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Via Email

April 5, 2024

Department of Environmental Quality
Division of Waste Management
Hazardous Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

Attn: Mary Siedlecki

Re: Corrective Measures Study, Revision 4
Former CSI Landfill Facility – 086871282
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005

Dear Ms. Siedlecki:

On behalf of Caldwell County, Hart & Hickman, PC (H&H) is submitting a revised Corrective Measures Study (CMS) for the former CSI Landfill Facility. The document has been updated to reflect groundwater monitoring data collected between 2018 and 2023, per NCDEQ correspondence dated January 23, 2024. Caldwell County looks forward to finalization and approval of the CMS.

Please do not hesitate to contact us at (919) 847-4241 if you have any questions.

Sincerely,

Hart & Hickman, PC

Carlin Slusher
Project Manager

Genna Olson, PG
Principal Geologist

cc: Donald Duncan – Caldwell County (via email)
Heather Cox – Caldwell County (via email)
Barry Calloway – Caldwell County (via email)
Robert King, III – Brooks Pierce (via email)
David Lackey – Wilson, Lackey & Rohr (via email)

Corrective Measures Study

Former CSI Landfill Facility
1200 Dragstrip Road
Hudson, Caldwell County,
North Carolina
NCD 086 871 282

H&H Job No. CAL-005
April 5, 2024

Revision 4

hart hickman

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Former CSI Landfill Facility
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H&H Job No. CAL-005

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1.0 Introduction

This Corrective Measures Study (CMS) has been prepared by Hart & Hickman, PC (H&H) on behalf of Caldwell County to evaluate potential corrective actions for the former Caldwell Systems, Inc. (CSI) facility and Caldwell County landfill (Site) located at 1200 Drag Strip Road in Hudson, North Carolina. For the purposes of this and all future reports, the Site has the same definition of "Site" in the Consent Agreement and Settlement between Caldwell County and the North Carolina Department of Environmental Quality (NCDEQ; formerly NC Department of Human Resources [NCDHR] and NC Department of Environment and Natural Resources [NCDENR]) Division of Waste Management (DWM; formerly Division of Solid Waste Management). The agreement was signed by the County on April 24, 1997 and by NCDENR on August 26, 1997. The definition of the Site includes three different but contiguous tracts of land: 1) the tract which Caldwell County leased to CSI to operate a hazardous waste management facility; 2) the County landfill property; and 3) the County property formerly known as the Haas property. A Site location map is provided in Figure 1, and a Site layout is provided in Figure 2.

The former CSI facility operated as a hazardous waste management facility on a 1.59-acre parcel leased from Caldwell County. The former CSI facility is located in the west-central portion of an approximately 148-acre parcel of land owned by Caldwell County; approximately 103 acres of this property was utilized as the Caldwell County landfill. The former Haas property occupies approximately 44-acres directly west of the former CSI facility. The Site is bordered to the south by residential properties on Drag Strip Road and Lick Mountain Drive, and to the east, north, and west by undeveloped private property. The Site is currently regulated by NCDEQ DWM Hazardous Waste Section (HWS) and has been assigned the facility ID number NCD086871282. A brief summary of the Site is included in the following sections.

1.1 Site Background

The hazardous waste management facility was constructed by Caldwell County, which operated it from April 1976 until January 1977. From March 1977 until 1989, Caldwell County leased the facility to CSI. During this time, the facility incinerated and/or repackaged, consolidated, blended, and liquefied waste for off-Site shipment or use as fuel. The facility handled hazardous wastes from the US Navy and other industries, including torpedo fuel, solvents, waste oils, paints, tank bottoms, glues, and sludges.

In 1980, CSI submitted a Resource Conservation and Recovery Act (RCRA) Part A permit application with the United States Environmental Protection Agency (USEPA) identifying itself as a Hazardous Waste Management Facility; CSI was granted interim status for the facility. In 1982, CSI was directed by NCDHR Solid and Hazardous Waste Management Branch to submit a RCRA Part B permit. The Part B permit application was submitted in August 1987. Before NCDHR could act on the Part B application, Caldwell County attempted to evict CSI from the property due to the County's concern that CSI was improperly operating the incinerator. Under a court-approved settlement, CSI ceased incineration activities on May 31, 1988. After this date, CSI continued to operate as an Interim Status Hazardous Waste Storage Facility, with operations including fuel blending, waste bulking, and storage of hazardous wastes.

On September 13, 1989, a fire broke out at the incinerator site. Following an investigation, the Caldwell County Health Director issued an order of abatement requiring CSI to cease all operations at the Site unless CSI could show the facility could be operated without threatening public health and welfare. CSI and Caldwell County entered into a court-approved settlement whereby CSI agreed to cease operations by December 1, 1989 and to close the facility as required by RCRA regulations.

1.2 Regulatory History

CSI ceased operations by the required deadline and submitted a closure plan to NCDENR. NCDENR approved the closure plan on July 13, 1990 and directed both CSI and Caldwell County to implement the closure plan. On April 17, 1990, USEPA issued a RCRA 3008(h) Administrative

Order (AO) to CSI as operator of the facility and Caldwell County as the facility owner requiring CSI and Caldwell County perform Interim Corrective Measures, a RCRA Facility Investigation (RFI), a CMS, and a Corrective Measures Implementation (CMI) to complete the corrective measures.

Caldwell County entered into three separate agreements or decrees regarding environmental impacts at the Site. As part of these agreements, Caldwell County agreed to investigate and remediate groundwater impacts, while CSI and the potentially responsible parties (PRPs) that brought waste to CSI for disposal (Generator Settling Defendants) agreed to complete demolition of the facility structures and address soil impacts on the 1.59-acre parcel leased from Caldwell County. It is important to note that the only soil impacts requiring cleanup were on the 1.59-acre parcel where CSI operated. The parcels east of the CSI parcel include the two inactive landfill cells which have been properly closed/capped. The former Haas parcel west of the CSI parcel is undeveloped land owned by the County with no documented chemical usage or disposal.

These agreements and decrees include:

- the Settlement Agreement between Caldwell County and the Generator Settling Defendants, entered in May 1997;
- the Consent Agreement and Settlement entered with NCDENR on August 26, 1997 in the Office of Administrative Hearings, 90 HER 0823; and
- a Consent Decree entered January 16, 1998, in United States v. Caldwell County, *et al*., United States District Court for the Western District of North Carolina, Statesville Division, Civil Action No. 5:97 CV 125-V

The CSI facility demolition and impacted soil removal and capping activities were completed and are summarized in the Removal Action Summary Report (CRA 2001) and the Summary of Removal Action and Corrective Measures Study (CRA 2005). As referenced in the latter report, a risk assessment conducted for the Site indicated no unacceptable risks to human health in relation to the former facility and Site soils and recommended no further corrective action for Site soil.

1.3 Summary of Site Assessments

Numerous, extensive investigations of potential impacts at the Site have been conducted since 1987. Because there were multiple parties involved including CSI, PRPs that took wastes for incineration, Caldwell County, USEPA Region IV, NCDENR Hazardous Waste Section and NCDENR Solid Waste Section, after each phase of assessment the stakeholders "Group" met to discuss results and to agree upon necessary future work. A full summary of investigations prior to Caldwell County entering into the three agreements described in Section 1.2 is given in the 1998 RFI Workplan (ARCADIS 1998). A Phase I RFI was submitted in 1999 (ARCADIS 1999a), and Phase II RFI Parts A and C (ARCADIS 1999b, 2001) were subsequently prepared. As described in greater detail below, the Phase II RFI Part B was proposed but not implemented due to off-Site access issues. Since 2001, groundwater monitoring at the Site has been conducted annually. A brief summary of these investigations is given below. Because soil has already been addressed and Caldwell County is responsible only for groundwater impacts, only groundwater, surface water, and well/spring assessment results are discussed.

In September 1987, USEPA, HWS, and Waste Management Division, RCRA Branch initiated a case development that included sampling groundwater springs on the Truitt Haas property. Organic compounds were detected in the Haas Spring. Subsequent sampling of the spring by USEPA contractors in 1988 and 1990 confirmed the presence of organic compounds. Monitoring wells installed in 1990 and 1991 confirmed groundwater impacts at the Site, with the highest concentrations detected in wells located immediately southeast of the former CSI facility.

Caldwell County contracted Geraghty & Miller to conduct a preliminary groundwater characterization in October 1992. The results of that investigation indicated that groundwater flows eastward and westward from the ridge that housed the former CSI facility, with impacts detected in the Haas Spring and in two monitoring wells located between the former CSI facility and the landfill. A global groundwater monitoring network was subsequently installed and first sampled in January 1995. Monitoring wells GM-1, GM-2, MW-2, and MW-3 were sampled for the complete Appendix IX parameter list, which includes volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), chlorinated and organophosphorus pesticides,

herbicides, and metals. Only some VOCs, SVOCs, and arsenic were detected at concentrations above North Carolina Administrative Code (NCAC) 2L Groundwater Standards (2L Standards). Based on the results of these initial sampling events, the Phase I RFI groundwater sampling plan was modified to VOCs in all wells sampled and SVOCs (Base Neutrals only), arsenic, manganese, and chlorinated pesticides (alpha-BHC, beta-BHC, and heptachlor) in select wells.

The results of the Phase I RFI indicated that VOCs, predominantly chlorinated VOCs (CVOCs), were the primary constituents of concern (COCs) at the Site. The highest concentration of VOCs was detected in wells in and immediately downgradient to the east of the former CSI facility (i.e., towards the Site landfill away from residential areas). A review of groundwater geochemical parameters indicated that conditions were favorable for the natural attenuation of Site COCs. Elevated metals concentrations in groundwater were determined to be the result of naturally occurring background conditions. This was discussed and agreed upon by the "Group" and though not formally documented, sampling for metals was dropped from future sampling events and was not requested by the regulatory agencies beyond the Phase I RFI. 1,4-Dioxane was detected in two of six monitoring wells (GM-1 and DW-1). No chlorinated pesticides were detected.

In addition to groundwater, seven surface water samples and eight potable water well or domestic spring samples were collected as part of the Phase I RFI. The surface water samples were analyzed for VOCs, while the well/spring samples were analyzed for VOCs, SVOCs (Base Neutrals only), arsenic, manganese, chlorinated pesticides, and ammonia. Three surface water samples contained low levels of VOCs. VOCs were also detected in three springs (Kevin Tolbert Spring, Ray Austin Spring, and former Haas Spring). Phase II RFI sampling was then conducted to confirm impacts in the nearby springs and evaluate the lateral and vertical extent of impacted groundwater.

During Phase II Parts A and C RFI sampling (ARCADIS 1999b, 2001), VOCs were not detected in the Kevin Tolbert or Ray Austin springs; however, they were detected in the former Haas Spring. Subsequent drive point sampling collected from the streambed downstream of the Haas Spring indicated no impacts above laboratory reporting limits.

To delineate groundwater impacts, four shallow and four deep monitoring wells were proposed to be installed on off-Site properties as part of the Phase II Part B RFI. Caldwell County was able to purchase a portion of an adjacent property from the Hutton Family Trust. Installation of a shallow and deep monitoring well on the former Hutton property was attempted. However, a borehole was advanced approximately 50 feet into bedrock and no groundwater was encountered. NCDENR was contacted and it was agreed that the borehole be abandoned and additional wells not be attempted until additional properties could be purchased. However, despite multiple efforts, the County was unable to purchase additional properties that were hydraulically downgradient of the Site. Therefore, in agreement with NCDENR, the County instituted an annual groundwater monitoring program. Groundwater monitoring events, including analysis of VOCs and natural attenuation indicator parameters, have been conducted on an annual basis since 2001.

In order to protect human health and the environment, a Declaration of Perpetual Land Use Restrictions was recorded in the Caldwell County Registry (Deed Book 1524, Page 338) on October 12, 2004. In this Declaration, Caldwell County agreed to the following perpetual land use restrictions (LURs) for the Site:

1. Any use of groundwater located at or under the property is prohibited, including for drinking, bathing, irrigation, watering livestock, or for any other purpose which would cause groundwater to come into contact, either directly or indirectly, with people.
2. No water supply well may be installed or maintained on the property. The drilling of new water supply wells is prohibited, and all existing water supply wells must be abandoned in compliance with applicable regulations.
3. The property is restricted to industrial use only.
4. The owner shall submit a notarized letter annually confirming the Declaration is still recorded in the Office of the Caldwell County Register of Deeds and that activities and conditions at the property remain in compliance with the LURs.

As described in the most recent certification letter dated June 21, 2023, the Declaration is still recorded with the Caldwell County Register of Deeds and all LURs have been maintained. With NCDEQ's knowledge and consent, two wells/springs on the property have not been abandoned so

they can be used for monitoring purposes only. However, all associated pumps and piping have been removed, and the wells are capped and locked.

1.4 Objectives

The objective of this revised CMS is to evaluate potential corrective measures for remediation of groundwater impacts at the Site and address items included in a letter dated November 28, 2022 from NCDEQ and subsequent correspondence with NCDEQ. A CMS (Revision 2) was finalized by H&H on behalf of Caldwell County on March 18, 2018. Although a 45-day public participation period began on August 3, 2018 and a public hearing was conducted on September 5, 2018, the CMS was never finalized. Therefore, NCDEQ requested an update to the CMS in the letter dated November 28, 2022. As part of the update, NCDEQ also requested sampling of Site monitoring wells for per- and polyfluorinated alkyl substances (PFAS) and completion of an updated receptor survey. A CMS (Revision 3) was submitted to NCDEQ on June 30, 2023 to document results of the January and April 2023 PFAS groundwater sampling and updated receptor survey; however, in a letter dated July 24, 2023, NCDEQ requested a confirmatory sampling event of select Site monitoring wells for PFAS. A Limited Groundwater Sampling Report dated January 5, 2024 was submitted to NCDEQ to document confirmatory groundwater results. In additional correspondence dated January 22, 2024, NCDEQ requested that the CMS (Revision 3) be updated to include 2023 PFAS and VOC groundwater sampling results and resubmitted.

To achieve the above referenced objectives, this revised report will:

- Review and update the site conceptual model, including Site topography, geology and hydrogeology, receptor survey, and potential contaminants of concern in groundwater;
- Establish remedial objectives for groundwater;
- Identify and develop corrective measures alternatives for the Site;
- Evaluate corrective measures alternatives, including short- and long-term effectiveness, reduction in wastes, implementability, community and state acceptance, and cost estimates;
- Recommend and justify the proposed corrective measures; and

- Specify the monitoring and reporting schedule.

2.0 Site Conceptual Model

A site conceptual model was developed as part of the RCRA Facility Investigation (RFI) Workplan that was submitted to NCDENR on March 12, 1998. The site conceptual model in the RFI Workplan was reviewed and updated using information gathered during completion of the RFI, subsequent annual monitoring, and recent updated receptor survey and sampling for PFAS. The updated site conceptual model is presented below.

2.1 Site Geology and Hydrogeology

2.1.1 Site Topography

The Site is located within the Piedmont physiographic and Inner Piedmont tectonic province (NCGS 1985). The topography of the Site is characterized by gently rolling to undulating hills with moderate slope valleys. The surrounding area is relatively mountainous, maturely dissected terrain with local relief ranging from 300 to 600 feet. Topographic elevation at the Site varies from approximately 1,700 feet above mean sea level (ft msl) at the ridge where the former CSI facility is located to approximately 1,440 ft msl in the valley near the toe of the landfill (Figure 3). Surface water at the Site drains away from the ridge where the former CSI facility is located to the east and the west. Intermittent streams are present in east- and west-trending valleys on both sides of the ridge.

2.1.2 Site Geology

As described in the RFI Workplan, bedrock in the region consists of mica schist, with muscovite, biotite, mica, and sillimanite common along with varying amounts of garnet and pyrite. Beds of quartzite, amphibolite gneiss and schist lenses, and garnetiferous schist may also be locally present. The schist weathers to a yellow to dark red clay, depending on the amount of biotite present in the rock. There are no reported faults at the Site, though the Site is in a seismic impact zone.

Subsurface investigations at the Site indicate soils are comprised of the Cecil-Pacolet-Rion Association, which are characterized by gently sloping to steep, well-drained soils that have a clayey

or loamy subsoil. These soils are formed in residuum from igneous and metamorphic rocks. Unconsolidated soils at the Site consist of micaceous silts and sands. Based on air-hammer cuttings, bedrock at the Site appears to be a gneissic schist. Bedrock depth varies depending on the topography, with depths to bedrock ranging from 38 feet below ground surface (ft bgs) at GM-3 to 50 ft bgs at GM-1.

As part of the RFI Workplan, a lineament analysis was conducted based on aerial photographs of the area immediately surrounding the former CSI facility. The lineament analysis indicated that the most predominant lineament trend is N 60º-70º W, and the second-most prevalent lineament trend is N 60º-70º E. These lineament orientations can be interpreted as being representative of the most prominent local fault or fracture orientations in the area and as such would be expected to influence groundwater migration through the crystalline portion of the bedrock aquifer.

2.1.3 Site Hydrogeology

Groundwater beneath the Site occurs in an unconfined aquifer that includes the unconsolidated materials and the interconnected network of faults, fractures, and metamorphic foliations that permeate the underlying bedrock. Recharge to the aquifer is primarily through precipitation. In some areas of the Site, groundwater is present in the unconsolidated materials above the bedrock surface, while in other locations the uppermost water bearing unit occurs in shallow bedrock. The depth-to-groundwater across the Site is generally greatest in the area of the ridge where the former CSI facility is located (approximately 75 ft below top of casing [bTOC] at FPC-MW-03 and MW-A), and least in the downgradient portions of the Site (approximately 10 ft bTOC at MW-2). The depth and availability of groundwater in the deeper bedrock wells is variable and dependent on the bedrock aquifer characteristics at the well location (Table 1).

Vertical groundwater gradients measured between well pair MW-2 and MW-2A (near the northern edge of the Site property) indicate a consistent upward gradient, with an average gradient of 0.051 ft/ft from 2013 to 2023 (Table 2). Conversely, the vertical gradients between well pair MW-3 and MW-3A (near the eastern edge of the Site property) indicate a consistent downward gradient, with an average gradient of 0.163 ft/ft from 2013 to 2023. As described in the RFI Workplan

(ARCADIS 1998), additional historic well pairs GM-2/MW-B2 (near the former CSI facility) and FPC-MW-07/FPC-MW-07A (near the eastern edge of the Site property) consistently had downward gradients. MW-B2 has since been abandoned, and FPC-MW-07 has not been located since 2009.

The ridge upon which the former CSI facility sits acts as a natural groundwater divide, with groundwater flowing to the east and west away from the ridge (Figure 4). During the most recent 2023 groundwater monitoring event, the horizontal groundwater gradient in the unconsolidated aquifer was approximately 0.058 ft/ft, as measured between monitoring wells FPC-MW-02 and MW-3. Slug tests conducted in February 1995 indicated an average hydraulic conductivity of 2.2E-04 centimeters per second (cm/s), or 228 feet per day (ft/d), in the unconsolidated zone (ARCADIS 1998). Based on lithologic information obtained at the Site, an effective porosity of 0.2 can be assumed. Thus, the estimated groundwater flow rate in the unconsolidated aquifer is approximately 65 feet per year (ft/yr).

Cross-sections illustrating the topography, generalized lithology, hydrogeology, well construction information and the most recent VOC groundwater quality data are provided as Figure 5 and Figure 6. The cross-section transect location map is included as Figure 7.

2.2 Receptor Survey Update – 2023

An updated receptor survey was conducted as part of this revised CMS. The results of the receptor survey are summarized in the following sections.

2.2.1 Potable Water Supplies

A survey for potable water supplies was performed for the area within a 1-mile radius from the center of the source area. Figure 8 depicts the 1-mile radius from the source area. Table 3 details the private wells and springs located within the 1-mile radius. A windshield survey was completed on January 12, 2023 to confirm previously identified wells in October 2017 and identify additional wells or springs not previously located. To the extent practicable, the owners of the wells and springs were contacted to determine the status of the wells and springs and to inquire if the property

owners were connected to municipal water. Caldwell County was also contacted to provide municipal water account information for those properties where wells or springs were observed to evaluate the presence of wells potentially used for drinking water.

As indicated on Table 3 and Figure 8, most properties with wells are reportedly connected to municipal water. Based on the updated receptor survey, the closest identified water supply well used for drinking water is located approximately 1,700 ft to the southwest and generally cross-gradient of the former CSI facility. Other than this supply well, no water supply wells used for drinking water were identified within 0.5 mile of the landfill boundary or former CSI facility. Properties with springs that are not connected to municipal water are generally undeveloped/forested land.

Table 4 provides historical analytical data for samples collected from the previously identified wells and springs. Samples were collected from eight springs and wells for analysis of VOCs as part of Phase I RFI sampling in October 1998. Five locations (Alan Tolbert Spring, Leonard Tolbert Spring, Martha McLean Well, Ray Austin Well, and Truett Haas Well) did not contain VOCs at concentrations above laboratory reporting limits. Detections of VOCs in the remaining three locations are summarized below:

- The former Haas Spring contained 1,4-dioxane and tetrachloroethene (PCE) at concentrations above 2L Standards in October 1998. This spring was disconnected and left in-place on the Site property for monitoring purposes. 1,4-Dioxane was detected at concentrations above the 2L Standard through at least March 1999, then analyses for this constituent were discontinued. PCE was detected at concentrations above the 2L Standards through November 2003, but has not been detected during annual monitoring events since 2004.
- The Kevin Tolbert Spring contained methylene chloride and PCE at concentrations above 2L Standards in October 1998, but resampling in March 1999 indicated no detections. Note that methylene chloride is a common laboratory contaminant. This spring was disconnected and left in-place for monitoring purposes, but has not been sampled since 1999.

- The Ray Austin Spring contained methylene chloride at concentrations above 2L Standards in October 1998, but resampling in March 1999 indicated no detections. As noted above, methylene chloride is a common laboratory contaminant. This spring was previously used for irrigation and livestock purposes, but the property is connected to the public water service.

Note that water supply wells or springs have not been sampled for analysis of PFAS. The potential for PFAS impacts to water supply wells or springs are discussed further in Section 4.6.

2.2.2 Surface Water

A number of connected intermittent streams are present on the Site property. Intermittent streams in the eastern portion of the Site (where most Site COCs have been detected in groundwater) are unnamed tributaries to Pilot Branch, and intermittent streams in the western portion of the Site are tributaries to Brushy Fork. Both Pilot Branch and Brushy Fork are characterized as Class C by NCDEQ.

As part of the Phase I RFI (ARCADIS 1999a), seven surface water samples were collected for analysis of VOCs from intermittent streams located both on- and off-Site (Figure 9). The results of the surface water sampling event are summarized in Table 5. The results at that time were compared with the USEPA Region III Biological Technical Assistance Group surface water screening levels for fauna and no exceedances were found. When compared to current surface water standards, vinyl chloride concentrations exceeded the NCAC 2B Surface Water Standard (2B Standard). However, since the date of the surface water sampling in 1998, concentrations of vinyl chloride in groundwater have reduced to below the 2B Standard; as such, it is considered unlikely that vinyl chloride remains in surface water at concentrations above the 2B Standard. SW-5 was collected on-Site downgradient of the northern inactive landfill cell. No VOCs were detected during Phase I RFI sampling in SW-7, which is located downstream of SW-5.

As part of the Phase II Part C RFI (ARCADIS 2001), four seep samples were collected along two stream beds located near the northern, northeastern, and eastern boundary of the landfill (Figure

9). The seep samples were analyzed for Appendix IX VOCs and none were detected at these locations as shown on Table 5 of this CMS. However, when the seep sampling was completed in 2001 as part of the Phase II Part C RFI, the laboratory detection limit for vinyl chloride was 5 µg/l which is above the 2B Surface Water Standard.

In 1991 and 1992, biological assessments were conducted by USEPA contractors at the Site to evaluate impacts to terrestrial and aquatic ecosystems from potential releases from the landfill and former CSI facility. The results of the 1991 biological assessment indicated: no evidence of terrestrial impacts; no toxicity to aquatic organism or algae; all habitats surveyed were capable of supporting aquatic ecosystems; and impacts to the structure and function of streams draining the landfill compared to the background station. The 1991 biological assessment concluded that streams north and south of the landfill have been impacted, but potential downstream impacts were not determined.

The results of the 1992 biological assessment indicated: no evidence of terrestrial impacts; sub-lethal effects (reduction in offspring) at one sample station adjacent to the landfill; all sample stations were capable of supporting aquatic ecosystems; severely impaired aquatic communities at two sample stations closest to the landfill; moderately impaired aquatic communities at two sample stations on the north side of the landfill; and slightly impaired aquatic communities at the remaining sampling stations. The 1992 biological assessment concluded that the greatest impacts to Site streams were localized to areas immediately adjacent to the landfill. Downstream locations were only slightly impacted and recovery in the biological condition is evident. In addition, the non-point sources of cattle and horse pastures were identified as potential sources other than the landfill. No additional biological assessment of the stream was deemed necessary/required by NCDEQ or USEPA.

Note that surface water samples have not been collected for analysis of PFAS. The potential for PFAS impacts to surface water is discussed further in Section 4.6. Also note that the biological assessments by USEPA referenced above, which resulted in no additional assessment requirements, are considered pertinent for evaluation of impacts associated with PFAS as well as VOCs.

2.2.3 Environmentally Sensitive Areas

The Site property and adjacent properties were evaluated for the existence of environmentally sensitive areas (ESAs). The following agencies were contacted to determine the possible existence of ESAs: US Army Corps of Engineers; NC Division of Coastal Management; NC Natural Heritage Program; US Fish & Wildlife; US Forest Service; National Park Service; NC Department of Natural and Cultural Resources; NC Forest Service; State Parks Service; NC Division of Water Resources (DWR); and the NC Wildlife Resources Commission. Responses were received from all agencies except the US Army Corps of Engineers, National Park Service, and State Parks Service. These agencies were contacted multiple times without response. If a significant response is received, they will be forwarded to NCDEQ. A copy of the responses from each of the responding agencies is included in Appendix A.

The NC DWR noted that the Site is in the Catawba River Basin. The western edge of the property drains to Brushy Fork while the remaining portions of the property drain to Pilot Branch. Brushy Fork and Pilot Branch ultimately drain to Lake Hickory (Class WS-IV, B, and CA). However, the location where Pilot Branch drains to Lake Hickory is located downstream of the water supply intake that is the source for the Class WS-IV listing. Brushy Fork drains to Gunpowder Creek, which is listed on the EPA-approved NC 2022 303(d)/305(b) Integrated Report as Impaired for a fair benthic macroinvertebrate community rating. Therefore, both Brushy Fork and Gunpowder Creek are currently considered to be in ESAs for the protection and maintenance of aquatic life. No other ESAs were found to exist on the Site property or adjacent properties.

2.3 Potential Contaminants of Concern

2.3.1 Chlorinated Volatile Organic Compounds

As described in Section 1.3, VOCs are the primary COCs at the Site based on historical assessment data. A summary of historical VOC data is provided in Table 6. Figure 10 depicts the VOCs detected in each well during the most recent sampling event in October 2023.

The following VOCs were detected above 2L Standards during the most recent groundwater monitoring event completed in October 2023: benzene, 1,4-dichlorobenzene (1,4-DCB),

1,2-dichloroethane (1,2-DCA), and vinyl chloride. Other VOCs, including PCE, 1,1,2-trichloroethane, 1,1-dichloroethane (1,1-DCA), 1,2-dichloropropane (1,2-DCP), and naphthalene, have exceeded 2L Standards in the previous five years, but were not detected above 2L Standards during the most recent sampling event. Appendix B contains graphs showing concentration versus time for VOCs that have historically exceeded 2L Standards at Site monitoring wells.

VOC concentrations are generally highest in monitoring well GM-1, which is located in the source area of the former CSI facility. During the most recent sampling event in October 2023, GM-1 contained the highest concentrations of benzene (5.8 micrograms per liter [µg/L]) and 1,2-DCA (44.3 µg/L), which were the only two VOCs detected above 2L Standards in October 2023 in monitoring well GM-1. Although several other VOCs were detected in October 2023 in monitoring well GM-1, concentrations were below respective 2L Standards. 1,4-Dioxane was detected in this well in 1998 at 570 µg/L but has not been analyzed for since that time. Therefore, the current concentration or historic trend of this constituent is not available. Total VOC concentrations of analyzed constituents have decreased substantially over time in this well, from a maximum of 2,509 µg/L in August 1996 to 80.1 µg/L in October 2023 (i.e., 96.8% reduction).

Monitoring wells FPC-MW-03 and MW-C are located west of the former CSI facility. Similar to GM-1, these wells have experienced substantial reduction in total VOC concentrations over time. Total VOC concentrations decreased to non-detect in FPC-MW-03 from October 2007 (443 µg/L) to October 2023 (100% reduction). No VOCs have been detected above laboratory reporting limits at FPC-MW-03 during the last three monitoring events completed between 2021 and 2023. During the recent October 2023 sampling event, p-isopropyltoluene (15.5 µg/L) was the only VOC detected in monitoring well MW-C, which is the first time since October 2012 that p-isopropyltoluene has been detected; however, the recent concentration was below the 2L Standard of 25 µg/L. No other VOCs have been detected above laboratory reporting limits in monitoring well MW-C since the last p-isopropyltoluene detection in October 2012.

On the southern side of the former CSI facility, total VOC concentrations have also declined substantially. In monitoring well FPC-MW-01, located immediately southeast of the former facility, total VOC concentrations have decreased to non-detect from February 2003 (211 µg/L) to October

2023 (100% reduction). VOCs have not been detected above 2L Standards in this well since October 2015. In addition, no VOCs have been detected above laboratory reporting limits in monitoring well GM-6, located approximately 400 ft north of the former facility, since October 2009.

Monitoring wells MW-2 and MW-2A are located near the northern Site property boundary, approximately 1,500 ft northeast of the former CSI facility. Total VOC concentrations in MW-2 have decreased to non-detect from January 1995 (142 µg/L) to October 2023 (100% reduction). During the last 10 years, benzene is the only VOC to intermittently exceed the 2L Standard (1 µg/L) in MW-2. Total VOC concentrations in MW-2A have declined 87.7% from November 2003 (231 µg/L) to October 2023 (28.3 µg/L). At monitoring well MW-2A, benzene (1.3 µg/L), 1,4-DCB (13.1 µg/L), and vinyl chloride (1.6 µg/L) were detected at concentrations slightly above respective 2L Standards in October 2023.

Monitoring wells FPC-MW-07 and FPC-MW-07A are located near the northeastern Site property boundary, approximately 2,500 ft northeast of the former CSI facility. Monitoring well FPC-MW-07 has not been located since the October 2009 sampling event. However, total VOC concentrations had already declined nearly 99% from July 1995 (1,539 µg/L) to October 2009 (17.4 µg/L). In October 2009, only benzene (2.42 µg/L) and 1,4-DCB (8.4 µg/L) were detected slightly exceeding 2L Standards. Total VOC concentrations in FPC-MW-07A have declined more than 99% from October 2009 (1,333 µg/L) to October 2023 (11.1 µg/L). In October 2023, no VOCs were detected above 2L Standards in FPC-MW-07A.

Monitoring wells MW-3, MW-3A, and GM-5 are located near the eastern Site property boundary, approximately 2,600 ft east-northeast of the former CSI facility. Total VOC concentrations have decreased to non-detect in monitoring well MW-3 from January 1995 (16,527 µg/L) to October 2023. Total VOC concentrations in MW-3A have decreased more than 99% from November 2003 (1,106 µg/L) to October 2023 (8.7 µg/L). Total VOC concentrations have decreased 97.6% in monitoring well GM-5 from July 1995 (290 µg/L) to October 2023 (6.9 µg/L). In October 2023, only benzene (1.1 µg/L) was detected slightly above the 2L Standard of 1 µg/L in monitoring well GM-5.

Concentrations of total VOCs have declined in most Site wells by greater than 95% since their respective maximum concentrations. In addition, VOCs were detected above 2L Standards in only three of eleven monitoring wells during the October 2023 sampling event. In most instances, the exceedances were only slightly above 2L Standards.

As referenced in Section 1.3, Caldwell County purchased a portion of the east adjacent property from the Hutton Family Trust and installation of a shallow and deep monitoring well on this property was attempted. A borehole was advanced approximately 50 feet into bedrock and no groundwater was encountered. The County was unable to purchase additional properties that were hydraulically downgradient of the Site in order to complete additional assessment activities. However, as referenced above, concentrations of VOCs have reduced over time and only minimal exceedances of 2L Standards have been detected in the most downgradient monitoring wells during recent monitoring events.

2.3.2 Per- and Polyfluorinated Alkyl Substances

As requested by NCDEQ in a letter dated November 28, 2022, PFAS samples were initially collected from a subset of monitoring wells in January 2023. After discussion of initial results with NCDEQ, an additional sampling event was completed in April 2023 and documented in the CMS (Revision 3). At the request of NCDEQ, a third sampling event was completed in October 2023 and documented in a Limited Groundwater Sampling Report dated January 5, 2024. The methodology and results of the PFAS sampling are discussed below. A summary of PFAS groundwater data is provided in Table 7 and depicted on Figure 11.

The groundwater sampling activities were conducted utilizing low-flow/low-stress sampling methods in accordance with USEPA Laboratory Services and Applied Science Division (LSASD) protocols using a peristaltic pump and high-density polyethylene (HDPE) tubing, where feasible. However, due to the depth to water in several monitoring wells, a PVC bailer and/or stainless-steel submersible pump were used to collect groundwater samples utilizing the multi-volume purge method outlined in the LSASD. A PVC bailer was used for sampling of monitoring wells MW-3, MW-3A, FPC-MW-01, FPC-MW-03, FPC-MW-07A, GM-1, GM-6, and MW-C, and a submersible pump was used for sampling of deep well DW-1. During sampling, groundwater

parameters of pH, temperature, specific conductivity, oxidation-reduction potential (ORP), and turbidity were recorded in approximate 5-minute intervals (or per calculated casing volume for wells sampled using the multi-volume purge method) until groundwater parameters stabilized or the well went dry. Following stabilization, groundwater samples were collected from the sample tubing directly into laboratory-provided containers. The USEPA's "Clean Hands, Dirty Hands" sampling method was also utilized during the groundwater sampling activities. Samples were delivered under chain-of-custody protocol to Eurofins for analysis of PFAS by modified USEPA Method 537.1. The analyte list and reporting limits for the analyses were provided to NCDEQ for approval via email prior to sampling.

Quality Assurance/Quality Control (QA/QC) samples were collected to assess the field sampling and analytical programs. The QA/QC samples consisted of the collection of duplicates, field blanks, and equipment rinse blanks. Blanks were collected using laboratory-provided PFAS-free water. A duplicate sample and field blank were collected during each sampling event (January, April, and October 2023). One equipment rinseate blank was collected from the water level meter during the January 2023 sampling event, two equipment rinseate blanks were collected from the water level meter and submersible pump during the April 2023 sampling event, and one equipment rinseate blank was collected from new sample tubing during the October 2023 sampling event. The duplicates, field blanks, and equipment rinseate blanks were submitted to the laboratory for analysis of PFAS by modified USEPA Method 537.1.

PFAS are an emerging contaminant and significant uncertainty exists regarding potential remedial goals. At this time, NCDEQ has not established 2L Standards for PFAS compounds. Therefore, laboratory analytical results for the groundwater samples were compared to the screening levels established by USEPA, including the USEPA Tapwater Regional Screening Levels (RSLs) dated November 2023 and the USEPA Proposed Maximum Contaminant Levels (MCLs) dated March 2023. A summary of the laboratory analytical results for the groundwater samples is provided in Table 7 and the laboratory analytical reports for the January and April 2023 sampling events are provided in Appendix C. Note that the laboratory analytical report associated with the October 2023 sampling event was submitted under separate cover in the January 5, 2024 Limited Groundwater Sampling Report.

Laboratory analytical results indicate that several PFAS compounds were detected in the groundwater samples collected from the Site. However, this report primarily focuses on PFAS compounds detected at concentrations above established screening levels for data comparison purposes, which include the following: perfluorooctane sulfonic acid (PFOS), perfluorooctanoic acid (PFOA), perfluorobutanesulfonic acid (PFBS), perfluorononanoic acid (PFNA), and perfluorohexanesulfonic acid (PFHxS).

PFOS

PFOS was detected at concentrations above the USEPA Proposed MCL of 4 nanograms per liter (ng/L) in monitoring wells MW-3 (21 ng/L), MW-3A (22 ng/L), and GM-6 (35 ng/L) but below the USEPA Tapwater RSL of 40 ng/L during the most recent sampling event. PFOS was previously detected at concentrations above both the USEPA Proposed MCL and Tapwater RSL in GM-6 during the April 2023 sampling event; however, during the October 2023 sampling event, concentrations did not exceed the USEPA Tapwater RSL of 40 ng/L. PFOS concentrations reported in October 2023 in MW-3 and MW-3A were similar to previous sampling events.

PFOA

PFOA was detected above the USEPA Proposed MCL of 4 ng/L in monitoring wells FPC-MW-01, FPC-MW-07A, MW-2, MW-2A, MW-3, MW-3A, GM-4, GM-5, GM-6, and DW-1 in one or more sampling events. The PFOA concentration in monitoring well MW-3 (96 ng/L) also exceeded the USEPA Tapwater RSL of 60 ng/L during the October 2023 sampling event, which is consistent with the January 2023 sampling event; however, concentrations were lower during the October 2023 sampling event when compared to the previous sampling event. PFOA concentrations from the October 2023 sampling event in monitoring wells MW-2A, MW-3A, and GM-6 were similar to prior sampling events.

PFBS, PFNA, and PFHxS

PFBS, PFNA, and PFHxS were not detected at concentrations above their respective USEPA Tapwater RSLs of 6,000 ng/L, 59 ng/L, and 390 ng/L in Site monitoring wells during the sampling events. The USEPA Proposed MCL calls for calculation of the hazard index for the combined concentrations of PFHxS, PFNA, and PFBS (note that USEPA guidance indicates the hazard index

should also include GenX, but GenX chemicals were not included in the laboratory analyses due to the absence of on-Site sources, as previously discussed with NCDEQ). The calculated hazard index for the Site monitoring wells exceeded the USEPA Proposed MCL of 1.0 in monitoring well MW-3 (hazard index of 3.8) during the October 2023 sampling event, which is consistent with the January 2023 sampling event (hazard index of 5.9).

QA/QC Sample Results

The QA/QC sample results for the equipment rinse blanks and field blanks indicated no detections of PFAS compounds above the practical quantitation limit (PQL) with the exception of a detection of PFOS in the equipment rinse blank (Equipment Blank 3) collected on April 13, 2023 from the stainless-steel submersible pump prior to use at deep well DW-1. The PFOS concentration detected in the equipment rinse blank was 2.3 ng/L; however, PFOS was not detected in well DW-1. The submersible pump was not used for sampling of any other monitoring wells. Based on review of the data, the detection of PFOS reported in the equipment rinse blank does not appear to significantly impact the data usability or the conclusions presented in this report.

Based on results of the 2023 PFAS groundwater sampling, PFAS are considered as a potential COC for the Site and are discussed in the following sections.

3.0 Corrective Measures Study Clean-up Objectives

The goal of this revised CMS is to evaluate potential corrective actions to protect human health and the environment by mitigating the release of contaminants to the surrounding groundwater and surface water. As described in Section 1.2, CSI and the Generator Settling Defendants were responsible for demolishing the former CSI facility and remediating soil impacts. Since the facility has been demolished and soil impacts have been removed (CRA 2001, 2005), the only impacts that remain are those in Site groundwater.

Historical sampling events over the last 25 years have indicated that VOCs are the primary COCs in groundwater at the Site. Groundwater VOC impacts at the Site can generally be described as forming a relatively large, dilute plume with a significantly decreasing contaminant concentration trend. In North Carolina, groundwater impacts are generally compared to the 2L Standards, and 2L Standards are readily available for VOCs for comparison. However, North Carolina also has established criteria for risk-based environmental remediation under North Carolina General Statutes (G.S.) 130A 310.68 through 310.77. Under the risk-based option, site-specific remediation standards may be developed in lieu of 2L Standards. In order to protect human health and the environment, the clean-up objectives for VOCs in Site groundwater shall be the State of North Carolina 2L Groundwater Quality Standards or, as applicable, site-specific remediation standards developed under NCGS 130A 310.68 through 310.77. Alternatives for site-specific remediation standards are discussed further in Section 4.0.

As requested by NCDEQ, PFAS were recently evaluated as a potential COC in groundwater at the Site due to historical operations. The results of the sampling indicated PFAS at varying concentrations across the Site. However, evaluation of the data is challenging because PFAS are an emerging contaminant and significant uncertainty exists regarding remedial goals. As discussed previously, NCDEQ has not established specific 2L Standards for PFAS compounds to date, and many of the screening levels established by USEPA are in draft form. Based on discussions with NCDEQ personnel, this CMS proposes a monitoring-only approach for PFAS. If future data suggest an alternate approach is warranted, a CMS Addendum will be submitted specifying cleanup objectives and proposed corrective measures.

4.0 Identification and Development of Corrective Measures Alternatives

4.1 Identification of Corrective Measures

This section identifies corrective measures alternatives to be evaluated relative to the cleanup criteria noted in Section 3.0. The following alternatives will be evaluated:

- No action;
- Institutional controls (i.e., LURs);
- Active treatment and/or remediation; and
- Monitored natural attenuation (MNA) via long-term monitoring.

The following sections describe the corrective measures alternatives and associated evaluation in greater detail.

4.2 Evaluation Criteria

Consistent with the requirements of this CMS and RCRA guidance documents, the corrective measures alternatives will be evaluated using the following criteria:

- Protection of human health and the environment;
- Compliance with applicable federal, state, and local regulations;
- Control of the source of release;
- Short-term effectiveness in minimizing impact on the environment and local community;
- Long-term effectiveness and permanence;
- Reduction of toxicity, mobility, and volume;
- Implementability;
- Cost; and
- Community acceptance.

Historical environmental assessment indicated that the primary source of contamination was the former CSI facility. Per the Consent Decree, CSI and the PRPs were responsible for demolishing

the facility, removing impacted soil, and capping the Site. Demolition, excavation, and capping activities are summarized in the Removal Action Summary Report (CRA 2001) and the Summary of Removal Action and Corrective Measures Study (CRA 2005). Because the known source was removed and/or controlled through demolition of Site structures and soil excavation, followed by capping, fencing, and recording of LURs, the source of contamination is considered adequately controlled. Evaluation of the other criteria referenced above are included in the discussion of corrective action alternatives in the following sections.

4.3 No Action

Under the no action alternative, there would be no further monitoring or remedial activities at the Site, and Caldwell County would apply for a No Further Action (NFA) letter from NCDEQ. The no action alternative was considered by virtue of the engineering and institutional controls currently in place. These include restricted Site access, perimeter security, and existing LURs. However, reliance on engineering and institutional controls under NCDEQ regulations requires entry of the Site into the risk-based remediation program under NCGS 130A 310.68 through 310.77, which is covered under the institutional controls option in Section 4.4. NCDEQ regulations would not allow no action without entering the risk-based remediation program. Therefore, the no action alternative will not be evaluated further in this CMS.

4.4 Institutional Controls

Under the institutional controls alternative, exposure to Site groundwater would be prevented through perpetual LURs or other land-use controls. This would require entry of the Site into the risk-based remediation program under NCGS 130A 310.68 through 310.77. The Site already has LURs prohibiting the use of Site groundwater and zoning the Site for industrial use only. This alternative would entail additional assessment to evaluate whether the extent of impacted groundwater extends beyond the boundaries of the Site. If groundwater impacts were found on off-Site parcels above cleanup objectives, this alternative would entail implementation of LURs or other land-use controls on those properties. For properties not already owned by the county, this would involve either purchasing additional parcels from downgradient property owners to add

to the Site or having the downgradient property owners agree to LURs or other groundwater use controls on their property.

In 2000, Caldwell County was unsuccessful in multiple attempts to purchase additional downgradient parcels to delineate the extent of groundwater impacts, and it is uncertain whether additional attempts to purchase parcels would succeed. Similarly, it is uncertain whether downgradient property owners would agree to LURs or other controls prohibiting the use of groundwater.

Due to concerns regarding implementability, the institutional controls remedy will not be evaluated further in this CMS. However, Caldwell County may elect to pursue risk-based remediation alternatives at a later date, if future monitoring data suggest that risk-based closure may be a viable option. In that event, the Site would be entered into the risk-based remediation program under NCGS 130A 310.68 through 310.77, and a CMS Addendum (or Risk-Based Remedial Action Plan) would be submitted detailing the proposed risk-based remediation alternatives.

4.5 Active Treatment and/or Remediation

At the time of the prior CMS submittal, enhanced reductive dechlorination (ERD) was considered as a remedial option. However, based on the latest monitoring data, some of the VOC constituents remaining at concentrations above 2L Standards are hydrocarbon constituents that are not amenable to remediation via ERD (benzene and 1,4-DCB). Other technologies are available that can treat both CVOCs and hydrocarbon constituents, such as in-situ chemical oxidation. However, monitoring data collected since the date of the last CMS confirm that VOC concentrations are reducing over time due to natural attenuation; therefore, the additional cost associated with active remediation to address VOCs is not considered warranted. In addition, the use of active treatment and/or remediation technologies for PFAS is considered problematic since PFAS are an emerging contaminant and significant uncertainties exist regarding remedial options and associated effectiveness. According to the Interstate Technology Regulatory Council (ITRC; 2022), treatment technologies for PFAS are continuing to evolve and "it is prudent to use caution in implementing long-term remedies". The most successful technologies implemented to-date have been sequestration technologies that bind or immobilize PFAS; however, bioremediation, chemical oxidation, chemical reduction, and

thermal technologies are currently being evaluated by the scientific community. Due to the uncertainty of remedial alternatives, unknown equipment and substrate requirements, and evolving clean-up objectives for PFAS, as well as monitoring data confirming natural attenuation of VOCs, active treatment and/or remediation was not evaluated further within this CMS.

4.6 Monitored Natural Attenuation via Long-Term Monitoring

MNA via long-term monitoring is a remedial option in which groundwater samples are routinely collected from select monitoring wells for analysis of compounds present in Site groundwater. These data are used to evaluate compound concentrations over time and to evaluate whether natural processes such as reductive dechlorination continue to occur at the Site. Additionally, MNA data are used to understand plume migration over time to ensure that any potential receptors will not be impacted, thereby protecting human health and the environment.

The extensive database of VOC groundwater monitoring data generated since 1999 provides solid evidence that natural attenuation of the VOC contaminant plume is occurring at the Site. In order to evaluate trends in total VOC concentrations, a Mann-Kendall analysis was conducted using the groundwater monitoring data collected from the Site monitoring wells since 2001. Mann-Kendall is a non-parametric statistical analysis used to evaluate trends over time. H&H utilized an Excel-based Mann-Kendall tool developed by GSI Environmental, Inc. The results of the Mann-Kendall analysis are included in Appendix D. Of the 12 wells analyzed, eight wells were identified as decreasing, two wells were identified as probably decreasing, and two wells (MW-3A and GM-6) were identified as having no trend. Guidance for the Mann-Kendall Toolkit indicates a "no trend" result can be considered as evidence that the plume concentrations are not increasing at the sampling point, similar to a "stable" result. In addition, as discussed in Section 2.3, total VOC concentrations have declined in most wells by greater than 95% from their respective maximum concentrations. The significant decreases in VOC concentrations are illustrated by the VOCs concentration versus time trend graphs presented in Appendix B. Therefore, both the Mann-Kendall analysis and the trend graphs provide strong evidence that MNA is occurring within the diffuse VOC groundwater plume and support MNA as the selected remedy for VOC impacts within groundwater the Site.

