

Method of Shipment: Fed EX

ATTN: Jade White - Dobbs

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Container(s) Type	Matrix	EPA1613 2378-TCDD	EPA1613 2378-TCDD/TCDF	EPA1613 PCDD/PCDF	EPA8290 2378-TCDD	EPA8290 2378-TCDD/TCDF	EPA8290 PCDD/PCDF	EPA8280 2378-TCDD	EPA8280 2378-TCDD/TCDF	EPA8280 PCDD/PCDF	EPA1668 TOTALS	EPA1668 COPLANAR PCBs	EPA1668 209 CONGENERS	EPA1668 PBDE	EPA1614 PAH	CARB429 WHO-29	CA Airport PFAS List (23)
L8/9-3-5	10/24/19	0901	8/9	1	PJ	SO																X
L8/9-3-10		0904	8/9																			
L8/9-4-1		1102	8/9																			
L8/9-4-5		1105	8/9																			
L8/9-4-10		1110	8/9																			
L8/9-5-1		0938	8/9																			
L8/9-5-5		0942	8/9																			
L8/9-5-10		0947	8/9																			
L8/9-5-GW		1015	8/9	2	P	AQ																
L8/9-4-GW		1213	8/9	2																		
L8/9-40-GW		1213	8/9	2																		

Special Instructions/Comments:

SEND DOCUMENTATION AND RESULTS TO:

Name:
Company: Jim Strandberg
Address: Woodard + Curran 2175 N. California Blvd., Ste. 315
City: Walnut Creek State: CA Zip: 94597
Phone: (510) 310-3776 Fax: (925) 627-4101
Email: jstrandberg@woodardcurran.com

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MM5 Train, O = Other

***Bottle Preservative Type:** ☐ T = Thiosulfate,
☐ O = Other

Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B=Blood/Serum
O = Other

APPENDIX C: SOIL BORING LITHOLOGIC LOGS

Woodard & Curran
2175 N California Blvd, Suite 315
Walnut Creek, CA 94596
Telephone: 925.627.4100

BORING NUMBER L3

CLIENT Kimley-Horn and Associates
PROJECT NAME Norman Y. Mineta San Jose International Airport
PROJECT NUMBER 0232401.01
PROJECT LOCATION San Jose, CA
DATE STARTED 10/23/2019 **COMPLETED** 10/23/2019
GROUND ELEVATION _____ **HOLE SIZE** 2.5"
DRILLING CONTRACTOR Penecore Drilling
GROUND WATER LEVELS:
DRILLING METHOD Direct Push by tracked Geoprobe
▽ **AT TIME OF DRILLING** 11.50 ft
LOGGED BY Kevin Almestad **CHECKED BY** Jim Strandberg
AT END OF DRILLING ---
NOTES Representative Log for Location 3
▼ **AFTER DRILLING** 10.41 ft

DEPTH (ft)	RECOVERY (INCHES)	U.S.C.S.	GRAPHIC LOG	Feet BGS	MATERIAL DESCRIPTION
0					
	60			1.5	Concrete
2				2.5	FILL: dry, sandy gravel
		ML		4.5	CLAYEY SILT: black, dry, stiff, non-plastic to low plasticity
4					
6		CL		6.0	SILTY CLAY: black, dry, medium stiff
8	60	CL			CLAY: black, dry, medium stiff
10				10.0	
12		CH		12.0	▼ CLAY: very dark gray, moist, soft, high plasticity ▽
14	60	CL			SANDY CLAY: grayish brown, wet, soft, low plasticity, some silt, iron oxide staining
16				15.5	CLAY: reddish brown, wet, soft, medium plasticity, some sand, some silt
18	60	CL		18.5	
20		CL		20.5	CLAY: yellowish brown, wet, soft, medium plasticity
		SP		21.5	SAND: yellowish brown, wet, medium dense, medium to fine grained, some coarse to fine gravel

Bottom of borehole at 21.5 feet.

WOODARD & CURRAN STANDARD WP - WC STD.GDT - 22/1/20 10:24 - \\WOODARDCURRAN.NET\SHARED\PROJECTS\0232401.01 KIMLEY HORN PFAS COMPLETION RPT\WIP\GINT\SJC PRELIM INV.GPJ

Woodard & Curran
2175 N California Blvd, Suite 315
Walnut Creek, CA 94596
Telephone: 925.627.4100

BORING NUMBER L4

CLIENT Kimley-Horn and Associates
PROJECT NAME Norman Y. Mineta San Jose International Airport
PROJECT NUMBER 0232401.01
PROJECT LOCATION San Jose, CA
DATE STARTED 10/22/2019 **COMPLETED** 10/22/2019
GROUND ELEVATION _____ **HOLE SIZE** 2.5"
DRILLING CONTRACTOR Penecore Drilling
GROUND WATER LEVELS:
DRILLING METHOD Direct Push by tracked Geoprobe
AT TIME OF DRILLING 11.50 ft
LOGGED BY Kevin Almestad **CHECKED BY** Jim Strandberg
AT END OF DRILLING ---
NOTES Representative Log for Location 4
AFTER DRILLING 8.81 ft

DEPTH (ft)	RECOVERY (INCHES)	U.S.C.S.	GRAPHIC LOG	Feet BGS	MATERIAL DESCRIPTION
0				0.3	Asphalt (4")
				1.0	FILL: dry, coarse gravel
2	60				FILL: dark brown, dry, loose, fine sand, some coarse to fine gravel
4				5.0	
6		CL			SILTY CLAY: black, dry, soft, low plasticity, little coarse sand
				7.0	
8	60	CL			SILTY CLAY: black, dry, soft, low plasticity
				9.0	
10					CLAY: olive brown, moist, soft, high plasticity
					Transitions to wet
12					
	60	CL			
14					
16					As above, some very fine sand
	60				
18					
20					

Bottom of borehole at 20.0 feet.

WOODARD & CURRAN STANDARD WP - WC STD.GDT - 22/1/20 10:24 - \\WOODARDCURRAN.NET\SHARED\PROJECTS\0232401.01 KIMLEY HORN PFAS COMPLETION RPT\WIP\GINT\SJC PRELIM INV.GPJ

Woodard & Curran
2175 N California Blvd, Suite 315
Walnut Creek, CA 94596
Telephone: 925.627.4100

BORING NUMBER L8/9

CLIENT Kimley-Horn and Associates
PROJECT NAME Norman Y. Mineta San Jose International Airport
PROJECT NUMBER 0232401.01
PROJECT LOCATION San Jose, CA
DATE STARTED 10/24/2019 **COMPLETED** 10/24/2019
GROUND ELEVATION _____ **HOLE SIZE** 2.5"
DRILLING CONTRACTOR Penecore Drilling
GROUND WATER LEVELS:
DRILLING METHOD Direct Push by tracked Geoprobe
AT TIME OF DRILLING 14.00 ft
LOGGED BY Kevin Almestad **CHECKED BY** Jim Strandberg
AT END OF DRILLING ---
NOTES Representative Log for Locations 8 & 9
AFTER DRILLING 15.15 ft

DEPTH (ft)	RECOVERY (INCHES)	U.S.C.S.	GRAPHIC LOG	Feet BGS	MATERIAL DESCRIPTION
0				0.3	Asphalt (4")
				1.0	FILL: dry, loose, silty gravel, some sand
					CLAY: very dark grayish brown, dry, medium plasticity
2	60				As above, some fine sand
4		CL			
				5.0	
6		CL			CLAY: olive brown, dry, medium plasticity
				6.0	
8	60	SC			CLAYEY SAND: olive brown, dry, medium stiff, low plasticity,some coarse to fine gravel, some silt
				9.0	
10					GRAVELLY SAND: olive brown, dry, loose, little clay
		SP			
12	60				As above, moist, no gravel
14				14.0 ▽	
		SP			SAND: olive brown, wet, loose, coarse to fine grained, little clay
				15.0 ▼	
16		CL			CLAY: dark grayish brown, wet, soft, medium plasticity
				16.0	As above, olive gray, some sand, some silt
					CLAYEY SAND: black, wet, some silt
18	60	SC			
				19.0	
20					CLAY: black, wet, soft, high plasticity
22		CH			
24					
				25.0	

Bottom of borehole at 25.0 feet.

WOODARD & CURRAN STANDARD WP - WC STD.GDT - 22/1/20 10:24 - \\WOODARDCURRAN.NET\SHARED\PROJECTS\0232401.01 KIMLEY HORN PFAS COMPLETION RPT\WIP\GINT\SJC PRELIM INV.GPJ

Woodard & Curran
2175 N California Blvd, Suite 315
Walnut Creek, CA 94596
Telephone: 925.627.4100

BORING NUMBER L10

CLIENT Kimley-Horn and Associates
PROJECT NAME Norman Y. Mineta San Jose International Airport
PROJECT NUMBER 0232401.01
PROJECT LOCATION San Jose, CA
DATE STARTED 10/16/2019 **COMPLETED** 10/16/2019
GROUND ELEVATION _____ **HOLE SIZE** 2.5"
DRILLING CONTRACTOR Penecore Drilling
GROUND WATER LEVELS:
DRILLING METHOD Direct Push by tracked Geoprobe
AT TIME OF DRILLING 12.50 ft
LOGGED BY Kevin Almestad **CHECKED BY** Jim Strandberg
AT END OF DRILLING ---
NOTES Representative Log for Location 10
AFTER DRILLING 11.85 ft

DEPTH (ft)	RECOVERY (INCHES)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0			Feet BGS	
	60			TOPSOIL: dry, loose, gravelly silt
				1.0
2		CL		SILTY CLAY: very dark grayish brown, dry
4				
				5.0
6	60	CL		SILTY CLAY: black, damp
8				8.0
		ML		CLAYEY SILT: gray, dry, stiff
10				10.0
		CL		SILTY CLAY: light olive brown, damp, iron oxide mottling
12				
	60			12.5 ▽
		SP		SILTY SAND: light olive brown, saturated, coarse to fine grained
14				13.5
		ML		SILT: very dark gray, saturated, low plasticity
				15.0
16				CLAY, very dark gray, high plasticity thin layers of fine-grained sand
	60	CL		
18				
				20.0
20				Bottom of borehole at 20.0 feet.

WOODARD & CURRAN STANDARD WP - WC STD.GDT - 22/1/20 10:24 - \\WOODARDCURRAN.NET\SHARED\PROJECTS\0232401.01 KIMLEY HORN PFAS COMPLETION RPT\WIP\GINT\SJC PRELIM INV.GPJ

Woodard & Curran
2175 N California Blvd, Suite 315
Walnut Creek, CA 94596
Telephone: 925.627.4100

BORING NUMBER L11

CLIENT Kimley-Horn and Associates
PROJECT NAME Norman Y. Mineta San Jose International Airport
PROJECT NUMBER 0232401.01
PROJECT LOCATION San Jose, CA
DATE STARTED 10/16/2019 **COMPLETED** 10/16/2019
GROUND ELEVATION _____ **HOLE SIZE** 2.5"
DRILLING CONTRACTOR Penecore Drilling
GROUND WATER LEVELS:
DRILLING METHOD Direct Push by tracked Geoprobe
AT TIME OF DRILLING 10.50 ft
LOGGED BY Kevin Almestad **CHECKED BY** Jim Strandberg
AT END OF DRILLING ---
NOTES Representative Log for Location 11
AFTER DRILLING 6.55 ft

DEPTH (ft)	RECOVERY (INCHES)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0			Feet BGS	
	60			TOPSOIL: dry, loose, gravelly silt
			1.0	
		ML		CLAYEY SILT: dark grayish brown, dry, stiff, low plasticity
2			2.0	
				CLAY: dark gray, dry, stiff, low plasticity, trace sand
		CL		
4				
6			6.0	
				CLAY: brown, damp, soft, medium plasticity, trace sand
	60	CL		
8			8.0	
				SANDY CLAY: dark yellowish brown, moist, soft, low plasticity, fine grained, some silt
		SC		
10				
				As above, transitions to wet
12				
	60			
			13.0	
				CLAY: dark gray, moist, soft, high plasticity
14		CL		
			15.0	
16				SANDY CLAY: dark gray, wet
	60	CL		
18				
20			20.0	

Bottom of borehole at 20.0 feet.

WOODARD & CURRAN STANDARD WP - WC STD.GDT - 22/1/20 10:24 - \\WOODARDCURRAN.NET\SHARED\PROJECTS\0232401.01 KIMLEY HORN PFAS COMPLETION RPT\WIP\GINT\SJC PRELIM INV.GPJ

Woodard & Curran
2175 N California Blvd, Suite 315
Walnut Creek, CA 94596
Telephone: 925.627.4100

BORING NUMBER L12

CLIENT Kimley-Horn and Associates
PROJECT NAME Norman Y. Mineta San Jose International Airport
PROJECT NUMBER 0232401.01
PROJECT LOCATION San Jose, CA
DATE STARTED 10/17/2019 **COMPLETED** 10/18/2019
GROUND ELEVATION _____ **HOLE SIZE** 2.5"
DRILLING CONTRACTOR Penecore Drilling
GROUND WATER LEVELS:
DRILLING METHOD Direct Push by tracked Geoprobe
AT TIME OF DRILLING 12.00 ft
LOGGED BY Kevin Almestad **CHECKED BY** Jim Strandberg
AT END OF DRILLING ---
NOTES Representative Log for Location 12
AFTER DRILLING 11.54 ft

DEPTH (ft)	RECOVERY (INCHES)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0			Feet BGS	
				TOPSOIL: dry, loose, gravelly silt
				1.0
				SILT: gray, dry, medium stiff, non-plastic, with some clay, light mottling
2	60	ML		
4				
				5.0
				CLAYEY SILT: black, dry, stiff, non-plastic to low plasticity, mottling
6				
	60	ML		
8				
				Transitions to damp
10				
				11.0
				CLAY: brown, moist, soft, high plasticity
12				▼ ▽
	60			Transitions to wet
14				As above, some fine sand, some silt
16				
		CL		
18	60			
20				20.0
				Bottom of borehole at 20.0 feet.

WOODARD & CURRAN STANDARD WP - WC STD.GDT - 22/1/20 10:24 - \\WOODARDCURRAN.NET\SHARED\PROJECTS\0232401.01 KIMLEY HORN PFAS COMPLETION RPT\WIP\GINT\SJC PRELIM INV.GPJ

Woodard & Curran
2175 N California Blvd, Suite 315
Walnut Creek, CA 94596
Telephone: 925.627.4100

BORING NUMBER L14-2

CLIENT Kimley-Horn and Associates
PROJECT NAME Norman Y. Mineta San Jose International Airport
PROJECT NUMBER 0232401.01
PROJECT LOCATION San Jose, CA
DATE STARTED 10/23/2019 **COMPLETED** 10/23/2019
GROUND ELEVATION _____ **HOLE SIZE** 2.5"
DRILLING CONTRACTOR Penecore Drilling
GROUND WATER LEVELS:
DRILLING METHOD Direct Push by tracked Geoprobe
AT TIME OF DRILLING 12.00 ft
LOGGED BY Kevin Almestad **CHECKED BY** Jim Strandberg
AT END OF DRILLING ---
NOTES
AFTER DRILLING 7.15 ft

DEPTH (ft)	RECOVERY (INCHES)	U.S.C.S.	GRAPHIC LOG	Feet BGS	MATERIAL DESCRIPTION
0				0.3	Concrete (4")
				1.0	FILL: dry, gravelly silt with fine to coarse gravel
					CLAY: black, dry, medium stiff, medium plasticity
2	60				
4		CL			
6					
	60				As above, grading to silt and fine sand
8				8.0	
		SC-SM			SILTY SAND: yellowish brown, moist, medium dense, well graded, fine grained, some iron oxide staining
10				10.0	
		SW			SAND: dark yellowish brown, moist, loose, fine grained, little fine gravel
12				12.0	
	60				SANDY GRAVEL: olive brown, wet, loose, medium to coarse gravel, poorly sorted or fine sand
14					
16					As above, wet
		GP			
18	60				
				19.0	
		CL			SANDY CLAY: olive, wet, soft, medium plasticity, fine sand
20				20.0	

Bottom of borehole at 20.0 feet.

WOODARD & CURRAN STANDARD WP - WC STD.GDT - 22/1/20 10:24 - \\WOODARDCURRAN.NET\SHARED\PROJECTS\0232401.01 KIMLEY HORN PFAS COMPLETION RPT\WIP\GINT\SJC PRELIM INV.GPJ

Woodard & Curran
2175 N California Blvd, Suite 315
Walnut Creek, CA 94596
Telephone: 925.627.4100

BORING NUMBER L14-4

CLIENT Kimley-Horn and Associates
PROJECT NAME Norman Y. Mineta San Jose International Airport
PROJECT NUMBER 0232401.01
PROJECT LOCATION San Jose, CA
DATE STARTED 10/23/2019 **COMPLETED** 10/23/2019
GROUND ELEVATION _____ **HOLE SIZE** 2.5"
DRILLING CONTRACTOR Penecore Drilling
GROUND WATER LEVELS:
DRILLING METHOD Direct Push by tracked Geoprobe
AT TIME OF DRILLING 11.00 ft
LOGGED BY Kevin Almestad **CHECKED BY** Jim Strandberg
AT END OF DRILLING ---
NOTES
AFTER DRILLING 7.59 ft

DEPTH (ft)	RECOVERY (INCHES)	U.S.C.S.	GRAPHIC LOG	Feet BGS	MATERIAL DESCRIPTION
0				0.3	Asphalt (4")
				1.0	FILL: dry, fine gravelly silt
2	60	CH			CLAY: black, dry, medium stiff, high plasticity
4				5.0	
6	60	CL			CLAY: very dark grayish brown, dry, medium stiff, medium plasticity
8				8.0	
10		SC			SANDY CLAY: light yellowish brown, soft, low plasticity
				11.0	
12	60	SP			GRAVELLY SAND: grayish brown, wet, loose, little fine to coarse gravel, poorly sorted fine sand, iron oxide staining
14					
16					As above, some fine to coarse gravel
				16.0	
18	60	GP			SANDY GRAVEL: dark grayish brown, wet, loose, fine to coarse gravel, little medium to coarse sand
20				20.0	

Bottom of borehole at 20.0 feet.

WOODARD & CURRAN STANDARD WP - WC STD.GDT - 22/1/20 10:24 - \\WOODARDCURRAN.NET\SHARED\PROJECTS\0232401.01 KIMLEY HORN PFAS COMPLETION RPT\WIP\GINT\SJC PRELIM INV.GPJ

APPENDIX D: LABORATORY ANALYTICAL REPORTS

CALIFORNIA LABORATORY SERVICES
Committed. Responsive. Flexible.

October 25, 2019

CLS Work Order #: 19J1246
COC #: 200028

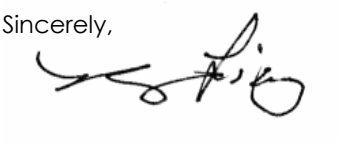
Jade White Dobbs
Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762

Project Name: SJC PFAS Investigation

Enclosed are the results of analyses for samples received by the laboratory on 10/18/19 13:15. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA SWRCB ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

Report to Vista Analytical Lab
Attn: Jade White Dobbs

CHAIN OF CUSTODY

CLS ID No.: 191246 LOG Nº 200028

HIGHLIGHTED AREAS MUST BE FILLED OUT PRIOR TO ACCEPTANCE

REPORT TO:

NAME AND ADDRESS: Jim Strandberg
2175 N California Blvd, Ste 315
Walnut Creek, CA

PROJECT MANAGER / PHONE#:

PROJECT NAME: SJC PFAS Investigation

SAMPLED BY: Kevin Almstad/George Valenzuela

JOB DESCRIPTION: Gen. chem parameters

SITE LOCATION: 1701 Airport Blvd, San Jose, CA

CLIENT JOB NUMBER:

DESTINATION LABORATORY:
☒ CLS (916) 638-7301
3249 FITZGERALD RD.
RANCHO CORDOVA, CA.
95742
☐ OTHER

PRESERVATIVES

ANALYSIS REQUESTED: Total Dissolved Solids (KA), Chloride, Sulfate, Nitrate-Nitrogen, Calcium, Magnesium, Potassium, Sodium

GEOTHRACKER:
EDF REPORT ☒ YES ☐ NO
GLOBAL ID:

CDPH WRITE ON EDT TRANSMISSION? ☐ YES ☒ NO
STATE SYSTEM NUMBER
IF "YES" PLEASE ENTER THE SOURCE NUMBER(S).

COMPOSITE:

DATE	TIME	SAMPLE IDENTIFICATION	KA	MATRIX	CONTAINER NO.	CONTAINER TYPE	TURN AROUND TIME: 1 DAY	2 DAY	3 DAY	5 DAY	SPECIAL INSTRUCTIONS
~~2307~~		~~L10-2~~									
2307	10/16/19	L10-1-6W		W	1	Poly				X	
2317	10/16/19	L10-10-6W		W	1	↓				X	
0300	10/17/19	L11-3-6W		W	1	↓				X	

OR
ALT. ID:

INVOICE TO:

P.O. #

QUOTE #

Email/Address: Jstrandberg@woodardcurran.com

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	Kevin Almstad	10/17/19 1815		Fedex
	FedEx	10/18/19 0724	Ashley	Ashley Mason / VAL
	Jenn Miller / VAL	10/18/19 12:44		

RECD AT LAB BY: DATE / TIME: 10-18-19 1315 5.9/5.9 CONDITIONS / COMMENTS:

SHIPPED BY: ☒ FED X ☐ UPS ☐ OTHER AIR BILL #

White-Lab/Terms and conditions Yellow- Lab file copy/Terms and Conditions Pink- Origin/Terms and Conditions Gold-Project Mgr/Field Sampler/Terms and conditions

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1246**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 200028

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L10-1-GW (19J1246-01) Water Sampled: 10/16/19 23:07 Received: 10/18/19 13:15									
Chloride	**39**	5.0	mg/L	10	1908803	10/18/19	10/18/19	EPA 300.0	
Nitrate as N	**6.1**	4.0	"	"	"	"	10/18/19	"	
Sulfate as SO4	**160**	5.0	"	"	"	"	"	"	
Total Dissolved Solids	**930**	10	"	1	1908844	10/21/19	10/23/19	EPA 160.1	
L10-10-GW (19J1246-02) Water Sampled: 10/16/19 23:17 Received: 10/18/19 13:15									
Chloride	**46**	5.0	mg/L	10	1908803	10/18/19	10/18/19	EPA 300.0	
Nitrate as N	**4.9**	4.0	"	"	"	"	10/18/19	"	
Sulfate as SO4	**150**	5.0	"	"	"	"	10/18/19	"	
Total Dissolved Solids	**970**	10	"	1	1908844	10/21/19	10/23/19	EPA 160.1	
L11-3-GW (19J1246-03) Water Sampled: 10/17/19 03:00 Received: 10/18/19 13:15									
Chloride	**8.5**	0.50	mg/L	1	1908803	10/18/19	10/18/19	EPA 300.0	
Nitrate as N	ND	0.40	"	"	"	"	"	"	
Sulfate as SO4	**560**	10	"	20	"	"	10/21/19	"	
Total Dissolved Solids	**1100**	10	"	1	1908844	10/21/19	10/23/19	EPA 160.1	

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1246**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 200028

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L10-1-GW (19J1246-01) Water Sampled: 10/16/19 23:07 Received: 10/18/19 13:15									
Calcium	**110000**	10000	µg/L	10	1908887	10/22/19	10/24/19	EPA 200.7	
Magnesium	**82000**	1000	"	1	"	"	10/24/19	"	
Potassium	**2600**	1000	"	"	"	"	"	"	
Sodium	**100000**	1000	"	"	"	"	"	"	
L10-10-GW (19J1246-02) Water Sampled: 10/16/19 23:17 Received: 10/18/19 13:15									
Calcium	**130000**	10000	µg/L	10	1908887	10/22/19	10/24/19	EPA 200.7	
Magnesium	**85000**	1000	"	1	"	"	10/24/19	"	
Potassium	**3900**	1000	"	"	"	"	"	"	
Sodium	**110000**	1000	"	"	"	"	"	"	
L11-3-GW (19J1246-03) Water Sampled: 10/17/19 03:00 Received: 10/18/19 13:15									
Calcium	**200000**	10000	µg/L	10	1908887	10/22/19	10/24/19	EPA 200.7	
Magnesium	**90000**	1000	"	1	"	"	10/24/19	"	
Potassium	**4000**	1000	"	"	"	"	"	"	
Sodium	**16000**	1000	"	"	"	"	"	"	

Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762

Project: SJC PFAS Investigation
Project Number: [none]
Project Manager: Jade White Dobbs

CLS Work Order #: 19J1246
COC #: 200028

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1908803 - General Prep										
Blank (1908803-BLK1)				Prepared & Analyzed: 10/18/19						
Sulfate as SO4	ND	0.50	mg/L							
Chloride	ND	0.50	"							
Nitrate as N	ND	0.40	"							
LCS (1908803-BS1)				Prepared & Analyzed: 10/18/19						
Sulfate as SO4	4.61	0.50	mg/L	5.00		92	80-120			
Chloride	4.55	0.50	"	5.00		91	80-120			
Nitrate as N	1.88	0.40	"	2.00		94	80-120			
LCS Dup (1908803-BSD1)				Prepared & Analyzed: 10/18/19						
Sulfate as SO4	5.08	0.50	mg/L	5.00		102	80-120	10	20	
Chloride	4.88	0.50	"	5.00		98	80-120	7	20	
Nitrate as N	2.05	0.40	"	2.00		103	80-120	9	20	
Matrix Spike (1908803-MS1)		**Source: 19J1225-03**		Prepared & Analyzed: 10/18/19						
Sulfate as SO4	34.6	0.50	mg/L	5.00	31.7	57	80-120			QM-4X
Chloride	18.3	0.50	"	5.00	14.2	83	80-120			
Nitrate as N	14.6	0.40	"	2.00	13.9	35	80-120			QM-4X
Matrix Spike Dup (1908803-MSD1)		**Source: 19J1225-03**		Prepared & Analyzed: 10/18/19						
Chloride	18.4	0.50	mg/L	5.00	14.2	84	80-120	0.3	20	
Sulfate as SO4	34.6	0.50	"	5.00	31.7	58	80-120	0.1	20	QM-4X
Nitrate as N	14.6	0.40	"	2.00	13.9	37	80-120	0.2	20	QM-4X
Batch 1908844 - General Preparation										
Blank (1908844-BLK1)				Prepared: 10/21/19 Analyzed: 10/23/19						
Total Dissolved Solids	ND	10	mg/L							

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1246**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 200028

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1908844 - General Preparation										
Duplicate (1908844-DUP1)		**Source: 19J1257-03**		Prepared: 10/21/19 Analyzed: 10/23/19						
Total Dissolved Solids	1150	10	mg/L		1150			0.00	20	

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1246**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 200028

Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1908887 - EPA 200 Series										
Blank (1908887-BLK1)				Prepared & Analyzed: 10/22/19						
Calcium	ND	1000	µg/L							
Cobalt	ND	20	"							
Copper	ND	10	"							
Iron	ND	100	"							
Magnesium	ND	1000	"							
Potassium	ND	1000	"							
Sodium	ND	1000	"							
Zinc	ND	20	"							
LCS (1908887-BS1)				Prepared & Analyzed: 10/22/19						
Calcium	6200	1000	µg/L	5000		124	85-115			QM-1
Cobalt	1250	20	"	1000		125	85-115			QM-1
Copper	1200	10	"	1000		120	85-115			QM-1
Iron	1010	100	"	1000		101	85-115			
Magnesium	5570	1000	"	5000		111	85-115			QM-1
Potassium	5430	1000	"	5000		109	85-115			QM-1
Sodium	4700	1000	"	5000		94	85-115			
Zinc	1040	20	"	1000		104	85-115			
Matrix Spike (1908887-MS1)	**Source: 19J1185-01**			Prepared & Analyzed: 10/22/19						
Calcium	13000	1000	µg/L	5000	7370	113	70-130			
Cobalt	1170	20	"	1000	ND	117	70-130			
Copper	1150	10	"	1000	9.78	114	70-130			
Iron	4290	100	"	1000	3070	121	70-130			QM-7
Magnesium	8720	1000	"	5000	3280	109	70-130			
Potassium	9570	1000	"	5000	4480	102	70-130			
Sodium	164000	1000	"	5000	168000	NR	70-130			QM-4X
Zinc	1190	20	"	1000	55.7	113	70-130			

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1246**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 200028

Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1908887 - EPA 200 Series										
Matrix Spike (1908887-MS2)	**Source: 19J1245-01**			Prepared & Analyzed: 10/22/19						
Calcium	44900	5000	µg/L	5000	24400	410	70-130			QM-7
Cobalt	1290	100	"	1000	ND	129	70-130			
Copper	1300	50	"	1000	ND	130	70-130			
Iron	1470	100	"	1000	1050	43	70-130			QM-7
Magnesium	14200	1000	"	5000	10700	70	70-130			QM-7
Potassium	38100	1000	"	5000	46600	NR	70-130			QM-7
Sodium	107000	1000	"	5000	137000	NR	70-130			QM-4X
Zinc	1350	100	"	1000	68.2	128	70-130			

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1246**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 200028

Notes and Definitions

QM-7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS and/or LCSD recovery.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
QM-1	The spike recovery was outside acceptance limits for the LCS or LCSD. The batch was accepted based on acceptable MS/MSD recoveries & RPD's.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES
Committed. Responsive. Flexible.

November 15, 2019

CLS Work Order #: 19K0437
COC #: GREEN

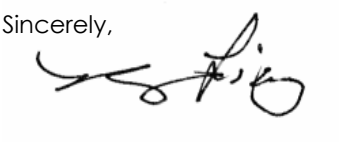
Jade White Dobbs
Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762

Project Name: SJC PFAS Investigation

Enclosed are the results of analyses for samples received by the laboratory on 11/08/19 10:51. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA SWRCB ELAP Accreditation/Registration number 1233

19K0437

CHANGE OF STATUS

Work Order # 1911246

New Work Order X Revise Existing Work Order _____

Project Name: SJC PFAS INVESTIGATION

Date Sample(s) Were Received: 10/18/19 Original Date _____

KEVIN ALMESTAD (Client Contacted) of WOODARD + CURRAN (Company) called/emailed

On 11/7/19 (Date) at 1715 (Time)

... and requested the following:

RUN ALKALINITY SUITE ON ALL SAMPLES

Turnaround time requested for additional work: 5

(Signature) 11/8/19 (Date)

Updated lab job database and file folder by: [illegible] 08

Cc: _____ _____ _____

H:\FORMS & TEMPLATES\Change of Status.doc

CLS LABS

SAMPLE RECEIVING EXCEPTION REPORTS

CLS Labs Job # _____

Problem discovered by: Matt Yost **Date:** 11/7/19

Nature of problem Alkalinity

Sulfite **Chlorine, Total** **Chlorine, Residual** **Ph** **Dissolved O2**

(Circle analysis above) **Received out of HOLD time.**

Client contacted? Yes X **No** _____ **Spoke With:** Kevin A.

By whom: Matt Yost **Date:** 11/7/19 **Time:** 1711 **HRS**

Client instructions:

OK to analyze outside of hold time

Resolution of problem:

Logged in regardless and will be ran for analysis requested.

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19K0437**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: GREEN

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L10-1-GW (19K0437-01) Water Sampled: 10/16/19 23:07 Received: 11/08/19 10:51									
Bicarbonate as CaCO3	**750**	5.0	mg/L	1	1909521	11/12/19	11/12/19	SM2320B	HT-5
Carbonate as CaCO3	ND	5.0	"	"	"	"	"	"	HT-5
Hydroxide as CaCO3	ND	5.0	"	"	"	"	"	"	HT-5
Total Alkalinity	**750**	5.0	"	"	"	"	"	"	HT-5
L10-10-GW (19K0437-02) Water Sampled: 10/16/19 23:17 Received: 11/08/19 10:51									
Bicarbonate as CaCO3	**780**	5.0	mg/L	1	1909521	11/12/19	11/12/19	SM2320B	HT-5
Carbonate as CaCO3	ND	5.0	"	"	"	"	"	"	HT-5
Hydroxide as CaCO3	ND	5.0	"	"	"	"	"	"	HT-5
Total Alkalinity	**780**	5.0	"	"	"	"	"	"	HT-5
L11-3-GW (19K0437-03) Water Sampled: 10/17/19 03:00 Received: 11/08/19 10:51									
Bicarbonate as CaCO3	**390**	5.0	mg/L	1	1909521	11/12/19	11/12/19	SM2320B	HT-5
Carbonate as CaCO3	ND	5.0	"	"	"	"	"	"	HT-5
Hydroxide as CaCO3	ND	5.0	"	"	"	"	"	"	HT-5
Total Alkalinity	**390**	5.0	"	"	"	"	"	"	HT-5

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19K0437**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: GREEN

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1909521 - General Preparation										
Blank (1909521-BLK1)				Prepared & Analyzed: 11/12/19						
Total Alkalinity	ND	5.0	mg/L							
Bicarbonate as CaCO3	ND	5.0	"							
Carbonate as CaCO3	ND	5.0	"							
Hydroxide as CaCO3	ND	5.0	"							
Duplicate (1909521-DUP1)		**Source: 19K0447-02**		Prepared & Analyzed: 11/12/19						
Total Alkalinity	1080	5.0	mg/L		1080			0.1	20	
Bicarbonate as CaCO3	1080	5.0	"		1080			0.1	20	
Carbonate as CaCO3	ND	5.0	"		ND				20	
Hydroxide as CaCO3	ND	5.0	"		ND				20	

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19K0437**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: GREEN

Notes and Definitions

HT-5	The request for this analysis was initiated by the client after holding time expiration.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES
Committed. Responsive. Flexible.

October 28, 2019

CLS Work Order #: 19J1293
COC #: 200029

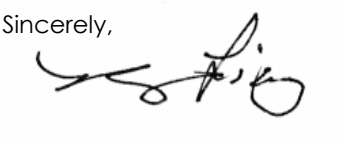
Jade White Dobbs
Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762

Project Name: SJC PFAS Investigation

Enclosed are the results of analyses for samples received by the laboratory on 10/21/19 08:25. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA SWRCB ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES
Committed. Responsive. Flexible.

CHAIN OF CUSTODY

CLS ID No.: 19J1293

LOG № 200029

HIGHLIGHTED AREAS MUST BE FILLED OUT PRIOR TO ACCEPTANCE

REPORT TO:

NAME AND ADDRESS: Jim Strandberg
2175 N. California Blvd, Ste 315
Walnut Creek, CA
PROJECT MANAGER / PHONE#:
PROJECT NAME: SJC PFAS Investigation
SAMPLED BY: Kevin Almstead/ George Valenzuela
JOB DESCRIPTION: General Chem. parameters
SITE LOCATION: 1701 Airport Blvd San Jose, CA

CLIENT JOB NUMBER:

DESTINATION LABORATORY:
☒ CLS (916) 638-7301
3249 FITZGERALD RD.
RANCHO CORDOVA, CA.
95742
☐ OTHER

GEOTHRACKER:
EDF REPORT ☒ YES ☐ NO
GLOBAL ID:

CDPH WRITE ON EDT TRANSMISSION? ☐ YES ☒ NO
STATE SYSTEM NUMBER:
IF "YES" PLEASE ENTER THE SOURCE NUMBER(S).

COMPOSITE:

TURN AROUND TIME: 1 DAY / 2 DAY / 3 DAY / 5 DAY

SPECIAL INSTRUCTIONS
OR
ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	Total Dissolved Solids	Chloride, Sulfate	Nitrate - Nitrogen	Calcium, Magnesium	Potassium	Sodium	1 DAY	2 DAY	3 DAY	5 DAY
~~0235~~ 10/18/19		L12-3-GW	W	1	Poly		X	X	X	X	X	X				X
0130	GW															~~X~~ GW
																~~X~~ GW

INVOICE TO:
P.O. #
QUOTE #

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

Email/Address: Strandberg@woodardcurran.com

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	Kevin Almstead/ Woodard & Curran	10/18/19 1345		FedEx

REC'D AT LAB BY: DATE / TIME: 10-21-19 0825 CONDITIONS / COMMENTS: 14.4 / 14.5

SHIPPED BY: ☒ FED X ☐ UPS ☐ OTHER AIR BILL #

Gold-Project Mgr./Field Sampler/Terms and conditions
Pink- Origin/Terms and Conditions
Yellow- Lab file copy/Terms and Conditions
White- Lab/Terms and conditions

Mark Smith

From: Jennifer Miller <jmiller@vista-analytical.com>
Sent: Friday, October 18, 2019 3:12 PM
To: Scott Furnas
Cc: Jade White-Dobbs; Mark Smith
Subject: RE: San Jose Airport project - Sample coming tomorrow

Importance: High

Hello again, Gentlemen.

This client is sending a single sample for receipt at your lab tomorrow. I hope that you can receive it?! They know that the nitrate hold time won't be met. Please flag as necessary.

Thank you!

Best Regards,

Jennifer Miller
National Sales
Mobile: (916) 995-5171

Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
Phone: (916) 673-1520
www.vista-analytical.com

A woman-owned, small business enterprise.

Specialists in HRMS and UPLC-MS/MS methods, quantifying Dioxins, PCB Congeners and PFAS.

Please consider the environment before printing this e-mail.

From: Scott Furnas <scottf@californialab.com>
Sent: Friday, October 18, 2019 1:16 PM
To: Jennifer Miller <jmiller@vista-analytical.com>
Cc: Jade White-Dobbs <jdobbs@vista-analytical.com>; Mark Smith <marks@californialab.com>
Subject: Re: San Jose Airport project - Nitrate hold time expires at 8 tonight

Not sure, I don't know what is on the instrument in front of these. We will alert staff, how many are you bring??

Scott Furnas

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1293**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 200029

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L12-3-GW (19J1293-01) Water Sampled: 10/18/19 13:30 Received: 10/21/19 08:25									
Chloride	**70**	10	mg/L	20	1908839	10/21/19	10/21/19	EPA 300.0	
Nitrate as N	ND	0.40	"	1	"	"	"	"	HT-1
Sulfate as SO4	**630**	10	"	20	"	"	10/21/19	"	
Total Dissolved Solids	**1800**	10	"	1	1908922	10/22/19	10/24/19	SM2540C	

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1293**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 200029

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L12-3-GW (19J1293-01) Water Sampled: 10/18/19 13:30 Received: 10/21/19 08:25									
Calcium	**290**	1.0	mg/L	1	1908887	10/22/19	10/25/19	EPA 200.7	
Magnesium	**94**	1.0	"	"	"	"	"	"	
Potassium	**9.2**	1.0	"	"	"	"	"	"	
Sodium	**50**	1.0	"	"	"	"	"	"	

Vista Analytical Laboratory	Project:	SJC PFAS Investigation
1104 Windfield Way	Project Number:	[none]
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs

CLS Work Order #: 19J1293
COC #: 200029

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1908839 - General Prep										
Blank (1908839-BLK1)				Prepared & Analyzed: 10/21/19						
Sulfate as SO4	ND	0.50	mg/L							
Chloride	ND	0.50	"							
Nitrate as N	ND	0.40	"							
LCS (1908839-BS1)				Prepared & Analyzed: 10/21/19						
Chloride	4.58	0.50	mg/L	5.00		92	80-120			
Sulfate as SO4	4.72	0.50	"	5.00		94	80-120			
Nitrate as N	1.92	0.40	"	2.00		96	80-120			
LCS Dup (1908839-BSD1)				Prepared & Analyzed: 10/21/19						
Chloride	4.55	0.50	mg/L	5.00		91	80-120	0.7	20	
Sulfate as SO4	4.69	0.50	"	5.00		94	80-120	0.5	20	
Nitrate as N	1.90	0.40	"	2.00		95	80-120	0.9	20	
Matrix Spike (1908839-MS1)		**Source: 19J1308-03**		Prepared & Analyzed: 10/21/19						
Sulfate as SO4	21.3	0.50	mg/L	5.00	16.6	95	80-120			
Chloride	44.3	0.50	"	5.00	41.3	60	80-120			QM-4X
Nitrate as N	2.06	0.40	"	2.00	0.207	93	80-120			
Matrix Spike Dup (1908839-MSD1)		**Source: 19J1308-03**		Prepared & Analyzed: 10/21/19						
Chloride	44.3	0.50	mg/L	5.00	41.3	60	80-120	0.06	20	QM-4X
Sulfate as SO4	21.2	0.50	"	5.00	16.6	94	80-120	0.4	20	
Nitrate as N	2.04	0.40	"	2.00	0.207	92	80-120	1	20	
Batch 1908922 - General Preparation										
Blank (1908922-BLK1)				Prepared: 10/22/19 Analyzed: 10/24/19						
Total Dissolved Solids	ND	10	mg/L							

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1293**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 200029

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1908922 - General Preparation										
Duplicate (1908922-DUP1)		**Source: 19J1374-04**		Prepared: 10/22/19 Analyzed: 10/24/19						
Total Dissolved Solids	324	10	mg/L		324			0	20	

Vista Analytical Laboratory	Project:	SJC PFAS Investigation
1104 Windfield Way	Project Number:	[none]
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs

CLS Work Order #: 19J1293
COC #: 200029

Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1908887 - EPA 200 Series										
Blank (1908887-BLK1)				Prepared: 10/22/19 Analyzed: 10/24/19						
Calcium	ND	1.0	mg/L							
Magnesium	ND	1.0	"							
Potassium	ND	1.0	"							
Sodium	ND	1.0	"							
LCS (1908887-BS1)				Prepared: 10/22/19 Analyzed: 10/24/19						
Calcium	5.27	1.0	mg/L	5.00		105	85-115			
Magnesium	5.57	1.0	"	5.00		111	85-115			
Potassium	5.43	1.0	"	5.00		109	85-115			
Sodium	4.70	1.0	"	5.00		94	85-115			
Matrix Spike (1908887-MS1)		**Source: 19J1185-01**		Prepared: 10/22/19 Analyzed: 10/24/19						
Calcium	10.8	1.0	mg/L	5.00	5.89	98	70-130			
Magnesium	8.72	1.0	"	5.00	3.28	109	70-130			
Potassium	9.57	1.0	"	5.00	4.48	102	70-130			
Sodium	164	1.0	"	5.00	168	NR	70-130			QM-4X
Matrix Spike (1908887-MS2)		**Source: 19J1245-01**		Prepared: 10/22/19 Analyzed: 10/24/19						
Calcium	25.0	1.0	mg/L	5.00	24.4	13	70-130			QM-7
Magnesium	14.2	1.0	"	5.00	10.7	70	70-130			
Potassium	38.1	1.0	"	5.00	46.6	NR	70-130			QM-7
Sodium	107	1.0	"	5.00	137	NR	70-130			QM-7

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1293**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 200029

Notes and Definitions

QM-7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS and/or LCSD recovery.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
HT-1	The sample was received outside of the EPA recommended holding time.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES
Committed. Responsive. Flexible.

November 15, 2019

CLS Work Order #: 19K0439
COC #: GREEN

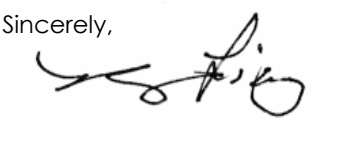
Jade White Dobbs
Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762

Project Name: SJC PFAS Investigation

Enclosed are the results of analyses for samples received by the laboratory on 11/08/19 10:59. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA SWRCB ELAP Accreditation/Registration number 1233

MF 04439

CHANGE OF STATUS

Work Order # 19J1293

New Work Order X Revise Existing Work Order _____

Project Name: SJC PFAS INVESTIGATION

Date Sample(s) Were Received: 10/21/19 Original Date _____

KEVIN ALMESTAD (Client Contacted) of WOODARD + CURRAN (Company) called/emailed

On 11/7/19 (Date) at 1715 (Time)

... and requested the following:

RUN ALKALINITY SUITE ON ALL SAMPLES

Turnaround time requested for additional work: 5

[signature] (Signature) 11/8/19 (Date)

Updated lab job database and file folder by: [signature] 11.8

Cc: _____ _____ _____

CLS LABS
SAMPLE RECEIVING EXCEPTION REPORTS

CLS Labs Job # 19F0439

Problem discovered by: Matt Yost **Date:** 11/7/19

Nature of problem Alkalinity

Sulfite **Chlorine, Total** **Chlorine, Residual** **Ph** **Dissolved O2**

(Circle analysis above) **Received out of HOLD time.**

Client contacted? Yes X **No** _____ **Spoke With:** Kevin A.

By whom: Matt Yost **Date:** 11/7/19 **Time:** 1711 **HRS**

Client instructions:

OK to analyze outside of hold time

Resolution of problem:

Logged in regardless and will be ran for analysis requested.

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19K0439**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: GREEN

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L12-3-GW (19K0439-01) Water Sampled: 10/18/19 13:30 Received: 11/08/19 10:59									
Bicarbonate as CaCO3	**620**	5.0	mg/L	1	1909450	11/08/19	11/08/19	SM2320B	HT-5
Carbonate as CaCO3	ND	5.0	"	"	"	"	"	"	HT-5
Hydroxide as CaCO3	ND	5.0	"	"	"	"	"	"	HT-5
Total Alkalinity	**620**	5.0	"	"	"	"	"	"	HT-5

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19K0439**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: GREEN

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1909450 - General Preparation										
Blank (1909450-BLK1)				Prepared & Analyzed: 11/08/19						
Total Alkalinity	ND	5.0	mg/L							
Bicarbonate as CaCO3	ND	5.0	"							
Carbonate as CaCO3	ND	5.0	"							
Hydroxide as CaCO3	ND	5.0	"							
Duplicate (1909450-DUP1)	**Source: 19K0318-01**			Prepared & Analyzed: 11/08/19						
Total Alkalinity	51.0	5.0	mg/L		48.8			4	20	
Bicarbonate as CaCO3	51.0	5.0	"		48.8			4	20	
Carbonate as CaCO3	ND	5.0	"		ND				20	
Hydroxide as CaCO3	ND	5.0	"		ND				20	

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19K0439**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: GREEN

Notes and Definitions

HT-5	The request for this analysis was initiated by the client after holding time expiration.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES
Committed. Responsive. Flexible.

October 30, 2019

CLS Work Order #: 19J1452
COC #: 202207

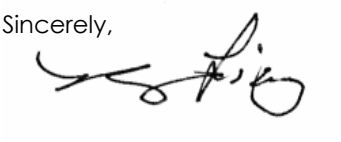
Jade White Dobbs
Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762

Project Name: SJC PFAS Investigation

Enclosed are the results of analyses for samples received by the laboratory on 10/23/19 09:10. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA SWRCB ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES
Committed. Responsive. Flexible.

CHAIN OF CUSTODY

CLS ID No.: 19J195 2

LOG № 202207

HIGHLIGHTED AREAS MUST BE FILLED OUT PRIOR TO ACCEPTANCE

REPORT TO:

NAME AND ADDRESS: Jim Strandberg
2175 N California Blvd., Ste 315
Walnut Creek, CA 94597
PROJECT MANAGER: PHONE#:
PROJECT NAME: SJC PEAS Investigation
SAMPLED BY: Kevin Almestad
JOB DESCRIPTION: General chemistry parameters
SITE LOCATION: 1701 Airport Blvd San Jose, CA

CLIENT JOB NUMBER:

DESTINATION LABORATORY:
☒ CLS (916) 638-7301
3249 FITZGERALD RD.
RANCHO CORDOVA, CA.
95742
☐ OTHER

PRESERVATIVES

ANALYSIS REQUESTED

GEOTRACKER:
EDF REPORT ☒ YES ☐ NO
GLOBAL ID:

CDPH WRITE ON EDT TRANSMISSION? ☐ YES ☒ NO
STATE SYSTEM NUMBER
IF "YES" PLEASE ENTER THE SOURCE NUMBER(S).

COMPOSITE:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	Total Dissolved Solids	Chloride / Sulfate	Nitrate - Nitrogen	Calcium	Magnesium	Potassium	Sodium	TURN AROUND TIME 1 DAY	2 DAY	3 DAY	5 DAY	SPECIAL INSTRUCTIONS OR ALT. ID:
																	NA
10/22/2019	0430	L4-2-GW	W	2	poly	X	X	X	X	X	X	X				X	

INVOICE TO:

P.O. #

QUOTE #

Email/Address: JStrandberg@woodardcurran.com

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	Kevin Almestad/WSC	10/23/19 17:15		Fedex

RECD AT LAB BY:
DATE / TIME: 10.23.19 0910
CONDITIONS / COMMENTS: 2.7/2.7

SHIPPED BY: ☒ FED X ☐ UPS ☐ OTHER AIR BILL #

White-Lab/Terms and conditions Yellow- Lab file copy/Terms and Conditions Pink- Orig/n/Terms and Conditions Gold-Project Mgr./Field Sampler/Terms and conditions

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1452**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 202207

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L4-2-GW (19J1452-01) Water Sampled: 10/22/19 04:30 Received: 10/23/19 09:10									
Chloride	**93**	10	mg/L	20	1908923	10/23/19	10/23/19	EPA 300.0	
Nitrate as N	ND	0.40	"	1	"	"	10/23/19	"	
Sulfate as SO4	**510**	10	"	20	"	"	10/23/19	"	
Total Dissolved Solids	**1300**	10	"	1	1908964	10/23/19	10/24/19	SM2540C	

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1452**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 202207

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L4-2-GW (19J1452-01) Water Sampled: 10/22/19 04:30 Received: 10/23/19 09:10									
Calcium	**24**	1.0	mg/L	1	1909078	10/28/19	10/30/19	EPA 200.7	
Magnesium	**78**	1.0	"	"	"	"	10/28/19	"	
Potassium	**11**	1.0	"	"	"	"	"	"	
Sodium	**57**	1.0	"	"	"	"	"	"	

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1452**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 202207

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1908923 - General Preparation										
Blank (1908923-BLK1)				Prepared & Analyzed: 10/23/19						
Sulfate as SO4	ND	0.50	mg/L							
Chloride	ND	0.50	"							
Nitrate as N	ND	0.40	"							
LCS (1908923-BS1)				Prepared & Analyzed: 10/23/19						
Chloride	4.64	0.50	mg/L	5.00		93	80-120			
Sulfate as SO4	4.76	0.50	"	5.00		95	80-120			
Nitrate as N	1.94	0.40	"	2.00		97	80-120			
LCS Dup (1908923-BSD1)				Prepared & Analyzed: 10/23/19						
Chloride	4.68	0.50	mg/L	5.00		94	80-120	0.8	20	
Sulfate as SO4	4.74	0.50	"	5.00		95	80-120	0.4	20	
Nitrate as N	1.97	0.40	"	2.00		99	80-120	1	20	
Matrix Spike (1908923-MS1)	**Source: 19J1424-01**			Prepared & Analyzed: 10/23/19						
Sulfate as SO4	4.80	0.50	mg/L	5.00	ND	96	80-120			
Chloride	8.73	0.50	"	5.00	3.86	97	80-120			
Nitrate as N	3.52	0.40	"	2.00	1.57	97	80-120			
Matrix Spike Dup (1908923-MSD1)	**Source: 19J1424-01**			Prepared & Analyzed: 10/23/19						
Chloride	8.66	0.50	mg/L	5.00	3.86	96	80-120	0.9	20	
Sulfate as SO4	4.73	0.50	"	5.00	ND	95	80-120	1	20	
Nitrate as N	3.55	0.40	"	2.00	1.57	99	80-120	0.9	20	
Batch 1908964 - General Preparation										
Blank (1908964-BLK1)				Prepared: 10/23/19 Analyzed: 10/24/19						
Total Dissolved Solids	ND	10	mg/L							

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1452**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 202207

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1908964 - General Preparation										
Duplicate (1908964-DUP1)		**Source: 19J1375-03**		Prepared: 10/23/19 Analyzed: 10/24/19						
Total Dissolved Solids	332	10	mg/L		325			2	20	

Vista Analytical Laboratory	Project:	SJC PFAS Investigation
1104 Windfield Way	Project Number:	[none]
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs

CLS Work Order #: 19J1452
COC #: 202207

Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1909078 - EPA 200 Series										
Blank (1909078-BLK1)				Prepared & Analyzed: 10/28/19						
Calcium	ND	1.0	mg/L							
Magnesium	ND	1.0	"							
Potassium	ND	1.0	"							
Sodium	ND	1.0	"							
LCS (1909078-BS1)				Prepared & Analyzed: 10/28/19						
Calcium	4.92	1.0	mg/L	5.00		98	85-115			
Magnesium	4.78	1.0	"	5.00		96	85-115			
Potassium	5.25	1.0	"	5.00		105	85-115			
Sodium	4.61	1.0	"	5.00		92	85-115			
Matrix Spike (1909078-MS1)	**Source: 19J1610-01**			Prepared & Analyzed: 10/28/19						
Calcium	122	1.0	mg/L	5.00	119	55	70-130			QM-7
Magnesium	39.0	1.0	"	5.00	36.9	42	70-130			QM-7
Potassium	7.48	1.0	"	5.00	2.66	96	70-130			
Sodium	187	1.0	"	5.00	194	NR	70-130			QM-7
Matrix Spike (1909078-MS2)	**Source: 19J1626-01**			Prepared & Analyzed: 10/28/19						
Calcium	ND	1.0	mg/L	5.00	ND		70-130			QM-7
Magnesium	ND	1.0	"	5.00	ND		70-130			QM-7
Potassium	0.367	1.0	"	5.00	0.358	0.2	70-130			QM-7
Sodium	ND	1.0	"	5.00	ND		70-130			QM-7

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1452**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 202207

Notes and Definitions

QM-7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS and/or LCSD recovery.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES
Committed. Responsive. Flexible.

November 15, 2019

CLS Work Order #: 19K0440
COC #: GREEN

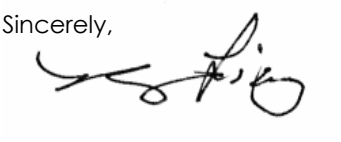
Jade White Dobbs
Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762

Project Name: SJC PFAS Investigation

Enclosed are the results of analyses for samples received by the laboratory on 11/08/19 11:02. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA SWRCB ELAP Accreditation/Registration number 1233

19K0490

CHANGE OF STATUS

Work Order # 19 1452

New Work Order X Revise Existing Work Order _____

Project Name: SJC PFAS INVESTIGATION

Date Sample(s) Were Received: 10/23/19 Original Date _____

KEVIN ALMESTAD (Client Contacted) of WOODARD + CURRAN (Company) called/emailed

On 11/7/19 (Date) at 1715 (Time)

... and requested the following:

RUN ALKALINITY SUITE ON ALL SAMPLES

Turnaround time requested for additional work: 5

(Signature) 11/8/19 (Date)

Updated lab job database and file folder by: [illegible] 0.8

Cc: _____ _____ _____

H:\FORMS & TEMPLATES\Change of Status.doc

CLS LABS
SAMPLE RECEIVING EXCEPTION REPORTS

CLS Labs Job # 1911099

Problem discovered by: Matt Yost **Date:** 11/7/19

Nature of problem Alkalinity

Sulfite **Chlorine, Total** **Chlorine, Residual** **Ph** **Dissolved O2**

(Circle analysis above) **Received out of HOLD time.**

Client contacted? Yes X **No** _____ **Spoke With:** Kevin K.

By whom: Matt Yost **Date:** 11/7/19 **Time:** 1711 **HRS**

Client instructions:

OK to analyze outside of hold time

Resolution of problem:

Logged in regardless and will be ran for analysis requested.

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19K0440**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: GREEN

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L4-2-GW (19K0440-01) Water Sampled: 10/22/19 04:30 Received: 11/08/19 11:02									
Bicarbonate as CaCO3	**500**	5.0	mg/L	1	1909450	11/08/19	11/08/19	SM2320B	HT-5
Carbonate as CaCO3	ND	5.0	"	"	"	"	"	"	HT-5
Hydroxide as CaCO3	ND	5.0	"	"	"	"	"	"	HT-5
Total Alkalinity	**500**	5.0	"	"	"	"	"	"	HT-5

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19K0440**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: GREEN

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1909450 - General Preparation										
Blank (1909450-BLK1)				Prepared & Analyzed: 11/08/19						
Total Alkalinity	ND	5.0	mg/L							
Bicarbonate as CaCO3	ND	5.0	"							
Carbonate as CaCO3	ND	5.0	"							
Hydroxide as CaCO3	ND	5.0	"							
Duplicate (1909450-DUP1)	**Source: 19K0318-01**			Prepared & Analyzed: 11/08/19						
Total Alkalinity	51.0	5.0	mg/L		48.8			4	20	
Bicarbonate as CaCO3	51.0	5.0	"		48.8			4	20	
Carbonate as CaCO3	ND	5.0	"		ND				20	
Hydroxide as CaCO3	ND	5.0	"		ND				20	

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19K0440**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: GREEN

Notes and Definitions

HT-5	The request for this analysis was initiated by the client after holding time expiration.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES
Committed. Responsive. Flexible.

October 31, 2019

CLS Work Order #: 19J1536
COC #: 202207

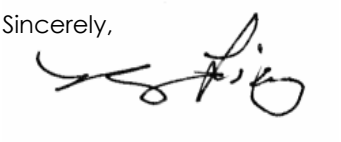
Jade White Dobbs
Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762

Project Name: SJC PFAS Investigation

Enclosed are the results of analyses for samples received by the laboratory on 10/24/19 09:24. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA SWRCB ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES
Committed. Responsive. Flexible.

CHAIN OF CUSTODY

CLS ID No.: 193536

LOG № 202816

HIGHLIGHTED AREAS MUST BE FILLED OUT PRIOR TO ACCEPTANCE

REPORT TO:

NAME AND ADDRESS: Jim Strandberg
2175 N California Blvd, Ste 315
Walnut Creek, CA
PROJECT MANAGER / PHONE#:
PROJECT NAME: SJC
SAMPLED BY: Kevin Almestad/Caleb Lucy
JOB DESCRIPTION: Gen. Chem.
SITE LOCATION: 1701 Airport Blvd, San Jose, CA

CLIENT JOB NUMBER: 0232401.01

DESTINATION LABORATORY:
☒ CLS (916) 638-7301
3249 FITZGERALD RD.
RANCHO CORDOVA, CA.
95742
☐ OTHER

PRESERVATIVES

ANALYSIS REQUESTED

GEOTRACKER:
EDF REPORT ☒ YES ☐ NO
GLOBAL ID:

CDPH WRITE ON EDT TRANSMISSION? ☐ YES ☒ NO
STATE SYSTEM NUMBER
IF "YES" PLEASE ENTER THE SOURCE NUMBER(S).

COMPOSITE:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	Total Dissolved Solids	Chloride, sulfate	Nitrate-nitrogen	Calcium	Magnesium	Potassium	Sodium	TURN AROUND TIME 1 DAY	2 DAY	3 DAY	5 DAY	SPECIAL INSTRUCTIONS OR ALT. ID:
10/23/19	1316	L3-3-GW	W	1	Poly	X	X	X	X	X	X	X				X	
~~10/23/19~~	~~1316~~	KA														X	KA
10/23/19	1521	L14-4-GW	W	1	Poly											X	
	0838	L4-1-GW	W	~~1~~ 1	Poly											X	
	0951	L14-2-GW	W	2	Poly											X	

INVOICE TO:
P.O. #
QUOTE #

Email/Address: Jstrandberg@woodardcurran.com

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	Kevin Almestad/W&C	10/23/19 17:15		Fedex/Kevin Almestad

RECD AT LAB BY:
DATE / TIME: 10-24-19 0900
CONDITIONS / COMMENTS: 15.1 / 15

SHIPPED BY: ☒ FED X ☐ UPS ☐ OTHER AIR BILL #

White-Lab/Terms and conditions Yellow-Lab file copy/Terms and Conditions Pink-Origin/Terms and Conditions Gold-Project Mgr./Field Sampler/Terms and conditions

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1536**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 202207

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L3-3-GW (19J1536-01) Water Sampled: 10/23/19 13:16 Received: 10/24/19 09:24									
Chloride	**59**	5.0	mg/L	10	1908968	10/24/19	10/24/19	EPA 300.0	
Nitrate as N	**2.2**	0.40	"	1	"	"	10/24/19	"	
Sulfate as SO4	**210**	5.0	"	10	"	"	10/24/19	"	
Total Dissolved Solids	**740**	10	"	1	1909024	10/25/19	10/28/19	SM2540C	
L14-4-GW (19J1536-02) Water Sampled: 10/23/19 15:21 Received: 10/24/19 09:24									
Chloride	**69**	5.0	mg/L	10	1908968	10/24/19	10/24/19	EPA 300.0	
Nitrate as N	**3.8**	0.40	"	1	"	"	"	"	
Sulfate as SO4	**130**	5.0	"	10	"	"	10/24/19	"	
Total Dissolved Solids	**680**	10	"	1	1909024	10/25/19	10/28/19	SM2540C	
L14-1-GW (19J1536-03) Water Sampled: 10/23/19 08:38 Received: 10/24/19 09:24									
Chloride	**68**	5.0	mg/L	10	1908968	10/24/19	10/24/19	EPA 300.0	
Nitrate as N	**3.7**	0.40	"	1	"	"	"	"	
Sulfate as SO4	**140**	5.0	"	10	"	"	10/24/19	"	
Total Dissolved Solids	**680**	10	"	1	1909024	10/25/19	10/28/19	SM2540C	
L14-2-GW (19J1536-04) Water Sampled: 10/23/19 09:51 Received: 10/24/19 09:24									
Chloride	**69**	5.0	mg/L	10	1908968	10/24/19	10/24/19	EPA 300.0	
Nitrate as N	**3.8**	0.40	"	1	"	"	"	"	
Sulfate as SO4	**140**	5.0	"	10	"	"	10/24/19	"	
Total Dissolved Solids	**700**	10	"	1	1909024	10/25/19	10/28/19	SM2540C	

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1536**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 202207

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L3-3-GW (19J1536-01) Water Sampled: 10/23/19 13:16 Received: 10/24/19 09:24									
Calcium	**180**	10	mg/L	10	1909023	10/25/19	10/28/19	EPA 200.7	
Magnesium	**84**	1.0	"	1	"	"	10/25/19	"	
Potassium	**13**	10	"	10	"	"	"	"	
Sodium	**48**	1.0	"	1	"	"	"	"	
L14-4-GW (19J1536-02) Water Sampled: 10/23/19 15:21 Received: 10/24/19 09:24									
Calcium	**130**	10	mg/L	10	1909023	10/25/19	10/28/19	EPA 200.7	
Magnesium	**55**	1.0	"	1	"	"	10/25/19	"	
Potassium	ND	10	"	10	"	"	"	"	A-COM
Sodium	**36**	1.0	"	1	"	"	"	"	
L14-1-GW (19J1536-03) Water Sampled: 10/23/19 08:38 Received: 10/24/19 09:24									
Calcium	**170**	10	mg/L	10	1909023	10/25/19	10/28/19	EPA 200.7	
Magnesium	**68**	1.0	"	1	"	"	10/25/19	"	
Potassium	ND	10	"	10	"	"	"	"	A-COM
Sodium	**38**	1.0	"	1	"	"	"	"	
L14-2-GW (19J1536-04) Water Sampled: 10/23/19 09:51 Received: 10/24/19 09:24									
Calcium	**140**	10	mg/L	10	1909023	10/25/19	10/28/19	EPA 200.7	
Magnesium	**73**	1.0	"	1	"	"	10/25/19	"	
Potassium	ND	10	"	10	"	"	"	"	A-COM
Sodium	**40**	1.0	"	1	"	"	"	"	

Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762

Project: SJC PFAS Investigation
Project Number: [none]
Project Manager: Jade White Dobbs

CLS Work Order #: 19J1536
COC #: 202207

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1908968 - General Preparation										
Blank (1908968-BLK1)				Prepared & Analyzed: 10/24/19						
Sulfate as SO4	ND	0.50	mg/L							
Chloride	ND	0.50	"							
Nitrate as N	ND	0.40	"							
LCS (1908968-BS1)				Prepared & Analyzed: 10/24/19						
Chloride	4.55	0.50	mg/L	5.00		91	80-120			
Sulfate as SO4	4.58	0.50	"	5.00		92	80-120			
Nitrate as N	1.86	0.40	"	2.00		93	80-120			
LCS Dup (1908968-BSD1)				Prepared & Analyzed: 10/24/19						
Chloride	4.54	0.50	mg/L	5.00		91	80-120	0.4	20	
Sulfate as SO4	4.62	0.50	"	5.00		92	80-120	0.9	20	
Nitrate as N	1.83	0.40	"	2.00		91	80-120	2	20	
Matrix Spike (1908968-MS1)	**Source: 19J1483-01**			Prepared & Analyzed: 10/24/19						
Sulfate as SO4	8.04	0.50	mg/L	5.00	3.28	95	80-120			
Chloride	9.72	0.50	"	5.00	4.83	98	80-120			
Nitrate as N	1.98	0.40	"	2.00	0.118	93	80-120			
Matrix Spike Dup (1908968-MSD1)	**Source: 19J1483-01**			Prepared & Analyzed: 10/24/19						
Chloride	9.72	0.50	mg/L	5.00	4.83	98	80-120	0.04	20	
Sulfate as SO4	7.98	0.50	"	5.00	3.28	94	80-120	0.7	20	
Nitrate as N	1.99	0.40	"	2.00	0.118	93	80-120	0.5	20	
Batch 1909024 - General Preparation										
Blank (1909024-BLK1)				Prepared: 10/25/19 Analyzed: 10/28/19						
Total Dissolved Solids	ND	10	mg/L							

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1536**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 202207

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1909024 - General Preparation										
Duplicate (1909024-DUP1)		**Source: 19J1497-01**		Prepared: 10/25/19 Analyzed: 10/28/19						
Total Dissolved Solids	224	10	mg/L		223			0.4	20	

Vista Analytical Laboratory	Project:	SJC PFAS Investigation
1104 Windfield Way	Project Number:	[none]
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs

CLS Work Order #: 19J1536
COC #: 202207

Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1909023 - EPA 200 Series										
Blank (1909023-BLK1)				Prepared & Analyzed: 10/25/19						
Calcium	ND	1.0	mg/L							
Magnesium	ND	1.0	"							
Potassium	ND	1.0	"							
Sodium	ND	1.0	"							
LCS (1909023-BS1)				Prepared & Analyzed: 10/25/19						
Calcium	4.87	1.0	mg/L	5.00		97	85-115			
Magnesium	5.08	1.0	"	5.00		102	85-115			
Potassium	5.27	1.0	"	5.00		105	85-115			
Sodium	4.84	1.0	"	5.00		97	85-115			
Matrix Spike (1909023-MS1)	**Source: 19J1497-01**			Prepared & Analyzed: 10/25/19						
Calcium	17.8	1.0	mg/L	5.00	14.0	76	70-130			
Magnesium	13.6	1.0	"	5.00	9.26	87	70-130			
Potassium	6.71	1.0	"	5.00	1.80	98	70-130			
Sodium	29.9	1.0	"	5.00	26.9	60	70-130			QM-7
Matrix Spike (1909023-MS2)	**Source: 19J1568-01**			Prepared & Analyzed: 10/25/19						
Calcium	17.6	1.0	mg/L	5.00	12.1	110	70-130			
Magnesium	21.5	1.0	"	5.00	16.3	105	70-130			
Potassium	23.2	1.0	"	5.00	17.3	118	70-130			
Sodium	77.9	1.0	"	5.00	72.0	119	70-130			

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1536**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 202207

Notes and Definitions

QM-7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS and/or LCSD recovery.
A-COM	The reporting limit was raised for this analyte because the sample was originally analyzed with no dilution but the CCVs were outside the method criteria. The sample was re-analyzed with a dilution and the CCVs were in control.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES
Committed. Responsive. Flexible.