As PFAS are an emerging COC, research in the scientific community is on-going to evaluate the potential transformations of PFAS and overall contaminant plume attenuation with time within natural groundwater systems. Insufficient data are available to determine if stabilization of the PFAS contaminant plume and/or transformation of individual PFAS compounds are occurring at the Site; therefore, continued monitoring is needed to evaluate PFAS concentration trends. Based on discussions with NCDEQ personnel, this CMS proposes a monitoring-only approach for PFAS. If future data suggest an alternate approach is warranted, a CMS Addendum will be submitted specifying cleanup objectives and proposed corrective measures.

A natural attenuation corrective action approach is most appropriate where impacted soils are not continuing to be a source of groundwater impacts, chemicals of concern are biodegrading, and potential receptors are not affected. As previously referenced, soil impacts have been removed (CRA 2001, 2005), and the only impacts that remain are those in Site groundwater. Groundwater monitoring data confirm that VOCs are biodegrading, and future monitoring data will provide additional information regarding PFAS degradation and/or plume stabilization.

With regard to potential receptors, water supply wells and springs in the area were previously sampled for VOCs and no impacts were identified in active drinking water wells in the Site vicinity (see discussion in Section 2.2.1). Samples have not been collected from water supply wells for analysis of PFAS. The closest water supply well used for drinking water is located approximately 1,700 ft to the southwest and generally cross-gradient of the former CSI facility. Other than this supply well, no water supply wells used for drinking water were identified within 0.5 mi of the landfill boundary or CSI facility. Based on distance and gradient, impacts to water supply wells used for drinking water are unlikely. However, sampling of water supply wells would be needed for confirmation. Evaluation of water supply well sampling data for PFAS would be challenging due to uncertain cleanup objectives and alternate sources in the area, such as septic systems.

With regard to surface water, surface water samples were previously sampled for VOCs (see discussion in Section 2.2.2). Vinyl chloride was detected in one sample at a concentration slightly above the 2B Standard in 1998, but concentrations are likely reduced to below the 2B Standard at

present based on groundwater monitoring data indicating reductions in vinyl chloride concentrations in groundwater. Samples have not been collected from surface water bodies for analysis of PFAS. However, evaluation of surface water sampling data for PFAS would be challenging due to uncertain cleanup objectives. In addition, the nearest surface water bodies are classified as Class C, which indicates that they are not sources of public water supply. Based on the SWAP website, the nearest downstream public water supply intake is located approximately 20 miles to the southeast. This intake is located along the Catawba River and receives discharge from multiple upgradient tributaries. Based on distance and discharge criteria, this public water supply intake is unlikely to be affected by the release at the Site. Biological assessments of surface water bodies were performed historically by USEPA and, based on the results, no additional biological assessment of the stream was deemed necessary/required by NCDEQ or USEPA.

Implementation of the MNA alternative would be relatively simple, as Caldwell County currently conducts a long-term monitoring program. The overall costs would be much lower compared to an active remediation alternative. In order to monitor the groundwater plume for up to 30 years, costs are estimated to be in the range of $300,000 to $500,000. Because MNA is demonstrated to already be occurring at the Site for VOCs and annual long-term monitoring has been completed for over a decade at this Site, this alternative is expected to be accepted by the community.

5.0 Corrective Measure Recommendations

As discussed in Section 4.0, MNA via long-term monitoring was selected as the preferred corrective action for the Site. Monitoring will continue until contaminant concentrations have been reduced to below 2L Standards; or until No Further Action can be achieved using NCDEQ-accepted risk-based remedial goals. MNA with long-term monitoring is a cost-effective, easy-to-implement alternative that should receive community acceptance.

To verify the selected remedy is protective of human health and the environment, groundwater concentrations will be monitored over time. The annual VOC monitoring program that has been conducted at the Site since 2001 included FPC-MW-01, FPC-MW-03, FPC-MW-07, FPC-MW-07A, MW-2, MW-2A, MW-3, MW-3A, MW-C, GM-1, GM-5, GM-6, and the former Haas Spring. As described in Section 2.3, the results of annual monitoring indicate that VOC concentrations have declined substantially in Site monitoring wells. Indeed, many monitoring wells in the network have not contained VOCs above 2L Standards for at least five years. This includes monitoring wells FPC-MW-01 (no exceedances since 2015), MW-3 (no exceedances since 2016), MW-3A (no exceedances since 2003), MW-C (no exceedances since 2009), GM-6 (no exceedances since monitoring began), and the former Haas Spring (no exceedances since 2003). As such, these sampling locations are not included in the proposed monitoring plan, as outlined in Table 8. Additionally, as monitoring well FPC-MW-07 has not been located since 2009, this well is proposed for removal from future groundwater monitoring events.

Table 8 presents a summary of the proposed groundwater monitoring plan. Based on the volume of VOC monitoring data collected at the Site over the past 25 years, H&H proposes to reduce the sampling schedule for VOCs to a biennial (every other year) schedule. The first event will occur in October 2025. During each event, groundwater samples will be collected from wells FPC-MW-03, FPC-MW-07A, MW-2, MW-2A, GM-1, and GM-5 for VOCs by USEPA Method 8260B.

In order to monitor PFAS impacts in Site monitoring wells, annual sampling for PFAS will begin in October 2024 for selected monitoring wells, including wells FPC-MW-01, MW-2A, MW-3, MW-

3A, and GM-6. Samples will be analyzed for PFAS constituents by USEPA Method 1633 or USEPA Modified Method 537.1 (or as directed by NCDEQ).

During each sampling event, a full round of water level measurements will be collected from the existing monitoring wells. Groundwater samples for PFAS analysis will be collected in accordance with LSASD protocols and best practices for PFAS. Samples will be collected utilizing low-flow/low-stress sampling methods in accordance with USEPA LSASD protocols using a peristaltic pump and HDPE tubing, where feasible. Where the depth to water precludes the use of a peristaltic pump, H&H will evaluate and implement appropriate sampling methods which could include the following: 1) use of an alternate pump for low-flow/low-stress sampling, if a PFAS-free pump option can be identified; 2) use of a PVC bailer or stainless-steel submersible pump for groundwater sample collection utilizing the multi-volume purge method outlined in the LSASD; and/or 3) use of a dual-membrane passive diffusion sampler (DMPDB™) or a HDPE HydraSleeve sampler to collect groundwater samples to reduce elevated turbidity within groundwater samples. Field measurements of pH, temperature, specific conductivity, ORP, and turbidity will be collected during sampling. QA/QC samples will be collected to assess the field sampling and analytical programs. The QA/QC samples will include the collection of at least one duplicate, one field blank, and one equipment rinse blank per sampling event. Additional analytical preparation methods, such as decanting and/or centrifuge techniques, may be utilized to reduce the potential influence of sediment within highly turbid samples on groundwater sample results.

Monitoring will continue under the schedule listed above through at least 2026 (three years). Monitoring will cease at each sampling location if all constituents are below 2L Standards (or USEPA MCLs and RSLs for PFAS) for three consecutive monitoring events. If groundwater concentrations continue to decline, with NCDEQ approval, monitoring will transition to a prolonged schedule until groundwater concentrations are at or below 2L Standards or subsequently defined risk-based remediation goals. The proposed monitoring schedule for 2027 and subsequent events will be included in the 2026 groundwater monitoring report.

Following each monitoring event, a groundwater monitoring report will be prepared and submitted to NCDEQ. The report will document current groundwater concentrations and evaluate VOCs and

PFAS over time. Groundwater monitoring reports will include water-level measurements, laboratory analytical data, field measurements, data tables, and other information as appropriate. Copies of the laboratory analytical report and chain of custody documentation will also be included in the monitoring reports.

6.0 Contingency Plans

In the event that groundwater monitoring data indicate that additional actions are needed for protection of human health or the environment, recommendations for additional monitoring or other actions will be made in the annual groundwater monitoring reports for the Site. If the data suggest that alternate corrective measures may be warranted, such as actions to address PFAS concentrations or a switch to a risk-based remediation approach, those corrective measures would be detailed in a CMS Addendum. H&H expects that recommendations related to PFAS may evolve as additional data is collected by the scientific community regarding this emerging contaminant.

7.0 References

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Tables

Table 1
Monitoring Well Construction Details and Groundwater Elevation Data
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005

					10/23/2023	
Well ID	Installation Date	Total Depth (ft bls)	Screen Interval (ft bls)	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation (ft)
FPC-MW-01	3/26/1991	56	41 - 56	1601.46	40.35	1561.11
FPC-MW-02	3/16/1991	74	59 - 74	1593.33	59.09	1534.24
FPC-MW-03	4/1/1991	90	75 - 90	1630.96	76.65	1554.31
FPC-MW-05	3/25/1991	36	26 - 36	1505.89	28.02	1477.87
FPC-MW-06	3/25/1991	49	34 - 49	1469.94	35.42	1434.52
FPC-MW-07*	4/3/1991	61	46 - 61	1467.14	NM	NM
FPC-MW-07A	12/14/1994	110	95 - 110	1470.44	54.59	1415.85
MW-A	3/1/1990	100.5	64 - 84	1623.96	73.77	1550.19
MW-C	3/15/1990	26.5	16.5 - 26.5	1536.31	24.57	1511.74
DW-1	NA	223	NA	1615.42	107.50	1507.92
DW-2	NA	104	NA	1617.96	52.24	1565.72
MW-2	11/8/1988	20	10 - 20	1444.97	17.64	1427.33
MW-2A	12/18/1994	57	47 - 57	1447.27	17.68	1429.59
MW-3	11/3/1988	50	40 - 50	1421.60	37.65	1383.95
MW-3A	12/16/1994	86	76 - 86	1420.29	46.80	1373.49
GM-1	10/16/1992	79	59 - 79	1618.05	65.20	1552.85
GM-2	10/9/1992	47	37 - 47	1582.51	37.46	1545.05
GM-4	10/16/1992	30	15 - 30	1528.22	20.55	1507.67
GM-5	12/20/1994	40	25 - 40	1414.52	28.96	1385.56
GM-6	12/20/1994	125	110 - 125	1631.11	116.85	1514.26

Notes:

ft bls	Feet below land surface
TOC	Top of casing
bTOC	Below top of casing
NA	Not available
NM	Not measured

*Monitoring well FPC-MW-07 has not been located since the October 2009 monitoring event.

Table 2
Vertical Hydraulic Gradients
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005

				10/22/2013			10/21/2014			10/26/2015			10/17/2016		
Well ID	Screen Interval (ft bTOC)		TOC Elevation (ft)	Groundwater Elevation (ft bgs)	Vertical Gradient (ft/ft)	Direction	Groundwater Elevation (ft bgs)	Vertical Gradient (ft/ft)	Direction	Groundwater Elevation (ft bgs)	Vertical Gradient (ft/ft)	Direction	Groundwater Elevation (ft bgs)	Vertical Gradient (ft/ft)	Direction
MW-2	10	20	1444.97	1429.62			1430.88			1428.81			1429.42		
MW-2A	47	57	1447.27	1431.58	0.056	Up	1432.54	0.048	Up	1430.42	0.046	Up	1431.24	0.052	Up
MW-3	40	50	1421.6	1383.89			1383.67			1381.45			1382.21		
MW-3A	76	86	1420.29	1378.96	0.132	Down	1379.18	0.120	Down	1376.74	0.126	Down	1378.76	0.092	Down

Table 2
Vertical Hydraulic Gradients
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005

				10/24/2017			10/22/2018			11/4/2019			10/26/2020		
Well ID	Screen Interval (ft bTOC)		TOC Elevation (ft)	Groundwater Elevation (ft bgs)	Vertical Gradient (ft/ft)	Direction	Groundwater Elevation (ft bgs)	Vertical Gradient (ft/ft)	Direction	Groundwater Elevation (ft bgs)	Vertical Gradient (ft/ft)	Direction	Groundwater Elevation (ft bgs)	Vertical Gradient (ft/ft)	Direction
MW-2	10	20	1444.97	1428.63			1428.89			1432.25			1434.4		
MW-2A	47	57	1447.27	1429.94	0.038	Up	1430.54	0.048	Up	1434.21	0.056	Up	1436.06	0.048	Up
MW-3	40	50	1421.6	1382.1			1384.78			1384.51			1388.24		
MW-3A	76	86	1420.29	1376.29	0.156	Down	1378.1	0.179	Down	1381.03	0.093	Down	1382.45	0.155	Down

Table 2
Vertical Hydraulic Gradients
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005

				10/25/2021			10/17/2022			1/25/2023			10/23/2023		
Well ID	Screen Interval (ft bTOC)		TOC Elevation (ft)	Groundwater Elevation (ft bgs)	Vertical Gradient (ft/ft)	Direction	Groundwater Elevation (ft bgs)	Vertical Gradient (ft/ft)	Direction	Groundwater Elevation (ft bgs)	Vertical Gradient (ft/ft)	Direction	Groundwater Elevation (ft bgs)	Vertical Gradient (ft/ft)	Direction
MW-2	10	20	1444.97	1433.05			1429.65			1431.65			1427.33		
MW-2A	47	57	1447.27	1435.08	0.059	Up	1431.46	0.052	Up	1433.1	0.042	Up	1429.59	0.065	Up
MW-3	40	50	1421.6	1384.84			1386.39			1387.78			1383.95		
MW-3A	76	86	1420.29	1380.66	0.112	Down	1379.13	0.195	Down	1375.88	0.319	Down	1373.49	0.280	Down

Notes:

ft	Feet
bTOC	Below top of casing
NM	Not Measured
--	Not Applicable

Table 3
Water Supply Wells and Springs
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005

Well/ Spring ID	Well/Spring Name	Property Address	Parcel PIN	Property Owner	Status	Notes
1	Former Haas Spring	1160 Drag Strip Rd Hudson, NC 28638	2768941039	Caldwell County	Inactive	Spring disconnected and left in place on Site property for monitoring purposes; property connected to municipal water.
2	Kevin Tolbert Spring	Drag Strip Rd Hudson, NC 28638	2778068363	Caldwell County	Inactive	Spring disconnected and left in place on Site property for monitoring purposes; property not connected to municipal water
3	Alan Tolbert Spring	Alfred Hartley Rd Lenoir, NC 28645	2768975392	Gary Allen Tolbert	Unknown	Property owner contacted; messages left and not returned; spring not located during site survey; property undeveloped, not connected to municipal water
4	Leonard Tolbert Spring	Drag Strip Rd Hudson, NC 28638	2778460615	Leonard Tolbert Estate	Unknown	Property owner previously unaware if spring still exists; spring not located during site survey; property undeveloped, not connected to municipal water
5	Ray Austin Spring	2448 Fannie Ln Hudson, NC 28638	2768749789	Jeffrey Ray Austin	Unknown	Property connected to municipal water; spring previously used for irrigation and livestock purposes
6	Ray Austin Well	2512 Crossview Ln Lenoir, NC 28645	2768758219	Earnest Ray Austin Janice Lorene Austin	Inactive	Property connected to municipal water; well is inactive and not in use
7	Martha McLean Well	1145 Drag Strip Rd Hudson, NC 28638	2768827950	Michael and Martha McLean	Active	Property not connected to municipal water
8	Truett Hass Well	2452 Restless Pl Hudson, NC 28638	2768529892	Laura Ann Norris	Unknown	Property not connected to municipal water; well water previously used for drinking, irrigation, and livestock purposes; unable to confirm in 2023
9	Clearview Baptist Church Well	2455 Alfred Hartley Rd Lenoir, NC 28645	2768876916	Clearview Baptist Church	Unknown	Property owner contacted but messages not returned; unable to confirm in 2023 but property connected to municipal water
10	Woods Well	1034 Drag Strip Rd Hudson, NC 28638	2768625115	Travis P & Andrea Woods	Active	Property owner confirmed connection to municipal water; however, well is still in use by resident for domestic activities
11	McLean Well	2211 Alfred Hartley Rd Lenoir, NC 28645	2778291598	Dennis Ray & Mary Ann McLean	Unknown	Property owner would not respond to requests for additional information; property not connected to municipal water
12	Brown Well	2320 Alfred Hartley Rd Lenoir, NC 28645	2778084340	McKayla Brooke Brown	Unknown	Property owner contacted but messages not returned; property connected to municipal water
13	Eller Well	2681/2685 Alfred Hartley Rd Lenoir, NC 28645	2768459578	Ronald & Donald Eller	Unknown	Property not connected to municipal water
14	Clark Well	2736 Ellerwood Rd Lenoir, NC 28645	2768442219	Cecil & Gladys Clark	Unknown	Property not connected to municipal water
15	Pennington Well	2525 Shelton Ave Lenoir, NC 28645	2768710618	Carolyn K Pennington	Unknown (Likely Inactive)	Unknown but likely inactive (see below); property connected to municipal water
16	Oxford Well	2533 Shelton Ave Lenoir, NC 28645	2768617550	Gary L Oxford	Inactive	Property owner confirmed connection to municipal water; previously utilized well but well "condemned by the county"; well previously supplied water for area, also near 2525 Shelton Ave
17	Mount Herman Methodist Well	2695 Alfred Hartley Rd Lenoir, NC 28645	2768456245	Mount Herman United Methodist Church	Unknown	Well reportedly present by nearby property owners; property not connected to municipal water

Table 4
Historical Water Supply Well and Spring Analytical Data
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005

Well or Spring ID	Sample Date	Acetone	Benzene	Carbon Disulfide	Carbon Tetrachloride	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	Diisopropyl ether	1,4-Dioxane	2-Hexanone	p-Isopropyltoluene	Methylene Chloride	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	Trichloroethene	Xylene (Total)
2L Standard		**6,000**	**1**	**700**	**0.3**	**1,000**	**6**	**0.4**	**350**	**70**	**3**	**40**	**25**	**5**	**0.7**	**600**	**200**	**3**	**500**
Former Haas Spring (1)	10/13/1998	<25	<1.0	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	**13**	<200	<1.0	NA	**2.5**	<1.0	<1.0	<1.0	NA
	3/16/1999	<25	<1.0	1.2	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	**13**	<200	<10	NA	**1.8**	<1.0	3.5	<1.0	<2.0
	12/14/2001	<25	<1.0	<1.0	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<10	NA	**2.8**	<1.0	2.8	<1.0	<2.0
	2/20/2003	3.8	0.27	<1.0	0.22	1.8	0.22	0.36	0.79	0.24	NA	<1.0	0.64	NA	**2.0**	0.23	1.2	0.44	1.1
	11/12/2003	<25	<1.0	NA	<1.0	<1.0	2.9	<1.0	1.2	<1.0	NA	1.2	<10	NA	**2.6**	<1.0	1.4	<1.0	<2.0
	10/5/2004	<25	<1.0	NA	<1.0	2.2	<1.0	<1.0	<1.0	<1.0	NA	NA	<10	<1.0	<1.0	<5.0	1.2	<1.0	<3.0
	9/30/2005	<25	<1.0	NA	<1.0	2.1	<1.0	<1.0	1.1	<1.0	NA	NA	<10	<1.0	<1.0	<5.0	<1.0	<1.0	<3.0
	10/11/2006	<50	<1.0	NA	<1.0	2.0	<1.0	<1.0	1.1	<1.0	NA	NA	<10	<1.0	<1.0	<5.0	<1.0	<1.0	<3.0
	10/25/2007	<50	<1.0	NA	<1.0	1.3	3.2	<1.0	1.7	<1.0	NA	NA	<10	<1.0	<1.0	<5.0	<1.0	<1.0	<3.0
	11/5/2008	<50	<1.0	NA	<1.0	2.42	<1.0	<1.0	1.85	<1.0	NA	NA	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
	10/29/2009	<50	<1.0	NA	<1.0	1.36	<1.0	<1.0	1.14	<1.0	NA	NA	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
	10/27/2010	<25	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
	10/27/2010	<25	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
	10/16/2012	<25	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<100	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
	10/23/2013	<25	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
	10/22/2014	<25	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
	10/28/2015	<25	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
	10/19/2016	<25	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
	10/25/2017	<25	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
	10/24/2018	<25	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<3.0
	11/6/2019	<25	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0
	10/27/2020	<25	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0
	10/27/2021	<25	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0
	10/19/2022	<25	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0
	10/25/2023	<25	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<3.0
Alan Tolbert Spring (3)	10/13/1998	<25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<10	<10	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0
Kevin Tolbert Spring (2)	10/13/1998	<25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<10	<10	NA	**10**	**1.6**	<1.0	<1.0	<1.0	<2.0
	3/16/1999	<25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<10	<10	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0
Leonard Tolbert Spring (4)	10/13/1998	<25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<10	<10	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0
Ray Austin Spring (5)	10/13/1998	<250	<10	<10	<10	<1.0	<10	<10	<10	NA	<10	<100	NA	**260**	<10	<10	<10	<10	<20
	3/16/1999	<25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<10	<10	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0
Martha McLean Well (7)	10/13/1998	<25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<10	<10	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0
Ray Austin Well (6)	10/13/1998	<25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<10	<10	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0
Truett Haas Well (8)	10/13/1998	<25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<10	<10	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0

Notes:
Analytical results compared to North Carolina Administrative Code 15A 2L Groundwater Quality Standards and Interim Maximum Allowable Concentrations (revised April 1, 2022)
Only those compounds detected in at least one sample are shown above
All data is presented in micrograms per liter (µg/L)
Bold values indicate exceedance of 2L Standard
NA Not analyzed

Table 5
Historical Surface Water Analytical Data
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-004

Well or Spring ID	Sample Date	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride
Surface Water Standard		**100** [1]	**650** [2]	**720** [1]	**30** [3]	**2.4** [3]
SW-1	10/14/1998	15	3.5	7.4	1.0	<1.0
SW-2	10/14/1998	2.9	<1.0	<1.0	<1.0	<1.0
SW-3	10/14/1998	<1.0	<1.0	<1.0	<1.0	<1.0
SW-4	10/13/1998	<1.0	<1.0	<1.0	<1.0	<1.0
SW-5	10/14/1998	1.8	<1.0	20	<1.0	**3.9**
SW-6	10/14/1998	<1.0	<1.0	<1.0	<1.0	<1.0
SW-7	10/12/1998	<1.0	<1.0	<1.0	<1.0	<1.0
Stream Seep 1-12	1/17/2001	<5.0	<5.0	<5.0	<5.0	<5.0
Stream Seep 1-15	1/17/2001	<5.0	<5.0	<5.0	<5.0	<5.0
Stream Seep 2-4	1/17/2001	<5.0	<5.0	<5.0	<5.0	<5.0
Stream Seep 2-8	1/17/2001	<5.0	<5.0	<5.0	<5.0	<5.0

Notes:

Surface water standards:

[1] North Carolina Protective Values for Surface Waters for Class C streams

[2] EPA Nationally Recommended Water Quality Criteria for Aquatic Life & Human Health for Class C streams

[3] North Carolina Administrative Code 15A 2B Surface Water Quality Standards for Class C streams

Bold values indicate exceedance of Surface Water Standard

Only those compounds detected in at least one sample are shown above

All data is presented in micrograms per liter (µg/L)

Table 6
Historical Groundwater VOC Analytical Data
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005

Well ID	Sample Date	Acetone	Benzene	2-Butanone (MEK)	sec-Butylbenzene	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	Diisopropyl ether	1,4-Dioxane
2L Standard		**6,000**	**1**	**4,000**	**70**	**0.3**	**50**	**3,000**	**70**	**3**	**0.4**	**200**	**6**	**1,000**	**6**	**0.4**	**350**	**70**	**100**	**0.6**	**70**	**3**
FPC-MW-01	10/9/1998	<25	**1.5**	<10	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	NA	<1.0	**26**	<1.0	<1.0	1.4	<1.0	<1.0	NA	NA
	12/13/2001	<25	**1.2**	<10	NA	<1.0	<1.0	1.6	<1.0	<1.0	<1.0	NA	NA	NA	**18**	<1.0	<1.0	2.0	<1.0	<1.0	NA	NA
	2/18/2003	26	**3.0**	<10	NA	<1.0	2.2	19	<1.0	<1.0	<1.0	NA	NA	NA	**34**	<1.0	1.4	**95**	<1.0	<1.0	NA	NA
	11/14/2003	<25	**2.1**	<10	NA	<1.0	<1.0	8.7	<1.0	<1.0	<1.0	NA	NA	NA	**18**	<1.0	<1.0	5.5	<1.0	<1.0	NA	NA
	10/5/2004	<25	**1.7**	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	**12**	<1.0	<1.0	2.7	<1.0	<1.0	<1.0	NA
	9/27/2005	<25	**1.8**	<10	<1.0	<1.0	<1.0	2.8	<5.0	<1.0	<1.0	<1.0	<1.0	2.6	**8.2**	<1.0	<1.0	4.1	<1.0	<1.0	<1.0	NA
	10/11/2006	<50	**1.5**	<10	<1.0	<1.0	<1.0	2.7	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	**6.6**	<1.0	<1.0	2.5	<1.0	<1.0	<1.0	NA
	10/23/2007	<50	**2.6**	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	**8.8**	<1.0	<1.0	4.7	<1.0	<1.0	<1.0	NA
	11/5/2008	<50	<1.0	<10	<1.0	<1.0	<1.0	1.17	<1.0	<1.0	NA	<1.0	<1.0	<1.0	2.99	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA
	10/28/2009	72.2	**3.14**	<50	<1.0	<1.0	<1.0	1.71	<1.0	<1.0	NA	<1.0	<1.0	<1.0	**9.6**	<1.0	<1.0	4.77	<1.0	<1.0	NA	NA
	10/26/2010	<25	**1.1**	<5.0	<1.0	<1.0	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.7	<1.0	<1.0	3.0	<1.0	<1.0	<1.0	NA
	10/27/2011	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.7	<1.0	<1.0	1.5	<1.0	<1.0	<1.0	NA
	10/16/2012	<25	**1.3**	<5.0	<1.0	<1.0	<1.0	2.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.8	<1.0	<1.0	3.6	<1.0	<1.0	<1.0	NA
	10/23/2013	<25	**3.6**	<5.0	<1.0	<1.0	<1.0	4.2	<1.0	<1.0	<1.0	<1.0	1.9	<1.0	**6.7**	<1.0	<1.0	7.9	<1.0	<1.0	<1.0	NA
	10/21/2014	<25	**1.1**	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.7	<1.0	<1.0	3.0	<1.0	<1.0	<1.0	NA
	10/28/2015	<25	<1.0	<5.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	<1.0	<1.0	2.2	<1.0	<1.0	<1.0	NA
	10/19/2016	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	NA
	10/25/2017	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	1.7	<1.0	<1.0	<1.0	NA
	10/24/2018	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA
	11/5/2019	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA
	10/27/2020	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	NA
	10/26/2021	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA
	10/19/2022	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	NA
	10/25/2023	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA
FPC-MW-03	10/14/1998	<25	<1.0	<10	NA	<1.0	<1.0	NA	1.4	<1.0	<1.0	<1.0	NA	1.2	**8.4**	**63**	29	1.5	<1.0	**1.0**	NA	<10
	12/13/2001	<25	<1.0	<10	NA	<1.0	<1.0	<1.0	1.0	<1.0	<1.0	NA	NA	NA	**7.0**	**46**	10	2.5	<1.0	<1.0	NA	NA
	2/20/2003	150	<1.0	<10	NA	<1.0	<1.0	<1.0	1.6	<1.0	<1.0	NA	NA	NA	**8.0**	**47**	9.5	6.0	<1.0	<1.0	NA	NA
	11/13/2003	<25	<1.0	<10	NA	<1.0	<1.0	<1.0	2.1	<1.0	**5.3**	NA	NA	NA	**16**	**46**	7.8	15	<1.0	**1.6**	NA	NA
	10/7/2004	<25	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.5	**15**	2.4	<1.0	<1.0	<1.0	<1.0	NA
	9/29/2005	<25	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.0	**12**	2.1	1.1	<1.0	<1.0	<1.0	NA
	10/10/2006	<25	<1.0	<10	1.9	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.9	**11**	1.8	<1.0	<1.0	<1.0	<1.0	NA
	10/25/2007	410	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.5	**11**	2.5	1.3	<1.0	<1.0	<1.0	NA
	11/5/2008	<50	<1.0	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	5.14	**14**	3.4	<1.0	<1.0	<1.0	NA	NA
	10/28/2009	<50	<1.0	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	5.69	**16.8**	2.7	1.44	<1.0	<1.0	NA	NA
	10/27/2010	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.0	**9.3**	1.2	<1.0	<1.0	<1.0	<1.0	NA
	10/26/2011	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.9	**10.7**	2.4	<1.0	<1.0	<1.0	<1.0	NA
	10/16/2012	<27	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.1	**9.1**	1.3	<1.0	<1.0	<1.0	<1.0	NA
	10/23/2013	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.6	**9.5**	2.1	<1.0	<1.0	<1.0	<1.0	NA
	10/21/2014	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.9	**15.2**	1.1	1.1	<1.0	<1.0	<1.0	NA
	10/29/2015	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.3	**9.7**	<1.0	<1.0	<1.0	<1.0	<1.0	NA
	10/19/2016	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.0	**2.3**	<1.0	<1.0	<1.0	<1.0	<1.0	NA
	10/25/2017	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	**3.4**	<1.0	<1.0	<1.0	<1.0	<1.0	NA
	10/24/2018	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	**3.6**	<1.0	<1.0	<1.0	<1.0	<1.0	NA
	11/6/2019	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.2**	<1.0	<1.0	<1.0	<1.0	<1.0	NA
	10/28/2020	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA
	10/27/2021	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA
	10/19/2022	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA
	10/25/2023	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA
FPC-MW-07	1/11/1995	390	**6.9**	240	NA	NA	NA	23	<5.0	<10	NA	NA	NA	NA	5.1	<5.0	<5.0	**120**	11	<5.0	NA	NA
	7/1/1995	760	**7.9**	500	NA	NA	7.2	<50	<25	NA	**12**	19	**6.9**	NA	<25	<25	<25	**170**	<25	<25	NA	NA
	2/1/1996	460	<20	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<20	<20	<20	**160**	NA	NA	NA	NA
	8/6/1996	230	**6.2**	150	NA	<5.0	8.5	<10	<5.0	NA	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	**110**	NA	<5.0	NA	NA
	10/7/1998	370	<10	280	NA	<10	8.8	NA	<10	<10	<10	<10	NA	<10	<10	<10	<10	69	<10	<10	NA	NA
	12/11/2001	<25	**3.7**	<10	NA	<1.0	6.8	2.4	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	5.7	<1.0	<1.0	NA	NA
	2/21/2003	<25	**4.1**	<10	NA	<1.0	7.2	2.2	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	4.3	<1.0	<1.0	NA	NA
	11/13/2003	420	**3.8**	430	NA	<1.0	7.3	5.4	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA
	10/8/2004	<25	<1.0	<10	<1.0	<1.0	1.5	<1.0	<5.0	<1.0	<1.0	<1.0	2.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA
	9/28/2005	<25	**2.8**	<10	<1.0	<1.0	6.0	<1.0	<5.0	<1.0	<1.0	<1.0	**8.3**	<1.0	<1.0	<1.0	<1.0	2.3	<1.0	<1.0	1.0	NA
	10/11/2006	<25	**2.4**	<10	<1.0	<1.0	5.6	<1.0	<5.0	<1.0	<1.0	<1.0	**7.1**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA
	10/24/2007	<50	**1.9**	<10	<1.0	<1.0	4.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA
	11/4/2008	<50	**2.3**	<50	<1.0	<1.0	4.62	1.78	<1.0	<1.0	NA	<1.0	**6.66**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA
	10/29/2009	<50	**2.42**	<50	<1.0	<1.0	5.5	<1.0	<1.0	<1.0	NA	<1.0	**8.4**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA

Well ID	Sample Date	Ethylbenzene	2-Hexanone	Isobutanol	Isopropylbenzene	p-Isopropyltoluene	4-Methyl-2-pentanone (MIBK)	Methyl-tert-butyl ether (MTBE)	Methylene Chloride	Naphthalene	n-Propylbenzene	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m&p-Xylene	o-Xylene	Xylene (Total)
2L Standard		**600**	**40**	**NE**	**70**	**25**	**100**	**20**	**5**	**6**	**70**	**0.2**	**0.7**	**600**	**200**	**0.6**	**3**	**2,000**	**NE**	**400**	**400**	**0.03**	**500**	**500**	**500**
FPC-MW-01	10/9/1998	<1.0	<10	<200	NA	NA	<10	NA	**14**	NA	NA	<1.0	**5.4**	<1.0	3.9	<1.0	**5.0**	<1.0	NA	NA	NA	**1.7**	1.0	11	12
	12/13/2001	<1.0	<10	NA	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	**1.9**	NA	NA	<2.0
	2/18/2003	<1.0	<10	NA	NA	NA	<10	NA	<5.0	NA	NA	<1.0	**2.5**	<1.0	<1.0	<1.0	**9.8**	NA	NA	NA	NA	**14**	NA	NA	4.00
	11/14/2003	<1.0	<10	NA	NA	NA	<10	NA	<5.0	NA	NA	<1.0	**5.3**	<1.0	1.7	<1.0	**4.4**	NA	NA	NA	NA	**3.5**	NA	NA	7.2
	10/5/2004	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	**4.0**	<5.0	1.2	<1.0	**4.5**	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	4.8
	9/27/2005	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	**4.1**	<5.0	<1.0	<1.0	**3.6**	<1.0	<1.0	<1.0	<1.0	**2.1**	NA	NA	<3.0
	10/11/2006	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	**3.8**	<5.0	1.2	<1.0	**3.7**	<1.0	<1.0	<1.0	<1.0	**2.2**	NA	NA	<3.0
	10/23/2007	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	**6.0**	<5.0	<1.0	<1.0	**6.4**	<5.0	4.4	<1.0	**3.8**	<1.0	<1.0	1.2	<1.0	**3.5**	NA	NA	3.3
	11/5/2008	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.28	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/28/2009	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	**5.27**	<1.0	1.13	<1.0	**4.71**	<1.0	NA	<1.0	<1.0	**2.08**	NA	NA	<3.0
	10/26/2010	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	**3.5**	<1.0	<1.0	<1.0	1.9	<1.0	<1.0	<1.0	<1.0	**1.3**	<1.0	<2.0	<3.0
	10/27/2011	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**3.3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/16/2012	<1.0	<5.0	<100	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	**1.3**	<1.0	<1.0	<1.0	2.4	<1.0	<1.0	<1.0	<1.0	**1.1**	<1.0	<2.0	<3.0
	10/23/2013	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	**4.4**	<1.0	<1.0	<1.0	**3.2**	<1.0	<1.0	<1.0	<1.0	**2.0**	1.8	<2.0	<4.0
	10/21/2014	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	**2.4**	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/28/2015	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	**1.6**	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/19/2016	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/25/2017	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/24/2018	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	11/5/2019	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	10/27/2020	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	10/26/2021	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	10/19/2022	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	10/25/2023	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
FPC-MW-03	10/14/1998	<1.0	<10	<200	NA	NA	<10	NA	**8.0**	NA	NA	<1.0	**25**	<1.0	59	<1.0	2.3	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0
	12/13/2001	<1.0	<10	NA	NA	NA	<10	NA	<5.0	NA	NA	<1.0	**38**	<1.0	53	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	NA	<2.0
	2/20/2003	<1.0	<10	NA	NA	NA	<10	NA	<5.0	NA	NA	<1.0	**41**	<1.0	42	<1.0	1.8	NA	NA	NA	NA	<1.0	NA	NA	<2.0
	11/13/2003	<1.0	<10	NA	NA	NA	<10	NA	<5.0	NA	NA	<1.0	**47**	<1.0	38	<1.0	2.0	NA	NA	NA	NA	<1.0	NA	NA	<2.0
	10/7/2004	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	**19**	<5.0	20	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	9/29/2005	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	**11**	<5.0	15	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/10/2006	2.1	NA	NA	1.9	<1.0	<10	<1.0	<5.0	<5.0	7.5	<1.0	**8.3**	<5.0	<1.0	<1.0	<1.0	<1.0	84	33	7.4	<1.0	NA	NA	<3.0
	10/25/2007	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	**9.0**	<5.0	5.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	11/5/2008	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	**11.6**	<1.0	7.17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/28/2009	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	**8.31**	<1.0	5.09	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/27/2010	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	**12.4**	<1.0	3.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/26/2011	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	**9.5**	<1.0	3.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/16/2012	<1.0	<5.0	<100	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	**5.2**	<1.0	3.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/23/2013	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	**9.1**	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/21/2014	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	**6.6**	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/29/2015	<1.0	12.7	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	**5.1**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/19/2016	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	**2.4**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/25/2017	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/24/2018	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	**2.8**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	11/6/2019	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	**1.6**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	10/28/2020	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	**1.5**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	10/27/2021	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	10/19/2022	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	10/25/2023	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
FPC-MW-07	1/11/1995	5.3	<25	NA	NA	NA	**120**	NA	NA	NA	NA	NA	<5.0	18	<5.0	<5.0	<5.0	NA	NA	NA	NA	<10	NA	NA	34
	7/1/1995	5.8	NA	NA	NA	NA	NA	NA	NA	2.7	NA	<25	<25	20	<25	<25	<25	<25	NA	NA	NA	<50	NA	NA	27
	2/1/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<20	20	<20	NA	<20	NA	NA	NA	NA	NA	NA	NA	59
	8/6/1996	12	<25	NA	NA	NA	49	NA	<10	NA	NA	NA	<5.0	20	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	63
	10/7/1998	<10	<100	<2,000	NA	NA	<100	NA	<50	NA	NA	<10	<10	6.3	<10	<10	<10	<10	NA	NA	NA	<10	12	28	40
	12/11/2001	2.1	<10	<1.0	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	**4.8**	<1.0	<1.0	10
	2/21/2003	2.7	<10	<1.0	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	1.6	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	**3.2**	<1.0	<1.0	12
	11/13/2003	2.9	<10	NA	NA	NA	54	NA	<5.0	NA	NA	<1.0	<1.0	3.4	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	NA	10
	10/8/2004	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	9/28/2005	1.4	NA	NA	1.8	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	**2.1**	NA	NA	5.4
	10/11/2006	<1.0	NA	NA	1.1	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.6**	NA	NA	<3.0
	10/24/2007	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.2**	NA	NA	<3.0
	11/4/2008	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/29/2009	<1.0	<50	NA	1.12	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	NA	NA	<3.0

Table 6
Historical Groundwater VOC Analytical Data
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005

Well ID	Sample Date	Acetone	Benzene	2-Butanone (MEK)	sec-Butylbenzene	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	Diisopropyl ether	1,4-Dioxane	Ethylbenzene	2-Hexanone	Isobutanol	Isopropylbenzene	p-Isopropyltoluene	4-Methyl-2-pentanone (MIBK)	Methyl-tert-butyl ether (MTBE)	Methylene Chloride	Naphthalene	n-Propylbenzene	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m&p-Xylene	o-Xylene	Xylene (Total)
2L Standard		**6,000**	**1**	**4,000**	**70**	**0.3**	**50**	**3,000**	**70**	**3**	**0.4**	**200**	**6**	**1,000**	**6**	**0.4**	**350**	**70**	**100**	**0.6**	**70**	**3**	**600**	**40**	**NE**	**70**	**25**	**100**	**20**	**5**	**6**	**70**	**0.2**	**0.7**	**600**	**200**	**0.6**	**3**	**2,000**	**NE**	**400**	**400**	**0.03**	**500**	**500**	**500**
FPC-MW-07A	1/11/1995	<25	<5.0	<25	NA	NA	NA	<10	<5.0	<10	NA	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	<5.0	<25	NA	NA	NA	<25	NA	NA	<12	NA	NA	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<10	NA	NA	<5.0
	7/1/1995	<160	**1.6**	<25	NA	NA	<5.0	<10	<5.0	NA	<5.0	<5.0	<12	NA	5.5	<5.0	2.1	12	<5.0	<5.0	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0	**2.6**	<5.0	<5.0	<5.0	2.0	<5.0	NA	NA	<10	NA	NA	<5.0
	2/1/1996	<25	<5.0	<25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.7	<5.0	<5.0	32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	<5.0
	8/6/1996	<50	<5.0	<25	NA	<5.0	<5.0	<10	<5.0	NA	NA	NA	NA	<5.0	5.3	<5.0	<5.0	37	NA	<5.0	NA	NA	<5.0	<25	NA	NA	NA	NA	NA	NA	<5.0	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	<5.0
	10/7/1998	<25	**1.3**	<10	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	NA	<1.0	3.5	**1.2**	<1.0	30	<1.0	<1.0	NA	NA	<1.0	<10	<200	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0
	12/11/2001	<25	**2.6**	<10	NA	<1.0	1.7	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	4.5	<1.0	<1.0	40	<1.0	<1.0	NA	NA	<1.0	<10	<1.0	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	**2.6**	<1.0	<1.0	2.0
	2/21/2003	<25	**2.9**	<10	NA	<1.0	2.00	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	4.4	**1.2**	<1.0	43	<1.0	<1.0	NA	NA	<1.0	<10	<1.0	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	<1.0	NA	NA	NA	**2.3**	<1.0	<1.0	<2.0
	11/13/2003	510	**2.7**	<25	NA	<1.0	2.1	<1.0	<5.0	<1.0	<5.0	NA	NA	NA	4.2	<1.0	<1.0	2.2	NA	<1.0	NA	NA	<1.0	<25	NA	NA	NA	<25	NA	<5.0	NA	NA	<5.0	**39**	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	NA	<10
	10/7/2004	190	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	9/28/2005	880	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.3	<1.0	<1.0	3.8	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.4**	NA	NA	<3.0
	10/11/2006	300	**2.5**	<10	<1.0	<1.0	1.6	<1.0	<5.0	<1.0	<1.0	<1.0	1.1	<1.0	3.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/24/2007	<50	**2.1**	<10	<1.0	<1.0	2.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	11/4/2008	<50	**2.82**	<50	<1.0	<1.0	2.79	<1.0	<1.0	<1.0	NA	<1.0	1.9	<1.0	3.29	<1.0	<1.0	1.55	<1.0	<1.0	NA	NA	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/27/2009	<50	**2.26**	<50	<1.0	<1.0	1.87	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	2.58	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/26/2010	1,330	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/26/2011	728	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/16/2012	<50	**1.5**	<5.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	<1.0	<1.0	2.8	<1.0	<1.0	<1.0	NA	<1.0	<5.0	<100	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.5**	<1.0	<2.0	<3.0
	10/22/2013	<25	**1.9**	<5.0	<1.0	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	2.5	<1.0	1.8	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.4**	<1.0	<2.0	<3.0
	10/22/2014	<25	**1.5**	<5.0	<1.0	<1.0	2.3	<1.0	<1.0	<1.0	<1.0	<1.0	2.4	<1.0	1.6	<1.0	<1.0	2.3	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2.0**	<1.0	<2.0	<3.0
	10/27/2015	<25	**1.1**	<5.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	<1.0	1.4	<1.0	<1.0	2.2	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.3**	<1.0	<2.0	<3.0
	10/18/2016	<25	**1.6**	<5.0	<1.0	<1.0	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	2.2	<1.0	1.7	<1.0	<1.0	5.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.1**	<1.0	<2.0	<3.0
	10/24/2017	<25	**1.5**	<5.0	<1.0	<1.0	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	2.3	<1.0	1.5	<1.0	<1.0	3.7	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/23/2018	<25	**1.1**	<5.0	<1.0	<1.0	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	3.3	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	11/5/2019	<25	**1.3**	<5.0	<1.0	<1.0	1.9	<1.0	<1.0	<1.0	<1.0	<1.0	2.0	<1.0	1.4	<1.0	<1.0	3	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.2**	<2.0	<1.0	<3.0
	10/27/2020	<25	**1.4**	<5.0	<1.0	<1.0	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	2.7	<1.0	1.4	<1.0	<1.0	2.2	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	10/26/2021	<25	**1.2**	<5.0	<1.0	<1.0	3.1	<1.0	<1.0	<1.0	<1.0	<1.0	4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	10/18/2022	<25	**1.1**	<5.0	<1.0	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	2.7	<1.0	1.1	<1.0	<1.0	5.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	10/24/2023	<25	<1.0	<5.0	<1.0	<1.0	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	7.5	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
MW-2	1/10/1995	<25	<5.0	<25	NA	NA	NA	<10	<5.0	<10	NA	NA	NA	NA	**54**	<5.0	<5.0	24	<5.0	<5.0	NA	NA	<25	<25	NA	NA	NA	<25	NA	NA	NA	NA	NA	**39**	<5.0	<5.0	<5.0	**25**	NA	NA	NA	NA	<10	NA	NA	<5.0
	7/1/1995	<25	<5.0	<25	NA	NA	7.2	<10	<5.0	NA	<5.0	<5.0	<10	NA	**31**	<5.0	<5.0	23	<5.0	<5.0	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	<10	NA	<5.0	**21**	<5.0	<5.0	<5.0	**16**	<5.0	NA	NA	NA	<10	NA	NA	2.4
	2/1/1996	<25	<5.0	<25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**9.8**	<5.0	<5.0	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**7.2**	<5.0	<5.0	NA	**6.7**	NA	NA	NA	NA	NA	NA	NA	<5.0
	8/6/1996	<50	<5.0	<25	NA	<5.0	<5.0	<10	<5.0	NA	NA	NA	NA	9.0	**6.7**	<5.0	<5.0	10	NA	<5.0	NA	NA	<5.0	<25	NA	NA	NA	<25	NA	**12**	NA	NA	NA	**6.4**	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	<5.0
	9/20/1998	81	<5.0	10	NA	<5.0	NA	NA	<5.0	<10	NA	NA	NA	NA	NA	<5.0	<5.0	NA	NA	<5.0	NA	<10	<5.0	<25	<1,000	NA	NA	<25	NA	<5.0	<10	NA	NA	<5.0	NA	NA	<5.0	<5.0	NA	NA	NA	NA	<10	NA	NA	NA
	10/8/1998	<25	**2.4**	<10	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	NA	2.4	5.9	<1.0	<1.0	17	<1.0	<1.0	NA	NA	<1.0	<10	<200	NA	NA	<10	NA	<5.0	NA	NA	<1.0	**3.0**	<1.0	<1.0	<1.0	**5.0**	<1.0	NA	NA	NA	**5.2**	<1.0	<1.0	<1.0
	12/12/2001	<25	**3.3**	<10	NA	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0	NA	<1.0	**7.0**	<1.0	<1.0	25	<1.0	<1.0	NA	NA	<1.0	<10	<1.0	NA	NA	<10	NA	**24**	NA	NA	<1.0	**11**	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	**2.9**	<1.0	<1.0	5.3
	2/19/2003	26	**1.8**	<10	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	2.6	<1.0	<1.0	15	<1.0	<1.0	NA	NA	<1.0	<10	<1.0	NA	NA	<10	NA	**8.2**	NA	NA	<1.0	**5.8**	0.12	<1.0	<1.0	**5.5**	<1.0	NA	NA	NA	**1.7**	<1.0	<1.0	2.5
	11/11/2003	<25	<1.0	<10	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	1.6	<1.0	<1.0	NA	NA	<1.0	<10	NA	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	NA	<2.0
	10/7/2004	<25	**1.4**	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	9.7	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	**1.5**	<5.0	<1.0	<1.0	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	9/29/2005	<25	**1.4**	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	9.2	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	2.0	<1.0	<1.0	<1.0	<1.0	**1.2**	NA	NA	<3.0
	10/10/2006	<50	**2.9**	<10	<1.0	<1.0	3.2	<1.0	<5.0	<1.0	<1.0	<1.0	1.4	<1.0	1.9	<1.0	<1.0	27	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	**2.1**	<5.0	<1.0	<1.0	**6.5**	<1.0	<1.0	<1.0	<1.0	**2.5**	NA	NA	<3.0
	10/24/2007	<50	**2.3**	<10	<1.0	<1.0	2.7	<1.0	<5.0	<1.0	<1.0	<1.0	1.1	<1.0	1.3	<1.0	<1.0	18	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	**3.8**	<1.0	<1.0	<1.0	<1.0	**1.8**	NA	NA	<3.0
	11/3/2008	<50	**2.18**	<50	<1.0	<1.0	3	<1.0	<1.0	<1.0	NA	<1.0	1.36	<1.0	1.56	<1.0	<1.0	14	<1.0	<1.0	NA	NA	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**3.44**	<1.0	<1.0	<1.0	<1.0	**1.45**	NA	NA	<3.0
	10/29/2009	<50	**1.13**	<50	<1.0	<1.0	1.34	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.43	<1.0	<1.0	NA	NA	<1.0	<50	NA	<1.0	1.13	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/27/2010	<25	1	<5.0	<1.0	<1.0	2.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/25/2011	<25	**2.7**	<5.0	<1.0	<1.0	7.7	<1.0	<1.0	<1.0	<1.0	<1.0	3	<1.0	1.1	<1.0	<1.0	6.5	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.7	<1.0	<1.0	<1.0	<1.0	**1.7**	<1.0	<2.0	<3.0
	10/16/2012	<25	<1.0	<5.0	<1.0	<1.0	3.6	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0	3.7	<1.0	<1.0	<1.0	NA	<1.0	<5.0	<100	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/23/2013	<25	<1.0	<5.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/21/2014	<25	<1.0	<5.0	<1.0	<1.0	3.6	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/28/2015	<25	**1.4**	<5.0	<1.0	<1.0	6.3	<1.0	<1.0	<1.0	<1.0	<1.0	2.3	<1.0	<1.0	<1.0	<1.0	3.6	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/18/2016	<25	<1.0	<5.0	<1.0	<1.0	2.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/24/2017	<25	**1.1**	<5.0	<1.0	<1.0	5.4	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	<1.0	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/23/2018	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	11/5/2019	<25	<1.0	<5.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	10/27/2020	<25	<1.0	<5.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	10/27/2021	<25	**1.3**	<5.0	<1.0	<1.0	6.5	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	<1.0	<1.0	<1.0	<1.0	1.7	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	10/18/2022	<25	<1.0	<5.0	<1.0	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0
	10/24/2023	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<3.0

Table 6
Historical Groundwater VOC Analytical Data
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005

Well ID	Sample Date	Acetone	Benzene	2-Butanone (MEK)	sec-Butylbenzene	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	Diisopropyl ether	1,4-Dioxane	Ethylbenzene	2-Hexanone	Isobutanol	Isopropylbenzene	p-Isopropyltoluene	4-Methyl-2-pentanone (MIBK)	Methyl-tert-butyl ether (MTBE)	Methylene Chloride	Naphthalene	n-Propylbenzene	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m&p-Xylene	o-Xylene	Xylene (Total)
2L Standard		**6,000**	**1**	**4,000**	**70**	**0.3**	**50**	**3,000**	**70**	**3**	**0.4**	**200**	**6**	**1,000**	**6**	**0.4**	**350**	**70**	**100**	**0.6**	**70**	**3**	**600**	**40**	**NE**	**70**	**25**	**100**	**20**	**5**	**6**	**70**	**0.2**	**0.7**	**600**	**200**	**0.6**	**3**	**2,000**	**NE**	**400**	**400**	**400**	**0.03**	**500**	**500**	**500**
MW-2A	1/10/1995	<25	<5.0	<25	NA	NA	NA	<10	<5.0	<10	NA	NA	NA	NA	**12**	<5.0	<5.0	20	<5.0	<5.0	NA	NA	<25	<25	NA	NA	NA	<25	NA	NA	NA	NA	NA	**9.8**	<5.0	<5.0	<5.0	**11**	NA	NA	NA	NA	<10	NA	NA	<5.0
	7/1/1995	<25	<5.0	<25	NA	NA	7.2	<10	<5.0	NA	<5.0	<5.0	3.0	NA	**25**	<5.0	<5.0	**74**	<5.0	<5.0	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	0.8	NA	<5.0	**25**	<5.0	<5.0	<5.0	**27**	<5.0	NA	NA	NA	**8.7**	NA	NA	<5.0
	2/1/1996	<25	<5.0	<25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**16**	<5.0	<5.0	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**17**	<5.0	<5.0	NA	**21**	NA	NA	NA	NA	NA	NA	NA	<5.0
	8/6/1996	<50	<5.0	<25	NA	<5.0	<5.0	<10	<5.0	NA	NA	NA	NA	<5.0	**15**	<5.0	<5.0	58	NA	<5.0	NA	NA	<5.0	<25	NA	NA	NA	NA	<25	NA	<5.0	NA	NA	NA	**21**	<5.0	<5.0	<5.0	**19**	NA	NA	NA	NA	NA	NA	NA	<5.0
	10/8/1998	<250	<10	<100	NA	<10	<10	NA	<10	<10	<10	<10	NA	23	**18**	<10	<10	**130**	<10	<10	NA	NA	<10	<100	<2,000	NA	NA	<100	NA	<50	NA	NA	<10	**29**	<10	<10	<10	**24**	<10	NA	NA	NA	<10	<10	<10	<10
	12/12/2001	<25	**1.6**	10	NA	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	**10**	<1.0	<1.0	60	<1.0	<1.0	NA	NA	<1.0	<10	<1.0	NA	NA	<10	NA	<5.0	NA	NA	<1.0	**8.9**	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	**8.0**	<1.0	<1.0	<2.0
	2/19/2003	<25	**2.0**	<10	NA	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	**7.2**	**0.61**	0.34	61	1.0	**0.64**	NA	NA	<1.0	<10	<1.0	NA	NA	<10	NA	<5.0	NA	NA	<1.0	**3.8**	0.16	<1.0	<1.0	**16**	<1.0	NA	NA	NA	**5.4**	<1.0	<1.0	0.65
	11/11/2003	140	**3.5**	<10	NA	<1.0	2.8	1.5	<1.0	<1.0	<1.0	NA	NA	NA	**7.0**	<1.0	<1.0	50	1.1	<1.0	NA	NA	<1.0	<10	NA	NA	NA	<10	NA	<5.0	NA	NA	<1.0	**2.5**	<1.0	<1.0	<1.0	**16**	NA	NA	NA	NA	**6.5**	NA	<1.0	<2.0
	10/7/2004	<25	**1.2**	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	3.6	<1.0	4.7	<1.0	<1.0	34	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	**2.5**	NA	NA	NA	**2.5**	NA	NA	<3.0
	9/29/2005	<25	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	2.5	<1.0	5.3	<1.0	<1.0	29	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/10/2006	<50	**2.9**	<10	<1.0	<1.0	3.2	<1.0	<5.0	<1.0	<1.0	<1.0	4.5	<1.0	1.9	<1.0	<1.0	27	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	**2.1**	<5.0	<1.0	<1.0	**6.5**	<1.0	<1.0	<1.0	<1.0	**2.5**	NA	NA	<3.0
	10/24/2007	<50	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	2.4	<1.0	4.0	<1.0	<1.0	4.9	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**4.9**	NA	NA	<3.0
	11/3/2008	<50	**1.5**	<50	<1.0	<1.0	1.22	<1.0	<1.0	<1.0	NA	<1.0	5.6	<1.0	**13.9**	<1.0	<1.0	**70.6**	1.48	<1.0	NA	NA	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**9.36**	<1.0	<1.0	<1.0	<1.0	**4.38**	NA	NA	<3.0
	10/29/2009	<50	**1.85**	<50	<1.0	<1.0	1.52	<1.0	<1.0	<1.0	NA	<1.0	**7.19**	<1.0	**12.7**	<1.0	<1.0	63.1	1.46	<1.0	NA	NA	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	**3.2**	<1.0	NA	<1.0	<1.0	**3.62**	NA	NA	<3.0
	10/27/2010	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.7	<1.0	1.7	<1.0	<1.0	2.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.8**	<1.0	<2.0	<3.0
	10/25/2011	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/16/2012	<25	1	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.7	<1.0	**8.5**	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	NA	<1.0	<5.0	<100	<1.0	<1.0	<5.0	1.6	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2.3**	<1.0	<2.0	<3.0
	10/23/2013	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3	<1.0	4.6	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2.0**	<1.0	<2.0	<3.0
	10/21/2014	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.8	<1.0	5.8	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	1.7	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/28/2015	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.6	<1.0	3.9	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	1.9	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/18/2016	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.7	<1.0	2.1	<1.0	<1.0	2.3	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	1.5	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/24/2017	<25	**1.2**	<5.0	<1.0	<1.0	1.7	<1.0	<1.0	<1.0	<1.0	<1.0	**12.8**	<1.0	**6.3**	<1.0	<1.0	36	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	2.7	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**3.4**	<1.0	<2.0	<3.0
	10/23/2018	<25	**1.4**	<5.0	<1.0	<1.0	1.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.2	<1.0	<1.0	19.7	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	2.1	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2.3**	<2.0	<1.0	<3.0
	11/5/2019	<25	**1.4**	<5.0	<1.0	<1.0	2.1	<1.0	<1.0	<1.0	<1.0	<1.0	**14.4**	<1.0	3.4	<1.0	<1.0	15.2	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	2	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2.3**	<2.0	<1.0	<3.0
	10/27/2020	<25	<1.0	<5.0	<1.0	<1.0	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	**14.9**	<1.0	2.8	<1.0	<1.0	12.2	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	2	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.9**	<2.0	<1.0	<3.0
	10/26/2021	<25	**1.2**	<5.0	<1.0	<1.0	2	<1.0	<1.0	<1.0	<1.0	<1.0	**14.1**	<1.0	2.3	<1.0	<1.0	13.8	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	1.8	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.6**	<2.0	<1.0	<3.0
	10/18/2022	<25	1.0	<5.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	**11.9**	<1.0	2.1	<1.0	<1.0	14.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	1.7	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.2**	<2.0	<1.0	<3.0
	10/24/2023	<25	**1.3**	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**13.1**	<1.0	<1.0	<1.0	<1.0	10.5	1.8	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.6**	<2.0	<1.0	<3.0
MW-3	1/10/1995	5,100	**9.7**	**8,900**	NA	NA	NA	120	<5.0	**17**	NA	NA	NA	NA	**150**	<5.0	<5.0	**180**	<5.0	<5.0	NA	NA	130	**106**	NA	NA	NA	**1,200**	NA	NA	NA	NA	NA	<5.0	410	<5.0	<5.0	<5.0	NA	NA	NA	NA	**14**	NA	NA	190
	7/1/1995	450	<25	680	NA	NA	<25	100	<25	NA	**130**	<25	<200	NA	**120**	**19**	17	**250**	<25	<25	NA	NA	130	NA	NA	NA	NA	NA	NA	NA	<200	NA	<25	**7.8**	280	16	<25	**11**	<25	NA	NA	NA	**13**	NA	NA	210
	2/1/1996	4,100	<250	**4,900**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<250	<250	<250	<250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<250	<250	<250	NA	<250	NA	NA	NA	NA	NA	NA	NA	<250
	8/6/1996	4,600	**7.1**	**8,500**	NA	<5.0	<5.0	54	<5.0	NA	NA	NA	NA	<5.0	**55**	<5.0	<5.0	**190**	NA	<5.0	NA	NA	100	**72**	NA	NA	NA	**890**	NA	<5.0	NA	NA	NA	<5.0	180	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	230
	9/20/1998	4,100	**8.8**	**4,100**	NA	<25	NA	NA	<25	<50	NA	NA	NA	NA	NA	<25	<25	NA	NA	<25	NA	<10	91	**55**	<5,000	NA	NA	**810**	NA	**34**	NA	NA	NA	<25	NA	NA	<25	<25	NA	NA	NA	NA	<50	NA	NA	NA
	10/9/1998	3,200	**11**	3,500	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	NA	<1.0	**44**	**1.4**	<1.0	**220**	1.6	**1.5**	NA	NA	130	**110**	<200	NA	NA	**1,000**	NA	**27**	NA	NA	<1.0	<1.0	100	<1.0	<1.0	**3.3**	<1.0	NA	NA	NA	**6.3**	100	200	300
	12/13/2001	490	**8.1**	330	NA	<2.0	<2.0	31	<2.0	<2.0	<2.0	<2.0	NA	<2.0	**17**	<2.0	<2.0	**150**	<2.0	<2.0	NA	NA	240	<20	<2.0	NA	NA	**130**	NA	<10	NA	NA	<2.0	<2.0	36	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	**2.8**	<2.0	<2.0	**540**
	2/18/2003	240	**2.0**	<20	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NA	<2.0	5.1	<2.0	<2.0	27	<2.0	<2.0	NA	NA	30	<20	<2.0	NA	NA	12	NA	<10	NA	NA	<2.0	<2.0	1.7	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	<2.0	<2.0	<2.0	54
	11/14/2003	<25	<1.0	<10	NA	<1.0	<1.0	1.9	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	9.4	<10	NA	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	NA	18
	10/5/2004	76	**2.2**	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.1	<1.0	<1.0	1.5	<1.0	<1.0	<1.0	NA	32	NA	NA	1.4	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	NA	NA	77
	9/27/2005	<25	**2.0**	<10	<1.0	<1.0	1.2	<1.0	<5.0	<1.0	<1.0	<1.0	1.2	<1.0	4.4	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	NA	26	NA	NA	1.4	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.1	2.6	1.1	<1.0	NA	NA	120
	10/11/2006	<50	**4.9**	<10	<1.0	<1.0	2.5	3.0	<5.0	<1.0	<1.0	<1.0	4.3	<1.0	**8.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	85	NA	NA	7.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.6	3.4	<1.0	NA	NA	260
	10/23/2007	<50	**5.6**	<10	<1.0	<1.0	3.3	<1.0	<5.0	<1.0	<1.0	<1.0	**6.4**	<1.0	5.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	150	NA	NA	8.6	1.9	<10	<1.0	<5.0	**6.8**	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	10	3.9	<1.0	NA	NA	310
	11/4/2008	<50	**3.63**	<50	<1.0	<1.0	2.73	2.28	<1.0	<1.0	NA	<1.0	3.33	<1.0	4.84	<1.0	<1.0	1.08	<1.0	<1.0	NA	NA	52	<50	NA	3.78	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.59	2.29	<1.0	NA	NA	183
	10/27/2009	<50	<1.0	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	1.03	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	NA	NA	5.75
	10/26/2010	<25	**3**	<5.0	<1.0	<1.0	3.2	1.0	<1.0	<1.0	<1.0	<1.0	3.3	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	40.5	<5.0	NA	3.9	<1.0	<5.0	<1.0	<2.0	3.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.5	21.2	23.7
	10/25/2011	<25	**1.6**	<5.0	<1.0	<1.0	2.7	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	<1.0	1.7	<1.0	<1.0	1.5	<1.0	<1.0	<1.0	NA	1.7	<5.0	NA	1.5	<1.0	<5.0	<1.0	<2.0	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	9.4	10.5
	10/15/2012	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	<100	<1.0	<1.0	<5.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/22/2013	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/22/2014	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/27/2015	<25	<1.0	<5.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	2.4	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/18/2016	<25	**1.9**	<5.0	<1.0	<1.0	4.6	<1.0	<1.0	<1.0	<1.0	<1.0	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	4.6	<5.0	NA	1.6	<1.0	<5.0	<1.0	<2.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/24/2017	<25	<1.0	<5.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/23/2018	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	11/5/2019	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/27/2020	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/26/2021	<25	**2.9**	<5.0	<1.0	<1.0	9.4	<1.0	<1.0	<1.0	<1.0	<1.0	5.7	<1.0	1.3	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	3.3	<1.0	<5.0	<1.0	<5.0	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/18/2022	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/24/2023	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0

Table 6
Historical Groundwater VOC Analytical Data
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005

Well ID	Sample Date	Acetone	Benzene	2-Butanone (MEK)	sec-Butylbenzene	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	Diisopropyl ether	1,4-Dioxane	Ethylbenzene	2-Hexanone	Isobutanol	Isopropylbenzene	p-Isopropyltoluene	4-Methyl-2-pentanone (MIBK)	Methyl-tert-butyl ether (MTBE)	Methylene Chloride	Naphthalene	n-Propylbenzene	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m&p-Xylene	o-Xylene	Xylene (Total)
2L Standard		**6,000**	**1**	**4,000**	**70**	**0.3**	**50**	**3,000**	**70**	**3**	**0.4**	**200**	**6**	**1,000**	**6**	**0.4**	**350**	**70**	**100**	**0.6**	**70**	**3**	**600**	**40**	**NE**	**70**	**25**	**100**	**20**	**5**	**6**	**70**	**0.2**	**0.7**	**600**	**200**	**0.6**	**3**	**2,000**	**NE**	**400**	**400**	**0.03**	**500**	**500**	**500**
MW-3A	1/10/1995	<25	<5.0	<25	NA	NA	NA	<10	<5.0	<10	NA	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	<5.0	<25	NA	NA	NA	<25	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<10	NA	NA	<5.0
	7/1/1995	<25	<5.0	<25	NA	NA	<5.0	<10	<5.0	NA	<5.0	<5.0	<13	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	<13	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	<10	NA	NA	<5.0
	2/1/1996	<25	<5.0	<25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	<5.0
	8/6/1996	<50	<5.0	<25	NA	<5.0	<5.0	<10	<5.0	NA	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	<5.0	NA	<5.0	NA	NA	<5.0	<25	NA	NA	NA	NA	NA	NA	<5.0	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	<5.0
	10/9/1998	<25	<1.0	<10	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	NA	1.1	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<10	<200	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0
	12/13/2001	<25	<1.0	<10	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<10	<1.0	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<2.0
	2/19/2003	39	<1.0	<10	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	2.6	<1.0	<1.0	0.6	<1.0	<1.0	NA	NA	<1.0	<10	<1.0	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	0.14	<1.0	<1.0	0.16	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<2.0
	11/14/2003	1,100	<1.0	<10	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	3.9	<1.0	<1.0	1.2	<1.0	<1.0	NA	NA	<1.0	<10	NA	NA	NA	<10	NA	<5.0	NA	NA	<1.0	**1.1**	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	NA	<2.0
	10/5/2004	53	<1.0	<10	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	9/27/2005	<25	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.4	3.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/11/2006	<50	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/23/2007	420	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	11/4/2008	<50	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	3.71	<1.0	<1.0	1.05	<1.0	<1.0	NA	NA	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/27/2009	<50	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	3.58	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	NA	NA	<3.0
	10/26/2010	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/26/2011	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/15/2012	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	NA	<1.0	<5.0	<100	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/22/2013	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/22/2014	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/27/2015	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/18/2016	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/24/2017	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.9	<1.0	<1.0	2.6	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/23/2018	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.4	<1.0	<1.0	3.5	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	11/5/2019	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.6	<1.0	<1.0	4.2	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/27/2020	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.4	<1.0	<1.0	3.5	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/26/2021	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.6	<1.0	<1.0	1.6	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/18/2022	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.3	<1.0	<1.0	3.9	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/25/2023	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.3	<1.0	<1.0	4.4	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
MW-C	10/14/1998	<25	<1.0	<10	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<10	<1.0	<10	<200	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0
	12/12/2001	<25	<1.0	<10	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<10	<1.0	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<2.0
	2/20/2003	1,200	**1.9**	17	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	0.65	<10	<1.0	NA	NA	3.9	NA	<5.0	NA	NA	<1.0	<1.0	1.4	<1.0	<1.0	<5.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<2.0
	11/13/2003	130	<1.0	<10	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<10	NA	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	NA	<2.0
	10/7/2004	<25	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	6.6	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	9/27/2005	40	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/10/2006	<50	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/25/2007	<50	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	11/5/2008	<50	<1.0	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/29/2009	80.9	<1.0	<50	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<50	NA	<1.0	**182**	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	NA	NA	<3.0
	10/28/2010	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/26/2011	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/16/2012	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	<100	<1.0	1.1	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/22/2013	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/21/2014	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/28/2015	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/19/2016	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/25/2017	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/24/2018	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	11/6/2019	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/28/2020	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/27/2021	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/19/2022	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/25/2023	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	15.5	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0

Table 6
Historical Groundwater VOC Analytical Data
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005

Well ID	Sample Date	Acetone	Benzene	2-Butanone (MEK)	sec-Butylbenzene	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	Diisopropyl ether	1,4-Dioxane	Ethylbenzene	2-Hexanone	Isobutanol	Isopropylbenzene	p-Isopropyltoluene	4-Methyl-2-pentanone (MIBK)	Methyl-tert-butyl ether (MTBE)	Methylene Chloride	Naphthalene	n-Propylbenzene	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m&p-Xylene	o-Xylene	Xylene (Total)
2L Standard		**6,000**	**1**	**4,000**	**70**	**0.3**	**50**	**3,000**	**70**	**3**	**0.4**	**200**	**6**	**1,000**	**6**	**0.4**	**350**	**70**	**100**	**0.6**	**70**	**3**	**600**	**40**	**NE**	**70**	**25**	**100**	**20**	**5**	**6**	**70**	**0.2**	**0.7**	**600**	**200**	**0.6**	**3**	**2,000**	**NE**	**400**	**400**	**0.03**	**500**	**500**	**500**
GM-1	1/10/1995	<25	<5.0	<25	NA	NA	NA	15	23	<10	NA	NA	NA	NA	**140**	**900**	120	19	<5.0	**18**	NA	NA	<5.0	<25	NA	NA	NA	<25	NA	NA	NA	NA	NA	**170**	<5.0	**370**	**32**	**22**	NA	NA	NA	NA	<10	NA	NA	6.9
	7/1/1995	<26	**2.8**	<25	NA	NA	<5.0	24	23	NA	<5.0	<5.0	<10	NA	**140**	**1,000**	54	24	3.3	**16**	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	<10	NA	**3.6**	**170**	<5.0	**430**	**31**	**24**	3.4	NA	NA	NA	<10	NA	NA	13
	2/1/1996	<120	<25	<120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**140**	**800**	45	<25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**110**	<25	**240**	NA	<25	NA	NA	NA	NA	NA	NA	NA	<25
	8/5/1996	<50	<5.0	<25	NA	**36**	<5.0	17	14	NA	NA	NA	NA	<5.0	**150**	**1,200**	48	29	NA	**13**	NA	NA	<5.0	<25	NA	NA	NA	<25	NA	**510**	NA	NA	NA	**170**	<5.0	**230**	**33**	**17**	NA	NA	NA	NA	NA	NA	NA	42
	9/19/1998	150	**4.5**	130	NA	**17**	NA	NA	9.9	2.7	NA	NA	NA	NA	NA	**780**	31	NA	NA	**13**	NA	**570**	2.0	5.3	9.2	NA	NA	58	NA	**220**	**27**	NA	**18**	**96**	NA	NA	NA	**18**	NA	NA	NA	NA	**4.0**	NA	NA	NA
	10/7/1998	<620	<25	<250	NA	<25	<25	NA	<25	<25	**8.00**	<25	NA	<25	**220**	**980**	26	**180**	<25	**16**	NA	NA	<25	<250	<5,000	NA	NA	**120**	NA	**130**	NA	NA	<25	**98**	<25	160	<25	**15**	<25	NA	NA	NA	<25	40	230	270
	12/13/2001	520	**9.6**	210	NA	<4.0	<4.0	19	<4.0	<4.0	<4.0	<1.0	NA	<1.0	**77**	**680**	<4.0	**110**	<1.0	<1.0	NA	NA	<4.0	<40	<1.0	NA	NA	**180**	NA	**31**	NA	NA	<4.0	<4.0	20	<4.0	**10**	<1.0	<1.0	NA	NA	NA	<4.0	<1.0	<1.0	150
	2/20/2003	150	**9.1**	80	NA	<4.0	2.9	12	<4.0	**6.5**	<4.0	<1.0	NA	<1.0	**64**	**520**	1.9	**120**	1.6	**5.0**	NA	NA	2.7	12	<1.0	NA	NA	76	NA	**13**	NA	NA	**8.2**	<4.0	14	0.79	**9.0**	2.2	<1.0	NA	NA	NA	**2.7**	NA	NA	220
	11/12/2003	710	<1.0	300	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	**100**	**450**	<1.0	**160**	<1.0	**6.5**	NA	NA	<1.0	<10	NA	NA	NA	**220**	NA	**34**	NA	NA	**8.2**	<1.0	20	<1.0	**9.3**	<1.0	NA	NA	NA	NA	<1.0	NA	NA	190
	10/6/2004	560	**10**	<100	<1.0	<10	<10	<10	<50	<10	<10	<10	<10	<10	**97**	**690**	<10	**150**	<10	<10	<10	NA	<10	NA	NA	<10	25	**170**	10	<50	<50	<10	<10	<10	<50	<10	<10	<10	<10	11	13	<10	<10	NA	NA	100
	9/29/2005	500	**10**	180	<1.0	<1.0	2.3	6.5	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	**6.8**	**430**	1.4	**120**	<1.0	<1.0	1.0	NA	2.0	NA	NA	1.3	5.2	**210**	6.2	**26**	<5.0	<1.0	**8.4**	**2.1**	16	<1.0	**8.9**	2.9	<1.0	4.3	6.3	2.4	**1.9**	NA	NA	78
	10/12/2006	150	**9.9**	<10	<1.0	<1.0	2.4	3.1	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	**60**	**580**	1.1	**120**	1.4	**6.1**	1.7	NA	1.3	NA	NA	1.3	7.9	<10	4.4	<5.0	5.5	<1.0	**9.7**	<1.0	14	<1.0	**12**	<1.0	<1.0	5.4	6.5	2.6	**1.6**	NA	NA	71
	10/25/2007	<50	**9.9**	17	<1.0	<1.0	1.7	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	**33**	**280**	<1.0	**82**	<1.0	**3.0**	<1.0	NA	<1.0	NA	NA	1.2	6.6	<10	<1.0	<5.0	<5.0	<1.0	**3.7**	<1.0	17	<1.0	**6.2**	<1.0	<1.0	<1.0	4.6	2.2	**5.6**	NA	NA	71
	11/5/2008	<50	**11.2**	<50	<1.0	<1.0	1.61	3.71	<1.0	<1.0	NA	<1.0	1.9	<1.0	**34.8**	**328**	<1.0	**71.2**	1.08	**2.96**	NA	NA	<1.0	<50	NA	1.44	13.2	<10	2.82	<5.0	<5.0	<1.0	**4.13**	<1.0	9	<1.0	**6.73**	1.21	<1.0	<1.0	7.24	3.01	**4.45**	NA	NA	95.2
	10/28/2009	632	**11**	<50	<1.0	<1.0	1.28	<1.0	<1.0	<1.0	NA	<1.0	2.78	<1.0	**28**	**190**	<1.0	64.9	<1.0	<1.0	NA	NA	<1.0	<50	NA	2.11	12.1	<10	1.98	<5.0	<5.0	<1.0	**3.88**	<1.0	1.02	<1.0	**4.91**	2.05	<1.0	NA	4.79	3.32	**2.23**	NA	NA	43
	10/26/2010	<50	**11.7**	<10	<2.0	<2.0	2.8	2.7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**51.9**	**368**	<2.0	**108**	<2.0	**5.2**	<2.0	NA	<2.0	<10	NA	2.3	19.1	<10	3.3	<4.0	**10.7**	<2.0	**2.9**	<2.0	17.6	<2.0	**7.2**	<2.0	<2.0	11.7	12.8	6.7	**6.8**	19	93.4	112.4
	10/28/2011	<25	**10.3**	<5.0	<1.0	<1.0	1.4	2.5	<1.0	<1.0	<1.0	<1.0	1.7	<1.0	**26.1**	**162**	<1.0	36.9	<1.0	**2.1**	<1.0	NA	<1.0	<5.0	NA	2.4	12.7	<5.0	2.5	<2.0	**7.2**	<1.0	**1.2**	<1.0	4.9	<1.0	**2.6**	<1.0	<1.0	8.6	10.7	5	**5.2**	14.1	72.3	86.4
	10/16/2012	<25	**8.3**	<5.0	<1.0	<1.0	1	2.1	<1.0	<1.0	<1.0	<1.0	1.7	<1.0	**19.6**	**105**	<1.0	49.7	<1.0	**1.3**	<1.0	NA	<1.0	<5.0	<100	1.1	3.8	<5.0	2.2	<2.0	1.7	<1.0	**1.1**	<1.0	<1.0	<1.0	**1.9**	2.2	<1.0	4.6	4.6	<1.0	**3.3**	6.7	14.9	21.6
	10/24/2013	<25	**9.4**	<5.0	<1.0	<1.0	1.4	1.8	<1.0	<1.0	<1.0	<1.0	3.4	<1.0	**15.7**	**85.0**	<1.0	44.7	<1.0	**1.2**	<1.0	NA	<1.0	<5.0	NA	2.0	7.5	<5.0	1.2	<2.0	2.8	<1.0	<1.0	<1.0	1.5	<1.0	**1.9**	2.0	<1.0	7.1	7.3	5.0	**3.3**	10.3	28.0	38.3
	10/23/2014	<25	**11.0**	<5.0	<1.0	<1.0	1.4	1.5	<1.0	<1.0	<1.0	<1.0	3.0	<1.0	**16.5**	**87.8**	<1.0	52.4	<1.0	**1.3**	<1.0	NA	<1.0	<5.0	NA	2.6	8.1	<5.0	2.3	<2.0	4.5	<1.0	<1.0	<1.0	1.1	<1.0	**1.5**	1.6	<1.0	9.4	10.2	6.1	**2.6**	8.9	52.8	61.7
	10/28/2015	<25	**11.3**	<5.0	<1.0	<1.0	1.6	1.9	<1.0	<1.0	<1.0	<1.0	3.2	<1.0	**18.1**	**159**	<1.0	61.4	<1.0	**1.6**	<1.0	NA	<1.0	<5.0	NA	2.5	11.3	<5.0	2.3	<2.0	**6.8**	<1.0	<1.0	<1.0	1.6	<1.0	**2.3**	<1.0	<1.0	11.1	11.9	7.2	**2.1**	9.1	50.6	59.7
	10/20/2016	<50	**5.4**	<10.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**13.0**	**189**	<2.0	38.7	<2.0	<2.0	<2.0	NA	<2.0	<10.0	NA	<2.0	3.6	<10.0	<2.0	<4.0	**6.6**	<2.0	<2.0	<2.0	<2.0	<2.0	**3.1**	<2.0	<2.0	5.1	4.1	2.6	<2.0	5.8	22.6	28.4
	10/26/2017	<25	**7.3**	<5.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	2.0	<1.0	**8.6**	**108**	<1.0	35.3	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	1.4	2.3	<5.0	<1.0	<2.0	2.3	<1.0	<1.0	<1.0	<1.0	<1.0	**1.6**	<1.0	<1.0	3.9	5.2	3.1	<1.0	9.0	32.5	41.5
	10/25/2018	<25	**7.5**	<5.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**10.6**	**161**	<1.0	37.7	<1.0	**1.4**	<1.0	NA	<1.0	<5.0	NA	1.5	3.6	<5.0	<1.0	<2.0	4.5	<1.0	<1.0	<1.0	<1.0	<1.0	**2.8**	1.1	<1.0	5	5.1	3.6	<1.0	7.7	19.7	27.4
	11/7/2019	<25	**5.6**	<5.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	**8.8**	**134**	<1.0	31.9	<1.0	**1.3**	<1.0	NA	<1.0	<5.0	NA	1.5	5.1	<5.0	<1.0	<5.0	**6.8**	<1.0	<1.0	<1.0	<1.0	<1.0	**2.1**	<1.0	<1.0	5.5	5.7	3.9	<1.0	17.0	6.7	23.7
	10/29/2020	<25	**5.8**	<5.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	6.0	**85.5**	<1.0	25.3	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	1.9	4.9	<5.0	<1.0	<5.0	**6.9**	<1.0	<1.0	<1.0	<1.0	<1.0	**1.1**	<1.0	<1.0	7.1	5.9	4.7	<1.0	15.1	7.3	22.4
	10/28/2021	<25	**6.3**	<5.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	<1.0	**6.6**	**79.5**	<1.0	27.3	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	1.7	3.7	<5.0	<1.0	<5.0	**6.1**	<1.0	<1.0	<1.0	<1.0	<1.0	**1.2**	1.1	<1.0	<1.0	2.4	3.7	<1.0	3.7	<1.0	<4.7
	10/20/2022	<25	**5.6**	<5.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	2.4	2.6	3.9	**47.2**	<1.0	18.3	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	1.4	1.7	<5.0	<1.0	<5.0	2.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	2.6	<1.0	<2.0	1.6	<3.6
	10/26/2023	<25	**5.8**	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.0	**44.3**	<1.0	19.9	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	1.3	<5.0	<1.0	<5.0	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.2	<1.0	<2.0	<1.0	<3.6
GM-5	1/11/1995	<25	**8.2**	<25	NA	NA	NA	42	<5.0	<10	NA	NA	NA	NA	<5.0	<5.0	<5.0	**80**	<5.0	<5.0	NA	NA	29	<25	NA	NA	NA	<25	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	**5.4**	NA	NA	NA	NA	<10	NA	NA	61
	7/1/1995	<25	**13**	<25	NA	NA	<5.0	17	<5.0	NA	<5.0	<5.0	5.4	NA	<5.0	**14**	8.4	**114**	<5.0	<5.0	NA	NA	26	NA	NA	NA	NA	NA	NA	NA	5.7	NA	<5.0	<5.0	2.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	**10**	NA	NA	74
	2/1/1996	<25	**7.2**	<25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**6.3**	<5.0	<5.0	51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	<5.0
	8/5/1996	<50	**6.8**	<25	NA	<5.0	<5.0	<10	<5.0	NA	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	36	NA	<5.0	NA	NA	16	<25	NA	NA	NA	NA	NA	<5.0	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	42
	10/6/1998	<25	**5.3**	<10	NA	<1.0	3.6	NA	<1.0	<1.0	<1.0	NA	NA	<1.0	1.9	<1.0	<1.0	5.4	<1.0	<1.0	NA	NA	4.5	<1.0	<200	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	**1.6**	<1.0	7.8	7.8
	12/11/2001	<25	**3.4**	<10	NA	<1.0	7.5	2.9	<1.0	2.9	<1.0	NA	NA	NA	1.3	<1.0	<1.0	2.1	<1.0	<1.0	NA	NA	<1.0	NA	NA	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	NA	<10
	2/19/2003	23	**3.2**	1.0	NA	<1.0	8.1	6.2	<1.0	2.9	<1.0	NA	NA	NA	1.5	<1.0	<1.0	2.5	<1.0	<1.0	NA	NA	4.1	NA	NA	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	0.22	<1.0	<1.0	0.20	NA	NA	NA	NA	**0.35**	NA	NA	0.70
	11/13/2003	40	**4.9**	<10	NA	<1.0	<1.0	6.0	<1.0	<1.0	<1.0	NA	NA	NA	1.7	<1.0	<1.0	2.4	<1.0	<1.0	NA	NA	<1.0	NA	NA	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	NA	<2.0
	10/5/2004	27	**3.3**	<10	<1.0	<1.0	7.1	<1.0	<5.0	<1.0	<1.0	<1.0	4.6	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	NA	1.1	NA	NA	1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	9/27/2005	<25	**3.3**	<10	<1.0	<1.0	8.0	<1.0	<5.0	<1.0	<1.0	<1.0	4.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/10/2006	<50	**2.4**	<10	<1.0	<1.0	6.8	<1.0	<5.0	<1.0	<1.0	<1.0	4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	7.5	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/23/2007	<50	**1.8**	<10	<1.0	<1.0	10	<1.0	<5.0	<1.0	<1.0	<1.0	4.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	11/4/2008	<50	**1.06**	<50	<1.0	<1.0	9.22	2.36	<1.0	<1.0	NA	<1.0	4.35	<1.0	1.05	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/28/2009	<50	**1.77**	<50	<1.0	<1.0	9.73	<1.0	<1.0	<1.0	NA	<1.0	3.96	<1.0	1.01	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/26/2010	<25	**1.7**	<5.0	<1.0	<1.0	7.1	1.2	<1.0	<1.0	<1.0	<1.0	3.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/28/2011	<25	**1.3**	<5.0	<1.0	<1.0	9.8	<1.0	<1.0	<1.0	<1.0	<1.0	4.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/16/2012	<25	**1.2**	<5.0	<1.0	<1.0	6.6	<1.0	<1.0	<1.0	<1.0	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	<100	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/22/2013	<25	**1.4**	<5.0	<1.0	<1.0	8.2	<1.0	<1.0	<1.0	<1.0	<1.0	3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/22/2014	<25	**1.4**	<5.0	<1.0	<1.0	9.6	<1.0	<1.0	<1.0	<1.0	<1.0	4.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/27/2015	<25	**1.3**	<5.0	<1.0	<1.0	9.7	1.6	<1.0	<1.0	<1.0	<1.0	3.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/18/2016	<25	**1.2**	<5.0	<1.0	<1.0	7.6	<1.0	<1.0	<1.0	<1.0	<1.0	2.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/24/2017	<25	<1.0	<5.0	<1.0	<1.0	6.7	<1.0	<1.0	<1.0	<1.0	<1.0	2.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/23/2018	<25	**1.1**	<5.0	<1.0	<1.0	7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	11/5/2019	<25	**1.2**	<5.0	<1.0	<1.0	6.6	<1.0	<1.0	<1.0	<1.0	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/27/2020	<25	**1.2**	<5.0	<1.0	<1.0	6.6	<1.0	<1.0	<1.0	<1.0	<1.0	2.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/26/2021	<25	**1.1**	<5.0	<1.0	<1.0	8.9	<1.0	<1.0	<1.0	<1.0	<1.0	3.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/18/2022	<25	<1.0	<5.0	<1.0	<1.0	7.2	<1.0	<1.0	<1.0	<1.0	<1.0	2.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/24/2023	<25	**1.1**	<5.0	<1.0	<1.0	5.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0

Table 6
Historical Groundwater VOC Analytical Data
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005

Well ID	Sample Date	Acetone	Benzene	2-Butanone (MEK)	sec-Butylbenzene	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	Diisopropyl ether	1,4-Dioxane	Ethylbenzene	2-Hexanone	Isobutanol	Isopropylbenzene	p-Isopropyltoluene	4-Methyl-2-pentanone (MIBK)	Methyl-tert-butyl ether (MTBE)	Methylene Chloride	Naphthalene	n-Propylbenzene	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m&p-Xylene	o-Xylene	Xylene (Total)
2L Standard		**6,000**	**1**	**4,000**	**70**	**0.3**	**50**	**3,000**	**70**	**3**	**0.4**	**200**	**6**	**1,000**	**6**	**0.4**	**350**	**70**	**100**	**0.6**	**70**	**3**	**600**	**40**	**NE**	**70**	**25**	**100**	**20**	**5**	**6**	**70**	**0.2**	**0.7**	**600**	**200**	**0.6**	**3**	**2,000**	**NE**	**400**	**400**	**400**	**0.03**	**500**	**500**	**500**
GM-6	1/10/1995	<25	<5.0	<25	NA	NA	NA	<10	<5.0	<10	NA	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	<5.0	<25	NA	NA	NA	<25	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<10	NA	NA	<5.0
	7/1/1995	<25	<5.0	<25	NA	NA	<5.0	<10	<5.0	NA	<5.0	<5.0	<10	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	<10	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	<10	NA	NA	<5.0
	2/1/1996	<25	<5.0	<25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	<5.0
	8/5/1996	<50	<5.0	<25	NA	<5.0	<5.0	<10	<5.0	NA	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	<5.0	NA	<5.0	NA	NA	<5.0	<25	NA	NA	NA	NA	NA	NA	<5.0	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	<5.0
	10/13/1998	<25	<1.0	<10	NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	NA	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<10	<200	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0
	12/14/2001	<25	<1.0	<10	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<10	<1.0	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<2.0
	2/20/2003	8.0	<1.0	<10	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<10	<1.0	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	0.11	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<2.0
	11/12/2003	<25	<1.0	<10	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<10	NA	NA	NA	<10	NA	<5.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA	NA	<2.0
	10/6/2004	<25	<1.0	<10	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	9/30/2005	<25	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/12/2006	<50	<1.0	<10	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/24/2007	<50	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	11/5/2008	<50	<1.0	<50	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/28/2009	54.6	<1.0	<50	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<50	NA	<1.0	<1.0	<10	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<3.0
	10/28/2010	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/26/2011	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/16/2012	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	<100	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/22/2013	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/21/2014	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/28/2015	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/19/2016	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/25/2017	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/24/2018	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	11/6/2019	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/28/2020	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/27/2021	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/19/2022	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0
	10/25/2023	<25	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<5.0	NA	<1.0	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.0

Notes:
Analytical results compared to North Carolina Administrative Code 15A 2L Groundwater Quality Standards and Interim Maximum Allowable Concentrations (revised April 1, 2022)
Only those compounds detected in at least one sample are shown above
All data is presented in micrograms per liter (µg/L)
Bold values indicate exceedance of 2L Standard
NA Not analyzed
NE Not established

Table 7
Groundwater PFAS Analytical Data
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005

Well ID	Sample Date	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentanesulfonic acid (PFPeS)	4:2 FTS	6:2 FTS	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptanesulfonic acid (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	Perfluorooctanesulfonamide (FOSA)	N-methyl perfluorooctane sulfonamido acetic acid (NMeFOSAA)	N-ethyl perfluorooctane sulfonamido acetic acid (NEtFOSAA)	3-Perfluoropentylpropanoic acid (5:3 FTCA)	Hazard Index[2]
USEPA Tapwater RSLs		**18,000**[1]	**NE**	**9,900**[1]	**NE**	**60**[1]	**59**[1]	**6,000**[1]	**NE**	**NE**	**NE**	**390**[1]	**NE**	**40**[1]	**NE**	**NE**	**NE**	**NE**	**NE**
USEPA Proposed MCLs		**NE**	**NE**	**NE**	**NE**	**4**[2]	**NE**[2]	**NE**[2]	**NE**	**NE**	**NE**	**NE**[2]	**NE**	**4**[2]	**NE**	**NE**	**NE**	**NE**	**1.0**[2]
PFAS (ng/L) - USEPA Modified Method 537.1																			
FPC-MW-01	4/13/2023	< 4.0	4.1	3.5	2.8	**17**	< 1.6	< 1.6	< 1.6	< 1.6	<4.0	< 1.6	< 1.6	< 1.6	< 1.6	< 4.0	< 4.0	NA	0.00
	10/24/2023	< 4.5	5.4	4.8	< 1.8	2.5	< 1.8	< 1.8	< 1.8	< 1.8	< 4.5	< 1.8	< 1.8	< 1.8	< 1.8	< 4.5	< 4.5	< 1.8	0.00
FPC-MW-03/DUP-2	4/12/2023	< 4.0	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 4.0	< 1.6	< 1.6	< 1.6	< 1.6	< 4.0	< 4.0	NA	0.00
	4/12/2023	< 4.0	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 4.0	< 1.6	< 1.6	< 1.6	< 1.6	< 4.0	< 4.0	NA	0.00
FPC-MW-05	4/13/2023	< 4.2	< 1.7	< 1.7	< 1.7	1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 4.2	2.2	< 1.7	1.7	< 1.7	< 4.2	< 4.2	NA	0.24
FPC-MW-07A	1/27/2023	110	62	320	34	**19**	< 1.7	6.4	2.1	< 1.7	< 4.2	3.0	< 1.7	2.4	< 1.7	< 4.2	5.9	NA	0.34
MW-2	1/26/2023	6.1	3.3	5.3	< 1.8	**4.8**	< 1.8	10	2.1	< 1.8	< 4.4	< 1.8	< 1.8	2.6	< 1.8	< 4.4	< 4.4	NA	0.01
MW-2A	1/26/2023	91	74	330	15	**10**	< 1.7	6.9	< 1.7	< 1.7	< 4.3	2.5	< 1.7	< 1.7	< 1.7	< 4.3	< 4.3	NA	0.28
	10/24/2023	83	76	350 E	20	**12**	< 1.8	5.2	1.9	< 1.8	< 4.4	3.0	< 1.8	< 1.8	< 1.8	< 4.4	< 4.4	19	0.34
MW-3/GW-DUP	1/26/2023	33	28	55	29	**140**	5.8	46	29	< 1.8	< 4.5	48	6.7	**13 I**	< 1.8	< 4.5	< 4.5	NA	**5.9**
	10/24/2023	28	24	47	14	**96**	7.5	45	23	< 1.8	< 4.4	27	9.3	**21 I**	< 1.8	< 4.4	< 4.4	< 1.8	**3.8**
	10/24/2023	23	25	42	15	**83**	6.3	43	28	< 1.7	5.1	27	7.9	**21 I**	< 1.7	< 4.2	< 4.2	< 1.7	**3.7**
MW-3A	1/27/2023	20	28	89	8.9	**6.1**	< 1.7	7.9	3.0	< 1.7	< 4.3	< 1.7	< 1.7	**9.1**	3.6	7.4	12	NA	0.00
	10/24/2023	32	33	110	15	**12**	< 1.8	18	4.3	< 1.8	< 4.4	2.9	< 1.8	**22**	3.9	9.0	26	2.4	0.33
MW-C	4/13/2023	< 4.1	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 4.1	< 1.6	< 1.6	< 1.6	< 1.6	< 4.1	< 4.1	NA	0.00
GM-1/GW-DUP	1/27/2023	50	96	1,000 E	150	< 1.6	< 1.6	13	140	1.8 I	<4.0	< 1.6	< 1.6	< 1.6	< 1.6	< 4.0	< 4.0	NA	0.01
		48	93	1,000 E	140	< 1.6	< 1.6	11	140	2.1	< 4.1	< 1.6	< 1.6	< 1.6	< 1.6	< 4.1	< 4.1	NA	0.01
GM-4	4/13/2023	6.5	13	11	7.0	**5.0**	< 1.7	2.4	< 1.7	< 1.7	< 4.3	2.4	< 1.7	< 1.7	< 1.7	< 4.3	< 4.3	NA	0.27
GM-5	1/26/2023	9.9	12	35	7.3	**11**	< 1.7	13	2.9	< 1.7	< 4.3	< 1.7	< 1.7	< 1.7	< 1.7	< 4.3	< 4.3	NA	0.01
GM-6	4/13/2023	< 3.9	3.1	3.0	1.7	**11**	< 1.6	< 1.6	< 1.6	< 1.6	< 3.9	5.7	< 1.6	**60**	3.2	< 3.9	< 3.9	NA	0.63
	10/25/2023	< 4.8	2.5	2.6	< 1.9	**7.8**	< 1.9	< 1.9	< 1.9	< 1.9	< 4.8	3.3	< 1.9	**35**	2.1	< 4.8	< 4.8	< 1.9	0.37
DW-1	4/13/2023	1,000 E	160	340 E	86	**18**	< 1.7	3.1	3.0	< 1.7	< 4.1	3.8	< 1.7	< 1.7	< 1.7	< 4.1	< 4.1	NA	0.42
QA/QC Samples																			
Field Blank	1/26/2023	< 4.3	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 4.3	< 1.7	< 1.7	< 1.7	< 1.7	< 4.3	< 4.3	NA	--
Field Blank 2	4/12/2023	< 4.3	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 4.3	< 1.7	< 1.7	< 1.7	< 1.7	< 4.3	< 4.3	NA	--
Field Blank 3	10/24/2023	< 4.4	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 4.4	< 1.8	< 1.8	< 1.8	< 1.8	< 4.4	< 4.4	< 1.8	--
Equipment Blank	1/26/2023	< 4.3	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 4.3	< 1.7	< 1.7	< 1.7	< 1.7	< 4.3	< 4.3	NA	--
Equipment Blank 2	4/12/2023	< 4.2	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 4.2	< 1.7	< 1.7	< 1.7	< 1.7	< 4.2	< 4.2	NA	--
Equipment Blank 3	4/13/2023	< 4.0	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 4.0	< 1.6	< 1.6	2.3	< 1.6	< 4.0	< 4.0	NA	--
Equipment Blank 4	10/25/2023	< 4.8	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	<4.8	< 1.9	< 1.9	< 1.9	< 1.9	< 4.8	< 4.8	< 1.9	--

Notes:

2L Groundwater Standards have not been established by the North Carolina Department of Environmental Quality (NCDEQ) for PFAS. Concentrations are compared to the United States Environmental Protection Agency (USEPA) screening levels, as indicated below.