November 01, 2019

CLS Work Order #: 19J1611
COC #: 202815

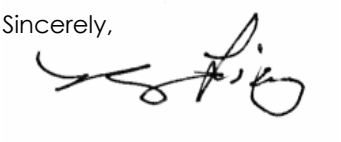
Jade White Dobbs
Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762

Project Name: SJC PFAS Investigation

Enclosed are the results of analyses for samples received by the laboratory on 10/25/19 12:45. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA SWRCB ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES
Committed. Responsive. Flexible.

CHAIN OF CUSTODY

CLS ID No.: 19T1611

LOG № 202815

HIGHLIGHTED AREAS MUST BE FILLED OUT PRIOR TO ACCEPTANCE

REPORT TO:

NAME AND ADDRESS: Jim Strandberg
2175 N California Blvd, Ste 315
Walnut Creek, CA 94530
PROJECT MANAGER: [redacted] PHONE#:
PROJECT NAME: SJC PFAS Investigation
SAMPLED BY: Kevin Almestad/Caleb Lucy
JOB DESCRIPTION: Gen. Chem. Parameters
SITE LOCATION: 1701 Airport Blvd, San Jose, CA

CLIENT JOB NUMBER: 0232401.01

DESTINATION LABORATORY:
☒ CLS (916) 638-7301
3249 FITZGERALD RD.
RANCHO CORDOVA, CA.
95742
☐ OTHER

PRESERVATIVES

GEOTRACKER:
EDF REPORT ☒ YES ☐ NO
GLOBAL ID:

CDPH WRITE ON EDT TRANSMISSION? ☐ YES ☒ NO
STATE SYSTEM NUMBER
IF "YES" PLEASE ENTER THE SOURCE NUMBER(S).

COMPOSITE:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE
10/24/19	0838	L14-1-GW	W	1	poly
10/24/19	0951	L14-2-GW	W	1	poly
10/24/19	1521	L14-3-GW	W	1	poly
10/24/19	1316	L13-3-GW	W	1	poly
10/24/19	1015	L8/9-5-GW	W	1	poly
10/24/19	1213	L8/9-4-GW	W	1	poly

ANALYSIS REQUESTED: Total Dissolved Solids; Chloride; Sulfate; Nitrate-nitrogen; Calcium; Magnesium; Potassium; Sodium

TURN AROUND TIME: 1 DAY; 2 DAY; 3 DAY; 5 DAY

SPECIAL INSTRUCTIONS
OR
ALT. ID:

KA

INVOICE TO:

P.O. #

QUOTE #

Email/Address

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
[signature]	Kevin Almestad/W&C	10/24/19 17:30	[signature]	Kevin Almestad/Fedex

RECD AT LAB BY: [signature] DATE / TIME: 10-24-19 1245 CONDITIONS / COMMENTS: 12.4/12.5

SHIPPED BY: ☒ FED X ☐ UPS ☐ OTHER AIR BILL #

White-Lab/Terms and conditions Yellow- Lab file copy/Terms and Conditions Pink- Origin/Terms and Conditions Gold-Project Mgr./Field Sampler/Terms and conditions

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1611**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 202815

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L8/9-5-GW (19J1611-01) Water Sampled: 10/24/19 10:15 Received: 10/25/19 12:45									
Chloride	**74**	10	mg/L	20	1909013	10/25/19	10/25/19	EPA 300.0	
Nitrate as N	**0.54**	0.40	"	1	"	"	10/25/19	"	
Sulfate as SO4	**190**	10	"	20	"	"	10/25/19	"	
Total Dissolved Solids	**1100**	10	"	1	1909089	10/28/19	10/29/19	SM2540C	
L8/9-4-GW (19J1611-02) Water Sampled: 10/24/19 12:13 Received: 10/25/19 12:45									
Chloride	**95**	10	mg/L	20	1909013	10/25/19	10/25/19	EPA 300.0	
Nitrate as N	**0.50**	0.40	"	1	"	"	10/25/19	"	
Sulfate as SO4	**230**	10	"	20	"	"	10/25/19	"	
Total Dissolved Solids	**1200**	10	"	1	1909089	10/28/19	10/29/19	SM2540C	

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1611**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 202815

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L8/9-5-GW (19J1611-01) Water	**Sampled: 10/24/19 10:15**	**Received: 10/25/19 12:45**							
Calcium	**410**	10	mg/L	10	1909078	10/28/19	11/01/19	EPA 200.7	
Magnesium	**450**	10	"	"	"	"	10/29/19	"	
Potassium	**66**	1.0	"	1	"	"	10/28/19	"	
Sodium	**56**	1.0	"	"	"	"	"	"	
L8/9-4-GW (19J1611-02) Water	**Sampled: 10/24/19 12:13**	**Received: 10/25/19 12:45**							
Calcium	**180**	10	mg/L	10	1909078	10/28/19	11/01/19	EPA 200.7	
Magnesium	**220**	10	"	"	"	"	10/30/19	"	
Potassium	**4.5**	1.0	"	1	"	"	10/28/19	"	
Sodium	**64**	1.0	"	"	"	"	"	"	

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1611**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 202815

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1909013 - General Preparation										
Blank (1909013-BLK1)				Prepared & Analyzed: 10/25/19						
Sulfate as SO4	ND	0.50	mg/L							
Chloride	ND	0.50	"							
Nitrate as N	ND	0.40	"							
LCS (1909013-BS1)				Prepared & Analyzed: 10/25/19						
Chloride	4.47	0.50	mg/L	5.00		89	80-120			
Sulfate as SO4	4.62	0.50	"	5.00		92	80-120			
Nitrate as N	1.84	0.40	"	2.00		92	80-120			
LCS Dup (1909013-BSD1)				Prepared & Analyzed: 10/25/19						
Chloride	4.52	0.50	mg/L	5.00		90	80-120	0.9	20	
Sulfate as SO4	4.66	0.50	"	5.00		93	80-120	0.9	20	
Nitrate as N	1.84	0.40	"	2.00		92	80-120	0.5	20	
Matrix Spike (1909013-MS1)		**Source: 19J1555-01**		Prepared & Analyzed: 10/25/19						
Sulfate as SO4	15.3	0.50	mg/L	5.00	10.7	92	80-120			
Chloride	8.90	0.50	"	5.00	4.15	95	80-120			
Nitrate as N	2.85	0.40	"	2.00	1.09	88	80-120			
Matrix Spike Dup (1909013-MSD1)		**Source: 19J1555-01**		Prepared & Analyzed: 10/25/19						
Chloride	9.00	0.50	mg/L	5.00	4.15	97	80-120	1	20	
Sulfate as SO4	15.5	0.50	"	5.00	10.7	98	80-120	2	20	
Nitrate as N	2.88	0.40	"	2.00	1.09	89	80-120	1	20	
Batch 1909089 - General Preparation										
Blank (1909089-BLK1)				Prepared: 10/28/19 Analyzed: 10/29/19						
Total Dissolved Solids	ND	10	mg/L							

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1611**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 202815

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1909089 - General Preparation										
Duplicate (1909089-DUP1)		**Source: 19J1613-01**		Prepared: 10/28/19 Analyzed: 10/29/19						
Total Dissolved Solids	424	10	mg/L		421			0.7	20	

Vista Analytical Laboratory	Project:	SJC PFAS Investigation
1104 Windfield Way	Project Number:	[none]
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs

CLS Work Order #: 19J1611
COC #: 202815

Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1909078 - EPA 200 Series										
Blank (1909078-BLK1)				Prepared & Analyzed: 10/28/19						
Calcium	ND	1.0	mg/L							
Magnesium	ND	1.0	"							
Potassium	ND	1.0	"							
Sodium	ND	1.0	"							
LCS (1909078-BS1)				Prepared & Analyzed: 10/28/19						
Calcium	4.92	1.0	mg/L	5.00		98	85-115			
Magnesium	4.78	1.0	"	5.00		96	85-115			
Potassium	5.25	1.0	"	5.00		105	85-115			
Sodium	4.61	1.0	"	5.00		92	85-115			
Matrix Spike (1909078-MS1)	**Source: 19J1610-01**			Prepared: 10/28/19 Analyzed: 11/01/19						
Calcium	146	10	mg/L	5.00	142	73	70-130			
Magnesium	44.7	1.0	"	5.00	36.9	156	70-130			QM-4X
Potassium	7.48	1.0	"	5.00	2.66	96	70-130			
Sodium	256	10	"	5.00	254	46	70-130			QM-4X
Matrix Spike (1909078-MS2)	**Source: 19J1626-01**			Prepared: 10/28/19 Analyzed: 10/29/19						
Calcium	5.09	1.0	mg/L	5.00	1.22	77	70-130			
Magnesium	5.41	1.0	"	5.00	0.376	101	70-130			
Potassium	5.64	1.0	"	5.00	0.531	102	70-130			
Sodium	8.16	1.0	"	5.00	3.45	94	70-130			

Vista Analytical Laboratory	Project:	SJC PFAS Investigation	
1104 Windfield Way	Project Number:	[none]	**CLS Work Order #: 19J1611**
El Dorado Hills, CA 95762	Project Manager:	Jade White Dobbs	COC #: 202815

Notes and Definitions

QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

November 25, 2019

Vista Work Order No. 1903732

Mr. Jim Strandberg
Woodard & Curran
2175 North California Boulevard, Suite 315
Walnut Creek, CA 94596

Dear Mr. Strandberg,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on October 18, 2019 under your Project Name 'SJC PFAS Investigation'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1903732
Case Narrative

Sample Condition on Receipt:

Fifteen soil samples and five aqueous samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:

PFAS Isotope Dilution Method - Soils

The soil samples were extracted and analyzed for a selected list of PFAS. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit (RL). The OPR recoveries were within the method acceptance criteria.

An MS/MSD was performed on sample "L10-1-1". The MS/MSD recoveries and/or RPDs were out of the acceptance criteria for 6:2 FTS, PFHpS, PFOS and 8:2 FTS.

The internal standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

PFAS Isotope Dilution Method - Aqueous

Samples "L10-1-GW" and "L10-10-GW" contained particulate and were centrifuged prior to extraction.

The aqueous samples were extracted and analyzed for a selected list of PFAS using the PFAS Isotope Dilution Method. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the acceptance criteria.

A Method Blank and Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit. The LCS/LCSD recoveries were within the method acceptance criteria.

The responses of the internal standards 13C3-PFBA, 13C3-PFPeA, 13C2-PFHxA, 13C3-PFHxS and 13C2-6:2 FTS in the samples as compared to the calibration have been reported from the dilutions. The responses are elevated due to the high concentrations of the corresponding native analytes. The internal standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1903732-01	L10-1-1	16-Oct-19 20:00	18-Oct-19 07:24	HDPE Jar, 6 oz
1903732-02	L10-1-5	16-Oct-19 20:05	18-Oct-19 07:24	HDPE Jar, 6 oz
1903732-03	L10-1-10	16-Oct-19 20:10	18-Oct-19 07:24	HDPE Jar, 6 oz
1903732-04	L10-1-GW	16-Oct-19 23:07	18-Oct-19 07:24	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903732-05	L10-10-GW	16-Oct-19 23:17	18-Oct-19 07:24	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903732-06	EB-1	16-Oct-19 22:50	18-Oct-19 07:24	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903732-07	FB-1	16-Oct-19 22:45	18-Oct-19 07:24	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903732-08	L11-4-1	17-Oct-19 01:37	18-Oct-19 07:24	HDPE Jar, 6 oz
1903732-09	L11-4-10	17-Oct-19 01:43	18-Oct-19 07:24	HDPE Jar, 6 oz
1903732-10	L11-4-5	17-Oct-19 01:40	18-Oct-19 07:24	HDPE Jar, 6 oz
1903732-11	L11-1-1	17-Oct-19 00:33	18-Oct-19 07:24	HDPE Jar, 6 oz
1903732-12	L11-1-5	17-Oct-19 00:36	18-Oct-19 07:24	HDPE Jar, 6 oz
1903732-13	L11-1-10	17-Oct-19 00:40	18-Oct-19 07:24	HDPE Jar, 6 oz
1903732-14	L11-2-1	17-Oct-19 01:15	18-Oct-19 07:24	HDPE Jar, 6 oz
1903732-15	L11-2-5	17-Oct-19 01:18	18-Oct-19 07:24	HDPE Jar, 6 oz
1903732-16	L11-2-10	17-Oct-19 01:20	18-Oct-19 07:24	HDPE Jar, 6 oz
1903732-17	L11-3-1	17-Oct-19 02:13	18-Oct-19 07:24	HDPE Jar, 6 oz
1903732-18	L11-3-5	17-Oct-19 02:16	18-Oct-19 07:24	HDPE Jar, 6 oz
1903732-19	L11-3-10	17-Oct-19 02:18	18-Oct-19 07:24	HDPE Jar, 6 oz
1903732-20	L11-3-GW	17-Oct-19 03:00	18-Oct-19 07:24	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9J0277-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFPeA	2706-90-3	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFBS	375-73-5	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
4:2 FTS	757124-72-4	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFHxA	307-24-4	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFPeS	2706-91-4	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFHpA	375-85-9	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFHxS	355-46-4	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
6:2 FTS	27619-97-2	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFOA	335-67-1	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFHpS	375-92-8	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFNA	375-95-1	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFOSA	754-91-6	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFOS	1763-23-1	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFDA	335-76-2	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
8:2 FTS	39108-34-4	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
MeFOSAA	2355-31-9	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
EtFOSAA	2991-50-6	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFUnA	2058-94-8	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFDS	335-77-3	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFDoA	307-55-1	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFTrDA	72629-94-8	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
PFTeDA	376-06-7	ND	2.00		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	81.3	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
13C3-PFPeA	IS	64.9	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
13C3-PFBS	IS	84.6	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
13C2-4:2 FTS	IS	81.7	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
13C2-PFHxA	IS	64.4	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
13C4-PFHpA	IS	69.1	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
13C3-PFHxS	IS	86.4	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
13C2-6:2 FTS	IS	83.9	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
13C5-PFNA	IS	66.4	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
13C8-PFOSA	IS	32.8	50 - 150	H	B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
13C2-PFOA	IS	75.6	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
13C8-PFOS	IS	74.1	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
13C2-PFDA	IS	59.8	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
13C2-8:2 FTS	IS	83.5	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9J0277-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	51.1	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
13C2-PFUnA	IS	48.9	50 - 150	H	B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
d5-EtFOSAA	IS	52.8	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
13C2-PFDoA	IS	50.2	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1
13C2-PFTeDA	IS	55.6	50 - 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:48	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: OPR **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9J0277-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/g)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	10.1	10.0	101	71 - 135		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFPeA	2706-90-3	9.76	10.0	97.6	69 - 132		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFBS	375-73-5	11.0	10.0	110	72 - 128		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
4:2 FTS	757124-72-4	9.57	10.0	95.7	62 - 145		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFHxA	307-24-4	10.3	10.0	103	70 - 132		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFPeS	2706-91-4	9.56	10.0	95.6	73 - 123		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFHpA	375-85-9	10.9	10.0	109	71 - 131		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFHxS	355-46-4	9.36	10.0	93.6	67 - 130		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
6:2 FTS	27619-97-2	11.4	10.0	114	64 - 140		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFOA	335-67-1	10.2	10.0	102	69 - 133		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFHpS	375-92-8	10.4	10.0	104	70 - 132		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFNA	375-95-1	9.95	10.0	99.5	72 - 129		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFOSA	754-91-6	10.2	10.0	102	67 - 137		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFOS	1763-23-1	10.3	10.0	103	68 - 136		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFDA	335-76-2	10.3	10.0	103	69 - 133		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
8:2 FTS	39108-34-4	11.1	10.0	111	65 - 137		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
MeFOSAA	2355-31-9	11.7	10.0	117	63 - 144		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
EtFOSAA	2991-50-6	9.75	10.0	97.5	61 - 139		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFUnA	2058-94-8	11.1	10.0	111	64 - 136		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFDS	335-77-3	9.41	10.0	93.9	59 - 134		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFDoA	307-55-1	10.9	10.0	109	69 - 135		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFTrDA	72629-94-8	11.1	10.0	111	66 - 139		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
PFTeDA	376-06-7	10.3	10.0	103	69 - 133		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	76.9	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
13C3-PFPeA	IS	61.1	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
13C3-PFBS	IS	78.4	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
13C2-4:2 FTS	IS	74.8	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
13C2-PFHxA	IS	58.2	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
13C4-PFHpA	IS	59.8	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
13C3-PFHxS	IS	79.0	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
13C2-6:2 FTS	IS	70.4	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
13C5-PFNA	IS	61.5	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
13C8-PFOSA	IS	33.9	50- 150	H	B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
13C2-PFOA	IS	64.6	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1

Sample ID: OPR **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9J0277-BS1
Column: BEH C18

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOS	IS	69.6	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
13C2-PFDA	IS	60.8	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
13C2-8:2 FTS	IS	78.3	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
d3-MeFOSAA	IS	47.3	50- 150	H	B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
13C2-PFUnA	IS	50.2	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
d5-EtFOSAA	IS	57.5	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
13C2-PFDoA	IS	50.7	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1
13C2-PFTeDA	IS	58.3	50- 150		B9J0277	04-Nov-19	1.00 g	08-Nov-19 19:59	1

Sample ID: L10-1-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Soil
Date Collected: 16-Oct-19 20:00

Laboratory Data

Lab Sample: 1903732-01
Date Received: 18-Oct-19 07:24
% Solids: 94.1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFPeA	2706-90-3	6.77	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFBS	375-73-5	ND	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
4:2 FTS	757124-72-4	ND	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFHxA	307-24-4	10.8	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFPeS	2706-91-4	ND	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFHpA	375-85-9	ND	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFHxS	355-46-4	7.69	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
6:2 FTS	27619-97-2	322	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFOA	335-67-1	5.10	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFHpS	375-92-8	ND	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFNA	375-95-1	ND	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFOSA	754-91-6	ND	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFOS	1763-23-1	368	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFDA	335-76-2	7.48	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
8:2 FTS	39108-34-4	286	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
MeFOSAA	2355-31-9	ND	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
EtFOSAA	2991-50-6	ND	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFUnA	2058-94-8	ND	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFDS	335-77-3	ND	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFDoA	307-55-1	ND	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFTrDA	72629-94-8	ND	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
PFTeDA	376-06-7	ND	1.99		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	90.7	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
13C3-PFPeA	IS	69.7	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
13C3-PFBS	IS	77.4	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
13C2-4:2 FTS	IS	72.3	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
13C2-PFHxA	IS	66.6	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
13C4-PFHpA	IS	70.7	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
13C3-PFHxS	IS	75.3	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
13C2-6:2 FTS	IS	56.5	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
13C5-PFNA	IS	63.7	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
13C8-PFOSA	IS	48.6	50 - 150	H	B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
13C2-PFOA	IS	69.7	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
13C8-PFOS	IS	59.3	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
13C2-PFDA	IS	54.8	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
13C2-8:2 FTS	IS	69.6	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1

Sample ID: L10-1-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	16-Oct-19 20:00
Location:	Location 10		

Laboratory Data

Lab Sample:	1903732-01	Column:	BEH C18
Date Received:	18-Oct-19 07:24		
% Solids:	94.1		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	56.7	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
13C2-PFUnA	IS	54.7	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
d5-EtFOSAA	IS	68.0	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
13C2-PFDoA	IS	57.3	50 - 150		B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1
13C2-PFTeDA	IS	41.4	50 - 150	H	B9J0277	04-Nov-19	1.07 g	08-Nov-19 20:31	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L10-1-1 **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0277-MS1/B9J0277-MSD1	Source Lab Sample:	1903732-01
Project:	SJC PFAS Investigation	QC Batch:	B9J0277	Date Extracted:	04-Nov-19
Matrix:	Solid	Samp Size:	1.07/1.06 g	Column:	BEH C18

Analyte	CAS Number	Sample (ng/g)	MS (ng/g)	MS Spike	MS % Rec	MS Quals	MSD (ng/g)	MSD Spike	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBA	375-22-4	ND	12.0	9.94	106		11.3	10.0	98.2	7.64		71-135	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFPeA	2706-90-3	6.77	17.8	9.94	111		17.0	10.0	102	8.45		69-132	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFBS	375-73-5	ND	11.4	9.94	111		10.2	10.0	98.7	11.7		72-128	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
4:2 FTS	757124-72-4	ND	10.4	9.94	101		10.2	10.0	98.9	2.10		62-145	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFHxA	307-24-4	10.8	20.0	9.94	92.8		20.5	10.0	96.6	4.01		70-132	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFPeS	2706-91-4	ND	11.4	9.94	109		9.77	10.0	92.1	16.8		73-123	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFHpA	375-85-9	ND	11.6	9.94	103		11.9	10.0	106	2.87		71-131	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFHxS	355-46-4	7.69	17.7	9.94	101		16.8	10.0	90.7	10.7		67-130	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
6:2 FTS	27619-97-2	322	308	9.94	-135	H	303	10.0	-183	30.2	H	64-140	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFOA	335-67-1	5.10	15.2	9.94	101		14.5	10.0	93.5	7.71		69-133	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFHpS	375-92-8	ND	13.1	9.94	128		14.2	10.0	138	7.52	H	70-132	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFNA	375-95-1	ND	12.9	9.94	110		12.1	10.0	102	7.55		72-129	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFOSA	754-91-6	ND	12.7	9.94	113		13.5	10.0	121	6.84		67-137	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFOS	1763-23-1	368	363	9.96	-50.3	H	397	10.1	288	285	H	68-136	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFDA	335-76-2	7.48	18.2	9.94	108		18.5	10.0	110	1.83		69-133	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
8:2 FTS	39108-34-4	286	341	9.94	549	H	294	10.0	78.9	150	H	65-137	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
MeFOSAA	2355-31-9	ND	10.4	9.94	103		9.89	10.0	97.5	5.49		63-144	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
EtFOSAA	2991-50-6	ND	10.1	9.94	102		10.4	10.0	104	1.94		61-139	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFUnA	2058-94-8	ND	11.3	9.94	110		11.0	10.0	107	2.76		64-136	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFDS	335-77-3	ND	10.4	9.96	102		12.4	10.1	120	16.2		59-134	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFDoA	307-55-1	ND	10.9	9.94	105		11.0	10.0	106	0.948		69-135	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFTrDA	72629-94-8	ND	9.46	9.94	94.9		9.47	10.0	94.4	0.528		66-139	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1
PFTeDA	376-06-7	ND	11.3	9.94	113		10.7	10.0	106	6.39		69-133	30	08-Nov-19 20:10	1	08-Nov-19 20:20	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C3-PFBA	IS	80.8		92.2		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
13C3-PFPeA	IS	63.4		71.4		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
13C3-PFBS	IS	72.1		81.1		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
13C2-4:2 FTS	IS	72.3		76.9		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
13C2-PFHxA	IS	66.5		68.2		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
13C4-PFHpA	IS	63.7		70.6		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
13C3-PFHxS	IS	75.0		77.3		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
13C2-6:2 FTS	IS	60.5		61.4		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1

Sample ID: L10-1-1 **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0277-MS1/B9J0277-MSD1	Source Lab Sample:	1903732-01
Project:	SJC PFAS Investigation	QC Batch:	B9J0277	Date Extracted:	04-Nov-19
Matrix:	Solid	Samp Size:	1.07/1.06 g	Column:	BEH C18

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C5-PFNA	IS	62.5		66.7		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
13C8-PFOSA	IS	44.4	H	37.3	H	50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
13C2-PFOA	IS	68.9		74.9		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
13C8-PFOS	IS	59.5		56.1		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
13C2-PFDA	IS	59.8		58.4		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
13C2-8:2 FTS	IS	59.1		67.7		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
d3-MeFOSAA	IS	57.6		57.5		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
13C2-PFUnA	IS	57.3		56.2		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
d5-EtFOSAA	IS	65.4		63.9		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
13C2-PFDoA	IS	60.1		57.7		50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1
13C2-PFTeDA	IS	42.1	H	46.2	H	50-150	08-Nov-19 20:10	1	08-Nov-19 20:20	1

Sample ID: L10-1-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Soil
Date Collected: 16-Oct-19 20:05

Laboratory Data

Lab Sample: 1903732-02
Date Received: 18-Oct-19 07:24
% Solids: 79.4
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
PFPeA	2706-90-3	7.74	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
PFBS	375-73-5	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
4:2 FTS	757124-72-4	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
PFHxA	307-24-4	12.2	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
PFPeS	2706-91-4	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
PFHpA	375-85-9	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
PFHxS	355-46-4	30.0	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
6:2 FTS	27619-97-2	606	9.91	D	B9J0277	04-Nov-19	1.27 g	12-Nov-19 18:27	5
PFOA	335-67-1	7.29	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
PFHpS	375-92-8	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
PFNA	375-95-1	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
PFOSA	754-91-6	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
PFOS	1763-23-1	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
PFDA	335-76-2	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
8:2 FTS	39108-34-4	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
MeFOSAA	2355-31-9	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
EtFOSAA	2991-50-6	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
PFUnA	2058-94-8	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
PFDS	335-77-3	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
PFDoA	307-55-1	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
PFTrDA	72629-94-8	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
PFTeDA	376-06-7	ND	1.98		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	89.8	50 - 150		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
13C3-PFPeA	IS	66.2	50 - 150		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
13C3-PFBS	IS	77.9	50 - 150		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
13C2-4:2 FTS	IS	68.7	50 - 150		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
13C2-PFHxA	IS	65.8	50 - 150		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
13C4-PFHpA	IS	65.4	50 - 150		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
13C3-PFHxS	IS	67.3	50 - 150		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
13C2-6:2 FTS	IS	152	50 - 150	D, H	B9J0277	04-Nov-19	1.27 g	12-Nov-19 18:27	5
13C5-PFNA	IS	57.2	50 - 150		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
13C8-PFOSA	IS	41.6	50 - 150	H	B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
13C2-PFOA	IS	69.5	50 - 150		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
13C8-PFOS	IS	66.8	50 - 150		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
13C2-PFDA	IS	55.1	50 - 150		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
13C2-8:2 FTS	IS	70.4	50 - 150		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1

Sample ID: L10-1-5 **PFAS Isotope Dilution Method**

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	16-Oct-19 20:05
Location:	Location 10		

Laboratory Data

Lab Sample:	1903732-02	Column:	BEH C18
Date Received:	18-Oct-19 07:24		
% Solids:	79.4		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	55.3	50 - 150		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
13C2-PFUnA	IS	49.7	50 - 150	H	B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
d5-EtFOSAA	IS	60.9	50 - 150		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
13C2-PFDoA	IS	54.4	50 - 150		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1
13C2-PFTeDA	IS	61.6	50 - 150		B9J0277	04-Nov-19	1.27 g	08-Nov-19 20:41	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L10-1-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Soil
Date Collected: 16-Oct-19 20:10

Laboratory Data

Lab Sample: 1903732-03
Date Received: 18-Oct-19 07:24
% Solids: 84.7
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFPeA	2706-90-3	7.67	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFBS	375-73-5	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
4:2 FTS	757124-72-4	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFHxA	307-24-4	7.75	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFPeS	2706-91-4	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFHpA	375-85-9	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFHxS	355-46-4	14.0	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
6:2 FTS	27619-97-2	323	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFOA	335-67-1	2.91	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFHpS	375-92-8	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFNA	375-95-1	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFOSA	754-91-6	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFOS	1763-23-1	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFDA	335-76-2	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
8:2 FTS	39108-34-4	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
MeFOSAA	2355-31-9	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
EtFOSAA	2991-50-6	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFUnA	2058-94-8	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFDS	335-77-3	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFDoA	307-55-1	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFTrDA	72629-94-8	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
PFTeDA	376-06-7	ND	2.00		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	89.8	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
13C3-PFPeA	IS	70.7	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
13C3-PFBS	IS	81.8	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
13C2-4:2 FTS	IS	75.7	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
13C2-PFHxA	IS	68.2	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
13C4-PFHpA	IS	68.2	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
13C3-PFHxS	IS	82.2	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
13C2-6:2 FTS	IS	61.1	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
13C5-PFNA	IS	64.0	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
13C8-PFOSA	IS	40.6	50 - 150	H	B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
13C2-PFOA	IS	75.2	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
13C8-PFOS	IS	72.1	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
13C2-PFDA	IS	59.1	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
13C2-8:2 FTS	IS	79.2	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1

Sample ID: L10-1-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	16-Oct-19 20:10
Location:	Location 10		

Laboratory Data

Lab Sample:	1903732-03	Column:	BEH C18
Date Received:	18-Oct-19 07:24		
% Solids:	84.7		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	49.3	50 - 150	H	B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
13C2-PFUnA	IS	53.6	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
d5-EtFOSAA	IS	60.5	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
13C2-PFDoA	IS	55.2	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1
13C2-PFTeDA	IS	57.8	50 - 150		B9J0277	04-Nov-19	1.18 g	08-Nov-19 20:52	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L11-4-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 11
Matrix: Soil
Date Collected: 17-Oct-19 01:37

Laboratory Data

Lab Sample: 1903732-08
Date Received: 18-Oct-19 07:24
% Solids: 80.4
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFPeA	2706-90-3	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFBS	375-73-5	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
4:2 FTS	757124-72-4	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFHxA	307-24-4	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFPeS	2706-91-4	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFHpA	375-85-9	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFHxS	355-46-4	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
6:2 FTS	27619-97-2	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFOA	335-67-1	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFHpS	375-92-8	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFNA	375-95-1	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFOSA	754-91-6	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFOS	1763-23-1	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFDA	335-76-2	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
8:2 FTS	39108-34-4	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
MeFOSAA	2355-31-9	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
EtFOSAA	2991-50-6	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFUnA	2058-94-8	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFDS	335-77-3	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFDoA	307-55-1	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFTrDA	72629-94-8	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
PFTeDA	376-06-7	ND	1.97		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	88.4	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
13C3-PFPeA	IS	68.8	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
13C3-PFBS	IS	77.5	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
13C2-4:2 FTS	IS	73.6	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
13C2-PFHxA	IS	66.2	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
13C4-PFHpA	IS	70.4	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
13C3-PFHxS	IS	74.5	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
13C2-6:2 FTS	IS	73.0	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
13C5-PFNA	IS	63.3	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
13C8-PFOSA	IS	46.8	50 - 150	H	B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
13C2-PFOA	IS	72.9	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
13C8-PFOS	IS	69.2	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
13C2-PFDA	IS	57.5	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
13C2-8:2 FTS	IS	78.9	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1

Sample ID: L11-4-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 01:37
Location:	Location 11		

Laboratory Data

Lab Sample:	1903732-08	Column:	BEH C18
Date Received:	18-Oct-19 07:24		
% Solids:	80.4		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	53.1	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
13C2-PFUnA	IS	54.5	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
d5-EtFOSAA	IS	64.4	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
13C2-PFDoA	IS	58.8	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1
13C2-PFTeDA	IS	67.9	50 - 150		B9J0277	04-Nov-19	1.26 g	08-Nov-19 21:03	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L11-4-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 11
Matrix: Soil
Date Collected: 17-Oct-19 01:43

Laboratory Data

Lab Sample: 1903732-09
Date Received: 18-Oct-19 07:24
% Solids: 82.8
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFPeA	2706-90-3	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFBS	375-73-5	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
4:2 FTS	757124-72-4	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFHxA	307-24-4	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFPeS	2706-91-4	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFHpA	375-85-9	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFHxS	355-46-4	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
6:2 FTS	27619-97-2	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFOA	335-67-1	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFHpS	375-92-8	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFNA	375-95-1	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFOSA	754-91-6	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFOS	1763-23-1	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFDA	335-76-2	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
8:2 FTS	39108-34-4	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
MeFOSAA	2355-31-9	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
EtFOSAA	2991-50-6	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFUnA	2058-94-8	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFDS	335-77-3	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFDoA	307-55-1	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFTrDA	72629-94-8	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
PFTeDA	376-06-7	ND	1.95		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	87.6	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
13C3-PFPeA	IS	70.2	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
13C3-PFBS	IS	77.5	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
13C2-4:2 FTS	IS	72.5	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
13C2-PFHxA	IS	63.9	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
13C4-PFHpA	IS	70.6	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
13C3-PFHxS	IS	76.8	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
13C2-6:2 FTS	IS	76.1	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
13C5-PFNA	IS	62.4	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
13C8-PFOSA	IS	48.4	50 - 150	H	B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
13C2-PFOA	IS	76.4	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
13C8-PFOS	IS	69.0	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
13C2-PFDA	IS	57.3	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
13C2-8:2 FTS	IS	76.2	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1

Sample ID: L11-4-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 11
Matrix: Soil
Date Collected: 17-Oct-19 01:43

Laboratory Data

Lab Sample: 1903732-09
Date Received: 18-Oct-19 07:24
% Solids: 82.8
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	61.3	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
13C2-PFUnA	IS	54.1	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
d5-EtFOSAA	IS	64.7	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
13C2-PFDoA	IS	56.1	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1
13C2-PFTeDA	IS	60.1	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:13	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L11-4-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 11
Matrix: Soil
Date Collected: 17-Oct-19 01:40

Laboratory Data

Lab Sample: 1903732-10
Date Received: 18-Oct-19 07:24
% Solids: 82.0
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFPeA	2706-90-3	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFBS	375-73-5	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
4:2 FTS	757124-72-4	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFHxA	307-24-4	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFPeS	2706-91-4	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFHpA	375-85-9	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFHxS	355-46-4	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
6:2 FTS	27619-97-2	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFOA	335-67-1	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFHpS	375-92-8	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFNA	375-95-1	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFOSA	754-91-6	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFOS	1763-23-1	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFDA	335-76-2	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
8:2 FTS	39108-34-4	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
MeFOSAA	2355-31-9	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
EtFOSAA	2991-50-6	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFUnA	2058-94-8	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFDS	335-77-3	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFDoA	307-55-1	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFTrDA	72629-94-8	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
PFTeDA	376-06-7	ND	1.97		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	94.7	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
13C3-PFPeA	IS	73.1	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
13C3-PFBS	IS	82.6	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
13C2-4:2 FTS	IS	76.6	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
13C2-PFHxA	IS	68.9	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
13C4-PFHpA	IS	72.2	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
13C3-PFHxS	IS	78.6	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
13C2-6:2 FTS	IS	73.2	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
13C5-PFNA	IS	64.8	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
13C8-PFOSA	IS	48.6	50 - 150	H	B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
13C2-PFOA	IS	76.9	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
13C8-PFOS	IS	73.6	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
13C2-PFDA	IS	62.8	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
13C2-8:2 FTS	IS	83.7	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1

Sample ID: L11-4-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 01:40
Location:	Location 11		

Laboratory Data

Lab Sample:	1903732-10	Column:	BEH C18
Date Received:	18-Oct-19 07:24		
% Solids:	82.0		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	51.3	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
13C2-PFUnA	IS	54.7	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
d5-EtFOSAA	IS	68.1	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
13C2-PFDoA	IS	53.1	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1
13C2-PFTeDA	IS	60.1	50 - 150		B9J0277	04-Nov-19	1.24 g	08-Nov-19 21:24	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L11-1-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 11
Matrix: Soil
Date Collected: 17-Oct-19 00:33

Laboratory Data

Lab Sample: 1903732-11
Date Received: 18-Oct-19 07:24
% Solids: 79.3
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFPeA	2706-90-3	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFBS	375-73-5	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
4:2 FTS	757124-72-4	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFHxA	307-24-4	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFPeS	2706-91-4	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFHpA	375-85-9	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFHxS	355-46-4	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
6:2 FTS	27619-97-2	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFOA	335-67-1	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFHpS	375-92-8	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFNA	375-95-1	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFOSA	754-91-6	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFOS	1763-23-1	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFDA	335-76-2	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
8:2 FTS	39108-34-4	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
MeFOSAA	2355-31-9	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
EtFOSAA	2991-50-6	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFUnA	2058-94-8	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFDS	335-77-3	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFDoA	307-55-1	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFTrDA	72629-94-8	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
PFTeDA	376-06-7	ND	1.96		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	89.9	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
13C3-PFPeA	IS	70.6	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
13C3-PFBS	IS	70.9	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
13C2-4:2 FTS	IS	66.6	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
13C2-PFHxA	IS	69.1	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
13C4-PFHpA	IS	72.1	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
13C3-PFHxS	IS	68.6	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
13C2-6:2 FTS	IS	70.9	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
13C5-PFNA	IS	63.4	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
13C8-PFOSA	IS	53.9	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
13C2-PFOA	IS	72.8	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
13C8-PFOS	IS	65.8	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
13C2-PFDA	IS	60.3	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
13C2-8:2 FTS	IS	76.3	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1

Sample ID: L11-1-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 00:33
Location:	Location 11		

Laboratory Data

Lab Sample:	1903732-11	Column:	BEH C18
Date Received:	18-Oct-19 07:24		
% Solids:	79.3		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	62.9	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
13C2-PFUnA	IS	54.2	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
d5-EtFOSAA	IS	67.3	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
13C2-PFDoA	IS	56.1	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1
13C2-PFTeDA	IS	63.3	50 - 150		B9J0277	04-Nov-19	1.29 g	08-Nov-19 21:34	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L11-1-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 11
Matrix: Soil
Date Collected: 17-Oct-19 00:36

Laboratory Data

Lab Sample: 1903732-12
Date Received: 18-Oct-19 07:24
% Solids: 73.5
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFPeA	2706-90-3	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFBS	375-73-5	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
4:2 FTS	757124-72-4	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFHxA	307-24-4	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFPeS	2706-91-4	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFHpA	375-85-9	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFHxS	355-46-4	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
6:2 FTS	27619-97-2	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFOA	335-67-1	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFHpS	375-92-8	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFNA	375-95-1	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFOSA	754-91-6	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFOS	1763-23-1	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFDA	335-76-2	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
8:2 FTS	39108-34-4	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
MeFOSAA	2355-31-9	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
EtFOSAA	2991-50-6	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFUnA	2058-94-8	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFDS	335-77-3	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFDoA	307-55-1	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFTrDA	72629-94-8	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
PFTeDA	376-06-7	ND	2.00		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	96.5	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
13C3-PFPeA	IS	76.9	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
13C3-PFBS	IS	87.9	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
13C2-4:2 FTS	IS	84.8	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
13C2-PFHxA	IS	69.1	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
13C4-PFHpA	IS	76.1	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
13C3-PFHxS	IS	89.2	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
13C2-6:2 FTS	IS	86.5	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
13C5-PFNA	IS	64.8	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
13C8-PFOSA	IS	41.2	50 - 150	H	B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
13C2-PFOA	IS	75.2	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
13C8-PFOS	IS	78.3	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
13C2-PFDA	IS	64.1	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
13C2-8:2 FTS	IS	86.4	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1

Sample ID: L11-1-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 11
Matrix: Soil
Date Collected: 17-Oct-19 00:36

Laboratory Data

Lab Sample: 1903732-12
Date Received: 18-Oct-19 07:24
% Solids: 73.5
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	58.7	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
13C2-PFUnA	IS	56.7	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
d5-EtFOSAA	IS	73.6	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
13C2-PFDoA	IS	59.7	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1
13C2-PFTeDA	IS	64.4	50 - 150		B9J0277	04-Nov-19	1.36 g	08-Nov-19 21:45	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L11-1-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 11
Matrix: Soil
Date Collected: 17-Oct-19 00:40

Laboratory Data

Lab Sample: 1903732-13
Date Received: 18-Oct-19 07:24
% Solids: 76.8
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFPeA	2706-90-3	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFBS	375-73-5	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
4:2 FTS	757124-72-4	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFHxA	307-24-4	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFPeS	2706-91-4	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFHpA	375-85-9	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFHxS	355-46-4	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
6:2 FTS	27619-97-2	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFOA	335-67-1	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFHpS	375-92-8	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFNA	375-95-1	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFOSA	754-91-6	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFOS	1763-23-1	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFDA	335-76-2	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
8:2 FTS	39108-34-4	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
MeFOSAA	2355-31-9	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
EtFOSAA	2991-50-6	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFUnA	2058-94-8	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFDS	335-77-3	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFDoA	307-55-1	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFTrDA	72629-94-8	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
PFTeDA	376-06-7	ND	2.00		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	94.4	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
13C3-PFPeA	IS	72.4	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
13C3-PFBS	IS	77.4	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
13C2-4:2 FTS	IS	73.1	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
13C2-PFHxA	IS	69.0	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
13C4-PFHpA	IS	67.3	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
13C3-PFHxS	IS	75.9	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
13C2-6:2 FTS	IS	69.7	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
13C5-PFNA	IS	64.5	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
13C8-PFOSA	IS	52.7	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
13C2-PFOA	IS	74.5	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
13C8-PFOS	IS	62.9	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
13C2-PFDA	IS	60.9	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
13C2-8:2 FTS	IS	67.7	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1

Sample ID: L11-1-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 00:40
Location:	Location 11		

Laboratory Data

Lab Sample:	1903732-13	Column:	BEH C18
Date Received:	18-Oct-19 07:24		
% Solids:	76.8		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	61.4	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
13C2-PFUnA	IS	53.6	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
d5-EtFOSAA	IS	65.2	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
13C2-PFDoA	IS	56.6	50 - 150		B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1
13C2-PFTeDA	IS	49.9	50 - 150	H	B9J0277	04-Nov-19	1.30 g	08-Nov-19 21:55	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L11-2-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 11
Matrix: Soil
Date Collected: 17-Oct-19 01:15

Laboratory Data

Lab Sample: 1903732-14
Date Received: 18-Oct-19 07:24
% Solids: 89.2
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFPeA	2706-90-3	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFBS	375-73-5	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
4:2 FTS	757124-72-4	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFHxA	307-24-4	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFPeS	2706-91-4	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFHpA	375-85-9	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFHxS	355-46-4	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
6:2 FTS	27619-97-2	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFOA	335-67-1	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFHpS	375-92-8	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFNA	375-95-1	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFOSA	754-91-6	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFOS	1763-23-1	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFDA	335-76-2	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
8:2 FTS	39108-34-4	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
MeFOSAA	2355-31-9	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
EtFOSAA	2991-50-6	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFUnA	2058-94-8	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFDS	335-77-3	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFDoA	307-55-1	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFTrDA	72629-94-8	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
PFTeDA	376-06-7	ND	1.99		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	101	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
13C3-PFPeA	IS	80.5	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
13C3-PFBS	IS	81.0	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
13C2-4:2 FTS	IS	76.6	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
13C2-PFHxA	IS	69.7	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
13C4-PFHpA	IS	75.4	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
13C3-PFHxS	IS	83.2	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
13C2-6:2 FTS	IS	75.3	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
13C5-PFNA	IS	67.4	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
13C8-PFOSA	IS	57.7	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
13C2-PFOA	IS	80.9	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
13C8-PFOS	IS	70.5	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
13C2-PFDA	IS	64.1	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
13C2-8:2 FTS	IS	90.6	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1

Sample ID: L11-2-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 01:15
Location:	Location 11		

Laboratory Data

Lab Sample:	1903732-14	Column:	BEH C18
Date Received:	18-Oct-19 07:24		
% Solids:	89.2		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	62.1	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
13C2-PFUnA	IS	60.9	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
d5-EtFOSAA	IS	71.0	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
13C2-PFDoA	IS	62.5	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1
13C2-PFTeDA	IS	69.9	50 - 150		B9J0277	04-Nov-19	1.13 g	08-Nov-19 22:06	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L11-2-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 11
Matrix: Soil
Date Collected: 17-Oct-19 01:18

Laboratory Data

Lab Sample: 1903732-15
Date Received: 18-Oct-19 07:24
% Solids: 79.6
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFPeA	2706-90-3	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFBS	375-73-5	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
4:2 FTS	757124-72-4	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFHxA	307-24-4	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFPeS	2706-91-4	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFHpA	375-85-9	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFHxS	355-46-4	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
6:2 FTS	27619-97-2	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFOA	335-67-1	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFHpS	375-92-8	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFNA	375-95-1	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFOSA	754-91-6	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFOS	1763-23-1	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFDA	335-76-2	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
8:2 FTS	39108-34-4	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
MeFOSAA	2355-31-9	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
EtFOSAA	2991-50-6	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFUnA	2058-94-8	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFDS	335-77-3	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFDoA	307-55-1	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFTrDA	72629-94-8	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
PFTeDA	376-06-7	ND	1.96		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	81.9	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
13C3-PFPeA	IS	66.7	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
13C3-PFBS	IS	79.1	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
13C2-4:2 FTS	IS	73.9	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
13C2-PFHxA	IS	62.4	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
13C4-PFHpA	IS	65.9	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
13C3-PFHxS	IS	75.0	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
13C2-6:2 FTS	IS	71.4	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
13C5-PFNA	IS	61.1	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
13C8-PFOSA	IS	38.3	50 - 150	H	B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
13C2-PFOA	IS	72.1	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
13C8-PFOS	IS	68.2	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
13C2-PFDA	IS	55.6	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
13C2-8:2 FTS	IS	80.9	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1

Sample ID: L11-2-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 01:18
Location:	Location 11		

Laboratory Data

Lab Sample:	1903732-15	Column:	BEH C18
Date Received:	18-Oct-19 07:24		
% Solids:	79.6		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	49.5	50 - 150	H	B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
13C2-PFUnA	IS	49.5	50 - 150	H	B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
d5-EtFOSAA	IS	61.5	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
13C2-PFDoA	IS	51.1	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1
13C2-PFTeDA	IS	57.5	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 22:38	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L11-2-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 01:20
Location:	Location 11		

Laboratory Data

Lab Sample:	1903732-16	Column:	BEH C18
Date Received:	18-Oct-19 07:24		
% Solids:	76.3		

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFPeA	2706-90-3	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFBS	375-73-5	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
4:2 FTS	757124-72-4	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFHxA	307-24-4	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFPeS	2706-91-4	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFHpA	375-85-9	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFHxS	355-46-4	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
6:2 FTS	27619-97-2	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFOA	335-67-1	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFHpS	375-92-8	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFNA	375-95-1	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFOSA	754-91-6	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFOS	1763-23-1	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFDA	335-76-2	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
8:2 FTS	39108-34-4	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
MeFOSAA	2355-31-9	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
EtFOSAA	2991-50-6	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFUnA	2058-94-8	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFDS	335-77-3	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFDoA	307-55-1	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFTrDA	72629-94-8	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
PFTeDA	376-06-7	ND	1.94		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	90.2	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
13C3-PFPeA	IS	75.7	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
13C3-PFBS	IS	79.7	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
13C2-4:2 FTS	IS	79.6	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
13C2-PFHxA	IS	70.2	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
13C4-PFHpA	IS	69.4	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
13C3-PFHxS	IS	78.9	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
13C2-6:2 FTS	IS	74.5	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
13C5-PFNA	IS	61.5	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
13C8-PFOSA	IS	48.5	50 - 150	H	B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
13C2-PFOA	IS	81.8	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
13C8-PFOS	IS	71.7	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
13C2-PFDA	IS	61.1	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
13C2-8:2 FTS	IS	75.7	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1

Sample ID: L11-2-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 01:20
Location:	Location 11		

Laboratory Data

Lab Sample:	1903732-16	Column:	BEH C18
Date Received:	18-Oct-19 07:24		
% Solids:	76.3		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	50.4	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
13C2-PFUnA	IS	61.3	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
d5-EtFOSAA	IS	71.7	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
13C2-PFDoA	IS	61.6	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1
13C2-PFTeDA	IS	50.8	50 - 150		B9J0277	04-Nov-19	1.35 g	08-Nov-19 22:48	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L11-3-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 11
Matrix: Soil
Date Collected: 17-Oct-19 02:13

Laboratory Data

Lab Sample: 1903732-17
Date Received: 18-Oct-19 07:24
% Solids: 89.9
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFPeA	2706-90-3	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFBS	375-73-5	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
4:2 FTS	757124-72-4	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFHxA	307-24-4	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFPeS	2706-91-4	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFHpA	375-85-9	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFHxS	355-46-4	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
6:2 FTS	27619-97-2	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFOA	335-67-1	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFHpS	375-92-8	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFNA	375-95-1	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFOSA	754-91-6	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFOS	1763-23-1	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFDA	335-76-2	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
8:2 FTS	39108-34-4	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
MeFOSAA	2355-31-9	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
EtFOSAA	2991-50-6	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFUnA	2058-94-8	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFDS	335-77-3	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFDoA	307-55-1	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFTrDA	72629-94-8	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
PFTeDA	376-06-7	ND	2.00		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	103	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
13C3-PFPeA	IS	80.5	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
13C3-PFBS	IS	83.5	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
13C2-4:2 FTS	IS	80.5	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
13C2-PFHxA	IS	71.9	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
13C4-PFHpA	IS	76.4	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
13C3-PFHxS	IS	77.7	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
13C2-6:2 FTS	IS	73.4	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
13C5-PFNA	IS	68.0	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
13C8-PFOSA	IS	48.8	50 - 150	H	B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
13C2-PFOA	IS	82.3	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
13C8-PFOS	IS	74.1	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
13C2-PFDA	IS	65.0	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
13C2-8:2 FTS	IS	87.8	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1

Sample ID: L11-3-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 02:13
Location:	Location 11		

Laboratory Data

Lab Sample:	1903732-17	Column:	BEH C18
Date Received:	18-Oct-19 07:24		
% Solids:	89.9		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	62.3	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
13C2-PFUnA	IS	59.6	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
d5-EtFOSAA	IS	73.0	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
13C2-PFDoA	IS	63.3	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1
13C2-PFTeDA	IS	68.9	50 - 150		B9J0277	04-Nov-19	1.11 g	08-Nov-19 22:59	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L11-3-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 02:16
Location:	Location 11		

Laboratory Data

Lab Sample:	1903732-18	Column:	BEH C18
Date Received:	18-Oct-19 07:24		
% Solids:	82.8		

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFPeA	2706-90-3	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFBS	375-73-5	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
4:2 FTS	757124-72-4	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFHxA	307-24-4	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFPeS	2706-91-4	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFHpA	375-85-9	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFHxS	355-46-4	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
6:2 FTS	27619-97-2	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFOA	335-67-1	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFHpS	375-92-8	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFNA	375-95-1	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFOSA	754-91-6	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFOS	1763-23-1	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFDA	335-76-2	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
8:2 FTS	39108-34-4	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
MeFOSAA	2355-31-9	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
EtFOSAA	2991-50-6	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFUnA	2058-94-8	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFDS	335-77-3	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFDoA	307-55-1	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFTrDA	72629-94-8	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
PFTeDA	376-06-7	ND	1.93		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	95.7	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
13C3-PFPeA	IS	75.1	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
13C3-PFBS	IS	80.2	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
13C2-4:2 FTS	IS	76.4	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
13C2-PFHxA	IS	72.0	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
13C4-PFHpA	IS	73.7	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
13C3-PFHxS	IS	77.4	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
13C2-6:2 FTS	IS	76.8	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
13C5-PFNA	IS	66.9	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
13C8-PFOSA	IS	54.3	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
13C2-PFOA	IS	76.3	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
13C8-PFOS	IS	70.5	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
13C2-PFDA	IS	63.8	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
13C2-8:2 FTS	IS	79.9	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1

Sample ID: L11-3-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 02:16
Location:	Location 11		

Laboratory Data

Lab Sample:	1903732-18	Column:	BEH C18
Date Received:	18-Oct-19 07:24		
% Solids:	82.8		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	57.0	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
13C2-PFUnA	IS	57.2	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
d5-EtFOSAA	IS	68.4	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
13C2-PFDoA	IS	57.8	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1
13C2-PFTeDA	IS	60.0	50 - 150		B9J0277	04-Nov-19	1.25 g	08-Nov-19 23:10	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L11-3-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 11
Matrix: Soil
Date Collected: 17-Oct-19 02:18

Laboratory Data

Lab Sample: 1903732-19
Date Received: 18-Oct-19 07:24
% Solids: 78.9
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFPeA	2706-90-3	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFBS	375-73-5	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
4:2 FTS	757124-72-4	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFHxA	307-24-4	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFPeS	2706-91-4	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFHpA	375-85-9	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFHxS	355-46-4	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
6:2 FTS	27619-97-2	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFOA	335-67-1	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFHpS	375-92-8	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFNA	375-95-1	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFOSA	754-91-6	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFOS	1763-23-1	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFDA	335-76-2	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
8:2 FTS	39108-34-4	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
MeFOSAA	2355-31-9	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
EtFOSAA	2991-50-6	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFUnA	2058-94-8	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFDS	335-77-3	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFDoA	307-55-1	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFTrDA	72629-94-8	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
PFTeDA	376-06-7	ND	1.98		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	85.1	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
13C3-PFPeA	IS	64.9	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
13C3-PFBS	IS	80.7	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
13C2-4:2 FTS	IS	76.9	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
13C2-PFHxA	IS	66.7	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
13C4-PFHpA	IS	69.8	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
13C3-PFHxS	IS	77.0	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
13C2-6:2 FTS	IS	68.4	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
13C5-PFNA	IS	59.9	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
13C8-PFOSA	IS	42.0	50 - 150	H	B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
13C2-PFOA	IS	70.5	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
13C8-PFOS	IS	68.3	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
13C2-PFDA	IS	61.9	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
13C2-8:2 FTS	IS	80.4	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1

Sample ID: L11-3-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 02:18
Location:	Location 11		

Laboratory Data

Lab Sample:	1903732-19	Column:	BEH C18
Date Received:	18-Oct-19 07:24		
% Solids:	78.9		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	54.7	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
13C2-PFUnA	IS	58.4	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
d5-EtFOSAA	IS	68.0	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
13C2-PFDoA	IS	59.6	50 - 150		B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1
13C2-PFTeDA	IS	48.3	50 - 150	H	B9J0277	04-Nov-19	1.28 g	08-Nov-19 23:20	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous

Laboratory Data

Lab Sample: B9J0240-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFPeA	2706-90-3	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFBS	375-73-5	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
4:2 FTS	757124-72-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFHxA	307-24-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFPeS	2706-91-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFHpA	375-85-9	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFHxS	355-46-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
6:2 FTS	27619-97-2	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFOA	335-67-1	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFHpS	375-92-8	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFNA	375-95-1	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFOSA	754-91-6	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFOS	1763-23-1	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFDA	335-76-2	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
8:2 FTS	39108-34-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
MeFOSAA	2355-31-9	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
EtFOSAA	2991-50-6	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFUnA	2058-94-8	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFDS	335-77-3	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFDoA	307-55-1	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFTrDA	72629-94-8	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFTeDA	376-06-7	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	113	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C3-PFPeA	IS	110	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C3-PFBS	IS	127	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-4:2 FTS	IS	123	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFHxA	IS	106	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C4-PFHpA	IS	101	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C3-PFHxS	IS	112	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-6:2 FTS	IS	108	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C5-PFNA	IS	115	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C8-PFOSA	IS	31.2	50 - 150	H	B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFOA	IS	122	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C8-PFOS	IS	110	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFDA	IS	106	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-8:2 FTS	IS	109	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1

Sample ID: Method Blank — **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous

Laboratory Data

Lab Sample: B9J0240-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	97.2	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFUnA	IS	93.8	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
d5-EtFOSAA	IS	98.7	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFDoA	IS	89.0	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFTeDA	IS	89.2	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0240-BS1/B9J0240-BSD1
Project:	SJC PFAS Investigation	QC Batch:	B9J0240
Matrix:	Aqueous	Samp Size:	0.250/0.250 L
		Date Extracted:	30-Oct-19
		Column:	BEH C18

Analyte	CAS Number	LCS (ng/L)	LCS Spike	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBA	375-22-4	42.2	40.0	106		41.1	40.0	103	2.57		73-129	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFPeA	2706-90-3	41.6	40.0	104		43.1	40.0	108	3.75		72-129	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFBS	375-73-5	42.4	40.0	106		40.4	40.0	101	5.04		72-130	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
4:2 FTS	757124-72-4	36.6	40.0	91.5		36.1	40.0	90.2	1.47		63-143	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFHxA	307-24-4	45.8	40.0	114		45.4	40.0	113	0.867		72-129	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFPeS	2706-91-4	45.4	40.0	113		41.8	40.0	105	8.23		71-127	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFHpA	375-85-9	46.4	40.0	116		43.6	40.0	109	6.22		72-130	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFHxS	355-46-4	39.3	40.0	98.1		38.4	40.0	95.9	2.27		68-131	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
6:2 FTS	27619-97-2	36.9	40.0	92.2		39.6	40.0	99.0	7.11		64-140	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFOA	335-67-1	46.2	40.0	115		42.4	40.0	106	8.41		71-133	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFHpS	375-92-8	44.6	40.0	111		45.3	40.0	113	1.51		69-134	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFNA	375-95-1	39.6	40.0	98.9		39.9	40.0	99.7	0.766		69-130	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFOSA	754-91-6	48.7	40.0	122		47.2	40.0	118	3.14		67-137	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFOS	1763-23-1	40.4	40.0	101		41.0	40.0	103	1.61		65-140	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFDA	335-76-2	43.9	40.0	110		43.1	40.0	108	1.84		71-129	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
8:2 FTS	39108-34-4	43.9	40.0	110		41.4	40.0	103	6.00		67-138	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
MeFOSAA	2355-31-9	33.6	40.0	83.9		33.4	40.0	83.5	0.550		65-136	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
EtFOSAA	2991-50-6	42.4	40.0	106		40.8	40.0	102	3.91		61-135	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFUnA	2058-94-8	40.5	40.0	101		42.0	40.0	105	3.62		69-133	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFDS	335-77-3	34.2	40.0	85.4		36.7	40.0	91.7	7.10		53-142	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFDoA	307-55-1	43.6	40.0	109		44.0	40.0	110	0.879		72-134	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFTrDA	72629-94-8	37.5	40.0	93.8		37.5	40.0	93.8	0.00135		65-144	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFTeDA	376-06-7	42.4	40.0	106		42.8	40.0	107	0.985		71-132	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBA	IS	115		122		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C3-PFPeA	IS	117		117		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C3-PFBS	IS	123		135		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-4:2 FTS	IS	116		120		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFHxA	IS	117		121		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C4-PFHpA	IS	106		115		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C3-PFHxS	IS	120		122		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-6:2 FTS	IS	119		111		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0240-BS1/B9J0240-BSD1	Date Extracted:	30-Oct-19
Project:	SJC PFAS Investigation	QC Batch:	B9J0240	Column:	BEH C18
Matrix:	Aqueous	Samp Size:	0.250/0.250 L		

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C5-PFNA	IS	118		121		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C8-PFOSA	IS	41.2	H	41.5	H	50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFOA	IS	113		122		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C8-PFOS	IS	113		114		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFDA	IS	108		117		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-8:2 FTS	IS	103		115		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
d3-MeFOSAA	IS	104		112		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFUnA	IS	92.0		100		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
d5-EtFOSAA	IS	95.4		107		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFDoA	IS	94.4		98.6		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFTeDA	IS	88.9		91.2		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1