[1] = USEPA Tapwater Regional Screening Level (RSLs) based on target carcinogenic risk of 1E-06 and target hazard quotient of 1.0 (November 2023)

[2] = USEPA *Proposed* Maximum Contaminant Level (MCL; March 2023). For PFOA and PFOS, concentrations are directly compared to the MCL. For PFNA, PFHxS, and PFBS, the hazard index is calculated for comparison to the MCL.

Underlined values indicate concentrations above the USEPA RSLs for Tapwater.

Bold values indicate concentrations above the USEPA Proposed MCLs.

Perfluoroalkyl and polyfluoroalkyl substances (PFAS) concentrations are reported in nanograms per liter (ng/L).

Equipment blanks collected from a decontaminated water level meter during each sampling event, except for Equipment Blank 3, which was collected from the decontaminated stainless steel submersible pump used at DW-1 on 4/13/23.

< PQL = Constituent not detected at concentrations above the practical quantitation limit (PQL). Table shows PFAS constituents detected at concentrations above PQLs.

E = Result exceeded calibration range

I = Value is estimated maximum possible concentration (EMPC)

NA = Not Analyzed; NE = Not Established; -- = Not Applicable

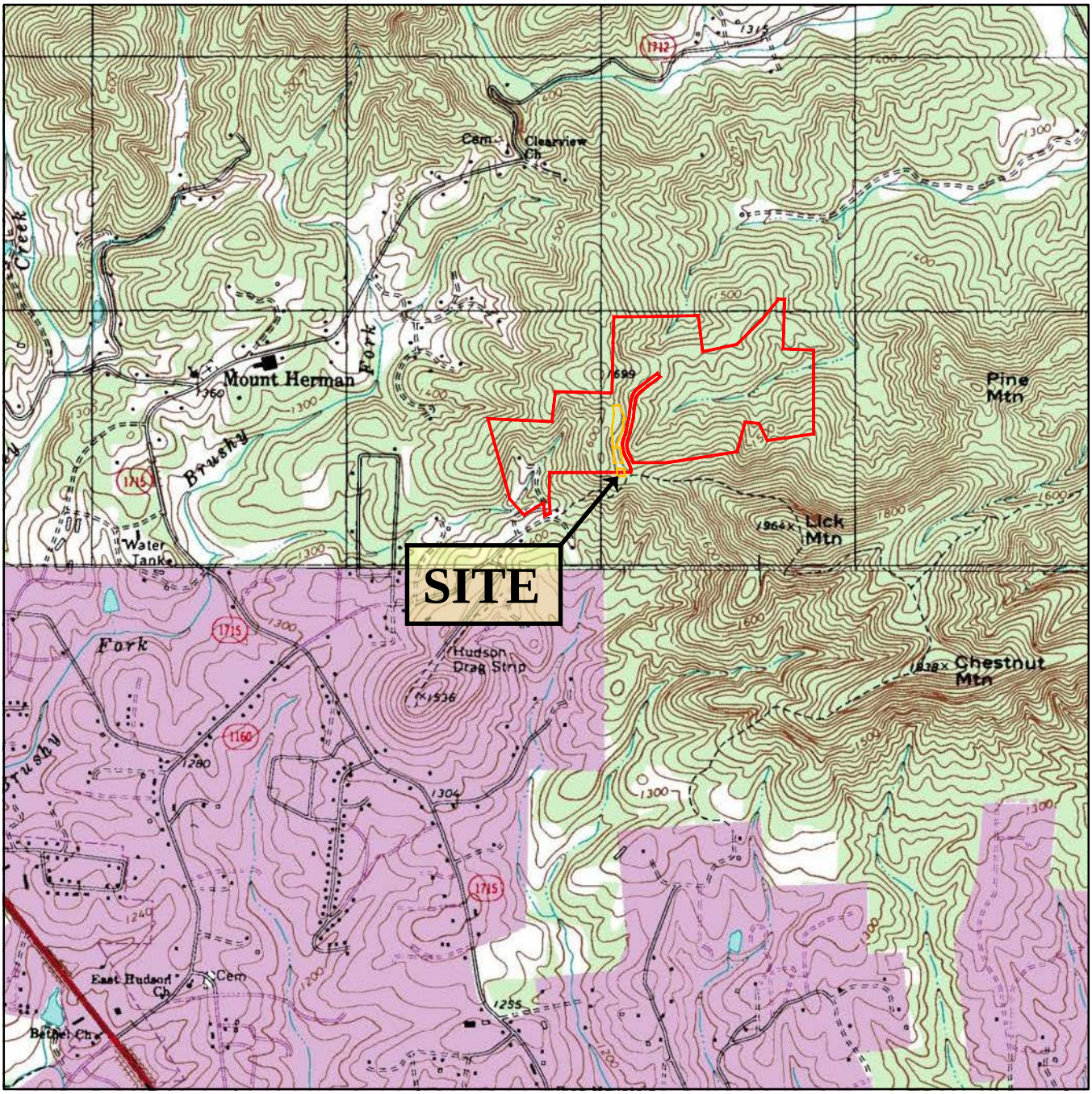
QA/QC = Quality Assurance/Quality Control

Table 8
Corrective Measures Monitoring Schedule
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005

		2024	2025		2026	2027
Well ID	Parameters	PFAS	PFAS	VOCs	PFAS	PFAS, VOCs
FPC-MW-01	PFAS, FP	X	X		X	TBD
FPC-MW-03	VOCs, FP			X		TBD
FPC-MW-07A	VOCs, FP			X		TBD
MW-2	VOCs, FP			X		TBD
MW-2A	VOCs, PFAS, FP	X	X	X	X	TBD
MW-3	PFAS, FP	X	X		X	TBD
MW-3A	PFAS, FP	X	X		X	TBD
GM-1	VOCs, FP			X		TBD
GM-4	PFAS, FP					TBD
GM-5	VOCs, PFAS, FP			X		TBD
GM-6	PFAS, FP	X	X		X	TBD

Notes:
1) The proposed monitoring schedule for 2027 and subsequent years will be specified in the 2026 groundwater monitc
VOCs = volatile organic compounds; PFAS = per- and polyfluoroalkyl substances
FP = field parameters (dissolved oxygen, temperature, conductivity, pH, oxidation-reduction potential)
TBD = to be determined

Figures



N

APPROXIMATE

0 2000 4000

SCALE IN FEET

U.S.G.S. QUADRANGLE MAP

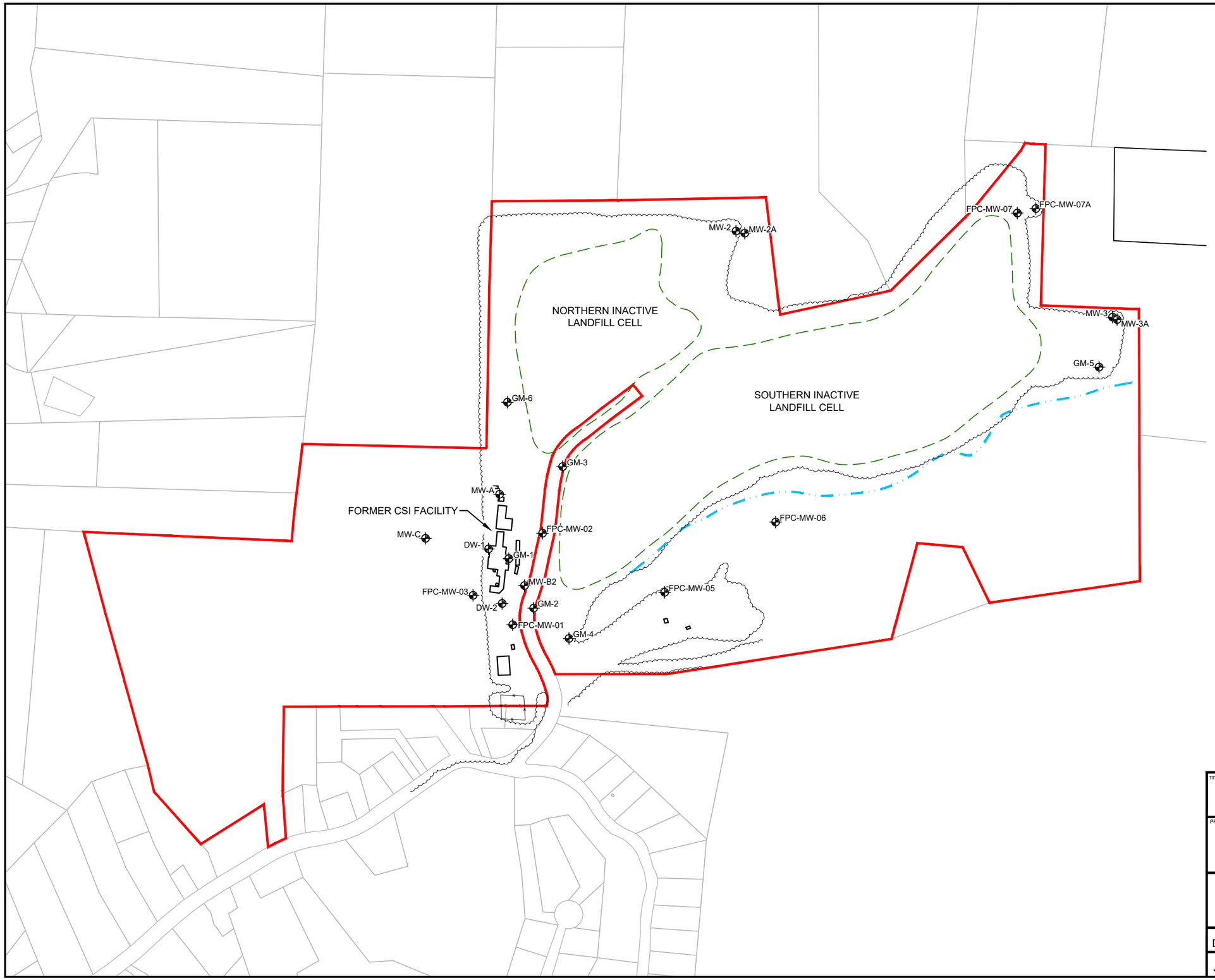
KINGS CREEK, NORTH CAROLINA, 1997

QUADRANGLE
7.5 MINUTE SERIES (TOPOGRAPHIC)

TITLE	**SITE LOCATION MAP**
PROJECT	FORMER CSI FACILITY 1200 DRAG STRIP ROAD HUDSON, NORTH CAROLINA

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007 (p) 704-586-0373 (f)

DATE:	11-21-17	REVISION NO:	0
JOB NO:	CAL-004	FIGURE:	1



TITLE

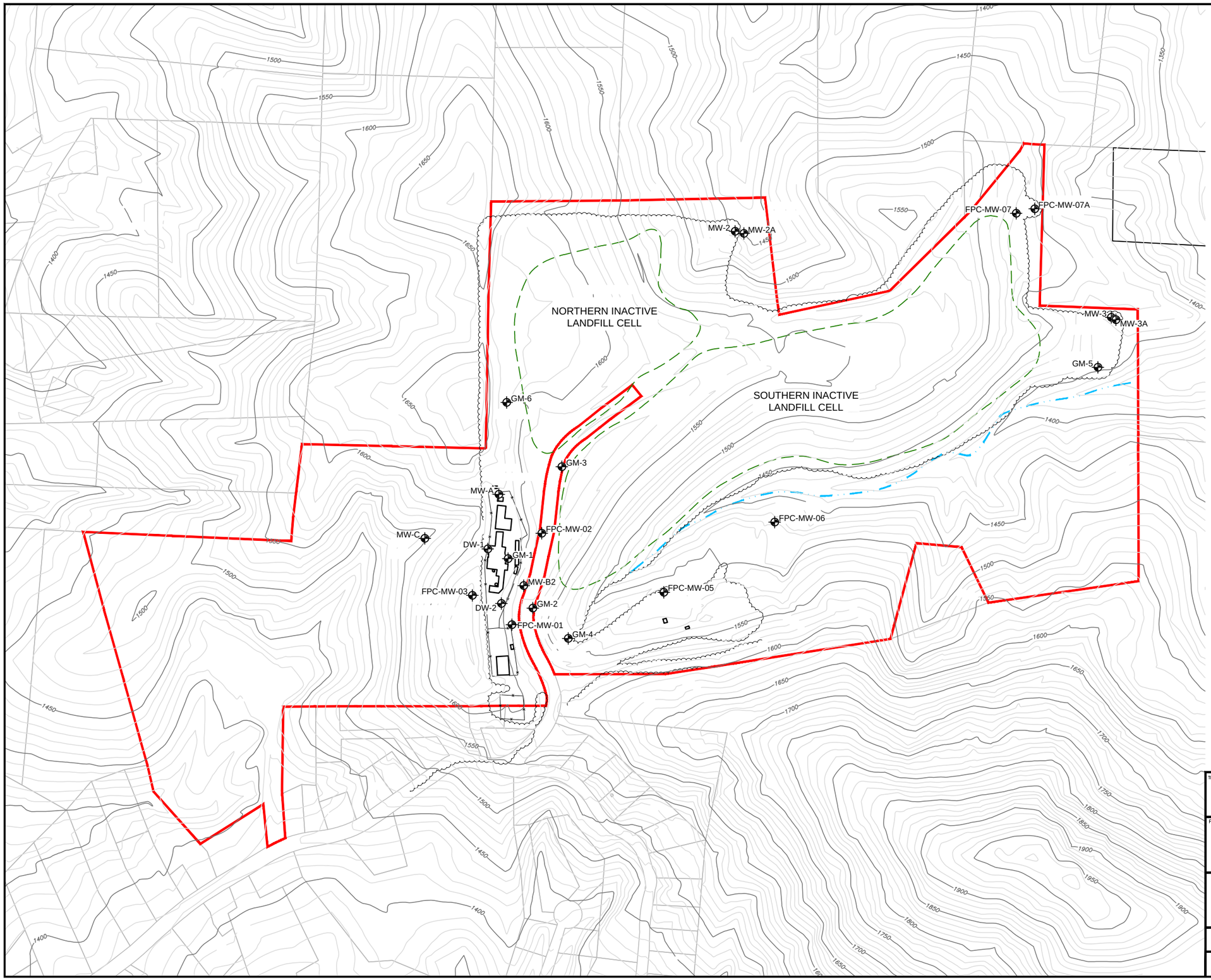
SITE LAYOUT

PROJECT

FORMER CSI FACILITY
1200 DRAG STRIP ROAD
HUDSON, NORTH CAROLINA

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)
License # C-1269 / #C-245 Geology

DATE: 4-18-23	REVISION NO. 0
JOB NO. CAL-005	FIGURE NO. 2



LEGEND

- SITE PROPERTY BOUNDARY
- ADJACENT PARCEL BOUNDARY
- INTERMITTENT STREAM
- CHAINLINK FENCE
- TREELINE
- 1500 TOPOGRAPHIC CONTOUR ELEVATION (FT MSL)
- MONITORING WELL LOCATION

N

APPROXIMATE
0 400 800
SCALE IN FEET

TITLE

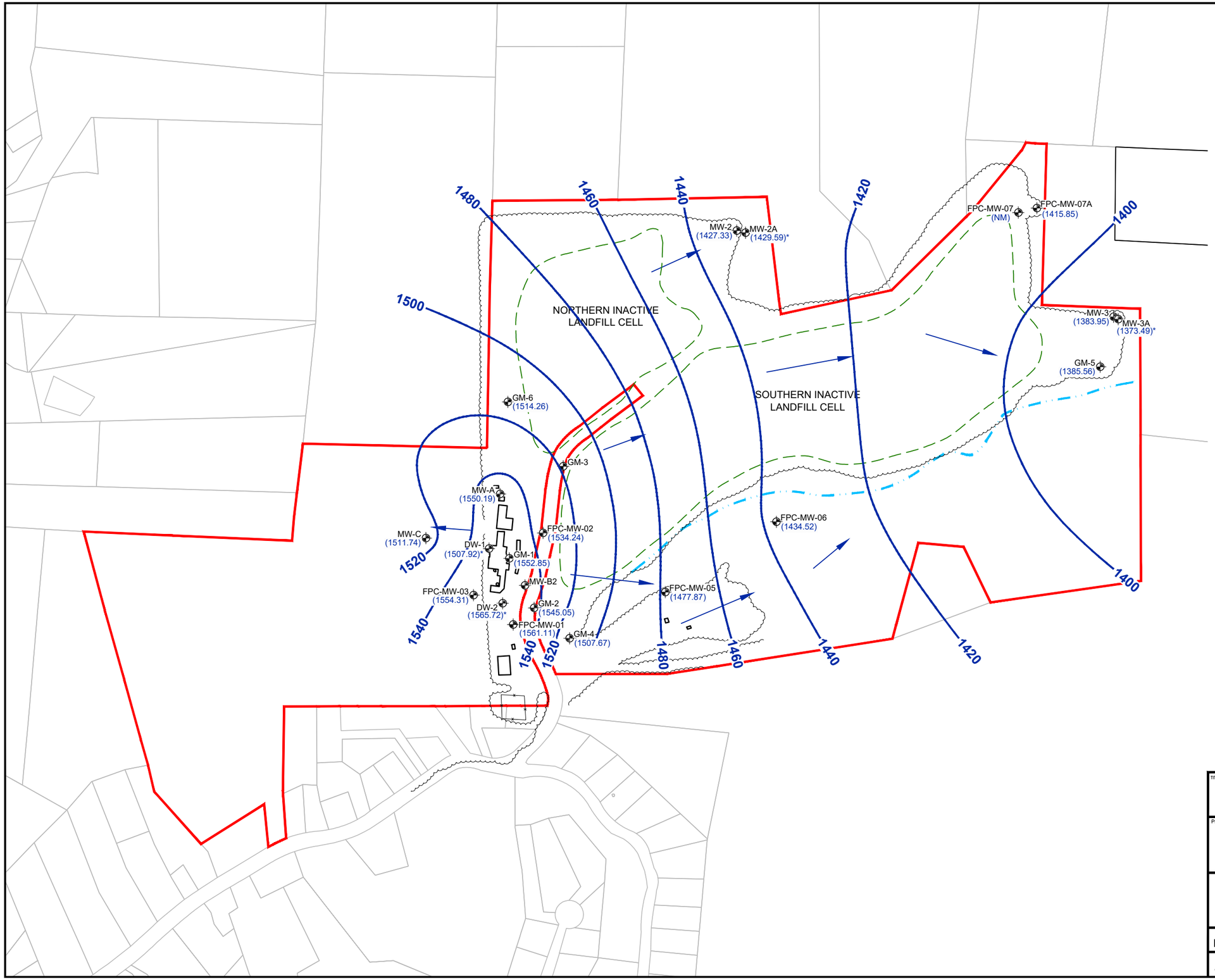
SITE TOPOGRAPHY

PROJECT

FORMER CSI FACILITY
1200 DRAG STRIP ROAD
HUDSON, NORTH CAROLINA

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)
License # C-1269 / #C-245 Geology

DATE: 11-6-17	REVISION NO. 0
JOB NO. CAL-004	FIGURE NO. 3



LEGEND

- SITE PROPERTY BOUNDARY
- ADJACENT PARCEL BOUNDARY
- INTERMITTENT STREAM
- CHAINLINK FENCE
- TREELINE
- MONITORING WELL LOCATION
- (1427.33) GROUNDWATER ELEVATION (FT MSL)
- 1420 GROUNDWATER ELEVATION CONTOUR (FT MSL)
- INFERRED GROUNDWATER FLOW DIRECTION

NOTES:

1. * = DEEP WELLS MW-2A, MW-3A, DW-1, AND DW-2 ARE NOT USED FOR CONTOURING.
2. GRONDWATER ELEVATIONS MEASURED ON 10/23/23 BY FLYNN ENVIRONMENTAL, INC.

N

APPROXIMATE
0 400 800
SCALE IN FEET

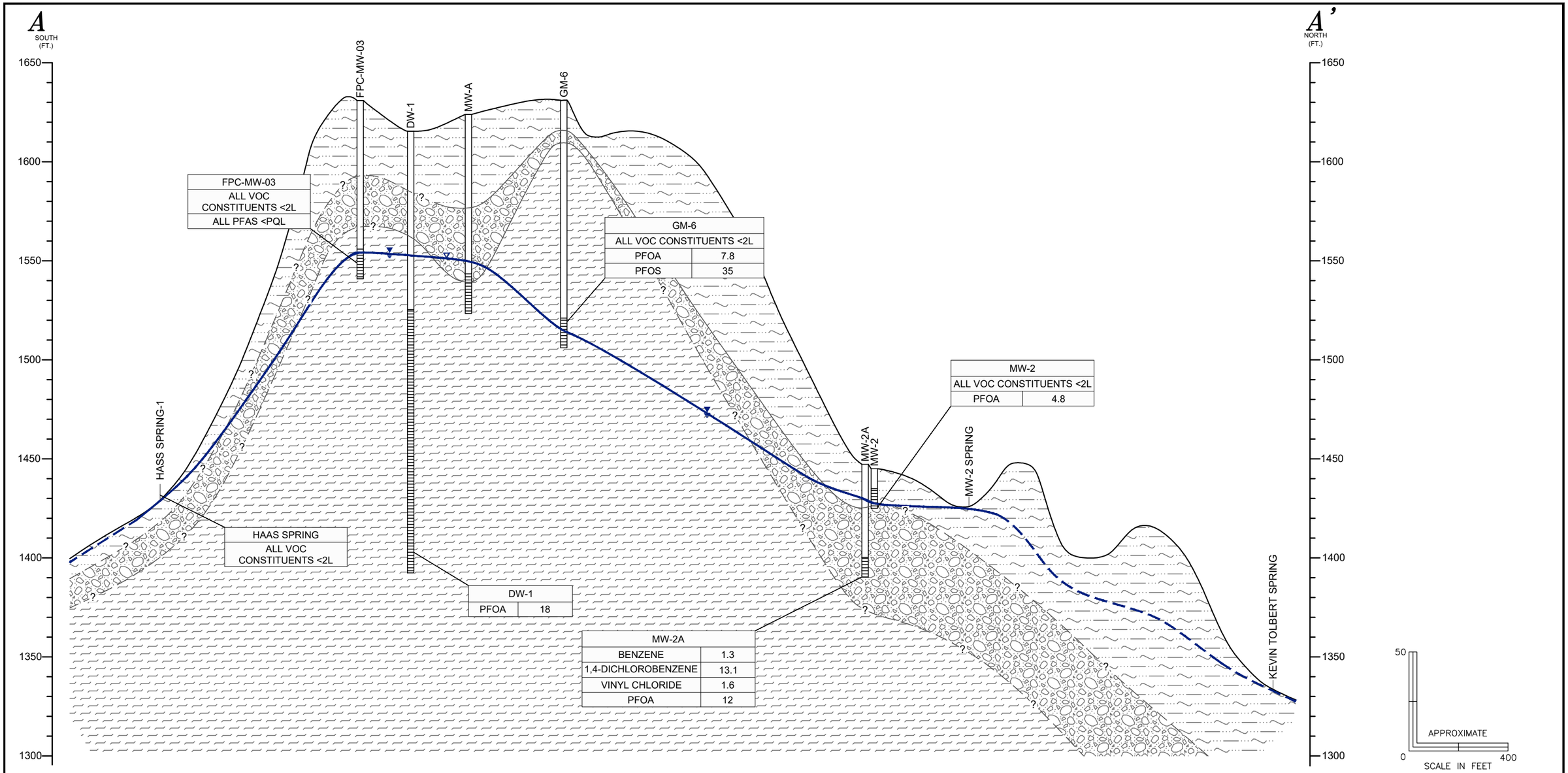
TITLE
GROUNDWATER GRADIENT MAP

PROJECT
FORMER CSI FACILITY
1200 DRAG STRIP ROAD
HUDSON, NORTH CAROLINA

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)
License # C-1269 / #C-245 Geology

DATE: 2-19-24	REVISION NO. 0
JOB NO. CAL-005	FIGURE NO. 4

S:\AAA-Master Projects\Caldwell County - CAL\CAL 005 - CMS Update\Updated CMS\Revision 4\Figures\CAL 005_20240219.dwg, FIG 4, 2/19/2024 3:28:45 PM, drabaum



LEGEND

FPC-MW-03 — MONITORING WELL DEPICTING SCREEN INTERVAL

SHALLOW GROUNDWATER ELEVATION (FT MSL)

SAPROLITE

PARTIALLY WEATHERED ROCK (PWR)

BEDROCK

MW-2A	
BENZENE	1.3
1,4-DICHLOROBENZENE	13.1
VINYL CHLORIDE	1.6
PFOA	12

SAMPLE ID

CONSTITUENT

VOC CONCENTRATION (µg/L)

PFAS CONCENTRATION (ng/L)

NOTES:

1. REFER TO FIGURE 7 OF THIS REPORT FOR CROSS-SECTION TRANSECT.
2. DW-1 SCREENING INTERVAL AND LITHOLOGY ARE ESTIMATED. WELL IS LIKELY OPEN BOREHOLE.
3. HAAS SPRING-1, MW-2 SPRING, AND KEVIN TOLBERT SPRING GROUNDWATER ELEVATIONS MEASURED BY FLYNN ENVIRONMENTAL, INC. ON 10/24/17. ALL OTHER GROUNDWATER ELEVATIONS MEASURED BY FLYNN ENVIRONMENTAL, INC. ON 10/23/23.
4. LITHOLOGY DATA BASED ON BORING LOGS PREPARED BY OTHERS.
5. ONLY VOLATILE ORGANIC COMPOUNDS (VOC) DETECTED ABOVE THE NCAC 2L GROUNDWATER STANDARD (2L) ARE SHOWN FOR THE MOST RECENT SAMPLING EVENT COMPLETED BY OTHERS (TABLE 6). ONLY PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) DETECTED ABOVE REFERENCED SCREENING LEVELS ARE SHOWN FOR THE MOST RECENT SAMPLING EVENT COMPLETED BY H&H (TABLE 7).
6. PFAS CONCENTRATIONS ARE REPORTED IN NANOGRAMS PER LITER (ng/L). VOC CONCENTRATIONS ARE REPORTED IN MICROGRAMS PER LITER (µg/L).
7. PFOA = PERFLUOROOCTANOIC ACID
   PFOS = PERFLUOROOCTANESULFONIC ACID
   PQL = PRACTICAL QUANTITATION LIMIT

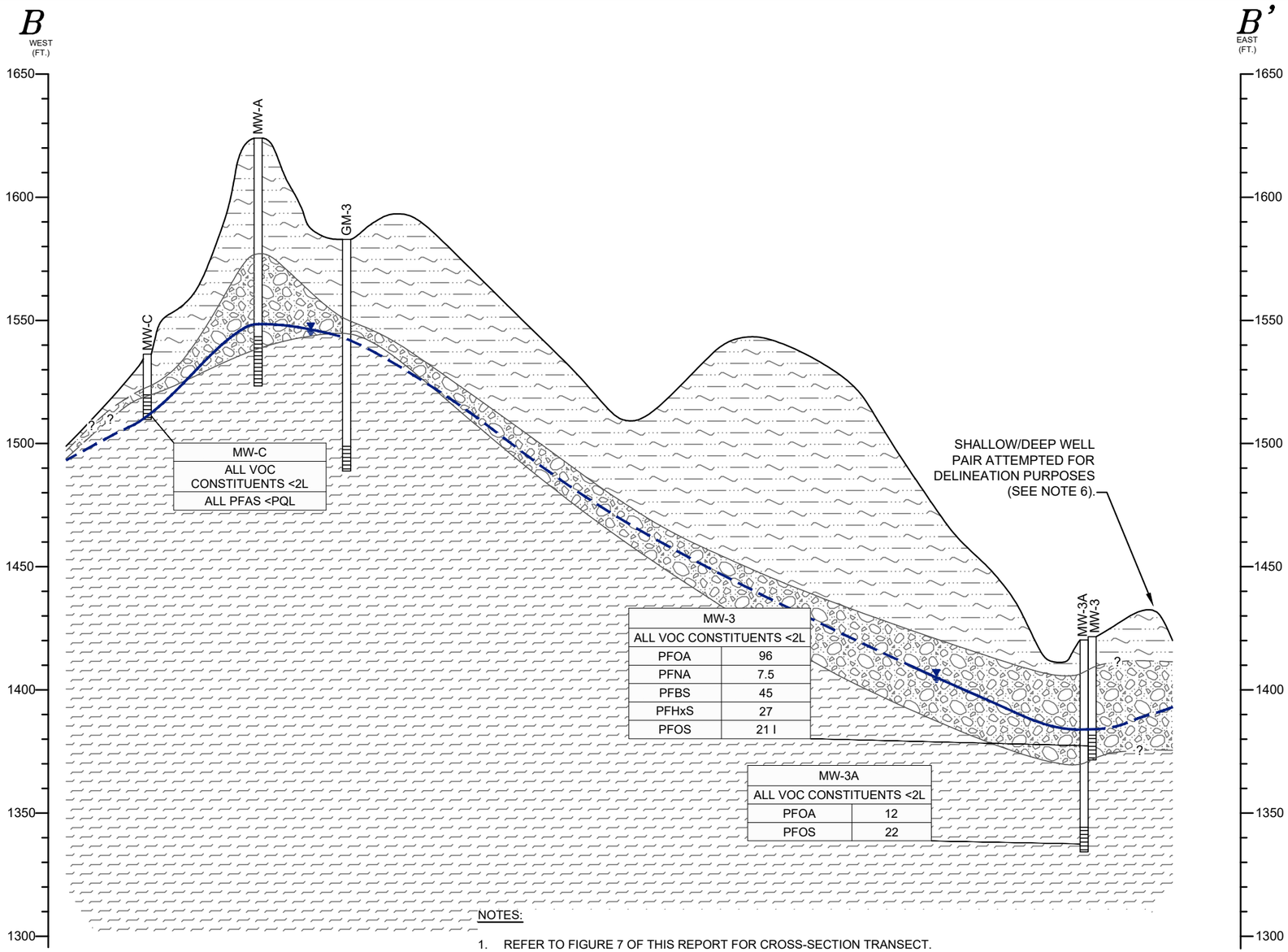
TITLE: GEOLOGIC CROSS-SECTION A-A'

PROJECT: FORMER CSI FACILITY
1200 DRAG STRIP ROAD
HUDSON, NORTH CAROLINA

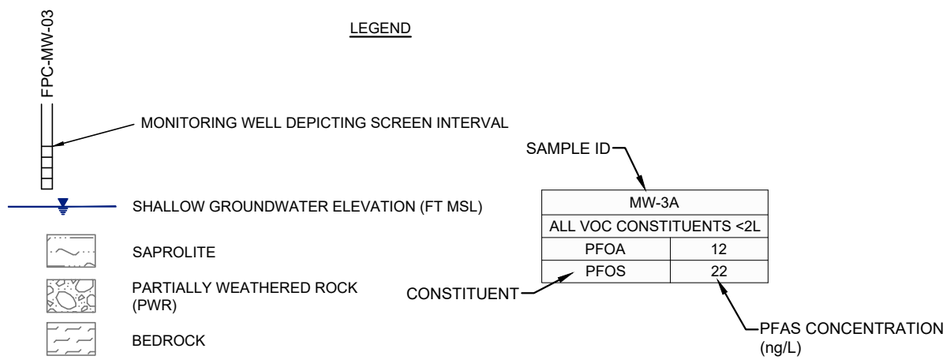
hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)
License # C-1269 / #C-245 Geology

DATE: 3-12-24 | REVISION NO. 0

JOB NO. CAL-005 | FIGURE NO. 5



LEGEND



NOTES:

1. REFER TO FIGURE 7 OF THIS REPORT FOR CROSS-SECTION TRANSECT.
2. GROUNDWATER ELEVATIONS MEASURED BY FLYNN ENVIRONMENTAL, INC. ON 10/23/23.
3. LITHOLOGY DATA BASED ON BORING LOGS PREPARED BY OTHERS.
4. ONLY VOLATILE ORGANIC COMPOUNDS (VOC) DETECTED ABOVE THE NCAC 2L GROUNDWATER STANDARD ARE SHOWN FOR THE MOST RECENT SAMPLING EVENT COMPLETED BY OTHERS (TABLE 6). ONLY PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) DETECTED ABOVE REFERENCED SCREENING LEVELS ARE SHOWN FOR THE MOST RECENT SAMPLING EVENT COMPLETED BY H&H (TABLE 7).
5. PFAS CONCENTRATIONS ARE REPORTED IN NANOGRAMS PER LITER (ng/L). VOC CONCENTRATIONS ARE REPORTED IN MICROGRAMS PER LITER (µg/L).
6. FOR DELINEATION PURPOSES, A SHALLOW AND DEEP MONITORING WELL PAIR WERE PROPOSED ON THE DOWNGRADIENT OFF-SITE PROPERTY (PREVIOUSLY OWNED BY THE HUTTON FAMILY TRUST). A BOREHOLE WAS ADVANCED 50 FEET INTO BEDROCK AND NO GROUNDWATER WAS ENCOUNTERED. BASED ON ADDITIONAL DISCUSSIONS WITH NCDENR (CURRENTLY NCDEQ), NO ADDITIONAL WELLS WERE REQUIRED FOR DELINEATION PURPOSES.
7. PFOA = PERFLUOROOCTANOIC ACID
   PFNA = PERFLUORONONOIC ACID
   PFBS = PERFLUOROBUTANE SULFONIC ACID
   PFOS = PERFLUOROOCTANESULFONIC ACID
   PFHxS = PERFLUOROHEXANESULFONIC ACID
   PQL = PRACTICAL QUANTITATION LIMIT
   I = VALUE IS ESTIMATED MAXIMUM POSSIBLE CONCENTRATION

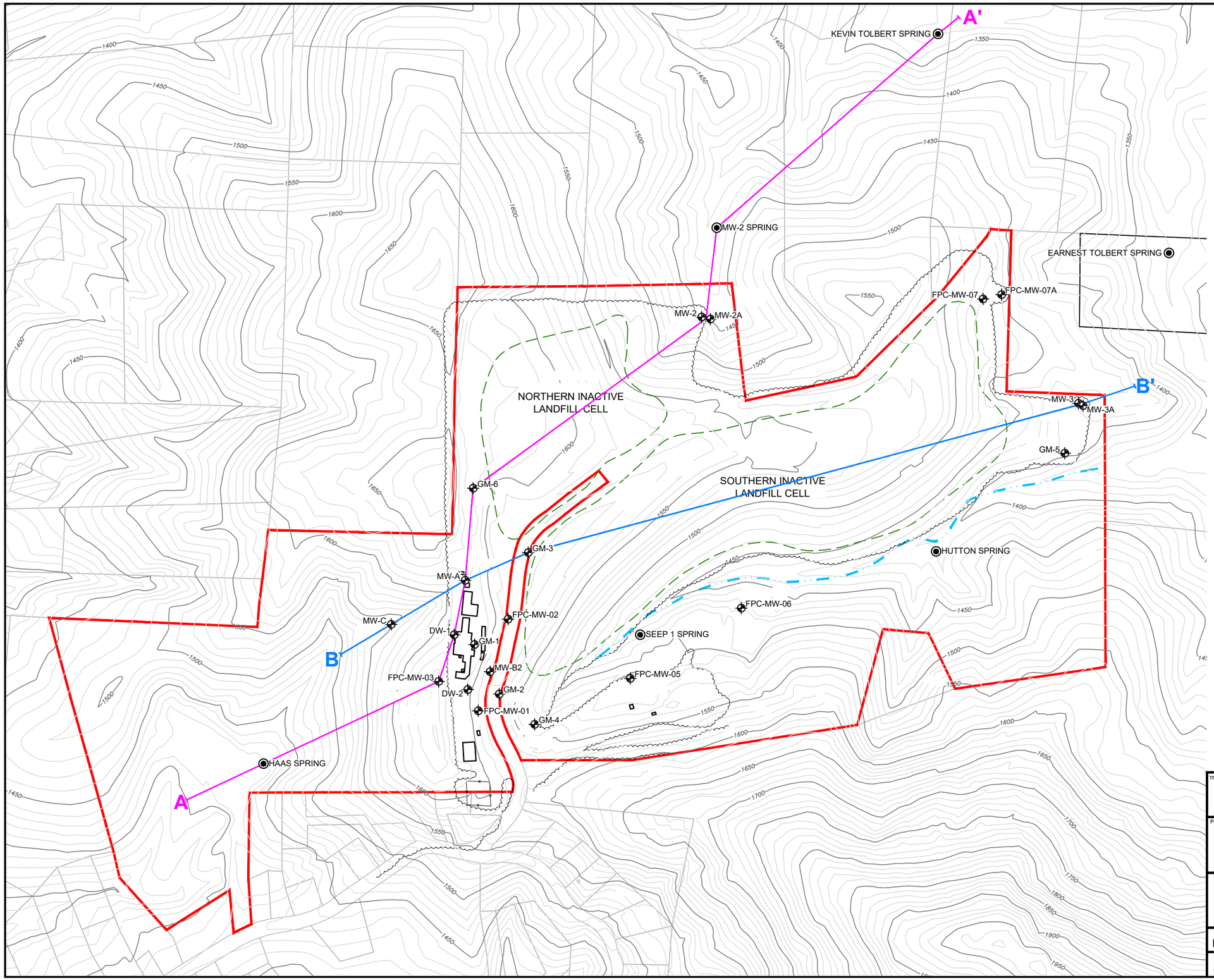
TITLE: GEOLOGIC CROSS-SECTION B-B'

PROJECT: FORMER CSI FACILITY
1200 DRAG STRIP ROAD
HUDSON, NORTH CAROLINA

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)
License # C-1269 / #C-245 Geology

DATE: 3-12-24 | REVISION NO. 0

JOB NO. CAL-005 | FIGURE NO. 6



LEGEND

- SITE PROPERTY BOUNDARY
- ADJACENT PARCEL BOUNDARY
- INTERMITTENT STREAM
- CHAINLINK FENCE
- TREELINE
- TOPOGRAPHIC CONTOUR ELEVATION (FT MSL)
- MONITORING WELL LOCATION
- CROSS-SECTION TRANSECT LOCATION

N

APPROXIMATE
0 400 800
SCALE IN FEET

TITLE
CROSS-SECTION TRANSECT LOCATION MAP

PROJECT
FORMER CSI FACILITY
1200 DRAG STRIP ROAD
HUDSON, NORTH CAROLINA

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)
License # C-1269 / #C-245 Geology

DATE: 4-18-23	REVISION NO. 0
JOB NO. CAL-005	FIGURE NO. 7

1 MILE

FORMER CSI FACILITY

1 (S)
2 (S)
3 (S)
4 (S)
5* (S)
6
7
8
9
10**
11
12
13
14
15
16
17

LEGEND

- SITE PROPERTY BOUNDARY
- ADJACENT PARCEL BOUNDARY
- W — WATER SUPPLY LINE
- WATER SUPPLY WELL (ASSUME USED FOR DRINKING WATER BECAUSE PROPERTY DEVELOPED AND NOT CONNECTED TO MUNICIPAL WATER)
- WATER SUPPLY WELL (ASSUME NOT USED FOR DRINKING WATER BECAUSE PROPERTY UNDEVELOPED OR CONNECTED TO MUNICIPAL WATER)
- (S) WATER SUPPLY SPRING (ASSUME NOT USED FOR DRINKING WATER BECAUSE PROPERTY UNDEVELOPED OR CONNECTED TO MUNICIPAL WATER)
- INACTIVE WATER SUPPLY WELL
- (S) INACTIVE WATER SUPPLY SPRING

NOTES:

1. BASE DATA OBTAINED FROM CALDWELL COUNTY GIS, 2022.
2. WATER SUPPLY WELL AND SPRING INFORMATION SUMMARIZED IN TABLE 3.
3. * - NOTE PROPERTY OWNER PREVIOUSLY REPORTED THAT WELL WAS USED FOR IRRIGATION AND LIVESTOCK.

   ** - NOTE PROPERTY OWNER PREVIOUSLY REPORTED THAT WELL WAS USED FOR SOME DOMESTIC PURPOSES SUCH AS WASHING DISHES, BUT PROPERTY IS CONNECTED TO MUNICIPAL WATER SERVICE.

N

APPROXIMATE
0 1,200 2,400
SCALE IN FEET

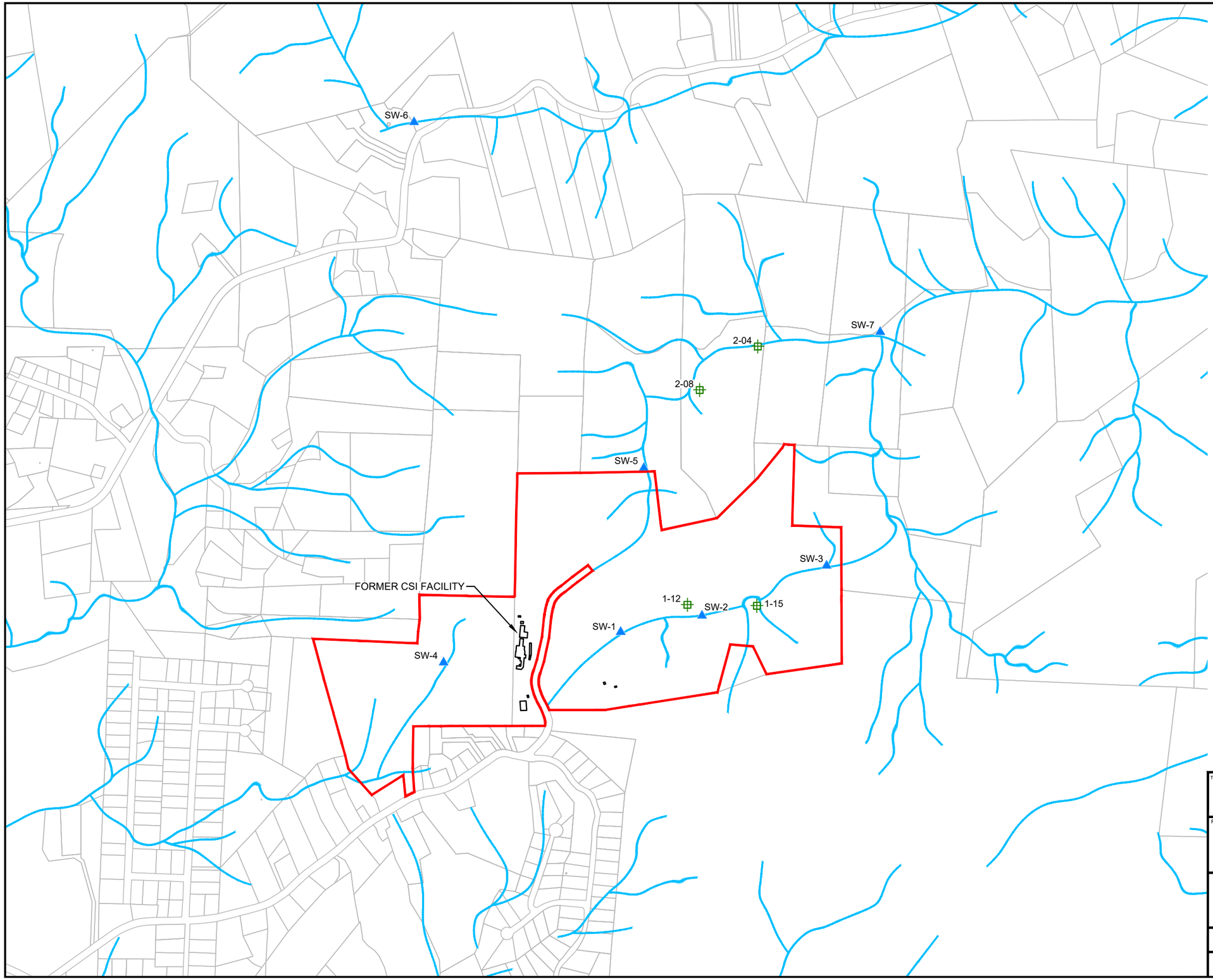
TITLE
AREA WATER SUPPLY WELLS AND SPRINGS SURVEY MAP

PROJECT
FORMER CSI LANDFILL
1200 DRAG STRIP ROAD
HUDSON, NORTH CAROLINA

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)
License # C-1269 / #C-245 Geology

DATE: 3-8-23	REVISION NO. 0
JOB NO. CAL-005	FIGURE NO. 8

S:\AAA-Master Projects\Caldwell County - CAL\CAL 005 - CMS Update\Updated CMS\Figures\CAL-005_20230308_WSW.dwg, FIG 8, 8/5/2023 2:35:50 PM, shaynes



LEGEND

- SITE PROPERTY BOUNDARY
- ADJACENT PARCEL BOUNDARY
- SURFACE WATER FEATURE
- SURFACE WATER SAMPLE LOCATION
- SEEP SAMPLE LOCATION

N

APPROXIMATE
0 800 1,600
SCALE IN FEET

TITLE
SURFACE WATER SAMPLE LOCATIONS

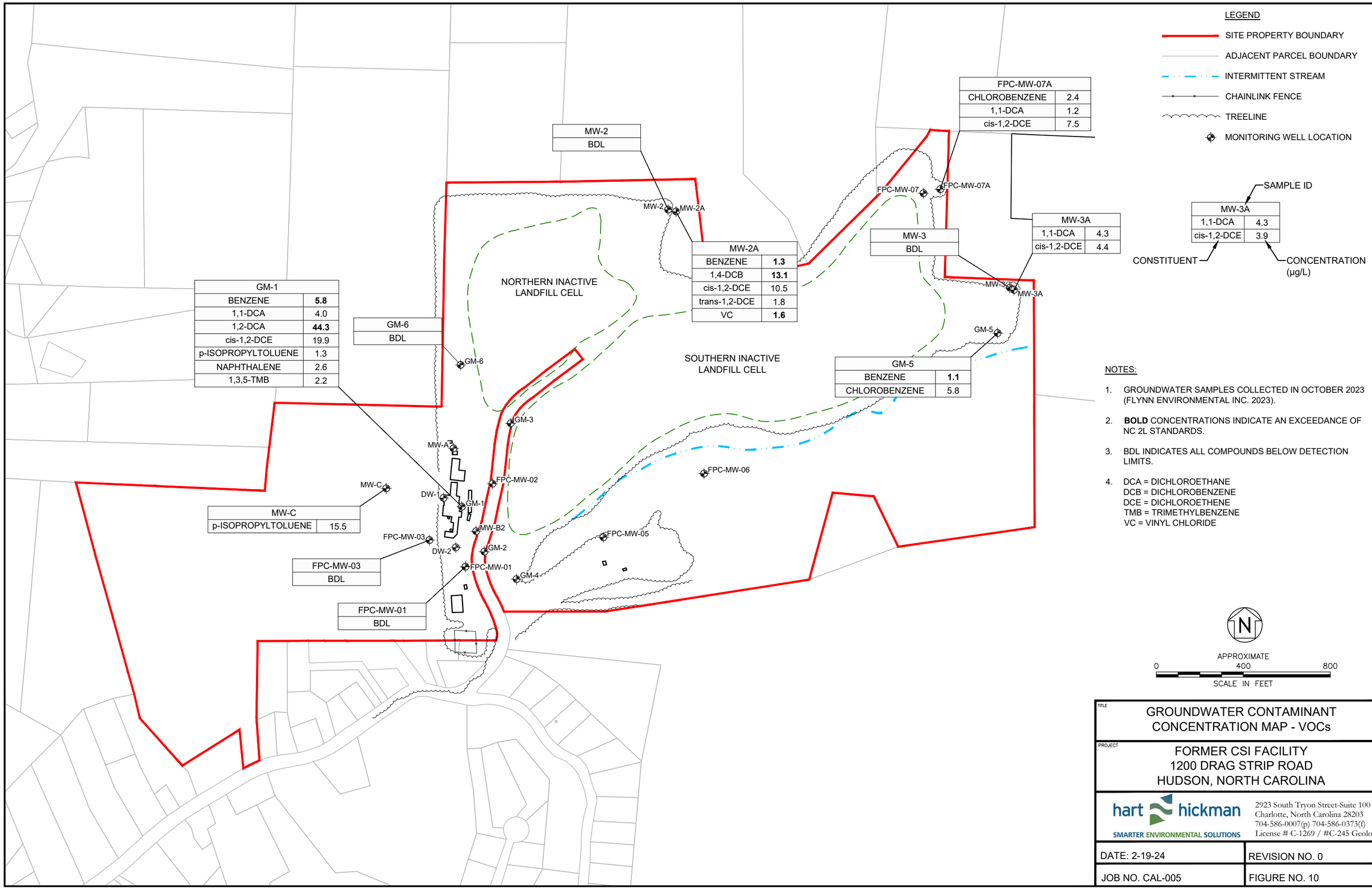
PROJECT
FORMER CSI LANDFILL
1200 DRAG STRIP ROAD
HUDSON, NORTH CAROLINA

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)
License # C-1269 / #C-245 Geology

DATE: 3-8-23 | REVISION NO. 0

JOB NO. CAL-005 | FIGURE NO. 9

S:\AAA-Master Projects\Caldwell County - CAL\CAL.005 - CMS Update\Updated CMS\Figures\CAL.005_20230308_WSW.dwg, FIG 9, 6/5/2023 3:58:18 PM, shaynes



NOTES:

1. GROUNDWATER SAMPLES COLLECTED IN OCTOBER 2023 (FLYNN ENVIRONMENTAL INC. 2023).
2. **BOLD** CONCENTRATIONS INDICATE AN EXCEEDANCE OF NC 2L STANDARDS.
3. BDL INDICATES ALL COMPOUNDS BELOW DETECTION LIMITS.
4. DCA = DICHLOROETHANE
   DCB = DICHLOROBENZENE
   DCE = DICHLOROETHENE
   TMB = TRIMETHYLBENZENE
   VC = VINYL CHLORIDE

N

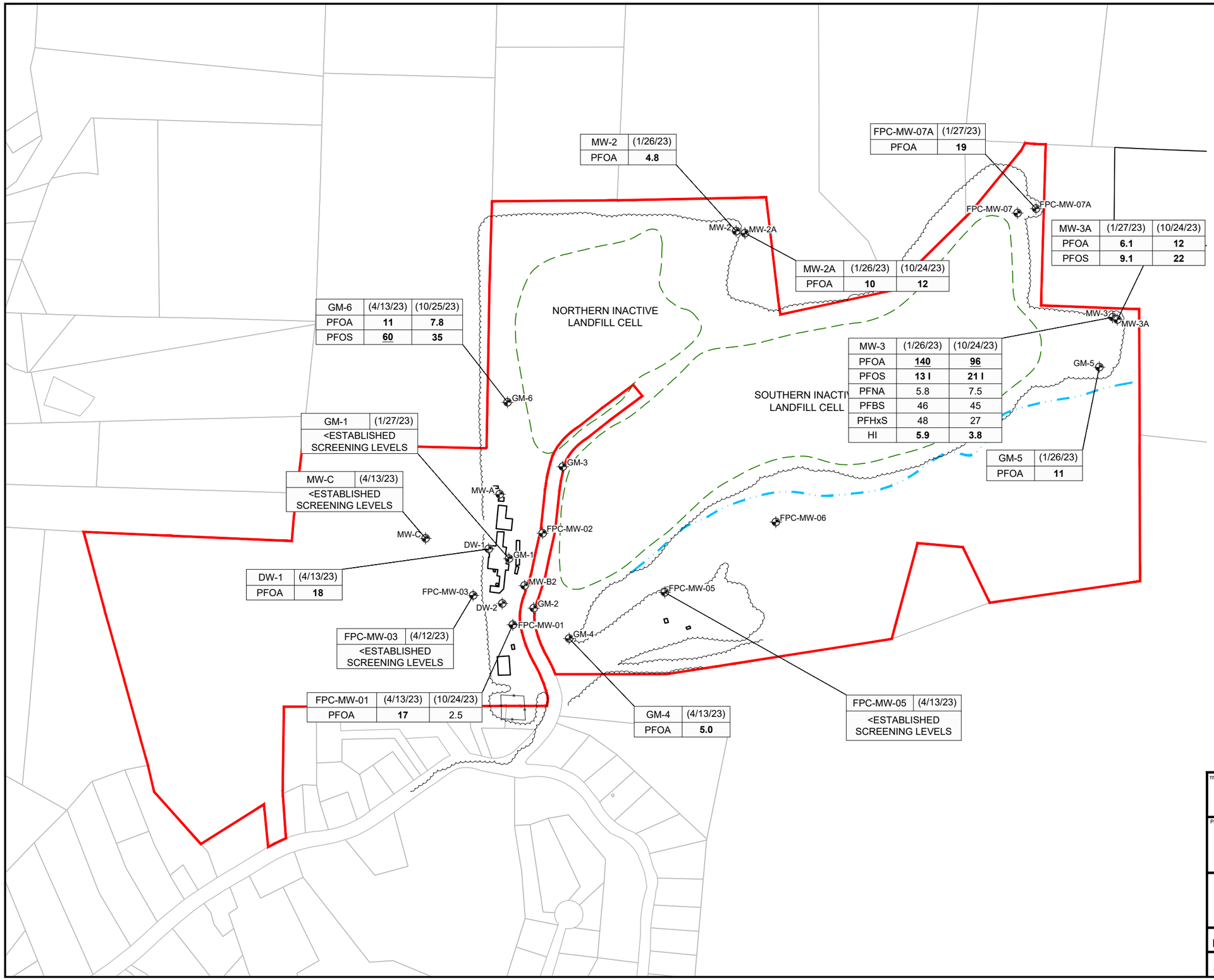
APPROXIMATE
0 400 800
SCALE IN FEET

TITLE
GROUNDWATER CONTAMINANT CONCENTRATION MAP - VOCs

PROJECT
FORMER CSI FACILITY
1200 DRAG STRIP ROAD
HUDSON, NORTH CAROLINA

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)
License # C-1269 / #C-245 Geology

DATE: 2-19-24 | REVISION NO. 0
JOB NO. CAL-005 | FIGURE NO. 10



LEGEND

- SITE PROPERTY BOUNDARY
- PARCEL BOUNDARY
- INTERMITTENT STREAM
- CHAINLINK FENCE
- TREELINE
- MONITORING WELL LOCATION

FPC-MW-07A	(1/27/23)
PFOA	19

SAMPLE ID & DATE

CONSTITUENT

CONCENTRATION (ng/L)

NOTES:

1. BASE DATA OBTAINED FROM NC ONEMAP, 2022.
2. GROUNDWATER SAMPLES COLLECTED IN JANUARY, APRIL, AND OCTOBER 2023 BY H&H PERSONNEL. SEE TABLE 1 FOR WELL CONSTRUCTION DETAILS. SEE TABLE 7 FOR ALL COMPOUNDS DETECTED.
3. I FLAG DENOTES VALUE IS ESTIMATED MAXIMUM POSSIBLE CONCENTRATION.
4. PFOA = PERFLUOROOCTANOIC ACID
   PFNA = PERFLUORONONANOIC ACID
   PFBS = PERFLUOROBUTANE SULFONIC ACID
   PFHxS = PERFLUOROHEXANESULFONIC ACID
   PFOS = PERFLUOROOCTANESULFONIC ACID
   ng/L = NANOGRAMS PER LITER
5. **BOLD** CONCENTRATIONS INDICATE AN EXCEEDANCE OF THE ENVIRONMENTAL PROTECTION AGENCY (EPA) PROPOSED MAXIMUM CONTAMINANT LEVELS (MCL).
6. UNDERLINED CONCENTRATIONS INDICATE AN EXCEEDANCE OF THE EPA TAPWATER REGIONAL SCREENING LEVEL (RSL).
7. CONCENTRATIONS EXCEEDING REFERENCED EPA SCREENING LEVELS (INCLUDING A COMPINED HAZARD INDEX [HI] GREATER THAN 1.0) ARE DEPICTED. FOR PFNA, PFHxS, AND PFBS, THE HI IS CALCULATED FOR COMPARISON TO THE EPA MCL. WHERE THE COMBINED HI INDICATES AN EXCEEDANCE, A **BOLD** HI IS SHOWN.

N

APPROXIMATE
0 400 800
SCALE IN FEET

TITLE
GROUNDWATER CONTAMINANT CONCENTRATION MAP - PFAS

PROJECT
FORMER CSI FACILITY
1200 DRAG STRIP ROAD
HUDSON, NORTH CAROLINA

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)
License # C-1269 / #C-245 Geology

DATE: 12-4-23 | REVISION NO. 0

JOB NO. CAL-005 | FIGURE NO. 11

Appendix A

Environmentally Sensitive Areas Correspondence

ROY COOPER
Governor
ELIZABETH S. BISER
Secretary
RICHARD E. ROGERS, JR.
Director

NORTH CAROLINA
Environmental Quality

February 2, 2023

Carlin Slusher
Hart & Hickman, PC
3932 Sunset Ridge Rd., Suite 301
Raleigh, NC 27607

To whom it may concern,

RE: Request for information related to potential Environmentally Sensitive Areas/State-Designated Area for Protection on or adjacent to the property located at 1200 Drag Strip Road, Hudson, Caldwell County, North Carolina.

In reviewing the information on the property located at 1200 Drag Strip Road, Hudson, Caldwell County, North Carolina, and the surround area, I have determined that this area is classified as "Environmentally Sensitive" or "State-Designated Areas for Protection or Maintenance of Aquatic Life".

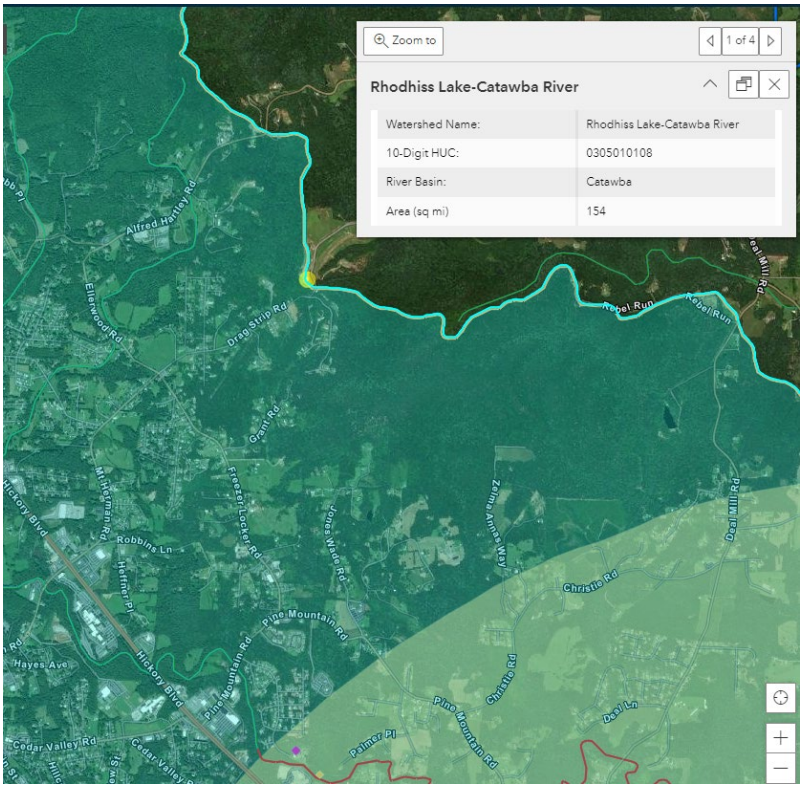
Project Area
Watersheds are often named and referenced by their hydrologic unit codes (HUC). The project area listed above is located on the ridge of two sub-watersheds in the Catawba River basin. The western edge of the property drains to Brushy Fork [AU# 11-55-1-1] in the Rhodhiss Lake-Catawba River watershed (HUC 0305010108) and the rest of the property drains to Pilot Branch [AU# 11-58-4] in the Lake Hickory-Catawba River watershed (HUC 0305010109). Brushy Fork drains into an impaired segment of Gunpowder Creek. Both Brushy Fork and Pilot Branch ultimately drain to Lake Hickory. See the photos below; the blue highlighted portion is the watershed listed in the table on the photo.

Water Quality Classifications and Assessments
One mechanism used by state and federal agencies to manage and protect streams, rivers, lakes and other surface waterbodies is to establish surface water classifications. Each classification has water quality standards associated with it. In North Carolina, the water quality standards are used to determine if the waterbody is meeting or exceeding water quality standards. Many of the classifications, especially those designated to protect drinking water supplies and certain high-quality waterbodies, have rules in place that regulate activities (i.e., development, permitted discharge, etc.) that may impact water quality. Depending on the classification, adjacent waterbodies may have the same restrictions.

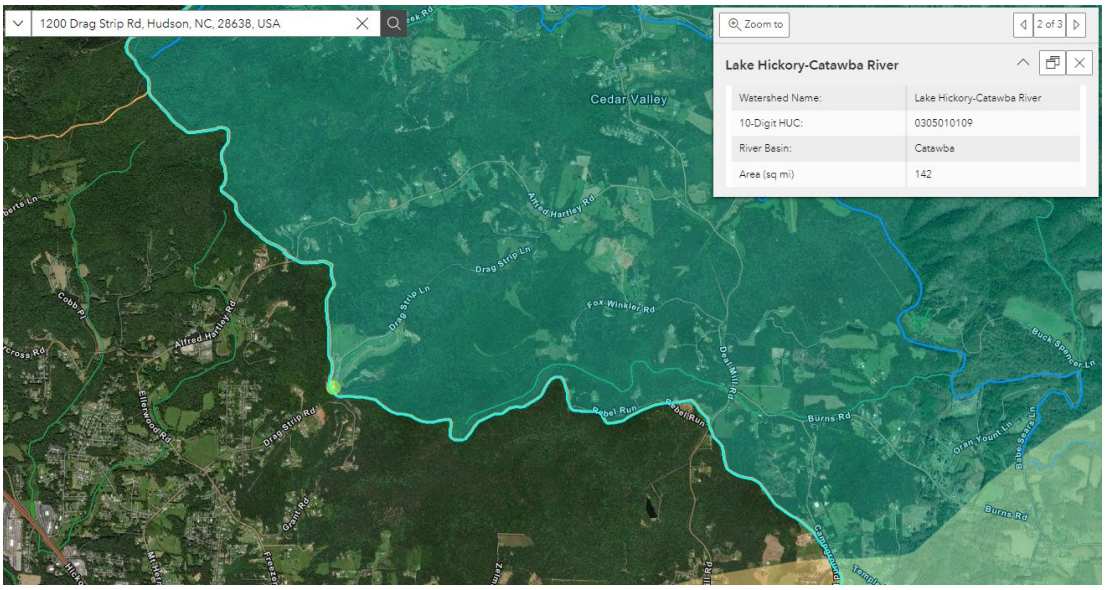
This property is located in a watershed classified as C and then drains to Lake Hickory which is classified as WS-IV, B, CA. Waterbodies classified as WS-IV are defined as "waters used as sources of water supply for drinking, culinary or food processing purposes where WS-I, II, or III classifications are not feasible." The critical area (CA) is the area "½ mile and draining to water supplies as measured from the normal pool elevation of reservoirs or ½ mile and draining to a river (water supply) intake." Because of its classification as a water supply, additional protection measures are in place to protect the water supply as a drinking water source for the surrounding municipalities. Waters classified as C are protected for uses such as aquatic life propagation, survival, and maintenance of biological integrity (including fishing and fish), wildlife, secondary contact recreation (wading and boating), and agriculture. Waterbodies classified a class B add an additional protection for primary recreation, which include activities that involve human body contact with surface waters such as swimming, water skiing and skin diving. More information about classifications, water quality standards, and measures in place to protect a waterbody's use can be found on DWR's Classifications, Standards & Rules Review Branch's website.

Gunpower Creek [AU# 11-55-(1.5)] is listed on the EPA approved NC 2022 303(d)/305(b) (Integrated Report) of Impaired Waters due to a Fair benthic macroinvertebrate community rating. This watershed also has very high instream fecal coliform bacteria concentrations.

It is imperative that any activity taking place at this location eliminate runoff that would further degrade the fragile systems that surrounds this area. There is a need to reduce the stormwater volume, nutrients, sediment, and bacteria loading from this site. It is also imperative to address any groundwater contamination that could be contributing pollutants in base flow to these streams.



North Carolina Department of Environmental Quality | Division of Water Resources
512 North Salisbury Street | 1611 Mail Service Center | Raleigh, North Carolina 27699-1611
919.707.9000



Please let me know if you have any questions.

Sincerely,

Nora Y. Deamer

Nora Deamer
Division of Water Resources, Planning Section
Department of Environmental Quality
919-707-9116
nora.deamer@ncdenr.gov

From: Lopazanski, Mike <mike.lopazanski@ncdenr.gov>
Sent: Wednesday, February 1, 2023 10:52 AM
To: Carlin Slusher
Subject: RE: [External] FW: Sensitive Environment Inquiry - Hudson, NC

The site in question is not under the jurisdiction of the NC Coastal Management Act and it is not part of a Coastal Barriers Unit.

From: Carlin Slusher <cslusher@harthickman.com>
Sent: Wednesday, February 1, 2023 9:19 AM
To: Lopazanski, Mike <mike.lopazanski@ncdenr.gov>
Subject: [External] FW: Sensitive Environment Inquiry - Hudson, NC

Mike,

Good morning. We are updating a previous receptor survey completed in 2017 at the request of the NCDEQ Hazardous Waste Section for a project site in Hudson, North Carolina.

Please let us know if there are any Areas Identified Under Coastal Protection Legislation, Coastal Barriers, or Units of a Coastal Barrier Resource System or any other sensitive environments within 1 mile of the site property, which is located at 1200 Drag Strip Road in Hudson, NC (Caldwell County).

Please find the attached map for reference. If you need any other information from me for this survey, please let me know.

Thanks, Carlin

Carlin Slusher, Senior Project Scientist
Hart & Hickman, PC
3921 Sunset Ridge Rd, Ste 301 · Raleigh, NC 27607
Direct: 919-723-2517 · Mobile: 919-609-6896
www.harthickman.com

From: Haley Randolph
Sent: Monday, October 16, 2017 1:41 PM
To: 'ted.tyndall@ncdenr.gov' <ted.tyndall@ncdenr.gov>
Subject: Sensitive Environment Inquiry - Hudson, NC

Mr. Tyndall,

I'm writing a corrective measures study for a site in Hudson, NC, and I'm conducting a sensitive environment survey. I'd like to know if there are any Areas Identified Under Coastal Protection Legislation, Coastal Barriers, or Units of a Coastal Barrier Resource System within 1 mile of my site property, which is at 1200 Drag Strip Road in Hudson, NC (Caldwell County).

Please find the attached map for reference. If you need any other information from me for this survey, please let me know.

Thank you,

Haley Randolph, Staff Environmental Scientist
Hart & Hickman, PC | 3334 Hillsborough St | Raleigh, NC 27607
Direct 919-725-2509 | Mobile 610-908-9449 | Office 919-847-4241
www.harthickman.com

From: DCR - Environmental_Review <Environmental.Review@ncdcr.gov>
Sent: Thursday, February 2, 2023 7:44 AM
To: Carlin Slusher
Subject: Automatic reply: [External] Sensitive Environment Inquiry - Hudson, NC

ER Inbox AUTO-REPLY (updated 12/16/2022):

--NOTICE-- Due to a high volume of end of the year submissions, responses from our office may be delayed. We appreciate your patience. ~ NC HPO ER Staff

Thank you for your email submission. Please check the guidelines below to ensure your request can be processed. We advise that you plan for the full 30 day response period.

1. **One project per email**
2. Include a project description, address/location, a map showing project boundaries, and any other applicable information listed on our Project Review Checklist webpage
3. *.pdf* attachments are preferred
4. *.kml/.kmz* files are accepted for Project APE shapefiles
5. Message size should be no larger than 25 MB
6. *.zip or links to file-sharing websites* will not be processed unless prior approval is issued by NCHPO ER Staff

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If you have any questions or concerns, please contact the environmental.review@ncdcr.gov inbox or the appropriate ER Branch staff. Staff are on a partial telework schedule, email is the preferred method of communication.

Renee Gledhill-Earley Environmental Review Coordinator	renee.gledhill-earley@ncdcr.gov	919-814-6579
Katie Harville Environmental Review Specialist	katie.harville@ncdcr.gov	919-814-6581
Devon Borgardt Environmental Review Assistant - Project Registrar	Environmental.review@ncdcr.gov	919-814-6586
Lori Townsend Environmental Review & Records Technician	lori.townsend@ncdcr.gov	919-814-6571

From: Deamer, Nora <nora.deamer@ncdenr.gov>
Sent: Thursday, February 2, 2023 2:53 PM
To: Carlin Slusher
Subject: RE: [External] RE: Sensitive Environment Inquiry - Hudson, NC
Attachments: CatawbaRiver_Lake HickoryFeb2023.pdf

Good Afternoon, I have attached an updated environmental sensitivity analysis you requested. Please let me know if you have any questions.
Have a great day.
Nora

Nora Deamer *(she/her/hers)*
Basin Planner, Division of Water Resources, Planning Section
North Carolina Department of Environmental Quality
Office: (919) 707-9116
nora.deamer@ncdner.gov
https://deq.nc.gov/about/divisions/water-resources/water-planning/basin-planning-branch

Physical Address: 512 North Salisbury St.,Raleigh, NC, 27604
Mailing Address: 1611 Mail Service Center, Raleigh, NC, 27699-1611

From: Carlin Slusher <cslusher@harthickman.com>
Sent: Wednesday, February 1, 2023 9:04 AM
To: Deamer, Nora <nora.deamer@ncdenr.gov>; 'ian.mcmillan@ncdenr.gov' <ian.mcmillan@ncdenr.gov>
Subject: FW: [External] RE: Sensitive Environment Inquiry - Hudson, NC

Nora/Ian –

Good morning. We are updating a previous receptor survey completed in 2017 at the request of the NCDEQ Hazardous Waste Section for a project site in Hudson, North Carolina.

Please let us know if there are any updates to the response below (provided by Melanie Williams in November 2017) for any State-Designated Areas for Protection or Maintenance of Aquatic Life or any other sensitive environments within 1 mile of the site property, which is located at 1200 Drag Strip Road in Hudson, NC (Caldwell County).

Please find the attached map for reference. If you need any other information from me for this survey, please let me know.

Thanks, Carlin

Carlin Slusher, Senior Project Scientist
Hart & Hickman, PC
3921 Sunset Ridge Rd, Ste 301 · Raleigh, NC 27607
Direct: 919-723-2517 · Mobile: 919-609-6896
www.harthickman.com

From: Williams, Melanie <melanie.williams@ncdenr.gov>
Sent: Monday, November 6, 2017 11:13 AM
To: Haley Randolph <hrandolph@harthickman.com>
Subject: RE: [External] RE: Sensitive Environment Inquiry - Hudson, NC

Ms. Randolph,
The property located at 1200 Drag Strip Rd, Hudson, NC 28638 is in the Catawba River Basin and drains to Brushy Fork [AU#: 11-55-1.1] which then drains to Gunpowder Creek [AU#: 11-55-(1.5)]. Brushy Fork is currently not monitored by the DWR; however, Gunpowder Creek is listed on the draft 2016 and the final 2014 Integrated Report as Impaired for declining benthos populations.

Seeing that this property drains to an impaired stream, it is suggested to take the precautions needed to protect the stream from further impacts. Both Brushy Fork [AU#: 11-55-1.1] and Gunpowder Creek [AU#: 11-55-(1.5)] are both currently considered to be in environmentally sensitive areas for the protection and maintenance of aquatic life.

Additional water quality information and recommendations specifically concerning Brushy Fork and Gunpowder Creek can be found in Chapter 1 of the 2010 Catawba River Basinwide Water Quality Plan. Please let me know if you have any further questions or concerns.

Thanks,

Melanie Williams
River Basin Planner
Basin Planning Branch
NC DEQ - DWR

919 707 9119 office
919 707 9000 main office
Melanie.Williams@ncdenr.gov

NC DEQ Open Data Page
NC DEQ GIS Online List Serve: Be the first to know about NC DEQ's newest GIS maps, apps, and data.

From: Haley Randolph [mailto:hrandolph@harthickman.com]
Sent: Wednesday, October 25, 2017 10:43 AM
To: Williams, Melanie <melanie.williams@ncdenr.gov>
Subject: [External] RE: Sensitive Environment Inquiry - Hudson, NC

Good morning,

I wanted to check in as I haven't heard from you regarding my inquiry for a property in Hudson, NC (referenced below). Please let me know if there is another person within your agency that I should contact with this inquiry.

Thank you,
Haley Randolph

From: Haley Randolph
Sent: Monday, October 16, 2017 1:41 PM
To: 'melanie.williams@ncdenr.gov' <melanie.williams@ncdenr.gov>
Subject: Sensitive Environment Inquiry - Hudson, NC

Ms. Williams,

I'm writing a corrective measures study for a site in Hudson, NC, and I'm conducting a sensitive environment survey. I'd like to know if there are any State-Designated Areas for Protection or Maintenance of Aquatic Life within 1 mile of my site property, which is at 1200 Drag Strip Road in Hudson, NC (Caldwell County).

I have a note to ask for the CWA 305b report if that helps.

Please find the attached map for reference. If you need any other information from me for this survey, please let me know.

Thank you,

Haley Randolph, Staff Environmental Scientist
Hart & Hickman, PC | 3334 Hillsborough St | Raleigh, NC 27607
Direct 919-725-2509 | Mobile 610-908-9449 | Office 919-847-4241
www.harthickman.com

From: Clarke, Craig <craig.clarke@ncagr.gov>
Sent: Tuesday, May 30, 2023 2:29 PM
To: Carlin Slusher
Subject: RE: [External] RE: Sensitive Environmental Inquiry - Hudson, NC

For State Wild & Scenic Rivers you will need to contact natural.heritage@ncdcr.gov

NC Forest Service is not aware of any State Preserves or Forest under our management near or within the property designated on your attachment.

Craig K. Clarke, RF909, CPM
Director, Safety, Planning, & Analysis

Department of Agriculture & Consumer Services
NC Forest Service
512 N Salisbury St.
1616 Mail Service Center
Raleigh, NC 27699-1600

Office: 919-857-4820
Fax: 919-857-4802

From: Carlin Slusher <cslusher@harthickman.com>
Sent: Monday, May 29, 2023 11:16 AM
To: Clarke, Craig <craig.clarke@ncagr.gov>
Subject: FW: [External] RE: Sensitive Environmental Inquiry - Hudson, NC

Good morning. Following up on this request.

Thanks,

Carlin Slusher, Project Manager
Hart & Hickman, PC
3921 Sunset Ridge Rd, Ste 301 · Raleigh, NC 27607
Direct: 919-723-2517 · Mobile: 919-609-6896
www.harthickman.com

From: Carlin Slusher
Sent: Wednesday, February 1, 2023 8:42 AM
To: 'Craig.clarke@ncagr.gov' <Craig.clarke@ncagr.gov>
Subject: FW: [External] RE: Sensitive Environmental Inquiry - Hudson, NC

Craig,

Good morning. We are updating a previous receptor survey completed in 2017 at the request of the NCDEQ Hazardous Waste Section for a project site in Hudson, North Carolina.

Please let us know if there are any updates to the response below (provided by your colleague, Rusty Dellinger, in October 2017) for any State Wild & Scenic Rivers or any other sensitive environments within 1 mile of the site property, which is located at 1200 Drag Strip Road in Hudson, NC (Caldwell County).

Please find the attached map for reference. If you need any other information from me for this survey, please let me know.

Thanks, Carlin

Carlin Slusher, Senior Project Scientist
Hart & Hickman, PC
3921 Sunset Ridge Rd, Ste 301 · Raleigh, NC 27607
Direct: 919-723-2517 · Mobile: 919-609-6896
www.harthickman.com

From: Dellinger, Rusty <rusty.dellinger@ncagr.gov>
Sent: Friday, October 27, 2017 8:48 AM
To: Haley Randolph <hrandolph@harthickman.com>
Subject: RE: [External] RE: Sensitive Environmental Inquiry - Hudson, NC

Haley,

My apologies for not replying to your email immediately. I have been out of the office due to a family medical issue for two weeks and upon returning this week I have been working on the storm response in the southern end of my county. There are no wild and scenic river designations or any other sensitive environments that my agency is aware of.

Rusty Dellinger
NCDA & CS / NC Forest Service
Caldwell County Ranger
828-757-5612 Office
828-757-5614 Fax
828-292-2358 Cell

From: Haley Randolph [mailto:hrandolph@harthickman.com]
Sent: Wednesday, October 25, 2017 10:43 AM
To: Dellinger, Rusty <rusty.dellinger@ncagr.gov>
Subject: [External] RE: Sensitive Environmental Inquiry - Hudson, NC

Good morning,

I wanted to check in as I haven't heard from you regarding my inquiry for a property in Hudson, NC (referenced below). Please let me know if there is another person within your agency that I should contact with this inquiry.

Thank you,
Haley Randolph

From: Haley Randolph
Sent: Monday, October 16, 2017 1:40 PM
To: 'rusty.dellinger@ncagr.gov' <rusty.dellinger@ncagr.gov>
Subject: Sensitive Environmental Inquiry - Hudson, NC

Mr. Dellinger,

I'm writing a corrective measures study for a site in Hudson, NC, and I'm conducting a sensitive environment survey. I'd like to know if there are any State Wild & Scenic Rivers or any other sensitive environments within 1 mile of my site property, which is at 1200 Drag Strip Road in Hudson, NC (Caldwell County).

Please find the attached map for reference. If you need any other information from me for this survey, please let me know.

Thank you,

Haley Randolph, Staff Environmental Scientist
Hart & Hickman, PC | 3334 Hillsborough St | Raleigh, NC 27607
Direct 919-725-2509 | Mobile 610-908-9449 | Office 919-847-4241
www.harthickman.com

From: DCR - Environmental_Review <Environmental.Review@ncdcr.gov>
Sent: Monday, February 6, 2023 2:16 PM
To: Carlin Slusher
Subject: Re: [External] Sensitive Environment Inquiry - Hudson, NC
Attachments: ER-17-1966.pdf

Our response is attached. Thank you.

Best,
Devon L. Borgardt
Environmental Review Assistant
State Historic Preservation Office
109 E. Jones Street MSC 4603 Raleigh, NC 27699

Please Note:* Requests for project review or responses to our review comments should be sent to the Environmental Review emailbox at *environmental.review@ncdcr.gov*. Otherwise, your request will be returned and you will be asked to send it to the proper mailbox. This will cause delays in your project. Information on email project submittal is at: *NCHPO ER Project Review Checklist
Facebook Twitter Instagram YouTube

From: Carlin Slusher <cslusher@harthickman.com>
Sent: Thursday, February 2, 2023 7:42 AM
To: DCR - Environmental_Review <Environmental.Review@ncdcr.gov>
Subject: FW: [External] Sensitive Environment Inquiry - Hudson, NC

See the request below.

Carlin Slusher, Senior Project Scientist
Hart & Hickman, PC
3921 Sunset Ridge Rd, Ste 301 · Raleigh, NC 27607
Direct: 919-723-2517 · Mobile: 919-609-6896
www.harthickman.com

From: Carlin Slusher
Sent: Wednesday, February 1, 2023 8:40 AM
To: 'Renee.gledhill-earley@ncdcr.gov' <Renee.gledhill-earley@ncdcr.gov>
Subject: FW: [External] Sensitive Environment Inquiry - Hudson, NC

Renee,
Good morning. We are updating a previous receptor survey completed in 2017 at the request of the NCDEQ Hazardous Waste Section for a project site in Hudson, North Carolina.

Please let us know if there are any updates to the response attached (provided previously in November 2017) for any National and State historical sites or any other sensitive environments within 1 mile of the site property, which is located at 1200 Drag Strip Road in Hudson, NC (Caldwell County).
Please find the attached map for reference. If you need any other information from me for this survey, please let me know.
Thanks, Carlin

Carlin Slusher, Senior Project Scientist
Hart & Hickman, PC
3921 Sunset Ridge Rd, Ste 301 · Raleigh, NC 27607
Direct: 919-723-2517 · Mobile: 919-609-6896
www.harthickman.com

From: Shearin, Renee <renee.shearin@ncdcr.gov>
Sent: Friday, November 3, 2017 1:54 PM
To: Haley Randolph <hrandolph@harthickman.com>
Subject: RE: [External] Sensitive Environment Inquiry - Hudson, NC
Our response is attached. Thank you.

From: Haley Randolph [mailto:hrandolph@harthickman.com]
Sent: Monday, October 16, 2017 2:16 PM
To: DCR - Environmental_Review <Environmental.Review@ncdcr.gov>
Subject: [External] Sensitive Environment Inquiry - Hudson, NC

Good afternoon,
I'm writing a corrective measures study for a site in Hudson, NC, and I'm conducting a sensitive environment survey. I'd like to know if there are any National and State historical sites or any other sensitive environments within 1 mile of my site property, which is at 1200 Drag Strip Road in Hudson, NC (Caldwell County). We will be remediating groundwater at this site.
Please find the attached map for reference. If you need any other information from me for this survey, please let me know.
Thank you,

Haley Randolph, Staff Environmental Scientist
Hart & Hickman, PC | 3334 Hillsborough St | Raleigh, NC 27607
Direct 919-725-2509 | Mobile 610-908-9449 | Office 919-847-4241
www.harthickman.com

North Carolina Department of Natural and Cultural Resources

State Historic Preservation Office

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary D. Reid Wilson

Office of Archives and History
Deputy Secretary, Darin J. Waters, Ph.D.

February 6, 2023

Carlin Slusher
Hart & Hickman, PC
3921 Sunset Ridge Road, Suite 301
Raleigh, NC 27607

cslusher@harthickman.com

Re: Groundwater Remediation, 1200 Drag Strip Road, Hudson, Caldwell County, ER 17-1966

Dear Carlin Slusher:

Thank you for your email of February 2, 2023, concerning the above-referenced undertaking. We have reviewed the submittal and offer the following comments.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed and we concur with your findings of no historic properties affected.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-814-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

Renee Gledhill-Earley

for Ramona Bartos, Deputy
State Historic Preservation Officer

From: Leslie, Andrea J <andrea.leslie@ncwildlife.org>
Sent: Wednesday, February 1, 2023 3:13 PM
To: Carlin Slusher
Subject: RE: [External] Sensitive Environment Inquiry - Hudson, NC

Carlin – there are no updates. The information in my 2017 letter still stands.

Andrea

Andrea Leslie
Mountain Habitat Conservation Coordinator
NC Wildlife Resources Commission
645 Fish Hatchery Rd., Building B
Marion, NC 28752
828-803-6054 (office)
828-400-4223 (cell)
www.ncwildlife.org

From: Cox, David R. <david.cox@ncwildlife.org>
Sent: Wednesday, February 1, 2023 8:58 AM
To: Leslie, Andrea J <andrea.leslie@ncwildlife.org>
Subject: FW: [External] Sensitive Environment Inquiry - Hudson, NC

Please handle this request, thanks!

David R. Cox, Supervisor
Habitat Conservation Division
NC Wildlife Resources Commission
NCWRC – Rogers Depot
1718 NC Hwy. 56 West
Creedmoor, NC 27522
Phone: 919-707-4055
david.cox@ncwildlife.org

Stay up to date on HR2773 & S2372 ***Recovering America's Wildlife Act***.
#RecoverWildlife

From: Carlin Slusher <cslusher@harthickman.com>
Sent: Wednesday, February 1, 2023 8:50 AM
To: Cox, David R. <david.cox@ncwildlife.org>
Subject: FW: [External] Sensitive Environment Inquiry - Hudson, NC

David,

Good morning. We are updating a previous receptor survey completed in 2017 at the request of the NCDEQ Hazardous Waste Section for a project site in Hudson, North Carolina.

Please let us know if there are any updates to the response attached (provided by Andrea Leslie in October 2017) for any of the following within 1 mile of the site property, which is located at 1200 Drag Strip Road in Hudson, NC (Caldwell County):

- National or State Wildlife Refuges
- State Lands Designated for Wildlife or Game Management Wetlands
- Migratory Pathways and Feeding Areas Critical for Maintenance of Anadromous Fish Species with River Reaches or Areas in Lakes or Coastal Tidal Water in which such Fish Spend Extended Periods of Time
- Spawning areas critical for the maintenance of fish/shellfish species within River, Lake, or Coastal Tidal Waters

Please find the attached map for reference. If you need any other information from me for this survey, please let me know. We will also review the NC Heritage website for rare species/communities.

Thanks, Carlin

Carlin Slusher, Senior Project Scientist
Hart & Hickman, PC
3921 Sunset Ridge Rd, Ste 301 · Raleigh, NC 27607
Direct: 919-723-2517 · Mobile: 919-609-6896
www.harthickman.com

From: Leslie, Andrea J <andrea.leslie@ncwildlife.org>
Sent: Friday, October 27, 2017 10:45 AM
To: Haley Randolph <hrandolph@harthickman.com>
Subject: RE: [External] Sensitive Environment Inquiry - Hudson, NC

Hi Ms. Randolph,

Attached is a response to your information request. You can get information on rare species and communities through the NC Natural Heritage Program's Data Explorer here: https://ncnhde.natureserve.org/

Andrea

_____

Andrea Leslie
Mountain Habitat Conservation Coordinator
NC Wildlife Resources Commission
20830 Great Smoky Mountain Expressway
Waynesville, NC 28786
828-400-4223
www.ncwildlife.org

From: Haley Randolph [mailto:hrandolph@harthickman.com]
Sent: Monday, October 16, 2017 1:41 PM
To: Cox, David R. <david.cox@ncwildlife.org>
Subject: [External] Sensitive Environment Inquiry - Hudson, NC

Mr. Cox,

I'm writing a corrective measures study for a site in Hudson, NC, and I'm conducting a sensitive environment survey. I'd like to know if there are any:

- National or State Wildlife Refuges
- State Lands Designated for Wildlife or Game Management Wetlands
- Migratory Pathways and Feeding Areas Critical for Maintenance of Anadromous Fish Species with River Reaches or Areas in Lakes or Coastal Tidal Water in which such Fish Spend Extended Periods of Time
- Spawning areas critical for the maintenance of fish/shellfish species within River, Lake, or Coastal Tidal Waters

within 1 mile of my site property, which is at 1200 Drag Strip Road in Hudson, NC (Caldwell County).

I'm hoping there may be a composite list for species in the upper Catawba watershed or some such, but if you could point me to any websites or lists, that would be very helpful.

Please find the attached map for reference. If you need any other information from me for this survey, please let me know.

Thank you,

Haley Randolph, Staff Environmental Scientist
Hart & Hickman, PC | 3334 Hillsborough St | Raleigh, NC 27607
Direct 919-725-2509 | Mobile 610-908-9449 | Office 919-847-4241
www.harthickman.com

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From: Carlin Slusher
Sent: Wednesday, February 1, 2023 1:35 PM
To: 'Luczak, Heather - FS, NC'; Aldridge, Michelle - FS, NC
Subject: RE: [External Email]FW: Sensitive Environment Inquiry - Hudson, NC

Heather – Thanks for letting me know.

Michelle – If you have any questions on this request, please let me know. We were re-confirming the presence of any Designated and Proposed Federal Wilderness and Natural Areas or National Preserves and Forests or Federal Land Designated for the Protection of Natural Ecosystems or any other sensitive environments within 1 mile of the site property, which is located at 1200 Drag Strip Road in Hudson, NC (Caldwell County).

Thanks again, Carlin

Carlin Slusher, Senior Project Scientist
Hart & Hickman, PC
3921 Sunset Ridge Rd, Ste 301 · Raleigh, NC 27607
Direct: 919-723-2517 · Mobile: 919-609-6896
www.harthickman.com

From: Luczak, Heather - FS, NC <heather.luczak@usda.gov>
Sent: Wednesday, February 1, 2023 10:38 AM
To: Carlin Slusher <cslusher@harthickman.com>
Cc: Aldridge, Michelle - FS, NC <michelle.aldridge@usda.gov>
Subject: RE: [External Email]FW: Sensitive Environment Inquiry - Hudson, NC

Carlin,
I am no longer in the Environmental Coordinator position with the National Forests in North Carolina. My replacement has not yet been filled but in the interim, you can forward sensitive environment inquiries to Michelle Aldridge (cc'd on this email).
Thank you.

Heather Luczak
Deputy Branch Chief
Plan Revision Objections Team

Forest Service
WO Ecosystem Management Coordination

p:828-767-2667
heather.luczak@usda.gov

160 Zillicoa St. Suite A
Asheville, NC 28801
www.fs.usda.gov

Caring for the land and serving people

From: Carlin Slusher <cslusher@harthickman.com>
Sent: Wednesday, February 1, 2023 9:23 AM
To: Luczak, Heather - FS, NC <heather.luczak@usda.gov>
Subject: [External Email]FW: Sensitive Environment Inquiry - Hudson, NC

Heather,

Good morning. We are updating a previous receptor survey completed in 2017 at the request of the NCDEQ Hazardous Waste Section for a project site in Hudson, North Carolina.

Please let us know if there are any Designated and Proposed Federal Wilderness and Natural Areas or National Preserves and Forests or Federal Land Designated for the Protection of Natural Ecosystems or any other sensitive environments within 1 mile of the site property, which is located at 1200 Drag Strip Road in Hudson, NC (Caldwell County).

Please find the attached map for reference. If you need any other information from me for this survey, please let me know.

Thanks, Carlin

Carlin Slusher, Senior Project Scientist
Hart & Hickman, PC
3921 Sunset Ridge Rd, Ste 301 · Raleigh, NC 27607
Direct: 919-723-2517 · Mobile: 919-609-6896
www.harthickman.com

From: Haley Randolph
Sent: Monday, October 16, 2017 1:40 PM
To: 'sheidt@fs.fed.us' <sheidt@fs.fed.us>
Subject: Sensitive Environment Inquiry - Hudson, NC

Ms. Heidt,

I'm writing a corrective measures study for a site in Hudson, NC, and I'm conducting a sensitive environment survey. I'd like to know if there are any State Wild & Scenic Rivers or any other sensitive environments within 1 mile of my site property, which is at 1200 Drag Strip Road in Hudson, NC (Caldwell County).

Please find the attached map for reference. If you need any other information from me for this survey, please let me know.

Thank you,

Haley Randolph, Staff Environmental Scientist
Hart & Hickman, PC | 3334 Hillsborough St | Raleigh, NC 27607
Direct 919-725-2509 | Mobile 610-908-9449 | Office 919-847-4241
www.harthickman.com

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From: Reid, Rebekah N <rebekah_reid@fws.gov>
Sent: Tuesday, February 14, 2023 8:38 AM
To: Carlin Slusher
Subject: Re: [EXTERNAL] FW: 18-014 CSI Landfill Site Assessment
Attachments: 20230214_18-014_CSI Landfill Site_ipac.pdf

Hi Carlin,

I ran this project through our Information for Planning and Consultation System (IPAC). Attached is a preliminary list of species that would need to be addressed during project review. I did an approximate boundary but you can access the site and upload a SHP for more exact boundaries.

This link provides project review guidance and information on how to access IPAC - https://www.fws.gov/office/asheville-ecological-services/asheville-field-office-online-review-process-overview

Please let me know if you have any questions. Thanks.

Rebekah Reid

Consultation Biologist and Section 7 Team Lead
US Fish and Wildlife Service
Asheville Ecological Services Field Office
160 Zillicoa St., Suite B
Asheville, North Carolina 28801

Office phone and admin: 828-258-3939 (please note my extension is no longer active)
To contact me directly: 828-782-0090

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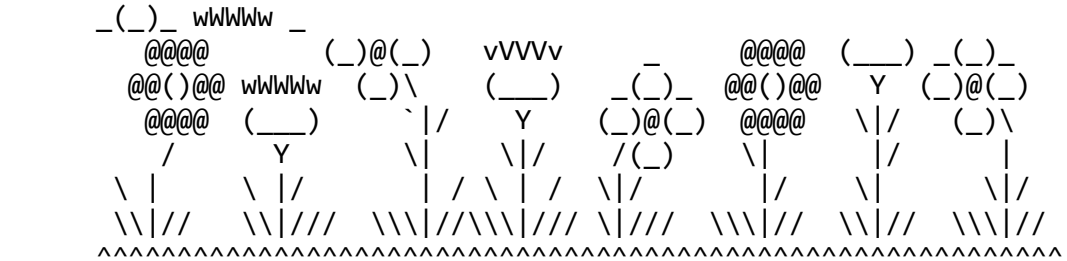

From: Carlin Slusher <cslusher@harthickman.com>
Sent: Wednesday, February 1, 2023 1:51 PM
To: Reid, Rebekah N <rebekah_reid@fws.gov>
Subject: RE: [EXTERNAL] FW: 18-014 CSI Landfill Site Assessment

Thanks, Rebekah!

Carlin Slusher, Senior Project Scientist
Hart & Hickman, PC
3921 Sunset Ridge Rd, Ste 301 · Raleigh, NC 27607
Direct: 919-723-2517 · Mobile: 919-609-6896
www.harthickman.com

From: Reid, Rebekah N <rebekah_reid@fws.gov>
Sent: Wednesday, February 1, 2023 12:21 PM
To: Carlin Slusher <cslusher@harthickman.com>
Subject: Re: [EXTERNAL] FW: 18-014 CSI Landfill Site Assessment

Hi Carlin,

This project made its way to me. Let me pull the old file and see what we need to do to get it updated. I'll be in touch. Thank you.

Rebekah Reid
Consultation Biologist and Section 7 Team Lead
US Fish and Wildlife Service
Asheville Ecological Services Field Office
160 Zillicoa St., Suite B
Asheville, North Carolina 28801
Office phone and admin: 828-258-3939 (please note my extension is no longer active)
To contact me directly: 828-782-0090

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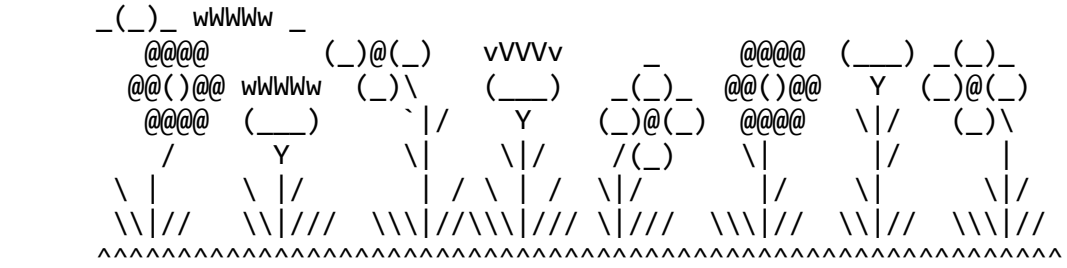

From: Mizzi, Janet <janet_mizzi@fws.gov>
Sent: Wednesday, February 1, 2023 10:34 AM
To: Reid, Rebekah N <rebekah_reid@fws.gov>
Subject: Fw: [EXTERNAL] FW: 18-014 CSI Landfill Site Assessment

For your review.