Sample ID: L10-1-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Aqueous
Date Collected: 16-Oct-19 23:07

Laboratory Data

Lab Sample: 1903732-04
Date Received: 18-Oct-19 07:24
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	2340	10.4	D	B9J0240	30-Oct-19	0.239 L	07-Nov-19 18:31	5
PFPeA	2706-90-3	7730	41.8	D	B9J0240	30-Oct-19	0.239 L	11-Nov-19 15:55	20
PFBS	375-73-5	518	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
4:2 FTS	757124-72-4	40.2	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
PFHxA	307-24-4	7980	10.4	D	B9J0240	30-Oct-19	0.239 L	07-Nov-19 18:31	5
PFPeS	2706-91-4	497	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
PFHpA	375-85-9	1330	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
PFHxS	355-46-4	3850	10.4	D	B9J0240	30-Oct-19	0.239 L	07-Nov-19 18:31	5
6:2 FTS	27619-97-2	8880	41.8	D	B9J0240	30-Oct-19	0.239 L	11-Nov-19 15:55	20
PFOA	335-67-1	585	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
PFHpS	375-92-8	49.8	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
PFNA	375-95-1	3.96	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
PFOSA	754-91-6	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
PFOS	1763-23-1	163	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
PFDA	335-76-2	2.24	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
8:2 FTS	39108-34-4	61.7	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
MeFOSAA	2355-31-9	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
EtFOSAA	2991-50-6	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
PFUnA	2058-94-8	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
PFDS	335-77-3	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
PFDoA	307-55-1	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
PFTrDA	72629-94-8	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
PFTeDA	376-06-7	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	191	50 - 150	D, H	B9J0240	30-Oct-19	0.239 L	07-Nov-19 18:31	5
13C3-PFPeA	IS	610	50 - 150	D, H	B9J0240	30-Oct-19	0.239 L	11-Nov-19 15:55	20
13C3-PFBS	IS	108	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
13C2-4:2 FTS	IS	110	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
13C2-PFHxA	IS	227	50 - 150	D, H	B9J0240	30-Oct-19	0.239 L	07-Nov-19 18:31	5
13C4-PFHpA	IS	78.7	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
13C3-PFHxS	IS	215	50 - 150	D, H	B9J0240	30-Oct-19	0.239 L	07-Nov-19 18:31	5
13C2-6:2 FTS	IS	1190	50 - 150	D, H	B9J0240	30-Oct-19	0.239 L	11-Nov-19 15:55	20
13C5-PFNA	IS	110	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
13C8-PFOSA	IS	51.2	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
13C2-PFOA	IS	101	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
13C8-PFOS	IS	114	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
13C2-PFDA	IS	110	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
13C2-8:2 FTS	IS	103	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1

Sample ID: L10-1-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Aqueous
Date Collected: 16-Oct-19 23:07

Laboratory Data

Lab Sample: 1903732-04
Date Received: 18-Oct-19 07:24
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	110	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
13C2-PFUnA	IS	96.4	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
d5-EtFOSAA	IS	109	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
13C2-PFDoA	IS	94.0	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1
13C2-PFTeDA	IS	86.1	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 21:33	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L10-10-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Aqueous
Date Collected: 16-Oct-19 23:17

Laboratory Data

Lab Sample: 1903732-05
Date Received: 18-Oct-19 07:24
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	2180	10.8	D	B9J0240	30-Oct-19	0.231 L	07-Nov-19 18:41	5
PFPeA	2706-90-3	7080	43.3	D	B9J0240	30-Oct-19	0.231 L	11-Nov-19 16:06	20
PFBS	375-73-5	515	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
4:2 FTS	757124-72-4	45.1	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
PFHxA	307-24-4	8820	10.8	D	B9J0240	30-Oct-19	0.231 L	07-Nov-19 18:41	5
PFPeS	2706-91-4	477	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
PFHpA	375-85-9	1240	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
PFHxS	355-46-4	3560	10.8	D	B9J0240	30-Oct-19	0.231 L	07-Nov-19 18:41	5
6:2 FTS	27619-97-2	9040	43.3	D	B9J0240	30-Oct-19	0.231 L	11-Nov-19 16:06	20
PFOA	335-67-1	456	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
PFHpS	375-92-8	40.5	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
PFNA	375-95-1	ND	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
PFOSA	754-91-6	ND	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
PFOS	1763-23-1	137	2.17	Q	B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
PFDA	335-76-2	2.19	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
8:2 FTS	39108-34-4	56.4	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
MeFOSAA	2355-31-9	ND	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
EtFOSAA	2991-50-6	ND	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
PFUnA	2058-94-8	ND	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
PFDS	335-77-3	ND	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
PFDoA	307-55-1	ND	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
PFTrDA	72629-94-8	ND	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
PFTeDA	376-06-7	ND	2.17		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	174	50 - 150	D, H	B9J0240	30-Oct-19	0.231 L	07-Nov-19 18:41	5
13C3-PFPeA	IS	454	50 - 150	D, H	B9J0240	30-Oct-19	0.231 L	11-Nov-19 16:06	20
13C3-PFBS	IS	108	50 - 150		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
13C2-4:2 FTS	IS	104	50 - 150		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
13C2-PFHxA	IS	182	50 - 150	D, H	B9J0240	30-Oct-19	0.231 L	07-Nov-19 18:41	5
13C4-PFHpA	IS	78.9	50 - 150		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
13C3-PFHxS	IS	188	50 - 150	D, H	B9J0240	30-Oct-19	0.231 L	07-Nov-19 18:41	5
13C2-6:2 FTS	IS	767	50 - 150	D, H	B9J0240	30-Oct-19	0.231 L	11-Nov-19 16:06	20
13C5-PFNA	IS	103	50 - 150		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
13C8-PFOSA	IS	51.2	50 - 150		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
13C2-PFOA	IS	107	50 - 150		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
13C8-PFOS	IS	106	50 - 150		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
13C2-PFDA	IS	100	50 - 150		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
13C2-8:2 FTS	IS	103	50 - 150		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1

Sample ID: L10-10-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Aqueous
Date Collected: 16-Oct-19 23:17

Laboratory Data

Lab Sample: 1903732-05
Date Received: 18-Oct-19 07:24
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	111	50 - 150		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
13C2-PFUnA	IS	92.7	50 - 150		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
d5-EtFOSAA	IS	105	50 - 150		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
13C2-PFDoA	IS	81.6	50 - 150		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1
13C2-PFTeDA	IS	65.9	50 - 150		B9J0240	30-Oct-19	0.231 L	06-Nov-19 21:44	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: EB-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Aqueous
Date Collected: 16-Oct-19 22:50

Laboratory Data

Lab Sample: 1903732-06
Date Received: 18-Oct-19 07:24
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFPeA	2706-90-3	8.02	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFBS	375-73-5	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
4:2 FTS	757124-72-4	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFHxA	307-24-4	7.38	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFPeS	2706-91-4	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFHpA	375-85-9	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFHxS	355-46-4	3.26	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
6:2 FTS	27619-97-2	39.7	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFOA	335-67-1	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFHpS	375-92-8	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFNA	375-95-1	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFOSA	754-91-6	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFOS	1763-23-1	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFDA	335-76-2	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
8:2 FTS	39108-34-4	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
MeFOSAA	2355-31-9	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
EtFOSAA	2991-50-6	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFUnA	2058-94-8	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFDS	335-77-3	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFDoA	307-55-1	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFTrDA	72629-94-8	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
PFTeDA	376-06-7	ND	2.09		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	116	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
13C3-PFPeA	IS	94.6	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
13C3-PFBS	IS	116	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
13C2-4:2 FTS	IS	103	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
13C2-PFHxA	IS	102	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
13C4-PFHpA	IS	99.7	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
13C3-PFHxS	IS	112	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
13C2-6:2 FTS	IS	98.1	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
13C5-PFNA	IS	100	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
13C8-PFOSA	IS	25.4	50 - 150	H	B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
13C2-PFOA	IS	99.4	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
13C8-PFOS	IS	99.1	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
13C2-PFDA	IS	108	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
13C2-8:2 FTS	IS	95.0	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1

Sample ID: EB-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Aqueous
Date Collected: 16-Oct-19 22:50

Laboratory Data

Lab Sample: 1903732-06
Date Received: 18-Oct-19 07:24
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	92.2	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
13C2-PFUnA	IS	104	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
d5-EtFOSAA	IS	101	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
13C2-PFDoA	IS	92.3	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1
13C2-PFTeDA	IS	88.8	50 - 150		B9J0240	30-Oct-19	0.240 L	07-Nov-19 18:52	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: FB-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Aqueous
Date Collected: 16-Oct-19 22:45

Laboratory Data

Lab Sample: 1903732-07
Date Received: 18-Oct-19 07:24
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFPeA	2706-90-3	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFBS	375-73-5	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
4:2 FTS	757124-72-4	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFHxA	307-24-4	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFPeS	2706-91-4	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFHpA	375-85-9	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFHxS	355-46-4	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
6:2 FTS	27619-97-2	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFOA	335-67-1	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFHpS	375-92-8	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFNA	375-95-1	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFOSA	754-91-6	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFOS	1763-23-1	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFDA	335-76-2	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
8:2 FTS	39108-34-4	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
MeFOSAA	2355-31-9	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
EtFOSAA	2991-50-6	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFUnA	2058-94-8	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFDS	335-77-3	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFDoA	307-55-1	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFTrDA	72629-94-8	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
PFTeDA	376-06-7	ND	2.04		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	113	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
13C3-PFPeA	IS	111	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
13C3-PFBS	IS	126	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
13C2-4:2 FTS	IS	123	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
13C2-PFHxA	IS	113	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
13C4-PFHpA	IS	112	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
13C3-PFHxS	IS	112	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
13C2-6:2 FTS	IS	118	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
13C5-PFNA	IS	119	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
13C8-PFOSA	IS	50.0	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
13C2-PFOA	IS	126	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
13C8-PFOS	IS	115	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
13C2-PFDA	IS	116	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
13C2-8:2 FTS	IS	111	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1

Sample ID: FB-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Aqueous
Date Collected: 16-Oct-19 22:45

Laboratory Data

Lab Sample: 1903732-07
Date Received: 18-Oct-19 07:24
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	121	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
13C2-PFUnA	IS	112	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
d5-EtFOSAA	IS	115	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
13C2-PFDoA	IS	105	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1
13C2-PFTeDA	IS	98.8	50 - 150		B9J0240	30-Oct-19	0.245 L	06-Nov-19 22:05	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L11-3-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 11
Matrix: Aqueous
Date Collected: 17-Oct-19 03:00

Laboratory Data

Lab Sample: 1903732-20
Date Received: 18-Oct-19 07:24
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	10.2	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFPeA	2706-90-3	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFBS	375-73-5	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
4:2 FTS	757124-72-4	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFHxA	307-24-4	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFPeS	2706-91-4	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFHpA	375-85-9	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFHxS	355-46-4	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
6:2 FTS	27619-97-2	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFOA	335-67-1	3.14	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFHpS	375-92-8	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFNA	375-95-1	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFOSA	754-91-6	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFOS	1763-23-1	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFDA	335-76-2	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
8:2 FTS	39108-34-4	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
MeFOSAA	2355-31-9	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
EtFOSAA	2991-50-6	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFUnA	2058-94-8	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFDS	335-77-3	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFDoA	307-55-1	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFTrDA	72629-94-8	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
PFTeDA	376-06-7	ND	2.10		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	88.7	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
13C3-PFPeA	IS	105	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
13C3-PFBS	IS	123	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
13C2-4:2 FTS	IS	104	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
13C2-PFHxA	IS	107	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
13C4-PFHpA	IS	104	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
13C3-PFHxS	IS	111	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
13C2-6:2 FTS	IS	100	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
13C5-PFNA	IS	110	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
13C8-PFOSA	IS	30.4	50 - 150	H	B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
13C2-PFOA	IS	117	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
13C8-PFOS	IS	103	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
13C2-PFDA	IS	101	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
13C2-8:2 FTS	IS	102	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1

Sample ID: L11-3-GW

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Aqueous
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 03:00
Location:	Location 11		

Laboratory Data

Lab Sample:	1903732-20	Column:	BEH C18
Date Received:	18-Oct-19 07:24		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	96.0	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
13C2-PFUnA	IS	83.5	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
d5-EtFOSAA	IS	92.3	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
13C2-PFDoA	IS	63.2	50 - 150		B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1
13C2-PFTeDA	IS	11.2	50 - 150	H	B9J0240	30-Oct-19	0.238 L	06-Nov-19 22:16	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

Rev. No.: 0
Rev. Date: 06/27/2017

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1903732 Temp: 2.0 °C
Storage ID: R-13, WR-2 Storage Secured: Yes ☑ No ☐

Project ID: SJC PFAS Investigation PO#: Sampler: Kevin Almestad/ (name) George Vukelich

TAT (check one): Standard: ☒ 21 days; Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify:

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Jim Strandberg	Woodard & Curran	2175 N California Blvd, Ste 315	Walnut Creek	CA	925-627-4100	925-627-4101

KA

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Kevin Almestad	10/17/19	1815	FedEX	10/18/19	0724
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
recieved KA Fedex	10/17/19	1815	Ashley Mason	10/18/19	0724

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

Method of Shipment: Fedex

ATTN: Jade

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below: CA Airport 24 List	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
LID-1-1	10/16/19	2000	Location 10	1	PJ	SO					X				
LID-1-5		2005		1	PJ	SO									
LID-1-10		2010		1	PJ	SO									
LID-1-GW		2307		2	P	AQ									
LID-10-GW		2317		2	P	AQ									
EB-1		2250		2	P	AQ									
FB-1		2245		2	P	AQ									
LII-4-1	10/17/19	0137	Location 11	1	PJ	SO									
LII-4-10		0143		1	PJ	SO									
LII-4-5		0140		1	PJ	SO									

Special Instructions/Comments: Geotracker EDF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc.
Address: 2175 N California Blvd, Suite 315
City: Walnut Creek State: CA Zip: 94597
Phone: (510)-301-3776 Fax:
Email: JStrandberg@woodardcurran.com

Container Types: P= HDPE, PJ= HDPE Jar, O = Other:

Bottle Preservation Type: T = Thiosulfate, TZ = Trizma:

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other:

Page: 1 of 2

Rev. No.: 0
Rev. Date: 06/27/2017

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1903732 Temp: 2.0 °C
Storage ID: R-13, WR-2 Storage Secured: Yes ☑ No ☐

Project ID: SSC PFAS Investigation PO#: _____ Sampler: KA/GV (name)

TAT (check one): Standard: ☒ 21 days; Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify: _____

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Jim Strandberg	Woodard & Curran	2175 N California Blvd, ste 315	Walnut Creek	CA	925-627-4100	925-627-4101

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Kevin Ahnstad	10/17/19	1815	Fedex	10/17/19	1615
FedEx	10/18/19	0724	Ashley Mason	10/18/19	0724

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

ATTN: Jade

Method of Shipment: Fedex

Tracking No.: _____

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/ PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below: CA Airport 24 list	EPA Method 537(DW only): PFOA/ PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
L11-1-1	10/17/19	0033	Location 11	1	PJ	SO					X				
L11-1-5		0036		1	PJ	SO									
L11-1-10		0040		1	PJ	SO									
L11-2-1		0115		1	PJ	SO									
L11-2-5		0118		1	PJ	SO									
L11-2-10		0120		1	PJ	SO									
L11-3-1		0213		1	PJ	SO									
L11-3-5		0216		1	PJ	SO									
L11-3-10		0218		1	PJ	SO									
L11-3-6W		0300		2	P	AQ									

Special Instructions/Comments: Geotracker EDF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc.
Address: 2175 N California Blvd, ste 315
City: Walnut Creek State: CA Zip: 94597
Phone: (510)-301-3776 Fax: _____
Email: JStrandberg@woodardcurran.com

Container Types: P= HDPE, PJ= HDPE Jar, O = Other: _____

Bottle Preservation Type: T = Thiosulfate, TZ = Trizma: _____

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: _____

Page: 2 of 2

Vista Analytical Laboratory

Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 1903732 TAT std

Samples Arrival:	Date/Time: 10/18/19 0724	Initials: ajm	Location: WR-2 Shelf/Rack: N 1A

Delivered By:	(FedEx)	UPS	On Trac	GSO	DHL	Hand Delivered	Other
Preservation:	(Ice)		Blue Ice		Dry Ice		None

Temp °C: 2.0 (uncorrected)	Probe used: Y / (N)	Thermometer ID: IR-3
Temp °C: 2.0 (corrected)		

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Airbill — Trk # 7863 3869 2094	✓		
Shipping Documentation Present?	✓		
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Shipping Container: (Vista) / Client — (Retain) / Return — Dispose

Logged In:	Date/Time: 10/21/19 0836	Initials: MWS	Location: R-13, WR-2 Shelf/Rack: B-2, C-3

COC Anomaly/Sample Acceptance Form completed?		✓	✓

Comments:

CoC/Label Reconciliation Report WO# 1903732

LabNumber	CoC Sample ID	Label ID matches COCID	Label ID doesn't match COCID	SampleAlias	Sampled	Label Sampled matches	Sampled doesn't match	Container	Container Correct	Sample BaseMatrix	Comments
1903732-01	A L10-1-1	☑		Location 10	D 16-Oct-19 20:00	☐		HDPE Jar, 6 oz	☑	Solid	
1903732-02	A L10-1-5	☑		Location 10	B 16-Oct-19 20:05	☐		HDPE Jar, 6 oz	☑	Solid	
1903732-03	A L10-1-10	☑		Location 10	C 16-Oct-19 20:10	☐		HDPE Jar, 6 oz	☑	Solid	
1903732-04	A L10-1-GW	☑		Location 10	A 16-Oct-19 23:07	☑	SC 10/21/19	HDPE Bottle, 250 mL	☑	Aqueous	
1903732-04	B L10-1-GW	☑		Location 10	16-Oct-19 23:07	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903732-05	A L10-10-GW	☑		Location 10	16-Oct-19 23:17	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903732-05	B L10-10-GW	☑		Location 10	16-Oct-19 23:17	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903732-06	A EB-1	☑		Location 10	16-Oct-19 22:50	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903732-06	B EB-1	☑		Location 10	16-Oct-19 22:50	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903732-07	A FB-1	☑		Location 10	16-Oct-19 22:45	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903732-07	B FB-1	☑		Location 10	16-Oct-19 22:45	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903732-08	A L11-4-1	☑		Location 11	17-Oct-19 01:37	☑		HDPE Jar, 6 oz	☑	Solid	
1903732-09	A L11-4-10	☑		Location 11	17-Oct-19 01:43	☑		HDPE Jar, 6 oz	☑	Solid	
1903732-10	A L11-4-5	☑		Location 11	17-Oct-19 01:40	☑		HDPE Jar, 6 oz	☑	Solid	
1903732-11	A L11-1-1	☑		Location 11	17-Oct-19 00:33	☑		HDPE Jar, 6 oz	☑	Solid	
1903732-12	A L11-1-5	☑		Location 11	17-Oct-19 00:36	☑		HDPE Jar, 6 oz	☑	Solid	
1903732-13	A L11-1-10	☑		Location 11	17-Oct-19 00:40	☑		HDPE Jar, 6 oz	☑	Solid	
1903732-14	A L11-2-1	☑		Location 11	17-Oct-19 01:15	☑		HDPE Jar, 6 oz	☑	Solid	
1903732-15	A L11-2-5	☑		Location 11	17-Oct-19 01:18	☑		HDPE Jar, 6 oz	☑	Solid	
1903732-16	A L11-2-10	☑		Location 11	17-Oct-19 01:20	☑		HDPE Jar, 6 oz	☑	Solid	
1903732-17	A L11-3-1	☑		Location 11	17-Oct-19 02:13	☑		HDPE Jar, 6 oz	☑	Solid	
1903732-18	A L11-3-5	☑		Location 11	17-Oct-19 02:16	☑		HDPE Jar, 6 oz	☑	Solid	
1903732-19	A L11-3-10	☑		Location 11	17-Oct-19 02:18	☑		HDPE Jar, 6 oz	☑	Solid	
1903732-20	A L11-3-GW	☑		Location 11	17-Oct-19 03:00	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903732-20	B L11-3-GW	☑		Location 11	17-Oct-19 03:00	☑		HDPE Bottle, 250 mL	☑	Aqueous	

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Preservation Documented: Na2S2O3 Trizma (None) Other			✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments:

A- time on client label is 23:17
time on printed label is 23:07
reconciled by Sample ID

B- time on clientlabel is 22:05
time on printed label is 20:05
reconciled by Sample ID

C- time on client label is 22:10
time on printed label is 20:10
reconcaled by Sample ID

D- time on client label is 22:00
time on printed label is 20:00
reconcaled by Sample ID

Verifed by/Date: SC 10/21/19

November 21, 2019

Vista Work Order No. 1903734

Mr. Jim Strandberg
Woodard & Curran
2175 North California Boulevard, Suite 315
Walnut Creek, CA 94596

Dear Mr. Strandberg,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on October 19, 2019 under your Project Name 'SJC PFAS Investigation'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1903734
Case Narrative

Sample Condition on Receipt:

Nine soil samples and one aqueous sample were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:

PFAS Isotope Dilution Method - Soil

The soil samples were extracted and analyzed for a selected list of PFAS. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit (RL). The OPR recoveries were within the method acceptance criteria.

The internal standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

An MS/MSD was performed on sample "L10-2-1". The MS/MSD recoveries and/or RPDs were out of the acceptance criteria for PFBA, PFPeA, PFHxA, PFHxS and 6:2 FTS.

PFAS Isotope Dilution Method - Aqueous

The aqueous sample was extracted and analyzed for a selected list of PFAS. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The sample was extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the acceptance criteria.

A Method Blank and Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit. The LCS/LCSD recoveries were within the method acceptance criteria.

The internal standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1903734-01	L10-2-1	17-Oct-19 22:01	19-Oct-19 09:58	HDPE Jar, 6 oz
1903734-02	L10-2-5	17-Oct-19 22:03	19-Oct-19 09:58	HDPE Jar, 6 oz
1903734-03	L10-2-10	17-Oct-19 22:07	19-Oct-19 09:58	HDPE Jar, 6 oz
1903734-04	L10-3-1	17-Oct-19 21:43	19-Oct-19 09:58	HDPE Jar, 6 oz
1903734-05	L10-3-5	17-Oct-19 21:46	19-Oct-19 09:58	HDPE Jar, 6 oz
1903734-06	L10-3-10	17-Oct-19 21:50	19-Oct-19 09:58	HDPE Jar, 6 oz
1903734-07	L12-1-1	17-Oct-19 23:12	19-Oct-19 09:58	HDPE Jar, 6 oz
1903734-08	L12-1-5	17-Oct-19 23:16	19-Oct-19 09:58	HDPE Jar, 6 oz
1903734-09	L12-1-10	17-Oct-19 23:19	19-Oct-19 09:58	HDPE Jar, 6 oz
1903734-10	FB-2	18-Oct-19 00:35	19-Oct-19 09:58	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

Vista Project: 1903734

Client Project: SJC PFAS Investigation

ANALYTICAL RESULTS

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9J0278-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFPeA	2706-90-3	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFBS	375-73-5	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
4:2 FTS	757124-72-4	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFHxA	307-24-4	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFPeS	2706-91-4	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFHpA	375-85-9	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFHxS	355-46-4	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
6:2 FTS	27619-97-2	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFOA	335-67-1	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFHpS	375-92-8	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFNA	375-95-1	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFOSA	754-91-6	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFOS	1763-23-1	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFDA	335-76-2	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
8:2 FTS	39108-34-4	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
MeFOSAA	2355-31-9	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
EtFOSAA	2991-50-6	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFUnA	2058-94-8	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFDS	335-77-3	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFDoA	307-55-1	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFTrDA	72629-94-8	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFTeDA	376-06-7	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	94.7	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C3-PFPeA	IS	71.9	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C3-PFBS	IS	79.4	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-4:2 FTS	IS	75.0	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-PFHxA	IS	73.6	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C4-PFHpA	IS	67.4	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C3-PFHxS	IS	73.8	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-6:2 FTS	IS	68.9	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C5-PFNA	IS	63.6	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C8-PFOSA	IS	44.3	50 - 150	H	B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-PFOA	IS	79.2	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C8-PFOS	IS	66.8	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-PFDA	IS	61.5	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-8:2 FTS	IS	75.8	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9J0278-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	51.4	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-PFUnA	IS	53.7	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
d5-EtFOSAA	IS	62.5	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-PFDoA	IS	52.8	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-PFTeDA	IS	55.4	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: OPR **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9J0278-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/g)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	9.62	10.0	96.2	71 - 135		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFPeA	2706-90-3	9.52	10.0	95.2	69 - 132		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFBS	375-73-5	9.43	10.0	94.3	72 - 128		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
4:2 FTS	757124-72-4	9.64	10.0	96.4	62 - 145		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFHxA	307-24-4	9.49	10.0	94.9	70 - 132		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFPeS	2706-91-4	8.74	10.0	87.4	73 - 123		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFHpA	375-85-9	10.8	10.0	108	71 - 131		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFHxS	355-46-4	9.58	10.0	95.8	67 - 130		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
6:2 FTS	27619-97-2	10.6	10.0	106	64 - 140		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFOA	335-67-1	9.61	10.0	96.1	69 - 133		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFHpS	375-92-8	10.2	10.0	102	70 - 132		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFNA	375-95-1	9.82	10.0	98.2	72 - 129		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFOSA	754-91-6	10.5	10.0	105	67 - 137		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFOS	1763-23-1	9.62	10.0	96.0	68 - 136		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFDA	335-76-2	9.93	10.0	99.3	69 - 133		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
8:2 FTS	39108-34-4	10.5	10.0	105	65 - 137		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
MeFOSAA	2355-31-9	9.18	10.0	91.8	63 - 144		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
EtFOSAA	2991-50-6	8.79	10.0	87.9	61 - 139		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFUnA	2058-94-8	10.0	10.0	100	64 - 136		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFDS	335-77-3	8.40	10.0	83.8	59 - 134		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFDoA	307-55-1	10.3	10.0	103	69 - 135		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFTrDA	72629-94-8	10.9	10.0	109	66 - 139		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFTeDA	376-06-7	10.0	10.0	100	69 - 133		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	95.6	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C3-PFPeA	IS	77.7	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C3-PFBS	IS	80.9	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-4:2 FTS	IS	75.7	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-PFHxA	IS	73.2	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C4-PFHpA	IS	71.7	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C3-PFHxS	IS	77.8	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-6:2 FTS	IS	73.2	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C5-PFNA	IS	68.8	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C8-PFOSA	IS	35.8	50- 150	H	B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-PFOA	IS	78.5	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1

Sample ID: OPR **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9J0278-BS1
Column: BEH C18

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOS	IS	71.0	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-PFDA	IS	63.1	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-8:2 FTS	IS	75.8	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
d3-MeFOSAA	IS	56.0	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-PFUnA	IS	55.8	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
d5-EtFOSAA	IS	66.1	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-PFDoA	IS	54.5	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-PFTeDA	IS	56.2	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1

Sample ID: L10-2-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 22:01
Location:	Location 10		

Laboratory Data

Lab Sample:	1903734-01	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	86.9		

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	8.59	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
PFPeA	2706-90-3	50.4	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
PFBS	375-73-5	7.43	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
4:2 FTS	757124-72-4	ND	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
PFHxA	307-24-4	61.4	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
PFPeS	2706-91-4	5.21	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
PFHpA	375-85-9	6.13	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
PFHxS	355-46-4	45.8	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
6:2 FTS	27619-97-2	762	9.75	D	B9J0278	06-Nov-19	1.18 g	12-Nov-19 18:16	5
PFOA	335-67-1	9.96	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
PFHpS	375-92-8	ND	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
PFNA	375-95-1	ND	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
PFOSA	754-91-6	ND	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
PFOS	1763-23-1	2.97	1.95	Q	B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
PFDA	335-76-2	ND	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
8:2 FTS	39108-34-4	ND	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
MeFOSAA	2355-31-9	ND	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
EtFOSAA	2991-50-6	ND	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
PFUnA	2058-94-8	ND	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
PFDS	335-77-3	ND	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
PFDoA	307-55-1	ND	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
PFTrDA	72629-94-8	ND	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
PFTeDA	376-06-7	ND	1.95		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	95.5	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
13C3-PFPeA	IS	74.5	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
13C3-PFBS	IS	82.1	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
13C2-4:2 FTS	IS	78.2	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
13C2-PFHxA	IS	72.3	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
13C4-PFHpA	IS	73.2	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
13C3-PFHxS	IS	79.9	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
13C2-6:2 FTS	IS	155	50 - 150	D, H	B9J0278	06-Nov-19	1.18 g	12-Nov-19 18:16	5
13C5-PFNA	IS	68.0	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
13C8-PFOSA	IS	57.4	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
13C2-PFOA	IS	80.9	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
13C8-PFOS	IS	75.5	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
13C2-PFDA	IS	66.1	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
13C2-8:2 FTS	IS	79.6	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1

Sample ID: L10-2-1 **PFAS Isotope Dilution Method**

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 22:01
Location:	Location 10		

Laboratory Data

Lab Sample:	1903734-01	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	86.9		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	63.5	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
13C2-PFUnA	IS	58.7	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
d5-EtFOSAA	IS	67.6	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
13C2-PFDoA	IS	60.6	50 - 150		B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1
13C2-PFTeDA	IS	41.2	50 - 150	H	B9J0278	06-Nov-19	1.18 g	09-Nov-19 00:13	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L10-2-1 **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0278-MS1/B9J0278-MSD1	Source Lab Sample:	1903734-01
Project:	SJC PFAS Investigation	QC Batch:	B9J0278	Date Extracted:	06-Nov-19
Matrix:	Solid	Samp Size:	1.15/1.15 g	Column:	BEH C18

Analyte	CAS Number	Sample (ng/g)	MS (ng/g)	MS Spike	MS % Rec	MS Quals	MSD (ng/g)	MSD Spike	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBA	375-22-4	8.59	16.0	10.0	74.5		18.9	10.0	103	32.1	H	71-135	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
PFPeA	2706-90-3	50.4	43.4	10.0	-69.5	H	60.1	10.0	97.0	1210	H	69-132	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
PFBS	375-73-5	7.43	15.7	10.0	82.5		18.1	10.0	107	25.9		72-128	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
4:2 FTS	757124-72-4	ND	10.4	10.0	103		10.4	10.0	103	0		62-145	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
PFHxA	307-24-4	61.4	58.8	10.0	-26.1	H	73.3	10.0	119	312	H	70-132	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
PFPeS	2706-91-4	5.21	12.8	10.0	76.0		15.4	10.0	102	29.2		73-123	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
PFHpA	375-85-9	6.13	15.9	10.0	97.5		16.8	10.0	106	8.35		71-131	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
PFHxS	355-46-4	45.8	44.6	10.0	-12.5	H	56.7	10.0	108	252	H	67-130	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
6:2 FTS	27619-97-2	762	600	10.0	-1620	D, H	844	10.0	818	608	D, H	64-140	30	12-Nov-19 17:55	5	12-Nov-19 18:05	5
PFOA	335-67-1	9.96	18.4	10.0	84.1		19.6	10.0	96.2	13.4		69-133	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
PFHpS	375-92-8	ND	11.4	10.0	105		13.5	10.0	126	18.2		70-132	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
PFNA	375-95-1	ND	10.3	10.0	101		10.4	10.0	103	1.96		72-129	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
PFOSA	754-91-6	ND	11.0	10.0	110		10.8	10.0	108	1.83		67-137	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
PFOS	1763-23-1	2.97	13.4	10.0	104		14.1	10.0	111	6.51		68-136	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
PFDA	335-76-2	ND	10.3	10.0	103		11.1	10.0	111	7.48		69-133	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
8:2 FTS	39108-34-4	ND	10.9	10.0	109		10.5	10.0	105	3.74		65-137	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
MeFOSAA	2355-31-9	ND	10.3	10.0	103		11.2	10.0	112	8.37		63-144	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
EtFOSAA	2991-50-6	ND	11.0	10.0	110		11.0	10.0	110	0		61-139	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
PFUnA	2058-94-8	ND	10.9	10.0	109		11.1	10.0	111	1.82		64-136	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
PFDS	335-77-3	ND	9.82	10.0	98.2		10.4	10.0	104	5.74		59-134	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
PFDoA	307-55-1	ND	11.0	10.0	110		10.5	10.0	105	4.65		69-135	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
PFTrDA	72629-94-8	ND	10.6	10.0	106		10.4	10.0	104	1.90		66-139	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1
PFTeDA	376-06-7	ND	10.1	10.0	101		10.8	10.0	108	6.70		69-133	30	08-Nov-19 23:52	1	09-Nov-19 00:03	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C3-PFBA	IS	99.3		94.3		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
13C3-PFPeA	IS	78.0		73.6		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
13C3-PFBS	IS	85.9		77.8		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
13C2-4:2 FTS	IS	72.0		70.4		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
13C2-PFHxA	IS	76.5		70.3		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
13C4-PFHpA	IS	76.9		74.5		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
13C3-PFHxS	IS	81.5		76.9		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
13C2-6:2 FTS	IS	170	D, H	139	D	50-150	12-Nov-19 17:55	5	12-Nov-19 18:05	5

Sample ID: L10-2-1 **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0278-MS1/B9J0278-MSD1	Source Lab Sample:	1903734-01
Project:	SJC PFAS Investigation	QC Batch:	B9J0278	Date Extracted:	06-Nov-19
Matrix:	Solid	Samp Size:	1.15/1.15 g	Column:	BEH C18

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C5-PFNA	IS	72.0		67.0		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
13C8-PFOSA	IS	53.4		53.9		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
13C2-PFOA	IS	81.2		75.7		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
13C8-PFOS	IS	72.8		63.5		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
13C2-PFDA	IS	65.5		62.0		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
13C2-8:2 FTS	IS	81.4		78.2		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
d3-MeFOSAA	IS	61.1		56.9		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
13C2-PFUnA	IS	63.6		59.9		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
d5-EtFOSAA	IS	68.1		64.4		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
13C2-PFDoA	IS	62.1		59.1		50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1
13C2-PFTeDA	IS	63.9		49.6	H	50-150	08-Nov-19 23:52	1	09-Nov-19 00:03	1

Sample ID: L10-2-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Soil
Date Collected: 17-Oct-19 22:03

Laboratory Data

Lab Sample: 1903734-02
Date Received: 19-Oct-19 09:58
% Solids: 76.3
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	10.4	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFPeA	2706-90-3	59.2	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFBS	375-73-5	4.24	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
4:2 FTS	757124-72-4	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFHxA	307-24-4	76.8	2.00	Q	B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFPeS	2706-91-4	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFHpA	375-85-9	4.60	2.00	Q	B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFHxS	355-46-4	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
6:2 FTS	27619-97-2	7.73	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFOA	335-67-1	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFHpS	375-92-8	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFNA	375-95-1	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFOSA	754-91-6	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFOS	1763-23-1	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFDA	335-76-2	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
8:2 FTS	39108-34-4	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
MeFOSAA	2355-31-9	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
EtFOSAA	2991-50-6	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFUnA	2058-94-8	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFDS	335-77-3	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFDoA	307-55-1	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFTrDA	72629-94-8	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
PFTeDA	376-06-7	ND	2.00		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	157	50 - 150	H	B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
13C3-PFPeA	IS	81.4	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
13C3-PFBS	IS	87.7	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
13C2-4:2 FTS	IS	87.1	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
13C2-PFHxA	IS	73.9	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
13C4-PFHpA	IS	77.9	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
13C3-PFHxS	IS	75.6	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
13C2-6:2 FTS	IS	77.6	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
13C5-PFNA	IS	67.0	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
13C8-PFOSA	IS	28.1	50 - 150	H	B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
13C2-PFOA	IS	75.3	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
13C8-PFOS	IS	70.4	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
13C2-PFDA	IS	52.0	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
13C2-8:2 FTS	IS	80.6	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1

Sample ID: L10-2-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 22:03
Location:	Location 10		

Laboratory Data

Lab Sample:	1903734-02	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	76.3		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	64.6	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
13C2-PFUnA	IS	53.5	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
d5-EtFOSAA	IS	64.2	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
13C2-PFDoA	IS	52.2	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1
13C2-PFTeDA	IS	57.6	50 - 150		B9J0278	06-Nov-19	1.31 g	21-Nov-19 05:16	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L10-2-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Soil
Date Collected: 17-Oct-19 22:07

Laboratory Data

Lab Sample: 1903734-03
Date Received: 19-Oct-19 09:58
% Solids: 86.8
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	3.59	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFPeA	2706-90-3	17.4	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFBS	375-73-5	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
4:2 FTS	757124-72-4	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFHxA	307-24-4	19.6	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFPeS	2706-91-4	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFHpA	375-85-9	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFHxS	355-46-4	2.36	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
6:2 FTS	27619-97-2	62.9	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFOA	335-67-1	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFHpS	375-92-8	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFNA	375-95-1	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFOSA	754-91-6	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFOS	1763-23-1	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFDA	335-76-2	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
8:2 FTS	39108-34-4	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
MeFOSAA	2355-31-9	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
EtFOSAA	2991-50-6	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFUnA	2058-94-8	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFDS	335-77-3	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFDoA	307-55-1	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFTrDA	72629-94-8	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
PFTeDA	376-06-7	ND	2.00		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	109	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
13C3-PFPeA	IS	86.9	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
13C3-PFBS	IS	89.5	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
13C2-4:2 FTS	IS	80.4	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
13C2-PFHxA	IS	80.4	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
13C4-PFHpA	IS	81.8	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
13C3-PFHxS	IS	85.4	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
13C2-6:2 FTS	IS	71.7	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
13C5-PFNA	IS	76.2	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
13C8-PFOSA	IS	50.0	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
13C2-PFOA	IS	90.4	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
13C8-PFOS	IS	71.6	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
13C2-PFDA	IS	62.1	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
13C2-8:2 FTS	IS	84.7	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1

Sample ID: L10-2-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 22:07
Location:	Location 10		

Laboratory Data

Lab Sample:	1903734-03	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	86.8		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	56.3	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
13C2-PFUnA	IS	60.7	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
d5-EtFOSAA	IS	68.6	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
13C2-PFDoA	IS	62.6	50 - 150		B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1
13C2-PFTeDA	IS	48.3	50 - 150	H	B9J0278	06-Nov-19	1.15 g	09-Nov-19 00:34	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L10-3-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Soil
Date Collected: 17-Oct-19 21:43

Laboratory Data

Lab Sample: 1903734-04
Date Received: 19-Oct-19 09:58
% Solids: 86.3
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFPeA	2706-90-3	5.27	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFBS	375-73-5	ND	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
4:2 FTS	757124-72-4	ND	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFHxA	307-24-4	4.36	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFPeS	2706-91-4	ND	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFHpA	375-85-9	ND	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFHxS	355-46-4	8.82	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
6:2 FTS	27619-97-2	122	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFOA	335-67-1	4.02	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFHpS	375-92-8	ND	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFNA	375-95-1	3.98	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFOSA	754-91-6	ND	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFOS	1763-23-1	369	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFDA	335-76-2	6.67	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
8:2 FTS	39108-34-4	157	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
MeFOSAA	2355-31-9	ND	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
EtFOSAA	2991-50-6	ND	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFUnA	2058-94-8	ND	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFDS	335-77-3	ND	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFDoA	307-55-1	ND	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFTrDA	72629-94-8	ND	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
PFTeDA	376-06-7	ND	2.00		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	102	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
13C3-PFPeA	IS	80.1	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
13C3-PFBS	IS	95.5	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
13C2-4:2 FTS	IS	83.0	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
13C2-PFHxA	IS	76.1	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
13C4-PFHpA	IS	80.7	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
13C3-PFHxS	IS	92.8	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
13C2-6:2 FTS	IS	76.5	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
13C5-PFNA	IS	74.4	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
13C8-PFOSA	IS	39.7	50 - 150	H	B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
13C2-PFOA	IS	86.2	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
13C8-PFOS	IS	64.8	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
13C2-PFDA	IS	71.9	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
13C2-8:2 FTS	IS	79.9	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1

Sample ID: L10-3-1 **PFAS Isotope Dilution Method**

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 21:43
Location:	Location 10		

Laboratory Data

Lab Sample:	1903734-04	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	86.3		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	71.4	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
13C2-PFUnA	IS	64.2	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
d5-EtFOSAA	IS	68.6	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
13C2-PFDoA	IS	67.3	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1
13C2-PFTeDA	IS	71.1	50 - 150		B9J0278	06-Nov-19	1.16 g	09-Nov-19 00:45	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L10-3-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Soil
Date Collected: 17-Oct-19 21:46

Laboratory Data

Lab Sample: 1903734-05
Date Received: 19-Oct-19 09:58
% Solids: 89.2
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFPeA	2706-90-3	6.79	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFBS	375-73-5	ND	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
4:2 FTS	757124-72-4	ND	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFHxA	307-24-4	5.31	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFPeS	2706-91-4	ND	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFHpA	375-85-9	ND	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFHxS	355-46-4	23.9	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
6:2 FTS	27619-97-2	205	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFOA	335-67-1	6.29	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFHpS	375-92-8	2.02	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFNA	375-95-1	ND	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFOSA	754-91-6	ND	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFOS	1763-23-1	62.1	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFDA	335-76-2	ND	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
8:2 FTS	39108-34-4	13.5	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
MeFOSAA	2355-31-9	ND	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
EtFOSAA	2991-50-6	ND	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFUnA	2058-94-8	ND	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFDS	335-77-3	ND	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFDoA	307-55-1	ND	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFTrDA	72629-94-8	ND	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
PFTeDA	376-06-7	ND	2.00		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	98.2	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
13C3-PFPeA	IS	80.7	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
13C3-PFBS	IS	83.9	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
13C2-4:2 FTS	IS	78.2	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
13C2-PFHxA	IS	72.1	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
13C4-PFHpA	IS	73.2	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
13C3-PFHxS	IS	76.9	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
13C2-6:2 FTS	IS	66.2	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
13C5-PFNA	IS	64.2	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
13C8-PFOSA	IS	25.0	50 - 150	H	B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
13C2-PFOA	IS	75.5	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
13C8-PFOS	IS	68.0	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
13C2-PFDA	IS	59.6	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
13C2-8:2 FTS	IS	74.6	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1

Sample ID: L10-3-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 21:46
Location:	Location 10		

Laboratory Data

Lab Sample:	1903734-05	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	89.2		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	52.8	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
13C2-PFUnA	IS	56.2	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
d5-EtFOSAA	IS	58.8	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
13C2-PFDoA	IS	56.5	50 - 150		B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1
13C2-PFTeDA	IS	45.9	50 - 150	H	B9J0278	06-Nov-19	1.12 g	09-Nov-19 00:56	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L10-3-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Soil
Date Collected: 17-Oct-19 21:50

Laboratory Data

Lab Sample: 1903734-06
Date Received: 19-Oct-19 09:58
% Solids: 80.9
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFPeA	2706-90-3	3.60	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFBS	375-73-5	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
4:2 FTS	757124-72-4	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFHxA	307-24-4	2.76	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFPeS	2706-91-4	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFHpA	375-85-9	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFHxS	355-46-4	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
6:2 FTS	27619-97-2	29.8	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFOA	335-67-1	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFHpS	375-92-8	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFNA	375-95-1	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFOSA	754-91-6	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFOS	1763-23-1	9.72	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFDA	335-76-2	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
8:2 FTS	39108-34-4	53.6	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
MeFOSAA	2355-31-9	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
EtFOSAA	2991-50-6	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFUnA	2058-94-8	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFDS	335-77-3	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFDoA	307-55-1	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFTrDA	72629-94-8	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
PFTeDA	376-06-7	ND	1.96		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	97.2	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
13C3-PFPeA	IS	75.6	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
13C3-PFBS	IS	78.0	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
13C2-4:2 FTS	IS	74.1	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
13C2-PFHxA	IS	72.5	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
13C4-PFHpA	IS	68.0	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
13C3-PFHxS	IS	78.8	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
13C2-6:2 FTS	IS	70.7	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
13C5-PFNA	IS	63.5	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
13C8-PFOSA	IS	28.0	50 - 150	H	B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
13C2-PFOA	IS	73.2	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
13C8-PFOS	IS	66.5	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
13C2-PFDA	IS	61.1	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
13C2-8:2 FTS	IS	72.2	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1

Sample ID: L10-3-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 21:50
Location:	Location 10		

Laboratory Data

Lab Sample:	1903734-06	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	80.9		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	58.4	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
13C2-PFUnA	IS	57.1	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
d5-EtFOSAA	IS	61.3	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
13C2-PFDoA	IS	56.0	50 - 150		B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1
13C2-PFTeDA	IS	45.6	50 - 150	H	B9J0278	06-Nov-19	1.26 g	09-Nov-19 01:27	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L12-1-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Soil
Date Collected: 17-Oct-19 23:12

Laboratory Data

Lab Sample: 1903734-07
Date Received: 19-Oct-19 09:58
% Solids: 83.4
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFPeA	2706-90-3	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFBS	375-73-5	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
4:2 FTS	757124-72-4	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFHxA	307-24-4	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFPeS	2706-91-4	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFHpA	375-85-9	2.02	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFHxS	355-46-4	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
6:2 FTS	27619-97-2	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFOA	335-67-1	2.32	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFHpS	375-92-8	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFNA	375-95-1	2.25	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFOSA	754-91-6	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFOS	1763-23-1	2.49	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFDA	335-76-2	6.24	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
8:2 FTS	39108-34-4	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
MeFOSAA	2355-31-9	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
EtFOSAA	2991-50-6	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFUnA	2058-94-8	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFDS	335-77-3	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFDoA	307-55-1	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFTrDA	72629-94-8	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
PFTeDA	376-06-7	ND	1.95		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	96.4	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
13C3-PFPeA	IS	76.2	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
13C3-PFBS	IS	79.5	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
13C2-4:2 FTS	IS	73.5	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
13C2-PFHxA	IS	68.5	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
13C4-PFHpA	IS	71.3	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
13C3-PFHxS	IS	75.7	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
13C2-6:2 FTS	IS	75.5	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
13C5-PFNA	IS	63.6	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
13C8-PFOSA	IS	46.9	50 - 150	H	B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
13C2-PFOA	IS	75.5	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
13C8-PFOS	IS	57.8	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
13C2-PFDA	IS	55.1	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
13C2-8:2 FTS	IS	74.1	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1

Sample ID: L12-1-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 23:12
Location:	Location 10		

Laboratory Data

Lab Sample:	1903734-07	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	83.4		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	56.0	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
13C2-PFUnA	IS	41.4	50 - 150	H	B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
d5-EtFOSAA	IS	61.0	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
13C2-PFDoA	IS	35.7	50 - 150	H	B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1
13C2-PFTeDA	IS	29.9	50 - 150	H	B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:38	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L12-1-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Soil
Date Collected: 17-Oct-19 23:16

Laboratory Data

Lab Sample: 1903734-08
Date Received: 19-Oct-19 09:58
% Solids: 78.9
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFPeA	2706-90-3	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFBS	375-73-5	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
4:2 FTS	757124-72-4	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFHxA	307-24-4	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFPeS	2706-91-4	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFHpA	375-85-9	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFHxS	355-46-4	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
6:2 FTS	27619-97-2	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFOA	335-67-1	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFHpS	375-92-8	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFNA	375-95-1	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFOSA	754-91-6	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFOS	1763-23-1	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFDA	335-76-2	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
8:2 FTS	39108-34-4	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
MeFOSAA	2355-31-9	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
EtFOSAA	2991-50-6	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFUnA	2058-94-8	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFDS	335-77-3	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFDoA	307-55-1	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFTrDA	72629-94-8	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
PFTeDA	376-06-7	ND	1.94		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	82.4	50 - 150		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
13C3-PFPeA	IS	63.9	50 - 150		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
13C3-PFBS	IS	69.5	50 - 150		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
13C2-4:2 FTS	IS	59.6	50 - 150		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
13C2-PFHxA	IS	59.8	50 - 150		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
13C4-PFHpA	IS	57.9	50 - 150		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
13C3-PFHxS	IS	65.9	50 - 150		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
13C2-6:2 FTS	IS	68.5	50 - 150		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
13C5-PFNA	IS	57.4	50 - 150		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
13C8-PFOSA	IS	43.1	50 - 150	H	B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
13C2-PFOA	IS	65.3	50 - 150		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
13C8-PFOS	IS	59.2	50 - 150		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
13C2-PFDA	IS	50.6	50 - 150		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
13C2-8:2 FTS	IS	66.2	50 - 150		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1

Sample ID: L12-1-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 23:16
Location:	Location 10		

Laboratory Data

Lab Sample:	1903734-08	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	78.9		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	44.3	50 - 150	H	B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
13C2-PFUnA	IS	46.7	50 - 150	H	B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
d5-EtFOSAA	IS	54.5	50 - 150		B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
13C2-PFDoA	IS	45.4	50 - 150	H	B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1
13C2-PFTeDA	IS	29.2	50 - 150	H	B9J0278	06-Nov-19	1.31 g	09-Nov-19 01:49	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L12-1-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 10
Matrix: Soil
Date Collected: 17-Oct-19 23:19

Laboratory Data

Lab Sample: 1903734-09
Date Received: 19-Oct-19 09:58
% Solids: 81.4
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFPeA	2706-90-3	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFBS	375-73-5	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
4:2 FTS	757124-72-4	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFHxA	307-24-4	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFPeS	2706-91-4	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFHpA	375-85-9	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFHxS	355-46-4	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
6:2 FTS	27619-97-2	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFOA	335-67-1	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFHpS	375-92-8	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFNA	375-95-1	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFOSA	754-91-6	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFOS	1763-23-1	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFDA	335-76-2	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
8:2 FTS	39108-34-4	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
MeFOSAA	2355-31-9	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
EtFOSAA	2991-50-6	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFUnA	2058-94-8	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFDS	335-77-3	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFDoA	307-55-1	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFTrDA	72629-94-8	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
PFTeDA	376-06-7	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	87.2	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
13C3-PFPeA	IS	71.3	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
13C3-PFBS	IS	71.4	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
13C2-4:2 FTS	IS	70.8	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
13C2-PFHxA	IS	68.6	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
13C4-PFHpA	IS	66.6	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
13C3-PFHxS	IS	74.3	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
13C2-6:2 FTS	IS	73.1	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
13C5-PFNA	IS	63.1	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
13C8-PFOSA	IS	42.8	50 - 150	H	B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
13C2-PFOA	IS	71.8	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
13C8-PFOS	IS	68.0	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
13C2-PFDA	IS	56.3	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
13C2-8:2 FTS	IS	69.1	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1

Sample ID: L12-1-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 23:19
Location:	Location 10		

Laboratory Data

Lab Sample:	1903734-09	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	81.4		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	51.6	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
13C2-PFUnA	IS	49.2	50 - 150	H	B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
d5-EtFOSAA	IS	58.9	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
13C2-PFDoA	IS	50.2	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1
13C2-PFTeDA	IS	49.0	50 - 150	H	B9J0278	06-Nov-19	1.23 g	09-Nov-19 01:59	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous

Laboratory Data

Lab Sample: B9J0240-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFPeA	2706-90-3	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFBS	375-73-5	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
4:2 FTS	757124-72-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFHxA	307-24-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFPeS	2706-91-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFHpA	375-85-9	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFHxS	355-46-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
6:2 FTS	27619-97-2	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFOA	335-67-1	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFHpS	375-92-8	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFNA	375-95-1	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFOSA	754-91-6	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFOS	1763-23-1	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFDA	335-76-2	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
8:2 FTS	39108-34-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
MeFOSAA	2355-31-9	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
EtFOSAA	2991-50-6	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFUnA	2058-94-8	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFDS	335-77-3	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFDoA	307-55-1	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFTrDA	72629-94-8	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFTeDA	376-06-7	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	113	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C3-PFPeA	IS	110	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C3-PFBS	IS	127	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-4:2 FTS	IS	123	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFHxA	IS	106	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C4-PFHpA	IS	101	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C3-PFHxS	IS	112	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-6:2 FTS	IS	108	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C5-PFNA	IS	115	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C8-PFOSA	IS	31.2	50 - 150	H	B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFOA	IS	122	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C8-PFOS	IS	110	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFDA	IS	106	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-8:2 FTS	IS	109	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous

Laboratory Data

Lab Sample: B9J0240-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	97.2	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFUnA	IS	93.8	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
d5-EtFOSAA	IS	98.7	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFDoA	IS	89.0	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFTeDA	IS	89.2	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0240-BS1/B9J0240-BSD1
Project:	SJC PFAS Investigation	QC Batch:	B9J0240
Matrix:	Aqueous	Samp Size:	0.250/0.250 L
		Date Extracted:	30-Oct-19
		Column:	BEH C18

Analyte	CAS Number	LCS (ng/L)	LCS Spike	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBA	375-22-4	42.2	40.0	106		41.1	40.0	103	2.57		73-129	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFPeA	2706-90-3	41.6	40.0	104		43.1	40.0	108	3.75		72-129	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFBS	375-73-5	42.4	40.0	106		40.4	40.0	101	5.04		72-130	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
4:2 FTS	757124-72-4	36.6	40.0	91.5		36.1	40.0	90.2	1.47		63-143	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFHxA	307-24-4	45.8	40.0	114		45.4	40.0	113	0.867		72-129	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFPeS	2706-91-4	45.4	40.0	113		41.8	40.0	105	8.23		71-127	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFHpA	375-85-9	46.4	40.0	116		43.6	40.0	109	6.22		72-130	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFHxS	355-46-4	39.3	40.0	98.1		38.4	40.0	95.9	2.27		68-131	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
6:2 FTS	27619-97-2	36.9	40.0	92.2		39.6	40.0	99.0	7.11		64-140	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFOA	335-67-1	46.2	40.0	115		42.4	40.0	106	8.41		71-133	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFHpS	375-92-8	44.6	40.0	111		45.3	40.0	113	1.51		69-134	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFNA	375-95-1	39.6	40.0	98.9		39.9	40.0	99.7	0.766		69-130	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFOSA	754-91-6	48.7	40.0	122		47.2	40.0	118	3.14		67-137	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFOS	1763-23-1	40.4	40.0	101		41.0	40.0	103	1.61		65-140	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFDA	335-76-2	43.9	40.0	110		43.1	40.0	108	1.84		71-129	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
8:2 FTS	39108-34-4	43.9	40.0	110		41.4	40.0	103	6.00		67-138	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
MeFOSAA	2355-31-9	33.6	40.0	83.9		33.4	40.0	83.5	0.550		65-136	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
EtFOSAA	2991-50-6	42.4	40.0	106		40.8	40.0	102	3.91		61-135	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFUnA	2058-94-8	40.5	40.0	101		42.0	40.0	105	3.62		69-133	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFDS	335-77-3	34.2	40.0	85.4		36.7	40.0	91.7	7.10		53-142	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFDoA	307-55-1	43.6	40.0	109		44.0	40.0	110	0.879		72-134	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFTrDA	72629-94-8	37.5	40.0	93.8		37.5	40.0	93.8	0.00135		65-144	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFTeDA	376-06-7	42.4	40.0	106		42.8	40.0	107	0.985		71-132	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBA	IS	115		122		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C3-PFPeA	IS	117		117		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C3-PFBS	IS	123		135		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-4:2 FTS	IS	116		120		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFHxA	IS	117		121		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C4-PFHpA	IS	106		115		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C3-PFHxS	IS	120		122		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-6:2 FTS	IS	119		111		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0240-BS1/B9J0240-BSD1	Date Extracted:	30-Oct-19
Project:	SJC PFAS Investigation	QC Batch:	B9J0240	Column:	BEH C18
Matrix:	Aqueous	Samp Size:	0.250/0.250 L		

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C5-PFNA	IS	118		121		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C8-PFOSA	IS	41.2	H	41.5	H	50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFOA	IS	113		122		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C8-PFOS	IS	113		114		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFDA	IS	108		117		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-8:2 FTS	IS	103		115		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
d3-MeFOSAA	IS	104		112		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFUnA	IS	92.0		100		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
d5-EtFOSAA	IS	95.4		107		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFDoA	IS	94.4		98.6		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFTeDA	IS	88.9		91.2		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1

Sample ID: FB-2

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 12
Matrix: Aqueous
Date Collected: 18-Oct-19 00:35

Laboratory Data

Lab Sample: 1903734-10
Date Received: 19-Oct-19 09:58
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFPeA	2706-90-3	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFBS	375-73-5	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
4:2 FTS	757124-72-4	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFHxA	307-24-4	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFPeS	2706-91-4	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFHpA	375-85-9	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFHxS	355-46-4	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
6:2 FTS	27619-97-2	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFOA	335-67-1	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFHpS	375-92-8	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFNA	375-95-1	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFOSA	754-91-6	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFOS	1763-23-1	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFDA	335-76-2	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
8:2 FTS	39108-34-4	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
MeFOSAA	2355-31-9	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
EtFOSAA	2991-50-6	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFUnA	2058-94-8	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFDS	335-77-3	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFDoA	307-55-1	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFTrDA	72629-94-8	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
PFTeDA	376-06-7	ND	2.08		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	128	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
13C3-PFPeA	IS	121	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
13C3-PFBS	IS	125	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
13C2-4:2 FTS	IS	123	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
13C2-PFHxA	IS	114	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
13C4-PFHpA	IS	112	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
13C3-PFHxS	IS	114	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
13C2-6:2 FTS	IS	109	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
13C5-PFNA	IS	128	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
13C8-PFOSA	IS	54.7	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
13C2-PFOA	IS	128	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
13C8-PFOS	IS	126	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
13C2-PFDA	IS	121	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
13C2-8:2 FTS	IS	115	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1

Sample ID: FB-2 **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 12
Matrix: Aqueous
Date Collected: 18-Oct-19 00:35

Laboratory Data

Lab Sample: 1903734-10
Date Received: 19-Oct-19 09:58
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	119	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
13C2-PFUnA	IS	108	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
d5-EtFOSAA	IS	111	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
13C2-PFDoA	IS	111	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1
13C2-PFTeDA	IS	93.1	50 - 150		B9J0240	30-Oct-19	0.240 L	06-Nov-19 22:26	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

Rev. No.: 0
Rev. Date: 06/27/2017

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1903734 Temp: 0.8 °C
Storage ID: R-13, WR-2 Storage Secured: Yes ☒ No ☐

Project ID: SSC PFAS Investigation PO#: _____ Sampler: KA/GV (name)

TAT (check one): Standard: ☒ 21 days; Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify: _____

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Jim Strandberg	Woodard & Curran	2175 N. California Blvd, Ste 315	Walnut Creek	CA	(925) 627-4122	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Kevin Almestad	10/18/19	1345	Fedex Kevin Almestad	10/18/19	1345
FEDEX →			Kim Eric	10/19/19	0958

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

ATTN: Jennifer Miller

Method of Shipment: Fedex

Tracking No.: _____

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List 6	537 List: 14	Full List of 26	Other: Please List Below: CA Airport List (23)	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List 6	PFAS List: 14	Comments
LD-2-1	10/17/19	2201	Location 10	1	PJ	SO					X				
L10-2-5		2203		1	PJ	SO									
L10-2-10		2207		1	PJ	SO									
L10-3-1		2143		1	PJ	SO									
L10-3-5		2146		1	PJ	SO									
L10-3-10		2150		1	PJ	SO									
L12-1-1		2312		1	PJ	SO									
L12-1-5		2316		1	PJ	SO									
L12-1-10		2319		1	PJ	SO									
FB-2	10/18/19	0035	Location 12	2	P	AQ									

Special Instructions/Comments: Geotracker EDF

Fedex wouldn't sign chain, signed for them

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc.
Address: 2175 N California Blvd, Ste 315
City: Walnut Creek State: CA Zip: 94597
Phone: (510) 310-3776 Fax: (925)-627-4101
Email: Jstrandberg@woodardcurran.com

Container Types: P= HDPE, PJ= HDPE Jar
O = Other: _____

Bottle Preservation Type: T = Thiosulfate,
TZ = Trizma: _____

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: _____

Page: 1 of 2

Vista Analytical Laboratory

Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 1903734 TAT std

Samples Arrival:	**Date/Time** 10/19/19 0958		**Initials:** KE		**Location:** WR-2 **Shelf/Rack:** NA		
Delivered By:	(FedEx)	UPS	On Trac	GSO	DHL	Hand Delivered	Other
Preservation:	(Ice)		Blue Ice		Dry Ice		None
Temp °C: 0.8 (uncorrected)			**Probe used:** Y / (N)		**Thermometer ID:** ~~IR-4~~		
Temp °C: 0.8 (corrected)							

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			✓
Airbill SAT DELIVERY Trk # 7803 6137 7680	✓		
Shipping Documentation Present?	✓		
Shipping Container: (Vista) / Client / (Retain) / Return / Dispose			
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	**Date/Time** 10/21/19 1013	**Initials:** ajm	**Location:** R-13/WR-2 **Shelf/Rack:** A-1/E-2
COC Anomaly/Sample Acceptance Form completed?		✓	✓

Comments:

CoC/Label Reconciliation Report WO# 1903734

LabNumber	CoC Sample ID	Label ID matches COCID	Label ID doesn't match COCID	SampleAlias	Sampled	Label Sampled matches	Sampled doesn't match	Container	Container Correct	Sample BaseMatrix	Comments
1903734-01	A L10-2-1	☑		Location 10	17-Oct-19 22:01	☑		HDPE Jar, 6 oz	☑	Solid	
1903734-02	A L10-2-5	☑		Location 10	17-Oct-19 22:03	☑		HDPE Jar, 6 oz	☑	Solid	
1903734-03	A L10-2-10	☑		Location 10	17-Oct-19 22:07	☑		HDPE Jar, 6 oz	☑	Solid	
1903734-04	A L10-3-1	☑		Location 10	17-Oct-19 21:43	☑		HDPE Jar, 6 oz	☑	Solid	
1903734-05	A L10-3-5	☑		Location 10	17-Oct-19 21:46	☑		HDPE Jar, 6 oz	☑	Solid	
1903734-06	A L10-3-10	☑		Location 10	17-Oct-19 21:50	☑		HDPE Jar, 6 oz	☑	Solid	
1903734-07	A L12-1-1	☑		Location 10	17-Oct-19 23:12	☑		HDPE Jar, 6 oz	☑	Solid	
1903734-08	A L12-1-5	☑		Location 10	17-Oct-19 23:16	☑		HDPE Jar, 6 oz	☑	Solid	
1903734-09	A L12-1-10	☑		Location 10	17-Oct-19 23:19	☑		HDPE Jar, 6 oz	☑	Solid	
1903734-10	A FB-2	☑		Location 12	18-Oct-19 00:35	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903734-10	B FB-2	☑		Location 12	18-Oct-19 00:35	☑		HDPE Bottle, 250 mL	☑	Aqueous	

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Preservation Documented: Na2S2O3 Trizma (None) Other			✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments:

Verifed by/Date: SC 10/21/19

November 12, 2019

Vista Work Order No. 1903735

Mr. Jim Strandberg
Woodard & Curran
2175 North California Boulevard, Suite 315
Walnut Creek, CA 94596

Dear Mr. Strandberg,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on October 19, 2019 under your Project Name 'SJC PFAS Investigation'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1903735
Case Narrative

Sample Condition on Receipt:

Nine soil samples and two aqueous sample were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:

PFAS Isotope Dilution Method-Aqueous

Samples "L12-3-6W" and "L12-30-6W" contained particulate and were centrifuged prior to extraction.