Field Supervisor
Asheville Field Office
U.S. Fish and Wildlife Service
160 Zillicoa St.
Asheville, NC 28801
Cell: 828-215-1741
Office: 828-258-3939 x42223
Email: Janet_Mizzi@fws.gov

"Policies don't change the culture, individuals do."

From: Benjamin, Pete <pete_benjamin@fws.gov>
Sent: Wednesday, February 1, 2023 9:22 AM
To: Mizzi, Janet <janet_mizzi@fws.gov>
Subject: Fw: [EXTERNAL] FW: 18-014 CSI Landfill Site Assessment

For you.

Pete Benjamin
Field Supervisor
Raleigh ES Field Office
U.S. Fish and Wildlife Service
(M) 919-816-6408

From: Carlin Slusher <cslusher@harthickman.com>
Sent: Wednesday, February 1, 2023 9:00 AM
To: Benjamin, Pete <pete_benjamin@fws.gov>
Subject: [EXTERNAL] FW: 18-014 CSI Landfill Site Assessment

Pete,
Good morning. We are updating a previous receptor survey completed in 2017 at the request of the NCDEQ Hazardous Waste Section for a project site in Hudson, North Carolina.
Please let us know if there are any updates to the response attached (provided in November 2017) for any endangered species or any other sensitive environments within 1 mile of the site property, which is located at 1200 Drag Strip Road in Hudson, NC (Caldwell County).
Please find the attached map for reference. If you need any other information from me for this survey, please let me know.
Thanks, Carlin

Carlin Slusher, Senior Project Scientist
Hart & Hickman, PC
3921 Sunset Ridge Rd, Ste 301 · Raleigh, NC 27607
Direct: 919-723-2517 · Mobile: 919-609-6896
www.harthickman.com

From: Ratzlaff, Allen <allen_ratzlaff@fws.gov>
Sent: Wednesday, November 1, 2017 2:54 PM
To: Haley Randolph <hrandolph@harthickman.com>
Subject: 18-014 CSI Landfill Site Assessment
Attached are comments from the U.S. Fish and Wildlife Service.

--

Allen Ratzlaff
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
160 Zillicoa Street
Asheville, NC 28801
828-258-3939. x229

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This message was delivered because the content filter score did not exceed your filter level.

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Caldwell County, North Carolina

Local office

Asheville Ecological Services Field Office

(828) 258-3939
(828) 258-5330

160 Zillicoa Street

Asheville, NC 28801-1082

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Gray Bat *Myotis grisescens* Wherever found No critical habitat has been designated for this species. https://ecos-beta.fws.gov/ecp/species/6329	Endangered
Northern Long-eared Bat *Myotis septentrionalis* Wherever found No critical habitat has been designated for this species. https://ecos-beta.fws.gov/ecp/species/9045	Threatened
Tricolored Bat *Perimyotis subflavus* Wherever found No critical habitat has been designated for this species. https://ecos-beta.fws.gov/ecp/species/10515	Proposed Endangered
Virginia Big-eared Bat *Corynorhinus (=Plecotus) townsendii virginianus* Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos-beta.fws.gov/ecp/species/8369	Endangered

Reptiles

NAME	STATUS
Bog Turtle *Clemmys muhlenbergii* No critical habitat has been designated for this species. https://ecos-beta.fws.gov/ecp/species/6962	SAT

Insects

NAME	STATUS

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos-beta.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Dwarf-flowered Heartleaf Hexastylis naniflora Wherever found No critical habitat has been designated for this species. https://ecos-beta.fws.gov/ecp/species/2458	Threatened
Heller's Blazingstar Liatris helleri Wherever found No critical habitat has been designated for this species. https://ecos-beta.fws.gov/ecp/species/5962	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species

- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Chimney Swift Chaetura pelagica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Prairie Warbler Dendroica discolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird Euphagus carolinus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere

Wood Thrush Hylocichla mustelina — Breeds May 10 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

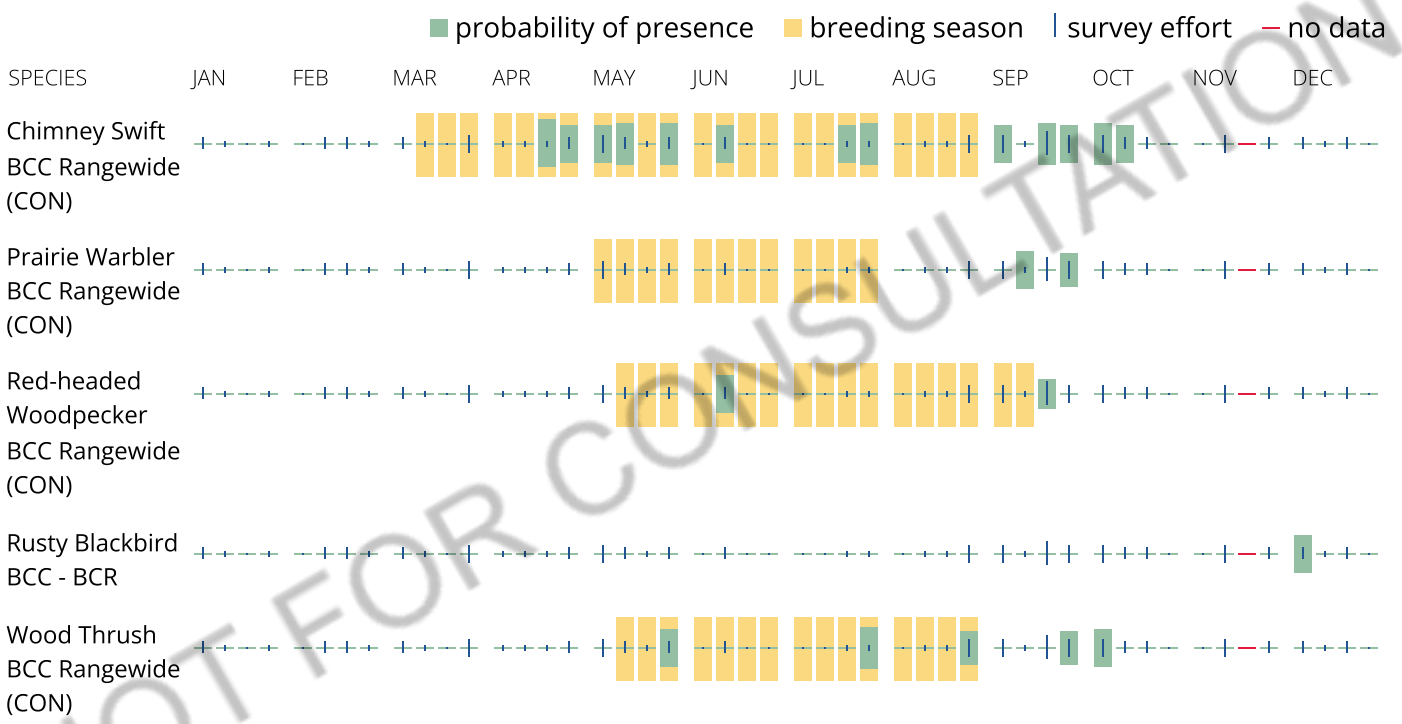
Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER POND

PUBHx

RIVERINE

R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

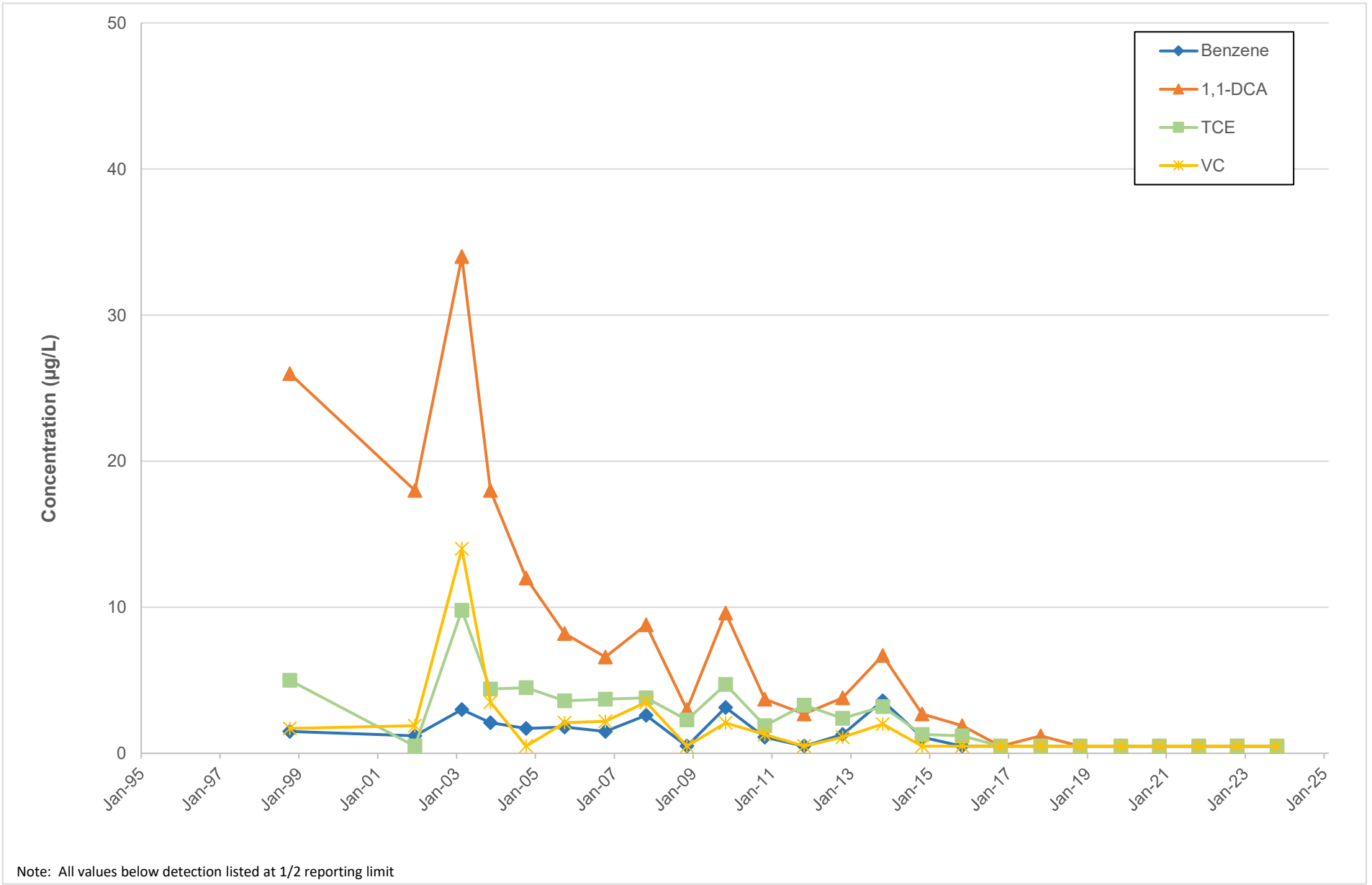
Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Appendix B

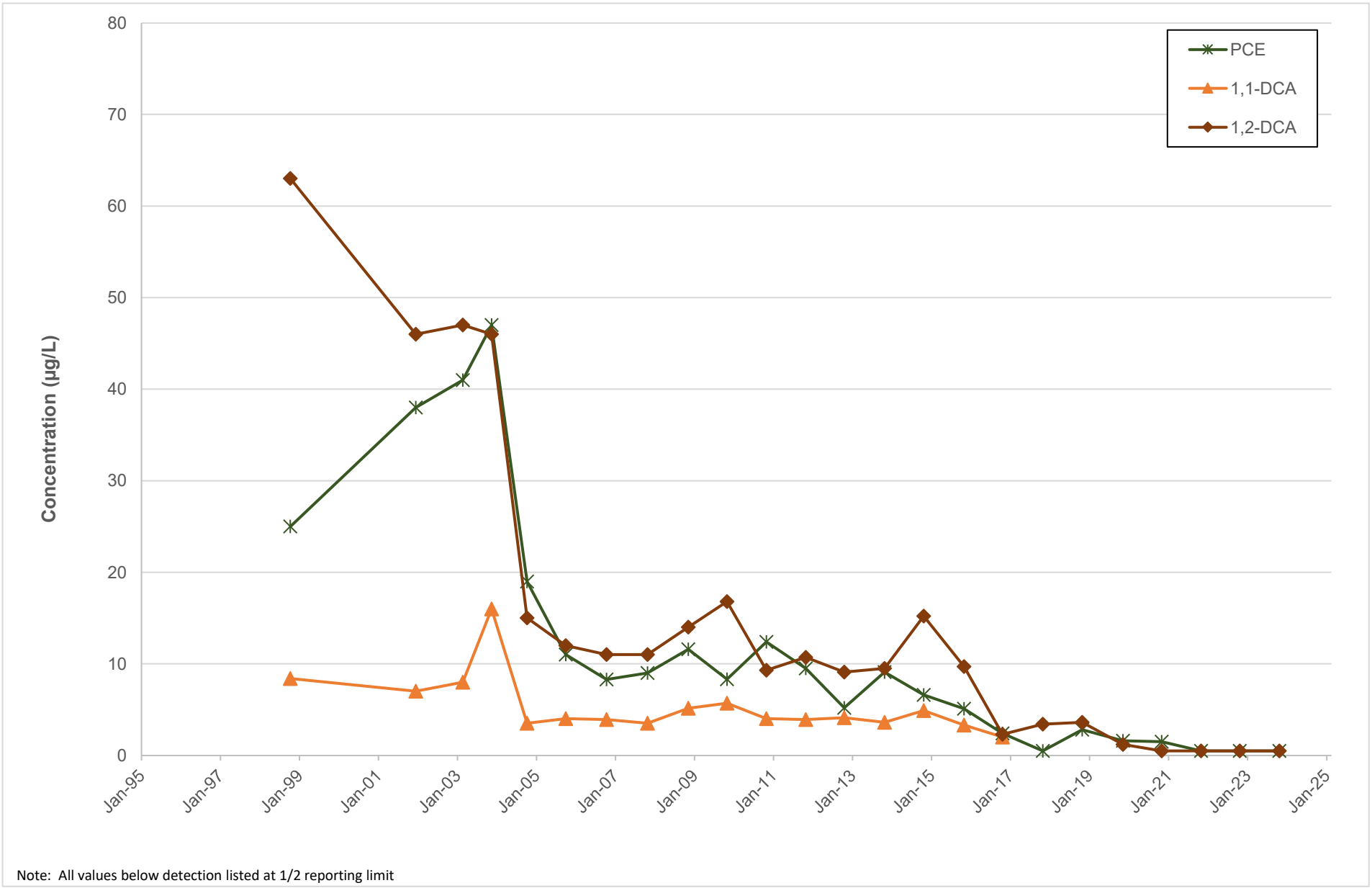
VOC Concentration vs Time Graphs

FPC-MW-01 Select VOC Concentrations vs. Time
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005



Note: All values below detection listed at 1/2 reporting limit

FPC-MW-03 Select VOC Concentrations vs. Time
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005



Note: All values below detection listed at 1/2 reporting limit

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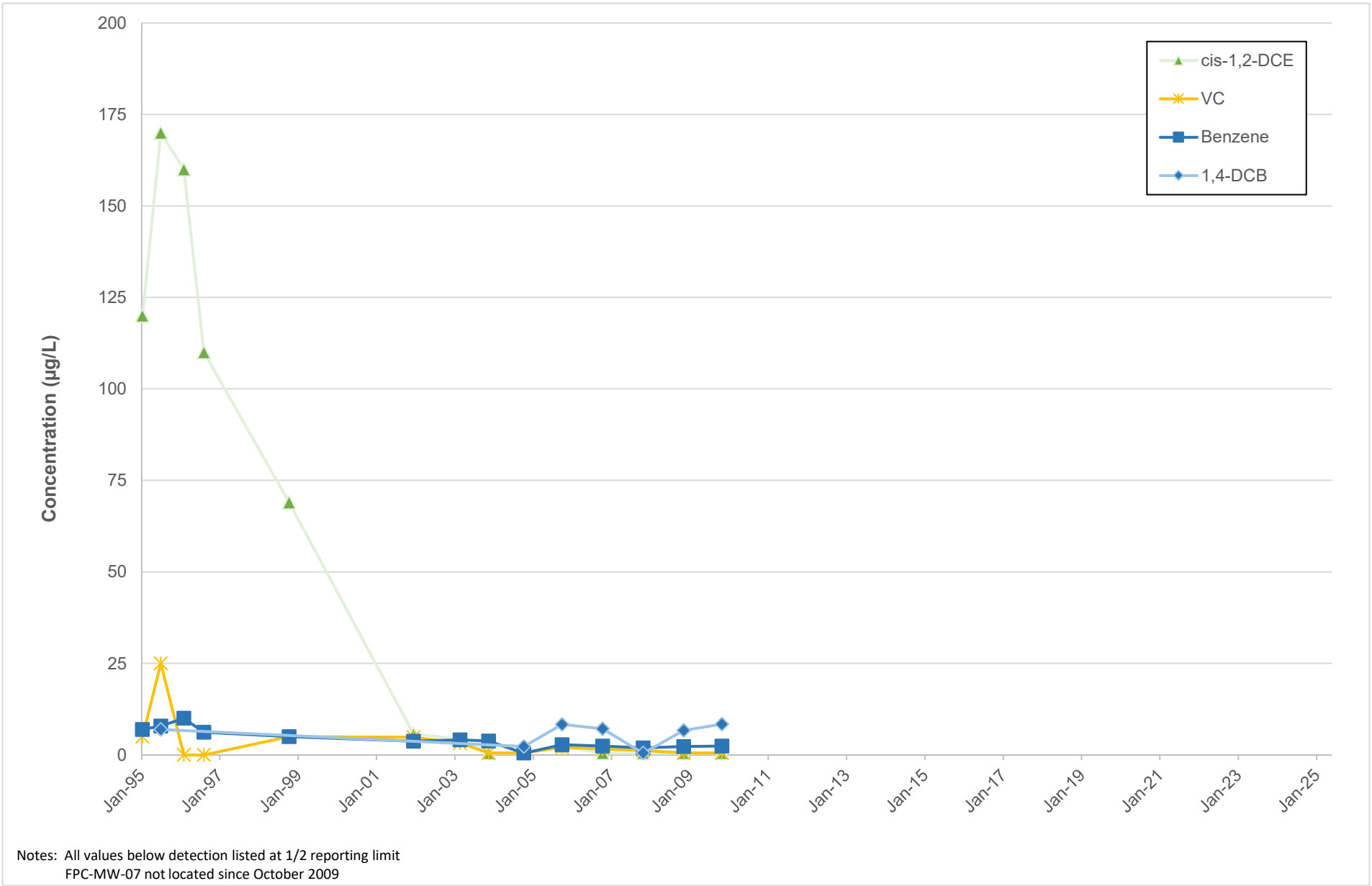
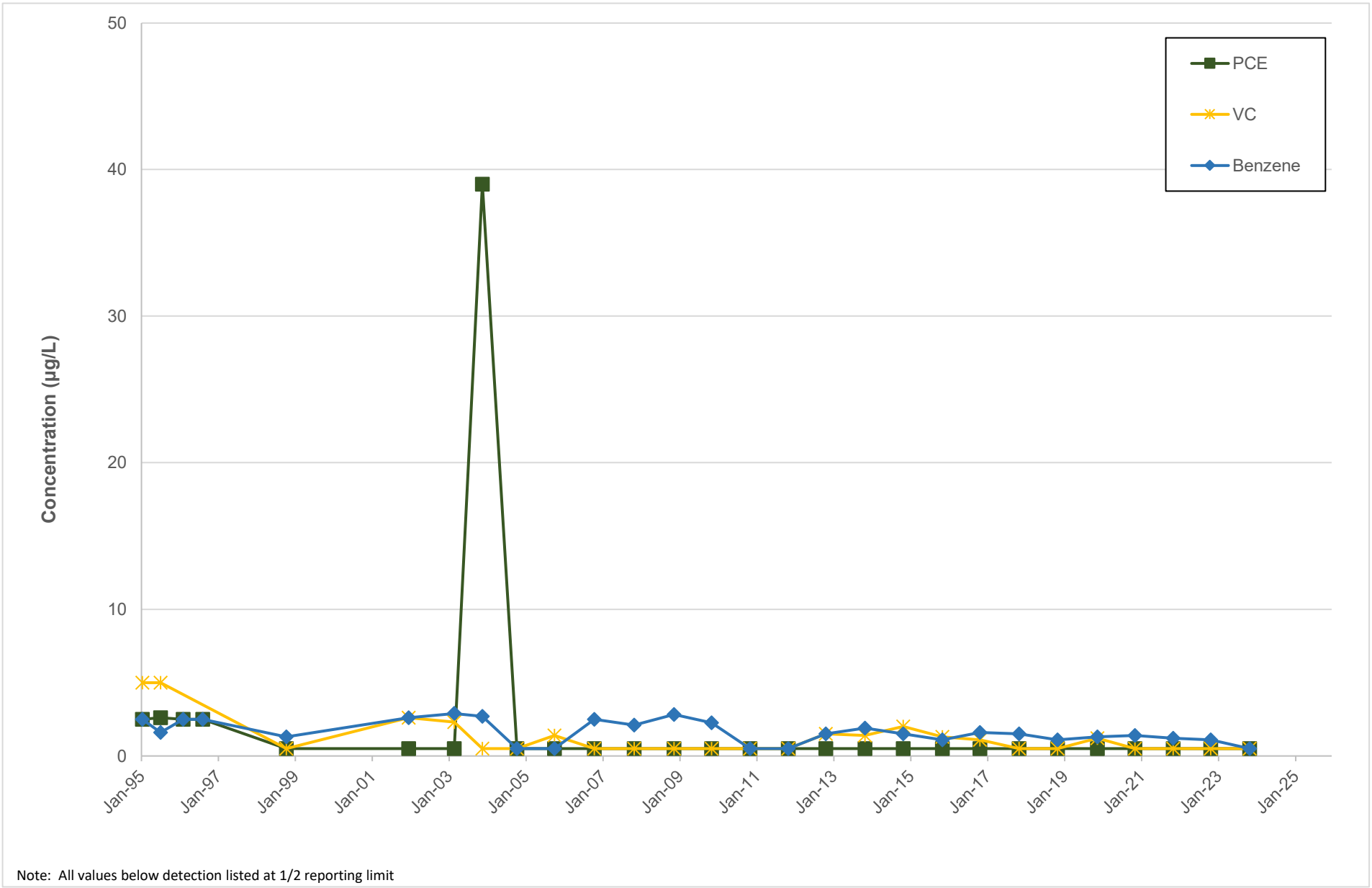
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005



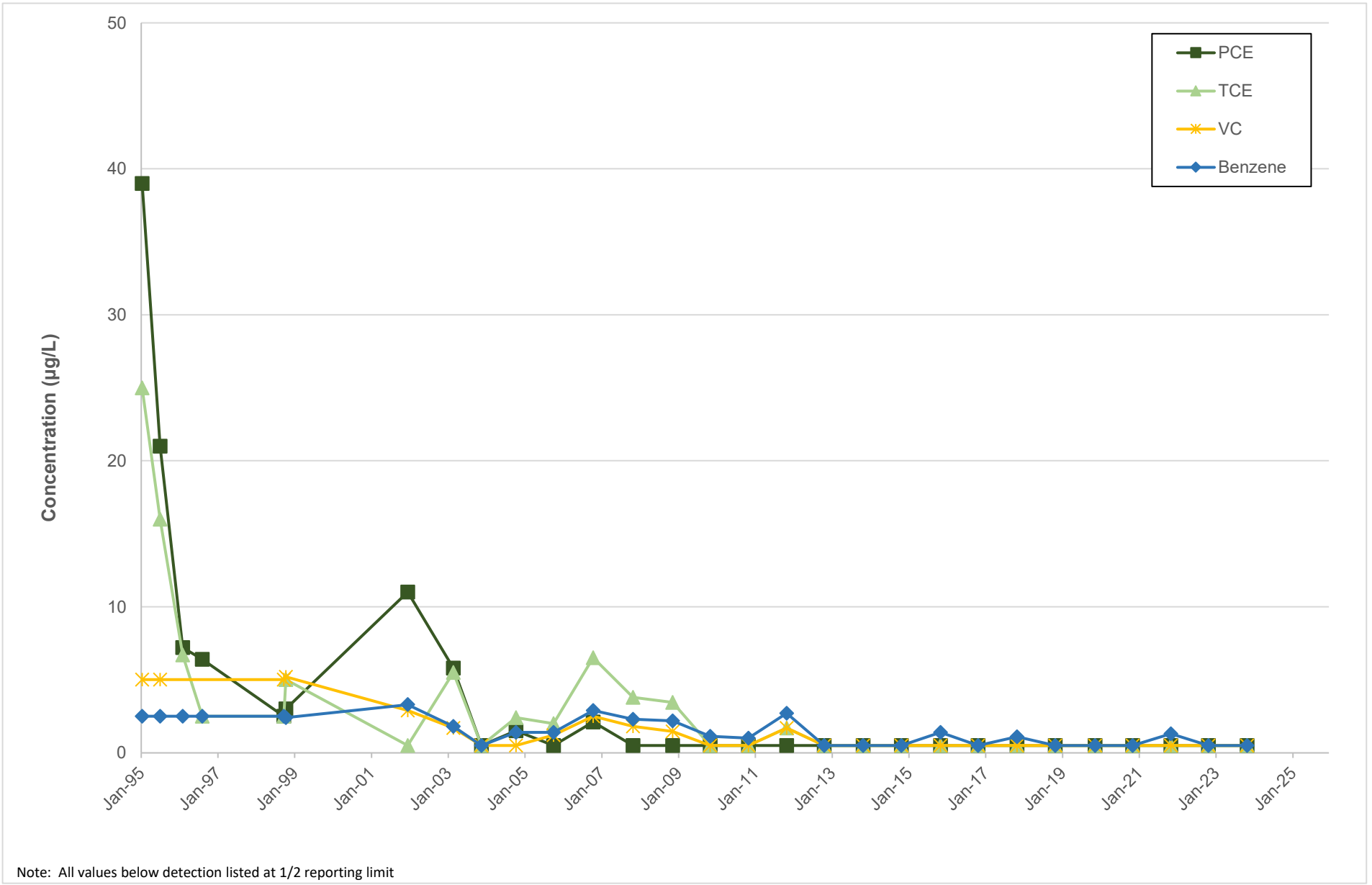
Notes: All values below detection listed at 1/2 reporting limit
FPC-MW-07 not located since October 2009

FPC-MW-07A Select VOC Concentrations vs. Time
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005



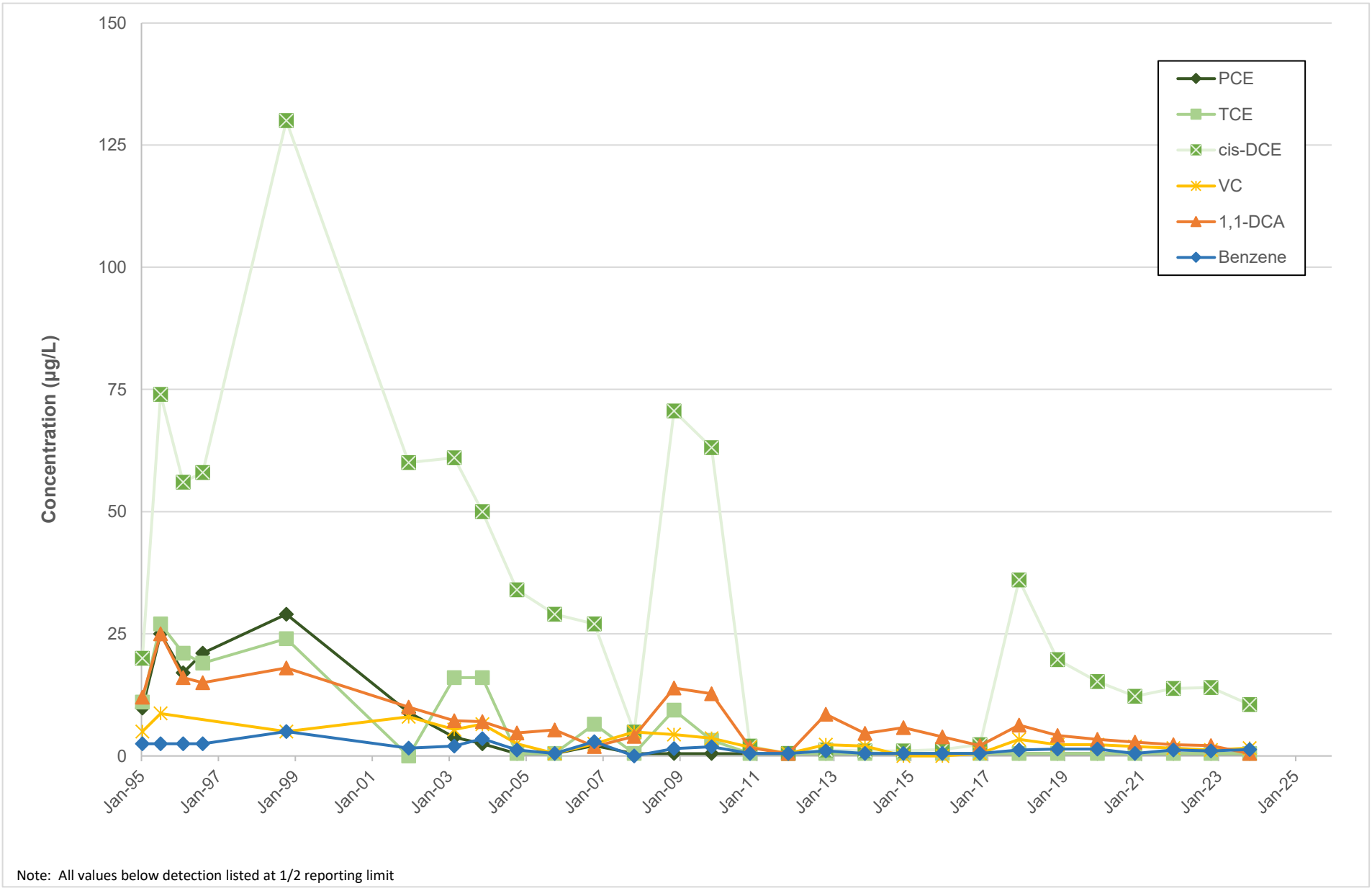
Note: All values below detection listed at 1/2 reporting limit

MW-2 Select VOC Concentrations vs. Time
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005



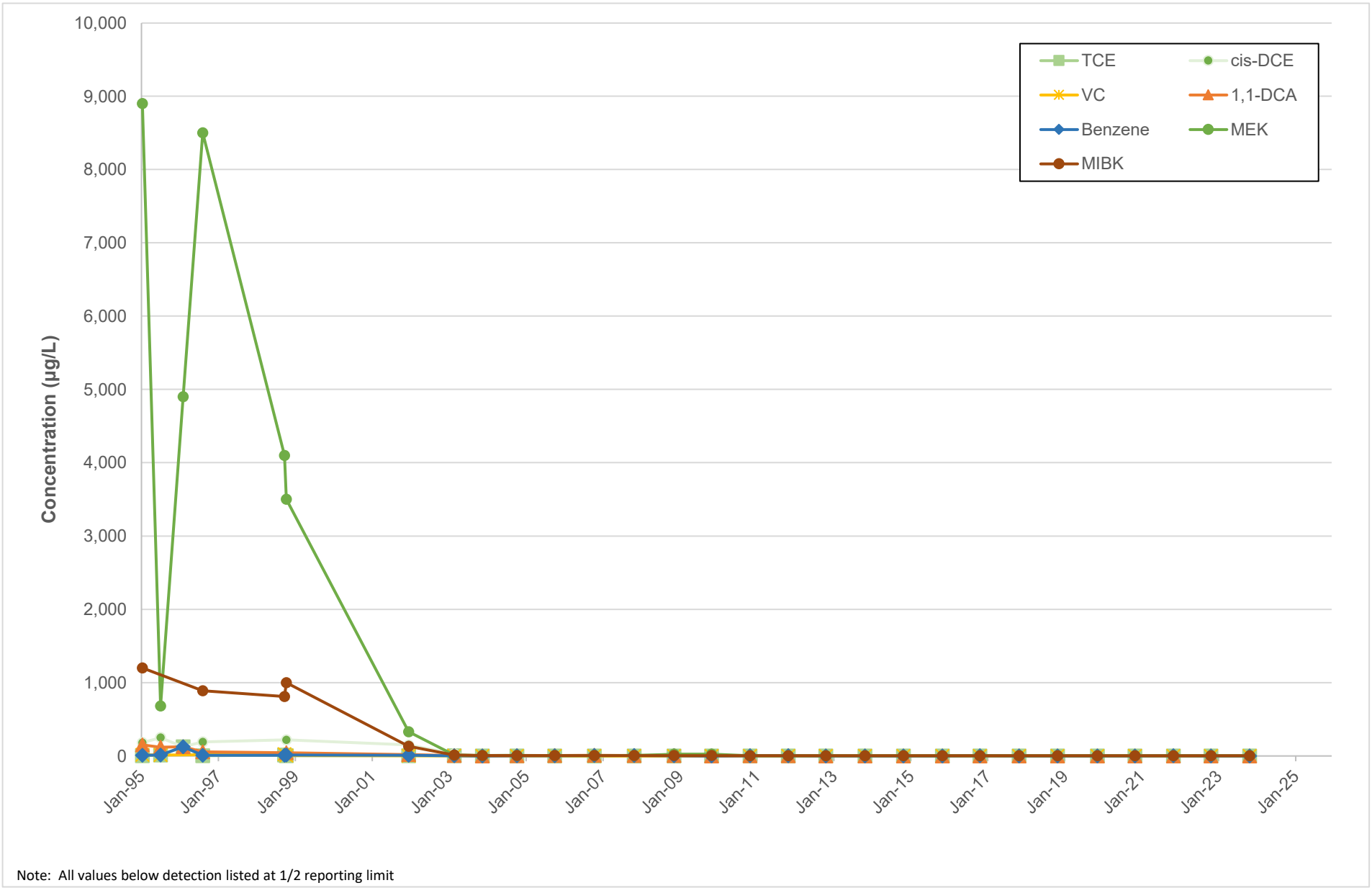
Note: All values below detection listed at 1/2 reporting limit

MW-2A Select VOC Concentrations vs. Time
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005



Note: All values below detection listed at 1/2 reporting limit

MW-3 Select VOC Concentrations vs. Time
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005



Note: All values below detection listed at 1/2 reporting limit

GM-1 Select VOC Concentrations vs. Time
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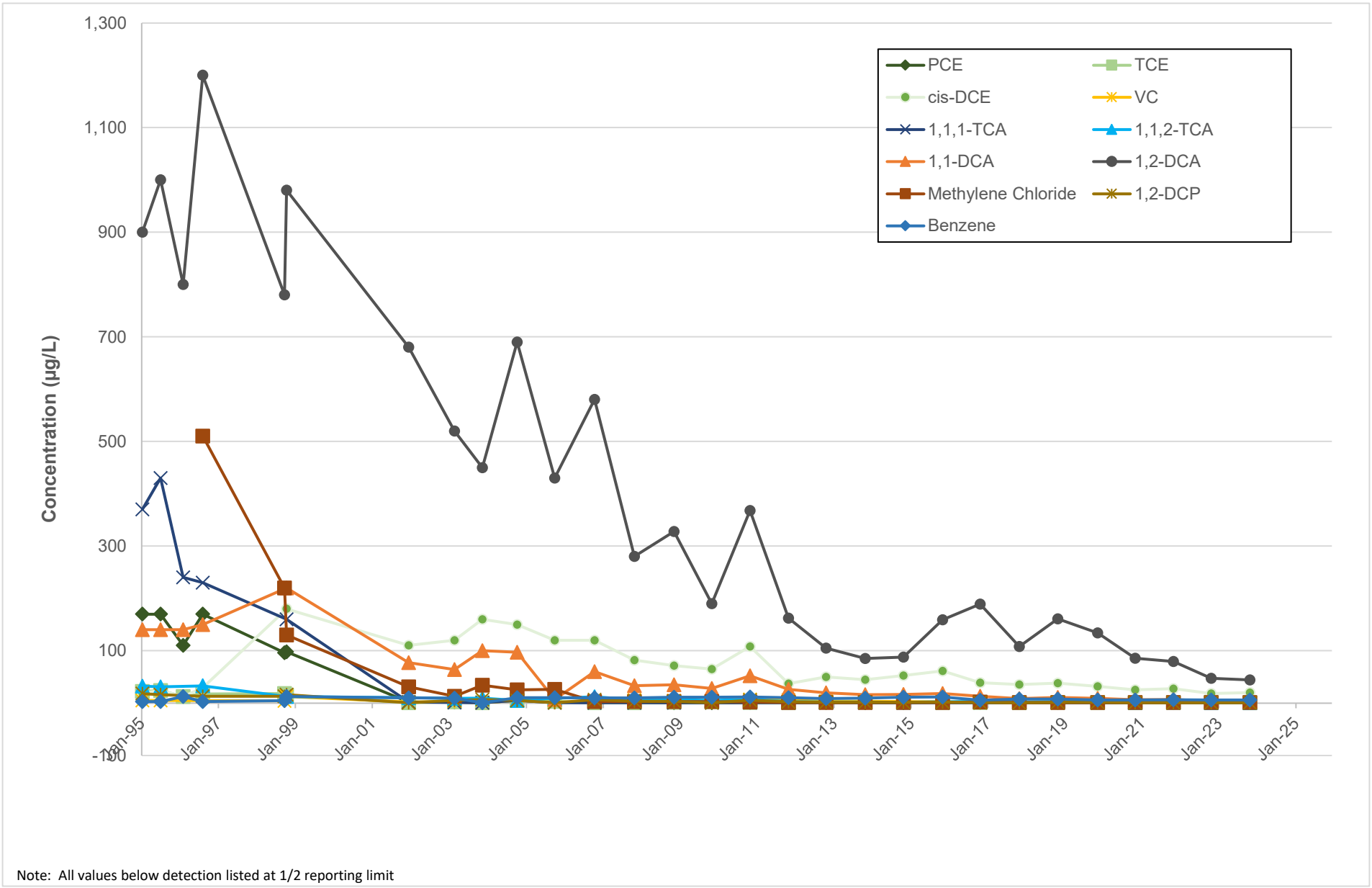
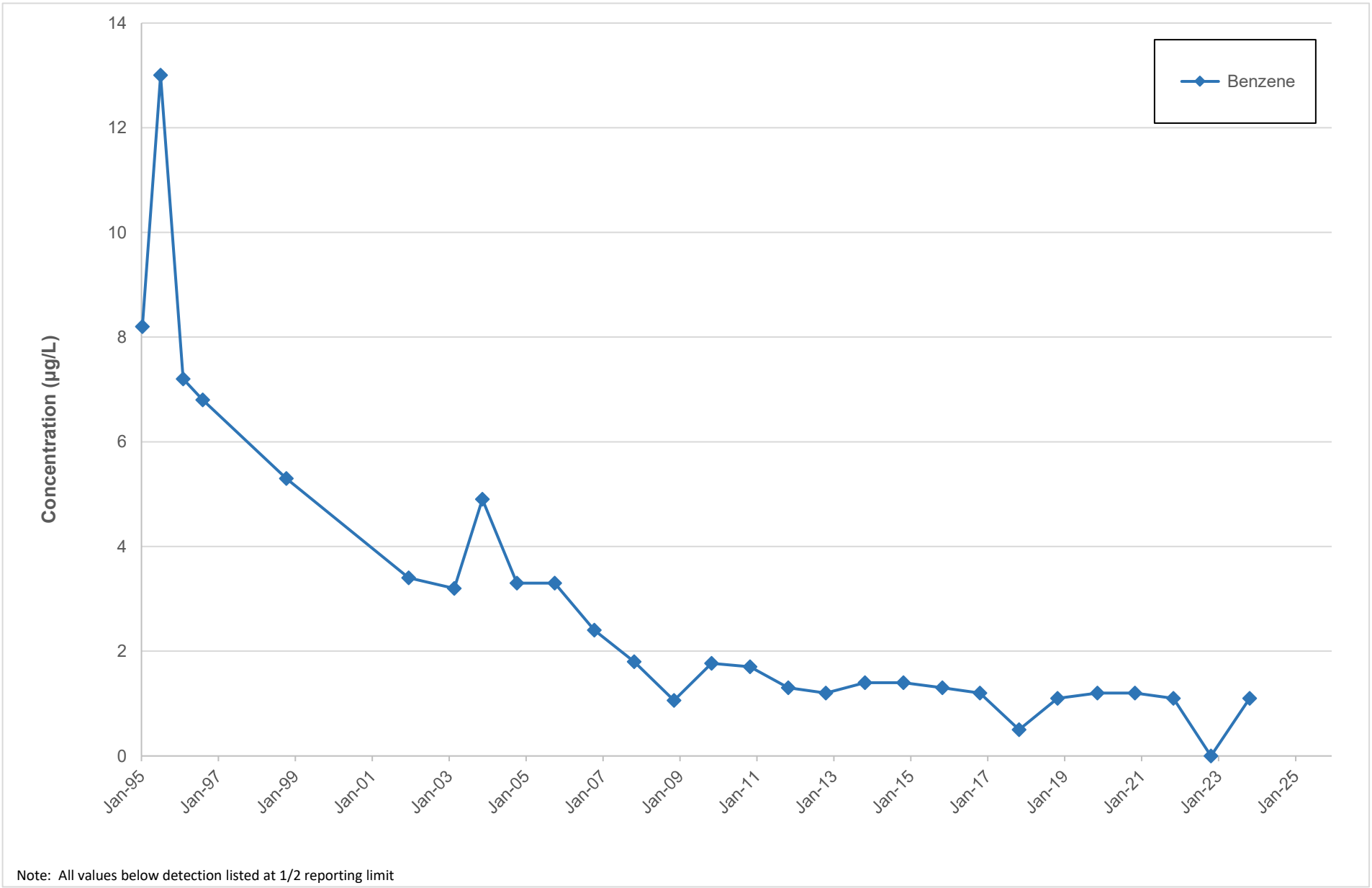
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005



Note: All values below detection listed at 1/2 reporting limit

GM-5 Select VOC Concentrations vs. Time
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-005



Note: All values below detection listed at 1/2 reporting limit

Appendix C
Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Carlin Slusher
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 2/28/2023 12:19:12 PM

JOB DESCRIPTION

Former CSI Incinerator/Landfill

JOB NUMBER

320-96418-1

Eurofins Sacramento
880 Riverside Parkway
West Sacramento CA 95605

See page two for job notes and contact information.

Job Notes

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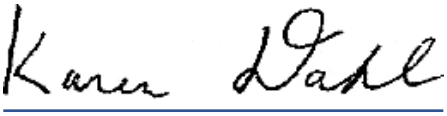
The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northern California, LLC Project Manager.

Authorization



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2/28/2023 12:19:12 PM

Authorized for release by
Karen Dahl, Senior Project Manager
Karen.Dahl@et.eurofinsus.com
(916)374-4384

Table of Contents

Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 320-96418-1
Project/Site: Former CSI Incinerator/Landfill

Qualifiers

LCMS

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
E	Result exceeded calibration range.
I	Value is EMPC (estimated maximum possible concentration).

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Hart & Hickman, PC
Job ID: 320-96418-1
Project/Site: Former CSI Incinerator/Landfill

Job ID: 320-96418-1

Laboratory: Eurofins Sacramento

Narrative

Comments
As discussed & requested via email, J flags are not reported on this job.

No additional comments.

Receipt
The samples were received on 1/31/2023 10:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.2° C.

Receipt Exceptions
The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): MW-3A (320-96418-7) and GW-DUP (320-96418-8). The containers for sample MW-3A (320-96418-7) were labeled with a collection date of 1/26/23. The containers for sample GW-DUP (320-96418-8) were labeled with a collection date of 1/27/23. As requested, a collection date of 1/27/23 was used for both samples.

LCMS
Method 537 (modified): The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 320-651321 and analytical batch 320-655097 recovered outside control limits for the following analyte: 11Cl-PF3OUdS. This analyte was biased high in the LCSs and was not detected in the associated samples; therefore, the data have been reported.

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was above the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty, and the reported value may have some high bias. However, analyst judgment was used to positively identify the analyte. The following samples are impacted: GM-1 (320-96418-1) and MW-3 (320-96418-6).

Method 537 (modified): The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range: GM-1 (320-96418-1) and GW-DUP (320-96418-8). These analytes have been qualified with an 'E' flag; however, the peaks did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-651321.

Method 3535: The following samples in preparation batch 320-651321 were observed to have a thin layer of sediment present in the bottom of their bottles prior to extraction. GM-1 (320-96418-1), GM-5 (320-96418-2), FPC-MW-07A (320-96418-3), MW-2 (320-96418-4), MW-2A (320-96418-5), MW-3 (320-96418-6), MW-3A (320-96418-7) and GW-DUP (320-96418-8)

Method 3535: The following samples in preparation batch 320-651321 were tan in color prior to extraction. GM-5 (320-96418-2), MW-2A (320-96418-5) and MW-3 (320-96418-6)

Method 3535: During the solid phase extraction process, the following samples contain non-settable particulates which clogged the solid phase extraction column: GM-1 (320-96418-1), GM-5 (320-96418-2), FPC-MW-07A (320-96418-3), MW-2A (320-96418-5), MW-3A (320-96418-7) and GW-DUP (320-96418-8).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: Former CSI Incinerator/Landfill

Job ID: 320-96418-1

Client Sample ID: GM-1 — Lab Sample ID: 320-96418-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	50		4.0		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	96		1.6		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1000	E	1.6		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	150		1.6		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	13		1.6		ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	140		1.6		ng/L	1		537 (modified)	Total/NA
4:2 FTS	1.8	I	1.6		ng/L	1		537 (modified)	Total/NA

Client Sample ID: GM-5 — Lab Sample ID: 320-96418-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	9.9		4.3		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	12		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	35		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	7.3		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	11		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	13		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	2.9		1.7		ng/L	1		537 (modified)	Total/NA

Client Sample ID: FPC-MW-07A — Lab Sample ID: 320-96418-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	110		4.2		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	62		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	320		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	34		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	19		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	6.4		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	2.1		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.0		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.4		1.7		ng/L	1		537 (modified)	Total/NA
NEtFOSAA	5.9		4.2		ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-2 — Lab Sample ID: 320-96418-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	6.1		4.4		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.3		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	5.3		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	4.8		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	10		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	2.1		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.6		1.8		ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-2A — Lab Sample ID: 320-96418-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	91		4.3		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	74		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	330		1.7		ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

Detection Summary

Client: Hart & Hickman, PC
Project/Site: Former CSI Incinerator/Landfill

Job ID: 320-96418-1

Client Sample ID: MW-2A (Continued) — Lab Sample ID: 320-96418-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	15		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	10		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	6.9		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.5		1.7		ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-3 — Lab Sample ID: 320-96418-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	33		4.5		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	28		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	55		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	29		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	140		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	5.8		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	46		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	29		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	48		1.8		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	6.7		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	13	I	1.8		ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-3A — Lab Sample ID: 320-96418-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	20		4.3		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	28		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	89		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	8.9		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	6.1		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	7.9		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	3.0		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	9.1		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	3.6		1.7		ng/L	1		537 (modified)	Total/NA
NMeFOSAA	7.4		4.3		ng/L	1		537 (modified)	Total/NA
NEtFOSAA	12		4.3		ng/L	1		537 (modified)	Total/NA

Client Sample ID: GW-DUP — Lab Sample ID: 320-96418-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	48		4.1		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	93		1.6		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1000	E	1.6		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	140		1.6		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	11		1.6		ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	140		1.6		ng/L	1		537 (modified)	Total/NA
4:2 FTS	2.1		1.6		ng/L	1		537 (modified)	Total/NA

Client Sample ID: Field Blank — Lab Sample ID: 320-96418-9

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

Detection Summary

Client: Hart & Hickman, PC
Job ID: 320-96418-1
Project/Site: Former CSI Incinerator/Landfill

Client Sample ID: Equip Blank
Lab Sample ID: 320-96418-10

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Project/Site: Former CSI Incinerator/Landfill

Job ID: 320-96418-1

Client Sample ID: GM-1
Date Collected: 01/27/23 11:20
Date Received: 01/31/23 10:15

Lab Sample ID: 320-96418-1
Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**50**		4.0		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluoropentanoic acid (PFPeA)	**96**		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluorohexanoic acid (PFHxA)	**1000**	**E**	1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluoroheptanoic acid (PFHpA)	**150**		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluorooctanoic acid (PFOA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluorononanoic acid (PFNA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluorodecanoic acid (PFDA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluorododecanoic acid (PFDoA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluorobutanesulfonic acid (PFBS)	**13**		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluoropentanesulfonic acid (PFPeS)	**140**		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluorooctanesulfonamide (FOSA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
NMeFOSAA	ND		4.0		ng/L		02/02/23 12:22	02/18/23 10:38	1
NEtFOSAA	ND		4.0		ng/L		02/02/23 12:22	02/18/23 10:38	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
4:2 FTS	**1.8**	**I**	1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
6:2 FTS	ND		4.0		ng/L		02/02/23 12:22	02/18/23 10:38	1
8:2 FTS	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
9Cl-PF3ONS	ND		1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1
11Cl-PF3OUdS	ND	*+	1.6		ng/L		02/02/23 12:22	02/18/23 10:38	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*63*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
13C5 PFPeA	*78*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
13C2 PFHxA	*81*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
13C4 PFHpA	*89*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
13C4 PFOA	*95*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
13C5 PFNA	*88*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
13C2 PFDA	*87*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
13C2 PFUnA	*74*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
13C2 PFDoA	*72*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
13C2 PFTeDA	*82*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
13C3 PFBS	*93*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
18O2 PFHxS	*87*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
13C4 PFOS	*82*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
13C8 FOSA	*70*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
d3-NMeFOSAA	*71*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
d5-NEtFOSAA	*69*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*

Client Sample ID: GM-1
Lab Sample ID: 320-96418-1
Date Collected: 01/27/23 11:20
Matrix: Water
Date Received: 01/31/23 10:15

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	*146*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
M2-8:2 FTS	*80*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*
M2-4:2 FTS	*145*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:38*	*1*

Client Sample ID: GM-5
Lab Sample ID: 320-96418-2
Date Collected: 01/26/23 12:05
Matrix: Water
Date Received: 01/31/23 10:15

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**9.9**		4.3		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluoropentanoic acid (PFPeA)	**12**		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluorohexanoic acid (PFHxA)	**35**		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluoroheptanoic acid (PFHpA)	**7.3**		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluorooctanoic acid (PFOA)	**11**		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluorobutanesulfonic acid (PFBS)	**13**		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluoropentanesulfonic acid (PFPeS)	**2.9**		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
NMeFOSAA	ND		4.3		ng/L		02/02/23 12:22	02/18/23 10:48	1
NEtFOSAA	ND		4.3		ng/L		02/02/23 12:22	02/18/23 10:48	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
4:2 FTS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
6:2 FTS	ND		4.3		ng/L		02/02/23 12:22	02/18/23 10:48	1
8:2 FTS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
9Cl-PF3ONS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1
11Cl-PF3OUdS	ND	*+	1.7		ng/L		02/02/23 12:22	02/18/23 10:48	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	*66*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:48*	*1*
13C5 PFPeA	*83*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:48*	*1*
13C2 PFHxA	*94*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:48*	*1*
13C4 PFHpA	*95*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:48*	*1*
13C4 PFOA	*96*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:48*	*1*
13C5 PFNA	*92*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:48*	*1*
13C2 PFDA	*95*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:48*	*1*

Client Sample ID: GM-5
Lab Sample ID: 320-96418-2
Date Collected: 01/26/23 12:05
Matrix: Water
Date Received: 01/31/23 10:15

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	88		25 - 150	02/02/23 12:22	02/18/23 10:48	1
13C2 PFDoA	84		25 - 150	02/02/23 12:22	02/18/23 10:48	1
13C2 PFTeDA	73		25 - 150	02/02/23 12:22	02/18/23 10:48	1
13C3 PFBS	94		25 - 150	02/02/23 12:22	02/18/23 10:48	1
18O2 PFHxS	96		25 - 150	02/02/23 12:22	02/18/23 10:48	1
13C4 PFOS	88		25 - 150	02/02/23 12:22	02/18/23 10:48	1
13C8 FOSA	83		25 - 150	02/02/23 12:22	02/18/23 10:48	1
d3-NMeFOSAA	72		25 - 150	02/02/23 12:22	02/18/23 10:48	1
d5-NEtFOSAA	77		25 - 150	02/02/23 12:22	02/18/23 10:48	1
M2-6:2 FTS	104		25 - 150	02/02/23 12:22	02/18/23 10:48	1
M2-8:2 FTS	93		25 - 150	02/02/23 12:22	02/18/23 10:48	1
M2-4:2 FTS	112		25 - 150	02/02/23 12:22	02/18/23 10:48	1

Client Sample ID: FPC-MW-07A
Lab Sample ID: 320-96418-3
Date Collected: 01/27/23 12:00
Matrix: Water
Date Received: 01/31/23 10:15

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**110**		4.2		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluoropentanoic acid (PFPeA)	**62**		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluorohexanoic acid (PFHxA)	**320**		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluoroheptanoic acid (PFHpA)	**34**		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluorooctanoic acid (PFOA)	**19**		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluorobutanesulfonic acid (PFBS)	**6.4**		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluoropentanesulfonic acid (PFPeS)	**2.1**		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluorohexanesulfonic acid (PFHxS)	**3.0**		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluorooctanesulfonic acid (PFOS)	**2.4**		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
NMeFOSAA	ND		4.2		ng/L		02/02/23 12:22	02/18/23 10:58	1
NEtFOSAA	**5.9**		4.2		ng/L		02/02/23 12:22	02/18/23 10:58	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
4:2 FTS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
6:2 FTS	ND		4.2		ng/L		02/02/23 12:22	02/18/23 10:58	1
8:2 FTS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1

Client Sample ID: FPC-MW-07A

Lab Sample ID: 320-96418-3

Date Collected: 01/27/23 12:00
Date Received: 01/31/23 10:15

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9Cl-PF3ONS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1
11Cl-PF3OUdS	ND	*+	1.7		ng/L		02/02/23 12:22	02/18/23 10:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*54*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
13C5 PFPeA	*75*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
13C2 PFHxA	*89*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
13C4 PFHpA	*96*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
13C4 PFOA	*97*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
13C5 PFNA	*94*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
13C2 PFDA	*98*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
13C2 PFUnA	*87*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
13C2 PFDoA	*88*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
13C2 PFTeDA	*77*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
13C3 PFBS	*93*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
18O2 PFHxS	*93*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
13C4 PFOS	*89*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
13C8 FOSA	*88*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
d3-NMeFOSAA	*102*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
d5-NEtFOSAA	*105*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
M2-6:2 FTS	*146*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
M2-8:2 FTS	*122*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*
M2-4:2 FTS	*134*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:58*	*1*

Client Sample ID: MW-2

Lab Sample ID: 320-96418-4

Date Collected: 01/26/23 10:50
Date Received: 01/31/23 10:15

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**6.1**		4.4		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluoropentanoic acid (PFPeA)	**3.3**		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluorohexanoic acid (PFHxA)	**5.3**		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluorooctanoic acid (PFOA)	**4.8**		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluorobutanesulfonic acid (PFBS)	**10**		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluoropentanesulfonic acid (PFPeS)	**2.1**		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluorooctanesulfonic acid (PFOS)	**2.6**		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluorononanesulfonic acid (PFNS)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1

Client Sample ID: MW-2
Lab Sample ID: 320-96418-4

Date Collected: 01/26/23 10:50
Matrix: Water
Date Received: 01/31/23 10:15

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
NMeFOSAA	ND		4.4		ng/L		02/02/23 12:22	02/18/23 11:08	1
NEtFOSAA	ND		4.4		ng/L		02/02/23 12:22	02/18/23 11:08	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
4:2 FTS	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
6:2 FTS	ND		4.4		ng/L		02/02/23 12:22	02/18/23 11:08	1
8:2 FTS	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
9Cl-PF3ONS	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1
11Cl-PF3OUdS	ND	*+	1.8		ng/L		02/02/23 12:22	02/18/23 11:08	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*75*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
13C5 PFPeA	*96*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
13C2 PFHxA	*110*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
13C4 PFHpA	*111*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
13C4 PFOA	*106*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
13C5 PFNA	*109*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
13C2 PFDA	*107*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
13C2 PFUnA	*93*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
13C2 PFDoA	*92*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
13C2 PFTeDA	*90*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
13C3 PFBS	*109*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
18O2 PFHxS	*109*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
13C4 PFOS	*103*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
13C8 FOSA	*91*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
d3-NMeFOSAA	*89*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
d5-NEtFOSAA	*87*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
M2-6:2 FTS	*102*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
M2-8:2 FTS	*95*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*
M2-4:2 FTS	*114*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:08*	*1*

Client Sample ID: MW-2A
Lab Sample ID: 320-96418-5

Date Collected: 01/26/23 09:15
Matrix: Water
Date Received: 01/31/23 10:15

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**91**		4.3		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluoropentanoic acid (PFPeA)	**74**		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluorohexanoic acid (PFHxA)	**330**		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluoroheptanoic acid (PFHpA)	**15**		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluorooctanoic acid (PFOA)	**10**		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1

Client Sample ID: MW-2A
Date Collected: 01/26/23 09:15
Date Received: 01/31/23 10:15

Lab Sample ID: 320-96418-5
Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**6.9**		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluorohexanesulfonic acid (PFHxS)	**2.5**		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
NMeFOSAA	ND		4.3		ng/L		02/02/23 12:22	02/18/23 11:18	1
NEtFOSAA	ND		4.3		ng/L		02/02/23 12:22	02/18/23 11:18	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
4:2 FTS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
6:2 FTS	ND		4.3		ng/L		02/02/23 12:22	02/18/23 11:18	1
8:2 FTS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
9Cl-PF3ONS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1
11Cl-PF3OUdS	ND	*+	1.7		ng/L		02/02/23 12:22	02/18/23 11:18	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*55*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
13C5 PFPeA	*71*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
13C2 PFHxA	*94*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
13C4 PFHpA	*105*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
13C4 PFOA	*99*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
13C5 PFNA	*95*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
13C2 PFDA	*97*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
13C2 PFUnA	*82*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
13C2 PFDoA	*81*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
13C2 PFTeDA	*69*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
13C3 PFBS	*97*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
18O2 PFHxS	*100*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
13C4 PFOS	*93*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
13C8 FOSA	*83*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
d3-NMeFOSAA	*72*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
d5-NEtFOSAA	*74*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
M2-6:2 FTS	*102*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
M2-8:2 FTS	*90*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*
M2-4:2 FTS	*131*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:18*	*1*

Client Sample ID: MW-3
Date Collected: 01/26/23 14:40
Date Received: 01/31/23 10:15

Lab Sample ID: 320-96418-6
Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**33**		4.5		ng/L		02/02/23 12:22	02/18/23 11:28	1

Client Sample ID: MW-3
Date Collected: 01/26/23 14:40
Date Received: 01/31/23 10:15

Lab Sample ID: 320-96418-6
Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	**28**		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluorohexanoic acid (PFHxA)	**55**		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluoroheptanoic acid (PFHpA)	**29**		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluorooctanoic acid (PFOA)	**140**		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluorononanoic acid (PFNA)	**5.8**		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluorobutanesulfonic acid (PFBS)	**46**		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluoropentanesulfonic acid (PFPeS)	**29**		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluorohexanesulfonic acid (PFHxS)	**48**		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluoroheptanesulfonic acid (PFHpS)	**6.7**		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluorooctanesulfonic acid (PFOS)	**13**	I	1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluorononanesulfonic acid (PFNS)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
NMeFOSAA	ND		4.5		ng/L		02/02/23 12:22	02/18/23 11:28	1
NEtFOSAA	ND		4.5		ng/L		02/02/23 12:22	02/18/23 11:28	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
4:2 FTS	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
6:2 FTS	ND		4.5		ng/L		02/02/23 12:22	02/18/23 11:28	1
8:2 FTS	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
9Cl-PF3ONS	ND		1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1
11Cl-PF3OUdS	ND	*+	1.8		ng/L		02/02/23 12:22	02/18/23 11:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*82*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:28*	*1*
13C5 PFPeA	*96*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:28*	*1*
13C2 PFHxA	*108*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:28*	*1*
13C4 PFHpA	*110*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:28*	*1*
13C4 PFOA	*107*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:28*	*1*
13C5 PFNA	*108*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:28*	*1*
13C2 PFDA	*108*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:28*	*1*
13C2 PFUnA	*102*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:28*	*1*
13C2 PFDoA	*100*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:28*	*1*
13C2 PFTeDA	*94*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:28*	*1*
13C3 PFBS	*111*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:28*	*1*
18O2 PFHxS	*106*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:28*	*1*
13C4 PFOS	*101*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:28*	*1*
13C8 FOSA	*95*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:28*	*1*
d3-NMeFOSAA	*95*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:28*	*1*
d5-NEtFOSAA	*96*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:28*	*1*

Client Sample ID: MW-3
Lab Sample ID: 320-96418-6

Date Collected: 01/26/23 14:40
Matrix: Water
Date Received: 01/31/23 10:15

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	107		25 - 150	02/02/23 12:22	02/18/23 11:28	1
M2-8:2 FTS	113		25 - 150	02/02/23 12:22	02/18/23 11:28	1
M2-4:2 FTS	117		25 - 150	02/02/23 12:22	02/18/23 11:28	1

Client Sample ID: MW-3A
Lab Sample ID: 320-96418-7

Date Collected: 01/27/23 08:20
Matrix: Water
Date Received: 01/31/23 10:15

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**20**		4.3		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluoropentanoic acid (PFPeA)	**28**		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluorohexanoic acid (PFHxA)	**89**		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluoroheptanoic acid (PFHpA)	**8.9**		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluorooctanoic acid (PFOA)	**6.1**		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluorobutanesulfonic acid (PFBS)	**7.9**		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluoropentanesulfonic acid (PFPeS)	**3.0**		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluorooctanesulfonic acid (PFOS)	**9.1**		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluorooctanesulfonamide (FOSA)	**3.6**		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
NMeFOSAA	**7.4**		4.3		ng/L		02/02/23 12:22	02/18/23 11:38	1
NEtFOSAA	**12**		4.3		ng/L		02/02/23 12:22	02/18/23 11:38	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
4:2 FTS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
6:2 FTS	ND		4.3		ng/L		02/02/23 12:22	02/18/23 11:38	1
8:2 FTS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
9Cl-PF3ONS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1
11Cl-PF3OUdS	ND	*+	1.7		ng/L		02/02/23 12:22	02/18/23 11:38	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	74		25 - 150	02/02/23 12:22	02/18/23 11:38	1
13C5 PFPeA	81		25 - 150	02/02/23 12:22	02/18/23 11:38	1
13C2 PFHxA	92		25 - 150	02/02/23 12:22	02/18/23 11:38	1
13C4 PFHpA	94		25 - 150	02/02/23 12:22	02/18/23 11:38	1
13C4 PFOA	93		25 - 150	02/02/23 12:22	02/18/23 11:38	1

Client Sample ID: MW-3A
Lab Sample ID: 320-96418-7
Date Collected: 01/27/23 08:20
Matrix: Water
Date Received: 01/31/23 10:15

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C5 PFNA	*92*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:38*	*1*
13C2 PFDA	*95*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:38*	*1*
13C2 PFUnA	*90*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:38*	*1*
13C2 PFDoA	*82*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:38*	*1*
13C2 PFTeDA	*78*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:38*	*1*
13C3 PFBS	*92*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:38*	*1*
18O2 PFHxS	*91*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:38*	*1*
13C4 PFOS	*91*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:38*	*1*
13C8 FOSA	*94*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:38*	*1*
d3-NMeFOSAA	*99*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:38*	*1*
d5-NEtFOSAA	*107*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:38*	*1*
M2-6:2 FTS	*137*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:38*	*1*
M2-8:2 FTS	*122*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:38*	*1*
M2-4:2 FTS	*133*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:38*	*1*

Client Sample ID: GW-DUP
Lab Sample ID: 320-96418-8
Date Collected: 01/27/23 00:00
Matrix: Water
Date Received: 01/31/23 10:15

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**48**		4.1		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluoropentanoic acid (PFPeA)	**93**		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluorohexanoic acid (PFHxA)	**1000**	**E**	1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluoroheptanoic acid (PFHpA)	**140**		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluorooctanoic acid (PFOA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluorononanoic acid (PFNA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluorodecanoic acid (PFDA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluorododecanoic acid (PFDoA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluorobutanesulfonic acid (PFBS)	**11**		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluoropentanesulfonic acid (PFPeS)	**140**		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluorooctanesulfonamide (FOSA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
NMeFOSAA	ND		4.1		ng/L		02/02/23 12:22	02/18/23 11:59	1
NEtFOSAA	ND		4.1		ng/L		02/02/23 12:22	02/18/23 11:59	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
4:2 FTS	**2.1**		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
6:2 FTS	ND		4.1		ng/L		02/02/23 12:22	02/18/23 11:59	1
8:2 FTS	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1

Client Sample ID: GW-DUP
Lab Sample ID: 320-96418-8
Date Collected: 01/27/23 00:00
Matrix: Water
Date Received: 01/31/23 10:15

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
9Cl-PF3ONS	ND		1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1
11Cl-PF3OUdS	ND	*+	1.6		ng/L		02/02/23 12:22	02/18/23 11:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*63*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
13C5 PFPeA	*77*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
13C2 PFHxA	*84*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
13C4 PFHpA	*93*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
13C4 PFOA	*97*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
13C5 PFNA	*87*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
13C2 PFDA	*81*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
13C2 PFUnA	*66*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
13C2 PFDoA	*67*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
13C2 PFTeDA	*75*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
13C3 PFBS	*98*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
18O2 PFHxS	*89*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
13C4 PFOS	*81*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
13C8 FOSA	*65*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
d3-NMeFOSAA	*62*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
d5-NEtFOSAA	*62*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
M2-6:2 FTS	*146*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
M2-8:2 FTS	*80*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*
M2-4:2 FTS	*134*		*25 - 150*	*02/02/23 12:22*	*02/18/23 11:59*	*1*

Client Sample ID: Field Blank
Lab Sample ID: 320-96418-9
Date Collected: 01/26/23 07:50
Matrix: Water
Date Received: 01/31/23 10:15

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.3		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluoropentanoic acid (PFPeA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1

Client Sample ID: Field Blank
Lab Sample ID: 320-96418-9
Date Collected: 01/26/23 07:50
Matrix: Water
Date Received: 01/31/23 10:15

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
NMeFOSAA	ND		4.3		ng/L		02/02/23 12:22	02/18/23 12:09	1
NEtFOSAA	ND		4.3		ng/L		02/02/23 12:22	02/18/23 12:09	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
4:2 FTS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
6:2 FTS	ND		4.3		ng/L		02/02/23 12:22	02/18/23 12:09	1
8:2 FTS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
9Cl-PF3ONS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1
11Cl-PF3OUdS	ND	*+	1.7		ng/L		02/02/23 12:22	02/18/23 12:09	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*106*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
13C5 PFPeA	*104*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
13C2 PFHxA	*107*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
13C4 PFHpA	*106*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
13C4 PFOA	*111*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
13C5 PFNA	*105*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
13C2 PFDA	*109*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
13C2 PFUnA	*107*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
13C2 PFDoA	*105*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
13C2 PFTeDA	*100*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
13C3 PFBS	*111*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
18O2 PFHxS	*110*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
13C4 PFOS	*102*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
13C8 FOSA	*104*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
d3-NMeFOSAA	*93*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
d5-NEtFOSAA	*104*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
M2-6:2 FTS	*102*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
M2-8:2 FTS	*108*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*
M2-4:2 FTS	*101*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:09*	*1*

Client Sample ID: Equip Blank
Lab Sample ID: 320-96418-10
Date Collected: 01/26/23 07:45
Matrix: Water
Date Received: 01/31/23 10:15

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.3		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluoropentanoic acid (PFPeA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1

Client: Hart & Hickman, PC
Project/Site: Former CSI Incinerator/Landfill

Job ID: 320-96418-1

Client Sample ID: Equip Blank

Date Collected: 01/26/23 07:45
Date Received: 01/31/23 10:15

Lab Sample ID: 320-96418-10

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
NMeFOSAA	ND		4.3		ng/L		02/02/23 12:22	02/18/23 12:19	1
NEtFOSAA	ND		4.3		ng/L		02/02/23 12:22	02/18/23 12:19	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
4:2 FTS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
6:2 FTS	ND		4.3		ng/L		02/02/23 12:22	02/18/23 12:19	1
8:2 FTS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
9Cl-PF3ONS	ND		1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1
11Cl-PF3OUdS	ND	*+	1.7		ng/L		02/02/23 12:22	02/18/23 12:19	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*103*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
13C5 PFPeA	*99*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
13C2 PFHxA	*103*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
13C4 PFHpA	*103*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
13C4 PFOA	*107*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
13C5 PFNA	*103*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
13C2 PFDA	*109*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
13C2 PFUnA	*99*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
13C2 PFDoA	*99*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
13C2 PFTeDA	*92*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
13C3 PFBS	*107*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
18O2 PFHxS	*102*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
13C4 PFOS	*97*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
13C8 FOSA	*100*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
d3-NMeFOSAA	*95*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
d5-NEtFOSAA	*94*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
M2-6:2 FTS	*103*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
M2-8:2 FTS	*104*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*
M2-4:2 FTS	*105*		*25 - 150*	*02/02/23 12:22*	*02/18/23 12:19*	*1*

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: Former CSI Incinerator/Landfill

Job ID: 320-96418-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-96418-1	GM-1	63	78	81	89	95	88	87	74
320-96418-2	GM-5	66	83	94	95	96	92	95	88
320-96418-3	FPC-MW-07A	54	75	89	96	97	94	98	87
320-96418-4	MW-2	75	96	110	111	106	109	107	93
320-96418-5	MW-2A	55	71	94	105	99	95	97	82
320-96418-6	MW-3	82	96	108	110	107	108	108	102
320-96418-7	MW-3A	74	81	92	94	93	92	95	90
320-96418-8	GW-DUP	63	77	84	93	97	87	81	66
320-96418-9	Field Blank	106	104	107	106	111	105	109	107
320-96418-10	Equip Blank	103	99	103	103	107	103	109	99
LCS 320-651321/2-A	Lab Control Sample	102	100	103	103	104	97	102	96
LCSD 320-651321/3-A	Lab Control Sample Dup	104	99	103	106	102	98	104	92
MB 320-651321/1-A	Method Blank	98	93	99	97	98	98	101	91

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
320-96418-1	GM-1	72	82	93	87	82	70	71	69
320-96418-2	GM-5	84	73	94	96	88	83	72	77
320-96418-3	FPC-MW-07A	88	77	93	93	89	88	102	105
320-96418-4	MW-2	92	90	109	109	103	91	89	87
320-96418-5	MW-2A	81	69	97	100	93	83	72	74
320-96418-6	MW-3	100	94	111	106	101	95	95	96
320-96418-7	MW-3A	82	78	92	91	91	94	99	107
320-96418-8	GW-DUP	67	75	98	89	81	65	62	62
320-96418-9	Field Blank	105	100	111	110	102	104	93	104
320-96418-10	Equip Blank	99	92	107	102	97	100	95	94
LCS 320-651321/2-A	Lab Control Sample	99	96	105	99	100	94	87	89
LCSD 320-651321/3-A	Lab Control Sample Dup	96	89	107	103	96	96	85	90
MB 320-651321/1-A	Method Blank	92	87	102	98	93	89	89	87

		Percent Isotope Dilution Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)
320-96418-1	GM-1	146	80	145
320-96418-2	GM-5	104	93	112
320-96418-3	FPC-MW-07A	146	122	134
320-96418-4	MW-2	102	95	114
320-96418-5	MW-2A	102	90	131
320-96418-6	MW-3	107	113	117
320-96418-7	MW-3A	137	122	133
320-96418-8	GW-DUP	146	80	134
320-96418-9	Field Blank	102	108	101
320-96418-10	Equip Blank	103	104	105
LCS 320-651321/2-A	Lab Control Sample	99	96	105
LCSD 320-651321/3-A	Lab Control Sample Dup	99	94	104
MB 320-651321/1-A	Method Blank	98	94	98

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 320-96418-1
Project/Site: Former CSI Incinerator/Landfill

PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
M242FTS = M2-4:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-651321/1-A
Matrix: Water
Analysis Batch: 655097

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 651321

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
NMeFOSAA	ND		5.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
NEtFOSAA	ND		5.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
4:2 FTS	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
6:2 FTS	ND		5.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
8:2 FTS	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
9Cl-PF3ONS	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1
11Cl-PF3OUdS	ND		2.0		ng/L		02/02/23 12:22	02/18/23 10:08	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:08*	*1*
13C5 PFPeA	*93*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:08*	*1*
13C2 PFHxA	*99*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:08*	*1*
13C4 PFHpA	*97*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:08*	*1*
13C4 PFOA	*98*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:08*	*1*
13C5 PFNA	*98*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:08*	*1*
13C2 PFDA	*101*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:08*	*1*
13C2 PFUnA	*91*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:08*	*1*
13C2 PFDoA	*92*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:08*	*1*
13C2 PFTeDA	*87*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:08*	*1*
13C3 PFBS	*102*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:08*	*1*
18O2 PFHxS	*98*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:08*	*1*
13C4 PFOS	*93*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:08*	*1*
13C8 FOSA	*89*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:08*	*1*
d3-NMeFOSAA	*89*		*25 - 150*	*02/02/23 12:22*	*02/18/23 10:08*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-651321/1-A
Matrix: Water
Analysis Batch: 655097

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 651321

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	87		25 - 150	02/02/23 12:22	02/18/23 10:08	1
M2-6:2 FTS	98		25 - 150	02/02/23 12:22	02/18/23 10:08	1
M2-8:2 FTS	94		25 - 150	02/02/23 12:22	02/18/23 10:08	1
M2-4:2 FTS	98		25 - 150	02/02/23 12:22	02/18/23 10:08	1

Lab Sample ID: LCS 320-651321/2-A
Matrix: Water
Analysis Batch: 655097

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 651321

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	40.0	41.5		ng/L		104	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	42.8		ng/L		107	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	42.0		ng/L		105	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	43.0		ng/L		107	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	44.8		ng/L		112	70 - 130
Perfluorononanoic acid (PFNA)	40.0	45.5		ng/L		114	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	41.1		ng/L		103	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	48.1		ng/L		120	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	45.9		ng/L		115	71 - 131
Perfluorotridecanoic acid (PFTrDA)	40.0	43.0		ng/L		108	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	40.4		ng/L		101	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.5	37.1		ng/L		104	67 - 127
Perfluoropentanesulfonic acid (PFPeS)	37.6	38.7		ng/L		103	66 - 126
Perfluorohexanesulfonic acid (PFHxS)	36.5	37.0		ng/L		101	59 - 119
Perfluoroheptanesulfonic acid (PFHpS)	38.2	42.5		ng/L		111	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.2	40.6		ng/L		109	70 - 130
Perfluorononanesulfonic acid (PFNS)	38.5	43.1		ng/L		112	75 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	40.5		ng/L		105	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	43.7		ng/L		109	73 - 133
NMeFOSAA	40.0	46.9		ng/L		117	76 - 136
NEtFOSAA	40.0	43.5		ng/L		109	76 - 136
Perfluorododecanesulfonic acid (PFDoS)	38.8	38.6		ng/L		99	67 - 127
4:2 FTS	37.5	41.1		ng/L		110	79 - 139
6:2 FTS	38.1	40.6		ng/L		107	59 - 175
8:2 FTS	38.4	39.5		ng/L		103	75 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	47.3		ng/L		125	79 - 139
9Cl-PF3ONS	37.4	42.3		ng/L		113	75 - 135
11Cl-PF3OUdS	37.8	45.3	*+	ng/L		120	54 - 114

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	102		25 - 150
13C5 PFPeA	100		25 - 150
13C2 PFHxA	103		25 - 150
13C4 PFHpA	103		25 - 150
13C4 PFOA	104		25 - 150
13C5 PFNA	97		25 - 150
13C2 PFDA	102		25 - 150
13C2 PFUnA	96		25 - 150
13C2 PFDoA	99		25 - 150
13C2 PFTeDA	96		25 - 150
13C3 PFBS	105		25 - 150
18O2 PFHxS	99		25 - 150
13C4 PFOS	100		25 - 150
13C8 FOSA	94		25 - 150
d3-NMeFOSAA	87		25 - 150
d5-NEtFOSAA	89		25 - 150
M2-6:2 FTS	99		25 - 150
M2-8:2 FTS	96		25 - 150
M2-4:2 FTS	105		25 - 150

Lab Sample ID: LCSD 320-651321/3-A
Matrix: Water
Analysis Batch: 655097

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 651321

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			40.0	40.2		ng/L		101	76 - 136	3	30
Perfluoropentanoic acid (PFPeA)			40.0	44.4		ng/L		111	71 - 131	4	30
Perfluorohexanoic acid (PFHxA)			40.0	43.0		ng/L		108	73 - 133	2	30
Perfluoroheptanoic acid (PFHpA)			40.0	42.4		ng/L		106	72 - 132	1	30
Perfluorooctanoic acid (PFOA)			40.0	45.9		ng/L		115	70 - 130	2	30
Perfluorononanoic acid (PFNA)			40.0	44.8		ng/L		112	75 - 135	1	30
Perfluorodecanoic acid (PFDA)			40.0	41.9		ng/L		105	76 - 136	2	30
Perfluoroundecanoic acid (PFUnA)			40.0	50.3		ng/L		126	68 - 128	4	30
Perfluorododecanoic acid (PFDoA)			40.0	44.1		ng/L		110	71 - 131	4	30
Perfluorotridecanoic acid (PFTrDA)			40.0	40.5		ng/L		101	71 - 131	6	30
Perfluorotetradecanoic acid (PFTeA)			40.0	41.2		ng/L		103	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)			35.5	37.6		ng/L		106	67 - 127	1	30
Perfluoropentanesulfonic acid (PFPeS)			37.6	39.7		ng/L		106	66 - 126	3	30
Perfluorohexanesulfonic acid (PFHxS)			36.5	37.4		ng/L		103	59 - 119	1	30
Perfluoroheptanesulfonic acid (PFHpS)			38.2	43.2		ng/L		113	76 - 136	2	30
Perfluorooctanesulfonic acid (PFOS)			37.2	40.9		ng/L		110	70 - 130	1	30
Perfluorononanesulfonic acid (PFNS)			38.5	44.0		ng/L		114	75 - 135	2	30
Perfluorodecanesulfonic acid (PFDS)			38.6	42.3		ng/L		110	71 - 131	4	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-651321/3-A
Matrix: Water
Analysis Batch: 655097

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 651321

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanesulfonamide (FOSA)			40.0	43.9		ng/L		110	73 - 133	0	30
NMeFOSAA			40.0	45.0		ng/L		113	76 - 136	4	30
NEtFOSAA			40.0	42.9		ng/L		107	76 - 136	1	30
Perfluorododecanesulfonic acid (PFDoS)			38.8	37.7		ng/L		97	67 - 127	2	30
4:2 FTS			37.5	44.4		ng/L		118	79 - 139	8	30
6:2 FTS			38.1	41.3		ng/L		108	59 - 175	1	30
8:2 FTS			38.4	41.1		ng/L		107	75 - 135	4	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			37.8	47.4		ng/L		126	79 - 139	0	30
9Cl-PF3ONS			37.4	43.9		ng/L		117	75 - 135	4	30
11Cl-PF3OUdS			37.8	43.6	*+	ng/L		116	54 - 114	4	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*104*		*25 - 150*
13C5 PFPeA	*99*		*25 - 150*
13C2 PFHxA	*103*		*25 - 150*
13C4 PFHpA	*106*		*25 - 150*
13C4 PFOA	*102*		*25 - 150*
13C5 PFNA	*98*		*25 - 150*
13C2 PFDA	*104*		*25 - 150*
13C2 PFUnA	*92*		*25 - 150*
13C2 PFDoA	*96*		*25 - 150*
13C2 PFTeDA	*89*		*25 - 150*
13C3 PFBS	*107*		*25 - 150*
18O2 PFHxS	*103*		*25 - 150*
13C4 PFOS	*96*		*25 - 150*
13C8 FOSA	*96*		*25 - 150*
d3-NMeFOSAA	*85*		*25 - 150*
d5-NEtFOSAA	*90*		*25 - 150*
M2-6:2 FTS	*99*		*25 - 150*
M2-8:2 FTS	*94*		*25 - 150*
M2-4:2 FTS	*104*		*25 - 150*

LCMS

Prep Batch: 651321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-96418-1	GM-1	Total/NA	Water	3535	
320-96418-2	GM-5	Total/NA	Water	3535	
320-96418-3	FPC-MW-07A	Total/NA	Water	3535	
320-96418-4	MW-2	Total/NA	Water	3535	
320-96418-5	MW-2A	Total/NA	Water	3535	
320-96418-6	MW-3	Total/NA	Water	3535	
320-96418-7	MW-3A	Total/NA	Water	3535	
320-96418-8	GW-DUP	Total/NA	Water	3535	
320-96418-9	Field Blank	Total/NA	Water	3535	
320-96418-10	Equip Blank	Total/NA	Water	3535	
MB 320-651321/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-651321/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-651321/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 655097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-96418-1	GM-1	Total/NA	Water	537 (modified)	651321
320-96418-2	GM-5	Total/NA	Water	537 (modified)	651321
320-96418-3	FPC-MW-07A	Total/NA	Water	537 (modified)	651321
320-96418-4	MW-2	Total/NA	Water	537 (modified)	651321
320-96418-5	MW-2A	Total/NA	Water	537 (modified)	651321
320-96418-6	MW-3	Total/NA	Water	537 (modified)	651321
320-96418-7	MW-3A	Total/NA	Water	537 (modified)	651321
320-96418-8	GW-DUP	Total/NA	Water	537 (modified)	651321
320-96418-9	Field Blank	Total/NA	Water	537 (modified)	651321
320-96418-10	Equip Blank	Total/NA	Water	537 (modified)	651321
MB 320-651321/1-A	Method Blank	Total/NA	Water	537 (modified)	651321
LCS 320-651321/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	651321
LCSD 320-651321/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	651321

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 320-96418-1
Project/Site: Former CSI Incinerator/Landfill

Client Sample ID: GM-1
Lab Sample ID: 320-96418-1
Date Collected: 01/27/23 11:20
Matrix: Water
Date Received: 01/31/23 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			311.2 mL	10.0 mL	651321	02/02/23 12:22	B1Q	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	655097	02/18/23 10:38	RS1	EET SAC

Client Sample ID: GM-5
Lab Sample ID: 320-96418-2
Date Collected: 01/26/23 12:05
Matrix: Water
Date Received: 01/31/23 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			290.7 mL	10.0 mL	651321	02/02/23 12:22	B1Q	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	655097	02/18/23 10:48	RS1	EET SAC

Client Sample ID: FPC-MW-07A
Lab Sample ID: 320-96418-3
Date Collected: 01/27/23 12:00
Matrix: Water
Date Received: 01/31/23 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			300.4 mL	10.0 mL	651321	02/02/23 12:22	B1Q	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	655097	02/18/23 10:58	RS1	EET SAC

Client Sample ID: MW-2
Lab Sample ID: 320-96418-4
Date Collected: 01/26/23 10:50
Matrix: Water
Date Received: 01/31/23 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			285.7 mL	10.0 mL	651321	02/02/23 12:22	B1Q	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	655097	02/18/23 11:08	RS1	EET SAC

Client Sample ID: MW-2A
Lab Sample ID: 320-96418-5
Date Collected: 01/26/23 09:15
Matrix: Water
Date Received: 01/31/23 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			291.5 mL	10.0 mL	651321	02/02/23 12:22	B1Q	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	655097	02/18/23 11:18	RS1	EET SAC

Client Sample ID: MW-3
Lab Sample ID: 320-96418-6
Date Collected: 01/26/23 14:40
Matrix: Water
Date Received: 01/31/23 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			276.5 mL	10.0 mL	651321	02/02/23 12:22	B1Q	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	655097	02/18/23 11:28	RS1	EET SAC

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 320-96418-1
Project/Site: Former CSI Incinerator/Landfill

Client Sample ID: MW-3A
Lab Sample ID: 320-96418-7
Date Collected: 01/27/23 08:20
Matrix: Water
Date Received: 01/31/23 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			292.4 mL	10.0 mL	651321	02/02/23 12:22	B1Q	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	655097	02/18/23 11:38	RS1	EET SAC

Client Sample ID: GW-DUP
Lab Sample ID: 320-96418-8
Date Collected: 01/27/23 00:00
Matrix: Water
Date Received: 01/31/23 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			308.3 mL	10.0 mL	651321	02/02/23 12:22	B1Q	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	655097	02/18/23 11:59	RS1	EET SAC

Client Sample ID: Field Blank
Lab Sample ID: 320-96418-9
Date Collected: 01/26/23 07:50
Matrix: Water
Date Received: 01/31/23 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			287.8 mL	10.0 mL	651321	02/02/23 12:22	B1Q	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	655097	02/18/23 12:09	RS1	EET SAC

Client Sample ID: Equip Blank
Lab Sample ID: 320-96418-10
Date Collected: 01/26/23 07:45
Matrix: Water
Date Received: 01/31/23 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			289 mL	10.0 mL	651321	02/02/23 12:22	B1Q	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	655097	02/18/23 12:19	RS1	EET SAC

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 320-96418-1
Project/Site: Former CSI Incinerator/Landfill

Laboratory: Eurofins Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4040	01-29-23 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Hart & Hickman, PC
Job ID: 320-96418-1
Project/Site: Former CSI Incinerator/Landfill

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	EET SAC
3535	Solid-Phase Extraction (SPE)	SW846	EET SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Hart & Hickman, PC
Project/Site: Former CSI Incinerator/Landfill

Job ID: 320-96418-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-96418-1	GM-1	Water	01/27/23 11:20	01/31/23 10:15
320-96418-2	GM-5	Water	01/26/23 12:05	01/31/23 10:15
320-96418-3	FPC-MW-07A	Water	01/27/23 12:00	01/31/23 10:15
320-96418-4	MW-2	Water	01/26/23 10:50	01/31/23 10:15
320-96418-5	MW-2A	Water	01/26/23 09:15	01/31/23 10:15
320-96418-6	MW-3	Water	01/26/23 14:40	01/31/23 10:15
320-96418-7	MW-3A	Water	01/27/23 08:20	01/31/23 10:15
320-96418-8	GW-DUP	Water	01/27/23 00:00	01/31/23 10:15
320-96418-9	Field Blank	Water	01/26/23 07:50	01/31/23 10:15
320-96418-10	Equip Blank	Water	01/26/23 07:45	01/31/23 10:15

Eurofins Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone (916) 373-5600 Phone (916) 372-1059

Chain of Custody Record

eurofins

Client Information	Sampler: Derek Haskell	Lab PM: Karen Dahl	Carrier Tracking No(s):	COC No:
Client Contact: Carlin Slusher	Phone: 919-609-6896	E-Mail: Karen.dahl@eurofinset.com	State of Origin: NC	Page: Page 1 of 1
Company: Hart + Hickman	PWSID:			Job #:
Address: 2923 S. Tryon St. Suite 100	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Charlotte	TAT Requested (days): 5 day standard			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
State, Zip: North Carolina, 28203	Compliance Project: Δ Yes Δ No			
Phone: 704-586-0007	PO #:			Other:
Email: cslusher@harthickman.com	WO #:			
Project Name: CAL.005	Project #:			
Site: Former CSI Facility	SSOW#:			

320-96418 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code:	Preservation Code PFAS 537.1	Special Instructions/Note:
GM-1	1/27/23	1120	G	W	N	X	Please Report & Flag
GM-5	1/26/23	1205				X	
FPC-MW-07A	1/27/23	1200				X	
MW-2	1/26/23	1050				X	
MW-2A	1/26/23	915				X	
MW-3	1/26/23	1440				X	
(7) MW-3A	1/27/23	0820				X	
(8) GW-DUP	1/26/23	—				X	
Field Blank	1/26/23	750				X	
Equip Blank	1/26/23	745				X	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 1/29/23 1630	Company H+H	Received by:	Date/Time: 1-30-23 10:03	Company eurofins		
Relinquished by:	Date/Time: 1-30-23 10:10	Company eurofins	Received by:	Date/Time: 1/31/23 10:15	Company FEDEX		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 1829249 | Cooler Temperature(s) °C and Other Remarks: 1.2

(3) Date 1/26/23 SO 1-31-23 (8) Date 1/27/23 SO 1-31-23

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 320-96418-1

Login Number: 96418
List Number: 1
Creator: Oropeza, Salvador

List Source: Eurofins Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	1829249
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Carlin Slusher
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 5/2/2023 9:34:27 AM

JOB DESCRIPTION

Caldwell County Landfill

JOB NUMBER

320-99004-1

Eurofins Sacramento
880 Riverside Parkway
West Sacramento CA 95605

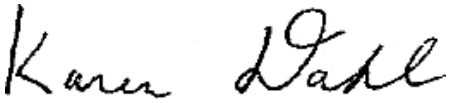
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northern California, LLC Project Manager.

Authorization



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Authorized for release by
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(916)374-4384

Table of Contents

Definitions/Glossary

Client: Hart & Hickman, PC
Project/Site: Caldwell County Landfill

Job ID: 320-99004-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 320-99004-1

Laboratory: Eurofins Sacramento

Narrative

Comments
No additional comments.

Receipt
The samples were received on 4/18/2023 9:55 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.1º C.

Receipt Exceptions
No date was listed on the chain of custody for sample DUP-2. As requested, a date of 4/12/23 was used in the report. The containers for FPC-MW-01 are labeled with a time of 16:04. The time listed on the COC was used in the report.

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): COCFPC-MW-01 (320-99004-1). The containers for this sample were labeled with a collection time of 16:04. The collection time listed on the chain of custody was used in the report.

LCMS
Method 537 (modified): The continuing calibration verification (CCV) associated with batch 320-669442 recovered above the upper control limit for 4,8-Dioxa-3H-perfluorononanoic acid (ADONA). The sample results associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

Method 537 (modified): The continuing calibration verification (CCV) associated with batch 320-669439 recovered above the upper control limit for 4,8-Dioxa-3H-perfluorononanoic acid (ADONA). The sample results associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported.

Method 537 (modified): The laboratory control sample (LCS) for preparation batch 320-669614 and analytical batch 320-670709 recovered outside control limits for the following analyte: 11Cl-PF3OUdS. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 537 (modified): Two Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: MW-C (320-99004-6). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): The concentration of one or more analytes associated with the following sample exceeded the instrument calibration range: DW-1 (320-99004-7). These analytes has been qualified with an 'E' flag; however, the peaks did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-668932.

Method 3535: The following sample in preparation batch 320-668932 was observed to have a thin layer of sediment present at the bottom of its bottle prior to extraction. DUP-2 (320-99004-8)

Method 3535: During the solid-phase extraction process, the following sample in preparation batch 320-668932 contained non-settable particulates which clogged the solid-phase extraction column: DUP-2 (320-99004-8).

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-669614.

Job ID: 320-99004-1 (Continued)

Laboratory: Eurofins Sacramento (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: Caldwell County Landfill

Job ID: 320-99004-1

Client Sample ID: FPC-MW-01 — Lab Sample ID: 320-99004-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	4.1		1.6		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.5		1.6		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.8		1.6		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	17		1.6		ng/L	1		537 (modified)	Total/NA

Client Sample ID: FPC-MW-03 — Lab Sample ID: 320-99004-2

No Detections.

Client Sample ID: FPC-MW-05 — Lab Sample ID: 320-99004-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	1.7		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.2		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.7		1.7		ng/L	1		537 (modified)	Total/NA

Client Sample ID: GM-4 — Lab Sample ID: 320-99004-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	6.5		4.3		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	13		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	11		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	7.0		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	5.0		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.4		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.4		1.7		ng/L	1		537 (modified)	Total/NA

Client Sample ID: GM-6 — Lab Sample ID: 320-99004-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.1		1.6		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.0		1.6		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.7		1.6		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	11		1.6		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.7		1.6		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	60		1.6		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	3.2		1.6		ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-C — Lab Sample ID: 320-99004-6

No Detections.

Client Sample ID: DW-1 — Lab Sample ID: 320-99004-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1000	E	4.1		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	160		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	340	E	1.7		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	86		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	18		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.1		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	3.0		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.8		1.7		ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

Detection Summary

Client: Hart & Hickman, PC
Project/Site: Caldwell County Landfill

Job ID: 320-99004-1

Client Sample ID: DUP-2 — Lab Sample ID: 320-99004-8

No Detections.

Client Sample ID: Equipment Blank 2 — Lab Sample ID: 320-99004-9

No Detections.