The samples were extracted and analyzed for a selected list of PFAS using the PFAS Isotope Dilution Method. The results for PFHxS, PFOA, PFOS, MeFOSAA, and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the acceptance criteria.

A Method Blank and Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit. The LCS/LCSD recoveries were within the method acceptance criteria.

The internal standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

PFAS Isotope Dilution Method-Solid

The samples were extracted and analyzed for a selected list of PFAS using the PFAS Isotope Dilution Method. The results for PFHxS, PFOA, PFOS, MeFOSAA, and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit. The OPR recoveries were within the method acceptance criteria.

The internal standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1903735-01	L12-2-1	17-Oct-19 23:37	19-Oct-19 09:58	HDPE Jar, 6 oz
1903735-02	L12-2-5	17-Oct-19 23:41	19-Oct-19 09:58	HDPE Jar, 6 oz
1903735-03	L12-2-10	17-Oct-19 23:44	19-Oct-19 09:58	HDPE Jar, 6 oz
1903735-04	L12-4-1	17-Oct-19 23:50	19-Oct-19 09:58	HDPE Jar, 6 oz
1903735-05	L12-4-5	17-Oct-19 23:55	19-Oct-19 09:58	HDPE Jar, 6 oz
1903735-06	L12-4-10	17-Oct-19 23:59	19-Oct-19 09:58	HDPE Jar, 6 oz
1903735-07	L12-3-1	18-Oct-19 00:02	19-Oct-19 09:58	HDPE Jar, 6 oz
1903735-08	L12-3-5	18-Oct-19 00:07	19-Oct-19 09:58	HDPE Jar, 6 oz
1903735-09	L12-3-10	18-Oct-19 00:10	19-Oct-19 09:58	HDPE Jar, 6 oz
1903735-10	L12-3-6W	18-Oct-19 01:30	19-Oct-19 09:58	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903735-11	L12-30-6W	18-Oct-19 01:30	19-Oct-19 09:58	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

Vista Project: 1903735

Client Project: SJC PFAS Investigation

ANALYTICAL RESULTS

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9J0278-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFPeA	2706-90-3	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFBS	375-73-5	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
4:2 FTS	757124-72-4	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFHxA	307-24-4	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFPeS	2706-91-4	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFHpA	375-85-9	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFHxS	355-46-4	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
6:2 FTS	27619-97-2	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFOA	335-67-1	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFHpS	375-92-8	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFNA	375-95-1	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFOSA	754-91-6	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFOS	1763-23-1	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFDA	335-76-2	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
8:2 FTS	39108-34-4	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
MeFOSAA	2355-31-9	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
EtFOSAA	2991-50-6	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFUnA	2058-94-8	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFDS	335-77-3	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFDoA	307-55-1	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFTrDA	72629-94-8	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
PFTeDA	376-06-7	ND	2.00		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	94.7	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C3-PFPeA	IS	71.9	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C3-PFBS	IS	79.4	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-4:2 FTS	IS	75.0	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-PFHxA	IS	73.6	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C4-PFHpA	IS	67.4	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C3-PFHxS	IS	73.8	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-6:2 FTS	IS	68.9	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C5-PFNA	IS	63.6	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C8-PFOSA	IS	44.3	50 - 150	H	B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-PFOA	IS	79.2	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C8-PFOS	IS	66.8	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-PFDA	IS	61.5	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-8:2 FTS	IS	75.8	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9J0278-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	51.4	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-PFUnA	IS	53.7	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
d5-EtFOSAA	IS	62.5	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-PFDoA	IS	52.8	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1
13C2-PFTeDA	IS	55.4	50 - 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:31	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: OPR **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9J0278-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/g)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	9.62	10.0	96.2	71 - 135		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFPeA	2706-90-3	9.52	10.0	95.2	69 - 132		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFBS	375-73-5	9.43	10.0	94.3	72 - 128		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
4:2 FTS	757124-72-4	9.64	10.0	96.4	62 - 145		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFHxA	307-24-4	9.49	10.0	94.9	70 - 132		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFPeS	2706-91-4	8.74	10.0	87.4	73 - 123		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFHpA	375-85-9	10.8	10.0	108	71 - 131		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFHxS	355-46-4	9.58	10.0	95.8	67 - 130		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
6:2 FTS	27619-97-2	10.6	10.0	106	64 - 140		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFOA	335-67-1	9.61	10.0	96.1	69 - 133		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFHpS	375-92-8	10.2	10.0	102	70 - 132		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFNA	375-95-1	9.82	10.0	98.2	72 - 129		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFOSA	754-91-6	10.5	10.0	105	67 - 137		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFOS	1763-23-1	9.62	10.0	96.0	68 - 136		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFDA	335-76-2	9.93	10.0	99.3	69 - 133		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
8:2 FTS	39108-34-4	10.5	10.0	105	65 - 137		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
MeFOSAA	2355-31-9	9.18	10.0	91.8	63 - 144		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
EtFOSAA	2991-50-6	8.79	10.0	87.9	61 - 139		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFUnA	2058-94-8	10.0	10.0	100	64 - 136		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFDS	335-77-3	8.40	10.0	83.8	59 - 134		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFDoA	307-55-1	10.3	10.0	103	69 - 135		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFTrDA	72629-94-8	10.9	10.0	109	66 - 139		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
PFTeDA	376-06-7	10.0	10.0	100	69 - 133		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	95.6	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C3-PFPeA	IS	77.7	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C3-PFBS	IS	80.9	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-4:2 FTS	IS	75.7	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-PFHxA	IS	73.2	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C4-PFHpA	IS	71.7	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C3-PFHxS	IS	77.8	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-6:2 FTS	IS	73.2	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C5-PFNA	IS	68.8	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C8-PFOSA	IS	35.8	50- 150	H	B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-PFOA	IS	78.5	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1

Sample ID: OPR **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9J0278-BS1
Column: BEH C18

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOS	IS	71.0	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-PFDA	IS	63.1	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-8:2 FTS	IS	75.8	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
d3-MeFOSAA	IS	56.0	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-PFUnA	IS	55.8	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
d5-EtFOSAA	IS	66.1	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-PFDoA	IS	54.5	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1
13C2-PFTeDA	IS	56.2	50- 150		B9J0278	06-Nov-19	1.00 g	08-Nov-19 23:41	1

Sample ID: L12-2-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 12
Matrix: Soil
Date Collected: 17-Oct-19 23:37

Laboratory Data

Lab Sample: 1903735-01
Date Received: 19-Oct-19 09:58
% Solids: 82.5
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFPeA	2706-90-3	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFBS	375-73-5	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
4:2 FTS	757124-72-4	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFHxA	307-24-4	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFPeS	2706-91-4	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFHpA	375-85-9	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFHxS	355-46-4	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
6:2 FTS	27619-97-2	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFOA	335-67-1	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFHpS	375-92-8	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFNA	375-95-1	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFOSA	754-91-6	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFOS	1763-23-1	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFDA	335-76-2	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
8:2 FTS	39108-34-4	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
MeFOSAA	2355-31-9	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
EtFOSAA	2991-50-6	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFUnA	2058-94-8	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFDS	335-77-3	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFDoA	307-55-1	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFTrDA	72629-94-8	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
PFTeDA	376-06-7	ND	1.96		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	96.2	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
13C3-PFPeA	IS	77.1	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
13C3-PFBS	IS	81.6	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
13C2-4:2 FTS	IS	70.0	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
13C2-PFHxA	IS	69.2	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
13C4-PFHpA	IS	72.6	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
13C3-PFHxS	IS	74.2	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
13C2-6:2 FTS	IS	75.3	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
13C5-PFNA	IS	61.4	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
13C8-PFOSA	IS	25.8	50 - 150	H	B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
13C2-PFOA	IS	76.4	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
13C8-PFOS	IS	67.0	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
13C2-PFDA	IS	54.7	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
13C2-8:2 FTS	IS	73.5	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1

Sample ID: L12-2-1 **PFAS Isotope Dilution Method**

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 23:37
Location:	Location 12		

Laboratory Data

Lab Sample:	1903735-01	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	82.5		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	55.0	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
13C2-PFUnA	IS	49.3	50 - 150	H	B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
d5-EtFOSAA	IS	65.7	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
13C2-PFDoA	IS	49.2	50 - 150	H	B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1
13C2-PFTeDA	IS	36.4	50 - 150	H	B9J0278	06-Nov-19	1.24 g	09-Nov-19 02:10	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L12-2-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 12
Matrix: Soil
Date Collected: 17-Oct-19 23:41

Laboratory Data

Lab Sample: 1903735-02
Date Received: 19-Oct-19 09:58
% Solids: 81.4
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFPeA	2706-90-3	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFBS	375-73-5	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
4:2 FTS	757124-72-4	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFHxA	307-24-4	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFPeS	2706-91-4	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFHpA	375-85-9	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFHxS	355-46-4	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
6:2 FTS	27619-97-2	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFOA	335-67-1	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFHpS	375-92-8	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFNA	375-95-1	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFOSA	754-91-6	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFOS	1763-23-1	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFDA	335-76-2	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
8:2 FTS	39108-34-4	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
MeFOSAA	2355-31-9	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
EtFOSAA	2991-50-6	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFUnA	2058-94-8	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFDS	335-77-3	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFDoA	307-55-1	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFTrDA	72629-94-8	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
PFTeDA	376-06-7	ND	1.96		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	99.9	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
13C3-PFPeA	IS	79.7	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
13C3-PFBS	IS	84.3	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
13C2-4:2 FTS	IS	69.3	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
13C2-PFHxA	IS	72.1	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
13C4-PFHpA	IS	77.8	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
13C3-PFHxS	IS	78.1	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
13C2-6:2 FTS	IS	73.7	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
13C5-PFNA	IS	67.2	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
13C8-PFOSA	IS	52.6	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
13C2-PFOA	IS	79.4	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
13C8-PFOS	IS	70.8	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
13C2-PFDA	IS	63.8	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
13C2-8:2 FTS	IS	91.3	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1

Sample ID: L12-2-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 23:41
Location:	Location 12		

Laboratory Data

Lab Sample:	1903735-02	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	81.4		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	55.9	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
13C2-PFUnA	IS	60.4	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
d5-EtFOSAA	IS	64.0	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
13C2-PFDoA	IS	55.6	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1
13C2-PFTeDA	IS	59.6	50 - 150		B9J0278	06-Nov-19	1.25 g	09-Nov-19 02:20	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L12-2-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 12
Matrix: Soil
Date Collected: 17-Oct-19 23:44

Laboratory Data

Lab Sample: 1903735-03
Date Received: 19-Oct-19 09:58
% Solids: 84.7
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFPeA	2706-90-3	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFBS	375-73-5	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
4:2 FTS	757124-72-4	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFHxA	307-24-4	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFPeS	2706-91-4	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFHpA	375-85-9	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFHxS	355-46-4	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
6:2 FTS	27619-97-2	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFOA	335-67-1	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFHpS	375-92-8	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFNA	375-95-1	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFOSA	754-91-6	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFOS	1763-23-1	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFDA	335-76-2	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
8:2 FTS	39108-34-4	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
MeFOSAA	2355-31-9	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
EtFOSAA	2991-50-6	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFUnA	2058-94-8	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFDS	335-77-3	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFDoA	307-55-1	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFTrDA	72629-94-8	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
PFTeDA	376-06-7	ND	1.95		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	87.1	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
13C3-PFPeA	IS	69.7	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
13C3-PFBS	IS	73.9	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
13C2-4:2 FTS	IS	71.7	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
13C2-PFHxA	IS	65.5	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
13C4-PFHpA	IS	66.4	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
13C3-PFHxS	IS	72.6	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
13C2-6:2 FTS	IS	74.9	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
13C5-PFNA	IS	59.7	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
13C8-PFOSA	IS	36.0	50 - 150	H	B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
13C2-PFOA	IS	72.4	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
13C8-PFOS	IS	66.2	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
13C2-PFDA	IS	47.9	50 - 150	H	B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
13C2-8:2 FTS	IS	65.8	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1

Sample ID: L12-2-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 23:44
Location:	Location 12		

Laboratory Data

Lab Sample:	1903735-03	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	84.7		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	47.4	50 - 150	H	B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
13C2-PFUnA	IS	48.3	50 - 150	H	B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
d5-EtFOSAA	IS	56.8	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
13C2-PFDoA	IS	49.9	50 - 150	H	B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1
13C2-PFTeDA	IS	55.0	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 02:31	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L12-4-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 12
Matrix: Soil
Date Collected: 17-Oct-19 23:50

Laboratory Data

Lab Sample: 1903735-04
Date Received: 19-Oct-19 09:58
% Solids: 79.2
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFPeA	2706-90-3	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFBS	375-73-5	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
4:2 FTS	757124-72-4	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFHxA	307-24-4	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFPeS	2706-91-4	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFHpA	375-85-9	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFHxS	355-46-4	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
6:2 FTS	27619-97-2	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFOA	335-67-1	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFHpS	375-92-8	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFNA	375-95-1	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFOSA	754-91-6	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFOS	1763-23-1	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFDA	335-76-2	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
8:2 FTS	39108-34-4	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
MeFOSAA	2355-31-9	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
EtFOSAA	2991-50-6	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFUnA	2058-94-8	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFDS	335-77-3	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFDoA	307-55-1	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFTrDA	72629-94-8	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
PFTeDA	376-06-7	ND	1.99		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	96.9	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
13C3-PFPeA	IS	78.2	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
13C3-PFBS	IS	85.5	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
13C2-4:2 FTS	IS	73.7	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
13C2-PFHxA	IS	71.8	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
13C4-PFHpA	IS	78.6	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
13C3-PFHxS	IS	77.1	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
13C2-6:2 FTS	IS	72.9	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
13C5-PFNA	IS	62.5	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
13C8-PFOSA	IS	50.5	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
13C2-PFOA	IS	71.4	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
13C8-PFOS	IS	68.9	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
13C2-PFDA	IS	62.2	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
13C2-8:2 FTS	IS	75.3	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1

Sample ID: L12-4-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 23:50
Location:	Location 12		

Laboratory Data

Lab Sample:	1903735-04	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	79.2		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	63.2	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
13C2-PFUnA	IS	52.8	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
d5-EtFOSAA	IS	74.6	50 - 150		B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
13C2-PFDoA	IS	37.9	50 - 150	H	B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1
13C2-PFTeDA	IS	18.6	50 - 150	H	B9J0278	06-Nov-19	1.27 g	09-Nov-19 02:42	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L12-4-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 12
Matrix: Soil
Date Collected: 17-Oct-19 23:55

Laboratory Data

Lab Sample: 1903735-05
Date Received: 19-Oct-19 09:58
% Solids: 81.3
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFPeA	2706-90-3	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFBS	375-73-5	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
4:2 FTS	757124-72-4	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFHxA	307-24-4	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFPeS	2706-91-4	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFHpA	375-85-9	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFHxS	355-46-4	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
6:2 FTS	27619-97-2	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFOA	335-67-1	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFHpS	375-92-8	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFNA	375-95-1	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFOSA	754-91-6	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFOS	1763-23-1	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFDA	335-76-2	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
8:2 FTS	39108-34-4	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
MeFOSAA	2355-31-9	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
EtFOSAA	2991-50-6	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFUnA	2058-94-8	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFDS	335-77-3	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFDoA	307-55-1	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFTrDA	72629-94-8	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
PFTeDA	376-06-7	ND	2.00		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	93.6	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
13C3-PFPeA	IS	77.9	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
13C3-PFBS	IS	84.9	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
13C2-4:2 FTS	IS	73.5	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
13C2-PFHxA	IS	65.6	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
13C4-PFHpA	IS	69.2	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
13C3-PFHxS	IS	79.8	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
13C2-6:2 FTS	IS	76.5	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
13C5-PFNA	IS	53.2	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
13C8-PFOSA	IS	14.4	50 - 150	H	B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
13C2-PFOA	IS	65.0	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
13C8-PFOS	IS	72.5	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
13C2-PFDA	IS	47.1	50 - 150	H	B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
13C2-8:2 FTS	IS	80.0	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1

Sample ID: L12-4-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 23:55
Location:	Location 12		

Laboratory Data

Lab Sample:	1903735-05	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	81.3		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	52.8	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
13C2-PFUnA	IS	43.8	50 - 150	H	B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
d5-EtFOSAA	IS	59.9	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
13C2-PFDoA	IS	47.7	50 - 150	H	B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1
13C2-PFTeDA	IS	57.8	50 - 150		B9J0278	06-Nov-19	1.23 g	09-Nov-19 02:52	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L12-4-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 12
Matrix: Soil
Date Collected: 17-Oct-19 23:59

Laboratory Data

Lab Sample: 1903735-06
Date Received: 19-Oct-19 09:58
% Solids: 85.3
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFPeA	2706-90-3	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFBS	375-73-5	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
4:2 FTS	757124-72-4	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFHxA	307-24-4	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFPeS	2706-91-4	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFHpA	375-85-9	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFHxS	355-46-4	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
6:2 FTS	27619-97-2	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFOA	335-67-1	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFHpS	375-92-8	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFNA	375-95-1	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFOSA	754-91-6	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFOS	1763-23-1	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFDA	335-76-2	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
8:2 FTS	39108-34-4	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
MeFOSAA	2355-31-9	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
EtFOSAA	2991-50-6	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFUnA	2058-94-8	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFDS	335-77-3	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFDoA	307-55-1	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFTrDA	72629-94-8	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
PFTeDA	376-06-7	ND	1.92		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	89.4	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
13C3-PFPeA	IS	77.9	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
13C3-PFBS	IS	81.4	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
13C2-4:2 FTS	IS	72.2	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
13C2-PFHxA	IS	68.8	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
13C4-PFHpA	IS	70.4	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
13C3-PFHxS	IS	77.6	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
13C2-6:2 FTS	IS	68.5	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
13C5-PFNA	IS	66.5	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
13C8-PFOSA	IS	29.8	50 - 150	H	B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
13C2-PFOA	IS	74.2	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
13C8-PFOS	IS	70.2	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
13C2-PFDA	IS	58.1	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
13C2-8:2 FTS	IS	80.5	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1

Sample ID: L12-4-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	17-Oct-19 23:59
Location:	Location 12		

Laboratory Data

Lab Sample:	1903735-06	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	85.3		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	55.3	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
13C2-PFUnA	IS	54.3	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
d5-EtFOSAA	IS	60.4	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
13C2-PFDoA	IS	56.7	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1
13C2-PFTeDA	IS	58.7	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:03	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L12-3-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 12
Matrix: Soil
Date Collected: 18-Oct-19 00:02

Laboratory Data

Lab Sample: 1903735-07
Date Received: 19-Oct-19 09:58
% Solids: 81.7
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFPeA	2706-90-3	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFBS	375-73-5	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
4:2 FTS	757124-72-4	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFHxA	307-24-4	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFPeS	2706-91-4	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFHpA	375-85-9	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFHxS	355-46-4	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
6:2 FTS	27619-97-2	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFOA	335-67-1	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFHpS	375-92-8	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFNA	375-95-1	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFOSA	754-91-6	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFOS	1763-23-1	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFDA	335-76-2	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
8:2 FTS	39108-34-4	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
MeFOSAA	2355-31-9	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
EtFOSAA	2991-50-6	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFUnA	2058-94-8	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFDS	335-77-3	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFDoA	307-55-1	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFTrDA	72629-94-8	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
PFTeDA	376-06-7	ND	1.97		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	92.8	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
13C3-PFPeA	IS	74.3	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
13C3-PFBS	IS	88.5	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
13C2-4:2 FTS	IS	75.6	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
13C2-PFHxA	IS	72.2	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
13C4-PFHpA	IS	72.0	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
13C3-PFHxS	IS	82.9	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
13C2-6:2 FTS	IS	72.9	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
13C5-PFNA	IS	66.5	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
13C8-PFOSA	IS	51.9	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
13C2-PFOA	IS	77.5	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
13C8-PFOS	IS	72.2	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
13C2-PFDA	IS	67.3	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
13C2-8:2 FTS	IS	83.1	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1

Sample ID: L12-3-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	18-Oct-19 00:02
Location:	Location 12		

Laboratory Data

Lab Sample:	1903735-07	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	81.7		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	61.5	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
13C2-PFUnA	IS	63.2	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
d5-EtFOSAA	IS	71.7	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
13C2-PFDoA	IS	63.8	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1
13C2-PFTeDA	IS	70.5	50 - 150		B9J0278	06-Nov-19	1.24 g	09-Nov-19 03:35	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L12-3-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 12
Matrix: Soil
Date Collected: 18-Oct-19 00:07

Laboratory Data

Lab Sample: 1903735-08
Date Received: 19-Oct-19 09:58
% Solids: 82.3
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFPeA	2706-90-3	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFBS	375-73-5	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
4:2 FTS	757124-72-4	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFHxA	307-24-4	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFPeS	2706-91-4	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFHpA	375-85-9	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFHxS	355-46-4	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
6:2 FTS	27619-97-2	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFOA	335-67-1	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFHpS	375-92-8	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFNA	375-95-1	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFOSA	754-91-6	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFOS	1763-23-1	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFDA	335-76-2	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
8:2 FTS	39108-34-4	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
MeFOSAA	2355-31-9	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
EtFOSAA	2991-50-6	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFUnA	2058-94-8	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFDS	335-77-3	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFDoA	307-55-1	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFTrDA	72629-94-8	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
PFTeDA	376-06-7	ND	1.99		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	77.2	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
13C3-PFPeA	IS	60.2	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
13C3-PFBS	IS	78.5	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
13C2-4:2 FTS	IS	70.6	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
13C2-PFHxA	IS	62.2	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
13C4-PFHpA	IS	62.0	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
13C3-PFHxS	IS	77.8	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
13C2-6:2 FTS	IS	73.5	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
13C5-PFNA	IS	57.6	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
13C8-PFOSA	IS	39.3	50 - 150	H	B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
13C2-PFOA	IS	64.4	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
13C8-PFOS	IS	70.3	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
13C2-PFDA	IS	54.5	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
13C2-8:2 FTS	IS	81.9	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1

Sample ID: L12-3-5 **PFAS Isotope Dilution Method**

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	18-Oct-19 00:07
Location:	Location 12		

Laboratory Data

Lab Sample:	1903735-08	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	82.3		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	47.9	50 - 150	H	B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
13C2-PFUnA	IS	49.1	50 - 150	H	B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
d5-EtFOSAA	IS	56.8	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
13C2-PFDoA	IS	51.2	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1
13C2-PFTeDA	IS	50.8	50 - 150		B9J0278	06-Nov-19	1.22 g	09-Nov-19 03:45	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L12-3-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 12
Matrix: Soil
Date Collected: 18-Oct-19 00:10

Laboratory Data

Lab Sample: 1903735-09
Date Received: 19-Oct-19 09:58
% Solids: 82.9
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFPeA	2706-90-3	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFBS	375-73-5	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
4:2 FTS	757124-72-4	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFHxA	307-24-4	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFPeS	2706-91-4	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFHpA	375-85-9	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFHxS	355-46-4	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
6:2 FTS	27619-97-2	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFOA	335-67-1	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFHpS	375-92-8	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFNA	375-95-1	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFOSA	754-91-6	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFOS	1763-23-1	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFDA	335-76-2	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
8:2 FTS	39108-34-4	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
MeFOSAA	2355-31-9	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
EtFOSAA	2991-50-6	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFUnA	2058-94-8	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFDS	335-77-3	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFDoA	307-55-1	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFTrDA	72629-94-8	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
PFTeDA	376-06-7	ND	2.00		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	87.3	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
13C3-PFPeA	IS	70.9	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
13C3-PFBS	IS	82.1	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
13C2-4:2 FTS	IS	73.9	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
13C2-PFHxA	IS	61.8	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
13C4-PFHpA	IS	66.6	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
13C3-PFHxS	IS	85.5	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
13C2-6:2 FTS	IS	70.9	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
13C5-PFNA	IS	61.0	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
13C8-PFOSA	IS	38.1	50 - 150	H	B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
13C2-PFOA	IS	73.4	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
13C8-PFOS	IS	75.6	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
13C2-PFDA	IS	55.5	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
13C2-8:2 FTS	IS	73.9	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1

Sample ID: L12-3-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	18-Oct-19 00:10
Location:	Location 12		

Laboratory Data

Lab Sample:	1903735-09	Column:	BEH C18
Date Received:	19-Oct-19 09:58		
% Solids:	82.9		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	50.4	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
13C2-PFUnA	IS	49.3	50 - 150	H	B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
d5-EtFOSAA	IS	57.3	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
13C2-PFDoA	IS	50.3	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1
13C2-PFTeDA	IS	57.3	50 - 150		B9J0278	06-Nov-19	1.21 g	09-Nov-19 03:56	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous

Laboratory Data

Lab Sample: B9J0240-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFPeA	2706-90-3	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFBS	375-73-5	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
4:2 FTS	757124-72-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFHxA	307-24-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFPeS	2706-91-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFHpA	375-85-9	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFHxS	355-46-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
6:2 FTS	27619-97-2	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFOA	335-67-1	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFHpS	375-92-8	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFNA	375-95-1	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFOSA	754-91-6	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFOS	1763-23-1	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFDA	335-76-2	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
8:2 FTS	39108-34-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
MeFOSAA	2355-31-9	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
EtFOSAA	2991-50-6	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFUnA	2058-94-8	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFDS	335-77-3	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFDoA	307-55-1	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFTrDA	72629-94-8	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFTeDA	376-06-7	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	113	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C3-PFPeA	IS	110	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C3-PFBS	IS	127	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-4:2 FTS	IS	123	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFHxA	IS	106	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C4-PFHpA	IS	101	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C3-PFHxS	IS	112	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-6:2 FTS	IS	108	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C5-PFNA	IS	115	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C8-PFOSA	IS	31.2	50 - 150	H	B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFOA	IS	122	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C8-PFOS	IS	110	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFDA	IS	106	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-8:2 FTS	IS	109	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous

Laboratory Data

Lab Sample: B9J0240-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	97.2	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFUnA	IS	93.8	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
d5-EtFOSAA	IS	98.7	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFDoA	IS	89.0	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFTeDA	IS	89.2	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0240-BS1/B9J0240-BSD1
Project:	SJC PFAS Investigation	QC Batch:	B9J0240
Matrix:	Aqueous	Samp Size:	0.250/0.250 L
		Date Extracted:	30-Oct-19
		Column:	BEH C18

Analyte	CAS Number	LCS (ng/L)	LCS Spike	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBA	375-22-4	42.2	40.0	106		41.1	40.0	103	2.57		73-129	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFPeA	2706-90-3	41.6	40.0	104		43.1	40.0	108	3.75		72-129	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFBS	375-73-5	42.4	40.0	106		40.4	40.0	101	5.04		72-130	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
4:2 FTS	757124-72-4	36.6	40.0	91.5		36.1	40.0	90.2	1.47		63-143	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFHxA	307-24-4	45.8	40.0	114		45.4	40.0	113	0.867		72-129	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFPeS	2706-91-4	45.4	40.0	113		41.8	40.0	105	8.23		71-127	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFHpA	375-85-9	46.4	40.0	116		43.6	40.0	109	6.22		72-130	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFHxS	355-46-4	39.3	40.0	98.1		38.4	40.0	95.9	2.27		68-131	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
6:2 FTS	27619-97-2	36.9	40.0	92.2		39.6	40.0	99.0	7.11		64-140	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFOA	335-67-1	46.2	40.0	115		42.4	40.0	106	8.41		71-133	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFHpS	375-92-8	44.6	40.0	111		45.3	40.0	113	1.51		69-134	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFNA	375-95-1	39.6	40.0	98.9		39.9	40.0	99.7	0.766		69-130	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFOSA	754-91-6	48.7	40.0	122		47.2	40.0	118	3.14		67-137	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFOS	1763-23-1	40.4	40.0	101		41.0	40.0	103	1.61		65-140	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFDA	335-76-2	43.9	40.0	110		43.1	40.0	108	1.84		71-129	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
8:2 FTS	39108-34-4	43.9	40.0	110		41.4	40.0	103	6.00		67-138	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
MeFOSAA	2355-31-9	33.6	40.0	83.9		33.4	40.0	83.5	0.550		65-136	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
EtFOSAA	2991-50-6	42.4	40.0	106		40.8	40.0	102	3.91		61-135	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFUnA	2058-94-8	40.5	40.0	101		42.0	40.0	105	3.62		69-133	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFDS	335-77-3	34.2	40.0	85.4		36.7	40.0	91.7	7.10		53-142	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFDoA	307-55-1	43.6	40.0	109		44.0	40.0	110	0.879		72-134	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFTrDA	72629-94-8	37.5	40.0	93.8		37.5	40.0	93.8	0.00135		65-144	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFTeDA	376-06-7	42.4	40.0	106		42.8	40.0	107	0.985		71-132	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBA	IS	115		122		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C3-PFPeA	IS	117		117		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C3-PFBS	IS	123		135		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-4:2 FTS	IS	116		120		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFHxA	IS	117		121		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C4-PFHpA	IS	106		115		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C3-PFHxS	IS	120		122		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-6:2 FTS	IS	119		111		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0240-BS1/B9J0240-BSD1	Date Extracted:	30-Oct-19
Project:	SJC PFAS Investigation	QC Batch:	B9J0240	Column:	BEH C18
Matrix:	Aqueous	Samp Size:	0.250/0.250 L		

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C5-PFNA	IS	118		121		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C8-PFOSA	IS	41.2	H	41.5	H	50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFOA	IS	113		122		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C8-PFOS	IS	113		114		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFDA	IS	108		117		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-8:2 FTS	IS	103		115		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
d3-MeFOSAA	IS	104		112		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFUnA	IS	92.0		100		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
d5-EtFOSAA	IS	95.4		107		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFDoA	IS	94.4		98.6		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFTeDA	IS	88.9		91.2		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1

Sample ID: L12-3-6W

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 12
Matrix: Aqueous
Date Collected: 18-Oct-19 01:30

Laboratory Data

Lab Sample: 1903735-10
Date Received: 19-Oct-19 09:58
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	11.0	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFPeA	2706-90-3	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFBS	375-73-5	12.3	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
4:2 FTS	757124-72-4	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFHxA	307-24-4	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFPeS	2706-91-4	7.85	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFHpA	375-85-9	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFHxS	355-46-4	41.7	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
6:2 FTS	27619-97-2	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFOA	335-67-1	3.55	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFHpS	375-92-8	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFNA	375-95-1	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFOSA	754-91-6	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFOS	1763-23-1	40.5	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFDA	335-76-2	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
8:2 FTS	39108-34-4	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
MeFOSAA	2355-31-9	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
EtFOSAA	2991-50-6	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFUnA	2058-94-8	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFDS	335-77-3	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFDoA	307-55-1	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFTrDA	72629-94-8	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
PFTeDA	376-06-7	ND	2.14		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	86.2	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
13C3-PFPeA	IS	115	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
13C3-PFBS	IS	131	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
13C2-4:2 FTS	IS	121	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
13C2-PFHxA	IS	112	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
13C4-PFHpA	IS	106	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
13C3-PFHxS	IS	113	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
13C2-6:2 FTS	IS	101	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
13C5-PFNA	IS	119	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
13C8-PFOSA	IS	52.9	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
13C2-PFOA	IS	125	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
13C8-PFOS	IS	114	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
13C2-PFDA	IS	108	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
13C2-8:2 FTS	IS	105	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1

Sample ID: L12-3-6W

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 12
Matrix: Aqueous
Date Collected: 18-Oct-19 01:30

Laboratory Data

Lab Sample: 1903735-10
Date Received: 19-Oct-19 09:58
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	115	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
13C2-PFUnA	IS	95.6	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
d5-EtFOSAA	IS	112	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
13C2-PFDoA	IS	94.1	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1
13C2-PFTeDA	IS	71.4	50 - 150		B9J0240	30-Oct-19	0.234 L	06-Nov-19 22:37	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L12-30-6W

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 12
Matrix: Aqueous
Date Collected: 18-Oct-19 01:30

Laboratory Data

Lab Sample: 1903735-11
Date Received: 19-Oct-19 09:58
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	10.5	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFPeA	2706-90-3	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFBS	375-73-5	12.5	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
4:2 FTS	757124-72-4	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFHxA	307-24-4	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFPeS	2706-91-4	9.05	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFHpA	375-85-9	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFHxS	355-46-4	45.1	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
6:2 FTS	27619-97-2	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFOA	335-67-1	3.00	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFHpS	375-92-8	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFNA	375-95-1	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFOSA	754-91-6	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFOS	1763-23-1	3.43	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFDA	335-76-2	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
8:2 FTS	39108-34-4	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
MeFOSAA	2355-31-9	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
EtFOSAA	2991-50-6	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFUnA	2058-94-8	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFDS	335-77-3	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFDoA	307-55-1	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFTrDA	72629-94-8	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
PFTeDA	376-06-7	ND	2.13		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	88.4	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
13C3-PFPeA	IS	119	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
13C3-PFBS	IS	139	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
13C2-4:2 FTS	IS	127	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
13C2-PFHxA	IS	121	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
13C4-PFHpA	IS	113	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
13C3-PFHxS	IS	117	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
13C2-6:2 FTS	IS	136	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
13C5-PFNA	IS	123	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
13C8-PFOSA	IS	59.2	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
13C2-PFOA	IS	136	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
13C8-PFOS	IS	109	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
13C2-PFDA	IS	103	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
13C2-8:2 FTS	IS	103	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1

Sample ID: L12-30-6W

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Location 12
Matrix: Aqueous
Date Collected: 18-Oct-19 01:30

Laboratory Data

Lab Sample: 1903735-11
Date Received: 19-Oct-19 09:58
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	97.6	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
13C2-PFUnA	IS	85.7	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
d5-EtFOSAA	IS	93.4	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
13C2-PFDoA	IS	76.3	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1
13C2-PFTeDA	IS	86.5	50 - 150		B9J0240	30-Oct-19	0.235 L	06-Nov-19 22:48	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

Rev. No.: 0
Rev. Date: 06/27/2017

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only 10/21/19
Work Order #: 19037345 Temp: 0.8 °C
Storage ID: R-13, WR-2 Storage Secured: Yes ☑ No ☐

Project ID: SJC PFAS Investigation PO#: Sampler: KAV (name)

TAT (check one): Standard: ☒ 21 days; Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify:

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Jim Strandberg	Woodard & Curran	2175 N California Blvd, Ste 315	Walnut Creek	CA	(925) 627-4122	(925)-627-410

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Kevin Almestad	10/18/19	1345	Fedex Kevin Almestad	10/18/19	1345
Fedex	Date	Time	Received by (printed name and signature)	Date	Time
			Kim Burr	10/19/19	0958

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

ATTN: Jennifer Miller

Method of Shipment: Fedex

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below (CA Airport List (23))	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
L12-2-1	10/17/19	2337	Location 12	1	PJ	SO					X				
L12-2-5		2341		1											
L12-2-10		2344		1											
L12-4-1		2350		1											
L12-4-5		2355		1											
L12-4-10		2359		1											
L12-3-1	10/18/19	0002		1											
L12-3-5		0007		1											
L12-3-10		0010		1											
L12-3-6W		0130		2	P	AQ									
L12-30-6W		0130		2	P	AQ									

Special Instructions/Comments: Geotracker EDF

Fedex wouldn't sign chain, signed for them

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: woodard & curran, Inc.
Address: 2175 N California Blvd, Ste 315
City: walnut creek State: CA Zip: 94597
Phone: (510) 320-3776 Fax: (925) -627-410
Email: jstrandberg@woodardcurran.com

Container Types: P= HDPE, PJ= HDPE Jar
O = Other:

Bottle Preservation Type: T = Thiosulfate,
TZ = Trizma:

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other:

Page: 1 of 1

Vista Analytical Laboratory

Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 1903735 TAT Std

Samples Arrival:	**Date/Time** 10/19/19 0958		**Initials:** KE		**Location:** WR-2 **Shelf/Rack:** NA		
Delivered By:	FedEx	UPS	On Trac	GSO	DHL	Hand Delivered	Other
Preservation:	Ice		Blue Ice		Dry Ice		None
Temp °C: 6.8 (uncorrected) **Temp °C:** 0.8 (corrected)			**Probe used: Y / N**		**Thermometer ID:** IR-4		

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			✓
Airbill SAT DELIVERY Trk # 7803 6137 7680	✓		
Shipping Documentation Present?	✓		
Shipping Container: Vista / Client / Retain / Return / Dispose			
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	**Date/Time** 10/21/19 1132		**Initials:** qm	**Location:** R-13 / WR-2 **Shelf/Rack:** A-1 / E-2	
COC Anomaly/Sample Acceptance Form completed?				✓	✓

Comments:

CoC/Label Reconciliation Report WO# 1903735

LabNumber	CoC Sample ID	Label ID matches COCID	Label ID doesn't match COCID	SampleAlias		Sampled	Label Sampled matches	Sampled doesn't match	Container	Container Correct	Sample BaseMatrix	Comments
1903735-01	A L12-2-1	☑		Location 12		17-Oct-19 23:37	☑		HDPE Jar, 6 oz	☑	Solid	
1903735-02	A L12-2-5	☑		Location 12		17-Oct-19 23:41	☑		HDPE Jar, 6 oz	☑	Solid	
1903735-03	A L12-2-10	☑		Location 12		17-Oct-19 23:44	☑		HDPE Jar, 6 oz	☑	Solid	
1903735-04	A L12-4-1	☑		Location 12		17-Oct-19 23:50	☑		HDPE Jar, 6 oz	☑	Solid	
1903735-05	A L12-4-5	☑		Location 12		17-Oct-19 23:55	☑		HDPE Jar, 6 oz	☑	Solid	
1903735-06	A L12-4-10	☑		Location 12		17-Oct-19 23:59	☑		HDPE Jar, 6 oz	☑	Solid	
1903735-07	A L12-3-1	☑		Location 12		18-Oct-19 00:02	☑		HDPE Jar, 6 oz	☑	Solid	
1903735-08	A L12-3-5	☑		Location 12		18-Oct-19 00:07	☑		HDPE Jar, 6 oz	☑	Solid	
1903735-09	A L12-3-10	☑		Location 12		18-Oct-19 00:10	☑		HDPE Jar, 6 oz	☑	Solid	
1903735-10	A L12-3-6W	☑		Location 12		18-Oct-19 01:30	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903735-10	B L12-3-6W	☑		Location 12	A	18-Oct-19 01:30	☐		HDPE Bottle, 250 mL	☑	Aqueous	
1903735-11	A L12-30-6W	☑		Location 12		18-Oct-19 01:30	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903735-11	B L12-30-6W	☑		Location 12		18-Oct-19 01:30	☑		HDPE Bottle, 250 mL	☑	Aqueous	

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Preservation Documented: Na2S2O3 Trizma (None) Other			✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments: A- no time on client label

Verifed by/Date: SC 10/21/19

November 25, 2019

Vista Work Order No. 1903773

Mr. Jim Strandberg
Woodard & Curran
2175 North California Boulevard, Suite 315
Walnut Creek, CA 94596

Dear Mr. Strandberg,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on October 23, 2019 under your Project Name 'SJC PFAS Investigation'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1903773
Case Narrative

Sample Condition on Receipt:

Nine soil samples and four aqueous samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. Sample "Trip Blank" was not listed on the CoC. As directed, this sample was analyzed.

Analytical Notes:

PFAS Isotope Dilution Method - Soil

The soil samples were extracted and analyzed for a selected list of PFAS. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit (RL). The OPR recoveries were within the method acceptance criteria.

An MS/MSD was performed on sample "L4-3-1". The MSD recovery and RPD were out of the acceptance criteria for PFTrDA.

The internal standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

PFAS Isotope Dilution Method - Aqueous

Samples "L4-2-6W" and "L4-20-6W" contained particulate and were centrifuged prior to extraction.

The aqueous samples were extracted and analyzed for a selected list of PFAS using the PFAS Isotope Dilution Method. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the acceptance criteria.

A Method Blank and Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit. The LCS/LCSD recoveries were within the method acceptance criteria.

The internal standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1903773-01	L4-2-1	22-Oct-19 02:23	23-Oct-19 09:21	HDPE Jar, 6 oz
1903773-02	L4-2-5	22-Oct-19 02:25	23-Oct-19 09:21	HDPE Jar, 6 oz
1903773-03	L4-2-10	22-Oct-19 02:28	23-Oct-19 09:21	HDPE Jar, 6 oz
1903773-04	L4-1-1	22-Oct-19 02:40	23-Oct-19 09:21	HDPE Jar, 6 oz
1903773-05	L4-1-5	22-Oct-19 02:42	23-Oct-19 09:21	HDPE Jar, 6 oz
1903773-06	L4-1-10	22-Oct-19 02:44	23-Oct-19 09:21	HDPE Jar, 6 oz
1903773-07	L4-3-1	22-Oct-19 03:20	23-Oct-19 09:21	HDPE Jar, 6 oz
1903773-08	L4-3-5	22-Oct-19 03:22	23-Oct-19 09:21	HDPE Jar, 6 oz
1903773-09	L4-3-10	22-Oct-19 03:24	23-Oct-19 09:21	HDPE Jar, 6 oz
1903773-10	FB-3	22-Oct-19 01:15	23-Oct-19 09:21	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903773-11	L4-2-GW	22-Oct-19 04:30	23-Oct-19 09:21	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903773-12	L4-20-GW	22-Oct-19 04:30	23-Oct-19 09:21	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903773-13	EB-3	22-Oct-19 04:00	23-Oct-19 09:21	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903773-14	Trip Blank	18-Oct-19 00:00	23-Oct-19 09:21	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0002-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFPeA	2706-90-3	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFBS	375-73-5	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
4:2 FTS	757124-72-4	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFHxA	307-24-4	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFPeS	2706-91-4	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFHpA	375-85-9	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFHxS	355-46-4	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
6:2 FTS	27619-97-2	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFOA	335-67-1	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFHpS	375-92-8	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFNA	375-95-1	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFOSA	754-91-6	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFOS	1763-23-1	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFDA	335-76-2	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
8:2 FTS	39108-34-4	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
MeFOSAA	2355-31-9	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
EtFOSAA	2991-50-6	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFUnA	2058-94-8	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFDS	335-77-3	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFDoA	307-55-1	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFTrDA	72629-94-8	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFTeDA	376-06-7	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	149	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C3-PFPeA	IS	75.7	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C3-PFBS	IS	85.2	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-4:2 FTS	IS	90.2	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-PFHxA	IS	68.6	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C4-PFHpA	IS	73.7	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C3-PFHxS	IS	83.5	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-6:2 FTS	IS	83.3	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C5-PFNA	IS	69.3	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C8-PFOSA	IS	39.2	50 - 150	H	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-PFOA	IS	73.7	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C8-PFOS	IS	77.1	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-PFDA	IS	61.5	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-8:2 FTS	IS	75.8	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1

Sample ID: Method Blank — **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0002-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	54.6	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-PFUnA	IS	51.1	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
d5-EtFOSAA	IS	57.5	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-PFDoA	IS	42.8	50 - 150	H	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-PFTeDA	IS	48.3	50 - 150	H	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: OPR

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0002-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/g)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	10.1	10.0	101	71 - 135		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFPeA	2706-90-3	10.6	10.0	106	69 - 132		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFBS	375-73-5	10.4	10.0	104	72 - 128		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
4:2 FTS	757124-72-4	11.3	10.0	113	62 - 145		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFHxA	307-24-4	10.0	10.0	100	70 - 132	Q	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFPeS	2706-91-4	9.93	10.0	99.3	73 - 123		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFHpA	375-85-9	10.3	10.0	103	71 - 131	Q	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFHxS	355-46-4	9.78	10.0	97.8	67 - 130		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
6:2 FTS	27619-97-2	8.52	10.0	85.2	64 - 140		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFOA	335-67-1	11.0	10.0	110	69 - 133		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFHpS	375-92-8	12.4	10.0	124	70 - 132		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFNA	375-95-1	11.0	10.0	110	72 - 129		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFOSA	754-91-6	10.8	10.0	108	67 - 137		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFOS	1763-23-1	12.9	10.0	129	68 - 136		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFDA	335-76-2	10.6	10.0	106	69 - 133		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
8:2 FTS	39108-34-4	10.3	10.0	103	65 - 137	Q	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
MeFOSAA	2355-31-9	11.4	10.0	114	63 - 144	Q	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
EtFOSAA	2991-50-6	9.44	10.0	94.4	61 - 139		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFUnA	2058-94-8	9.57	10.0	95.7	64 - 136	Q	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFDS	335-77-3	9.38	10.0	93.6	59 - 134		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFDoA	307-55-1	10.5	10.0	105	69 - 135	Q	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFTrDA	72629-94-8	10.7	10.0	107	66 - 139		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFTeDA	376-06-7	10.4	10.0	104	69 - 133		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	149	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C3-PFPeA	IS	75.4	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C3-PFBS	IS	98.5	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-4:2 FTS	IS	88.1	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-PFHxA	IS	73.7	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C4-PFHpA	IS	75.0	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C3-PFHxS	IS	90.4	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-6:2 FTS	IS	100	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C5-PFNA	IS	70.7	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C8-PFOSA	IS	35.1	50- 150	H	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-PFOA	IS	76.0	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1

Sample ID: OPR **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0002-BS1
Column: BEH C18

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOS	IS	77.6	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-PFDA	IS	61.9	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-8:2 FTS	IS	73.1	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
d3-MeFOSAA	IS	53.0	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-PFUnA	IS	54.6	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
d5-EtFOSAA	IS	53.9	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-PFDoA	IS	51.9	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-PFTeDA	IS	57.6	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1

Sample ID: L4-2-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Soil
Date Collected: 22-Oct-19 02:23

Laboratory Data

Lab Sample: 1903773-01
Date Received: 23-Oct-19 09:21
% Solids: 89.8
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFPeA	2706-90-3	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFBS	375-73-5	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
4:2 FTS	757124-72-4	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFHxA	307-24-4	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFPeS	2706-91-4	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFHpA	375-85-9	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFHxS	355-46-4	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
6:2 FTS	27619-97-2	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFOA	335-67-1	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFHpS	375-92-8	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFNA	375-95-1	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFOSA	754-91-6	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFOS	1763-23-1	5.69	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFDA	335-76-2	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
8:2 FTS	39108-34-4	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
MeFOSAA	2355-31-9	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
EtFOSAA	2991-50-6	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFUnA	2058-94-8	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFDS	335-77-3	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFDoA	307-55-1	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFTrDA	72629-94-8	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
PFTeDA	376-06-7	ND	1.95		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	171	50 - 150	H	B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
13C3-PFPeA	IS	85.0	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
13C3-PFBS	IS	91.4	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
13C2-4:2 FTS	IS	88.4	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
13C2-PFHxA	IS	82.0	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
13C4-PFHpA	IS	81.3	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
13C3-PFHxS	IS	82.1	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
13C2-6:2 FTS	IS	89.8	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
13C5-PFNA	IS	76.9	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
13C8-PFOSA	IS	65.5	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
13C2-PFOA	IS	78.2	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
13C8-PFOS	IS	77.2	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
13C2-PFDA	IS	68.0	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
13C2-8:2 FTS	IS	83.6	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1

Sample ID: L4-2-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	22-Oct-19 02:23
Location:	Loc. 4		

Laboratory Data

Lab Sample:	1903773-01	Column:	BEH C18
Date Received:	23-Oct-19 09:21		
% Solids:	89.8		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	76.1	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
13C2-PFUnA	IS	65.4	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
d5-EtFOSAA	IS	76.2	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
13C2-PFDoA	IS	50.2	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1
13C2-PFTeDA	IS	19.7	50 - 150	H	B9K0002	07-Nov-19	1.14 g	21-Nov-19 00:43	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L4-2-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Soil
Date Collected: 22-Oct-19 02:25

Laboratory Data

Lab Sample: 1903773-02
Date Received: 23-Oct-19 09:21
% Solids: 72.8
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	2.21	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFPeA	2706-90-3	4.10	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFBS	375-73-5	6.36	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
4:2 FTS	757124-72-4	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFHxA	307-24-4	10.1	1.98	Q	B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFPeS	2706-91-4	3.50	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFHpA	375-85-9	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFHxS	355-46-4	5.24	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
6:2 FTS	27619-97-2	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFOA	335-67-1	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFHpS	375-92-8	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFNA	375-95-1	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFOSA	754-91-6	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFOS	1763-23-1	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFDA	335-76-2	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
8:2 FTS	39108-34-4	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
MeFOSAA	2355-31-9	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
EtFOSAA	2991-50-6	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFUnA	2058-94-8	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFDS	335-77-3	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFDoA	307-55-1	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFTrDA	72629-94-8	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
PFTeDA	376-06-7	ND	1.98		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	131	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
13C3-PFPeA	IS	67.6	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
13C3-PFBS	IS	83.3	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
13C2-4:2 FTS	IS	79.7	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
13C2-PFHxA	IS	60.5	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
13C4-PFHpA	IS	63.7	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
13C3-PFHxS	IS	68.7	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
13C2-6:2 FTS	IS	74.7	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
13C5-PFNA	IS	58.3	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
13C8-PFOSA	IS	42.7	50 - 150	H	B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
13C2-PFOA	IS	63.6	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
13C8-PFOS	IS	66.8	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
13C2-PFDA	IS	47.8	50 - 150	H	B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
13C2-8:2 FTS	IS	63.9	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1

Sample ID: L4-2-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	22-Oct-19 02:25
Location:	Loc. 4		

Laboratory Data

Lab Sample:	1903773-02	Column:	BEH C18
Date Received:	23-Oct-19 09:21		
% Solids:	72.8		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	58.2	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
13C2-PFUnA	IS	47.7	50 - 150	H	B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
d5-EtFOSAA	IS	58.2	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
13C2-PFDoA	IS	51.3	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1
13C2-PFTeDA	IS	61.3	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 00:54	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L4-2-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Soil
Date Collected: 22-Oct-19 02:28

Laboratory Data

Lab Sample: 1903773-03
Date Received: 23-Oct-19 09:21
% Solids: 75.9
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFPeA	2706-90-3	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFBS	375-73-5	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
4:2 FTS	757124-72-4	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFHxA	307-24-4	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFPeS	2706-91-4	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFHpA	375-85-9	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFHxS	355-46-4	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
6:2 FTS	27619-97-2	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFOA	335-67-1	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFHpS	375-92-8	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFNA	375-95-1	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFOSA	754-91-6	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFOS	1763-23-1	9.99	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFDA	335-76-2	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
8:2 FTS	39108-34-4	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
MeFOSAA	2355-31-9	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
EtFOSAA	2991-50-6	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFUnA	2058-94-8	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFDS	335-77-3	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFDoA	307-55-1	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFTrDA	72629-94-8	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
PFTeDA	376-06-7	ND	1.95		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	145	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
13C3-PFPeA	IS	74.2	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
13C3-PFBS	IS	85.8	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
13C2-4:2 FTS	IS	76.5	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
13C2-PFHxA	IS	73.5	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
13C4-PFHpA	IS	72.4	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
13C3-PFHxS	IS	84.4	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
13C2-6:2 FTS	IS	78.5	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
13C5-PFNA	IS	68.1	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
13C8-PFOSA	IS	47.2	50 - 150	H	B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
13C2-PFOA	IS	73.8	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
13C8-PFOS	IS	79.1	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
13C2-PFDA	IS	62.1	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
13C2-8:2 FTS	IS	75.1	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1

Sample ID: L4-2-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	22-Oct-19 02:28
Location:	Loc. 4		

Laboratory Data

Lab Sample:	1903773-03	Column:	BEH C18
Date Received:	23-Oct-19 09:21		
% Solids:	75.9		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	75.7	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
13C2-PFUnA	IS	56.7	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
d5-EtFOSAA	IS	70.2	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
13C2-PFDoA	IS	58.8	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1
13C2-PFTeDA	IS	69.2	50 - 150		B9K0002	07-Nov-19	1.35 g	21-Nov-19 01:04	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L4-1-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Soil
Date Collected: 22-Oct-19 02:40

Laboratory Data

Lab Sample: 1903773-04
Date Received: 23-Oct-19 09:21
% Solids: 88.8
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFPeA	2706-90-3	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFBS	375-73-5	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
4:2 FTS	757124-72-4	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFHxA	307-24-4	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFPeS	2706-91-4	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFHpA	375-85-9	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFHxS	355-46-4	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
6:2 FTS	27619-97-2	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFOA	335-67-1	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFHpS	375-92-8	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFNA	375-95-1	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFOSA	754-91-6	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFOS	1763-23-1	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFDA	335-76-2	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
8:2 FTS	39108-34-4	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
MeFOSAA	2355-31-9	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
EtFOSAA	2991-50-6	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFUnA	2058-94-8	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFDS	335-77-3	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFDoA	307-55-1	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFTrDA	72629-94-8	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
PFTeDA	376-06-7	ND	1.94		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	175	50 - 150	H	B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
13C3-PFPeA	IS	87.5	50 - 150		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
13C3-PFBS	IS	86.3	50 - 150		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
13C2-4:2 FTS	IS	83.3	50 - 150		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
13C2-PFHxA	IS	87.5	50 - 150		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
13C4-PFHpA	IS	81.8	50 - 150		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
13C3-PFHxS	IS	81.1	50 - 150		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
13C2-6:2 FTS	IS	85.8	50 - 150		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
13C5-PFNA	IS	74.8	50 - 150		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
13C8-PFOSA	IS	74.7	50 - 150		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
13C2-PFOA	IS	83.8	50 - 150		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
13C8-PFOS	IS	75.2	50 - 150		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
13C2-PFDA	IS	77.2	50 - 150		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
13C2-8:2 FTS	IS	85.0	50 - 150		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1

Sample ID: L4-1-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Soil
Date Collected: 22-Oct-19 02:40

Laboratory Data

Lab Sample: 1903773-04
Date Received: 23-Oct-19 09:21
% Solids: 88.8
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	86.4	50 - 150		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
13C2-PFUnA	IS	68.7	50 - 150		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
d5-EtFOSAA	IS	80.4	50 - 150		B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
13C2-PFDoA	IS	47.2	50 - 150	H	B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1
13C2-PFTeDA	IS	22.3	50 - 150	H	B9K0002	07-Nov-19	1.16 g	21-Nov-19 01:36	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L4-1-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Soil
Date Collected: 22-Oct-19 02:42

Laboratory Data

Lab Sample: 1903773-05
Date Received: 23-Oct-19 09:21
% Solids: 74.4
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFPeA	2706-90-3	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFBS	375-73-5	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
4:2 FTS	757124-72-4	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFHxA	307-24-4	2.71	1.98	Q	B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFPeS	2706-91-4	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFHpA	375-85-9	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFHxS	355-46-4	3.14	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
6:2 FTS	27619-97-2	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFOA	335-67-1	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFHpS	375-92-8	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFNA	375-95-1	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFOSA	754-91-6	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFOS	1763-23-1	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFDA	335-76-2	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
8:2 FTS	39108-34-4	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
MeFOSAA	2355-31-9	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
EtFOSAA	2991-50-6	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFUnA	2058-94-8	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFDS	335-77-3	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFDoA	307-55-1	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFTrDA	72629-94-8	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
PFTeDA	376-06-7	ND	1.98		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	143	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
13C3-PFPeA	IS	71.7	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
13C3-PFBS	IS	87.6	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
13C2-4:2 FTS	IS	88.3	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
13C2-PFHxA	IS	73.4	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
13C4-PFHpA	IS	68.0	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
13C3-PFHxS	IS	75.2	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
13C2-6:2 FTS	IS	82.8	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
13C5-PFNA	IS	62.7	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
13C8-PFOSA	IS	50.6	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
13C2-PFOA	IS	64.1	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
13C8-PFOS	IS	74.6	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
13C2-PFDA	IS	51.9	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
13C2-8:2 FTS	IS	69.0	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1

Sample ID: L4-1-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	22-Oct-19 02:42
Location:	Loc. 4		

Laboratory Data

Lab Sample:	1903773-05	Column:	BEH C18
Date Received:	23-Oct-19 09:21		
% Solids:	74.4		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	59.9	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
13C2-PFUnA	IS	56.0	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
d5-EtFOSAA	IS	57.0	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
13C2-PFDoA	IS	55.6	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1
13C2-PFTeDA	IS	55.8	50 - 150		B9K0002	07-Nov-19	1.36 g	21-Nov-19 01:46	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L4-1-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Soil
Date Collected: 22-Oct-19 02:44

Laboratory Data

Lab Sample: 1903773-06
Date Received: 23-Oct-19 09:21
% Solids: 72.3
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFPeA	2706-90-3	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFBS	375-73-5	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
4:2 FTS	757124-72-4	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFHxA	307-24-4	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFPeS	2706-91-4	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFHpA	375-85-9	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFHxS	355-46-4	4.53	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
6:2 FTS	27619-97-2	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFOA	335-67-1	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFHpS	375-92-8	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFNA	375-95-1	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFOSA	754-91-6	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFOS	1763-23-1	82.5	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFDA	335-76-2	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
8:2 FTS	39108-34-4	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
MeFOSAA	2355-31-9	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
EtFOSAA	2991-50-6	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFUnA	2058-94-8	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFDS	335-77-3	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFDoA	307-55-1	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFTrDA	72629-94-8	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
PFTeDA	376-06-7	ND	1.99		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	150	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
13C3-PFPeA	IS	76.7	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
13C3-PFBS	IS	85.8	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
13C2-4:2 FTS	IS	90.4	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
13C2-PFHxA	IS	77.8	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
13C4-PFHpA	IS	74.5	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
13C3-PFHxS	IS	75.0	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
13C2-6:2 FTS	IS	83.4	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
13C5-PFNA	IS	69.4	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
13C8-PFOSA	IS	50.4	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
13C2-PFOA	IS	69.0	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
13C8-PFOS	IS	76.3	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
13C2-PFDA	IS	50.4	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
13C2-8:2 FTS	IS	78.6	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1

Sample ID: L4-1-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	22-Oct-19 02:44
Location:	Loc. 4		

Laboratory Data

Lab Sample:	1903773-06	Column:	BEH C18
Date Received:	23-Oct-19 09:21		
% Solids:	72.3		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	61.9	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
13C2-PFUnA	IS	54.2	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
d5-EtFOSAA	IS	57.1	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
13C2-PFDoA	IS	59.5	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1
13C2-PFTeDA	IS	63.0	50 - 150		B9K0002	07-Nov-19	1.39 g	21-Nov-19 01:57	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L4-3-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Soil
Date Collected: 22-Oct-19 03:20

Laboratory Data

Lab Sample: 1903773-07
Date Received: 23-Oct-19 09:21
% Solids: 91.1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFPeA	2706-90-3	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFBS	375-73-5	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
4:2 FTS	757124-72-4	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFHxA	307-24-4	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFPeS	2706-91-4	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFHpA	375-85-9	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFHxS	355-46-4	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
6:2 FTS	27619-97-2	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFOA	335-67-1	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFHpS	375-92-8	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFNA	375-95-1	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFOSA	754-91-6	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFOS	1763-23-1	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFDA	335-76-2	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
8:2 FTS	39108-34-4	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
MeFOSAA	2355-31-9	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
EtFOSAA	2991-50-6	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFUnA	2058-94-8	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFDS	335-77-3	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFDoA	307-55-1	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFTrDA	72629-94-8	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
PFTeDA	376-06-7	ND	1.93		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	165	50 - 150	H	B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
13C3-PFPeA	IS	86.3	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
13C3-PFBS	IS	85.0	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
13C2-4:2 FTS	IS	83.9	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
13C2-PFHxA	IS	84.0	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
13C4-PFHpA	IS	81.1	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
13C3-PFHxS	IS	74.9	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
13C2-6:2 FTS	IS	85.3	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
13C5-PFNA	IS	78.4	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
13C8-PFOSA	IS	68.1	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
13C2-PFOA	IS	81.1	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
13C8-PFOS	IS	72.7	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
13C2-PFDA	IS	69.5	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
13C2-8:2 FTS	IS	78.5	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1

Sample ID: L4-3-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	22-Oct-19 03:20
Location:	Loc. 4		

Laboratory Data

Lab Sample:	1903773-07	Column:	BEH C18
Date Received:	23-Oct-19 09:21		
% Solids:	91.1		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	74.1	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
13C2-PFUnA	IS	75.5	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
d5-EtFOSAA	IS	74.8	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
13C2-PFDoA	IS	66.5	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1
13C2-PFTeDA	IS	64.8	50 - 150		B9K0002	07-Nov-19	1.14 g	21-Nov-19 02:07	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L4-3-1 **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9K0002-MS1/B9K0002-MSD1	Source Lab Sample:	1903773-07
Project:	SJC PFAS Investigation	QC Batch:	B9K0002	Date Extracted:	07-Nov-19
Matrix:	Solid	Samp Size:	1.10/1.11 g	Column:	BEH C18

Analyte	CAS Number	Sample (ng/g)	MS (ng/g)	MS Spike	MS % Rec	MS Quals	MSD (ng/g)	MSD Spike	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBA	375-22-4	ND	10.2	9.98	102		10.5	9.89	106	3.85		71-135	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFPeA	2706-90-3	ND	10.9	9.98	109		10.2	9.89	103	5.66		69-132	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFBS	375-73-5	ND	11.8	9.98	118		10.5	9.89	106	10.7		72-128	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
4:2 FTS	757124-72-4	ND	10.9	9.98	109	Q	10.9	9.89	110	0.913		62-145	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFHxA	307-24-4	ND	10.4	9.98	102	Q	10.7	9.89	106	3.85	Q	70-132	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFPeS	2706-91-4	ND	10.8	9.98	108		10.6	9.89	107	0.930		73-123	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFHpA	375-85-9	ND	10.3	9.98	103	Q	10.0	9.89	101	1.96	Q	71-131	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFHxS	355-46-4	ND	11.9	9.98	119		9.78	9.89	98.9	18.4		67-130	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
6:2 FTS	27619-97-2	ND	11.3	9.98	113		9.70	9.89	98.1	14.1		64-140	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFOA	335-67-1	ND	10.3	9.98	103		10.1	9.89	102	0.976		69-133	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFHpS	375-92-8	ND	10.6	9.98	106		10.0	9.89	101	4.83		70-132	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFNA	375-95-1	ND	9.51	9.98	95.3		10.7	9.89	108	12.5	Q	72-129	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFOSA	754-91-6	ND	9.69	9.98	97.1		9.76	9.89	98.7	1.63		67-137	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFOS	1763-23-1	ND	10.9	10.0	104		9.89	9.91	95.6	8.42		68-136	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFDA	335-76-2	ND	11.1	9.98	112		10.1	9.89	102	9.35		69-133	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
8:2 FTS	39108-34-4	ND	10.0	9.98	97.2	Q	9.18	9.89	89.5	8.25	Q	65-137	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
MeFOSAA	2355-31-9	ND	10.4	9.98	104		10.9	9.89	110	5.61		63-144	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
EtFOSAA	2991-50-6	ND	9.70	9.98	95.3		10.7	9.89	106	10.6		61-139	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFUnA	2058-94-8	ND	10.7	9.98	107	Q	10.9	9.89	110	2.76	Q	64-136	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFDS	335-77-3	ND	8.61	10.0	86.1		8.08	9.91	81.5	5.49		59-134	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFDoA	307-55-1	ND	9.76	9.98	97.8	Q	10.2	9.89	103	5.18	Q	69-135	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFTrDA	72629-94-8	ND	10.6	9.98	107		5.88	9.89	59.4	57.2	H	66-139	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1
PFTeDA	376-06-7	ND	11.1	9.98	111		9.90	9.89	100	10.4		69-133	30	21-Nov-19 00:22	1	21-Nov-19 00:33	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C3-PFBA	IS	173	H	167	H	50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
13C3-PFPeA	IS	86.8		88.0		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
13C3-PFBS	IS	87.1		88.0		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
13C2-4:2 FTS	IS	86.7		85.7		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
13C2-PFHxA	IS	84.1		84.3		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
13C4-PFHpA	IS	81.4		82.7		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
13C3-PFHxS	IS	74.4		79.6		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
13C2-6:2 FTS	IS	76.6		86.5		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1

Sample ID: L4-3-1 **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9K0002-MS1/B9K0002-MSD1	Source Lab Sample:	1903773-07
Project:	SJC PFAS Investigation	QC Batch:	B9K0002	Date Extracted:	07-Nov-19
Matrix:	Solid	Samp Size:	1.10/1.11 g	Column:	BEH C18

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C5-PFNA	IS	81.1		78.1		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
13C8-PFOSA	IS	64.7		72.1		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
13C2-PFOA	IS	79.9		83.1		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
13C8-PFOS	IS	83.6		88.0		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
13C2-PFDA	IS	69.7		73.8		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
13C2-8:2 FTS	IS	67.2		71.5		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
d3-MeFOSAA	IS	81.4		78.8		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
13C2-PFUnA	IS	71.3		64.7		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
d5-EtFOSAA	IS	80.6		71.6		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
13C2-PFDoA	IS	69.4		53.3		50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1
13C2-PFTeDA	IS	70.0		21.7	H	50-150	21-Nov-19 00:22	1	21-Nov-19 00:33	1

Sample ID: L4-3-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Soil
Date Collected: 22-Oct-19 03:22

Laboratory Data

Lab Sample: 1903773-08
Date Received: 23-Oct-19 09:21
% Solids: 74.4
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	4.34	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
PFPeA	2706-90-3	8.12	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
PFBS	375-73-5	14.6	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
4:2 FTS	757124-72-4	ND	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
PFHxA	307-24-4	26.0	2.01	Q	B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
PFPeS	2706-91-4	16.1	2.01	Q	B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
PFHpA	375-85-9	3.59	2.01	Q	B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
PFHxS	355-46-4	165	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
6:2 FTS	27619-97-2	9.99	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
PFOA	335-67-1	9.10	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
PFHpS	375-92-8	10.1	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
PFNA	375-95-1	ND	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
PFOSA	754-91-6	ND	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
PFOS	1763-23-1	482	10.0	D	B9K0002	07-Nov-19	1.34 g	21-Nov-19 20:17	5
PFDA	335-76-2	ND	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
8:2 FTS	39108-34-4	ND	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
MeFOSAA	2355-31-9	ND	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
EtFOSAA	2991-50-6	ND	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
PFUnA	2058-94-8	ND	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
PFDS	335-77-3	ND	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
PFDoA	307-55-1	ND	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
PFTrDA	72629-94-8	ND	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
PFTeDA	376-06-7	ND	2.01		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	146	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
13C3-PFPeA	IS	73.8	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
13C3-PFBS	IS	86.6	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
13C2-4:2 FTS	IS	87.2	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
13C2-PFHxA	IS	71.8	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
13C4-PFHpA	IS	68.3	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
13C3-PFHxS	IS	73.1	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
13C2-6:2 FTS	IS	80.3	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
13C5-PFNA	IS	61.5	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
13C8-PFOSA	IS	51.7	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
13C2-PFOA	IS	73.3	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
13C8-PFOS	IS	79.5	50 - 150	D	B9K0002	07-Nov-19	1.34 g	21-Nov-19 20:17	5
13C2-PFDA	IS	55.8	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
13C2-8:2 FTS	IS	68.2	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1

Sample ID: L4-3-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	22-Oct-19 03:22
Location:	Loc. 4		

Laboratory Data

Lab Sample:	1903773-08	Column:	BEH C18
Date Received:	23-Oct-19 09:21		
% Solids:	74.4		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	60.7	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
13C2-PFUnA	IS	55.3	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
d5-EtFOSAA	IS	60.2	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
13C2-PFDoA	IS	52.1	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1
13C2-PFTeDA	IS	62.3	50 - 150		B9K0002	07-Nov-19	1.34 g	21-Nov-19 02:18	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L4-3-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Soil
Date Collected: 22-Oct-19 03:24

Laboratory Data

Lab Sample: 1903773-09
Date Received: 23-Oct-19 09:21
% Solids: 74.6
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFPeA	2706-90-3	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFBS	375-73-5	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
4:2 FTS	757124-72-4	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFHxA	307-24-4	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFPeS	2706-91-4	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFHpA	375-85-9	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFHxS	355-46-4	8.57	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
6:2 FTS	27619-97-2	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFOA	335-67-1	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFHpS	375-92-8	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFNA	375-95-1	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFOSA	754-91-6	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFOS	1763-23-1	63.0	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFDA	335-76-2	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
8:2 FTS	39108-34-4	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
MeFOSAA	2355-31-9	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
EtFOSAA	2991-50-6	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFUnA	2058-94-8	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFDS	335-77-3	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFDoA	307-55-1	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFTrDA	72629-94-8	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
PFTeDA	376-06-7	ND	1.96		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	59.6	50 - 150		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
13C3-PFPeA	IS	58.8	50 - 150		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
13C3-PFBS	IS	73.2	50 - 150		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
13C2-4:2 FTS	IS	71.7	50 - 150		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
13C2-PFHxA	IS	59.1	50 - 150		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
13C4-PFHpA	IS	54.8	50 - 150		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
13C3-PFHxS	IS	68.5	50 - 150		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
13C2-6:2 FTS	IS	72.8	50 - 150		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
13C5-PFNA	IS	51.1	50 - 150		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
13C8-PFOSA	IS	43.1	50 - 150	H	B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
13C2-PFOA	IS	53.7	50 - 150		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
13C8-PFOS	IS	62.1	50 - 150		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
13C2-PFDA	IS	46.2	50 - 150	H	B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
13C2-8:2 FTS	IS	56.7	50 - 150		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1

Sample ID: L4-3-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	22-Oct-19 03:24
Location:	Loc. 4		

Laboratory Data

Lab Sample:	1903773-09	Column:	BEH C18
Date Received:	23-Oct-19 09:21		
% Solids:	74.6		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	51.7	50 - 150		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
13C2-PFUnA	IS	56.0	50 - 150		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
d5-EtFOSAA	IS	60.4	50 - 150		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
13C2-PFDoA	IS	55.8	50 - 150		B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1
13C2-PFTeDA	IS	43.0	50 - 150	H	B9K0002	07-Nov-19	1.37 g	21-Nov-19 20:28	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous

Laboratory Data

Lab Sample: B9J0240-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFPeA	2706-90-3	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFBS	375-73-5	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
4:2 FTS	757124-72-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFHxA	307-24-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFPeS	2706-91-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFHpA	375-85-9	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFHxS	355-46-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
6:2 FTS	27619-97-2	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFOA	335-67-1	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFHpS	375-92-8	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFNA	375-95-1	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFOSA	754-91-6	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFOS	1763-23-1	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFDA	335-76-2	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
8:2 FTS	39108-34-4	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
MeFOSAA	2355-31-9	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
EtFOSAA	2991-50-6	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFUnA	2058-94-8	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFDS	335-77-3	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFDoA	307-55-1	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFTrDA	72629-94-8	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
PFTeDA	376-06-7	ND	2.00		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	113	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C3-PFPeA	IS	110	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C3-PFBS	IS	127	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-4:2 FTS	IS	123	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFHxA	IS	106	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C4-PFHpA	IS	101	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C3-PFHxS	IS	112	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-6:2 FTS	IS	108	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C5-PFNA	IS	115	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C8-PFOSA	IS	31.2	50 - 150	H	B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFOA	IS	122	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C8-PFOS	IS	110	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFDA	IS	106	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-8:2 FTS	IS	109	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous

Laboratory Data

Lab Sample: B9J0240-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	97.2	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFUnA	IS	93.8	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
d5-EtFOSAA	IS	98.7	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFDoA	IS	89.0	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1
13C2-PFTeDA	IS	89.2	50 - 150		B9J0240	30-Oct-19	0.250 L	06-Nov-19 21:02	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0240-BS1/B9J0240-BSD1
Project:	SJC PFAS Investigation	QC Batch:	B9J0240
Matrix:	Aqueous	Samp Size:	0.250/0.250 L
		Date Extracted:	30-Oct-19
		Column:	BEH C18

Analyte	CAS Number	LCS (ng/L)	LCS Spike	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBA	375-22-4	42.2	40.0	106		41.1	40.0	103	2.57		73-129	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFPeA	2706-90-3	41.6	40.0	104		43.1	40.0	108	3.75		72-129	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFBS	375-73-5	42.4	40.0	106		40.4	40.0	101	5.04		72-130	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
4:2 FTS	757124-72-4	36.6	40.0	91.5		36.1	40.0	90.2	1.47		63-143	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFHxA	307-24-4	45.8	40.0	114		45.4	40.0	113	0.867		72-129	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFPeS	2706-91-4	45.4	40.0	113		41.8	40.0	105	8.23		71-127	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFHpA	375-85-9	46.4	40.0	116		43.6	40.0	109	6.22		72-130	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFHxS	355-46-4	39.3	40.0	98.1		38.4	40.0	95.9	2.27		68-131	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
6:2 FTS	27619-97-2	36.9	40.0	92.2		39.6	40.0	99.0	7.11		64-140	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFOA	335-67-1	46.2	40.0	115		42.4	40.0	106	8.41		71-133	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFHpS	375-92-8	44.6	40.0	111		45.3	40.0	113	1.51		69-134	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFNA	375-95-1	39.6	40.0	98.9		39.9	40.0	99.7	0.766		69-130	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFOSA	754-91-6	48.7	40.0	122		47.2	40.0	118	3.14		67-137	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFOS	1763-23-1	40.4	40.0	101		41.0	40.0	103	1.61		65-140	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFDA	335-76-2	43.9	40.0	110		43.1	40.0	108	1.84		71-129	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
8:2 FTS	39108-34-4	43.9	40.0	110		41.4	40.0	103	6.00		67-138	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
MeFOSAA	2355-31-9	33.6	40.0	83.9		33.4	40.0	83.5	0.550		65-136	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
EtFOSAA	2991-50-6	42.4	40.0	106		40.8	40.0	102	3.91		61-135	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFUnA	2058-94-8	40.5	40.0	101		42.0	40.0	105	3.62		69-133	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFDS	335-77-3	34.2	40.0	85.4		36.7	40.0	91.7	7.10		53-142	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFDoA	307-55-1	43.6	40.0	109		44.0	40.0	110	0.879		72-134	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFTrDA	72629-94-8	37.5	40.0	93.8		37.5	40.0	93.8	0.00135		65-144	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1
PFTeDA	376-06-7	42.4	40.0	106		42.8	40.0	107	0.985		71-132	30	06-Nov-19 21:12	1	06-Nov-19 21:23	1

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBA	IS	115		122		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C3-PFPeA	IS	117		117		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C3-PFBS	IS	123		135		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-4:2 FTS	IS	116		120		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFHxA	IS	117		121		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C4-PFHpA	IS	106		115		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C3-PFHxS	IS	120		122		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-6:2 FTS	IS	119		111		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0240-BS1/B9J0240-BSD1	Date Extracted:	30-Oct-19
Project:	SJC PFAS Investigation	QC Batch:	B9J0240	Column:	BEH C18
Matrix:	Aqueous	Samp Size:	0.250/0.250 L		

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C5-PFNA	IS	118		121		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C8-PFOSA	IS	41.2	H	41.5	H	50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFOA	IS	113		122		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C8-PFOS	IS	113		114		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFDA	IS	108		117		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-8:2 FTS	IS	103		115		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
d3-MeFOSAA	IS	104		112		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFUnA	IS	92.0		100		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
d5-EtFOSAA	IS	95.4		107		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFDoA	IS	94.4		98.6		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1
13C2-PFTeDA	IS	88.9		91.2		50-150	06-Nov-19 21:12	1	06-Nov-19 21:23	1

Sample ID: FB-3

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Aqueous
Date Collected: 22-Oct-19 01:15

Laboratory Data

Lab Sample: 1903773-10
Date Received: 23-Oct-19 09:21
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFPeA	2706-90-3	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFBS	375-73-5	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
4:2 FTS	757124-72-4	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFHxA	307-24-4	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFPeS	2706-91-4	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFHpA	375-85-9	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFHxS	355-46-4	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
6:2 FTS	27619-97-2	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFOA	335-67-1	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFHpS	375-92-8	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFNA	375-95-1	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFOSA	754-91-6	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFOS	1763-23-1	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFDA	335-76-2	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
8:2 FTS	39108-34-4	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
MeFOSAA	2355-31-9	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
EtFOSAA	2991-50-6	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFUnA	2058-94-8	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFDS	335-77-3	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFDoA	307-55-1	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFTrDA	72629-94-8	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
PFTeDA	376-06-7	ND	2.05		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	119	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
13C3-PFPeA	IS	118	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
13C3-PFBS	IS	131	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
13C2-4:2 FTS	IS	129	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
13C2-PFHxA	IS	123	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
13C4-PFHpA	IS	116	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
13C3-PFHxS	IS	124	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
13C2-6:2 FTS	IS	122	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
13C5-PFNA	IS	126	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
13C8-PFOSA	IS	57.4	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
13C2-PFOA	IS	122	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
13C8-PFOS	IS	127	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
13C2-PFDA	IS	140	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
13C2-8:2 FTS	IS	148	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1

Sample ID: FB-3

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Aqueous
Date Collected: 22-Oct-19 01:15

Laboratory Data

Lab Sample: 1903773-10
Date Received: 23-Oct-19 09:21
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	136	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
13C2-PFUnA	IS	127	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
d5-EtFOSAA	IS	124	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
13C2-PFDoA	IS	121	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1
13C2-PFTeDA	IS	97.0	50 - 150		B9J0240	30-Oct-19	0.244 L	06-Nov-19 22:58	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L4-2-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Aqueous
Date Collected: 22-Oct-19 04:30

Laboratory Data

Lab Sample: 1903773-11
Date Received: 23-Oct-19 09:21
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	31.4	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFPeA	2706-90-3	39.5	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFBS	375-73-5	152	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
4:2 FTS	757124-72-4	ND	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFHxA	307-24-4	168	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFPeS	2706-91-4	90.6	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFHpA	375-85-9	14.3	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFHxS	355-46-4	442	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
6:2 FTS	27619-97-2	12.4	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFOA	335-67-1	25.6	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFHpS	375-92-8	30.9	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFNA	375-95-1	21.8	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFOSA	754-91-6	ND	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFOS	1763-23-1	1740	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFDA	335-76-2	ND	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
8:2 FTS	39108-34-4	9.83	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
MeFOSAA	2355-31-9	ND	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
EtFOSAA	2991-50-6	ND	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFUnA	2058-94-8	ND	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFDS	335-77-3	ND	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFDoA	307-55-1	ND	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFTrDA	72629-94-8	ND	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
PFTeDA	376-06-7	ND	2.16		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	94.9	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
13C3-PFPeA	IS	125	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
13C3-PFBS	IS	124	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
13C2-4:2 FTS	IS	118	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
13C2-PFHxA	IS	117	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
13C4-PFHpA	IS	120	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
13C3-PFHxS	IS	114	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
13C2-6:2 FTS	IS	124	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
13C5-PFNA	IS	132	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
13C8-PFOSA	IS	83.5	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
13C2-PFOA	IS	133	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
13C8-PFOS	IS	108	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
13C2-PFDA	IS	131	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
13C2-8:2 FTS	IS	126	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1

Sample ID: L4-2-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Aqueous
Date Collected: 22-Oct-19 04:30

Laboratory Data

Lab Sample: 1903773-11
Date Received: 23-Oct-19 09:21
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	121	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
13C2-PFUnA	IS	116	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
d5-EtFOSAA	IS	113	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
13C2-PFDoA	IS	102	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1
13C2-PFTeDA	IS	88.2	50 - 150		B9J0240	30-Oct-19	0.232 L	06-Nov-19 23:09	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L4-20-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Aqueous
Date Collected: 22-Oct-19 04:30

Laboratory Data

Lab Sample: 1903773-12
Date Received: 23-Oct-19 09:21
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	32.1	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
PFPeA	2706-90-3	42.2	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
PFBS	375-73-5	149	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
4:2 FTS	757124-72-4	ND	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
PFHxA	307-24-4	170	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
PFPeS	2706-91-4	87.4	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
PFHpA	375-85-9	13.9	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
PFHxS	355-46-4	448	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
6:2 FTS	27619-97-2	11.7	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
PFOA	335-67-1	26.0	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
PFHpS	375-92-8	36.9	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
PFNA	375-95-1	23.2	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
PFOSA	754-91-6	ND	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
PFOS	1763-23-1	2190	10.6	D	B9J0240	30-Oct-19	0.236 L	07-Nov-19 19:03	5
PFDA	335-76-2	ND	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
8:2 FTS	39108-34-4	12.6	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
MeFOSAA	2355-31-9	ND	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
EtFOSAA	2991-50-6	ND	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
PFUnA	2058-94-8	ND	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
PFDS	335-77-3	ND	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
PFDoA	307-55-1	ND	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
PFTrDA	72629-94-8	ND	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
PFTeDA	376-06-7	ND	2.12		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	88.4	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
13C3-PFPeA	IS	120	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
13C3-PFBS	IS	133	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
13C2-4:2 FTS	IS	132	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
13C2-PFHxA	IS	111	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
13C4-PFHpA	IS	123	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
13C3-PFHxS	IS	122	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
13C2-6:2 FTS	IS	132	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
13C5-PFNA	IS	127	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
13C8-PFOSA	IS	58.1	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
13C2-PFOA	IS	146	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
13C8-PFOS	IS	229	50 - 150	D, H	B9J0240	30-Oct-19	0.236 L	07-Nov-19 19:03	5
13C2-PFDA	IS	119	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
13C2-8:2 FTS	IS	117	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1

Sample ID: L4-20-GW

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Aqueous
Project:	SJC PFAS Investigation	Date Collected:	22-Oct-19 04:30
Location:	Loc. 4		

Laboratory Data

Lab Sample:	1903773-12	Column:	BEH C18
Date Received:	23-Oct-19 09:21		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	132	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
13C2-PFUnA	IS	110	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
d5-EtFOSAA	IS	121	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
13C2-PFDoA	IS	104	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1
13C2-PFTeDA	IS	91.5	50 - 150		B9J0240	30-Oct-19	0.236 L	06-Nov-19 23:19	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: EB-3

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Aqueous
Date Collected: 22-Oct-19 04:00

Laboratory Data

Lab Sample: 1903773-13
Date Received: 23-Oct-19 09:21
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFPeA	2706-90-3	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFBS	375-73-5	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
4:2 FTS	757124-72-4	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFHxA	307-24-4	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFPeS	2706-91-4	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFHpA	375-85-9	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFHxS	355-46-4	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
6:2 FTS	27619-97-2	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFOA	335-67-1	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFHpS	375-92-8	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFNA	375-95-1	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFOSA	754-91-6	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFOS	1763-23-1	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFDA	335-76-2	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
8:2 FTS	39108-34-4	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
MeFOSAA	2355-31-9	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
EtFOSAA	2991-50-6	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFUnA	2058-94-8	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFDS	335-77-3	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFDoA	307-55-1	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFTrDA	72629-94-8	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
PFTeDA	376-06-7	ND	2.11		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	116	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
13C3-PFPeA	IS	115	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
13C3-PFBS	IS	122	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
13C2-4:2 FTS	IS	124	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
13C2-PFHxA	IS	116	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
13C4-PFHpA	IS	115	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
13C3-PFHxS	IS	119	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
13C2-6:2 FTS	IS	109	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
13C5-PFNA	IS	130	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
13C8-PFOSA	IS	55.2	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
13C2-PFOA	IS	129	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
13C8-PFOS	IS	131	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
13C2-PFDA	IS	120	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
13C2-8:2 FTS	IS	127	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1

Sample ID: EB-3

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: Loc. 4
Matrix: Aqueous
Date Collected: 22-Oct-19 04:00

Laboratory Data

Lab Sample: 1903773-13
Date Received: 23-Oct-19 09:21
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	118	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
13C2-PFUnA	IS	115	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
d5-EtFOSAA	IS	113	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
13C2-PFDoA	IS	113	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1
13C2-PFTeDA	IS	94.1	50 - 150		B9J0240	30-Oct-19	0.237 L	06-Nov-19 23:30	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: Trip Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous
Date Collected: 18-Oct-19 00:00

Laboratory Data

Lab Sample: 1903773-14
Date Received: 23-Oct-19 09:21
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFPeA	2706-90-3	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFBS	375-73-5	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
4:2 FTS	757124-72-4	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFHxA	307-24-4	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFPeS	2706-91-4	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFHpA	375-85-9	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFHxS	355-46-4	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
6:2 FTS	27619-97-2	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFOA	335-67-1	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFHpS	375-92-8	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFNA	375-95-1	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFOSA	754-91-6	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFOS	1763-23-1	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFDA	335-76-2	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
8:2 FTS	39108-34-4	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
MeFOSAA	2355-31-9	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
EtFOSAA	2991-50-6	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFUnA	2058-94-8	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFDS	335-77-3	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFDoA	307-55-1	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFTrDA	72629-94-8	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
PFTeDA	376-06-7	ND	2.09		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	112	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
13C3-PFPeA	IS	115	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
13C3-PFBS	IS	132	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
13C2-4:2 FTS	IS	125	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
13C2-PFHxA	IS	113	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
13C4-PFHpA	IS	108	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
13C3-PFHxS	IS	121	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
13C2-6:2 FTS	IS	121	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
13C5-PFNA	IS	124	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
13C8-PFOSA	IS	50.5	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
13C2-PFOA	IS	128	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
13C8-PFOS	IS	119	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
13C2-PFDA	IS	113	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
13C2-8:2 FTS	IS	114	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1

Sample ID: Trip Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous
Date Collected: 18-Oct-19 00:00

Laboratory Data

Lab Sample: 1903773-14
Date Received: 23-Oct-19 09:21
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	116	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
13C2-PFUnA	IS	105	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
d5-EtFOSAA	IS	113	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
13C2-PFDoA	IS	101	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1
13C2-PFTeDA	IS	88.2	50 - 150		B9J0240	30-Oct-19	0.239 L	06-Nov-19 23:41	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

Rev. No.: 0
Rev. Date: 06/27/2017

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1903773 Temp: 2.4 °C
Storage ID: WR-2 / R-13 Storage Secured: Yes [X] No [ ]

Project ID: SJC PFAS Investigation PO#: 0232401.01 Sampler: Kevin Almestad (name)

TAT (check one): Standard: [X] 21 days Rush (surcharge may apply) [ ] 14 days [ ] 7 days Specify:

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Jim Strandberg	Woodard & Curran	2175 N California Blvd, Ste 315	Walnut Creek	CA	(925)-627-4122	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Kevin Almestad /	10/22/19	17:15	FedEx /	10/22/19	17:15
FedEx	10/23/19	0921	Ashley Mason	10/23/19	0921

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

Method of Shipment: FedEx

ATTN: Jade White-Dobbs / Jennifer Miller

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below: CA Airport PFAS 534 (23)	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
L4-2-1	10/22/19	0223	Loc. 4	1	SO	PS					X				
L4-2-5		0225	Loc. 4	1											
L4-2-10		0228	Loc. 4	1											
L4-1-1		0240		1											
L4-1-5		0242		1											
L4-1-10		0244		1											
L4-3-1		0320		1											
L4-3-5		0322		1											
L4-3-10		0324		1											
FB-3		0115		2	AQ	P									

Special Instructions/Comments: Geotracker EDF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc.
Address: 2175 N California Blvd, Ste 315
City: Walnut Creek State: CA Zip: 94597
Phone: (925)-627-4122 Fax: (925)-627-4101
Email: JStrandberg@woodardcurran.com

Container Types: P= HDPE, PJ= HDPE Jar, O = Other:

Bottle Preservation Type: T = Thiosulfate, TZ = Trizma:

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other:

Page: 1 of 2

Rev. No.: 0
Rev. Date: 06/27/2017

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1903773 Temp: 2.4 °C
Storage ID: R-13/WR-2 Storage Secured: Yes ☒ No ☐

Project ID: SJC PFAS Investigation PO#: 0232401.01 Sampler: Kevin Almestad (name)

TAT (check one): Standard: ☒ 21 days; Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify:

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Jim Strandberg	Woodard & Curran	2175 N California Blvd, Ste 315	Walnut Creek	CA	(925)-627-4122	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Kevin Almestad	10/22/19	17:15	Fedex	10/22/19	1715
Fedex	10/23/19	0921	Ashley Mason AM	10/23/19	0921

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

ATTN: Jade White-Dobbs/ Jennifer Miller

Method of Shipment: Fedex

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below: CA Airport PFAS List (23)	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
L4-2-GW	10/22/19	0430	Loc. 4	2	P	AQ									
L4-20-GW	↓	0430	↓	2	P	AQ									
EB-3	↓	0400	↓	2	P	AQ									

Special Instructions/Comments: Geotracker EDF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc
Address: 2175 N California Blvd, Ste 315
City: Walnut Creek State: CA Zip: 94597
Phone: (925)-627-4122 Fax: (925)-627-4101
Email: JStrandberg@woodardcurran.com

Container Types: P= HDPE, PJ= HDPE Jar, O = Other:

Bottle Preservation Type: T = Thiosulfate, TZ = Trizma:

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other:

Page: 2 of 2

Vista Analytical Laboratory

Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 1903773 TAT Std

Samples Arrival:	**Date/Time** 10/23/19 0921		**Initials:** ajm			**Location:** WR-2 **Shelf/Rack:** N/A	
Delivered By:	(FedEx)	UPS	On Trac	GSO	DHL	Hand Delivered	Other
Preservation:	(Ice)		Blue Ice		Dry Ice		None
Temp °C: 2.4 (uncorrected) **Temp °C:** 2.4 (corrected)			**Probe used: Y / (N)**			**Thermometer ID:** IR-4	

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Airbill ✓ Trk # 7804 4325 9556	✓		
Shipping Documentation Present?	✓		
Shipping Container: (Vista) Client — (Retain) Return — Dispose			
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	**Date/Time** 10/23/19 1041	**Initials:** ajm	**Location:** R-13 ↓ A-4 / WR-2 ↓ E-6 **Shelf/Rack:**
COC Anomaly/Sample Acceptance Form completed?	✓		

Comments:

CoC/Label Reconciliation Report WO# 1903773

LabNumber	CoC Sample ID	Label ID matches COCID	Label ID doesn't match COCID	SampleAlias	Sampled	Label Sampled matches	Sampled doesn't match	Container	Container Correct	BaseMatrix	Sample Comments
1903773-01	A L4-2-1	☑		Loc. 4	22-Oct-19 02:23	☑		HDPE Jar, 6 oz	☑	Solid	
1903773-02	A L4-2-5	☑		Loc. 4	22-Oct-19 02:25	☑		HDPE Jar, 6 oz	☑	Solid	
1903773-03	A L4-2-10	☑		Loc. 4	22-Oct-19 02:28	☑		HDPE Jar, 6 oz	☑	Solid	
1903773-04	A L4-1-1	☑		Loc. 4	22-Oct-19 02:40	☑		HDPE Jar, 6 oz	☑	Solid	
1903773-05	A L4-1-5	☑		Loc. 4	22-Oct-19 02:42	☑		HDPE Jar, 6 oz	☑	Solid	
1903773-06	A L4-1-10	☑		Loc. 4	22-Oct-19 02:44	☑		HDPE Jar, 6 oz	☑	Solid	
1903773-07	A L4-3-1	☑		Loc. 4	22-Oct-19 03:20	☑		HDPE Jar, 6 oz	☑	Solid	
1903773-08	A L4-3-5	☑		Loc. 4	22-Oct-19 03:22	☑		HDPE Jar, 6 oz	☑	Solid	
1903773-09	A L4-3-10	☑		Loc. 4	22-Oct-19 03:24	☑		HDPE Jar, 6 oz	☑	Solid	
1903773-10	A FB-3	☑		Loc. 4	22-Oct-19 01:15	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903773-10	B FB-3	☑		Loc. 4	22-Oct-19 01:15	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903773-11	A L4-2-6W	☑		Loc. 4	22-Oct-19 04:30	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903773-11	B L4-2-6W	☑		Loc. 4	22-Oct-19 04:30	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903773-12	A L4-20-6W	☑		Loc. 4	22-Oct-19 04:30	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903773-12	B L4-20-6W	☑		Loc. 4	22-Oct-19 04:30	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903773-13	A EB-3	☑		Loc. 4	22-Oct-19 04:00	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903773-13	B EB-3	☑		Loc. 4	22-Oct-19 04:00	☑		HDPE Bottle, 250 mL	☑	Aqueous	

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Preservation Documented: Na2S2O3 Trizma (None) Other			✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments: Trip Blanks bottles X2
Sampled by BLB
Date: 10/18/19
Location: VUPW

Verifed by/Date: SC 10/23/19

Chain of Custody Anomaly/Sample Acceptance Form

Vista Analytical Laboratory

Client:	Woodard & Curran	Workorder Number:	1903773
Contact:	Jim Strandberg	Date Received:	23-Oct-19 09:21
Email:	JStrandberg@woodardcurran.com	Documented by/date:	A. Mason 23-Oct-19
Phone:	(925) 627-4122		

Please review the following information and complete the Client Authorization section. To comply with NELAC regulations, we must receive authorization before proceeding with sample analysis.

- [ ] Sample Collection Date and/or Time not provided
- [ ] Temperature outside Method Requirement (WI-PHT)

  Temperature _____°C Ice Present? Yes No Melted
- [ ] Sample ID Not Reconcilable
- [ ] Sample Holding Time Missed
- [ ] Insufficient Sample Size
- [ ] All Sample Container(s) Broken
- [ ] Drinking Water Incorrect Container Type
- [ ] Chain-of-Custody not received, illegible or destroyed
- [X] Other: See comments.

Comments/Samples Affected:
Received two 250mL HDPE containers not listed on CoC:
Sample ID: Trip Blank
Sample Date: 10/18/19
Location: VUPW

Client Authorization

Proceed with Analysis: (YES) NO Signature and Date [signature] 10/28/19

Client Comments/Instructions Per Kevin Almestead via phone on 10/28/19, okay to proceed.

November 25, 2019

Vista Work Order No. 1903822

Mr. Jim Strandberg
Woodard & Curran
2175 North California Boulevard, Suite 315
Walnut Creek, CA 94596

Dear Mr. Strandberg,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on October 25, 2019 under your Project Name 'SJC PFAS Investigation'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1903822
Case Narrative

Sample Condition on Receipt:

Nine sediment samples and one aqueous sample were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:

PFAS Isotope Dilution Method - Sediment

The sediment samples were extracted and analyzed for a selected list of PFAS. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit (RL). The OPR recoveries were within the method acceptance criteria.

The internal standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

PFAS Isotope Dilution Method - Aqueous

The sample contained particulate and was centrifuged prior to extraction.

The aqueous sample was extracted and analyzed for a selected list of PFAS. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The sample was extracted and analyzed within the hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit (RL) concentrations. The LCS/LCSD recoveries were within the acceptance criteria.

The internal standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1903822-01	L14-1-1	23-Oct-19 07:45	25-Oct-19 08:40	HDPE Jar, 6 oz
1903822-02	L14-1-5	23-Oct-19 07:48	25-Oct-19 08:40	HDPE Jar, 6 oz
1903822-03	L14-1-10	23-Oct-19 07:50	25-Oct-19 08:40	HDPE Jar, 6 oz
1903822-04	L14-2-1	23-Oct-19 08:30	25-Oct-19 08:40	HDPE Jar, 6 oz
1903822-05	L14-2-5	23-Oct-19 08:32	25-Oct-19 08:40	HDPE Jar, 6 oz
1903822-06	L14-2-10	23-Oct-19 08:34	25-Oct-19 08:40	HDPE Jar, 6 oz
1903822-07	L14-4-1	23-Oct-19 09:50	25-Oct-19 08:40	HDPE Jar, 6 oz
1903822-08	L14-4-5	23-Oct-19 09:52	25-Oct-19 08:40	HDPE Jar, 6 oz
1903822-09	L14-4-10	23-Oct-19 09:54	25-Oct-19 08:40	HDPE Jar, 6 oz
1903822-10	L14-1-GW	23-Oct-19 08:38	25-Oct-19 08:40	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0002-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFPeA	2706-90-3	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFBS	375-73-5	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
4:2 FTS	757124-72-4	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFHxA	307-24-4	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFPeS	2706-91-4	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFHpA	375-85-9	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFHxS	355-46-4	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
6:2 FTS	27619-97-2	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFOA	335-67-1	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFHpS	375-92-8	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFNA	375-95-1	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFOSA	754-91-6	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFOS	1763-23-1	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFDA	335-76-2	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
8:2 FTS	39108-34-4	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
MeFOSAA	2355-31-9	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
EtFOSAA	2991-50-6	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFUnA	2058-94-8	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFDS	335-77-3	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFDoA	307-55-1	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFTrDA	72629-94-8	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
PFTeDA	376-06-7	ND	2.00		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	149	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C3-PFPeA	IS	75.7	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C3-PFBS	IS	85.2	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-4:2 FTS	IS	90.2	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-PFHxA	IS	68.6	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C4-PFHpA	IS	73.7	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C3-PFHxS	IS	83.5	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-6:2 FTS	IS	83.3	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C5-PFNA	IS	69.3	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C8-PFOSA	IS	39.2	50 - 150	H	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-PFOA	IS	73.7	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C8-PFOS	IS	77.1	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-PFDA	IS	61.5	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-8:2 FTS	IS	75.8	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0002-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	54.6	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-PFUnA	IS	51.1	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
d5-EtFOSAA	IS	57.5	50 - 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-PFDoA	IS	42.8	50 - 150	H	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1
13C2-PFTeDA	IS	48.3	50 - 150	H	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:01	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Vista Analytical Laboratory

Sample ID: OPR

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0002-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/g)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	10.1	10.0	101	71 - 135		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFPeA	2706-90-3	10.6	10.0	106	69 - 132		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFBS	375-73-5	10.4	10.0	104	72 - 128		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
4:2 FTS	757124-72-4	11.3	10.0	113	62 - 145		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFHxA	307-24-4	10.0	10.0	100	70 - 132	Q	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFPeS	2706-91-4	9.93	10.0	99.3	73 - 123		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFHpA	375-85-9	10.3	10.0	103	71 - 131	Q	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFHxS	355-46-4	9.78	10.0	97.8	67 - 130		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
6:2 FTS	27619-97-2	8.52	10.0	85.2	64 - 140		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFOA	335-67-1	11.0	10.0	110	69 - 133		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFHpS	375-92-8	12.4	10.0	124	70 - 132		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFNA	375-95-1	11.0	10.0	110	72 - 129		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFOSA	754-91-6	10.8	10.0	108	67 - 137		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFOS	1763-23-1	12.9	10.0	129	68 - 136		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFDA	335-76-2	10.6	10.0	106	69 - 133		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
8:2 FTS	39108-34-4	10.3	10.0	103	65 - 137	Q	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
MeFOSAA	2355-31-9	11.4	10.0	114	63 - 144	Q	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
EtFOSAA	2991-50-6	9.44	10.0	94.4	61 - 139		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFUnA	2058-94-8	9.57	10.0	95.7	64 - 136	Q	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFDS	335-77-3	9.38	10.0	93.6	59 - 134		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFDoA	307-55-1	10.5	10.0	105	69 - 135	Q	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFTrDA	72629-94-8	10.7	10.0	107	66 - 139		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
PFTeDA	376-06-7	10.4	10.0	104	69 - 133		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	149	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C3-PFPeA	IS	75.4	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C3-PFBS	IS	98.5	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-4:2 FTS	IS	88.1	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-PFHxA	IS	73.7	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C4-PFHpA	IS	75.0	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C3-PFHxS	IS	90.4	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-6:2 FTS	IS	100	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C5-PFNA	IS	70.7	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C8-PFOSA	IS	35.1	50- 150	H	B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-PFOA	IS	76.0	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1

Sample ID: OPR **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0002-BS1
Column: BEH C18

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOS	IS	77.6	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-PFDA	IS	61.9	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-8:2 FTS	IS	73.1	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
d3-MeFOSAA	IS	53.0	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-PFUnA	IS	54.6	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
d5-EtFOSAA	IS	53.9	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-PFDoA	IS	51.9	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1
13C2-PFTeDA	IS	57.6	50- 150		B9K0002	07-Nov-19	1.00 g	21-Nov-19 00:12	1

Sample ID: L14-1-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Soil
Date Collected: 23-Oct-19 07:45

Laboratory Data

Lab Sample: 1903822-01
Date Received: 25-Oct-19 08:40
% Solids: 76.1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFPeA	2706-90-3	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFBS	375-73-5	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
4:2 FTS	757124-72-4	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFHxA	307-24-4	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFPeS	2706-91-4	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFHpA	375-85-9	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFHxS	355-46-4	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
6:2 FTS	27619-97-2	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFOA	335-67-1	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFHpS	375-92-8	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFNA	375-95-1	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFOSA	754-91-6	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFOS	1763-23-1	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFDA	335-76-2	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
8:2 FTS	39108-34-4	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
MeFOSAA	2355-31-9	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
EtFOSAA	2991-50-6	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFUnA	2058-94-8	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFDS	335-77-3	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFDoA	307-55-1	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFTrDA	72629-94-8	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
PFTeDA	376-06-7	ND	2.01		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	157	50 - 150	H	B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
13C3-PFPeA	IS	79.9	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
13C3-PFBS	IS	82.0	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
13C2-4:2 FTS	IS	83.1	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
13C2-PFHxA	IS	77.7	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
13C4-PFHpA	IS	76.1	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
13C3-PFHxS	IS	74.1	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
13C2-6:2 FTS	IS	73.0	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
13C5-PFNA	IS	64.7	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
13C8-PFOSA	IS	56.8	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
13C2-PFOA	IS	74.3	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
13C8-PFOS	IS	73.1	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
13C2-PFDA	IS	55.3	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
13C2-8:2 FTS	IS	70.4	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1

Sample ID: L14-1-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 07:45
Location:	14		

Laboratory Data

Lab Sample:	1903822-01	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	76.1		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	66.4	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
13C2-PFUnA	IS	62.1	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
d5-EtFOSAA	IS	67.1	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
13C2-PFDoA	IS	53.9	50 - 150		B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1
13C2-PFTeDA	IS	26.3	50 - 150	H	B9K0002	07-Nov-19	1.31 g	21-Nov-19 02:39	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-1-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Soil
Date Collected: 23-Oct-19 07:48

Laboratory Data

Lab Sample: 1903822-02
Date Received: 25-Oct-19 08:40
% Solids: 61.8
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFPeA	2706-90-3	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFBS	375-73-5	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
4:2 FTS	757124-72-4	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFHxA	307-24-4	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFPeS	2706-91-4	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFHpA	375-85-9	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFHxS	355-46-4	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
6:2 FTS	27619-97-2	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFOA	335-67-1	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFHpS	375-92-8	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFNA	375-95-1	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFOSA	754-91-6	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFOS	1763-23-1	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFDA	335-76-2	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
8:2 FTS	39108-34-4	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
MeFOSAA	2355-31-9	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
EtFOSAA	2991-50-6	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFUnA	2058-94-8	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFDS	335-77-3	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFDoA	307-55-1	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFTrDA	72629-94-8	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
PFTeDA	376-06-7	ND	1.97		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	131	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
13C3-PFPeA	IS	67.3	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
13C3-PFBS	IS	81.0	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
13C2-4:2 FTS	IS	73.1	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
13C2-PFHxA	IS	64.8	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
13C4-PFHpA	IS	65.2	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
13C3-PFHxS	IS	71.5	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
13C2-6:2 FTS	IS	70.8	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
13C5-PFNA	IS	53.6	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
13C8-PFOSA	IS	48.4	50 - 150	H	B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
13C2-PFOA	IS	63.3	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
13C8-PFOS	IS	69.5	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
13C2-PFDA	IS	49.0	50 - 150	H	B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
13C2-8:2 FTS	IS	58.6	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1

Sample ID: L14-1-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Soil
Date Collected: 23-Oct-19 07:48

Laboratory Data

Lab Sample: 1903822-02
Date Received: 25-Oct-19 08:40
% Solids: 61.8
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	56.7	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
13C2-PFUnA	IS	52.5	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
d5-EtFOSAA	IS	60.9	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
13C2-PFDoA	IS	51.8	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1
13C2-PFTeDA	IS	61.3	50 - 150		B9K0002	07-Nov-19	1.64 g	21-Nov-19 02:49	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-1-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Soil
Date Collected: 23-Oct-19 07:50

Laboratory Data

Lab Sample: 1903822-03
Date Received: 25-Oct-19 08:40
% Solids: 82.2
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFPeA	2706-90-3	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFBS	375-73-5	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
4:2 FTS	757124-72-4	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFHxA	307-24-4	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFPeS	2706-91-4	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFHpA	375-85-9	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFHxS	355-46-4	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
6:2 FTS	27619-97-2	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFOA	335-67-1	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFHpS	375-92-8	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFNA	375-95-1	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFOSA	754-91-6	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFOS	1763-23-1	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFDA	335-76-2	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
8:2 FTS	39108-34-4	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
MeFOSAA	2355-31-9	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
EtFOSAA	2991-50-6	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFUnA	2058-94-8	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFDS	335-77-3	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFDoA	307-55-1	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFTrDA	72629-94-8	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
PFTeDA	376-06-7	ND	1.93		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	139	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
13C3-PFPeA	IS	70.9	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
13C3-PFBS	IS	90.5	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
13C2-4:2 FTS	IS	81.9	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
13C2-PFHxA	IS	69.5	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
13C4-PFHpA	IS	65.5	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
13C3-PFHxS	IS	78.6	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
13C2-6:2 FTS	IS	81.9	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
13C5-PFNA	IS	62.7	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
13C8-PFOSA	IS	50.0	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
13C2-PFOA	IS	72.8	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
13C8-PFOS	IS	69.5	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
13C2-PFDA	IS	54.7	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
13C2-8:2 FTS	IS	76.6	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1

Sample ID: L14-1-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 07:50
Location:	14		

Laboratory Data

Lab Sample:	1903822-03	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	82.2		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	56.4	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
13C2-PFUnA	IS	57.1	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
d5-EtFOSAA	IS	64.0	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
13C2-PFDoA	IS	55.3	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1
13C2-PFTeDA	IS	52.2	50 - 150		B9K0002	07-Nov-19	1.26 g	21-Nov-19 03:00	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-2-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Soil
Date Collected: 23-Oct-19 08:30

Laboratory Data

Lab Sample: 1903822-04
Date Received: 25-Oct-19 08:40
% Solids: 74.3
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFPeA	2706-90-3	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFBS	375-73-5	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
4:2 FTS	757124-72-4	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFHxA	307-24-4	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFPeS	2706-91-4	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFHpA	375-85-9	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFHxS	355-46-4	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
6:2 FTS	27619-97-2	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFOA	335-67-1	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFHpS	375-92-8	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFNA	375-95-1	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFOSA	754-91-6	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFOS	1763-23-1	3.91	1.95	Q	B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFDA	335-76-2	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
8:2 FTS	39108-34-4	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
MeFOSAA	2355-31-9	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
EtFOSAA	2991-50-6	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFUnA	2058-94-8	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFDS	335-77-3	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFDoA	307-55-1	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFTrDA	72629-94-8	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
PFTeDA	376-06-7	ND	1.95		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	160	50 - 150	H	B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
13C3-PFPeA	IS	85.5	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
13C3-PFBS	IS	79.5	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
13C2-4:2 FTS	IS	78.5	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
13C2-PFHxA	IS	78.3	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
13C4-PFHpA	IS	80.1	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
13C3-PFHxS	IS	72.9	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
13C2-6:2 FTS	IS	82.4	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
13C5-PFNA	IS	65.2	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
13C8-PFOSA	IS	58.8	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
13C2-PFOA	IS	72.5	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
13C8-PFOS	IS	77.7	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
13C2-PFDA	IS	63.0	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
13C2-8:2 FTS	IS	76.6	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1

Sample ID: L14-2-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 08:30
Location:	14		

Laboratory Data

Lab Sample:	1903822-04	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	74.3		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	70.1	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
13C2-PFUnA	IS	57.7	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
d5-EtFOSAA	IS	67.0	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
13C2-PFDoA	IS	55.0	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1
13C2-PFTeDA	IS	54.8	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:10	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-2-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Soil
Date Collected: 23-Oct-19 08:32

Laboratory Data

Lab Sample: 1903822-05
Date Received: 25-Oct-19 08:40
% Solids: 72.8
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFPeA	2706-90-3	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFBS	375-73-5	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
4:2 FTS	757124-72-4	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFHxA	307-24-4	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFPeS	2706-91-4	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFHpA	375-85-9	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFHxS	355-46-4	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
6:2 FTS	27619-97-2	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFOA	335-67-1	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFHpS	375-92-8	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFNA	375-95-1	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFOSA	754-91-6	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFOS	1763-23-1	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFDA	335-76-2	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
8:2 FTS	39108-34-4	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
MeFOSAA	2355-31-9	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
EtFOSAA	2991-50-6	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFUnA	2058-94-8	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFDS	335-77-3	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFDoA	307-55-1	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFTrDA	72629-94-8	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
PFTeDA	376-06-7	ND	1.99		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	163	50 - 150	H	B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
13C3-PFPeA	IS	83.2	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
13C3-PFBS	IS	88.9	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
13C2-4:2 FTS	IS	88.1	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
13C2-PFHxA	IS	81.5	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
13C4-PFHpA	IS	80.6	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
13C3-PFHxS	IS	80.0	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
13C2-6:2 FTS	IS	71.2	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
13C5-PFNA	IS	68.7	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
13C8-PFOSA	IS	56.5	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
13C2-PFOA	IS	78.6	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
13C8-PFOS	IS	82.2	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
13C2-PFDA	IS	58.6	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
13C2-8:2 FTS	IS	84.6	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1

Sample ID: L14-2-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 08:32
Location:	14		

Laboratory Data

Lab Sample:	1903822-05	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	72.8		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	79.8	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
13C2-PFUnA	IS	58.4	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
d5-EtFOSAA	IS	66.4	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
13C2-PFDoA	IS	52.7	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1
13C2-PFTeDA	IS	62.9	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 03:42	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-2-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 08:34
Location:	14		

Laboratory Data

Lab Sample:	1903822-06	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	81.2		

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFPeA	2706-90-3	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFBS	375-73-5	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
4:2 FTS	757124-72-4	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFHxA	307-24-4	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFPeS	2706-91-4	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFHpA	375-85-9	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFHxS	355-46-4	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
6:2 FTS	27619-97-2	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFOA	335-67-1	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFHpS	375-92-8	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFNA	375-95-1	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFOSA	754-91-6	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFOS	1763-23-1	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFDA	335-76-2	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
8:2 FTS	39108-34-4	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
MeFOSAA	2355-31-9	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
EtFOSAA	2991-50-6	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFUnA	2058-94-8	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFDS	335-77-3	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFDoA	307-55-1	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFTrDA	72629-94-8	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
PFTeDA	376-06-7	ND	2.00		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	155	50 - 150	H	B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
13C3-PFPeA	IS	79.5	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
13C3-PFBS	IS	88.9	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
13C2-4:2 FTS	IS	88.4	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
13C2-PFHxA	IS	77.5	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
13C4-PFHpA	IS	75.9	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
13C3-PFHxS	IS	80.3	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
13C2-6:2 FTS	IS	81.7	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
13C5-PFNA	IS	71.2	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
13C8-PFOSA	IS	47.4	50 - 150	H	B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
13C2-PFOA	IS	77.0	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
13C8-PFOS	IS	73.6	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
13C2-PFDA	IS	61.0	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
13C2-8:2 FTS	IS	74.4	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1

Sample ID: L14-2-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 08:34
Location:	14		

Laboratory Data

Lab Sample:	1903822-06	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	81.2		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	70.0	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
13C2-PFUnA	IS	59.6	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
d5-EtFOSAA	IS	60.6	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
13C2-PFDoA	IS	60.1	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1
13C2-PFTeDA	IS	56.2	50 - 150		B9K0002	07-Nov-19	1.23 g	21-Nov-19 03:52	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-4-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Soil
Date Collected: 23-Oct-19 09:50

Laboratory Data

Lab Sample: 1903822-07
Date Received: 25-Oct-19 08:40
% Solids: 62.0
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFPeA	2706-90-3	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFBS	375-73-5	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
4:2 FTS	757124-72-4	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFHxA	307-24-4	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFPeS	2706-91-4	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFHpA	375-85-9	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFHxS	355-46-4	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
6:2 FTS	27619-97-2	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFOA	335-67-1	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFHpS	375-92-8	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFNA	375-95-1	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFOSA	754-91-6	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFOS	1763-23-1	5.57	1.95	Q	B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFDA	335-76-2	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
8:2 FTS	39108-34-4	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
MeFOSAA	2355-31-9	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
EtFOSAA	2991-50-6	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFUnA	2058-94-8	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFDS	335-77-3	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFDoA	307-55-1	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFTrDA	72629-94-8	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
PFTeDA	376-06-7	ND	1.95		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	150	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
13C3-PFPeA	IS	76.7	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
13C3-PFBS	IS	87.6	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
13C2-4:2 FTS	IS	78.5	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
13C2-PFHxA	IS	73.3	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
13C4-PFHpA	IS	70.7	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
13C3-PFHxS	IS	78.8	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
13C2-6:2 FTS	IS	98.7	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
13C5-PFNA	IS	64.2	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
13C8-PFOSA	IS	58.3	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
13C2-PFOA	IS	71.4	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
13C8-PFOS	IS	73.3	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
13C2-PFDA	IS	61.3	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
13C2-8:2 FTS	IS	74.7	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1

Sample ID: L14-4-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 09:50
Location:	14		

Laboratory Data

Lab Sample:	1903822-07	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	62.0		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	71.0	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
13C2-PFUnA	IS	60.6	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
d5-EtFOSAA	IS	67.0	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
13C2-PFDoA	IS	60.1	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1
13C2-PFTeDA	IS	65.4	50 - 150		B9K0002	07-Nov-19	1.65 g	21-Nov-19 04:03	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-4-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Soil
Date Collected: 23-Oct-19 09:52

Laboratory Data

Lab Sample: 1903822-08
Date Received: 25-Oct-19 08:40
% Solids: 74.7
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFPeA	2706-90-3	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFBS	375-73-5	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
4:2 FTS	757124-72-4	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFHxA	307-24-4	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFPeS	2706-91-4	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFHpA	375-85-9	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFHxS	355-46-4	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
6:2 FTS	27619-97-2	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFOA	335-67-1	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFHpS	375-92-8	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFNA	375-95-1	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFOSA	754-91-6	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFOS	1763-23-1	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFDA	335-76-2	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
8:2 FTS	39108-34-4	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
MeFOSAA	2355-31-9	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
EtFOSAA	2991-50-6	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFUnA	2058-94-8	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFDS	335-77-3	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFDoA	307-55-1	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFTrDA	72629-94-8	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
PFTeDA	376-06-7	ND	1.94		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	138	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
13C3-PFPeA	IS	73.3	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
13C3-PFBS	IS	79.7	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
13C2-4:2 FTS	IS	78.9	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
13C2-PFHxA	IS	71.3	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
13C4-PFHpA	IS	68.0	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
13C3-PFHxS	IS	70.4	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
13C2-6:2 FTS	IS	71.6	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
13C5-PFNA	IS	59.2	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
13C8-PFOSA	IS	55.2	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
13C2-PFOA	IS	66.9	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
13C8-PFOS	IS	67.2	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
13C2-PFDA	IS	50.3	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
13C2-8:2 FTS	IS	69.3	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1

Sample ID: L14-4-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 09:52
Location:	14		

Laboratory Data

Lab Sample:	1903822-08	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	74.7		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	58.9	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
13C2-PFUnA	IS	58.6	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
d5-EtFOSAA	IS	58.7	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
13C2-PFDoA	IS	51.2	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1
13C2-PFTeDA	IS	55.4	50 - 150		B9K0002	07-Nov-19	1.38 g	21-Nov-19 04:13	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-4-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Soil
Date Collected: 23-Oct-19 09:54

Laboratory Data

Lab Sample: 1903822-09
Date Received: 25-Oct-19 08:40
% Solids: 82.9
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFPeA	2706-90-3	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFBS	375-73-5	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
4:2 FTS	757124-72-4	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFHxA	307-24-4	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFPeS	2706-91-4	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFHpA	375-85-9	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFHxS	355-46-4	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
6:2 FTS	27619-97-2	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFOA	335-67-1	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFHpS	375-92-8	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFNA	375-95-1	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFOSA	754-91-6	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFOS	1763-23-1	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFDA	335-76-2	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
8:2 FTS	39108-34-4	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
MeFOSAA	2355-31-9	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
EtFOSAA	2991-50-6	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFUnA	2058-94-8	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFDS	335-77-3	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFDoA	307-55-1	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFTrDA	72629-94-8	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
PFTeDA	376-06-7	ND	1.93		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	134	50 - 150		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
13C3-PFPeA	IS	67.4	50 - 150		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
13C3-PFBS	IS	84.5	50 - 150		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
13C2-4:2 FTS	IS	84.3	50 - 150		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
13C2-PFHxA	IS	63.2	50 - 150		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
13C4-PFHpA	IS	65.3	50 - 150		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
13C3-PFHxS	IS	80.4	50 - 150		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
13C2-6:2 FTS	IS	85.0	50 - 150		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
13C5-PFNA	IS	59.1	50 - 150		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
13C8-PFOSA	IS	41.9	50 - 150	H	B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
13C2-PFOA	IS	66.4	50 - 150		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
13C8-PFOS	IS	70.6	50 - 150		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
13C2-PFDA	IS	52.6	50 - 150		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
13C2-8:2 FTS	IS	72.0	50 - 150		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1

Sample ID: L14-4-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 09:54
Location:	14		

Laboratory Data

Lab Sample:	1903822-09	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	82.9		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	54.5	50 - 150		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
13C2-PFUnA	IS	49.0	50 - 150	H	B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
d5-EtFOSAA	IS	58.8	50 - 150		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
13C2-PFDoA	IS	51.2	50 - 150		B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1
13C2-PFTeDA	IS	45.0	50 - 150	H	B9K0002	07-Nov-19	1.25 g	21-Nov-19 04:24	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous

Laboratory Data

Lab Sample: B9J0302-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFPeA	2706-90-3	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFBS	375-73-5	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
4:2 FTS	757124-72-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFHxA	307-24-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFPeS	2706-91-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFHpA	375-85-9	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFHxS	355-46-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
6:2 FTS	27619-97-2	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFOA	335-67-1	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFHpS	375-92-8	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFNA	375-95-1	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFOSA	754-91-6	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFOS	1763-23-1	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFDA	335-76-2	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
8:2 FTS	39108-34-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
MeFOSAA	2355-31-9	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
EtFOSAA	2991-50-6	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFUnA	2058-94-8	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFDS	335-77-3	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFDoA	307-55-1	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFTrDA	72629-94-8	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFTeDA	376-06-7	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	115	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C3-PFPeA	IS	86.7	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C3-PFBS	IS	95.0	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-4:2 FTS	IS	98.0	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFHxA	IS	83.5	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C4-PFHpA	IS	89.2	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C3-PFHxS	IS	93.5	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-6:2 FTS	IS	88.9	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C5-PFNA	IS	94.2	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C8-PFOSA	IS	41.5	50 - 150	H	B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFOA	IS	84.7	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C8-PFOS	IS	91.3	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFDA	IS	89.9	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-8:2 FTS	IS	97.5	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous

Laboratory Data

Lab Sample: B9J0302-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	77.2	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFUnA	IS	79.9	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
d5-EtFOSAA	IS	76.6	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFDoA	IS	72.0	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFTeDA	IS	72.2	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0302-BS1/B9J0302-BSD1
Project:	SJC PFAS Investigation	QC Batch:	B9J0302
Matrix:	Aqueous	Samp Size:	0.250/0.250 L
		Date Extracted:	01-Nov-19
		Column:	BEH C18

Analyte	CAS Number	LCS (ng/L)	LCS Spike	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBA	375-22-4	40.9	40.0	102		38.7	40.0	96.6	5.67		73-129	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFPeA	2706-90-3	42.5	40.0	106		40.8	40.0	102	4.11		72-129	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFBS	375-73-5	42.4	40.0	106		38.1	40.0	95.2	10.7		72-130	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
4:2 FTS	757124-72-4	35.5	40.0	88.8		34.9	40.0	87.3	1.63		63-143	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFHxA	307-24-4	41.2	40.0	103		42.3	40.0	106	2.82		72-129	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFPeS	2706-91-4	37.5	40.0	93.8		34.0	40.0	84.9	9.94		71-127	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFHpA	375-85-9	43.7	40.0	109		41.7	40.0	104	4.60		72-130	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFHxS	355-46-4	35.0	40.0	87.4		34.5	40.0	86.4	1.18		68-131	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
6:2 FTS	27619-97-2	43.6	40.0	109		40.7	40.0	102	6.87		64-140	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFOA	335-67-1	36.0	40.0	90.0		36.6	40.0	91.6	1.67		71-133	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFHpS	375-92-8	44.5	40.0	111		43.1	40.0	108	3.19		69-134	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFNA	375-95-1	43.7	40.0	109		42.2	40.0	105	3.59		69-130	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFOSA	754-91-6	37.8	40.0	94.5		39.5	40.0	98.7	4.33		67-137	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFOS	1763-23-1	41.9	40.0	105		40.5	40.0	101	3.41		65-140	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFDA	335-76-2	40.7	40.0	102		41.0	40.0	103	0.785		71-129	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
8:2 FTS	39108-34-4	33.8	40.0	84.5		32.2	40.0	80.6	4.73		67-138	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
MeFOSAA	2355-31-9	35.3	40.0	88.1		35.5	40.0	88.8	0.794		65-136	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
EtFOSAA	2991-50-6	36.3	40.0	90.9		33.0	40.0	82.6	9.50		61-135	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFUnA	2058-94-8	42.1	40.0	105		42.2	40.0	106	0.426		69-133	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFDS	335-77-3	34.9	40.0	87.3		30.7	40.0	76.8	12.8		53-142	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFDoA	307-55-1	44.2	40.0	110		43.2	40.0	108	2.17		72-134	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFTrDA	72629-94-8	37.8	40.0	94.4		34.8	40.0	86.9	8.23		65-144	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFTeDA	376-06-7	42.6	40.0	106		41.9	40.0	105	1.56		71-132	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBA	IS	101		121		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C3-PFPeA	IS	77.3		91.3		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C3-PFBS	IS	85.8		110		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-4:2 FTS	IS	86.8		97.8		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFHxA	IS	78.8		86.5		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C4-PFHpA	IS	82.3		90.9		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C3-PFHxS	IS	92.0		103		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-6:2 FTS	IS	79.8		97.8		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0302-BS1/B9J0302-BSD1	Date Extracted:	01-Nov-19
Project:	SJC PFAS Investigation	QC Batch:	B9J0302	Column:	BEH C18
Matrix:	Aqueous	Samp Size:	0.250/0.250 L		

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C5-PFNA	IS	88.3		102		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C8-PFOSA	IS	35.5	H	39.8	H	50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFOA	IS	80.9		90.9		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C8-PFOS	IS	88.8		104		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFDA	IS	87.7		99.2		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-8:2 FTS	IS	91.0		104		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
d3-MeFOSAA	IS	69.4		74.9		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFUnA	IS	80.7		84.4		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
d5-EtFOSAA	IS	70.8		85.2		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFDoA	IS	66.9		71.6		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFTeDA	IS	73.0		60.4		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1

Sample ID: L14-1-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Aqueous
Date Collected: 23-Oct-19 08:38

Laboratory Data

Lab Sample: 1903822-10
Date Received: 25-Oct-19 08:40
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFPeA	2706-90-3	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFBS	375-73-5	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
4:2 FTS	757124-72-4	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFHxA	307-24-4	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFPeS	2706-91-4	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFHpA	375-85-9	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFHxS	355-46-4	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
6:2 FTS	27619-97-2	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFOA	335-67-1	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFHpS	375-92-8	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFNA	375-95-1	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFOSA	754-91-6	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFOS	1763-23-1	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFDA	335-76-2	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
8:2 FTS	39108-34-4	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
MeFOSAA	2355-31-9	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
EtFOSAA	2991-50-6	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFUnA	2058-94-8	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFDS	335-77-3	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFDoA	307-55-1	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFTrDA	72629-94-8	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
PFTeDA	376-06-7	ND	2.09		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	132	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
13C3-PFPeA	IS	111	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
13C3-PFBS	IS	120	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
13C2-4:2 FTS	IS	115	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
13C2-PFHxA	IS	106	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
13C4-PFHpA	IS	113	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
13C3-PFHxS	IS	121	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
13C2-6:2 FTS	IS	105	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
13C5-PFNA	IS	111	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
13C8-PFOSA	IS	53.8	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
13C2-PFOA	IS	112	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
13C8-PFOS	IS	110	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
13C2-PFDA	IS	104	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
13C2-8:2 FTS	IS	114	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1

Sample ID: L14-1-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Aqueous
Date Collected: 23-Oct-19 08:38

Laboratory Data

Lab Sample: 1903822-10
Date Received: 25-Oct-19 08:40
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	89.7	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
13C2-PFUnA	IS	90.3	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
d5-EtFOSAA	IS	91.6	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
13C2-PFDoA	IS	65.2	50 - 150		B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1
13C2-PFTeDA	IS	14.0	50 - 150	H	B9J0302	01-Nov-19	0.239 L	11-Nov-19 23:00	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1903822 Temp: 0.6 °C
Storage ID: VR-2, R-13 Storage Secured: Yes ☑ No ☐

Project ID: SJC PFAS Investigation PO#: 02324401.01 Sampler: KA/CL (name)

TAT (check one): Standard: ☒ 21 days; Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify:

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Kevin Almestad	10/24/19	17:30	Fedex	10/24/19	
Fedex			Marissa Sparks	10/25/19	0840
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

ATTN:

Method of Shipment: Fedex
Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/ Sample Description	Container(s) Quantity	Type	Matrix	PFAS by Isotope Dilution: PFOA/ PFOS	UCMR3 PFAS List:6	537.1 List: 14 or 18 (Circle One)	EPA Draft List of 24	OTHER: Please attach analyte list (CA PFAS List (23))	EPA Method 537 (DW only): PFOA/ PFOS	UCMR3 PFAS List:6	537.1 List of 14	537.1 List of 18	Comments
L14-1-1	10/23/19	0745	14	1	PJ	SO					X					
L14-1-5		0748	14	1	PJ											
L14-1-10		0750	14	1												
L14-2-1		0830	14	1												
L14-2-5		0832	14	1												
L14-2-10		0834	14	1												
L14-4-1		0950		1												
L14-4-5		0952		1												
L14-4-10		0954		1												
L14-1-GW		0838		2	P	AQ										

Special Instructions/Comments: Geotracker EDF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc.
Address: 2175 N California Blvd, Ste 315
City: Walnut Creek CA 94597
Phone: (510)-310-3776 (925)-627-4101
Email: JStrandberg@woodardcurran.com

Container Types: P= HDPE, PJ= HDPE Jar, PY= Polypropylene, O = Other:

Bottle Preservation Type: TZ = Trizma:

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other:

Vista Analytical Laboratory

Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 1903822 TAT std

Samples Arrival:	**Date/Time** 10/25/19 0840		**Initials:** WWS		**Location:** WR-2 **Shelf/Rack:** N/a		
Delivered By:	(FedEx)	UPS	On Trac	GSO	DHL	Hand Delivered	Other
Preservation:	(Ice)		Blue Ice		Dry Ice		None
Temp °C: 0.6 (uncorrected)			**Probe used:** Y / (N)		**Thermometer ID:** IR-4		
Temp °C: 0.6 (corrected)							

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			✓
Airbill #1 Trk # 7804 9905 8237	✓		
Shipping Documentation Present?	✓		
Shipping Container: Vista / (Client) / Retain / (Return) / Dispose			
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	**Date/Time** 10/27/19 1428	**Initials:** KE	**Location:** WR-2	R-13
			Shelf/Rack: ~~D7~~ F7	A4
COC Anomaly/Sample Acceptance Form completed?			✓	✓

Comments:

CoC/Label Reconciliation Report WO# 1903822

LabNumber	CoC Sample ID	Label ID matches COCID	Label ID doesn't match COCID	SampleAlias	Sampled	Label Sampled matches	Sampled doesn't match	Container	Container Correct	BaseMatrix	Sample Comments
1903822-01	A L14-1-1	☑		14 ✓	23-Oct-19 07:45	☑		HDPE Jar, 6 oz	☑	Solid ✓	
1903822-02	A L14-1-5	☑		14	23-Oct-19 07:48	☑		HDPE Jar, 6 oz	☑	Solid	
1903822-03	A L14-1-10	☑		14	23-Oct-19 07:50	☑		HDPE Jar, 6 oz	☑	Solid	
1903822-04	A L14-2-1	☑		14	23-Oct-19 08:30	☑		HDPE Jar, 6 oz	☑	Solid	
1903822-05	A L14-2-5	☑		14 no location on label	23-Oct-19 08:32	☑		HDPE Jar, 6 oz	☑	Solid	
1903822-06	A L14-2-10	☑		14 ✓	23-Oct-19 08:34	☑		HDPE Jar, 6 oz	☑	Solid	
1903822-07	A L14-4-1	☑		14	23-Oct-19 09:50	☑		HDPE Jar, 6 oz	☑	Solid	
1903822-08	A L14-4-5	☑		14	23-Oct-19 09:52	☑		HDPE Jar, 6 oz	☑	Solid	
1903822-09	A L14-4-10	☑		14	23-Oct-19 09:54	☑		HDPE Jar, 6 oz	☑	Solid	
1903822-10	A L14-1-GW	☑		14	23-Oct-19 08:38	☑		HDPE Bottle, 250 mL	☑	Aqueous ✓	
1903822-10	B L14-1-GW	☑		14	23-Oct-19 08:38	☑		HDPE Bottle, 250 mL	☑	Aqueous	

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Preservation Documented: Na2S2O3 Trizma None Other		✓	✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments: all samples received in cooler 1 of 2.
~~all ss~~
WWS 10/28/19

Verifed by/Date: WWS 10/28/19

December 11, 2019

Vista Work Order No. 1903823

Mr. Jim Strandberg
Woodard & Curran
2175 North California Boulevard, Suite 315
Walnut Creek, CA 94596

Dear Mr. Strandberg,

Enclosed are the additional results for the sample set received at Vista Analytical Laboratory on October 25, 2019 under your Project Name 'SJC PFAS Investigation'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1903823
Case Narrative

Sample Condition on Receipt:

Three aqueous samples and nine soil samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:

PFAS Isotope Dilution Method-Aqueous

The aqueous samples were extracted and analyzed for a selected list of PFAS using Vista's PFAS Isotope Dilution Method. This method is listed on Vista's NELAP certificate as Modified EPA Method 537. The results for PFHxS, PFOA, PFOS, MeFOSAA, and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Samples "L14-2-GW" and "L14-20-GW" contained particulate and were centrifuged prior to extraction.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit. The LCS/LCSD recoveries were within the acceptance criteria.

The labeled standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

PFAS Isotope Dilution Method-Soil

The soil samples were extracted and analyzed for a selected list of PFAS using Vista's PFAS Isotope Dilution Method. This method is listed on Vista's NELAP certificate as Modified EPA Method 537. The results for PFHxS, PFOA, PFOS, MeFOSAA, and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with each of the preparation batches. No analytes were detected in the Method Blanks above the Reporting Limit. The OPR recoveries were within the method acceptance criteria.

The labeled standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1903823-01	L14-2-GW	23-Oct-19 09:51	25-Oct-19 08:40	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903823-02	L14-20-GW	23-Oct-19 09:51	25-Oct-19 08:40	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903823-03	L14-4-GW	23-Oct-19 15:21	25-Oct-19 08:40	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903823-04	L14-3-1	24-Oct-19 13:56	25-Oct-19 08:40	HDPE Jar, 6 oz
1903823-05	L14-3-5	24-Oct-19 14:01	25-Oct-19 08:40	HDPE Jar, 6 oz
1903823-06	L14-3-10	24-Oct-19 14:06	25-Oct-19 08:40	HDPE Jar, 6 oz
1903823-07	L14-5-1	24-Oct-19 14:16	25-Oct-19 08:40	HDPE Jar, 6 oz
1903823-08	L14-5-5	24-Oct-19 14:19	25-Oct-19 08:40	HDPE Jar, 6 oz
1903823-09	L14-5-10	24-Oct-19 14:23	25-Oct-19 08:40	HDPE Jar, 6 oz
1903823-10	L14-6-1	24-Oct-19 14:29	25-Oct-19 08:40	HDPE Jar, 6 oz
1903823-11	L14-6-5	24-Oct-19 14:34	25-Oct-19 08:40	HDPE Jar, 6 oz
1903823-12	L14-6-10	24-Oct-19 14:37	25-Oct-19 08:40	HDPE Jar, 6 oz

ANALYTICAL RESULTS

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous

Laboratory Data

Lab Sample: B9J0302-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFPeA	2706-90-3	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFBS	375-73-5	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
4:2 FTS	757124-72-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFHxA	307-24-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFPeS	2706-91-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFHpA	375-85-9	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFHxS	355-46-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
6:2 FTS	27619-97-2	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFOA	335-67-1	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFHpS	375-92-8	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFNA	375-95-1	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFOSA	754-91-6	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFOS	1763-23-1	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFDA	335-76-2	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
8:2 FTS	39108-34-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
MeFOSAA	2355-31-9	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
EtFOSAA	2991-50-6	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFUnA	2058-94-8	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFDS	335-77-3	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFDoA	307-55-1	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFTrDA	72629-94-8	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFTeDA	376-06-7	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	115	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C3-PFPeA	IS	86.7	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C3-PFBS	IS	95.0	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-4:2 FTS	IS	98.0	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFHxA	IS	83.5	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C4-PFHpA	IS	89.2	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C3-PFHxS	IS	93.5	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-6:2 FTS	IS	88.9	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C5-PFNA	IS	94.2	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C8-PFOSA	IS	41.5	50 - 150	H	B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFOA	IS	84.7	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C8-PFOS	IS	91.3	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFDA	IS	89.9	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-8:2 FTS	IS	97.5	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1

Sample ID: Method Blank — **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous

Laboratory Data

Lab Sample: B9J0302-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	77.2	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFUnA	IS	79.9	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
d5-EtFOSAA	IS	76.6	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFDoA	IS	72.0	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFTeDA	IS	72.2	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0302-BS1/B9J0302-BSD1
Project:	SJC PFAS Investigation	QC Batch:	B9J0302
Matrix:	Aqueous	Samp Size:	0.250/0.250 L
		Date Extracted:	01-Nov-19
		Column:	BEH C18

Analyte	CAS Number	LCS (ng/L)	LCS Spike	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBA	375-22-4	40.9	40.0	102		38.7	40.0	96.6	5.67		73-129	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFPeA	2706-90-3	42.5	40.0	106		40.8	40.0	102	4.11		72-129	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFBS	375-73-5	42.4	40.0	106		38.1	40.0	95.2	10.7		72-130	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
4:2 FTS	757124-72-4	35.5	40.0	88.8		34.9	40.0	87.3	1.63		63-143	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFHxA	307-24-4	41.2	40.0	103		42.3	40.0	106	2.82		72-129	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFPeS	2706-91-4	37.5	40.0	93.8		34.0	40.0	84.9	9.94		71-127	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFHpA	375-85-9	43.7	40.0	109		41.7	40.0	104	4.60		72-130	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFHxS	355-46-4	35.0	40.0	87.4		34.5	40.0	86.4	1.18		68-131	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
6:2 FTS	27619-97-2	43.6	40.0	109		40.7	40.0	102	6.87		64-140	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFOA	335-67-1	36.0	40.0	90.0		36.6	40.0	91.6	1.67		71-133	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFHpS	375-92-8	44.5	40.0	111		43.1	40.0	108	3.19		69-134	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFNA	375-95-1	43.7	40.0	109		42.2	40.0	105	3.59		69-130	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFOSA	754-91-6	37.8	40.0	94.5		39.5	40.0	98.7	4.33		67-137	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFOS	1763-23-1	41.9	40.0	105		40.5	40.0	101	3.41		65-140	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFDA	335-76-2	40.7	40.0	102		41.0	40.0	103	0.785		71-129	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
8:2 FTS	39108-34-4	33.8	40.0	84.5		32.2	40.0	80.6	4.73		67-138	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
MeFOSAA	2355-31-9	35.3	40.0	88.1		35.5	40.0	88.8	0.794		65-136	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
EtFOSAA	2991-50-6	36.3	40.0	90.9		33.0	40.0	82.6	9.50		61-135	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFUnA	2058-94-8	42.1	40.0	105		42.2	40.0	106	0.426		69-133	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFDS	335-77-3	34.9	40.0	87.3		30.7	40.0	76.8	12.8		53-142	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFDoA	307-55-1	44.2	40.0	110		43.2	40.0	108	2.17		72-134	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFTrDA	72629-94-8	37.8	40.0	94.4		34.8	40.0	86.9	8.23		65-144	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFTeDA	376-06-7	42.6	40.0	106		41.9	40.0	105	1.56		71-132	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBA	IS	101		121		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C3-PFPeA	IS	77.3		91.3		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C3-PFBS	IS	85.8		110		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-4:2 FTS	IS	86.8		97.8		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFHxA	IS	78.8		86.5		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C4-PFHpA	IS	82.3		90.9		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C3-PFHxS	IS	92.0		103		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-6:2 FTS	IS	79.8		97.8		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0302-BS1/B9J0302-BSD1	Date Extracted:	01-Nov-19
Project:	SJC PFAS Investigation	QC Batch:	B9J0302	Column:	BEH C18
Matrix:	Aqueous	Samp Size:	0.250/0.250 L		

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C5-PFNA	IS	88.3		102		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C8-PFOSA	IS	35.5	H	39.8	H	50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFOA	IS	80.9		90.9		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C8-PFOS	IS	88.8		104		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFDA	IS	87.7		99.2		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-8:2 FTS	IS	91.0		104		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
d3-MeFOSAA	IS	69.4		74.9		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFUnA	IS	80.7		84.4		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
d5-EtFOSAA	IS	70.8		85.2		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFDoA	IS	66.9		71.6		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFTeDA	IS	73.0		60.4		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1

Sample ID: L14-2-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Aqueous
Date Collected: 23-Oct-19 09:51

Laboratory Data

Lab Sample: 1903823-01
Date Received: 25-Oct-19 08:40
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFPeA	2706-90-3	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFBS	375-73-5	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
4:2 FTS	757124-72-4	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFHxA	307-24-4	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFPeS	2706-91-4	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFHpA	375-85-9	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFHxS	355-46-4	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
6:2 FTS	27619-97-2	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFOA	335-67-1	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFHpS	375-92-8	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFNA	375-95-1	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFOSA	754-91-6	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFOS	1763-23-1	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFDA	335-76-2	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
8:2 FTS	39108-34-4	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
MeFOSAA	2355-31-9	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
EtFOSAA	2991-50-6	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFUnA	2058-94-8	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFDS	335-77-3	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFDoA	307-55-1	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFTrDA	72629-94-8	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
PFTeDA	376-06-7	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	116	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
13C3-PFPeA	IS	102	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
13C3-PFBS	IS	111	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
13C2-4:2 FTS	IS	102	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
13C2-PFHxA	IS	105	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
13C4-PFHpA	IS	101	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
13C3-PFHxS	IS	95.5	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
13C2-6:2 FTS	IS	98.6	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
13C5-PFNA	IS	107	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
13C8-PFOSA	IS	48.4	50 - 150	H	B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
13C2-PFOA	IS	99.4	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
13C8-PFOS	IS	104	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
13C2-PFDA	IS	102	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
13C2-8:2 FTS	IS	97.7	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1

Sample ID: L14-2-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Aqueous
Date Collected: 23-Oct-19 09:51

Laboratory Data

Lab Sample: 1903823-01
Date Received: 25-Oct-19 08:40
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	90.9	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
13C2-PFUnA	IS	91.0	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
d5-EtFOSAA	IS	90.1	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
13C2-PFDoA	IS	72.8	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1
13C2-PFTeDA	IS	51.2	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:11	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-20-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Aqueous
Date Collected: 23-Oct-19 09:51

Laboratory Data

Lab Sample: 1903823-02
Date Received: 25-Oct-19 08:40
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFPeA	2706-90-3	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFBS	375-73-5	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
4:2 FTS	757124-72-4	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFHxA	307-24-4	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFPeS	2706-91-4	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFHpA	375-85-9	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFHxS	355-46-4	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
6:2 FTS	27619-97-2	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFOA	335-67-1	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFHpS	375-92-8	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFNA	375-95-1	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFOSA	754-91-6	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFOS	1763-23-1	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFDA	335-76-2	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
8:2 FTS	39108-34-4	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
MeFOSAA	2355-31-9	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
EtFOSAA	2991-50-6	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFUnA	2058-94-8	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFDS	335-77-3	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFDoA	307-55-1	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFTrDA	72629-94-8	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
PFTeDA	376-06-7	ND	2.15		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	135	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
13C3-PFPeA	IS	110	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
13C3-PFBS	IS	131	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
13C2-4:2 FTS	IS	115	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
13C2-PFHxA	IS	112	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
13C4-PFHpA	IS	106	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
13C3-PFHxS	IS	113	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
13C2-6:2 FTS	IS	107	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
13C5-PFNA	IS	117	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
13C8-PFOSA	IS	54.1	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
13C2-PFOA	IS	111	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
13C8-PFOS	IS	115	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
13C2-PFDA	IS	115	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
13C2-8:2 FTS	IS	115	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1

Sample ID: L14-20-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Aqueous
Date Collected: 23-Oct-19 09:51

Laboratory Data

Lab Sample: 1903823-02
Date Received: 25-Oct-19 08:40
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	99.8	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
13C2-PFUnA	IS	98.8	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
d5-EtFOSAA	IS	103	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
13C2-PFDoA	IS	80.8	50 - 150		B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1
13C2-PFTeDA	IS	43.9	50 - 150	H	B9J0302	01-Nov-19	0.233 L	11-Nov-19 23:22	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-4-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Aqueous
Date Collected: 23-Oct-19 15:21

Laboratory Data

Lab Sample: 1903823-03
Date Received: 25-Oct-19 08:40
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFPeA	2706-90-3	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFBS	375-73-5	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
4:2 FTS	757124-72-4	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFHxA	307-24-4	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFPeS	2706-91-4	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFHpA	375-85-9	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFHxS	355-46-4	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
6:2 FTS	27619-97-2	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFOA	335-67-1	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFHpS	375-92-8	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFNA	375-95-1	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFOSA	754-91-6	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFOS	1763-23-1	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFDA	335-76-2	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
8:2 FTS	39108-34-4	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
MeFOSAA	2355-31-9	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
EtFOSAA	2991-50-6	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFUnA	2058-94-8	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFDS	335-77-3	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFDoA	307-55-1	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFTrDA	72629-94-8	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
PFTeDA	376-06-7	ND	1.99		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	170	50 - 150	H	B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
13C3-PFPeA	IS	134	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
13C3-PFBS	IS	139	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
13C2-4:2 FTS	IS	127	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
13C2-PFHxA	IS	121	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
13C4-PFHpA	IS	133	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
13C3-PFHxS	IS	127	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
13C2-6:2 FTS	IS	117	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
13C5-PFNA	IS	130	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
13C8-PFOSA	IS	62.7	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
13C2-PFOA	IS	126	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
13C8-PFOS	IS	133	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
13C2-PFDA	IS	131	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
13C2-8:2 FTS	IS	133	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1

Sample ID: L14-4-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Aqueous
Date Collected: 23-Oct-19 15:21

Laboratory Data

Lab Sample: 1903823-03
Date Received: 25-Oct-19 08:40
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	114	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
13C2-PFUnA	IS	112	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
d5-EtFOSAA	IS	120	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
13C2-PFDoA	IS	91.2	50 - 150		B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1
13C2-PFTeDA	IS	46.2	50 - 150	H	B9J0302	01-Nov-19	0.252 L	11-Nov-19 23:32	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0047-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFPeA	2706-90-3	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFBS	375-73-5	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
4:2 FTS	757124-72-4	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFHxA	307-24-4	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFPeS	2706-91-4	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFHpA	375-85-9	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFHxS	355-46-4	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
6:2 FTS	27619-97-2	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFOA	335-67-1	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFHpS	375-92-8	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFNA	375-95-1	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFOS	1763-23-1	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFDA	335-76-2	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
8:2 FTS	39108-34-4	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
MeFOSAA	2355-31-9	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
EtFOSAA	2991-50-6	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFUnA	2058-94-8	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFDS	335-77-3	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFDoA	307-55-1	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFTrDA	72629-94-8	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFTeDA	376-06-7	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	154	50 - 150	H	B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C3-PFPeA	IS	72.9	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C3-PFBS	IS	88.9	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-4:2 FTS	IS	99.7	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-PFHxA	IS	66.7	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C4-PFHpA	IS	69.0	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C3-PFHxS	IS	103	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-6:2 FTS	IS	97.3	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C5-PFNA	IS	67.4	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-PFOA	IS	69.3	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C8-PFOS	IS	87.3	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-PFDA	IS	60.2	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-8:2 FTS	IS	115	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
d3-MeFOSAA	IS	57.3	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-PFUnA	IS	50.9	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1

Sample ID: Method Blank **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0047-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d5-EtFOSAA	IS	54.3	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-PFDoA	IS	48.5	50 - 150	H	B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-PFTeDA	IS	58.1	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: OPR **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0047-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/g)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	9.64	10.0	96.4	71 - 135		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFPeA	2706-90-3	10.8	10.0	108	69 - 132		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFBS	375-73-5	10.0	10.0	100	72 - 128		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
4:2 FTS	757124-72-4	11.2	10.0	112	62 - 145		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFHxA	307-24-4	10.7	10.0	107	70 - 132		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFPeS	2706-91-4	9.65	10.0	96.5	73 - 123		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFHpA	375-85-9	9.93	10.0	99.3	71 - 131		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFHxS	355-46-4	8.77	10.0	87.7	67 - 130		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
6:2 FTS	27619-97-2	12.9	10.0	129	64 - 140		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFOA	335-67-1	10.5	10.0	105	69 - 133		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFHpS	375-92-8	10.3	10.0	103	70 - 132		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFNA	375-95-1	9.82	10.0	98.2	72 - 129		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFOS	1763-23-1	9.08	10.0	90.6	68 - 136		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFDA	335-76-2	10.1	10.0	101	69 - 133		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
8:2 FTS	39108-34-4	11.5	10.0	115	65 - 137		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
MeFOSAA	2355-31-9	9.41	10.0	94.1	63 - 144		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
EtFOSAA	2991-50-6	9.52	10.0	95.2	61 - 139		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFUnA	2058-94-8	11.1	10.0	111	64 - 136		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFDS	335-77-3	8.48	10.0	84.6	59 - 134		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFDoA	307-55-1	9.92	10.0	99.2	69 - 135		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFTrDA	72629-94-8	11.7	10.0	117	66 - 139		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFTeDA	376-06-7	11.0	10.0	110	69 - 133		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	99.9	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C3-PFPeA	IS	51.0	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C3-PFBS	IS	84.9	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C2-4:2 FTS	IS	87.4	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C2-PFHxA	IS	50.1	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C4-PFHpA	IS	51.3	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C3-PFHxS	IS	98.6	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C2-6:2 FTS	IS	64.6	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C5-PFNA	IS	53.2	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C2-PFOA	IS	51.9	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C8-PFOS	IS	87.4	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C2-PFDA	IS	52.9	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1

Sample ID: OPR **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0047-BS1
Column: BEH C18

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-8:2 FTS	IS	89.6	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
d3-MeFOSAA	IS	61.4	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C2-PFUnA	IS	51.6	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
d5-EtFOSAA	IS	56.4	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C2-PFDoA	IS	51.1	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C2-PFTeDA	IS	61.9	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0201-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFOSA	754-91-6	ND	1.00		B9K0201	26-Nov-19	2.00 g	06-Dec-19 19:46	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOSA	IS	29.5	50 - 150	H	B9K0201	26-Nov-19	2.00 g	06-Dec-19 19:46	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: OPR — **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0201-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/g)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFOSA	754-91-6	5.19	5.00	104	67 - 137		B9K0201	26-Nov-19	2.00 g	07-Dec-19 20:04	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOSA	IS	39.7	50- 150	H	B9K0201	26-Nov-19	2.00 g	07-Dec-19 20:04	1

Sample ID: L14-3-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Soil
Date Collected: 24-Oct-19 13:56

Laboratory Data

Lab Sample: 1903823-04
Date Received: 25-Oct-19 08:40
% Solids: 75.3
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
PFPeA	2706-90-3	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
PFBS	375-73-5	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
4:2 FTS	757124-72-4	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
PFHxA	307-24-4	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
PFPeS	2706-91-4	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
PFHpA	375-85-9	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
PFHxS	355-46-4	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
6:2 FTS	27619-97-2	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
PFOA	335-67-1	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
PFHpS	375-92-8	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
PFNA	375-95-1	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
PFOSA	754-91-6	ND	0.991		B9K0201	26-Nov-19	2.68 g	06-Dec-19 20:28	1
PFOS	1763-23-1	3.07	2.00	Q	B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
PFDA	335-76-2	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
8:2 FTS	39108-34-4	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
MeFOSAA	2355-31-9	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
EtFOSAA	2991-50-6	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
PFUnA	2058-94-8	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
PFDS	335-77-3	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
PFDoA	307-55-1	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
PFTrDA	72629-94-8	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
PFTeDA	376-06-7	ND	2.00		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	142	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
13C3-PFPeA	IS	72.6	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
13C3-PFBS	IS	90.8	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
13C2-4:2 FTS	IS	89.5	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
13C2-PFHxA	IS	61.8	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
13C4-PFHpA	IS	56.9	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
13C3-PFHxS	IS	91.9	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
13C2-6:2 FTS	IS	75.5	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
13C5-PFNA	IS	38.7	50 - 150	H	B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
13C8-PFOSA	IS	38.7	50 - 150	H	B9K0201	26-Nov-19	2.68 g	06-Dec-19 20:28	1
13C2-PFOA	IS	49.3	50 - 150	H	B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
13C8-PFOS	IS	81.1	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
13C2-PFDA	IS	41.9	50 - 150	H	B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
13C2-8:2 FTS	IS	91.9	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1

Sample ID: L14-3-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 13:56
Location:	14		

Laboratory Data

Lab Sample:	1903823-04	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	75.3		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	50.6	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
13C2-PFUnA	IS	46.6	50 - 150	H	B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
d5-EtFOSAA	IS	55.1	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
13C2-PFDoA	IS	50.4	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1
13C2-PFTeDA	IS	41.4	50 - 150	H	B9K0047	12-Nov-19	1.33 g	20-Nov-19 05:55	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-3-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Soil
Date Collected: 24-Oct-19 14:01

Laboratory Data

Lab Sample: 1903823-05
Date Received: 25-Oct-19 08:40
% Solids: 72.9
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
PFPeA	2706-90-3	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
PFBS	375-73-5	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
4:2 FTS	757124-72-4	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
PFHxA	307-24-4	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
PFPeS	2706-91-4	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
PFHpA	375-85-9	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
PFHxS	355-46-4	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
6:2 FTS	27619-97-2	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
PFOA	335-67-1	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
PFHpS	375-92-8	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
PFNA	375-95-1	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
PFOSA	754-91-6	ND	0.997		B9K0201	26-Nov-19	2.75 g	06-Dec-19 20:38	1
PFOS	1763-23-1	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
PFDA	335-76-2	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
8:2 FTS	39108-34-4	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
MeFOSAA	2355-31-9	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
EtFOSAA	2991-50-6	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
PFUnA	2058-94-8	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
PFDS	335-77-3	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
PFDoA	307-55-1	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
PFTrDA	72629-94-8	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
PFTeDA	376-06-7	ND	2.00		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	162	50 - 150	H	B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
13C3-PFPeA	IS	78.0	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
13C3-PFBS	IS	86.4	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
13C2-4:2 FTS	IS	93.0	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
13C2-PFHxA	IS	71.4	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
13C4-PFHpA	IS	64.4	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
13C3-PFHxS	IS	91.3	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
13C2-6:2 FTS	IS	82.0	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
13C5-PFNA	IS	49.0	50 - 150	H	B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
13C8-PFOSA	IS	26.4	50 - 150	H	B9K0201	26-Nov-19	2.75 g	06-Dec-19 20:38	1
13C2-PFOA	IS	62.6	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
13C8-PFOS	IS	79.5	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
13C2-PFDA	IS	45.2	50 - 150	H	B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
13C2-8:2 FTS	IS	69.6	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1

Sample ID: L14-3-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 14:01
Location:	14		

Laboratory Data

Lab Sample:	1903823-05	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	72.9		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	63.1	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
13C2-PFUnA	IS	55.6	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
d5-EtFOSAA	IS	57.3	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
13C2-PFDoA	IS	57.8	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1
13C2-PFTeDA	IS	54.5	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:06	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-3-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 14:06
Location:	14		

Laboratory Data

Lab Sample:	1903823-06	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	81.4		

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
PFPeA	2706-90-3	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
PFBS	375-73-5	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
4:2 FTS	757124-72-4	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
PFHxA	307-24-4	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
PFPeS	2706-91-4	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
PFHpA	375-85-9	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
PFHxS	355-46-4	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
6:2 FTS	27619-97-2	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
PFOA	335-67-1	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
PFHpS	375-92-8	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
PFNA	375-95-1	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
PFOSA	754-91-6	ND	0.990		B9K0201	26-Nov-19	2.48 g	06-Dec-19 20:49	1
PFOS	1763-23-1	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
PFDA	335-76-2	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
8:2 FTS	39108-34-4	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
MeFOSAA	2355-31-9	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
EtFOSAA	2991-50-6	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
PFUnA	2058-94-8	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
PFDS	335-77-3	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
PFDoA	307-55-1	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
PFTrDA	72629-94-8	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
PFTeDA	376-06-7	ND	1.98		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	133	50 - 150		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
13C3-PFPeA	IS	67.3	50 - 150		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
13C3-PFBS	IS	95.6	50 - 150		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
13C2-4:2 FTS	IS	98.9	50 - 150		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
13C2-PFHxA	IS	57.2	50 - 150		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
13C4-PFHpA	IS	48.7	50 - 150	H	B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
13C3-PFHxS	IS	96.5	50 - 150		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
13C2-6:2 FTS	IS	88.5	50 - 150		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
13C5-PFNA	IS	49.0	50 - 150	H	B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
13C8-PFOSA	IS	19.1	50 - 150	H	B9K0201	26-Nov-19	2.48 g	06-Dec-19 20:49	1
13C2-PFOA	IS	50.2	50 - 150		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
13C8-PFOS	IS	89.6	50 - 150		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
13C2-PFDA	IS	47.4	50 - 150	H	B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
13C2-8:2 FTS	IS	90.7	50 - 150		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1

Sample ID: L14-3-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 14:06
Location:	14		

Laboratory Data

Lab Sample:	1903823-06	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	81.4		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	67.0	50 - 150		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
13C2-PFUnA	IS	53.0	50 - 150		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
d5-EtFOSAA	IS	62.4	50 - 150		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
13C2-PFDoA	IS	61.1	50 - 150		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1
13C2-PFTeDA	IS	72.0	50 - 150		B9K0047	12-Nov-19	1.24 g	20-Nov-19 06:16	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-5-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 14:16
Location:	14		

Laboratory Data

Lab Sample:	1903823-07	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	75.6		

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
PFPeA	2706-90-3	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
PFBS	375-73-5	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
4:2 FTS	757124-72-4	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
PFHxA	307-24-4	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
PFPeS	2706-91-4	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
PFHpA	375-85-9	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
PFHxS	355-46-4	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
6:2 FTS	27619-97-2	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
PFOA	335-67-1	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
PFHpS	375-92-8	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
PFNA	375-95-1	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
PFOSA	754-91-6	ND	0.995		B9K0201	26-Nov-19	2.66 g	06-Dec-19 20:59	1
PFOS	1763-23-1	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
PFDA	335-76-2	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
8:2 FTS	39108-34-4	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
MeFOSAA	2355-31-9	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
EtFOSAA	2991-50-6	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
PFUnA	2058-94-8	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
PFDS	335-77-3	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
PFDoA	307-55-1	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
PFTrDA	72629-94-8	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
PFTeDA	376-06-7	ND	1.99		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	134	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
13C3-PFPeA	IS	66.6	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
13C3-PFBS	IS	88.7	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
13C2-4:2 FTS	IS	90.4	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
13C2-PFHxA	IS	62.8	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
13C4-PFHpA	IS	53.5	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
13C3-PFHxS	IS	92.4	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
13C2-6:2 FTS	IS	68.9	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
13C5-PFNA	IS	38.6	50 - 150	H	B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
13C8-PFOSA	IS	37.4	50 - 150	H	B9K0201	26-Nov-19	2.66 g	06-Dec-19 20:59	1
13C2-PFOA	IS	48.9	50 - 150	H	B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
13C8-PFOS	IS	80.5	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
13C2-PFDA	IS	38.5	50 - 150	H	B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
13C2-8:2 FTS	IS	87.0	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1

Sample ID: L14-5-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 14:16
Location:	14		

Laboratory Data

Lab Sample:	1903823-07	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	75.6		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	47.5	50 - 150	H	B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
13C2-PFUnA	IS	48.6	50 - 150	H	B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
d5-EtFOSAA	IS	55.1	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
13C2-PFDoA	IS	53.1	50 - 150		B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1
13C2-PFTeDA	IS	46.2	50 - 150	H	B9K0047	12-Nov-19	1.33 g	20-Nov-19 06:27	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-5-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 14:19
Location:	14		

Laboratory Data

Lab Sample:	1903823-08	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	72.0		

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
PFPeA	2706-90-3	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
PFBS	375-73-5	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
4:2 FTS	757124-72-4	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
PFHxA	307-24-4	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
PFPeS	2706-91-4	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
PFHpA	375-85-9	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
PFHxS	355-46-4	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
6:2 FTS	27619-97-2	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
PFOA	335-67-1	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
PFHpS	375-92-8	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
PFNA	375-95-1	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
PFOSA	754-91-6	ND	0.992		B9K0201	26-Nov-19	2.80 g	06-Dec-19 21:10	1
PFOS	1763-23-1	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
PFDA	335-76-2	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
8:2 FTS	39108-34-4	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
MeFOSAA	2355-31-9	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
EtFOSAA	2991-50-6	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
PFUnA	2058-94-8	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
PFDS	335-77-3	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
PFDoA	307-55-1	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
PFTrDA	72629-94-8	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
PFTeDA	376-06-7	ND	1.94		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	148	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
13C3-PFPeA	IS	72.9	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
13C3-PFBS	IS	94.0	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
13C2-4:2 FTS	IS	91.1	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
13C2-PFHxA	IS	66.8	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
13C4-PFHpA	IS	61.6	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
13C3-PFHxS	IS	95.7	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
13C2-6:2 FTS	IS	82.4	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
13C5-PFNA	IS	56.8	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
13C8-PFOSA	IS	73.7	50 - 150		B9K0201	26-Nov-19	2.80 g	06-Dec-19 21:10	1
13C2-PFOA	IS	57.3	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
13C8-PFOS	IS	86.3	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
13C2-PFDA	IS	50.1	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
13C2-8:2 FTS	IS	99.5	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1

Sample ID: L14-5-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 14:19
Location:	14		

Laboratory Data

Lab Sample:	1903823-08	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	72.0		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	62.1	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
13C2-PFUnA	IS	59.6	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
d5-EtFOSAA	IS	56.5	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
13C2-PFDoA	IS	57.7	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1
13C2-PFTeDA	IS	73.6	50 - 150		B9K0047	12-Nov-19	1.43 g	20-Nov-19 06:38	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-5-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Soil
Date Collected: 24-Oct-19 14:23

Laboratory Data

Lab Sample: 1903823-09
Date Received: 25-Oct-19 08:40
% Solids: 79.7
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
PFPeA	2706-90-3	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
PFBS	375-73-5	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
4:2 FTS	757124-72-4	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
PFHxA	307-24-4	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
PFPeS	2706-91-4	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
PFHpA	375-85-9	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
PFHxS	355-46-4	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
6:2 FTS	27619-97-2	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
PFOA	335-67-1	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
PFHpS	375-92-8	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
PFNA	375-95-1	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
PFOSA	754-91-6	ND	0.992		B9K0201	26-Nov-19	2.53 g	06-Dec-19 21:20	1
PFOS	1763-23-1	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
PFDA	335-76-2	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
8:2 FTS	39108-34-4	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
MeFOSAA	2355-31-9	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
EtFOSAA	2991-50-6	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
PFUnA	2058-94-8	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
PFDS	335-77-3	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
PFDoA	307-55-1	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
PFTrDA	72629-94-8	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
PFTeDA	376-06-7	ND	1.98		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	120	50 - 150		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
13C3-PFPeA	IS	60.3	50 - 150		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
13C3-PFBS	IS	83.8	50 - 150		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
13C2-4:2 FTS	IS	89.4	50 - 150		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
13C2-PFHxA	IS	56.5	50 - 150		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
13C4-PFHpA	IS	53.3	50 - 150		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
13C3-PFHxS	IS	98.8	50 - 150		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
13C2-6:2 FTS	IS	80.6	50 - 150		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
13C5-PFNA	IS	49.8	50 - 150	H	B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
13C8-PFOSA	IS	20.9	50 - 150	H	B9K0201	26-Nov-19	2.53 g	06-Dec-19 21:20	1
13C2-PFOA	IS	53.6	50 - 150		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
13C8-PFOS	IS	82.5	50 - 150		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
13C2-PFDA	IS	47.9	50 - 150	H	B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
13C2-8:2 FTS	IS	87.4	50 - 150		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1

Sample ID: L14-5-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Soil
Date Collected: 24-Oct-19 14:23

Laboratory Data

Lab Sample: 1903823-09
Date Received: 25-Oct-19 08:40
% Solids: 79.7
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	61.1	50 - 150		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
13C2-PFUnA	IS	53.6	50 - 150		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
d5-EtFOSAA	IS	62.1	50 - 150		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
13C2-PFDoA	IS	57.9	50 - 150		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1
13C2-PFTeDA	IS	65.8	50 - 150		B9K0047	12-Nov-19	1.27 g	20-Nov-19 06:48	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-6-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 14:29
Location:	14		

Laboratory Data

Lab Sample:	1903823-10	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	74.4		

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
PFPeA	2706-90-3	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
PFBS	375-73-5	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
4:2 FTS	757124-72-4	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
PFHxA	307-24-4	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
PFPeS	2706-91-4	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
PFHpA	375-85-9	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
PFHxS	355-46-4	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
6:2 FTS	27619-97-2	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
PFOA	335-67-1	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
PFHpS	375-92-8	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
PFNA	375-95-1	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
PFOSA	754-91-6	ND	0.992		B9K0201	26-Nov-19	2.71 g	06-Dec-19 21:31	1
PFOS	1763-23-1	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
PFDA	335-76-2	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
8:2 FTS	39108-34-4	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
MeFOSAA	2355-31-9	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
EtFOSAA	2991-50-6	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
PFUnA	2058-94-8	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
PFDS	335-77-3	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
PFDoA	307-55-1	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
PFTrDA	72629-94-8	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
PFTeDA	376-06-7	ND	1.96		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	156	50 - 150	H	B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
13C3-PFPeA	IS	79.8	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
13C3-PFBS	IS	83.1	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
13C2-4:2 FTS	IS	93.9	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
13C2-PFHxA	IS	73.0	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
13C4-PFHpA	IS	71.2	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
13C3-PFHxS	IS	86.7	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
13C2-6:2 FTS	IS	78.7	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
13C5-PFNA	IS	52.3	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
13C8-PFOSA	IS	13.7	50 - 150	H	B9K0201	26-Nov-19	2.71 g	06-Dec-19 21:31	1
13C2-PFOA	IS	61.0	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
13C8-PFOS	IS	90.0	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
13C2-PFDA	IS	50.1	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
13C2-8:2 FTS	IS	82.4	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1

Sample ID: L14-6-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 14:29
Location:	14		

Laboratory Data

Lab Sample:	1903823-10	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	74.4		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	57.8	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
13C2-PFUnA	IS	58.4	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
d5-EtFOSAA	IS	61.6	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
13C2-PFDoA	IS	59.9	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1
13C2-PFTeDA	IS	65.9	50 - 150		B9K0047	12-Nov-19	1.37 g	20-Nov-19 06:59	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-6-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Soil
Date Collected: 24-Oct-19 14:34

Laboratory Data

Lab Sample: 1903823-11
Date Received: 25-Oct-19 08:40
% Solids: 69.5
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
PFPeA	2706-90-3	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
PFBS	375-73-5	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
4:2 FTS	757124-72-4	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
PFHxA	307-24-4	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
PFPeS	2706-91-4	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
PFHpA	375-85-9	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
PFHxS	355-46-4	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
6:2 FTS	27619-97-2	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
PFOA	335-67-1	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
PFHpS	375-92-8	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
PFNA	375-95-1	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
PFOSA	754-91-6	ND	0.992		B9K0201	26-Nov-19	2.90 g	06-Dec-19 21:41	1
PFOS	1763-23-1	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
PFDA	335-76-2	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
8:2 FTS	39108-34-4	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
MeFOSAA	2355-31-9	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
EtFOSAA	2991-50-6	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
PFUnA	2058-94-8	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
PFDS	335-77-3	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
PFDoA	307-55-1	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
PFTrDA	72629-94-8	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
PFTeDA	376-06-7	ND	1.96		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	159	50 - 150	H	B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
13C3-PFPeA	IS	79.2	50 - 150		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
13C3-PFBS	IS	82.9	50 - 150		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
13C2-4:2 FTS	IS	89.4	50 - 150		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
13C2-PFHxA	IS	75.3	50 - 150		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
13C4-PFHpA	IS	59.2	50 - 150		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
13C3-PFHxS	IS	81.9	50 - 150		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
13C2-6:2 FTS	IS	75.9	50 - 150		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
13C5-PFNA	IS	48.4	50 - 150	H	B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
13C8-PFOSA	IS	51.1	50 - 150		B9K0201	26-Nov-19	2.90 g	06-Dec-19 21:41	1
13C2-PFOA	IS	57.1	50 - 150		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
13C8-PFOS	IS	84.8	50 - 150		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
13C2-PFDA	IS	51.2	50 - 150		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
13C2-8:2 FTS	IS	84.2	50 - 150		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1

Sample ID: L14-6-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 14:34
Location:	14		

Laboratory Data

Lab Sample:	1903823-11	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	69.5		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	62.4	50 - 150		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
13C2-PFUnA	IS	54.1	50 - 150		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
d5-EtFOSAA	IS	52.5	50 - 150		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
13C2-PFDoA	IS	56.9	50 - 150		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1
13C2-PFTeDA	IS	68.2	50 - 150		B9K0047	12-Nov-19	1.47 g	20-Nov-19 07:09	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L14-6-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 14:37
Location:	14		

Laboratory Data

Lab Sample:	1903823-12	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	81.5		

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
PFPeA	2706-90-3	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
PFBS	375-73-5	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
4:2 FTS	757124-72-4	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
PFHxA	307-24-4	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
PFPeS	2706-91-4	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
PFHpA	375-85-9	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
PFHxS	355-46-4	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
6:2 FTS	27619-97-2	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
PFOA	335-67-1	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
PFHpS	375-92-8	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
PFNA	375-95-1	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
PFOSA	754-91-6	ND	0.994		B9K0201	26-Nov-19	2.47 g	06-Dec-19 21:52	1
PFOS	1763-23-1	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
PFDA	335-76-2	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
8:2 FTS	39108-34-4	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
MeFOSAA	2355-31-9	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
EtFOSAA	2991-50-6	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
PFUnA	2058-94-8	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
PFDS	335-77-3	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
PFDoA	307-55-1	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
PFTrDA	72629-94-8	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
PFTeDA	376-06-7	ND	1.95		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	125	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
13C3-PFPeA	IS	64.6	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
13C3-PFBS	IS	76.0	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
13C2-4:2 FTS	IS	88.9	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
13C2-PFHxA	IS	58.8	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
13C4-PFHpA	IS	58.9	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
13C3-PFHxS	IS	82.3	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
13C2-6:2 FTS	IS	75.3	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
13C5-PFNA	IS	52.1	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
13C8-PFOSA	IS	17.5	50 - 150	H	B9K0201	26-Nov-19	2.47 g	06-Dec-19 21:52	1
13C2-PFOA	IS	57.2	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
13C8-PFOS	IS	81.2	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
13C2-PFDA	IS	53.7	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
13C2-8:2 FTS	IS	87.0	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1

Sample ID: L14-6-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 14:37
Location:	14		

Laboratory Data

Lab Sample:	1903823-12	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	81.5		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	56.0	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
13C2-PFUnA	IS	53.9	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
d5-EtFOSAA	IS	50.8	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
13C2-PFDoA	IS	53.1	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1
13C2-PFTeDA	IS	62.0	50 - 150		B9K0047	12-Nov-19	1.26 g	20-Nov-19 07:41	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1903823 Temp: 0.6 °C
Storage ID: R-13, WR-2 Storage Secured: Yes ☑ No ☐

Project ID: SJC PFAS Investigation PO#: 0232401.01 Sampler: KA/CL (name)

TAT (check one): Standard: ☒ 21 days; Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify:

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Kevin Almestad	10/24/19	17:30	Fedex	10/24/19	17:30
FedEx			Morissa Sparks MSparks	10/25/19	0840
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106
ATTN: Jade White-Dobbs

Method of Shipment: Fedex
Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/ Sample Description	Container(s) Quantity	Type	Matrix	PFAS by Isotope Dilution: PFOA/ PFOS	UCMR3 PFAS List:6	537.1 List: 14 or 18 (Circle One)	EPA Draft List of 24	OTHER: Please attach analyte list: CA Report PFAS List (23)	EPA Method 537 (DW only): PFOA/ PFOS	UCMR3 PFAS List:6	537.1 List of 14	537.1 List of 18	Comments
L14-2-6W	10/23/19	0951	14	2	P	AQ					X					
L14-20-6W		0951	14	2												
L14-4-6W		1521	14	2												
L14-3-1	~~10/24/19~~	1356		1	PJ	SO										10/24/19
L14-3-5	~~10/24/19~~	1401		1												10/24/19
L14-3-10	~~10/24/19~~	1406		1												10/24/19
L14-5-1	10/24/19	1416		1												
L14-5-5		1419		1												
L14-5-10		1423		1												
L14-6-1		1429		1												

Special Instructions/Comments: Geotracker EPF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc.
Address: 2175 N California Blvd, Ste 315
City: Walnut Creek CA 94597
Phone: (510)-310-3776 (925)-627-4101
Email: JStrandberg@woodardcurran.com

Container Types: P= HDPE, PJ= HDPE Jar, PY= Polypropylene, O = Other: _____

Bottle Preservation Type: TZ = Trizma: _____

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: _____

Vista

Submit by Email

Print Form

CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY

Laboratory Project ID: 1903823 Temp 0.6 °C

Storage ID: WR-2, R-13 Storage Secured: Yes ☑ No ☐

TAT: (Check One)
Standard ☒ 21 days
Rush (surcharge may apply)
◯ 14 days ◯ 7 days Specify:

Project I.D.: SJC PFAS Investigation P.O. #: 0232401.01 Sampler: KA/CL (Name)

Invoice to: Name / Company / Address / City / State / Zip / Ph# / Fax #

Relinquished by: (Printed Name and Signature) Kevin Attested 10/24/19 17:30 / Fedex 10/24/19 17:30
Date: Time: Received by: (Signature and Printed Name) Date: Time:

Relinquished by: (Printed Name and Signature) FedEx Date: Time: Received by: (Signature and Printed Name) Marissa Sparks Date: 10/25/19 Time: 0840

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

Method of Shipment: Fedex

Tracking No.:

ATTN: Jade White-Dobbs

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	EPA1613 2378-TCDD	EPA1613 2378-TCDD/TCDF	EPA1613 PCDD/PCDF	EPA8290 2378-TCDD	EPA8290 2378-TCDD/TCDF	EPA8290 PCDD/PCDF	EPA8280 2378-TCDD	EPA8280 2378-TCDD/TCDF	EPA8280 PCDD/PCDF	EPA1668 TOTALS	EPA1668 COPLANAR PCBs	EPA1668 209 CONGENERS	EPA1614 PBDE	CARB429 PAH	CARB429 WHO-29	CARB429 Arsenic (EPA 6020A) (23)
L14-6-5	10/24/19	1434	14	1	PJ	SO																X
L14-6-10	10/24/19	1437	14	1	PJ	SO																X

Special Instructions/Comments: Geotracker EDF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard & Curran, Inc.
Address: 2175 N California Blvd, Ste 315
City: Walnut Creek State: CA Zip: 94597
Phone: (510)-310-3776 Fax: (925)-627-4101
Email: JStrandberg@woodardcurran.com

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MM5 Train, O = Other

***Bottle Preservative Type:** ☐ T = Thiosulfate,
☐ O = Other

Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B=Blood/Serum
O = Other

Vista Analytical Laboratory

Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 1903823 TAT Std

Samples Arrival:	**Date/Time** 10/25/19 0840		**Initials:** WS		**Location:** WR-2 **Shelf/Rack:** N/a		
Delivered By:	(FedEx)	UPS	On Trac	GSO	DHL	Hand Delivered	Other
Preservation:	(Ice)		Blue Ice		Dry Ice		None
Temp °C: 0.6 (uncorrected) **Temp °C:** 0.6 (corrected)			**Probe used:** Y / (N)		**Thermometer ID:** IR-4		

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			✓
Airbill ~~#~~ 1 Trk # 7804 9905 8237	✓		
Shipping Documentation Present?	✓		
Shipping Container: Vista / (Client) / Retain / (Return) / Dispose			
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	**Date/Time** 10/27/19 1442	**Initials:** KE	**Location:** WR-2 **Shelf/Rack:** KE 10/27/19 ~~R7~~ R7	R-13 A4
COC Anomaly/Sample Acceptance Form completed?			✓	✓

Comments:

CoC/Label Reconciliation Report WO# 1903823

LabNumber	CoC Sample ID	Label ID matches COCID	Label ID doesn't match COCID	SampleAlias	Sampled	Label Sampled matches	Sampled doesn't match	Container	Container Correct	BaseMatrix	Sample Comments
1903823-01	A L14-2-GW	☑		14 ✓	23-Oct-19 09:51	☑		HDPE Bottle, 250 mL	☑	Aqueous ✓	
1903823-01	B L14-2-GW	☑	*"G" lined out	14	23-Oct-19 09:51	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903823-02	A L14-20-GW *	☑	"0" is smeared on label	14	23-Oct-19 09:51	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903823-02	B L14-20-GW	☑		14	23-Oct-19 09:51	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903823-03	A L14-4-GW	☑		14	23-Oct-19 15:21	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903823-03	B L14-4-GW	☑		14	23-Oct-19 15:21	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903823-04	A L14-3-1	☑		14 ⊛	24-Oct-19 13:56	☑		HDPE Jar, 6 oz	☑	Solid ✓	
1903823-05	A L14-3-5	☑		14	24-Oct-19 14:01	☑		HDPE Jar, 6 oz	☑	Solid	
1903823-06	A L14-3-10	☑		14	24-Oct-19 14:06	☑		HDPE Jar, 6 oz	☑	Solid	
1903823-07	A L14-5-1	☑		14	24-Oct-19 14:16	☑		HDPE Jar, 6 oz	☑	Solid	
1903823-08	A L14-5-5	☑		14	24-Oct-19 14:19	☑		HDPE Jar, 6 oz	☑	Solid	
1903823-09	A L14-5-10	☑		14	24-Oct-19 14:23	☑		HDPE Jar, 6 oz	☑	Solid	
1903823-10	A L14-6-1	☑		14	24-Oct-19 14:29	☑		HDPE Jar, 6 oz	☑	Solid	
1903823-11	A L14-6-5	☑		14	24-Oct-19 14:34	☑		HDPE Jar, 6 oz	☑	Solid	
1903823-12	A L14-6-10	☑		14	24-Oct-19 14:37	☑		HDPE Jar, 6 oz	☑	Solid	

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Preservation Documented: Na2S2O3 Trizma (None) Other		✓	✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments: ⊛ no location/alias on sample labels
all samples received in cooler 1 of 2.

Verifed by/Date: UUS 10/28/19

December 04, 2019

Vista Work Order No. 1903824

Mr. Jim Strandberg
Woodard & Curran
2175 North California Boulevard, Suite 315
Walnut Creek, CA 94596

Dear Mr. Strandberg,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on October 25, 2019 under your Project Name 'SJC PFAS Investigation'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1903824
Case Narrative

Sample Condition on Receipt:

Sixteen soil samples and four aqueous samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:

PFAS Isotope Dilution Method-Aqueous

The aqueous samples were extracted and analyzed for a selected list of PFAS using Vista's PFAS Isotope Dilution Method. This method is listed on Vista's NELAP certificate as Modified EPA Method 537. The results for PFHxS, PFOA, PFOS, MeFOSAA, and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Sample "L3-3-GW" contained particulate and was centrifuged prior to extraction.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit. The LCS/LCSD recoveries were within the acceptance criteria.

The labeled standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

PFAS Isotope Dilution Method-Solid

The solid samples were extracted and analyzed for a selected list of PFAS using Vista's PFAS Isotope Dilution Method. This method is listed on Vista's NELAP certificate as Modified EPA Method 537. The results for PFHxS, PFOA, PFOS, MeFOSAA, and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit. The OPR recoveries were within the method acceptance criteria.

As requested, an MS/MSD was performed on sample "L3-3-1". The MS/MSD recoveries and/or RPDs were out of the acceptance criteria for PFPeS and 8:2 FTS. All other analyte recoveries and/or RPDs were within the acceptance criteria.

The labeled standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1903824-01	EB-4	24-Oct-19 11:45	25-Oct-19 08:40	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903824-02	FB-5	24-Oct-19 09:29	25-Oct-19 08:40	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903824-03	L3-3-1	23-Oct-19 12:28	25-Oct-19 08:40	HDPE Jar, 6 oz
1903824-04	FB-4	23-Oct-19 12:01	25-Oct-19 08:40	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903824-05	L3-3-5	23-Oct-19 12:30	25-Oct-19 08:40	HDPE Jar, 6 oz
1903824-06	L3-3-10	23-Oct-19 12:32	25-Oct-19 08:40	HDPE Jar, 6 oz
1903824-07	L3-3-GW	23-Oct-19 13:16	25-Oct-19 08:40	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903824-08	L3-1-1	23-Oct-19 13:42	25-Oct-19 08:40	HDPE Jar, 6 oz
1903824-09	L3-1-5	23-Oct-19 13:46	25-Oct-19 08:40	HDPE Jar, 6 oz
1903824-10	L3-1-10	23-Oct-19 13:55	25-Oct-19 08:40	HDPE Jar, 6 oz
1903824-11	L3-2-1	23-Oct-19 13:11	25-Oct-19 08:40	HDPE Jar, 6 oz
1903824-12	L3-2-5	23-Oct-19 13:18	25-Oct-19 08:40	HDPE Jar, 6 oz
1903824-13	L3-2-10	23-Oct-19 13:20	25-Oct-19 08:40	HDPE Jar, 6 oz
1903824-14	L8/9-1-1	24-Oct-19 08:11	25-Oct-19 08:40	HDPE Jar, 6 oz
1903824-15	L8/9-1-5	24-Oct-19 08:15	25-Oct-19 08:40	HDPE Jar, 6 oz
1903824-16	L8/9-1-10	24-Oct-19 08:19	25-Oct-19 08:40	HDPE Jar, 6 oz
1903824-17	L8/9-2-1	24-Oct-19 08:33	25-Oct-19 08:40	HDPE Jar, 6 oz
1903824-18	L8/9-2-5	24-Oct-19 08:37	25-Oct-19 08:40	HDPE Jar, 6 oz
1903824-19	L8/9-2-10	24-Oct-19 08:41	25-Oct-19 08:40	HDPE Jar, 6 oz
1903824-20	L8/9-3-1	24-Oct-19 08:56	25-Oct-19 08:40	HDPE Jar, 6 oz

ANALYTICAL RESULTS

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous

Laboratory Data

Lab Sample: B9J0302-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFPeA	2706-90-3	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFBS	375-73-5	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
4:2 FTS	757124-72-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFHxA	307-24-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFPeS	2706-91-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFHpA	375-85-9	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFHxS	355-46-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
6:2 FTS	27619-97-2	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFOA	335-67-1	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFHpS	375-92-8	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFNA	375-95-1	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFOSA	754-91-6	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFOS	1763-23-1	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFDA	335-76-2	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
8:2 FTS	39108-34-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
MeFOSAA	2355-31-9	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
EtFOSAA	2991-50-6	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFUnA	2058-94-8	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFDS	335-77-3	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFDoA	307-55-1	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFTrDA	72629-94-8	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFTeDA	376-06-7	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	115	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C3-PFPeA	IS	86.7	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C3-PFBS	IS	95.0	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-4:2 FTS	IS	98.0	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFHxA	IS	83.5	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C4-PFHpA	IS	89.2	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C3-PFHxS	IS	93.5	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-6:2 FTS	IS	88.9	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C5-PFNA	IS	94.2	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C8-PFOSA	IS	41.5	50 - 150	H	B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFOA	IS	84.7	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C8-PFOS	IS	91.3	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFDA	IS	89.9	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-8:2 FTS	IS	97.5	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1

Sample ID: Method Blank — **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous

Laboratory Data

Lab Sample: B9J0302-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	77.2	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFUnA	IS	79.9	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
d5-EtFOSAA	IS	76.6	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFDoA	IS	72.0	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFTeDA	IS	72.2	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0302-BS1/B9J0302-BSD1
Project:	SJC PFAS Investigation	QC Batch:	B9J0302
Matrix:	Aqueous	Samp Size:	0.250/0.250 L
		Date Extracted:	01-Nov-19
		Column:	BEH C18

Analyte	CAS Number	LCS (ng/L)	LCS Spike	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBA	375-22-4	40.9	40.0	102		38.7	40.0	96.6	5.67		73-129	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFPeA	2706-90-3	42.5	40.0	106		40.8	40.0	102	4.11		72-129	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFBS	375-73-5	42.4	40.0	106		38.1	40.0	95.2	10.7		72-130	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
4:2 FTS	757124-72-4	35.5	40.0	88.8		34.9	40.0	87.3	1.63		63-143	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFHxA	307-24-4	41.2	40.0	103		42.3	40.0	106	2.82		72-129	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFPeS	2706-91-4	37.5	40.0	93.8		34.0	40.0	84.9	9.94		71-127	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFHpA	375-85-9	43.7	40.0	109		41.7	40.0	104	4.60		72-130	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFHxS	355-46-4	35.0	40.0	87.4		34.5	40.0	86.4	1.18		68-131	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
6:2 FTS	27619-97-2	43.6	40.0	109		40.7	40.0	102	6.87		64-140	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFOA	335-67-1	36.0	40.0	90.0		36.6	40.0	91.6	1.67		71-133	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFHpS	375-92-8	44.5	40.0	111		43.1	40.0	108	3.19		69-134	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFNA	375-95-1	43.7	40.0	109		42.2	40.0	105	3.59		69-130	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFOSA	754-91-6	37.8	40.0	94.5		39.5	40.0	98.7	4.33		67-137	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFOS	1763-23-1	41.9	40.0	105		40.5	40.0	101	3.41		65-140	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFDA	335-76-2	40.7	40.0	102		41.0	40.0	103	0.785		71-129	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
8:2 FTS	39108-34-4	33.8	40.0	84.5		32.2	40.0	80.6	4.73		67-138	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
MeFOSAA	2355-31-9	35.3	40.0	88.1		35.5	40.0	88.8	0.794		65-136	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
EtFOSAA	2991-50-6	36.3	40.0	90.9		33.0	40.0	82.6	9.50		61-135	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFUnA	2058-94-8	42.1	40.0	105		42.2	40.0	106	0.426		69-133	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFDS	335-77-3	34.9	40.0	87.3		30.7	40.0	76.8	12.8		53-142	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFDoA	307-55-1	44.2	40.0	110		43.2	40.0	108	2.17		72-134	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFTrDA	72629-94-8	37.8	40.0	94.4		34.8	40.0	86.9	8.23		65-144	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFTeDA	376-06-7	42.6	40.0	106		41.9	40.0	105	1.56		71-132	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBA	IS	101		121		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C3-PFPeA	IS	77.3		91.3		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C3-PFBS	IS	85.8		110		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-4:2 FTS	IS	86.8		97.8		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFHxA	IS	78.8		86.5		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C4-PFHpA	IS	82.3		90.9		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C3-PFHxS	IS	92.0		103		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-6:2 FTS	IS	79.8		97.8		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0302-BS1/B9J0302-BSD1	Date Extracted:	01-Nov-19
Project:	SJC PFAS Investigation	QC Batch:	B9J0302	Column:	BEH C18
Matrix:	Aqueous	Samp Size:	0.250/0.250 L		

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C5-PFNA	IS	88.3		102		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C8-PFOSA	IS	35.5	H	39.8	H	50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFOA	IS	80.9		90.9		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C8-PFOS	IS	88.8		104		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFDA	IS	87.7		99.2		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-8:2 FTS	IS	91.0		104		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
d3-MeFOSAA	IS	69.4		74.9		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFUnA	IS	80.7		84.4		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
d5-EtFOSAA	IS	70.8		85.2		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFDoA	IS	66.9		71.6		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFTeDA	IS	73.0		60.4		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1

Sample ID: EB-4

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Aqueous
Date Collected: 24-Oct-19 11:45

Laboratory Data

Lab Sample: 1903824-01
Date Received: 25-Oct-19 08:40
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFPeA	2706-90-3	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFBS	375-73-5	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
4:2 FTS	757124-72-4	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFHxA	307-24-4	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFPeS	2706-91-4	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFHpA	375-85-9	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFHxS	355-46-4	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
6:2 FTS	27619-97-2	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFOA	335-67-1	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFHpS	375-92-8	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFNA	375-95-1	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFOSA	754-91-6	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFOS	1763-23-1	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFDA	335-76-2	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
8:2 FTS	39108-34-4	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
MeFOSAA	2355-31-9	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
EtFOSAA	2991-50-6	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFUnA	2058-94-8	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFDS	335-77-3	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFDoA	307-55-1	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFTrDA	72629-94-8	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
PFTeDA	376-06-7	ND	2.03		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	124	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
13C3-PFPeA	IS	92.4	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
13C3-PFBS	IS	94.6	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
13C2-4:2 FTS	IS	95.7	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
13C2-PFHxA	IS	89.4	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
13C4-PFHpA	IS	97.5	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
13C3-PFHxS	IS	97.1	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
13C2-6:2 FTS	IS	95.4	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
13C5-PFNA	IS	100	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
13C8-PFOSA	IS	37.6	50 - 150	H	B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
13C2-PFOA	IS	94.9	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
13C8-PFOS	IS	98.6	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
13C2-PFDA	IS	92.6	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
13C2-8:2 FTS	IS	116	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1

Sample ID: EB-4

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Aqueous
Date Collected: 24-Oct-19 11:45

Laboratory Data

Lab Sample: 1903824-01
Date Received: 25-Oct-19 08:40
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	83.5	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
13C2-PFUnA	IS	96.4	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
d5-EtFOSAA	IS	81.0	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
13C2-PFDoA	IS	82.9	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1
13C2-PFTeDA	IS	80.5	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:43	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: FB-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Aqueous
Date Collected: 24-Oct-19 09:29

Laboratory Data

Lab Sample: 1903824-02
Date Received: 25-Oct-19 08:40
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFPeA	2706-90-3	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFBS	375-73-5	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
4:2 FTS	757124-72-4	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFHxA	307-24-4	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFPeS	2706-91-4	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFHpA	375-85-9	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFHxS	355-46-4	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
6:2 FTS	27619-97-2	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFOA	335-67-1	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFHpS	375-92-8	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFNA	375-95-1	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFOSA	754-91-6	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFOS	1763-23-1	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFDA	335-76-2	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
8:2 FTS	39108-34-4	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
MeFOSAA	2355-31-9	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
EtFOSAA	2991-50-6	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFUnA	2058-94-8	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFDS	335-77-3	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFDoA	307-55-1	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFTrDA	72629-94-8	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
PFTeDA	376-06-7	ND	2.02		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	131	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
13C3-PFPeA	IS	96.2	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
13C3-PFBS	IS	112	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
13C2-4:2 FTS	IS	103	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
13C2-PFHxA	IS	96.6	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
13C4-PFHpA	IS	92.7	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
13C3-PFHxS	IS	96.6	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
13C2-6:2 FTS	IS	101	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
13C5-PFNA	IS	99.9	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
13C8-PFOSA	IS	44.0	50 - 150	H	B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
13C2-PFOA	IS	94.8	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
13C8-PFOS	IS	101	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
13C2-PFDA	IS	107	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
13C2-8:2 FTS	IS	103	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1

Sample ID: FB-5 **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Aqueous
Date Collected: 24-Oct-19 09:29

Laboratory Data

Lab Sample: 1903824-02
Date Received: 25-Oct-19 08:40
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	82.7	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
13C2-PFUnA	IS	97.7	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
d5-EtFOSAA	IS	93.4	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
13C2-PFDoA	IS	82.6	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1
13C2-PFTeDA	IS	68.4	50 - 150		B9J0302	01-Nov-19	0.247 L	11-Nov-19 23:53	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: FB-4

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Aqueous
Date Collected: 23-Oct-19 12:01

Laboratory Data

Lab Sample: 1903824-04
Date Received: 25-Oct-19 08:40
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFPeA	2706-90-3	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFBS	375-73-5	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
4:2 FTS	757124-72-4	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFHxA	307-24-4	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFPeS	2706-91-4	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFHpA	375-85-9	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFHxS	355-46-4	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
6:2 FTS	27619-97-2	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFOA	335-67-1	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFHpS	375-92-8	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFNA	375-95-1	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFOSA	754-91-6	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFOS	1763-23-1	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFDA	335-76-2	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
8:2 FTS	39108-34-4	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
MeFOSAA	2355-31-9	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
EtFOSAA	2991-50-6	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFUnA	2058-94-8	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFDS	335-77-3	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFDoA	307-55-1	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFTrDA	72629-94-8	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
PFTeDA	376-06-7	ND	2.01		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	154	50 - 150	H	B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
13C3-PFPeA	IS	114	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
13C3-PFBS	IS	131	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
13C2-4:2 FTS	IS	123	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
13C2-PFHxA	IS	112	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
13C4-PFHpA	IS	114	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
13C3-PFHxS	IS	118	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
13C2-6:2 FTS	IS	105	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
13C5-PFNA	IS	120	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
13C8-PFOSA	IS	45.9	50 - 150	H	B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
13C2-PFOA	IS	104	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
13C8-PFOS	IS	121	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
13C2-PFDA	IS	118	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
13C2-8:2 FTS	IS	127	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1

Sample ID: FB-4 **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 14
Matrix: Aqueous
Date Collected: 23-Oct-19 12:01

Laboratory Data

Lab Sample: 1903824-04
Date Received: 25-Oct-19 08:40
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	94.3	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
13C2-PFUnA	IS	114	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
d5-EtFOSAA	IS	97.4	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
13C2-PFDoA	IS	88.6	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1
13C2-PFTeDA	IS	72.3	50 - 150		B9J0302	01-Nov-19	0.249 L	12-Nov-19 00:25	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L3-3-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 3
Matrix: Aqueous
Date Collected: 23-Oct-19 13:16

Laboratory Data

Lab Sample: 1903824-07
Date Received: 25-Oct-19 08:40
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	10.2	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFPeA	2706-90-3	7.78	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFBS	375-73-5	12.6	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
4:2 FTS	757124-72-4	ND	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFHxA	307-24-4	15.1	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFPeS	2706-91-4	5.55	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFHpA	375-85-9	3.28	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFHxS	355-46-4	37.2	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
6:2 FTS	27619-97-2	2.58	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFOA	335-67-1	29.7	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFHpS	375-92-8	ND	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFNA	375-95-1	ND	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFOSA	754-91-6	ND	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFOS	1763-23-1	37.9	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFDA	335-76-2	ND	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
8:2 FTS	39108-34-4	ND	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
MeFOSAA	2355-31-9	ND	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
EtFOSAA	2991-50-6	ND	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFUnA	2058-94-8	ND	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFDS	335-77-3	ND	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFDoA	307-55-1	ND	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFTrDA	72629-94-8	ND	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
PFTeDA	376-06-7	ND	2.10		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	113	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
13C3-PFPeA	IS	111	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
13C3-PFBS	IS	109	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
13C2-4:2 FTS	IS	107	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
13C2-PFHxA	IS	115	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
13C4-PFHpA	IS	113	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
13C3-PFHxS	IS	109	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
13C2-6:2 FTS	IS	102	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
13C5-PFNA	IS	111	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
13C8-PFOSA	IS	58.1	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
13C2-PFOA	IS	102	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
13C8-PFOS	IS	111	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
13C2-PFDA	IS	112	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
13C2-8:2 FTS	IS	105	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1

Sample ID: L3-3-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 3
Matrix: Aqueous
Date Collected: 23-Oct-19 13:16

Laboratory Data

Lab Sample: 1903824-07
Date Received: 25-Oct-19 08:40
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	98.9	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
13C2-PFUnA	IS	95.2	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
d5-EtFOSAA	IS	88.3	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
13C2-PFDoA	IS	71.3	50 - 150		B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1
13C2-PFTeDA	IS	27.8	50 - 150	H	B9J0302	01-Nov-19	0.238 L	12-Nov-19 00:36	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0012-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFPeA	2706-90-3	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFBS	375-73-5	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
4:2 FTS	757124-72-4	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFHxA	307-24-4	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFPeS	2706-91-4	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFHpA	375-85-9	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFHxS	355-46-4	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
6:2 FTS	27619-97-2	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFOA	335-67-1	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFHpS	375-92-8	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFNA	375-95-1	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFOSA	754-91-6	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFOS	1763-23-1	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFDA	335-76-2	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
8:2 FTS	39108-34-4	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
MeFOSAA	2355-31-9	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
EtFOSAA	2991-50-6	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFUnA	2058-94-8	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFDS	335-77-3	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFDoA	307-55-1	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFTrDA	72629-94-8	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
PFTeDA	376-06-7	ND	2.00		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	142	50 - 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
13C3-PFPeA	IS	72.2	50 - 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
13C3-PFBS	IS	86.5	50 - 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
13C2-4:2 FTS	IS	89.3	50 - 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
13C2-PFHxA	IS	70.1	50 - 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
13C4-PFHpA	IS	68.5	50 - 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
13C3-PFHxS	IS	88.2	50 - 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
13C2-6:2 FTS	IS	80.4	50 - 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
13C5-PFNA	IS	66.4	50 - 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
13C8-PFOSA	IS	20.3	50 - 150	H	B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
13C2-PFOA	IS	72.6	50 - 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
13C8-PFOS	IS	88.4	50 - 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
13C2-PFDA	IS	55.1	50 - 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
13C2-8:2 FTS	IS	92.0	50 - 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0012-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	49.0	50 - 150	H	B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
13C2-PFUnA	IS	44.9	50 - 150	H	B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
d5-EtFOSAA	IS	50.2	50 - 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
13C2-PFDoA	IS	37.3	50 - 150	H	B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1
13C2-PFTeDA	IS	53.8	50 - 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:48	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: OPR **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0012-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/g)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	9.92	10.0	99.2	71 - 135		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFPeA	2706-90-3	10.9	10.0	109	69 - 132		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFBS	375-73-5	9.92	10.0	99.2	72 - 128		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
4:2 FTS	757124-72-4	10.4	10.0	104	62 - 145		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFHxA	307-24-4	10.6	10.0	106	70 - 132		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFPeS	2706-91-4	10.5	10.0	105	73 - 123		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFHpA	375-85-9	9.44	10.0	94.4	71 - 131		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFHxS	355-46-4	9.72	10.0	97.2	67 - 130		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
6:2 FTS	27619-97-2	8.98	10.0	89.8	64 - 140		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFOA	335-67-1	11.0	10.0	110	69 - 133		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFHpS	375-92-8	10.6	10.0	106	70 - 132		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFNA	375-95-1	9.76	10.0	97.6	72 - 129		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFOSA	754-91-6	11.9	10.0	119	67 - 137		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFOS	1763-23-1	9.95	10.0	99.3	68 - 136		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFDA	335-76-2	10.4	10.0	104	69 - 133		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
8:2 FTS	39108-34-4	9.19	10.0	91.9	65 - 137		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
MeFOSAA	2355-31-9	10.4	10.0	104	63 - 144		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
EtFOSAA	2991-50-6	9.06	10.0	90.6	61 - 139		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFUnA	2058-94-8	11.6	10.0	116	64 - 136		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFDS	335-77-3	8.49	10.0	84.7	59 - 134		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFDoA	307-55-1	10.4	10.0	104	69 - 135		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFTrDA	72629-94-8	11.1	10.0	111	66 - 139		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
PFTeDA	376-06-7	10.9	10.0	109	69 - 133		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	153	50- 150	H	B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
13C3-PFPeA	IS	76.3	50- 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
13C3-PFBS	IS	87.6	50- 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
13C2-4:2 FTS	IS	89.6	50- 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
13C2-PFHxA	IS	75.1	50- 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
13C4-PFHpA	IS	77.5	50- 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
13C3-PFHxS	IS	95.7	50- 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
13C2-6:2 FTS	IS	86.5	50- 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
13C5-PFNA	IS	67.8	50- 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
13C8-PFOSA	IS	25.0	50- 150	H	B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
13C2-PFOA	IS	70.3	50- 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1

Sample ID: OPR — **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0012-BS1
Column: BEH C18

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOS	IS	83.6	50- 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
13C2-PFDA	IS	60.6	50- 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
13C2-8:2 FTS	IS	107	50- 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
d3-MeFOSAA	IS	52.7	50- 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
13C2-PFUnA	IS	49.3	50- 150	H	B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
d5-EtFOSAA	IS	46.1	50- 150	H	B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
13C2-PFDoA	IS	51.8	50- 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1
13C2-PFTeDA	IS	65.7	50- 150		B9K0012	11-Nov-19	1.00 g	19-Nov-19 23:58	1

Sample ID: L3-3-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 3
Matrix: Soil
Date Collected: 23-Oct-19 12:28

Laboratory Data

Lab Sample: 1903824-03
Date Received: 25-Oct-19 08:40
% Solids: 86.8
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFPeA	2706-90-3	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFBS	375-73-5	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
4:2 FTS	757124-72-4	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFHxA	307-24-4	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFPeS	2706-91-4	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFHpA	375-85-9	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFHxS	355-46-4	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
6:2 FTS	27619-97-2	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFOA	335-67-1	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFHpS	375-92-8	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFNA	375-95-1	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFOSA	754-91-6	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFOS	1763-23-1	4.67	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFDA	335-76-2	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
8:2 FTS	39108-34-4	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
MeFOSAA	2355-31-9	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
EtFOSAA	2991-50-6	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFUnA	2058-94-8	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFDS	335-77-3	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFDoA	307-55-1	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFTrDA	72629-94-8	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
PFTeDA	376-06-7	ND	1.97		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	157	50 - 150	H	B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
13C3-PFPeA	IS	82.3	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
13C3-PFBS	IS	88.5	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
13C2-4:2 FTS	IS	92.5	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
13C2-PFHxA	IS	79.0	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
13C4-PFHpA	IS	76.7	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
13C3-PFHxS	IS	96.5	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
13C2-6:2 FTS	IS	91.4	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
13C5-PFNA	IS	71.1	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
13C8-PFOSA	IS	38.1	50 - 150	H	B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
13C2-PFOA	IS	75.4	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
13C8-PFOS	IS	91.6	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
13C2-PFDA	IS	68.2	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
13C2-8:2 FTS	IS	108	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1

Sample ID: L3-3-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 12:28
Location:	3		

Laboratory Data

Lab Sample:	1903824-03	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	86.8		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	66.9	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
13C2-PFUnA	IS	74.0	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
d5-EtFOSAA	IS	59.5	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
13C2-PFDoA	IS	68.7	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1
13C2-PFTeDA	IS	58.5	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 00:30	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L3-3-1 **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9K0012-MS1/B9K0012-MSD1	Source Lab Sample:	1903824-03
Project:	SJC PFAS Investigation	QC Batch:	B9K0012	Date Extracted:	11-Nov-19
Matrix:	Solid	Samp Size:	1.17/1.15 g	Column:	BEH C18

Analyte	CAS Number	Sample (ng/g)	MS (ng/g)	MS Spike	MS % Rec	MS Quals	MSD (ng/g)	MSD Spike	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBA	375-22-4	ND	10.1	9.85	103		10.4	10.0	104	0.966		71-135	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFPeA	2706-90-3	ND	11.6	9.85	118		11.2	10.0	112	5.22		69-132	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFBS	375-73-5	ND	11.5	9.85	117		11.0	10.0	110	6.17		72-128	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
4:2 FTS	757124-72-4	ND	10.6	9.85	107		10.8	10.0	108	0.930		62-145	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFHxA	307-24-4	ND	10.9	9.85	111		10.4	10.0	104	6.51		70-132	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFPeS	2706-91-4	ND	12.2	9.85	124	H	12.2	10.0	122	1.63		73-123	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFHpA	375-85-9	ND	10.1	9.85	103		9.63	10.0	96.3	6.72		71-131	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFHxS	355-46-4	ND	11.7	9.85	107		13.3	10.0	121	12.3		67-130	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
6:2 FTS	27619-97-2	ND	9.63	9.85	97.8		11.1	10.0	111	12.6		64-140	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFOA	335-67-1	ND	11.4	9.85	114		11.1	10.0	110	3.57		69-133	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFHpS	375-92-8	ND	11.1	9.85	110		12.3	10.0	121	9.52		70-132	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFNA	375-95-1	ND	10.9	9.85	110		10.6	10.0	106	3.70		72-129	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFOSA	754-91-6	ND	9.86	9.85	100		9.94	10.0	99.4	0.602		67-137	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFOS	1763-23-1	4.67	15.0	9.87	105		15.7	10.0	110	4.65		68-136	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFDA	335-76-2	ND	10.4	9.85	106		11.0	10.0	110	3.70		69-133	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
8:2 FTS	39108-34-4	ND	9.24	9.85	93.8		13.0	10.0	130	32.4	H	65-137	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
MeFOSAA	2355-31-9	ND	11.1	9.85	112		8.92	10.0	89.2	22.7		63-144	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
EtFOSAA	2991-50-6	ND	9.46	9.85	96.0		12.2	10.0	122	23.9		61-139	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFUnA	2058-94-8	ND	10.6	9.85	108		11.6	10.0	116	7.14		64-136	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFDS	335-77-3	ND	10.9	9.87	111		10.6	10.0	106	4.61		59-134	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFDoA	307-55-1	ND	11.7	9.85	119		11.5	10.0	115	3.42		69-135	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFTrDA	72629-94-8	ND	10.3	9.85	104		10.3	10.0	103	0.966		66-139	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1
PFTeDA	376-06-7	ND	11.1	9.85	112		11.5	10.0	115	2.64		69-133	30	20-Nov-19 00:09	1	20-Nov-19 00:19	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C3-PFBA	IS	164	H	154	H	50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
13C3-PFPeA	IS	80.4		79.3		50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
13C3-PFBS	IS	75.8		79.0		50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
13C2-4:2 FTS	IS	92.5		100		50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
13C2-PFHxA	IS	78.8		81.0		50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
13C4-PFHpA	IS	80.4		82.8		50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
13C3-PFHxS	IS	86.6		80.8		50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
13C2-6:2 FTS	IS	85.0		82.3		50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1

Sample ID: L3-3-1 **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9K0012-MS1/B9K0012-MSD1	Source Lab Sample:	1903824-03
Project:	SJC PFAS Investigation	QC Batch:	B9K0012	Date Extracted:	11-Nov-19
Matrix:	Solid	Samp Size:	1.17/1.15 g	Column:	BEH C18

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C5-PFNA	IS	67.5		70.2		50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
13C8-PFOSA	IS	48.0	H	31.5	H	50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
13C2-PFOA	IS	76.6		79.9		50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
13C8-PFOS	IS	80.7		82.4		50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
13C2-PFDA	IS	63.2		61.4		50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
13C2-8:2 FTS	IS	102		84.7		50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
d3-MeFOSAA	IS	53.5		72.6		50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
13C2-PFUnA	IS	67.2		64.0		50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
d5-EtFOSAA	IS	54.7		61.8		50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
13C2-PFDoA	IS	64.5		63.3		50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1
13C2-PFTeDA	IS	46.2	H	49.0	H	50-150	20-Nov-19 00:09	1	20-Nov-19 00:19	1

Sample ID: L3-3-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 3
Matrix: Soil
Date Collected: 23-Oct-19 12:30

Laboratory Data

Lab Sample: 1903824-05
Date Received: 25-Oct-19 08:40
% Solids: 75.0
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFPeA	2706-90-3	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFBS	375-73-5	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
4:2 FTS	757124-72-4	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFHxA	307-24-4	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFPeS	2706-91-4	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFHpA	375-85-9	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFHxS	355-46-4	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
6:2 FTS	27619-97-2	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFOA	335-67-1	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFHpS	375-92-8	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFNA	375-95-1	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFOSA	754-91-6	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFOS	1763-23-1	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFDA	335-76-2	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
8:2 FTS	39108-34-4	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
MeFOSAA	2355-31-9	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
EtFOSAA	2991-50-6	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFUnA	2058-94-8	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFDS	335-77-3	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFDoA	307-55-1	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFTrDA	72629-94-8	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
PFTeDA	376-06-7	ND	1.99		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	165	50 - 150	H	B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
13C3-PFPeA	IS	85.1	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
13C3-PFBS	IS	87.5	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
13C2-4:2 FTS	IS	85.3	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
13C2-PFHxA	IS	84.8	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
13C4-PFHpA	IS	81.6	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
13C3-PFHxS	IS	92.6	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
13C2-6:2 FTS	IS	89.2	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
13C5-PFNA	IS	69.8	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
13C8-PFOSA	IS	50.0	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
13C2-PFOA	IS	75.6	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
13C8-PFOS	IS	79.0	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
13C2-PFDA	IS	60.3	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
13C2-8:2 FTS	IS	107	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1

Sample ID: L3-3-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 12:30
Location:	3		

Laboratory Data

Lab Sample:	1903824-05	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	75.0		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	61.5	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
13C2-PFUnA	IS	63.6	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
d5-EtFOSAA	IS	55.6	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
13C2-PFDoA	IS	59.5	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1
13C2-PFTeDA	IS	63.7	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 00:40	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L3-3-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 3
Matrix: Soil
Date Collected: 23-Oct-19 12:32

Laboratory Data

Lab Sample: 1903824-06
Date Received: 25-Oct-19 08:40
% Solids: 79.1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFPeA	2706-90-3	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFBS	375-73-5	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
4:2 FTS	757124-72-4	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFHxA	307-24-4	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFPeS	2706-91-4	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFHpA	375-85-9	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFHxS	355-46-4	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
6:2 FTS	27619-97-2	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFOA	335-67-1	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFHpS	375-92-8	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFNA	375-95-1	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFOSA	754-91-6	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFOS	1763-23-1	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFDA	335-76-2	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
8:2 FTS	39108-34-4	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
MeFOSAA	2355-31-9	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
EtFOSAA	2991-50-6	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFUnA	2058-94-8	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFDS	335-77-3	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFDoA	307-55-1	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFTrDA	72629-94-8	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
PFTeDA	376-06-7	ND	1.99		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	153	50 - 150	H	B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
13C3-PFPeA	IS	80.2	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
13C3-PFBS	IS	94.4	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
13C2-4:2 FTS	IS	96.4	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
13C2-PFHxA	IS	77.6	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
13C4-PFHpA	IS	77.8	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
13C3-PFHxS	IS	103	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
13C2-6:2 FTS	IS	89.7	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
13C5-PFNA	IS	75.3	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
13C8-PFOSA	IS	44.1	50 - 150	H	B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
13C2-PFOA	IS	78.5	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
13C8-PFOS	IS	87.0	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
13C2-PFDA	IS	71.3	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
13C2-8:2 FTS	IS	85.6	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1

Sample ID: L3-3-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 12:32
Location:	3		

Laboratory Data

Lab Sample:	1903824-06	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	79.1		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	67.8	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
13C2-PFUnA	IS	65.9	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
d5-EtFOSAA	IS	71.1	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
13C2-PFDoA	IS	61.9	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1
13C2-PFTeDA	IS	67.8	50 - 150		B9K0012	11-Nov-19	1.27 g	20-Nov-19 00:51	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L3-1-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 3
Matrix: Soil
Date Collected: 23-Oct-19 13:42

Laboratory Data

Lab Sample: 1903824-08
Date Received: 25-Oct-19 08:40
% Solids: 83.5
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFPeA	2706-90-3	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFBS	375-73-5	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
4:2 FTS	757124-72-4	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFHxA	307-24-4	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFPeS	2706-91-4	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFHpA	375-85-9	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFHxS	355-46-4	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
6:2 FTS	27619-97-2	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFOA	335-67-1	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFHpS	375-92-8	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFNA	375-95-1	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFOSA	754-91-6	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFOS	1763-23-1	14.8	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFDA	335-76-2	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
8:2 FTS	39108-34-4	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
MeFOSAA	2355-31-9	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
EtFOSAA	2991-50-6	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFUnA	2058-94-8	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFDS	335-77-3	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFDoA	307-55-1	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFTrDA	72629-94-8	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
PFTeDA	376-06-7	ND	1.96		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	172	50 - 150	H	B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
13C3-PFPeA	IS	88.7	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
13C3-PFBS	IS	85.7	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
13C2-4:2 FTS	IS	86.3	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
13C2-PFHxA	IS	87.9	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
13C4-PFHpA	IS	83.3	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
13C3-PFHxS	IS	100	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
13C2-6:2 FTS	IS	83.6	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
13C5-PFNA	IS	75.2	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
13C8-PFOSA	IS	46.4	50 - 150	H	B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
13C2-PFOA	IS	81.0	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
13C8-PFOS	IS	90.1	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
13C2-PFDA	IS	67.2	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
13C2-8:2 FTS	IS	95.1	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1

Sample ID: L3-1-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 13:42
Location:	3		

Laboratory Data

Lab Sample:	1903824-08	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	83.5		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	61.6	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
13C2-PFUnA	IS	70.4	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
d5-EtFOSAA	IS	53.6	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
13C2-PFDoA	IS	70.2	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1
13C2-PFTeDA	IS	53.3	50 - 150		B9K0012	11-Nov-19	1.22 g	20-Nov-19 01:01	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L3-1-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 3
Matrix: Soil
Date Collected: 23-Oct-19 13:46

Laboratory Data

Lab Sample: 1903824-09
Date Received: 25-Oct-19 08:40
% Solids: 73.1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFPeA	2706-90-3	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFBS	375-73-5	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
4:2 FTS	757124-72-4	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFHxA	307-24-4	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFPeS	2706-91-4	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFHpA	375-85-9	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFHxS	355-46-4	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
6:2 FTS	27619-97-2	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFOA	335-67-1	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFHpS	375-92-8	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFNA	375-95-1	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFOSA	754-91-6	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFOS	1763-23-1	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFDA	335-76-2	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
8:2 FTS	39108-34-4	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
MeFOSAA	2355-31-9	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
EtFOSAA	2991-50-6	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFUnA	2058-94-8	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFDS	335-77-3	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFDoA	307-55-1	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFTrDA	72629-94-8	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
PFTeDA	376-06-7	ND	1.97		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	154	50 - 150	H	B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
13C3-PFPeA	IS	79.3	50 - 150		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
13C3-PFBS	IS	82.4	50 - 150		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
13C2-4:2 FTS	IS	87.3	50 - 150		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
13C2-PFHxA	IS	84.3	50 - 150		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
13C4-PFHpA	IS	78.4	50 - 150		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
13C3-PFHxS	IS	88.1	50 - 150		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
13C2-6:2 FTS	IS	79.6	50 - 150		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
13C5-PFNA	IS	68.0	50 - 150		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
13C8-PFOSA	IS	31.6	50 - 150	H	B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
13C2-PFOA	IS	75.5	50 - 150		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
13C8-PFOS	IS	88.4	50 - 150		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
13C2-PFDA	IS	62.7	50 - 150		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
13C2-8:2 FTS	IS	100	50 - 150		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1

Sample ID: L3-1-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 13:46
Location:	3		

Laboratory Data

Lab Sample:	1903824-09	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	73.1		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	54.3	50 - 150		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
13C2-PFUnA	IS	59.5	50 - 150		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
d5-EtFOSAA	IS	46.5	50 - 150	H	B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
13C2-PFDoA	IS	54.7	50 - 150		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1
13C2-PFTeDA	IS	65.6	50 - 150		B9K0012	11-Nov-19	1.39 g	20-Nov-19 01:12	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L3-1-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 3
Matrix: Soil
Date Collected: 23-Oct-19 13:55

Laboratory Data

Lab Sample: 1903824-10
Date Received: 25-Oct-19 08:40
% Solids: 79.9
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFPeA	2706-90-3	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFBS	375-73-5	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
4:2 FTS	757124-72-4	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFHxA	307-24-4	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFPeS	2706-91-4	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFHpA	375-85-9	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFHxS	355-46-4	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
6:2 FTS	27619-97-2	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFOA	335-67-1	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFHpS	375-92-8	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFNA	375-95-1	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFOSA	754-91-6	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFOS	1763-23-1	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFDA	335-76-2	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
8:2 FTS	39108-34-4	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
MeFOSAA	2355-31-9	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
EtFOSAA	2991-50-6	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFUnA	2058-94-8	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFDS	335-77-3	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFDoA	307-55-1	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFTrDA	72629-94-8	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
PFTeDA	376-06-7	ND	2.00		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	121	50 - 150		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
13C3-PFPeA	IS	58.5	50 - 150		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
13C3-PFBS	IS	75.1	50 - 150		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
13C2-4:2 FTS	IS	80.1	50 - 150		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
13C2-PFHxA	IS	54.2	50 - 150		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
13C4-PFHpA	IS	56.7	50 - 150		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
13C3-PFHxS	IS	83.7	50 - 150		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
13C2-6:2 FTS	IS	67.7	50 - 150		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
13C5-PFNA	IS	50.5	50 - 150		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
13C8-PFOSA	IS	28.8	50 - 150	H	B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
13C2-PFOA	IS	59.0	50 - 150		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
13C8-PFOS	IS	78.1	50 - 150		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
13C2-PFDA	IS	50.1	50 - 150		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
13C2-8:2 FTS	IS	89.8	50 - 150		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1

Sample ID: L3-1-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 13:55
Location:	3		

Laboratory Data

Lab Sample:	1903824-10	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	79.9		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	50.8	50 - 150		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
13C2-PFUnA	IS	46.5	50 - 150	H	B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
d5-EtFOSAA	IS	43.2	50 - 150	H	B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
13C2-PFDoA	IS	43.7	50 - 150	H	B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1
13C2-PFTeDA	IS	53.0	50 - 150		B9K0012	11-Nov-19	1.25 g	20-Nov-19 01:22	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L3-2-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 3
Matrix: Soil
Date Collected: 23-Oct-19 13:11

Laboratory Data

Lab Sample: 1903824-11
Date Received: 25-Oct-19 08:40
% Solids: 83.6
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFPeA	2706-90-3	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFBS	375-73-5	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
4:2 FTS	757124-72-4	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFHxA	307-24-4	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFPeS	2706-91-4	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFHpA	375-85-9	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFHxS	355-46-4	9.56	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
6:2 FTS	27619-97-2	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFOA	335-67-1	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFHpS	375-92-8	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFNA	375-95-1	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFOSA	754-91-6	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFOS	1763-23-1	26.7	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFDA	335-76-2	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
8:2 FTS	39108-34-4	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
MeFOSAA	2355-31-9	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
EtFOSAA	2991-50-6	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFUnA	2058-94-8	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFDS	335-77-3	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFDoA	307-55-1	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFTrDA	72629-94-8	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
PFTeDA	376-06-7	ND	1.99		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	136	50 - 150		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
13C3-PFPeA	IS	68.7	50 - 150		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
13C3-PFBS	IS	83.5	50 - 150		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
13C2-4:2 FTS	IS	86.5	50 - 150		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
13C2-PFHxA	IS	63.4	50 - 150		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
13C4-PFHpA	IS	61.4	50 - 150		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
13C3-PFHxS	IS	83.2	50 - 150		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
13C2-6:2 FTS	IS	76.4	50 - 150		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
13C5-PFNA	IS	51.9	50 - 150		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
13C8-PFOSA	IS	39.8	50 - 150	H	B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
13C2-PFOA	IS	55.1	50 - 150		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
13C8-PFOS	IS	75.2	50 - 150		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
13C2-PFDA	IS	50.3	50 - 150		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
13C2-8:2 FTS	IS	72.2	50 - 150		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1

Sample ID: L3-2-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 13:11
Location:	3		

Laboratory Data

Lab Sample:	1903824-11	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	83.6		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	72.3	50 - 150		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
13C2-PFUnA	IS	49.9	50 - 150	H	B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
d5-EtFOSAA	IS	68.8	50 - 150		B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
13C2-PFDoA	IS	45.9	50 - 150	H	B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1
13C2-PFTeDA	IS	25.8	50 - 150	H	B9K0012	11-Nov-19	1.20 g	20-Nov-19 01:33	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L3-2-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 3
Matrix: Soil
Date Collected: 23-Oct-19 13:18

Laboratory Data

Lab Sample: 1903824-12
Date Received: 25-Oct-19 08:40
% Solids: 74.5
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFPeA	2706-90-3	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFBS	375-73-5	3.09	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
4:2 FTS	757124-72-4	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFHxA	307-24-4	5.16	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFPeS	2706-91-4	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFHpA	375-85-9	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFHxS	355-46-4	2.19	2.00	Q	B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
6:2 FTS	27619-97-2	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFOA	335-67-1	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFHpS	375-92-8	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFNA	375-95-1	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFOSA	754-91-6	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFOS	1763-23-1	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFDA	335-76-2	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
8:2 FTS	39108-34-4	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
MeFOSAA	2355-31-9	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
EtFOSAA	2991-50-6	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFUnA	2058-94-8	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFDS	335-77-3	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFDoA	307-55-1	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFTrDA	72629-94-8	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
PFTeDA	376-06-7	ND	2.00		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	144	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
13C3-PFPeA	IS	72.4	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
13C3-PFBS	IS	86.4	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
13C2-4:2 FTS	IS	93.4	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
13C2-PFHxA	IS	75.3	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
13C4-PFHpA	IS	71.5	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
13C3-PFHxS	IS	94.4	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
13C2-6:2 FTS	IS	78.0	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
13C5-PFNA	IS	65.5	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
13C8-PFOSA	IS	39.2	50 - 150	H	B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
13C2-PFOA	IS	70.0	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
13C8-PFOS	IS	83.1	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
13C2-PFDA	IS	62.3	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
13C2-8:2 FTS	IS	85.3	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1

Sample ID: L3-2-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 13:18
Location:	3		

Laboratory Data

Lab Sample:	1903824-12	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	74.5		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	70.5	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
13C2-PFUnA	IS	64.6	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
d5-EtFOSAA	IS	73.6	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
13C2-PFDoA	IS	60.2	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1
13C2-PFTeDA	IS	71.2	50 - 150		B9K0012	11-Nov-19	1.34 g	20-Nov-19 02:04	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L3-2-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 3
Matrix: Soil
Date Collected: 23-Oct-19 13:20

Laboratory Data

Lab Sample: 1903824-13
Date Received: 25-Oct-19 08:40
% Solids: 77.9
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFPeA	2706-90-3	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFBS	375-73-5	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
4:2 FTS	757124-72-4	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFHxA	307-24-4	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFPeS	2706-91-4	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFHpA	375-85-9	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFHxS	355-46-4	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
6:2 FTS	27619-97-2	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFOA	335-67-1	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFHpS	375-92-8	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFNA	375-95-1	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFOSA	754-91-6	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFOS	1763-23-1	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFDA	335-76-2	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
8:2 FTS	39108-34-4	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
MeFOSAA	2355-31-9	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
EtFOSAA	2991-50-6	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFUnA	2058-94-8	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFDS	335-77-3	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFDoA	307-55-1	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFTrDA	72629-94-8	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
PFTeDA	376-06-7	ND	2.01		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	139	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
13C3-PFPeA	IS	70.4	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
13C3-PFBS	IS	83.0	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
13C2-4:2 FTS	IS	98.7	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
13C2-PFHxA	IS	71.9	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
13C4-PFHpA	IS	71.0	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
13C3-PFHxS	IS	94.3	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
13C2-6:2 FTS	IS	78.7	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
13C5-PFNA	IS	62.1	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
13C8-PFOSA	IS	35.3	50 - 150	H	B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
13C2-PFOA	IS	67.5	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
13C8-PFOS	IS	87.2	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
13C2-PFDA	IS	60.6	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
13C2-8:2 FTS	IS	95.7	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1

Sample ID: L3-2-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	23-Oct-19 13:20
Location:	3		

Laboratory Data

Lab Sample:	1903824-13	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	77.9		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	61.0	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
13C2-PFUnA	IS	54.0	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
d5-EtFOSAA	IS	64.3	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
13C2-PFDoA	IS	54.0	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1
13C2-PFTeDA	IS	56.2	50 - 150		B9K0012	11-Nov-19	1.28 g	20-Nov-19 02:15	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L8/9-1-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 08:11

Laboratory Data

Lab Sample: 1903824-14
Date Received: 25-Oct-19 08:40
% Solids: 89.2
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFPeA	2706-90-3	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFBS	375-73-5	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
4:2 FTS	757124-72-4	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFHxA	307-24-4	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFPeS	2706-91-4	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFHpA	375-85-9	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFHxS	355-46-4	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
6:2 FTS	27619-97-2	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFOA	335-67-1	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFHpS	375-92-8	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFNA	375-95-1	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFOSA	754-91-6	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFOS	1763-23-1	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFDA	335-76-2	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
8:2 FTS	39108-34-4	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
MeFOSAA	2355-31-9	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
EtFOSAA	2991-50-6	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFUnA	2058-94-8	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFDS	335-77-3	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFDoA	307-55-1	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFTrDA	72629-94-8	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
PFTeDA	376-06-7	ND	2.00		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	160	50 - 150	H	B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
13C3-PFPeA	IS	80.1	50 - 150		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
13C3-PFBS	IS	85.7	50 - 150		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
13C2-4:2 FTS	IS	83.1	50 - 150		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
13C2-PFHxA	IS	79.3	50 - 150		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
13C4-PFHpA	IS	75.6	50 - 150		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
13C3-PFHxS	IS	93.4	50 - 150		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
13C2-6:2 FTS	IS	84.7	50 - 150		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
13C5-PFNA	IS	68.1	50 - 150		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
13C8-PFOSA	IS	47.8	50 - 150	H	B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
13C2-PFOA	IS	68.7	50 - 150		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
13C8-PFOS	IS	88.0	50 - 150		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
13C2-PFDA	IS	71.8	50 - 150		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
13C2-8:2 FTS	IS	103	50 - 150		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1

Sample ID: L8/9-1-1 **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 08:11

Laboratory Data

Lab Sample: 1903824-14
Date Received: 25-Oct-19 08:40
% Solids: 89.2
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	69.8	50 - 150		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
13C2-PFUnA	IS	77.8	50 - 150		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
d5-EtFOSAA	IS	67.5	50 - 150		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
13C2-PFDoA	IS	62.9	50 - 150		B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1
13C2-PFTeDA	IS	30.7	50 - 150	H	B9K0012	11-Nov-19	1.12 g	20-Nov-19 02:25	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L8/9-1-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 08:15

Laboratory Data

Lab Sample: 1903824-15
Date Received: 25-Oct-19 08:40
% Solids: 74.9
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFPeA	2706-90-3	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFBS	375-73-5	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
4:2 FTS	757124-72-4	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFHxA	307-24-4	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFPeS	2706-91-4	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFHpA	375-85-9	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFHxS	355-46-4	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
6:2 FTS	27619-97-2	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFOA	335-67-1	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFHpS	375-92-8	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFNA	375-95-1	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFOSA	754-91-6	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFOS	1763-23-1	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFDA	335-76-2	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
8:2 FTS	39108-34-4	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
MeFOSAA	2355-31-9	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
EtFOSAA	2991-50-6	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFUnA	2058-94-8	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFDS	335-77-3	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFDoA	307-55-1	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFTrDA	72629-94-8	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
PFTeDA	376-06-7	ND	2.01		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	151	50 - 150	H	B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
13C3-PFPeA	IS	79.0	50 - 150		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
13C3-PFBS	IS	86.5	50 - 150		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
13C2-4:2 FTS	IS	77.9	50 - 150		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
13C2-PFHxA	IS	79.7	50 - 150		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
13C4-PFHpA	IS	75.7	50 - 150		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
13C3-PFHxS	IS	88.8	50 - 150		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
13C2-6:2 FTS	IS	87.1	50 - 150		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
13C5-PFNA	IS	66.6	50 - 150		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
13C8-PFOSA	IS	48.3	50 - 150	H	B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
13C2-PFOA	IS	67.8	50 - 150		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
13C8-PFOS	IS	85.9	50 - 150		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
13C2-PFDA	IS	67.8	50 - 150		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
13C2-8:2 FTS	IS	86.3	50 - 150		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1

Sample ID: L8/9-1-5 **PFAS Isotope Dilution Method**

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 08:15
Location:	8/9		

Laboratory Data

Lab Sample:	1903824-15	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	74.9		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	53.0	50 - 150		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
13C2-PFUnA	IS	68.5	50 - 150		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
d5-EtFOSAA	IS	51.2	50 - 150		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
13C2-PFDoA	IS	66.3	50 - 150		B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1
13C2-PFTeDA	IS	45.8	50 - 150	H	B9K0012	11-Nov-19	1.33 g	20-Nov-19 02:36	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L8/9-1-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 08:19

Laboratory Data

Lab Sample: 1903824-16
Date Received: 25-Oct-19 08:40
% Solids: 89.0
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFPeA	2706-90-3	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFBS	375-73-5	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
4:2 FTS	757124-72-4	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFHxA	307-24-4	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFPeS	2706-91-4	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFHpA	375-85-9	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFHxS	355-46-4	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
6:2 FTS	27619-97-2	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFOA	335-67-1	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFHpS	375-92-8	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFNA	375-95-1	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFOSA	754-91-6	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFOS	1763-23-1	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFDA	335-76-2	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
8:2 FTS	39108-34-4	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
MeFOSAA	2355-31-9	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
EtFOSAA	2991-50-6	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFUnA	2058-94-8	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFDS	335-77-3	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFDoA	307-55-1	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFTrDA	72629-94-8	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
PFTeDA	376-06-7	ND	1.99		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	155	50 - 150	H	B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
13C3-PFPeA	IS	76.7	50 - 150		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
13C3-PFBS	IS	87.6	50 - 150		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
13C2-4:2 FTS	IS	86.8	50 - 150		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
13C2-PFHxA	IS	78.6	50 - 150		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
13C4-PFHpA	IS	78.3	50 - 150		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
13C3-PFHxS	IS	95.8	50 - 150		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
13C2-6:2 FTS	IS	83.7	50 - 150		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
13C5-PFNA	IS	71.8	50 - 150		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
13C8-PFOSA	IS	25.2	50 - 150	H	B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
13C2-PFOA	IS	79.9	50 - 150		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
13C8-PFOS	IS	86.7	50 - 150		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
13C2-PFDA	IS	68.7	50 - 150		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
13C2-8:2 FTS	IS	91.2	50 - 150		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1

Sample ID: L8/9-1-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 08:19

Laboratory Data

Lab Sample: 1903824-16
Date Received: 25-Oct-19 08:40
% Solids: 89.0
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	58.8	50 - 150		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
13C2-PFUnA	IS	69.5	50 - 150		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
d5-EtFOSAA	IS	45.0	50 - 150	H	B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
13C2-PFDoA	IS	64.4	50 - 150		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1
13C2-PFTeDA	IS	53.9	50 - 150		B9K0012	11-Nov-19	1.13 g	20-Nov-19 02:46	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L8/9-2-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 08:33

Laboratory Data

Lab Sample: 1903824-17
Date Received: 25-Oct-19 08:40
% Solids: 85.8
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFPeA	2706-90-3	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFBS	375-73-5	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
4:2 FTS	757124-72-4	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFHxA	307-24-4	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFPeS	2706-91-4	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFHpA	375-85-9	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFHxS	355-46-4	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
6:2 FTS	27619-97-2	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFOA	335-67-1	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFHpS	375-92-8	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFNA	375-95-1	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFOSA	754-91-6	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFOS	1763-23-1	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFDA	335-76-2	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
8:2 FTS	39108-34-4	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
MeFOSAA	2355-31-9	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
EtFOSAA	2991-50-6	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFUnA	2058-94-8	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFDS	335-77-3	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFDoA	307-55-1	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFTrDA	72629-94-8	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
PFTeDA	376-06-7	ND	1.99		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	147	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
13C3-PFPeA	IS	76.3	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
13C3-PFBS	IS	79.8	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
13C2-4:2 FTS	IS	82.8	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
13C2-PFHxA	IS	76.9	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
13C4-PFHpA	IS	74.8	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
13C3-PFHxS	IS	72.1	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
13C2-6:2 FTS	IS	70.7	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
13C5-PFNA	IS	60.4	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
13C8-PFOSA	IS	45.1	50 - 150	H	B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
13C2-PFOA	IS	68.4	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
13C8-PFOS	IS	71.1	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
13C2-PFDA	IS	55.0	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
13C2-8:2 FTS	IS	87.4	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1

Sample ID: L8/9-2-1

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 08:33
Location:	8/9		

Laboratory Data

Lab Sample:	1903824-17	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	85.8		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	50.9	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
13C2-PFUnA	IS	58.4	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
d5-EtFOSAA	IS	50.4	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
13C2-PFDoA	IS	57.7	50 - 150		B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1
13C2-PFTeDA	IS	45.8	50 - 150	H	B9K0012	11-Nov-19	1.17 g	20-Nov-19 02:57	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L8/9-2-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 08:37

Laboratory Data

Lab Sample: 1903824-18
Date Received: 25-Oct-19 08:40
% Solids: 74.2
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFPeA	2706-90-3	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFBS	375-73-5	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
4:2 FTS	757124-72-4	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFHxA	307-24-4	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFPeS	2706-91-4	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFHpA	375-85-9	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFHxS	355-46-4	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
6:2 FTS	27619-97-2	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFOA	335-67-1	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFHpS	375-92-8	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFNA	375-95-1	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFOSA	754-91-6	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFOS	1763-23-1	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFDA	335-76-2	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
8:2 FTS	39108-34-4	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
MeFOSAA	2355-31-9	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
EtFOSAA	2991-50-6	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFUnA	2058-94-8	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFDS	335-77-3	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFDoA	307-55-1	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFTrDA	72629-94-8	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
PFTeDA	376-06-7	ND	2.00		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	143	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
13C3-PFPeA	IS	76.2	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
13C3-PFBS	IS	83.2	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
13C2-4:2 FTS	IS	83.0	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
13C2-PFHxA	IS	76.1	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
13C4-PFHpA	IS	73.1	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
13C3-PFHxS	IS	81.8	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
13C2-6:2 FTS	IS	69.7	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
13C5-PFNA	IS	60.4	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
13C8-PFOSA	IS	27.4	50 - 150	H	B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
13C2-PFOA	IS	68.7	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
13C8-PFOS	IS	81.8	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
13C2-PFDA	IS	55.6	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
13C2-8:2 FTS	IS	65.7	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1

Sample ID: L8/9-2-5 **PFAS Isotope Dilution Method**

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 08:37
Location:	8/9		

Laboratory Data

Lab Sample:	1903824-18	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	74.2		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	61.9	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
13C2-PFUnA	IS	68.2	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
d5-EtFOSAA	IS	55.9	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
13C2-PFDoA	IS	57.5	50 - 150		B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1
13C2-PFTeDA	IS	48.1	50 - 150	H	B9K0012	11-Nov-19	1.35 g	20-Nov-19 03:07	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L8/9-2-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 08:41

Laboratory Data

Lab Sample: 1903824-19
Date Received: 25-Oct-19 08:40
% Solids: 87.9
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFPeA	2706-90-3	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFBS	375-73-5	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
4:2 FTS	757124-72-4	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFHxA	307-24-4	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFPeS	2706-91-4	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFHpA	375-85-9	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFHxS	355-46-4	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
6:2 FTS	27619-97-2	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFOA	335-67-1	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFHpS	375-92-8	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFNA	375-95-1	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFOSA	754-91-6	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFOS	1763-23-1	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFDA	335-76-2	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
8:2 FTS	39108-34-4	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
MeFOSAA	2355-31-9	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
EtFOSAA	2991-50-6	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFUnA	2058-94-8	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFDS	335-77-3	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFDoA	307-55-1	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFTrDA	72629-94-8	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
PFTeDA	376-06-7	ND	1.98		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	149	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
13C3-PFPeA	IS	74.2	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
13C3-PFBS	IS	80.0	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
13C2-4:2 FTS	IS	79.7	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
13C2-PFHxA	IS	74.8	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
13C4-PFHpA	IS	78.3	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
13C3-PFHxS	IS	90.3	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
13C2-6:2 FTS	IS	75.9	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
13C5-PFNA	IS	66.1	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
13C8-PFOSA	IS	23.4	50 - 150	H	B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
13C2-PFOA	IS	71.8	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
13C8-PFOS	IS	81.1	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
13C2-PFDA	IS	58.0	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
13C2-8:2 FTS	IS	88.0	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1

Sample ID: L8/9-2-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 08:41

Laboratory Data

Lab Sample: 1903824-19
Date Received: 25-Oct-19 08:40
% Solids: 87.9
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	58.5	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
13C2-PFUnA	IS	59.6	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
d5-EtFOSAA	IS	46.2	50 - 150	H	B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
13C2-PFDoA	IS	60.1	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1
13C2-PFTeDA	IS	55.4	50 - 150		B9K0012	11-Nov-19	1.15 g	20-Nov-19 03:18	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L8/9-3-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 08:56

Laboratory Data

Lab Sample: 1903824-20
Date Received: 25-Oct-19 08:40
% Solids: 86.2
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	2.10	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFPeA	2706-90-3	15.5	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFBS	375-73-5	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
4:2 FTS	757124-72-4	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFHxA	307-24-4	10.2	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFPeS	2706-91-4	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFHpA	375-85-9	3.58	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFHxS	355-46-4	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
6:2 FTS	27619-97-2	161	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFOA	335-67-1	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFHpS	375-92-8	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFNA	375-95-1	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFOSA	754-91-6	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFOS	1763-23-1	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFDA	335-76-2	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
8:2 FTS	39108-34-4	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
MeFOSAA	2355-31-9	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
EtFOSAA	2991-50-6	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFUnA	2058-94-8	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFDS	335-77-3	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFDoA	307-55-1	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFTrDA	72629-94-8	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
PFTeDA	376-06-7	ND	2.00		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	142	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
13C3-PFPeA	IS	69.6	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
13C3-PFBS	IS	91.6	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
13C2-4:2 FTS	IS	90.1	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
13C2-PFHxA	IS	70.2	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
13C4-PFHpA	IS	66.6	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
13C3-PFHxS	IS	94.5	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
13C2-6:2 FTS	IS	68.5	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
13C5-PFNA	IS	56.1	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
13C8-PFOSA	IS	31.0	50 - 150	H	B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
13C2-PFOA	IS	63.2	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
13C8-PFOS	IS	81.9	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
13C2-PFDA	IS	58.5	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
13C2-8:2 FTS	IS	67.3	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1

Sample ID: L8/9-3-1 **PFAS Isotope Dilution Method**

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 08:56
Location:	8/9		

Laboratory Data

Lab Sample:	1903824-20	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	86.2		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	68.2	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
13C2-PFUnA	IS	61.9	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
d5-EtFOSAA	IS	72.5	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
13C2-PFDoA	IS	59.6	50 - 150		B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1
13C2-PFTeDA	IS	44.6	50 - 150	H	B9K0012	11-Nov-19	1.16 g	20-Nov-19 03:28	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

Vista

Print Form

CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY

Laboratory Project ID: 1903824 Temp 0.6 °C

Storage ID: WR2, R-13 Storage Secured: Yes ☑ No ☐

TAT: (Check One)
Standard ☒ 21 days
Rush (surcharge may apply)
◯ 14 days ◯ 7 days Specify:

Project I.D.: SJC PFAS Investigation P.O. #: 0232401.01 Sampler: KA/CL (Name)

Invoice to: Name	Company	Address	City	State	Zip	Ph#	Fax #
Cori Fy Caleb Lucy	10/24/19	17:30	Cell / Fed Ex		10/24/2019		

Relinquished by: (Printed Name and Signature) Date: Time: Received by: (Signature and Printed Name) Date: Time:

Relinquished by: (Printed Name and Signature) Date: Time: Received by: (Signature and Printed Name) Date: Time:

FEDEX 10/25/19 08:40 Hayden Canas 10/25/19 08:40

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

Method of Shipment: Fed Ex

ATTN: Jade White-Dobbs

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	EPA1613 2378-TCDD	EPA1613 2378-TCDD/TCDF	EPA1613 PCDD/PCDF	EPA8290 2378-TCDD	EPA8290 2378-TCDD/TCDF	EPA8290 PCDD/PCDF	EPA8280 2378-TCDD	EPA8280 2378-TCDD/TCDF	EPA8280 PCDD/PCDF	EPA1668 TOTALS	EPA1668 COPLANAR PCBs	EPA1668 209 CONGENERS	EPA1614 PBDE	EPA1614 PAH	CARB429 WHO-29	CA Arbor PFAS L&M (23)
EB-4	10/24/19	1145	8/9	2	P	AQ																X
FB-5	10/24/19	0929	8/9	2	P	AQ																
L3-3-1	10/23/19	1228	3	1	PJ	SO																
FB-4	10/23/19	1201	~~8/9~~ 14	2	P	AQ																
L3-3-5	10/23/19	1230	3	1	PJ	SO																
L3-3-10	10/23/19	1232	3	1	PJ	SO																
L3-3-GW	10/23/19	1316	3	2	P	AQ																
L3-1-1	↓	1342	3	1	PJ	SO																
L3-1-5		1346	3	1	PJ	SO																
L3-1-10	↓	1355	3	1	PJ	SO																

Special Instructions/Comments: GeoTracker EDF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard and Curran, Inc.
Address: 2175 N. California Blvd, Ste. 315
City: Walnut Creek State: CA Zip: 94597
Phone: (510) 310-3776 Fax: (925) 627-4101
Email: jstrandberg@woodardcurran.com

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MM5 Train, O = Other

***Bottle Preservative Type:** ☐ T = Thiosulfate,
☐ O = Other

Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B=Blood/Serum
O = Other

Vista

Print Form

CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY

Laboratory Project ID: 1903824 Temp 0.6 °C

Storage ID: WR-2, R-13 Storage Secured: Yes ☑ No ☐

Project I.D.: SJC PFAS Investigation P.O. #: 0232401.01 Sampler: KA/CL (Name)

TAT: (Check One)
Standard ☒ 21 days
Rush (surcharge may apply)
☐ 14 days ☐ 7 days Specify:

Invoice to: Name Caleb Lucy Company Cal Fly Address 10/24/19 City 17:30 State Fed Ex Zip Ph# 10/24/2019 Fax #

Relinquished by: (Printed Name and Signature) Caleb Lucy Date: 10/24/19 Time: 17:30 Received by: (Signature and Printed Name) Fed Ex Date: 10/24/2019 Time:

Relinquished by: (Printed Name and Signature) FEDEX Date: 10/25/19 Time: 08:40 Received by: (Signature and Printed Name) Hayden Canal Date: 10/25/19 Time: 08:40

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

Method of Shipment: Fed Ex

ATTN: Jade White - Dobbs

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Container(s) Type	Container(s) Matrix	EPA1613 2378-TCDD	EPA1613 2378-TCDD/TCDF	EPA8290 PCDD/PCDF	EPA8290 2378-TCDD	EPA8290 2378-TCDD/TCDF	EPA8280 PCDD/PCDF	EPA8280 2378-TCDD	EPA8280 2378-TCDD/TCDF	EPA1668 PCDD/PCDF	EPA1668 TOTALS	EPA1668 COPLANAR PCBs	EPA1668 209 CONGENERS	EPA1614 PBDE	CARB429 PAH	CARB429 WHO-29	CARB429 CA Airport PFAS L-54 (23)
L3-2-1	10/23/19	1311	3	1	PJ	SO																X
L3-2-5	↓	1318	3	1	↓	↓																↓
L3-2-10	↓	1320	3	1																		
L8/9-1-1	10/24/19	0811	8/9	1																		
L8/9-1-5	↓	0815	8/9	1																		
L8/9-1-10	↓	0819	8/9	1																		
L8/9-2-1	↓	0833	8/9	1																		
L8/9-2-5	↓	0837	8/9	1																		
L8/9-2-10	↓	0841	8/9	1																		
L8/9-3-1	↓	0856	8/9	1	↓	↓																↓

Special Instructions/Comments: GeoTracker EDF

SEND DOCUMENTATION AND RESULTS TO:

Name: Jim Strandberg
Company: Woodard + Curran
Address: 2175 N. California Blvd.; Ste. 315
City: Walnut Creek State: CA Zip: 94597
Phone: (510) 310-3776 Fax: (925) 627-4101
Email: JStrandberg@woodardcurran.com

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MM5 Train, O = Other

***Bottle Preservative Type:** ☐ T = Thiosulfate,
☐ O = Other

Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B=Blood/Serum
O = Other

Vista Analytical Laboratory

Sample Log-In Checklist

Vista Work Order #: 1903824 Page # 1 of 1

TAT Std

Samples Arrival:	Date/Time: 10/25/19 08:40	Initials: HDG	Location: WR-2 Shelf/Rack: NA

Delivered By:	(FedEx)	UPS	On Trac	GSO	DHL	Hand Delivered	Other
Preservation:	(Ice)		Blue Ice		Dry Ice		None

Temp °C: 0.6 (uncorrected)	Probe used: Y / (N)	Thermometer ID: IR-4
Temp °C: 0.6 (corrected)		

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Airbill #2 Trk # 7804 9906 8834	✓		
Shipping Documentation Present?	✓		
Shipping Container: Vista / (Client) / Retain / (Return) / Dispose			
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	Date/Time: 10/27/19 1451	Initials: KE	Location: WR-2 / R-13 Shelf/Rack: (Refrig) / RT / R-7 / A4

COC Anomaly/Sample Acceptance Form completed?		✓	✓

Comments:

CoC/Label Reconciliation Report WO# 1903824

LabNumber	CoC Sample ID	Label ID matches COCID	Label ID doesn't match COCID	SampleAlias	Sampled	Label Sampled matches	Sampled doesn't match	Container	Container Correct	BaseMatrix	Sample Comments
1903824-01	A EB-4	☑		8/9	24-Oct-19 11:45	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903824-01	B EB-4	☑		8/9	24-Oct-19 11:45	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903824-02	A FB-5	☑		8/9 SJC	24-Oct-19 09:29	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903824-02	B FB-5	☑		8/9 SJC	24-Oct-19 09:29	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903824-03	A L3-3-1	☑		3	23-Oct-19 12:28	☑		HDPE Jar, 6 oz	☑	Solid	
1903824-04	A FB-4	☑		14 3	23-Oct-19 12:01	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903824-04	B FB-4	☑		14 3	23-Oct-19 12:01	☑		HDPE Bottle, 250 mL	☐	Aqueous	
1903824-05	A L3-3-5	☑		3	23-Oct-19 12:30	☑		HDPE Jar, 6 oz	☑	Solid	
1903824-06	A L3-3-10	☑		3	23-Oct-19 12:32	☑		HDPE Jar, 6 oz	☑	Solid	
1903824-07	A L3-3-GW	☑		3 SJC	23-Oct-19 13:16	☑		HDPE Bottle, 250 mL	☐	Aqueous	
1903824-07	B L3-3-GW	☑		3 SJC	23-Oct-19 13:16	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903824-08	A L3-1-1	☑		3	23-Oct-19 13:42	☑		HDPE Jar, 6 oz	☑	Solid	
1903824-09	A L3-1-5	☑		3	23-Oct-19 13:46	☑		HDPE Jar, 6 oz	☑	Solid	
1903824-10	A L3-1-10	☑		3	23-Oct-19 13:55	☑		HDPE Jar, 6 oz	☑	Solid	
1903824-11	A L3-2-1	☑		3	23-Oct-19 13:11*	☐	* 1316 on label	HDPE Jar, 6 oz	☑	Solid	
1903824-12	A L3-2-5	☑		3	23-Oct-19 13:18	☑		HDPE Jar, 6 oz	☑	Solid	
1903824-13	A L3-2-10	☑		3	23-Oct-19 13:20	☑		HDPE Jar, 6 oz	☑	Solid	
1903824-14	A L8/9-1-1	☑		8/9 SJC	24-Oct-19 08:11	☑		HDPE Jar, 6 oz	☑	Solid	
1903824-15	A L8/9-1-5	☑		8/9	24-Oct-19 08:15	☑		HDPE Jar, 6 oz	☑	Solid	
1903824-16	A L8/9-1-10	☑		8/9	24-Oct-19 08:19	☑		HDPE Jar, 6 oz	☑	Solid	
1903824-17	A L8/9-2-1	☑		8/9	24-Oct-19 08:33	☑		HDPE Jar, 6 oz	☑	Solid	
1903824-18	A L8/9-2-5	☑		8/9	24-Oct-19 08:37	☑		HDPE Jar, 6 oz	☑	Solid	
1903824-19	A L8/9-2-10	☑		8/9	24-Oct-19 08:41	☑		HDPE Jar, 6 oz	☑	Solid	
1903824-20	A L8/9-3-1	☑		8/9	24-Oct-19 08:56	☑		HDPE Jar, 6 oz	☐	Solid	

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Preservation Documented: Na2S2O3 Trizma None Other		✓	✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments: all samples received in coolers 2 of 2.

Verifed by/Date: MLS 10/28/19

December 12, 2019

Vista Work Order No. 1903825

Mr. Jim Strandberg
Woodard & Curran
2175 North California Boulevard, Suite 315
Walnut Creek, CA 94596

Dear Mr. Strandberg,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on October 25, 2019 under your Project Name 'SJC PFAS Investigation'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1903825
Case Narrative

Sample Condition on Receipt:

Eight soil samples and four aqueous samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. Sample "Trip Blank" was received but not listed on the COC. As directed, the sample was analyzed as an aqueous sample.

Analytical Notes:

PFAS Isotope Dilution Method-Aqueous

The aqueous samples were extracted and analyzed for a selected list of PFAS using Vista's PFAS Isotope Dilution Method. This method is listed on Vista's NELAP certificate as Modified EPA Method 537. The results for PFHxS, PFOA, PFOS, MeFOSAA, and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Samples "L8/9-5-GW", "L8/9-4-GW", and "L8/9-40-GW" contained particulate and were centrifuged prior to extraction.

Holding Times

The samples were extracted and analyzed within the method hold times. The samples were re-extracted and the re-extractions were performed outside of the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit. The LCS/LCSD recoveries were within the acceptance criteria.

Samples "L8/9-5-GW" and "L8/9-4-GW" were re-extracted due to internal standards not meeting the acceptance criteria. The re-extractions confirmed the original results and the original data have been reported.

The labeled standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

PFAS Isotope Dilution Method-Solid

The solid samples were extracted and analyzed for a selected list of PFAS using Vista's PFAS Isotope Dilution Method. This method is listed on Vista's NELAP certificate as Modified EPA Method 537. The results for PFHxS, PFOA, PFOS, MeFOSAA, and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with each of the preparation batches. No analytes were detected in the Method Blanks above the Reporting Limit. The OPR recoveries were within the method acceptance criteria.

As requested, an MS/MSD was performed on sample "L8/9-4-10". The MS/MSD recoveries and RPDs were within the acceptance criteria.

The labeled standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1903825-01	L8/9-3-5	24-Oct-19 09:01	25-Oct-19 08:40	HDPE Jar, 6 oz
1903825-02	L8/9-3-10	24-Oct-19 09:04	25-Oct-19 08:40	HDPE Jar, 6 oz
1903825-03	L8/9-4-1	24-Oct-19 11:02	25-Oct-19 08:40	HDPE Jar, 6 oz
1903825-04	L8/9-4-5	24-Oct-19 11:05	25-Oct-19 08:40	HDPE Jar, 6 oz
1903825-05	L8/9-4-10	24-Oct-19 11:10	25-Oct-19 08:40	HDPE Jar, 6 oz
1903825-06	L8/9-5-1	24-Oct-19 09:38	25-Oct-19 08:40	HDPE Jar, 6 oz
1903825-07	L8/9-5-5	24-Oct-19 09:42	25-Oct-19 08:40	HDPE Jar, 6 oz
1903825-08	L8/9-5-10	24-Oct-19 09:47	25-Oct-19 08:40	HDPE Jar, 6 oz
1903825-09	L8/9-5-GW	24-Oct-19 10:15	25-Oct-19 08:40	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903825-10	L8/9-4-GW	24-Oct-19 12:13	25-Oct-19 08:40	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903825-11	L8/9-40-GW	24-Oct-19 12:13	25-Oct-19 08:40	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1903825-12	Trip Blank	18-Oct-19 00:00	25-Oct-19 08:40	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0047-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFPeA	2706-90-3	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFBS	375-73-5	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
4:2 FTS	757124-72-4	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFHxA	307-24-4	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFPeS	2706-91-4	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFHpA	375-85-9	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFHxS	355-46-4	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
6:2 FTS	27619-97-2	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFOA	335-67-1	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFHpS	375-92-8	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFNA	375-95-1	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFOS	1763-23-1	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFDA	335-76-2	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
8:2 FTS	39108-34-4	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
MeFOSAA	2355-31-9	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
EtFOSAA	2991-50-6	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFUnA	2058-94-8	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFDS	335-77-3	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFDoA	307-55-1	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFTrDA	72629-94-8	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
PFTeDA	376-06-7	ND	2.00		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	154	50 - 150	H	B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C3-PFPeA	IS	72.9	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C3-PFBS	IS	88.9	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-4:2 FTS	IS	99.7	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-PFHxA	IS	66.7	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C4-PFHpA	IS	69.0	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C3-PFHxS	IS	103	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-6:2 FTS	IS	97.3	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C5-PFNA	IS	67.4	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-PFOA	IS	69.3	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C8-PFOS	IS	87.3	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-PFDA	IS	60.2	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-8:2 FTS	IS	115	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
d3-MeFOSAA	IS	57.3	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-PFUnA	IS	50.9	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1

Sample ID: Method Blank — **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0047-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d5-EtFOSAA	IS	54.3	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-PFDoA	IS	48.5	50 - 150	H	B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1
13C2-PFTeDA	IS	58.1	50 - 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:13	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: OPR

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0047-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/g)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	9.64	10.0	96.4	71 - 135		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFPeA	2706-90-3	10.8	10.0	108	69 - 132		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFBS	375-73-5	10.0	10.0	100	72 - 128		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
4:2 FTS	757124-72-4	11.2	10.0	112	62 - 145		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFHxA	307-24-4	10.7	10.0	107	70 - 132		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFPeS	2706-91-4	9.65	10.0	96.5	73 - 123		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFHpA	375-85-9	9.93	10.0	99.3	71 - 131		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFHxS	355-46-4	8.77	10.0	87.7	67 - 130		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
6:2 FTS	27619-97-2	12.9	10.0	129	64 - 140		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFOA	335-67-1	10.5	10.0	105	69 - 133		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFHpS	375-92-8	10.3	10.0	103	70 - 132		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFNA	375-95-1	9.82	10.0	98.2	72 - 129		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFOS	1763-23-1	9.08	10.0	90.6	68 - 136		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFDA	335-76-2	10.1	10.0	101	69 - 133		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
8:2 FTS	39108-34-4	11.5	10.0	115	65 - 137		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
MeFOSAA	2355-31-9	9.41	10.0	94.1	63 - 144		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
EtFOSAA	2991-50-6	9.52	10.0	95.2	61 - 139		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFUnA	2058-94-8	11.1	10.0	111	64 - 136		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFDS	335-77-3	8.48	10.0	84.6	59 - 134		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFDoA	307-55-1	9.92	10.0	99.2	69 - 135		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFTrDA	72629-94-8	11.7	10.0	117	66 - 139		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
PFTeDA	376-06-7	11.0	10.0	110	69 - 133		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	99.9	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C3-PFPeA	IS	51.0	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C3-PFBS	IS	84.9	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C2-4:2 FTS	IS	87.4	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C2-PFHxA	IS	50.1	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C4-PFHpA	IS	51.3	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C3-PFHxS	IS	98.6	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C2-6:2 FTS	IS	64.6	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C5-PFNA	IS	53.2	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C2-PFOA	IS	51.9	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C8-PFOS	IS	87.4	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C2-PFDA	IS	52.9	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1

Sample ID: OPR **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0047-BS1
Column: BEH C18

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-8:2 FTS	IS	89.6	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
d3-MeFOSAA	IS	61.4	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C2-PFUnA	IS	51.6	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
d5-EtFOSAA	IS	56.4	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C2-PFDoA	IS	51.1	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1
13C2-PFTeDA	IS	61.9	50- 150		B9K0047	12-Nov-19	1.00 g	20-Nov-19 05:24	1

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0201-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.00		B9K0201	26-Nov-19	2.00 g	06-Dec-19 19:46	1
PFOSA	754-91-6	ND	1.00		B9K0201	26-Nov-19	2.00 g	06-Dec-19 19:46	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	62.7	50 - 150		B9K0201	26-Nov-19	2.00 g	06-Dec-19 19:46	1
13C8-PFOSA	IS	29.5	50 - 150	H	B9K0201	26-Nov-19	2.00 g	06-Dec-19 19:46	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: OPR — **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Solid

Laboratory Data

Lab Sample: B9K0201-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/g)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	4.98	5.00	99.5	71 - 135		B9K0201	26-Nov-19	2.00 g	07-Dec-19 20:04	1
PFOSA	754-91-6	5.19	5.00	104	67 - 137		B9K0201	26-Nov-19	2.00 g	07-Dec-19 20:04	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	71.7	50- 150		B9K0201	26-Nov-19	2.00 g	07-Dec-19 20:04	1
13C8-PFOSA	IS	39.7	50- 150	H	B9K0201	26-Nov-19	2.00 g	07-Dec-19 20:04	1

Sample ID: L8/9-3-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 09:01

Laboratory Data

Lab Sample: 1903825-01
Date Received: 25-Oct-19 08:40
% Solids: 74.2
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	1.39	0.994		B9K0201	26-Nov-19	2.71 g	06-Dec-19 22:03	1
PFPeA	2706-90-3	5.93	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
PFBS	375-73-5	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
4:2 FTS	757124-72-4	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
PFHxA	307-24-4	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
PFPeS	2706-91-4	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
PFHpA	375-85-9	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
PFHxS	355-46-4	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
6:2 FTS	27619-97-2	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
PFOA	335-67-1	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
PFHpS	375-92-8	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
PFNA	375-95-1	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
PFOSA	754-91-6	ND	0.994		B9K0201	26-Nov-19	2.71 g	06-Dec-19 22:03	1
PFOS	1763-23-1	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
PFDA	335-76-2	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
8:2 FTS	39108-34-4	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
MeFOSAA	2355-31-9	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
EtFOSAA	2991-50-6	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
PFUnA	2058-94-8	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
PFDS	335-77-3	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
PFDoA	307-55-1	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
PFTrDA	72629-94-8	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
PFTeDA	376-06-7	ND	1.98		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	72.2	50 - 150		B9K0201	26-Nov-19	2.71 g	06-Dec-19 22:03	1
13C3-PFPeA	IS	77.2	50 - 150		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
13C3-PFBS	IS	77.2	50 - 150		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
13C2-4:2 FTS	IS	80.5	50 - 150		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
13C2-PFHxA	IS	77.5	50 - 150		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
13C4-PFHpA	IS	70.5	50 - 150		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
13C3-PFHxS	IS	79.4	50 - 150		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
13C2-6:2 FTS	IS	71.1	50 - 150		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
13C5-PFNA	IS	60.4	50 - 150		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
13C8-PFOSA	IS	27.0	50 - 150	H	B9K0201	26-Nov-19	2.71 g	06-Dec-19 22:03	1
13C2-PFOA	IS	67.4	50 - 150		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
13C8-PFOS	IS	83.9	50 - 150		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
13C2-PFDA	IS	48.3	50 - 150	H	B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
13C2-8:2 FTS	IS	78.1	50 - 150		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1

Sample ID: L8/9-3-5 **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 09:01

Laboratory Data

Lab Sample: 1903825-01
Date Received: 25-Oct-19 08:40
% Solids: 74.2
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	69.8	50 - 150		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
13C2-PFUnA	IS	59.8	50 - 150		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
d5-EtFOSAA	IS	64.3	50 - 150		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
13C2-PFDoA	IS	57.5	50 - 150		B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1
13C2-PFTeDA	IS	43.8	50 - 150	H	B9K0047	12-Nov-19	1.36 g	20-Nov-19 07:51	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L8/9-3-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 09:04

Laboratory Data

Lab Sample: 1903825-02
Date Received: 25-Oct-19 08:40
% Solids: 86.5
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
PFPeA	2706-90-3	9.21	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
PFBS	375-73-5	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
4:2 FTS	757124-72-4	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
PFHxA	307-24-4	4.29	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
PFPeS	2706-91-4	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
PFHpA	375-85-9	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
PFHxS	355-46-4	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
6:2 FTS	27619-97-2	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
PFOA	335-67-1	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
PFHpS	375-92-8	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
PFNA	375-95-1	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
PFOSA	754-91-6	ND	0.997		B9K0201	26-Nov-19	2.32 g	06-Dec-19 22:34	1
PFOS	1763-23-1	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
PFDA	335-76-2	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
8:2 FTS	39108-34-4	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
MeFOSAA	2355-31-9	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
EtFOSAA	2991-50-6	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
PFUnA	2058-94-8	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
PFDS	335-77-3	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
PFDoA	307-55-1	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
PFTrDA	72629-94-8	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
PFTeDA	376-06-7	ND	1.98		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	144	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
13C3-PFPeA	IS	75.0	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
13C3-PFBS	IS	82.0	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
13C2-4:2 FTS	IS	83.2	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
13C2-PFHxA	IS	74.1	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
13C4-PFHpA	IS	67.7	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
13C3-PFHxS	IS	88.2	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
13C2-6:2 FTS	IS	83.0	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
13C5-PFNA	IS	57.7	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
13C8-PFOSA	IS	50.7	50 - 150		B9K0201	26-Nov-19	2.32 g	06-Dec-19 22:34	1
13C2-PFOA	IS	66.7	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
13C8-PFOS	IS	79.7	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
13C2-PFDA	IS	59.7	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
13C2-8:2 FTS	IS	88.0	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1

Sample ID: L8/9-3-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 09:04

Laboratory Data

Lab Sample: 1903825-02
Date Received: 25-Oct-19 08:40
% Solids: 86.5
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	68.0	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
13C2-PFUnA	IS	60.1	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
d5-EtFOSAA	IS	60.0	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
13C2-PFDoA	IS	61.2	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1
13C2-PFTeDA	IS	61.8	50 - 150		B9K0047	12-Nov-19	1.17 g	20-Nov-19 08:02	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L8/9-4-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 11:02

Laboratory Data

Lab Sample: 1903825-03
Date Received: 25-Oct-19 08:40
% Solids: 81.3
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	5.49	0.996		B9K0201	26-Nov-19	2.47 g	06-Dec-19 22:45	1
PFPeA	2706-90-3	23.7	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
PFBS	375-73-5	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
4:2 FTS	757124-72-4	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
PFHxA	307-24-4	15.6	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
PFPeS	2706-91-4	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
PFHpA	375-85-9	2.51	1.97	Q	B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
PFHxS	355-46-4	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
6:2 FTS	27619-97-2	81.4	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
PFOA	335-67-1	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
PFHpS	375-92-8	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
PFNA	375-95-1	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
PFOSA	754-91-6	ND	0.996		B9K0201	26-Nov-19	2.47 g	06-Dec-19 22:45	1
PFOS	1763-23-1	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
PFDA	335-76-2	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
8:2 FTS	39108-34-4	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
MeFOSAA	2355-31-9	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
EtFOSAA	2991-50-6	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
PFUnA	2058-94-8	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
PFDS	335-77-3	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
PFDoA	307-55-1	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
PFTrDA	72629-94-8	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
PFTeDA	376-06-7	ND	1.97		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	74.5	50 - 150		B9K0201	26-Nov-19	2.47 g	06-Dec-19 22:45	1
13C3-PFPeA	IS	76.3	50 - 150		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
13C3-PFBS	IS	78.2	50 - 150		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
13C2-4:2 FTS	IS	87.4	50 - 150		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
13C2-PFHxA	IS	75.6	50 - 150		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
13C4-PFHpA	IS	74.0	50 - 150		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
13C3-PFHxS	IS	82.2	50 - 150		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
13C2-6:2 FTS	IS	69.6	50 - 150		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
13C5-PFNA	IS	64.7	50 - 150		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
13C8-PFOSA	IS	56.3	50 - 150		B9K0201	26-Nov-19	2.47 g	06-Dec-19 22:45	1
13C2-PFOA	IS	68.5	50 - 150		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
13C8-PFOS	IS	79.9	50 - 150		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
13C2-PFDA	IS	66.3	50 - 150		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
13C2-8:2 FTS	IS	83.4	50 - 150		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1

Sample ID: L8/9-4-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 11:02

Laboratory Data

Lab Sample: 1903825-03
Date Received: 25-Oct-19 08:40
% Solids: 81.3
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	60.2	50 - 150		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
13C2-PFUnA	IS	69.2	50 - 150		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
d5-EtFOSAA	IS	62.9	50 - 150		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
13C2-PFDoA	IS	55.0	50 - 150		B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1
13C2-PFTeDA	IS	27.6	50 - 150	H	B9K0047	12-Nov-19	1.25 g	20-Nov-19 08:12	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L8/9-4-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 11:05

Laboratory Data

Lab Sample: 1903825-04
Date Received: 25-Oct-19 08:40
% Solids: 77.5
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	0.993		B9K0201	26-Nov-19	2.60 g	06-Dec-19 22:55	1
PFPeA	2706-90-3	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
PFBS	375-73-5	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
4:2 FTS	757124-72-4	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
PFHxA	307-24-4	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
PFPeS	2706-91-4	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
PFHpA	375-85-9	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
PFHxS	355-46-4	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
6:2 FTS	27619-97-2	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
PFOA	335-67-1	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
PFHpS	375-92-8	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
PFNA	375-95-1	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
PFOSA	754-91-6	ND	0.993		B9K0201	26-Nov-19	2.60 g	06-Dec-19 22:55	1
PFOS	1763-23-1	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
PFDA	335-76-2	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
8:2 FTS	39108-34-4	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
MeFOSAA	2355-31-9	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
EtFOSAA	2991-50-6	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
PFUnA	2058-94-8	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
PFDS	335-77-3	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
PFDoA	307-55-1	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
PFTrDA	72629-94-8	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
PFTeDA	376-06-7	ND	2.00		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	65.1	50 - 150		B9K0201	26-Nov-19	2.60 g	06-Dec-19 22:55	1
13C3-PFPeA	IS	89.8	50 - 150		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
13C3-PFBS	IS	91.1	50 - 150		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
13C2-4:2 FTS	IS	100	50 - 150		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
13C2-PFHxA	IS	88.4	50 - 150		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
13C4-PFHpA	IS	85.3	50 - 150		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
13C3-PFHxS	IS	93.0	50 - 150		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
13C2-6:2 FTS	IS	80.3	50 - 150		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
13C5-PFNA	IS	71.6	50 - 150		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
13C8-PFOSA	IS	54.9	50 - 150		B9K0201	26-Nov-19	2.60 g	06-Dec-19 22:55	1
13C2-PFOA	IS	77.5	50 - 150		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
13C8-PFOS	IS	89.5	50 - 150		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
13C2-PFDA	IS	60.3	50 - 150		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
13C2-8:2 FTS	IS	99.3	50 - 150		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1

Sample ID: L8/9-4-5

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 11:05
Location:	8/9		

Laboratory Data

Lab Sample:	1903825-04	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	77.5		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	79.9	50 - 150		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
13C2-PFUnA	IS	68.1	50 - 150		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
d5-EtFOSAA	IS	69.5	50 - 150		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
13C2-PFDoA	IS	63.0	50 - 150		B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1
13C2-PFTeDA	IS	46.2	50 - 150	H	B9K0047	12-Nov-19	1.29 g	20-Nov-19 08:23	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L8/9-4-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 11:10

Laboratory Data

Lab Sample: 1903825-05
Date Received: 25-Oct-19 08:40
% Solids: 91.6
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.00		B9K0201	26-Nov-19	2.18 g	06-Dec-19 23:06	1
PFPeA	2706-90-3	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
PFBS	375-73-5	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
4:2 FTS	757124-72-4	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
PFHxA	307-24-4	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
PFPeS	2706-91-4	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
PFHpA	375-85-9	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
PFHxS	355-46-4	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
6:2 FTS	27619-97-2	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
PFOA	335-67-1	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
PFHpS	375-92-8	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
PFNA	375-95-1	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
PFOSA	754-91-6	ND	1.00		B9K0201	26-Nov-19	2.18 g	06-Dec-19 23:06	1
PFOS	1763-23-1	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
PFDA	335-76-2	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
8:2 FTS	39108-34-4	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
MeFOSAA	2355-31-9	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
EtFOSAA	2991-50-6	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
PFUnA	2058-94-8	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
PFDS	335-77-3	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
PFDoA	307-55-1	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
PFTrDA	72629-94-8	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
PFTeDA	376-06-7	ND	1.93		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	75.1	50 - 150		B9K0201	26-Nov-19	2.18 g	06-Dec-19 23:06	1
13C3-PFPeA	IS	78.3	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
13C3-PFBS	IS	87.1	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
13C2-4:2 FTS	IS	87.0	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
13C2-PFHxA	IS	72.7	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
13C4-PFHpA	IS	74.8	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
13C3-PFHxS	IS	98.0	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
13C2-6:2 FTS	IS	76.4	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
13C5-PFNA	IS	69.0	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
13C8-PFOSA	IS	36.8	50 - 150	H	B9K0201	26-Nov-19	2.18 g	06-Dec-19 23:06	1
13C2-PFOA	IS	69.6	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
13C8-PFOS	IS	78.0	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
13C2-PFDA	IS	61.8	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
13C2-8:2 FTS	IS	70.4	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1

Sample ID: L8/9-4-10

PFAS Isotope Dilution Method

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 11:10
Location:	8/9		

Laboratory Data

Lab Sample:	1903825-05	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	91.6		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	57.7	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
13C2-PFUnA	IS	63.9	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
d5-EtFOSAA	IS	60.5	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
13C2-PFDoA	IS	58.4	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1
13C2-PFTeDA	IS	67.4	50 - 150		B9K0047	12-Nov-19	1.13 g	20-Nov-19 08:33	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L8/9-4-10 **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9K0047-MS1/B9K0047-MSD1	Source Lab Sample:	1903825-05
Project:	SJC PFAS Investigation	QC Batch:	B9K0047	Date Extracted:	12-Nov-19
Matrix:	Solid	Samp Size:	1.13/1.12 g	Column:	BEH C18

Analyte	CAS Number	Sample (ng/g)	MS (ng/g)	MS Spike	MS % Rec	MS Quals	MSD (ng/g)	MSD Spike	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFPeA	2706-90-3	ND	10.3	9.66	102		10.9	9.74	107	4.78		69-132	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
PFBS	375-73-5	ND	9.63	9.66	99.7		9.31	9.74	95.6	4.20		72-128	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
4:2 FTS	757124-72-4	ND	8.92	9.66	92.3		10.3	9.74	106	13.8		62-145	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
PFHxA	307-24-4	ND	9.43	9.66	97.6		9.07	9.74	93.1	4.72		70-132	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
PFPeS	2706-91-4	ND	10.2	9.66	105		10.0	9.74	103	1.92		73-123	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
PFHpA	375-85-9	ND	9.39	9.66	97.2		10.1	9.74	104	6.76		71-131	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
PFHxS	355-46-4	ND	9.80	9.66	101		9.42	9.74	96.7	4.35		67-130	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
6:2 FTS	27619-97-2	ND	11.4	9.66	114		9.37	9.74	92.4	20.9		64-140	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
PFOA	335-67-1	ND	9.52	9.66	98.6		10.2	9.74	104	5.33		69-133	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
PFHpS	375-92-8	ND	9.78	9.66	101		10.4	9.74	107	5.77		70-132	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
PFNA	375-95-1	ND	9.72	9.66	101		8.98	9.74	92.2	9.11		72-129	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
PFOS	1763-23-1	ND	9.72	9.68	100		10.5	9.76	107	6.76		68-136	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
PFDA	335-76-2	ND	9.27	9.66	96.0		10.2	9.74	104	8.00		69-133	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
8:2 FTS	39108-34-4	ND	12.6	9.66	130		12.7	9.74	130	0		65-137	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
MeFOSAA	2355-31-9	ND	8.34	9.66	86.3		9.28	9.74	95.2	9.81		63-144	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
EtFOSAA	2991-50-6	ND	10.4	9.66	108		9.05	9.74	92.9	15.0		61-139	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
PFUnA	2058-94-8	ND	10.5	9.66	109	Q	10.6	9.74	109	0		64-136	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
PFDS	335-77-3	ND	9.38	9.68	97.0		9.35	9.76	95.8	1.24		59-134	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
PFDoA	307-55-1	ND	10.6	9.66	110		9.57	9.74	98.3	11.2		69-135	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
PFTrDA	72629-94-8	ND	11.5	9.66	119		10.7	9.74	110	7.86		66-139	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1
PFTeDA	376-06-7	ND	11.1	9.66	115		10.5	9.74	107	7.21		69-133	30	20-Nov-19 05:35	1	20-Nov-19 05:45	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C3-PFPeA	IS	61.3		61.1		50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1
13C3-PFBS	IS	81.1		83.6		50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1
13C2-4:2 FTS	IS	84.2		87.0		50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1
13C2-PFHxA	IS	56.6		59.7		50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1
13C4-PFHpA	IS	48.4	H	50.6		50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1
13C3-PFHxS	IS	84.1		97.0		50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1
13C2-6:2 FTS	IS	72.8		84.8		50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1
13C5-PFNA	IS	43.5	H	44.0	H	50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1
13C2-PFOA	IS	45.8	H	47.2	H	50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1
13C8-PFOS	IS	84.4		78.2		50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1

Sample ID: L8/9-4-10 **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9K0047-MS1/B9K0047-MSD1	Source Lab Sample:	1903825-05
Project:	SJC PFAS Investigation	QC Batch:	B9K0047	Date Extracted:	12-Nov-19
Matrix:	Solid	Samp Size:	1.13/1.12 g	Column:	BEH C18

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C2-PFDA	IS	44.0	H	45.9	H	50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1
13C2-8:2 FTS	IS	74.3		67.4		50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1
d3-MeFOSAA	IS	60.3		60.2		50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1
13C2-PFUnA	IS	49.1	H	47.4	H	50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1
d5-EtFOSAA	IS	50.8		54.6		50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1
13C2-PFDoA	IS	51.1		59.5		50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1
13C2-PFTeDA	IS	59.3		65.2		50-150	20-Nov-19 05:35	1	20-Nov-19 05:45	1

Sample ID: L8/9-4-10 **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9K0201-MS1/B9K0201-MSD1	Source Lab Sample:	1903825-05
Project:	SJC PFAS Investigation	QC Batch:	B9K0201	Date Extracted:	26-Nov-19
Matrix:	Solid	Samp Size:	2.21/2.20 g	Column:	BEH C18

Analyte	CAS Number	Sample (ng/g)	MS (ng/g)	MS Spike	MS % Rec	MS Quals	MSD (ng/g)	MSD Spike	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBA	375-22-4	ND	4.87	4.94	94.3		5.11	4.96	98.9	4.76		71-135	30	07-Dec-19 20:15	1	07-Dec-19 20:25	1
PFOSA	754-91-6	ND	5.06	4.94	102		5.25	4.96	106	3.85		67-137	30	07-Dec-19 20:15	1	07-Dec-19 20:25	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C3-PFBA	IS	81.9		70.7		50-150	07-Dec-19 20:15	1	07-Dec-19 20:25	1
13C8-PFOSA	IS	52.2		47.4	H	50-150	07-Dec-19 20:15	1	07-Dec-19 20:25	1

Sample ID: L8/9-5-1

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 09:38

Laboratory Data

Lab Sample: 1903825-06
Date Received: 25-Oct-19 08:40
% Solids: 85.2
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	7.95	0.999		B9K0201	26-Nov-19	2.35 g	06-Dec-19 23:16	1
PFPeA	2706-90-3	26.3	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
PFBS	375-73-5	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
4:2 FTS	757124-72-4	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
PFHxA	307-24-4	11.1	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
PFPeS	2706-91-4	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
PFHpA	375-85-9	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
PFHxS	355-46-4	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
6:2 FTS	27619-97-2	2.53	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
PFOA	335-67-1	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
PFHpS	375-92-8	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
PFNA	375-95-1	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
PFOSA	754-91-6	ND	0.999		B9K0201	26-Nov-19	2.35 g	06-Dec-19 23:16	1
PFOS	1763-23-1	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
PFDA	335-76-2	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
8:2 FTS	39108-34-4	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
MeFOSAA	2355-31-9	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
EtFOSAA	2991-50-6	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
PFUnA	2058-94-8	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
PFDS	335-77-3	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
PFDoA	307-55-1	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
PFTrDA	72629-94-8	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
PFTeDA	376-06-7	ND	1.99		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	70.8	50 - 150		B9K0201	26-Nov-19	2.35 g	06-Dec-19 23:16	1
13C3-PFPeA	IS	90.1	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
13C3-PFBS	IS	86.4	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
13C2-4:2 FTS	IS	88.3	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
13C2-PFHxA	IS	86.8	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
13C4-PFHpA	IS	83.6	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
13C3-PFHxS	IS	112	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
13C2-6:2 FTS	IS	84.5	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
13C5-PFNA	IS	71.5	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
13C8-PFOSA	IS	34.8	50 - 150	H	B9K0201	26-Nov-19	2.35 g	06-Dec-19 23:16	1
13C2-PFOA	IS	81.8	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
13C8-PFOS	IS	91.5	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
13C2-PFDA	IS	66.8	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
13C2-8:2 FTS	IS	81.6	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1

Sample ID: L8/9-5-1 **PFAS Isotope Dilution Method**

Client Data

Name:	Woodard & Curran	Matrix:	Soil
Project:	SJC PFAS Investigation	Date Collected:	24-Oct-19 09:38
Location:	8/9		

Laboratory Data

Lab Sample:	1903825-06	Column:	BEH C18
Date Received:	25-Oct-19 08:40		
% Solids:	85.2		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	67.5	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
13C2-PFUnA	IS	66.4	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
d5-EtFOSAA	IS	72.1	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
13C2-PFDoA	IS	68.3	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1
13C2-PFTeDA	IS	50.6	50 - 150		B9K0047	12-Nov-19	1.18 g	20-Nov-19 08:44	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L8/9-5-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 09:42

Laboratory Data

Lab Sample: 1903825-07
Date Received: 25-Oct-19 08:40
% Solids: 89.8
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	0.999		B9K0201	26-Nov-19	2.23 g	06-Dec-19 23:27	1
PFPeA	2706-90-3	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
PFBS	375-73-5	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
4:2 FTS	757124-72-4	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
PFHxA	307-24-4	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
PFPeS	2706-91-4	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
PFHpA	375-85-9	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
PFHxS	355-46-4	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
6:2 FTS	27619-97-2	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
PFOA	335-67-1	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
PFHpS	375-92-8	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
PFNA	375-95-1	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
PFOSA	754-91-6	ND	0.999		B9K0201	26-Nov-19	2.23 g	06-Dec-19 23:27	1
PFOS	1763-23-1	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
PFDA	335-76-2	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
8:2 FTS	39108-34-4	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
MeFOSAA	2355-31-9	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
EtFOSAA	2991-50-6	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
PFUnA	2058-94-8	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
PFDS	335-77-3	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
PFDoA	307-55-1	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
PFTrDA	72629-94-8	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
PFTeDA	376-06-7	ND	1.95		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	71.0	50 - 150		B9K0201	26-Nov-19	2.23 g	06-Dec-19 23:27	1
13C3-PFPeA	IS	74.1	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
13C3-PFBS	IS	85.3	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
13C2-4:2 FTS	IS	84.2	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
13C2-PFHxA	IS	74.5	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
13C4-PFHpA	IS	71.3	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
13C3-PFHxS	IS	87.0	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
13C2-6:2 FTS	IS	67.7	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
13C5-PFNA	IS	64.3	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
13C8-PFOSA	IS	47.0	50 - 150	H	B9K0201	26-Nov-19	2.23 g	06-Dec-19 23:27	1
13C2-PFOA	IS	67.3	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
13C8-PFOS	IS	90.7	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
13C2-PFDA	IS	63.1	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
13C2-8:2 FTS	IS	75.9	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1

Sample ID: L8/9-5-5

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 09:42

Laboratory Data

Lab Sample: 1903825-07
Date Received: 25-Oct-19 08:40
% Solids: 89.8
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	66.0	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
13C2-PFUnA	IS	60.7	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
d5-EtFOSAA	IS	64.9	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
13C2-PFDoA	IS	59.6	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1
13C2-PFTeDA	IS	69.0	50 - 150		B9K0047	12-Nov-19	1.14 g	20-Nov-19 08:54	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L8/9-5-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 09:47

Laboratory Data

Lab Sample: 1903825-08
Date Received: 25-Oct-19 08:40
% Solids: 91.8
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	0.994		B9K0201	26-Nov-19	2.19 g	06-Dec-19 23:37	1
PFPeA	2706-90-3	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
PFBS	375-73-5	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
4:2 FTS	757124-72-4	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
PFHxA	307-24-4	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
PFPeS	2706-91-4	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
PFHpA	375-85-9	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
PFHxS	355-46-4	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
6:2 FTS	27619-97-2	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
PFOA	335-67-1	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
PFHpS	375-92-8	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
PFNA	375-95-1	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
PFOSA	754-91-6	ND	0.994		B9K0201	26-Nov-19	2.19 g	06-Dec-19 23:37	1
PFOS	1763-23-1	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
PFDA	335-76-2	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
8:2 FTS	39108-34-4	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
MeFOSAA	2355-31-9	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
EtFOSAA	2991-50-6	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
PFUnA	2058-94-8	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
PFDS	335-77-3	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
PFDoA	307-55-1	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
PFTrDA	72629-94-8	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
PFTeDA	376-06-7	ND	1.96		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	57.5	50 - 150		B9K0201	26-Nov-19	2.19 g	06-Dec-19 23:37	1
13C3-PFPeA	IS	78.3	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
13C3-PFBS	IS	92.1	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
13C2-4:2 FTS	IS	86.6	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
13C2-PFHxA	IS	74.5	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
13C4-PFHpA	IS	68.5	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
13C3-PFHxS	IS	86.1	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
13C2-6:2 FTS	IS	78.2	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
13C5-PFNA	IS	61.7	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
13C8-PFOSA	IS	22.2	50 - 150	H	B9K0201	26-Nov-19	2.19 g	06-Dec-19 23:37	1
13C2-PFOA	IS	70.3	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
13C8-PFOS	IS	81.3	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
13C2-PFDA	IS	54.5	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
13C2-8:2 FTS	IS	81.1	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1

Sample ID: L8/9-5-10

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Soil
Date Collected: 24-Oct-19 09:47

Laboratory Data

Lab Sample: 1903825-08
Date Received: 25-Oct-19 08:40
% Solids: 91.8
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	63.0	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
13C2-PFUnA	IS	57.4	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
d5-EtFOSAA	IS	67.7	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
13C2-PFDoA	IS	54.7	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1
13C2-PFTeDA	IS	57.3	50 - 150		B9K0047	12-Nov-19	1.11 g	20-Nov-19 09:05	1

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous

Laboratory Data

Lab Sample: B9J0302-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFPeA	2706-90-3	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFBS	375-73-5	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
4:2 FTS	757124-72-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFHxA	307-24-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFPeS	2706-91-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFHpA	375-85-9	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFHxS	355-46-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
6:2 FTS	27619-97-2	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFOA	335-67-1	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFHpS	375-92-8	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFNA	375-95-1	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFOSA	754-91-6	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFOS	1763-23-1	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFDA	335-76-2	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
8:2 FTS	39108-34-4	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
MeFOSAA	2355-31-9	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
EtFOSAA	2991-50-6	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFUnA	2058-94-8	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFDS	335-77-3	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFDoA	307-55-1	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFTrDA	72629-94-8	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
PFTeDA	376-06-7	ND	2.00		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	115	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C3-PFPeA	IS	86.7	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C3-PFBS	IS	95.0	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-4:2 FTS	IS	98.0	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFHxA	IS	83.5	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C4-PFHpA	IS	89.2	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C3-PFHxS	IS	93.5	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-6:2 FTS	IS	88.9	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C5-PFNA	IS	94.2	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C8-PFOSA	IS	41.5	50 - 150	H	B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFOA	IS	84.7	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C8-PFOS	IS	91.3	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFDA	IS	89.9	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-8:2 FTS	IS	97.5	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous

Laboratory Data

Lab Sample: B9J0302-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	77.2	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFUnA	IS	79.9	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
d5-EtFOSAA	IS	76.6	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFDoA	IS	72.0	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1
13C2-PFTeDA	IS	72.2	50 - 150		B9J0302	01-Nov-19	0.250 L	11-Nov-19 22:28	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0302-BS1/B9J0302-BSD1
Project:	SJC PFAS Investigation	QC Batch:	B9J0302
Matrix:	Aqueous	Samp Size:	0.250/0.250 L
		Date Extracted:	01-Nov-19
		Column:	BEH C18

Analyte	CAS Number	LCS (ng/L)	LCS Spike	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBA	375-22-4	40.9	40.0	102		38.7	40.0	96.6	5.67		73-129	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFPeA	2706-90-3	42.5	40.0	106		40.8	40.0	102	4.11		72-129	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFBS	375-73-5	42.4	40.0	106		38.1	40.0	95.2	10.7		72-130	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
4:2 FTS	757124-72-4	35.5	40.0	88.8		34.9	40.0	87.3	1.63		63-143	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFHxA	307-24-4	41.2	40.0	103		42.3	40.0	106	2.82		72-129	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFPeS	2706-91-4	37.5	40.0	93.8		34.0	40.0	84.9	9.94		71-127	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFHpA	375-85-9	43.7	40.0	109		41.7	40.0	104	4.60		72-130	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFHxS	355-46-4	35.0	40.0	87.4		34.5	40.0	86.4	1.18		68-131	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
6:2 FTS	27619-97-2	43.6	40.0	109		40.7	40.0	102	6.87		64-140	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFOA	335-67-1	36.0	40.0	90.0		36.6	40.0	91.6	1.67		71-133	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFHpS	375-92-8	44.5	40.0	111		43.1	40.0	108	3.19		69-134	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFNA	375-95-1	43.7	40.0	109		42.2	40.0	105	3.59		69-130	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFOSA	754-91-6	37.8	40.0	94.5		39.5	40.0	98.7	4.33		67-137	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFOS	1763-23-1	41.9	40.0	105		40.5	40.0	101	3.41		65-140	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFDA	335-76-2	40.7	40.0	102		41.0	40.0	103	0.785		71-129	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
8:2 FTS	39108-34-4	33.8	40.0	84.5		32.2	40.0	80.6	4.73		67-138	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
MeFOSAA	2355-31-9	35.3	40.0	88.1		35.5	40.0	88.8	0.794		65-136	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
EtFOSAA	2991-50-6	36.3	40.0	90.9		33.0	40.0	82.6	9.50		61-135	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFUnA	2058-94-8	42.1	40.0	105		42.2	40.0	106	0.426		69-133	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFDS	335-77-3	34.9	40.0	87.3		30.7	40.0	76.8	12.8		53-142	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFDoA	307-55-1	44.2	40.0	110		43.2	40.0	108	2.17		72-134	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFTrDA	72629-94-8	37.8	40.0	94.4		34.8	40.0	86.9	8.23		65-144	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1
PFTeDA	376-06-7	42.6	40.0	106		41.9	40.0	105	1.56		71-132	30	11-Nov-19 22:39	1	11-Nov-19 22:50	1

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBA	IS	101		121		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C3-PFPeA	IS	77.3		91.3		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C3-PFBS	IS	85.8		110		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-4:2 FTS	IS	86.8		97.8		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFHxA	IS	78.8		86.5		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C4-PFHpA	IS	82.3		90.9		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C3-PFHxS	IS	92.0		103		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-6:2 FTS	IS	79.8		97.8		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Woodard & Curran	Lab Sample:	B9J0302-BS1/B9J0302-BSD1	Date Extracted:	01-Nov-19
Project:	SJC PFAS Investigation	QC Batch:	B9J0302	Column:	BEH C18
Matrix:	Aqueous	Samp Size:	0.250/0.250 L		

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C5-PFNA	IS	88.3		102		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C8-PFOSA	IS	35.5	H	39.8	H	50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFOA	IS	80.9		90.9		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C8-PFOS	IS	88.8		104		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFDA	IS	87.7		99.2		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-8:2 FTS	IS	91.0		104		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
d3-MeFOSAA	IS	69.4		74.9		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFUnA	IS	80.7		84.4		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
d5-EtFOSAA	IS	70.8		85.2		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFDoA	IS	66.9		71.6		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1
13C2-PFTeDA	IS	73.0		60.4		50-150	11-Nov-19 22:39	1	11-Nov-19 22:50	1

Sample ID: L8/9-5-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Aqueous
Date Collected: 24-Oct-19 10:15

Laboratory Data

Lab Sample: 1903825-09
Date Received: 25-Oct-19 08:40
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	814	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
PFPeA	2706-90-3	4970	11.2	D	B9J0302	01-Nov-19	0.224 L	12-Dec-19 10:30	5
PFBS	375-73-5	44.5	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
4:2 FTS	757124-72-4	2.48	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
PFHxA	307-24-4	1620	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
PFPeS	2706-91-4	11.9	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
PFHpA	375-85-9	134	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
PFHxS	355-46-4	15.0	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
6:2 FTS	27619-97-2	560	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
PFOA	335-67-1	4.75	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
PFHpS	375-92-8	ND	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
PFNA	375-95-1	ND	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
PFOSA	754-91-6	ND	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
PFOS	1763-23-1	ND	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
PFDA	335-76-2	ND	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
8:2 FTS	39108-34-4	4.88	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
MeFOSAA	2355-31-9	ND	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
EtFOSAA	2991-50-6	ND	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
PFUnA	2058-94-8	ND	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
PFDS	335-77-3	ND	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
PFDoA	307-55-1	ND	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
PFTrDA	72629-94-8	ND	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
PFTeDA	376-06-7	ND	2.23		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	91.8	50 - 150		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
13C3-PFPeA	IS	82.0	50 - 150	D	B9J0302	01-Nov-19	0.224 L	12-Dec-19 10:30	5
13C3-PFBS	IS	115	50 - 150		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
13C2-4:2 FTS	IS	118	50 - 150		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
13C2-PFHxA	IS	96.4	50 - 150		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
13C4-PFHpA	IS	112	50 - 150		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
13C3-PFHxS	IS	114	50 - 150		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
13C2-6:2 FTS	IS	90.0	50 - 150		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
13C5-PFNA	IS	117	50 - 150		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
13C8-PFOSA	IS	51.5	50 - 150		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
13C2-PFOA	IS	111	50 - 150		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
13C8-PFOS	IS	112	50 - 150		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
13C2-PFDA	IS	109	50 - 150		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
13C2-8:2 FTS	IS	117	50 - 150		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1

Sample ID: L8/9-5-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Aqueous
Date Collected: 24-Oct-19 10:15

Laboratory Data

Lab Sample: 1903825-09
Date Received: 25-Oct-19 08:40
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	93.0	50 - 150		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
13C2-PFUnA	IS	77.8	50 - 150		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
d5-EtFOSAA	IS	83.2	50 - 150		B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
13C2-PFDoA	IS	44.9	50 - 150	H	B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1
13C2-PFTeDA	IS	4.30	50 - 150	H	B9J0302	01-Nov-19	0.224 L	12-Nov-19 00:46	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L8/9-4-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Aqueous
Date Collected: 24-Oct-19 12:13

Laboratory Data

Lab Sample: 1903825-10
Date Received: 25-Oct-19 08:40
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	85.6	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFPeA	2706-90-3	231	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFBS	375-73-5	6.58	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
4:2 FTS	757124-72-4	ND	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFHxA	307-24-4	75.0	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFPeS	2706-91-4	ND	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFHpA	375-85-9	3.58	2.14	Q	B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFHxS	355-46-4	ND	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
6:2 FTS	27619-97-2	81.3	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFOA	335-67-1	2.40	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFHpS	375-92-8	ND	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFNA	375-95-1	ND	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFOSA	754-91-6	ND	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFOS	1763-23-1	ND	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFDA	335-76-2	ND	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
8:2 FTS	39108-34-4	2.20	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
MeFOSAA	2355-31-9	ND	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
EtFOSAA	2991-50-6	ND	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFUnA	2058-94-8	ND	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFDS	335-77-3	ND	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFDoA	307-55-1	ND	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFTrDA	72629-94-8	ND	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
PFTeDA	376-06-7	ND	2.14		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	117	50 - 150		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
13C3-PFPeA	IS	144	50 - 150		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
13C3-PFBS	IS	156	50 - 150	H	B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
13C2-4:2 FTS	IS	152	50 - 150	H	B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
13C2-PFHxA	IS	150	50 - 150		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
13C4-PFHpA	IS	158	50 - 150	H	B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
13C3-PFHxS	IS	153	50 - 150	H	B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
13C2-6:2 FTS	IS	131	50 - 150		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
13C5-PFNA	IS	157	50 - 150	H	B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
13C8-PFOSA	IS	59.5	50 - 150		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
13C2-PFOA	IS	143	50 - 150		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
13C8-PFOS	IS	152	50 - 150	H	B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
13C2-PFDA	IS	149	50 - 150		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
13C2-8:2 FTS	IS	148	50 - 150		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1

Sample ID: L8/9-4-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Aqueous
Date Collected: 24-Oct-19 12:13

Laboratory Data

Lab Sample: 1903825-10
Date Received: 25-Oct-19 08:40
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	130	50 - 150		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
13C2-PFUnA	IS	135	50 - 150		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
d5-EtFOSAA	IS	129	50 - 150		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
13C2-PFDoA	IS	101	50 - 150		B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1
13C2-PFTeDA	IS	21.6	50 - 150	H	B9J0302	01-Nov-19	0.234 L	12-Nov-19 00:57	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: L8/9-40-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Aqueous
Date Collected: 24-Oct-19 12:13

Laboratory Data

Lab Sample: 1903825-11
Date Received: 25-Oct-19 08:40
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	85.5	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFPeA	2706-90-3	232	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFBS	375-73-5	6.06	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
4:2 FTS	757124-72-4	ND	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFHxA	307-24-4	70.2	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFPeS	2706-91-4	ND	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFHpA	375-85-9	3.66	2.09	Q	B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFHxS	355-46-4	ND	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
6:2 FTS	27619-97-2	79.6	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFOA	335-67-1	2.20	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFHpS	375-92-8	ND	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFNA	375-95-1	ND	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFOSA	754-91-6	ND	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFOS	1763-23-1	ND	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFDA	335-76-2	ND	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
8:2 FTS	39108-34-4	2.36	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
MeFOSAA	2355-31-9	ND	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
EtFOSAA	2991-50-6	ND	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFUnA	2058-94-8	ND	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFDS	335-77-3	ND	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFDoA	307-55-1	ND	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFTrDA	72629-94-8	ND	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
PFTeDA	376-06-7	ND	2.09		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	76.5	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
13C3-PFPeA	IS	98.6	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
13C3-PFBS	IS	106	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
13C2-4:2 FTS	IS	102	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
13C2-PFHxA	IS	96.6	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
13C4-PFHpA	IS	104	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
13C3-PFHxS	IS	99.5	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
13C2-6:2 FTS	IS	84.4	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
13C5-PFNA	IS	110	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
13C8-PFOSA	IS	58.0	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
13C2-PFOA	IS	98.7	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
13C8-PFOS	IS	108	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
13C2-PFDA	IS	103	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
13C2-8:2 FTS	IS	90.1	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1

Sample ID: L8/9-40-GW

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Location: 8/9
Matrix: Aqueous
Date Collected: 24-Oct-19 12:13

Laboratory Data

Lab Sample: 1903825-11
Date Received: 25-Oct-19 08:40
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	88.0	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
13C2-PFUnA	IS	94.8	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
d5-EtFOSAA	IS	98.4	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
13C2-PFDoA	IS	74.3	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1
13C2-PFTeDA	IS	62.2	50 - 150		B9J0302	01-Nov-19	0.239 L	12-Nov-19 01:08	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: Trip Blank

PFAS Isotope Dilution Method

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous
Date Collected: 18-Oct-19 00:00

Laboratory Data

Lab Sample: 1903825-12
Date Received: 25-Oct-19 08:40
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFPeA	2706-90-3	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFBS	375-73-5	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
4:2 FTS	757124-72-4	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFHxA	307-24-4	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFPeS	2706-91-4	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFHpA	375-85-9	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFHxS	355-46-4	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
6:2 FTS	27619-97-2	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFOA	335-67-1	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFHpS	375-92-8	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFNA	375-95-1	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFOSA	754-91-6	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFOS	1763-23-1	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFDA	335-76-2	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
8:2 FTS	39108-34-4	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
MeFOSAA	2355-31-9	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
EtFOSAA	2991-50-6	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFUnA	2058-94-8	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFDS	335-77-3	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFDoA	307-55-1	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFTrDA	72629-94-8	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
PFTeDA	376-06-7	ND	2.02		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	131	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
13C3-PFPeA	IS	95.8	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
13C3-PFBS	IS	108	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
13C2-4:2 FTS	IS	105	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
13C2-PFHxA	IS	95.2	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
13C4-PFHpA	IS	96.3	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
13C3-PFHxS	IS	98.8	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
13C2-6:2 FTS	IS	91.9	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
13C5-PFNA	IS	108	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
13C8-PFOSA	IS	37.2	50 - 150	H	B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
13C2-PFOA	IS	96.3	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
13C8-PFOS	IS	102	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
13C2-PFDA	IS	106	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
13C2-8:2 FTS	IS	110	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1

Sample ID: Trip Blank — **PFAS Isotope Dilution Method**

Client Data

Name: Woodard & Curran
Project: SJC PFAS Investigation
Matrix: Aqueous
Date Collected: 18-Oct-19 00:00

Laboratory Data

Lab Sample: 1903825-12
Date Received: 25-Oct-19 08:40
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d3-MeFOSAA	IS	83.7	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
13C2-PFUnA	IS	105	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
d5-EtFOSAA	IS	89.1	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
13C2-PFDoA	IS	86.6	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1
13C2-PFTeDA	IS	80.6	50 - 150		B9J0302	01-Nov-19	0.247 L	12-Nov-19 01:18	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

Vista

Print Form

CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY

Laboratory Project ID: 1903825 Temp 0.6 °C

Storage ID: WR-2, R-13 Storage Secured: Yes ☑ No ☐

TAT: (Check One)
Standard ◯ 21 days
Rush (surcharge may apply)
◯ 14 days ◯ 7 days Specify:

Project I.D.: STC PFAS Investigation P.O. #: 0232401.01 Sampler: KA/CL (Name)

Invoice to: Name	Company	Address	City	State	Zip	Ph#	Fax #
Erin Ly							

Relinquished by: (Printed Name and Signature)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Erin Ly	10/24/2019	17:30	Erin Ly Fed EX	10/24/2019	
Relinquished by: (Printed Name and Signature)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
FedEx	10/25/19	08:40	Hayden Camas	10/25/19	08:40

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

Method of Shipment: Fed EX

ATTN: Jade White - Dobbs

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Container(s) Type	Matrix	EPA1613 2378-TCDD	EPA1613 2378-TCDD/TCDF	EPA1613 PCDD/PCDF	EPA8290 2378-TCDD	EPA8290 2378-TCDD/TCDF	EPA8290 PCDD/PCDF	EPA8280 2378-TCDD	EPA8280 2378-TCDD/TCDF	EPA8280 PCDD/PCDF	EPA1668 TOTALS	EPA1668 COPLANAR PCBs	EPA1668 209 CONGENERS	EPA1668 PBDE	EPA1614 PAH	CARB429 WHO-29	CA Airport PFAS List (23)
L8/9-3-5	10/24/19	0901	8/9	1	PJ	SO																X
L8/9-3-10		0904	8/9																			
L8/9-4-1		1102	8/9																			
L8/9-4-5		1105	8/9																			
L8/9-4-10		1110	8/9																			
L8/9-5-1		0938	8/9																			
L8/9-5-5		0942	8/9																			
L8/9-5-10		0947	8/9																			
L8/9-5-GW		1015	8/9	2	P	AQ																
L8/9-4-GW		1213	8/9	2																		
L8/9-40-GW		1213	8/9	2																		

Special Instructions/Comments:

SEND DOCUMENTATION AND RESULTS TO:

Name:
Company: Jim Strandberg
Address: Woodard + Curran 2175 N. California Blvd., Ste. 315
City: Walnut Creek State: CA Zip: 94597
Phone: (510) 310-3776 Fax: (925) 627-4101
Email: jstrandberg@woodardcurran.com

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MM5 Train, O = Other

***Bottle Preservative Type:** ☐ T = Thiosulfate,
☐ O = Other

Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B=Blood/Serum
O = Other

Vista Analytical Laboratory

Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 1903825 TAT Std

Samples Arrival:	**Date/Time** 10/25/19 08:40		**Initials:** HDG			**Location:** WR-2 **Shelf/Rack:** NA	
Delivered By:	(FedEx)	UPS	On Trac	GSO	DHL	Hand Delivered	Other
Preservation:	(Ice)		Blue Ice		Dry Ice		None
Temp °C: 0.6 (uncorrected) **Temp °C:** 0.6 (corrected)			**Probe used:** Y / (N)			**Thermometer ID:** IR-4	

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Airbill #2 Trk # 7804 9906 8854	✓		
Shipping Documentation Present?	✓		
Shipping Container: Vista / (Client) / Retain / (Return) / Dispose			
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	**Date/Time** 10/27/19 1502	**Initials:** KE	**Location:** WR-2 / R-13 **Shelf/Rack:** ~~D (10/27)~~ F7 / A4
COC Anomaly/Sample Acceptance Form completed?	✓		

Comments:

CoC/Label Reconciliation Report WO# 1903825

LabNumber	CoC Sample ID	Label ID matches COCID	Label ID doesn't match COCID	SampleAlias	Sampled	Label Sampled matches	Sampled doesn't match	Container ✓	Container Correct	✓Sample BaseMatrix	Comments
1903825-01	A L8/9-3-5	☑		8/9 STC	24-Oct-19 09:01	☑		HDPE Jar, 6 oz	☑	Solid	
1903825-02	A L8/9-3-10	☑		8/9	24-Oct-19 09:04	☑		HDPE Jar, 6 oz	☑	Solid	
1903825-03	A L8/9-4-1	☑		8/9	24-Oct-19 11:02	☑		HDPE Jar, 6 oz	☑	Solid	
1903825-04	A L8/9-4-5	☑		8/9	24-Oct-19 11:05	☑		HDPE Jar, 6 oz	☑	Solid	
1903825-05	A L8/9-4-10	☑		8/9	24-Oct-19 11:10	☑		HDPE Jar, 6 oz	☑	Solid	
1903825-06	A L8/9-5-1	☑		8/9	24-Oct-19 09:38	☑		HDPE Jar, 6 oz	☑	Solid	
1903825-07	A L8/9-5-5	☑		8/9	24-Oct-19 09:42	☑		HDPE Jar, 6 oz	☑	Solid	
1903825-08	A L8/9-5-10	☑		8/9	24-Oct-19 09:47	☑		HDPE Jar, 6 oz	☑	Solid	
1903825-09	A L8/9-5-GW	☑		8/9 ✓	24-Oct-19 10:15	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903825-09	B L8/9-5-GW	☑		8/9 ✓	24-Oct-19 10:15	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903825-10	A L8/9-4-GW	☑		8/9 not on sample label	24-Oct-19 12:13	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903825-10	B L8/9-4-GW	☑		8/9	24-Oct-19 12:13	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903825-11	A L8/9-40-GW	☑		8/9 not on sample label	24-Oct-19 12:13	☑		HDPE Bottle, 250 mL	☑	Aqueous	
1903825-11	B L8/9-40-GW	☑		8/9	24-Oct-19 12:13	☑		HDPE Bottle, 250 mL	☑	Aqueous	

* 12 A Trip Blank
* 12 B Trip Blank

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Preservation Documented: Na2S2O3 Trizma None Other		✓	✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments: * Received 2-250mL HDPE bottles with sample ID "Trip Blank". Not listed on CoC. Collection date: 10/18/19 no time on label. Added to WO # with info. from labels.

All samples received in cooler 2 of 2.

Verifed by/Date: WBS 10/28/19

Chain of Custody Anomaly/Sample Acceptance Form

Vista Analytical Laboratory

Client:	Woodard & Curran	Workorder Number:	1903825
Contact:	Jim Strandberg	Date Received:	25-Oct-19 08:40
Email:	JStrandberg@woodardcurran.com	Documented by/date:	MSparks/10-28-19
Phone:	(925) 627-4122		

Please review the following information and complete the Client Authorization section. To comply with NELAC regulations, we must receive authorization before proceeding with sample analysis.

- [ ] Sample Collection Date and/or Time not provided
- [ ] Temperature outside Method Requirement (WI-PHT)

  Temperature _____°C Ice Present? Yes No Melted
- [ ] Sample ID Not Reconcilable
- [ ] Sample Holding Time Missed
- [ ] Insufficient Sample Size
- [ ] All Sample Container(s) Broken
- [ ] Drinking Water Incorrect Container Type
- [ ] Chain-of-Custody not received, illegible or destroyed
- [X] **Other: see comments**

Comments/Samples Affected:

Received 2-250ml HDPE bottles with sample ID "Trip Blank" (collection date: 10-18-19/no time). Not listed on COC.

Client Authorization

Proceed with Analysis: (YES) NO Signature and Date _____ 10/28/19

Client Comments/Instructions Per Kevin Almestead via phone on 10/28/19, okay to proceed.

APPENDIX E: DATA VALIDATION SUMMARY

2175 N California Blvd | Suite 315
Walnut Creek, California 94596
www.woodardcurran.com

T 925.627.4100

This data validation summary outlines the Modified Tier I Plus data validation findings for the preliminary investigation activities that took place October 16 to 24, 2019 at the Norman Y. Mineta San José International Airport. The investigation included the collection of 10 groundwater samples which were submitted to Vista Analytical Laboratory for analysis of chloride, nitrate, and sulfate by EPA Method 300; total dissolved solids (TDS) by EPA Method 160.1; calcium, magnesium, potassium, and sodium by EPA Method 200.7; alkalinity as $CaCO_3$ by Standard Method SM2320B; and Per- & Polyfluoroalkyl Substances (PFAS) by modified EPA Method 537.1 using isotope dilution. Five field duplicates were collected for analysis of PFAS. The investigation also included the collection of 84 discrete soil samples for analysis of PFAS by modified EPA Method 537.1.

In accordance with the Work Plan (Woodard & Curran, 2019), the Modified Tier I Plus validation included a review of the following:

- Data completeness;
- Holding times;
- Sample preservation;
- Blank results;
- Surrogate recoveries (organics only);
- Matrix spike and matrix spike duplicate (MS/MSD) results;
- Field duplicates; and
- Laboratory control spike and laboratory control spike duplicate (LCS/LCSD) results.

Attachments 1 and 2 provide summaries of the data validation and qualifications for analysis of groundwater samples for general chemistry and PFAS, respectively.

General Chemistry Parameters

The data validation summarized below was performed on chloride, nitrate, sulfate, TDS, calcium, magnesium, potassium, sodium, and alkalinity analyses in groundwater in sample delivery groups (SDGs) 19J1246, 19J1293, 19J1452, 19J1536, 19J1611, 19K0437, 19K0439, 19K0440, 19K0442, and 19K0447 (Attachment 1)

Data Completeness

All data necessary to perform this validation were present.

Holding Times & Sample Preservation

All samples were preserved and extracted and/or analyzed within holding times with the following exceptions:

- All groundwater samples submitted for analysis of alkalinity (results reported as estimated [J qualification]); and
- L12-3-GW submitted for analysis of nitrate (J).

All samples were received at proper temperature. No other qualifications were applied to the data.

Blank Results

All method blanks were non-detect. No qualifications were applied to the data.

MS/MSD Results

All MS/MSD recoveries were within acceptable limits with the following exceptions:

- Magnesium and sodium for samples L8/9-5-GW and L8/9-4-GW;
- Sodium for samples L14-4-GW, L3-3-GW, L14-1-GW, and L14-2-GW;
- Calcium, magnesium, potassium, sodium for sample L4-2-GW;
- Calcium, potassium, sodium, and chloride for sample L12-3-GW; and
- Calcium, magnesium, potassium, sodium, sulfate, chloride, and nitrate for samples L10-1-GW, L10-10-GW (duplicate of L10-1-GW), and L11-3-GW.

Detected results for analytes listed above received a J qualification.

Field Duplicates

The following field duplicate pairs were included with the dataset:

- L4-2-GW/L4-20-GW;
- L8/9-4-GW/L8/9-40-GW;
- L10-1-GW/L10-10-GW;
- L12-3-GW/L12-30-GW; and
- L14-2-GW/L14-20-GW.

All field duplicate pairs met the acceptance criteria. No qualifications were applied.

LCS/LCSD Results

All LCS results met acceptance criteria except for calcium, magnesium, and potassium for samples L10-1-GW (and L10-10-GW) and L11-3-GW which were outside recovery limits. Detected results received a J qualification.

PFAS

The data validation summarized below was performed on PFAS analyses in soil and groundwater in SDGs 1903732, 1903734, 1903735, 1903773, 1903822, 1903823, 1903824, and 1903825 (Attachment 2).

Data Completeness

All data necessary to perform this validation were present.

Holding Times & Sample Preservation

All samples were preserved and extracted and/or analyzed within holding times. All samples were received at proper temperature. No qualifications were applied to the data.

Blank Results

All method blanks were non-detect. No qualifications were applied to the data.

Equipment blanks EB-3 and EB-4 were non-detect for all analytes. No qualifications were applied.

Field blanks FB-2, FB-4, and FB-5 were non-detect for all analytes. No qualifications were applied.

Surrogate Recoveries

All surrogates met acceptance criteria with the exceptions noted in Attachment 2. Detected results for samples and compounds indicated were qualified as estimated (J).

MS/MSD Results

MS/MSD recoveries and/or RPDs were within the acceptance criteria except for those noted in Attachment 2. Detected results of samples and compounds indicated were qualified as estimated (J).

Field Duplicates

The following field duplicate pairs were included with the dataset:

- L10-1-GW/L10-10-GW
- L12-3-GW/L12-30-GW
- L4-2-GW/L4-20-GW
- L14-2-GW/L14-20/GW
- L8/9-4-GW/L8/9-40-GW

All field duplicate pairs met the acceptance criteria. No qualifications were applied.

LCS/LCSD Results

All LCS results met acceptance criteria. No qualifications were applied.

Attachment 1:
Inorganics Data Validation Summary Table
San Jose International Airport PFAS Preliminary Investigation

Project: PFAS Completion Report		**W&C Project No.:** 0232401.01	**SDGs:** 19J1246, 19J1293, 19J1452, 19J1536, 19J1611, 19K0437, 19K0439, 19K0440, 19K0442, 19K0447		
Medium: Groundwater		**Analyses:** 300, 160.1, 200.7, SM2320B	**Analytes:** Alkalinity, chloride, nitrate, sulfate, total dissolved solids, calcium, magnesium, potassium, and sodium		
Samples: L10-1-GW, L11-3-GW, L12-3-GW, L4-2-GW, L3-3-GW, L14-4-GW, L14-1-GW, L14-2-GW, L8/9-5-GW, L8/9-4-GW					
Laboratory: Vista Analytical	**Date Validation Completed:** 1/15/2020		**Sample Collection Date:** 10/16/2019 – 10/24/2019		**Sample Analysis Date:** 10/18/2019 – 11/12/2019
QC Parameter	**All in Spec. ?**	**Non-Compliant Results**	**Flag**	**Action/ Notes**	**Associated Samples**
Holding Times	No	Alkalinity Nitrate	J J	Analyzed outside of hold time for alkalinity	ALL GW samples analyzed for alkalinity L12-3-GW
Detection Limits	Yes	None	--	No action	
% Solids	NA				
Preservation	Yes	None	--	No action	
Blanks					
Method Blank	Yes	None	--	No action	
Equipment/Field Blank	NA		--		
Other QC Results					
LCS/LCSD	No	Calcium, Magnesium, Potassium	J	LCS recovery outside limits	L10-1-GW, L10-10-GW, L11-3-GW
MS/MSD	No	Magnesium, Sodium Sodium Calcium, Magnesium, Potassium, Sodium Calcium, Potassium, Sodium, Chloride Calcium, Magnesium, Potassium, Sodium, Sulfate, Chloride, Nitrate	J	MS recovery outside limits	L8/9-5-GW, L8/9-4-GW L14-4-GW, L3-3-GW, L14-1-GW, L14-2-GW L4-2-GW L12-3-GW L10-1-GW, L10-10-GW, L11-3-GW
Field Duplicates L10-1-GW/L10-10-GW L12-3-GW/L12-30-GW L4-2-GW/L4-20-GW L14-2-GW/L14-20/GW L8/9-4-GW/L8/9-40-GW	Yes	None	--	No action	
Laboratory Replicates	NA				

Attachment 2:
Organics Data Validation Summary Table
San Jose International Airport PFAS Preliminary Investigation

Project: PFAS Completion Report	**W&C Project No.:** 0232401.01		**SDGs:** 1903732, 1903734, 1903735, 1903773, 1903822, 1903823, 1903824, 1903825		
Medium: Groundwater and Soil	**Analysis:** EPA Mod. 537.1		**Analytes:** PFAS		
Samples:					
Laboratory: Vista Analytical	**Date Validation Completed:** 1/15/2020		**Sample Collection Date:** 10/16/2019 – 10/24/2019		**Sample Analysis Date:** 10/18/2019 – 11/12/2019
QC Parameter	**All in Spec.?**	**Non-Compliant Results**	**Flag**	**Action/ Notes**	**Associated Samples**
Holding Times	Yes	None	--	No action	
Detection Limits	Yes	None	--	No action	
% Solids	Yes	None	--	No action	
Preservation	Yes	None	--	No action	
Blanks					
Method Blank	Yes	None	--	No action	
Equipment/Field Blank EB-4, FB-5, FB-4, EB-3, FB-2	Yes	None	--	No action	
Trip Blank Trip Blank	Yes	None	--	No action	
Other QC Results					
Surrogate Recoveries	No	PFOSA, PFDA, PFTeDA PFTeDA PFOSA PFDoA, PFTeDA PFBS, 4:2 FTS, PFHxS, PFHpA, PFNA, PFOSA, PFTeDA PFBA, PFOSA PFBA PFBA, PFOSA, EtFOSAA PFOSA, PFUnA, EtFOSAA, PFDoA PFBA, PFOSA, PFTeDA PFOSA, PFTeDA PFOSA, EtFOSAA PFBA, PFTeDA PFNA, PFOSA, PFOA, PFDA, PFUnA, PFTeDA PFBA, PFNA, PFOSA, PFDA PFHpA, PFNA, PFOSA, PFDA PFNA, PFOSA, PFOA, PFDA, MeFOSAA, PFUnA, PFTeDA PFNA, PFOSA, PFDA PFBA, PFNA PFBA, PFTeDA	J	Labeled standard recoveries outside acceptance criteria	L8/9-3-5 L8/9-4-1, L8/9-4-5, L3-3-GW, L14-20-GW, L14-1-GW, L10-2-10, L11-1-10 L8/9-4-10, L8/9-5-1, L8/9-5-5, L8/9-5-5, L3-2-5, L3-2-10, L14-2-GW, L14-6-10, L10-3-1, L11-4-1, L11-4-10, L11-4-5, L11-1-5, L11-2-10, L11-3-1 L4-2-10, L12-4-10 L8/9-5-GW L8/9-4-GW L3-3-1, L3-3-10, L3-1-1, L14-6-1, L14-2-10, L10-2-5 L3-3-5, L14-2-1, L14-2-5, L4-3-1 L3-1-5, L8/9-1-10 L3-1-10, L3-2-1 L8/9-1-1, L8/9-1-5, L10-3-5, L10-3-10, L10-1-1 L8/9-2-1, L8/9-2-5, L8/9-3-1, L11-3-10, L11-3-GW L8/9-2-10, L4-2-1 L14-4-GW L14-3-1 L14-3-5 L14-3-10 L14-5-1 L14-5-10 L14-6-5 L14-1-1

Attachment 2:
Organics Data Validation Summary Table
San Jose International Airport PFAS Preliminary Investigation

		PFOSA, PFDA PFSOA, PFUnA, PFTeDA PFOSA, PFDA, PFUnA PFBA, PFDoA, PFTeDA PFOS PFOSA, PFUna, PFDoA, PFTeDA PFOSA, PFDA, MeFOSAA, PFUnA, PFDoA PFDoA, PFTeDA PFOSA, PFDA, PFUnA, PFTeDA PFOSA, MeFOSAA, PFUnA PFOSA, PFUnA 6:2 FTS, PFTeDA PFOSA, MeFOSAA, PFUnA, PFDoA, PFTeDA 6:2 FTS, PFOSA, PFUnA PFOSA, MeFOSAA PFBA, PFPeA, PFHpA, PFHxS, 6:2 FTS			L14-1-5 L14-4-10, L12-1-10 L4-2-5 L4-1-1 L4-20-GW L12-2-1, L12-1-1 L12-2-10 L12-4-1 L12-4-5 L12-3-5, L11-2-5 L12-3-10 L10-2-1 L12-1-5 L10-1-5 L10-1-10 L10-1-GW, L10-10-GW
LCS/LCSD	Yes	None	--	No action	
MS/MSD	No	PFPeS, 8:2 FTS PFTrDA PFBA, PFPeA, PFHxA, PFHxS, 6:2 FTS 6:2 FTS, PFHpS, PFOS, 8:2 FTS	J	Recoveries and/or RPDs outside acceptance criteria	L3-3-1 L4-3-1 L10-2-1 L10-1-1
Field Duplicates L10-1-GW/L10-10-GW L12-3-GW/L12-30-GW L4-2-GW/L4-20-GW L14-2-GW/L14-20/GW L8/9-4-GW/L8/9-40-GW	Yes	None	--	No action	



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