Client Sample ID: Equipment Blank 3 — Lab Sample ID: 320-99004-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	2.3		1.6		ng/L	1		537 (modified)	Total/NA

Client Sample ID: Field Blank 2 — Lab Sample ID: 320-99004-11

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Project/Site: Caldwell County Landfill

Job ID: 320-99004-1

Client Sample ID: FPC-MW-01

Date Collected: 04/13/23 15:58
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-1

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluoropentanoic acid (PFPeA)	**4.1**		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluorohexanoic acid (PFHxA)	**3.5**		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluoroheptanoic acid (PFHpA)	**2.8**		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluorooctanoic acid (PFOA)	**17**		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluorononanoic acid (PFNA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluorodecanoic acid (PFDA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluorododecanoic acid (PFDoA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluorooctanesulfonamide (FOSA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
NMeFOSAA	ND		4.0		ng/L		04/23/23 18:58	04/28/23 04:48	1
NEtFOSAA	ND		4.0		ng/L		04/23/23 18:58	04/28/23 04:48	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
4:2 FTS	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
6:2 FTS	ND		4.0		ng/L		04/23/23 18:58	04/28/23 04:48	1
8:2 FTS	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
9Cl-PF3ONS	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1
11Cl-PF3OUdS	ND	*+	1.6		ng/L		04/23/23 18:58	04/28/23 04:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*87*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*
13C5 PFPeA	*106*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*
13C2 PFHxA	*96*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*
13C4 PFHpA	*107*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*
13C4 PFOA	*87*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*
13C5 PFNA	*93*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*
13C2 PFDA	*91*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*
13C2 PFUnA	*84*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*
13C2 PFDoA	*79*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*
13C2 PFTeDA	*87*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*
13C3 PFBS	*111*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*
18O2 PFHxS	*98*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*
13C4 PFOS	*92*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*
13C8 FOSA	*79*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*
d3-NMeFOSAA	*104*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*
d5-NEtFOSAA	*96*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*
M2-6:2 FTS	*96*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:48*	*1*

Client Sample ID: FPC-MW-01

Lab Sample ID: 320-99004-1

Date Collected: 04/13/23 15:58

Matrix: Water

Date Received: 04/18/23 09:55

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	91		25 - 150	04/23/23 18:58	04/28/23 04:48	1
M2-4:2 FTS	101		25 - 150	04/23/23 18:58	04/28/23 04:48	1

Client Sample ID: FPC-MW-03

Lab Sample ID: 320-99004-2

Date Collected: 04/12/23 15:35

Matrix: Water

Date Received: 04/18/23 09:55

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluoropentanoic acid (PFPeA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluorohexanoic acid (PFHxA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluorooctanoic acid (PFOA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluorononanoic acid (PFNA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluorodecanoic acid (PFDA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluorododecanoic acid (PFDoA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluorooctanesulfonamide (FOSA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
NMeFOSAA	ND		4.0		ng/L		04/23/23 18:58	04/28/23 04:59	1
NEtFOSAA	ND		4.0		ng/L		04/23/23 18:58	04/28/23 04:59	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
4:2 FTS	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
6:2 FTS	ND		4.0		ng/L		04/23/23 18:58	04/28/23 04:59	1
8:2 FTS	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
9Cl-PF3ONS	ND		1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1
11Cl-PF3OUdS	ND	*+	1.6		ng/L		04/23/23 18:58	04/28/23 04:59	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	98		25 - 150	04/23/23 18:58	04/28/23 04:59	1
13C5 PFPeA	118		25 - 150	04/23/23 18:58	04/28/23 04:59	1
13C2 PFHxA	110		25 - 150	04/23/23 18:58	04/28/23 04:59	1
13C4 PFHpA	108		25 - 150	04/23/23 18:58	04/28/23 04:59	1
13C4 PFOA	97		25 - 150	04/23/23 18:58	04/28/23 04:59	1
13C5 PFNA	100		25 - 150	04/23/23 18:58	04/28/23 04:59	1
13C2 PFDA	99		25 - 150	04/23/23 18:58	04/28/23 04:59	1
13C2 PFUnA	104		25 - 150	04/23/23 18:58	04/28/23 04:59	1
13C2 PFDoA	95		25 - 150	04/23/23 18:58	04/28/23 04:59	1

Client Sample ID: FPC-MW-03

Lab Sample ID: 320-99004-2

Date Collected: 04/12/23 15:35

Matrix: Water

Date Received: 04/18/23 09:55

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	88		25 - 150	04/23/23 18:58	04/28/23 04:59	1
13C3 PFBS	122		25 - 150	04/23/23 18:58	04/28/23 04:59	1
18O2 PFHxS	105		25 - 150	04/23/23 18:58	04/28/23 04:59	1
13C4 PFOS	104		25 - 150	04/23/23 18:58	04/28/23 04:59	1
13C8 FOSA	87		25 - 150	04/23/23 18:58	04/28/23 04:59	1
d3-NMeFOSAA	106		25 - 150	04/23/23 18:58	04/28/23 04:59	1
d5-NEtFOSAA	119		25 - 150	04/23/23 18:58	04/28/23 04:59	1
M2-6:2 FTS	101		25 - 150	04/23/23 18:58	04/28/23 04:59	1
M2-8:2 FTS	84		25 - 150	04/23/23 18:58	04/28/23 04:59	1
M2-4:2 FTS	131		25 - 150	04/23/23 18:58	04/28/23 04:59	1

Client Sample ID: FPC-MW-05

Lab Sample ID: 320-99004-3

Date Collected: 04/13/23 12:55

Matrix: Water

Date Received: 04/18/23 09:55

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.2		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluoropentanoic acid (PFPeA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluorooctanoic acid (PFOA)	**1.7**		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluorohexanesulfonic acid (PFHxS)	**2.2**		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluorooctanesulfonic acid (PFOS)	**1.7**		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
NMeFOSAA	ND		4.2		ng/L		04/23/23 18:58	04/28/23 05:09	1
NEtFOSAA	ND		4.2		ng/L		04/23/23 18:58	04/28/23 05:09	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
4:2 FTS	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
6:2 FTS	ND		4.2		ng/L		04/23/23 18:58	04/28/23 05:09	1
8:2 FTS	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
9Cl-PF3ONS	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1
11Cl-PF3OUdS	ND	*+	1.7		ng/L		04/23/23 18:58	04/28/23 05:09	1

Client Sample ID: FPC-MW-05

Date Collected: 04/13/23 12:55
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-3
Matrix: Water

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*95*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
13C5 PFPeA	*118*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
13C2 PFHxA	*103*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
13C4 PFHpA	*102*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
13C4 PFOA	*101*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
13C5 PFNA	*100*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
13C2 PFDA	*99*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
13C2 PFUnA	*102*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
13C2 PFDoA	*100*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
13C2 PFTeDA	*89*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
13C3 PFBS	*125*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
18O2 PFHxS	*109*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
13C4 PFOS	*101*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
13C8 FOSA	*95*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
d3-NMeFOSAA	*111*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
d5-NEtFOSAA	*118*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
M2-6:2 FTS	*101*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
M2-8:2 FTS	*93*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*
M2-4:2 FTS	*99*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:09*	*1*

Client Sample ID: GM-4

Date Collected: 04/13/23 14:00
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-4
Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**6.5**		4.3		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluoropentanoic acid (PFPeA)	**13**		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluorohexanoic acid (PFHxA)	**11**		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluoroheptanoic acid (PFHpA)	**7.0**		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluorooctanoic acid (PFOA)	**5.0**		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluorobutanesulfonic acid (PFBS)	**2.4**		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluorohexanesulfonic acid (PFHxS)	**2.4**		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
NMeFOSAA	ND		4.3		ng/L		04/23/23 18:58	04/28/23 05:19	1
NEtFOSAA	ND		4.3		ng/L		04/23/23 18:58	04/28/23 05:19	1

Client Sample ID: GM-4

Date Collected: 04/13/23 14:00
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-4

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
4:2 FTS	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
6:2 FTS	ND		4.3		ng/L		04/23/23 18:58	04/28/23 05:19	1
8:2 FTS	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
9Cl-PF3ONS	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1
11Cl-PF3OUdS	ND	*+	1.7		ng/L		04/23/23 18:58	04/28/23 05:19	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*72*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
13C5 PFPeA	*111*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
13C2 PFHxA	*88*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
13C4 PFHpA	*96*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
13C4 PFOA	*87*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
13C5 PFNA	*91*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
13C2 PFDA	*84*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
13C2 PFUnA	*86*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
13C2 PFDoA	*75*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
13C2 PFTeDA	*79*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
13C3 PFBS	*111*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
18O2 PFHxS	*97*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
13C4 PFOS	*87*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
13C8 FOSA	*80*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
d3-NMeFOSAA	*93*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
d5-NEtFOSAA	*92*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
M2-6:2 FTS	*95*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
M2-8:2 FTS	*82*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*
M2-4:2 FTS	*100*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:19*	*1*

Client Sample ID: GM-6

Date Collected: 04/13/23 15:09
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-5

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.9		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluoropentanoic acid (PFPeA)	**3.1**		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluorohexanoic acid (PFHxA)	**3.0**		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluoroheptanoic acid (PFHpA)	**1.7**		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluorooctanoic acid (PFOA)	**11**		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluorononanoic acid (PFNA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluorodecanoic acid (PFDA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluorododecanoic acid (PFDoA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1

Client Sample ID: GM-6

Date Collected: 04/13/23 15:09
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-5
Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	**5.7**		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluorooctanesulfonic acid (PFOS)	**60**		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluorooctanesulfonamide (FOSA)	**3.2**		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
NMeFOSAA	ND		3.9		ng/L		04/23/23 18:58	04/28/23 05:30	1
NEtFOSAA	ND		3.9		ng/L		04/23/23 18:58	04/28/23 05:30	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
4:2 FTS	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
6:2 FTS	ND		3.9		ng/L		04/23/23 18:58	04/28/23 05:30	1
8:2 FTS	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
9Cl-PF3ONS	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1
11Cl-PF3OUdS	ND	*+	1.6		ng/L		04/23/23 18:58	04/28/23 05:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*97*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
13C5 PFPeA	*119*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
13C2 PFHxA	*93*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
13C4 PFHpA	*98*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
13C4 PFOA	*83*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
13C5 PFNA	*83*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
13C2 PFDA	*86*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
13C2 PFUnA	*90*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
13C2 PFDoA	*75*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
13C2 PFTeDA	*78*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
13C3 PFBS	*101*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
18O2 PFHxS	*87*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
13C4 PFOS	*82*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
13C8 FOSA	*81*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
d3-NMeFOSAA	*101*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
d5-NEtFOSAA	*100*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
M2-6:2 FTS	*69*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
M2-8:2 FTS	*89*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*
M2-4:2 FTS	*108*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:30*	*1*

Client Sample ID: MW-C

Date Collected: 04/13/23 16:32
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-6
Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.1		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluoropentanoic acid (PFPeA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluorohexanoic acid (PFHxA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1

Client: Hart & Hickman, PC
Project/Site: Caldwell County Landfill

Job ID: 320-99004-1

Client Sample ID: MW-C
Date Collected: 04/13/23 16:32
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-6
Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluorooctanoic acid (PFOA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluorononanoic acid (PFNA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluorodecanoic acid (PFDA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluorododecanoic acid (PFDoA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluorooctanesulfonamide (FOSA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
NMeFOSAA	ND		4.1		ng/L		04/23/23 18:58	04/28/23 05:40	1
NEtFOSAA	ND		4.1		ng/L		04/23/23 18:58	04/28/23 05:40	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
4:2 FTS	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
6:2 FTS	ND		4.1		ng/L		04/23/23 18:58	04/28/23 05:40	1
8:2 FTS	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
9Cl-PF3ONS	ND		1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1
11Cl-PF3OUdS	ND	*+	1.6		ng/L		04/23/23 18:58	04/28/23 05:40	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*43*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
13C5 PFPeA	*103*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
13C2 PFHxA	*72*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
13C4 PFHpA	*105*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
13C4 PFOA	*99*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
13C5 PFNA	*97*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
13C2 PFDA	*99*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
13C2 PFUnA	*96*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
13C2 PFDoA	*86*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
13C2 PFTeDA	*81*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
13C3 PFBS	*118*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
18O2 PFHxS	*78*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
13C4 PFOS	*87*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
13C8 FOSA	*100*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
d3-NMeFOSAA	*131*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
d5-NEtFOSAA	*141*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
M2-6:2 FTS	*270*	*5+	*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
M2-8:2 FTS	*156*	*5+	*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*
M2-4:2 FTS	*114*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:40*	*1*

Client: Hart & Hickman, PC
Project/Site: Caldwell County Landfill

Job ID: 320-99004-1

Client Sample ID: DW-1
Date Collected: 04/13/23 10:30
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-7
Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1000**	**E**	4.1		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluoropentanoic acid (PFPeA)	**160**		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluorohexanoic acid (PFHxA)	**340**	**E**	1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluoroheptanoic acid (PFHpA)	**86**		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluorooctanoic acid (PFOA)	**18**		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluorobutanesulfonic acid (PFBS)	**3.1**		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluoropentanesulfonic acid (PFPeS)	**3.0**		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluorohexanesulfonic acid (PFHxS)	**3.8**		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
NMeFOSAA	ND		4.1		ng/L		04/23/23 18:58	04/28/23 05:50	1
NEtFOSAA	ND		4.1		ng/L		04/23/23 18:58	04/28/23 05:50	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
4:2 FTS	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
6:2 FTS	ND		4.1		ng/L		04/23/23 18:58	04/28/23 05:50	1
8:2 FTS	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
9Cl-PF3ONS	ND		1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1
11Cl-PF3OUdS	ND	*+	1.7		ng/L		04/23/23 18:58	04/28/23 05:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*62*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:50*	*1*
13C5 PFPeA	*131*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:50*	*1*
13C2 PFHxA	*79*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:50*	*1*
13C4 PFHpA	*99*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:50*	*1*
13C4 PFOA	*83*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:50*	*1*
13C5 PFNA	*96*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:50*	*1*
13C2 PFDA	*93*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:50*	*1*
13C2 PFUnA	*88*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:50*	*1*
13C2 PFDoA	*79*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:50*	*1*
13C2 PFTeDA	*91*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:50*	*1*
13C3 PFBS	*117*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:50*	*1*
18O2 PFHxS	*95*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:50*	*1*
13C4 PFOS	*92*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:50*	*1*
13C8 FOSA	*85*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:50*	*1*
d3-NMeFOSAA	*88*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:50*	*1*
d5-NEtFOSAA	*95*		*25 - 150*	*04/23/23 18:58*	*04/28/23 05:50*	*1*

Client Sample ID: DW-1

Lab Sample ID: 320-99004-7

Date Collected: 04/13/23 10:30

Matrix: Water

Date Received: 04/18/23 09:55

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	83		25 - 150	04/23/23 18:58	04/28/23 05:50	1
M2-8:2 FTS	97		25 - 150	04/23/23 18:58	04/28/23 05:50	1
M2-4:2 FTS	97		25 - 150	04/23/23 18:58	04/28/23 05:50	1

Client Sample ID: DUP-2

Lab Sample ID: 320-99004-8

Date Collected: 04/12/23 00:00

Matrix: Water

Date Received: 04/18/23 09:55

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluoropentanoic acid (PFPeA)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluorohexanoic acid (PFHxA)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluorooctanoic acid (PFOA)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluorononanoic acid (PFNA)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluorodecanoic acid (PFDA)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluorododecanoic acid (PFDoA)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluorooctanesulfonamide (FOSA)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
NMeFOSAA	ND		4.0		ng/L		04/20/23 11:56	04/22/23 15:52	1
NEtFOSAA	ND		4.0		ng/L		04/20/23 11:56	04/22/23 15:52	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
4:2 FTS	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
6:2 FTS	ND		4.0		ng/L		04/20/23 11:56	04/22/23 15:52	1
8:2 FTS	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
9Cl-PF3ONS	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1
11Cl-PF3OUdS	ND		1.6		ng/L		04/20/23 11:56	04/22/23 15:52	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	82		25 - 150	04/20/23 11:56	04/22/23 15:52	1
13C5 PFPeA	88		25 - 150	04/20/23 11:56	04/22/23 15:52	1
13C2 PFHxA	85		25 - 150	04/20/23 11:56	04/22/23 15:52	1
13C4 PFHpA	88		25 - 150	04/20/23 11:56	04/22/23 15:52	1
13C4 PFOA	88		25 - 150	04/20/23 11:56	04/22/23 15:52	1
13C5 PFNA	86		25 - 150	04/20/23 11:56	04/22/23 15:52	1
13C2 PFDA	89		25 - 150	04/20/23 11:56	04/22/23 15:52	1
13C2 PFUnA	75		25 - 150	04/20/23 11:56	04/22/23 15:52	1

Client Sample ID: DUP-2

Date Collected: 04/12/23 00:00
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-8
Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDoA	65		25 - 150	04/20/23 11:56	04/22/23 15:52	1
13C2 PFTeDA	75		25 - 150	04/20/23 11:56	04/22/23 15:52	1
13C3 PFBS	78		25 - 150	04/20/23 11:56	04/22/23 15:52	1
18O2 PFHxS	78		25 - 150	04/20/23 11:56	04/22/23 15:52	1
13C4 PFOS	77		25 - 150	04/20/23 11:56	04/22/23 15:52	1
13C8 FOSA	76		25 - 150	04/20/23 11:56	04/22/23 15:52	1
d3-NMeFOSAA	69		25 - 150	04/20/23 11:56	04/22/23 15:52	1
d5-NEtFOSAA	69		25 - 150	04/20/23 11:56	04/22/23 15:52	1
M2-6:2 FTS	79		25 - 150	04/20/23 11:56	04/22/23 15:52	1
M2-8:2 FTS	81		25 - 150	04/20/23 11:56	04/22/23 15:52	1
M2-4:2 FTS	77		25 - 150	04/20/23 11:56	04/22/23 15:52	1

Client Sample ID: Equipment Blank 2

Date Collected: 04/12/23 09:35
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-9
Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.2		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluoropentanoic acid (PFPeA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
NMeFOSAA	ND		4.2		ng/L		04/23/23 18:58	04/28/23 06:11	1
NEtFOSAA	ND		4.2		ng/L		04/23/23 18:58	04/28/23 06:11	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
4:2 FTS	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
6:2 FTS	ND		4.2		ng/L		04/23/23 18:58	04/28/23 06:11	1
8:2 FTS	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
9Cl-PF3ONS	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1
11Cl-PF3OUdS	ND	*+	1.7		ng/L		04/23/23 18:58	04/28/23 06:11	1

Client Sample ID: Equipment Blank 2

Lab Sample ID: 320-99004-9

Date Collected: 04/12/23 09:35

Matrix: Water

Date Received: 04/18/23 09:55

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	102		25 - 150	04/23/23 18:58	04/28/23 06:11	1
13C5 PFPeA	122		25 - 150	04/23/23 18:58	04/28/23 06:11	1
13C2 PFHxA	105		25 - 150	04/23/23 18:58	04/28/23 06:11	1
13C4 PFHpA	126		25 - 150	04/23/23 18:58	04/28/23 06:11	1
13C4 PFOA	107		25 - 150	04/23/23 18:58	04/28/23 06:11	1
13C5 PFNA	111		25 - 150	04/23/23 18:58	04/28/23 06:11	1
13C2 PFDA	101		25 - 150	04/23/23 18:58	04/28/23 06:11	1
13C2 PFUnA	105		25 - 150	04/23/23 18:58	04/28/23 06:11	1
13C2 PFDoA	107		25 - 150	04/23/23 18:58	04/28/23 06:11	1
13C2 PFTeDA	94		25 - 150	04/23/23 18:58	04/28/23 06:11	1
13C3 PFBS	131		25 - 150	04/23/23 18:58	04/28/23 06:11	1
18O2 PFHxS	112		25 - 150	04/23/23 18:58	04/28/23 06:11	1
13C4 PFOS	106		25 - 150	04/23/23 18:58	04/28/23 06:11	1
13C8 FOSA	96		25 - 150	04/23/23 18:58	04/28/23 06:11	1
d3-NMeFOSAA	127		25 - 150	04/23/23 18:58	04/28/23 06:11	1
d5-NEtFOSAA	121		25 - 150	04/23/23 18:58	04/28/23 06:11	1
M2-6:2 FTS	93		25 - 150	04/23/23 18:58	04/28/23 06:11	1
M2-8:2 FTS	105		25 - 150	04/23/23 18:58	04/28/23 06:11	1
M2-4:2 FTS	94		25 - 150	04/23/23 18:58	04/28/23 06:11	1

Client Sample ID: Equipment Blank 3

Lab Sample ID: 320-99004-10

Date Collected: 04/13/23 08:25

Matrix: Water

Date Received: 04/18/23 09:55

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluoropentanoic acid (PFPeA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluorohexanoic acid (PFHxA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluorooctanoic acid (PFOA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluorononanoic acid (PFNA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluorodecanoic acid (PFDA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluorododecanoic acid (PFDoA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluorooctanesulfonic acid (PFOS)	**2.3**		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluorooctanesulfonamide (FOSA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
NMeFOSAA	ND		4.0		ng/L		04/23/23 18:58	04/28/23 06:21	1
NEtFOSAA	ND		4.0		ng/L		04/23/23 18:58	04/28/23 06:21	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1

Client Sample ID: Equipment Blank 3

Lab Sample ID: 320-99004-10

Date Collected: 04/13/23 08:25

Matrix: Water

Date Received: 04/18/23 09:55

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4:2 FTS	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
6:2 FTS	ND		4.0		ng/L		04/23/23 18:58	04/28/23 06:21	1
8:2 FTS	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
9Cl-PF3ONS	ND		1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1
11Cl-PF3OUdS	ND	*+	1.6		ng/L		04/23/23 18:58	04/28/23 06:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*79*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
13C5 PFPeA	*97*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
13C2 PFHxA	*82*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
13C4 PFHpA	*99*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
13C4 PFOA	*89*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
13C5 PFNA	*90*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
13C2 PFDA	*93*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
13C2 PFUnA	*100*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
13C2 PFDoA	*95*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
13C2 PFTeDA	*84*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
13C3 PFBS	*110*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
18O2 PFHxS	*91*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
13C4 PFOS	*93*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
13C8 FOSA	*87*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
d3-NMeFOSAA	*102*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
d5-NEtFOSAA	*112*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
M2-6:2 FTS	*89*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
M2-8:2 FTS	*94*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*
M2-4:2 FTS	*96*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:21*	*1*

Client Sample ID: Field Blank 2

Lab Sample ID: 320-99004-11

Date Collected: 04/12/23 09:40

Matrix: Water

Date Received: 04/18/23 09:55

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.3		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluoropentanoic acid (PFPeA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1

Client Sample ID: Field Blank 2
Date Collected: 04/12/23 09:40
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-11
Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
NMeFOSAA	ND		4.3		ng/L		04/23/23 18:58	04/28/23 06:31	1
NEtFOSAA	ND		4.3		ng/L		04/23/23 18:58	04/28/23 06:31	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
4:2 FTS	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
6:2 FTS	ND		4.3		ng/L		04/23/23 18:58	04/28/23 06:31	1
8:2 FTS	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
9Cl-PF3ONS	ND		1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1
11Cl-PF3OUdS	ND	*+	1.7		ng/L		04/23/23 18:58	04/28/23 06:31	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*103*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
13C5 PFPeA	*118*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
13C2 PFHxA	*96*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
13C4 PFHpA	*116*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
13C4 PFOA	*96*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
13C5 PFNA	*89*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
13C2 PFDA	*102*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
13C2 PFUnA	*105*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
13C2 PFDoA	*96*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
13C2 PFTeDA	*91*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
13C3 PFBS	*120*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
18O2 PFHxS	*102*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
13C4 PFOS	*101*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
13C8 FOSA	*88*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
d3-NMeFOSAA	*113*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
d5-NEtFOSAA	*112*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
M2-6:2 FTS	*94*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
M2-8:2 FTS	*91*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*
M2-4:2 FTS	*104*		*25 - 150*	*04/23/23 18:58*	*04/28/23 06:31*	*1*

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: Caldwell County Landfill

Job ID: 320-99004-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-99004-1	FPC-MW-01	87	106	96	107	87	93	91	84
320-99004-2	FPC-MW-03	98	118	110	108	97	100	99	104
320-99004-3	FPC-MW-05	95	118	103	102	101	100	99	102
320-99004-4	GM-4	72	111	88	96	87	91	84	86
320-99004-5	GM-6	97	119	93	98	83	83	86	90
320-99004-6	MW-C	43	103	72	105	99	97	99	96
320-99004-7	DW-1	62	131	79	99	83	96	93	88
320-99004-8	DUP-2	82	88	85	88	88	86	89	75
320-99004-9	Equipment Blank 2	102	122	105	126	107	111	101	105
320-99004-10	Equipment Blank 3	79	97	82	99	89	90	93	100
320-99004-11	Field Blank 2	103	118	96	116	96	89	102	105
LCS 320-668932/2-A	Lab Control Sample	106	102	101	109	106	100	105	97
LCS 320-669614/2-A	Lab Control Sample	106	106	112	113	102	114	108	117
LCSD 320-668932/3-A	Lab Control Sample Dup	106	103	101	100	104	98	105	92
LCSD 320-669614/3-A	Lab Control Sample Dup	95	123	117	107	100	106	105	110
MB 320-668932/1-A	Method Blank	99	105	99	103	103	100	104	97
MB 320-669614/1-A	Method Blank	94	118	110	116	106	97	103	120

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3NMFOS (25-150)	d5NEFOS (25-150)
320-99004-1	FPC-MW-01	79	87	111	98	92	79	104	96
320-99004-2	FPC-MW-03	95	88	122	105	104	87	106	119
320-99004-3	FPC-MW-05	100	89	125	109	101	95	111	118
320-99004-4	GM-4	75	79	111	97	87	80	93	92
320-99004-5	GM-6	75	78	101	87	82	81	101	100
320-99004-6	MW-C	86	81	118	78	87	100	131	141
320-99004-7	DW-1	79	91	117	95	92	85	88	95
320-99004-8	DUP-2	65	75	78	78	77	76	69	69
320-99004-9	Equipment Blank 2	107	94	131	112	106	96	127	121
320-99004-10	Equipment Blank 3	95	84	110	91	93	87	102	112
320-99004-11	Field Blank 2	96	91	120	102	101	88	113	112
LCS 320-668932/2-A	Lab Control Sample	96	103	92	92	89	91	83	92
LCS 320-669614/2-A	Lab Control Sample	115	110	126	115	104	106	136	123
LCSD 320-668932/3-A	Lab Control Sample Dup	94	93	95	95	90	87	79	84
LCSD 320-669614/3-A	Lab Control Sample Dup	105	102	133	119	103	106	127	127
MB 320-668932/1-A	Method Blank	94	102	94	92	90	97	92	93
MB 320-669614/1-A	Method Blank	112	115	125	106	105	101	128	130

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)					
320-99004-1	FPC-MW-01	96	91	101					
320-99004-2	FPC-MW-03	101	84	131					
320-99004-3	FPC-MW-05	101	93	99					
320-99004-4	GM-4	95	82	100					
320-99004-5	GM-6	69	89	108					
320-99004-6	MW-C	270 *5+	156 *5+	114					
320-99004-7	DW-1	83	97	97					
320-99004-8	DUP-2	79	81	77					
320-99004-9	Equipment Blank 2	93	105	94					

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 320-99004-1
Project/Site: Caldwell County Landfill

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Water
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)						
320-99004-10	Equipment Blank 3	89	94	96						
320-99004-11	Field Blank 2	94	91	104						
LCS 320-668932/2-A	Lab Control Sample	93	100	91						
LCS 320-669614/2-A	Lab Control Sample	106	88	126						
LCSD 320-668932/3-A	Lab Control Sample Dup	89	99	86						
LCSD 320-669614/3-A	Lab Control Sample Dup	104	91	112						
MB 320-668932/1-A	Method Blank	87	97	89						
MB 320-669614/1-A	Method Blank	114	95	98						

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
M242FTS = M2-4:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-668932/1-A
Matrix: Water
Analysis Batch: 669442

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668932

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
NMeFOSAA	ND		5.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
NEtFOSAA	ND		5.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
4:2 FTS	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
6:2 FTS	ND		5.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
8:2 FTS	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
9Cl-PF3ONS	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1
11Cl-PF3OUdS	ND		2.0		ng/L		04/20/23 11:56	04/22/23 14:31	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99*		*25 - 150*	*04/20/23 11:56*	*04/22/23 14:31*	*1*
13C5 PFPeA	*105*		*25 - 150*	*04/20/23 11:56*	*04/22/23 14:31*	*1*
13C2 PFHxA	*99*		*25 - 150*	*04/20/23 11:56*	*04/22/23 14:31*	*1*
13C4 PFHpA	*103*		*25 - 150*	*04/20/23 11:56*	*04/22/23 14:31*	*1*
13C4 PFOA	*103*		*25 - 150*	*04/20/23 11:56*	*04/22/23 14:31*	*1*
13C5 PFNA	*100*		*25 - 150*	*04/20/23 11:56*	*04/22/23 14:31*	*1*
13C2 PFDA	*104*		*25 - 150*	*04/20/23 11:56*	*04/22/23 14:31*	*1*
13C2 PFUnA	*97*		*25 - 150*	*04/20/23 11:56*	*04/22/23 14:31*	*1*
13C2 PFDoA	*94*		*25 - 150*	*04/20/23 11:56*	*04/22/23 14:31*	*1*
13C2 PFTeDA	*102*		*25 - 150*	*04/20/23 11:56*	*04/22/23 14:31*	*1*
13C3 PFBS	*94*		*25 - 150*	*04/20/23 11:56*	*04/22/23 14:31*	*1*
18O2 PFHxS	*92*		*25 - 150*	*04/20/23 11:56*	*04/22/23 14:31*	*1*
13C4 PFOS	*90*		*25 - 150*	*04/20/23 11:56*	*04/22/23 14:31*	*1*
13C8 FOSA	*97*		*25 - 150*	*04/20/23 11:56*	*04/22/23 14:31*	*1*
d3-NMeFOSAA	*92*		*25 - 150*	*04/20/23 11:56*	*04/22/23 14:31*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-668932/1-A
Matrix: Water
Analysis Batch: 669442

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668932

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	93		25 - 150	04/20/23 11:56	04/22/23 14:31	1
M2-6:2 FTS	87		25 - 150	04/20/23 11:56	04/22/23 14:31	1
M2-8:2 FTS	97		25 - 150	04/20/23 11:56	04/22/23 14:31	1
M2-4:2 FTS	89		25 - 150	04/20/23 11:56	04/22/23 14:31	1

Lab Sample ID: LCS 320-668932/2-A
Matrix: Water
Analysis Batch: 669442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	40.0	39.9		ng/L		100	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	42.0		ng/L		105	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	39.4		ng/L		98	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	40.0		ng/L		100	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	39.1		ng/L		98	70 - 130
Perfluorononanoic acid (PFNA)	40.0	41.7		ng/L		104	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	43.5		ng/L		109	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	44.5		ng/L		111	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	42.5		ng/L		106	71 - 131
Perfluorotridecanoic acid (PFTrDA)	40.0	42.6		ng/L		106	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	38.6		ng/L		97	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.5	36.9		ng/L		104	67 - 127
Perfluoropentanesulfonic acid (PFPeS)	37.6	42.0		ng/L		112	66 - 126
Perfluorohexanesulfonic acid (PFHxS)	36.5	38.2		ng/L		105	59 - 119
Perfluoroheptanesulfonic acid (PFHpS)	38.2	44.3		ng/L		116	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.2	37.1		ng/L		100	70 - 130
Perfluorononanesulfonic acid (PFNS)	38.5	40.2		ng/L		105	75 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	41.9		ng/L		109	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	43.2		ng/L		108	73 - 133
NMeFOSAA	40.0	45.2		ng/L		113	76 - 136
NEtFOSAA	40.0	40.3		ng/L		101	76 - 136
Perfluorododecanesulfonic acid (PFDoS)	38.8	33.2		ng/L		86	67 - 127
4:2 FTS	37.5	42.5		ng/L		113	79 - 139
6:2 FTS	38.1	41.4		ng/L		109	59 - 175
8:2 FTS	38.4	40.8		ng/L		106	75 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	52.5		ng/L		139	79 - 139
9Cl-PF3ONS	37.4	44.3		ng/L		119	75 - 135
11Cl-PF3OUdS	37.8	42.6		ng/L		113	54 - 114

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	106		25 - 150
13C5 PFPeA	102		25 - 150
13C2 PFHxA	101		25 - 150
13C4 PFHpA	109		25 - 150
13C4 PFOA	106		25 - 150
13C5 PFNA	100		25 - 150
13C2 PFDA	105		25 - 150
13C2 PFUnA	97		25 - 150
13C2 PFDoA	96		25 - 150
13C2 PFTeDA	103		25 - 150
13C3 PFBS	92		25 - 150
18O2 PFHxS	92		25 - 150
13C4 PFOS	89		25 - 150
13C8 FOSA	91		25 - 150
d3-NMeFOSAA	83		25 - 150
d5-NEtFOSAA	92		25 - 150
M2-6:2 FTS	93		25 - 150
M2-8:2 FTS	100		25 - 150
M2-4:2 FTS	91		25 - 150

Lab Sample ID: LCSD 320-668932/3-A
Matrix: Water
Analysis Batch: 669442

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 668932

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			40.0	39.6		ng/L		99	76 - 136	1	30
Perfluoropentanoic acid (PFPeA)			40.0	41.3		ng/L		103	71 - 131	1	30
Perfluorohexanoic acid (PFHxA)			40.0	41.4		ng/L		104	73 - 133	5	30
Perfluoroheptanoic acid (PFHpA)			40.0	43.7		ng/L		109	72 - 132	9	30
Perfluorooctanoic acid (PFOA)			40.0	40.6		ng/L		102	70 - 130	4	30
Perfluorononanoic acid (PFNA)			40.0	43.2		ng/L		108	75 - 135	3	30
Perfluorodecanoic acid (PFDA)			40.0	42.5		ng/L		106	76 - 136	2	30
Perfluoroundecanoic acid (PFUnA)			40.0	43.9		ng/L		110	68 - 128	1	30
Perfluorododecanoic acid (PFDoA)			40.0	42.9		ng/L		107	71 - 131	1	30
Perfluorotridecanoic acid (PFTrDA)			40.0	38.9		ng/L		97	71 - 131	9	30
Perfluorotetradecanoic acid (PFTeA)			40.0	41.1		ng/L		103	70 - 130	6	30
Perfluorobutanesulfonic acid (PFBS)			35.5	36.1		ng/L		102	67 - 127	2	30
Perfluoropentanesulfonic acid (PFPeS)			37.6	40.7		ng/L		108	66 - 126	3	30
Perfluorohexanesulfonic acid (PFHxS)			36.5	36.3		ng/L		100	59 - 119	5	30
Perfluoroheptanesulfonic acid (PFHpS)			38.2	41.6		ng/L		109	76 - 136	6	30
Perfluorooctanesulfonic acid (PFOS)			37.2	35.7		ng/L		96	70 - 130	4	30
Perfluorononanesulfonic acid (PFNS)			38.5	39.7		ng/L		103	75 - 135	1	30
Perfluorodecanesulfonic acid (PFDS)			38.6	37.9		ng/L		98	71 - 131	10	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-668932/3-A
Matrix: Water
Analysis Batch: 669442

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 668932

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanesulfonamide (FOSA)			40.0	43.7		ng/L		109	73 - 133	1	30
NMeFOSAA			40.0	47.6		ng/L		119	76 - 136	5	30
NEtFOSAA			40.0	43.4		ng/L		109	76 - 136	8	30
Perfluorododecanesulfonic acid (PFDoS)			38.8	32.6		ng/L		84	67 - 127	2	30
4:2 FTS			37.5	44.3		ng/L		118	79 - 139	4	30
6:2 FTS			38.1	45.9		ng/L		121	59 - 175	10	30
8:2 FTS			38.4	38.6		ng/L		101	75 - 135	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			37.8	51.7		ng/L		137	79 - 139	2	30
9Cl-PF3ONS			37.4	40.9		ng/L		109	75 - 135	8	30
11Cl-PF3OUdS			37.8	38.5		ng/L		102	54 - 114	10	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*106*		*25 - 150*
13C5 PFPeA	*103*		*25 - 150*
13C2 PFHxA	*101*		*25 - 150*
13C4 PFHpA	*100*		*25 - 150*
13C4 PFOA	*104*		*25 - 150*
13C5 PFNA	*98*		*25 - 150*
13C2 PFDA	*105*		*25 - 150*
13C2 PFUnA	*92*		*25 - 150*
13C2 PFDoA	*94*		*25 - 150*
13C2 PFTeDA	*93*		*25 - 150*
13C3 PFBS	*95*		*25 - 150*
18O2 PFHxS	*95*		*25 - 150*
13C4 PFOS	*90*		*25 - 150*
13C8 FOSA	*87*		*25 - 150*
d3-NMeFOSAA	*79*		*25 - 150*
d5-NEtFOSAA	*84*		*25 - 150*
M2-6:2 FTS	*89*		*25 - 150*
M2-8:2 FTS	*99*		*25 - 150*
M2-4:2 FTS	*86*		*25 - 150*

Lab Sample ID: MB 320-669614/1-A
Matrix: Water
Analysis Batch: 670709

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669614

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-669614/1-A
Matrix: Water
Analysis Batch: 670709

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669614

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
NMeFOSAA	ND		5.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
NEtFOSAA	ND		5.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
4:2 FTS	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
6:2 FTS	ND		5.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
8:2 FTS	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
9Cl-PF3ONS	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1
11Cl-PF3OUdS	ND		2.0		ng/L		04/23/23 18:58	04/28/23 04:18	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*94*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
13C5 PFPeA	*118*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
13C2 PFHxA	*110*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
13C4 PFHpA	*116*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
13C4 PFOA	*106*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
13C5 PFNA	*97*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
13C2 PFDA	*103*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
13C2 PFUnA	*120*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
13C2 PFDoA	*112*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
13C2 PFTeDA	*115*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
13C3 PFBS	*125*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
18O2 PFHxS	*106*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
13C4 PFOS	*105*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
13C8 FOSA	*101*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
d3-NMeFOSAA	*128*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
d5-NEtFOSAA	*130*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
M2-6:2 FTS	*114*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
M2-8:2 FTS	*95*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*
M2-4:2 FTS	*98*		*25 - 150*	*04/23/23 18:58*	*04/28/23 04:18*	*1*

Lab Sample ID: LCS 320-669614/2-A
Matrix: Water
Analysis Batch: 670709

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669614

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorobutanoic acid (PFBA)			40.0	45.1		ng/L		113	76 - 136		

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-669614/2-A
Matrix: Water
Analysis Batch: 670709

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669614

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanoic acid (PFPeA)	40.0	51.0		ng/L		128	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	41.5		ng/L		104	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	42.5		ng/L		106	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	48.0		ng/L		120	70 - 130
Perfluorononanoic acid (PFNA)	40.0	41.7		ng/L		104	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	48.1		ng/L		120	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	43.0		ng/L		107	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	42.7		ng/L		107	71 - 131
Perfluorotridecanoic acid (PFTrDA)	40.0	37.7		ng/L		94	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	39.7		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.5	37.4		ng/L		105	67 - 127
Perfluoropentanesulfonic acid (PFPeS)	37.6	36.5		ng/L		97	66 - 126
Perfluorohexanesulfonic acid (PFHxS)	36.5	37.5		ng/L		103	59 - 119
Perfluoroheptanesulfonic acid (PFHpS)	38.2	46.6		ng/L		122	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.2	40.6		ng/L		109	70 - 130
Perfluorononanesulfonic acid (PFNS)	38.5	44.9		ng/L		117	75 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	45.4		ng/L		118	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	42.4		ng/L		106	73 - 133
NMeFOSAA	40.0	40.1		ng/L		100	76 - 136
NEtFOSAA	40.0	43.3		ng/L		108	76 - 136
Perfluorododecanesulfonic acid (PFDoS)	38.8	38.3		ng/L		99	67 - 127
4:2 FTS	37.5	42.0		ng/L		112	79 - 139
6:2 FTS	38.1	37.0		ng/L		97	59 - 175
8:2 FTS	38.4	41.2		ng/L		107	75 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	42.7		ng/L		113	79 - 139
9Cl-PF3ONS	37.4	42.7		ng/L		114	75 - 135
11Cl-PF3OUdS	37.8	43.7	*+	ng/L		116	54 - 114

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*106*		*25 - 150*
13C5 PFPeA	*106*		*25 - 150*
13C2 PFHxA	*112*		*25 - 150*
13C4 PFHpA	*113*		*25 - 150*
13C4 PFOA	*102*		*25 - 150*
13C5 PFNA	*114*		*25 - 150*
13C2 PFDA	*108*		*25 - 150*
13C2 PFUnA	*117*		*25 - 150*
13C2 PFDoA	*115*		*25 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-669614/2-A
Matrix: Water
Analysis Batch: 670709

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669614

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C2 PFTeDA	110		25 - 150
13C3 PFBS	126		25 - 150
18O2 PFHxS	115		25 - 150
13C4 PFOS	104		25 - 150
13C8 FOSA	106		25 - 150
d3-NMeFOSAA	136		25 - 150
d5-NEtFOSAA	123		25 - 150
M2-6:2 FTS	106		25 - 150
M2-8:2 FTS	88		25 - 150
M2-4:2 FTS	126		25 - 150

Lab Sample ID: LCSD 320-669614/3-A
Matrix: Water
Analysis Batch: 670709

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 669614

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			40.0	48.2		ng/L		121	76 - 136	7	30
Perfluoropentanoic acid (PFPeA)			40.0	37.6		ng/L		94	71 - 131	30	30
Perfluorohexanoic acid (PFHxA)			40.0	38.5		ng/L		96	73 - 133	7	30
Perfluoroheptanoic acid (PFHpA)			40.0	42.5		ng/L		106	72 - 132	0	30
Perfluorooctanoic acid (PFOA)			40.0	47.9		ng/L		120	70 - 130	0	30
Perfluorononanoic acid (PFNA)			40.0	39.2		ng/L		98	75 - 135	6	30
Perfluorodecanoic acid (PFDA)			40.0	46.1		ng/L		115	76 - 136	4	30
Perfluoroundecanoic acid (PFUnA)			40.0	44.4		ng/L		111	68 - 128	3	30
Perfluorododecanoic acid (PFDoA)			40.0	40.5		ng/L		101	71 - 131	5	30
Perfluorotridecanoic acid (PFTrDA)			40.0	39.6		ng/L		99	71 - 131	5	30
Perfluorotetradecanoic acid (PFTeA)			40.0	38.6		ng/L		97	70 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)			35.5	36.9		ng/L		104	67 - 127	1	30
Perfluoropentanesulfonic acid (PFPeS)			37.6	31.8		ng/L		85	66 - 126	14	30
Perfluorohexanesulfonic acid (PFHxS)			36.5	36.2		ng/L		99	59 - 119	4	30
Perfluoroheptanesulfonic acid (PFHpS)			38.2	47.9		ng/L		126	76 - 136	3	30
Perfluorooctanesulfonic acid (PFOS)			37.2	39.5		ng/L		106	70 - 130	3	30
Perfluorononanesulfonic acid (PFNS)			38.5	44.7		ng/L		116	75 - 135	0	30
Perfluorodecanesulfonic acid (PFDS)			38.6	44.4		ng/L		115	71 - 131	2	30
Perfluorooctanesulfonamide (FOSA)			40.0	41.1		ng/L		103	73 - 133	3	30
NMeFOSAA			40.0	41.5		ng/L		104	76 - 136	3	30
NEtFOSAA			40.0	43.2		ng/L		108	76 - 136	0	30
Perfluorododecanesulfonic acid (PFDoS)			38.8	38.4		ng/L		99	67 - 127	0	30
4:2 FTS			37.5	32.1		ng/L		86	79 - 139	27	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-669614/3-A
Matrix: Water
Analysis Batch: 670709

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 669614

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
6:2 FTS			38.1	38.3		ng/L		101	59 - 175	3	30
8:2 FTS			38.4	39.7		ng/L		103	75 - 135	4	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			37.8	47.1		ng/L		125	79 - 139	10	30
9Cl-PF3ONS			37.4	40.7		ng/L		109	75 - 135	5	30
11Cl-PF3OUdS			37.8	40.3		ng/L		107	54 - 114	8	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*95*		*25 - 150*
13C5 PFPeA	*123*		*25 - 150*
13C2 PFHxA	*117*		*25 - 150*
13C4 PFHpA	*107*		*25 - 150*
13C4 PFOA	*100*		*25 - 150*
13C5 PFNA	*106*		*25 - 150*
13C2 PFDA	*105*		*25 - 150*
13C2 PFUnA	*110*		*25 - 150*
13C2 PFDoA	*105*		*25 - 150*
13C2 PFTeDA	*102*		*25 - 150*
13C3 PFBS	*133*		*25 - 150*
18O2 PFHxS	*119*		*25 - 150*
13C4 PFOS	*103*		*25 - 150*
13C8 FOSA	*106*		*25 - 150*
d3-NMeFOSAA	*127*		*25 - 150*
d5-NEtFOSAA	*127*		*25 - 150*
M2-6:2 FTS	*104*		*25 - 150*
M2-8:2 FTS	*91*		*25 - 150*
M2-4:2 FTS	*112*		*25 - 150*

LCMS

Prep Batch: 668932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-99004-8	DUP-2	Total/NA	Water	3535	
MB 320-668932/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-668932/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-668932/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 669442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-99004-8	DUP-2	Total/NA	Water	537 (modified)	668932
MB 320-668932/1-A	Method Blank	Total/NA	Water	537 (modified)	668932
LCS 320-668932/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	668932
LCSD 320-668932/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	668932

Prep Batch: 669614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-99004-1	FPC-MW-01	Total/NA	Water	3535	
320-99004-2	FPC-MW-03	Total/NA	Water	3535	
320-99004-3	FPC-MW-05	Total/NA	Water	3535	
320-99004-4	GM-4	Total/NA	Water	3535	
320-99004-5	GM-6	Total/NA	Water	3535	
320-99004-6	MW-C	Total/NA	Water	3535	
320-99004-7	DW-1	Total/NA	Water	3535	
320-99004-9	Equipment Blank 2	Total/NA	Water	3535	
320-99004-10	Equipment Blank 3	Total/NA	Water	3535	
320-99004-11	Field Blank 2	Total/NA	Water	3535	
MB 320-669614/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-669614/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-669614/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 670709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-99004-1	FPC-MW-01	Total/NA	Water	537 (modified)	669614
320-99004-2	FPC-MW-03	Total/NA	Water	537 (modified)	669614
320-99004-3	FPC-MW-05	Total/NA	Water	537 (modified)	669614
320-99004-4	GM-4	Total/NA	Water	537 (modified)	669614
320-99004-5	GM-6	Total/NA	Water	537 (modified)	669614
320-99004-6	MW-C	Total/NA	Water	537 (modified)	669614
320-99004-7	DW-1	Total/NA	Water	537 (modified)	669614
320-99004-9	Equipment Blank 2	Total/NA	Water	537 (modified)	669614
320-99004-10	Equipment Blank 3	Total/NA	Water	537 (modified)	669614
320-99004-11	Field Blank 2	Total/NA	Water	537 (modified)	669614
MB 320-669614/1-A	Method Blank	Total/NA	Water	537 (modified)	669614
LCS 320-669614/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	669614
LCSD 320-669614/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	669614

Lab Chronicle

Client: Hart & Hickman, PC
Project/Site: Caldwell County Landfill

Job ID: 320-99004-1

Client Sample ID: FPC-MW-01
Date Collected: 04/13/23 15:58
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			310.5 mL	10.0 mL	669614	04/23/23 18:58	AM	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	670709	04/28/23 04:48	RS1	EET SAC

Client Sample ID: FPC-MW-03
Date Collected: 04/12/23 15:35
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			314.4 mL	10.0 mL	669614	04/23/23 18:58	AM	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	670709	04/28/23 04:59	RS1	EET SAC

Client Sample ID: FPC-MW-05
Date Collected: 04/13/23 12:55
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			300.4 mL	10.0 mL	669614	04/23/23 18:58	AM	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	670709	04/28/23 05:09	RS1	EET SAC

Client Sample ID: GM-4
Date Collected: 04/13/23 14:00
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			293.2 mL	10.0 mL	669614	04/23/23 18:58	AM	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	670709	04/28/23 05:19	RS1	EET SAC

Client Sample ID: GM-6
Date Collected: 04/13/23 15:09
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			322.3 mL	10.0 mL	669614	04/23/23 18:58	AM	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	670709	04/28/23 05:30	RS1	EET SAC

Client Sample ID: MW-C
Date Collected: 04/13/23 16:32
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			306.5 mL	10.0 mL	669614	04/23/23 18:58	AM	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	670709	04/28/23 05:40	RS1	EET SAC

Lab Chronicle

Client: Hart & Hickman, PC
Project/Site: Caldwell County Landfill

Job ID: 320-99004-1

Client Sample ID: DW-1
Date Collected: 04/13/23 10:30
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			302.9 mL	10.0 mL	669614	04/23/23 18:58	AM	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	670709	04/28/23 05:50	RS1	EET SAC

Client Sample ID: DUP-2
Date Collected: 04/12/23 00:00
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			310.3 mL	10.0 mL	668932	04/20/23 11:56	B1Q	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	669442	04/22/23 15:52	D1R	EET SAC

Client Sample ID: Equipment Blank 2
Date Collected: 04/12/23 09:35
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			300.1 mL	10.0 mL	669614	04/23/23 18:58	AM	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	670709	04/28/23 06:11	RS1	EET SAC

Client Sample ID: Equipment Blank 3
Date Collected: 04/13/23 08:25
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			309.2 mL	10.0 mL	669614	04/23/23 18:58	AM	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	670709	04/28/23 06:21	RS1	EET SAC

Client Sample ID: Field Blank 2
Date Collected: 04/12/23 09:40
Date Received: 04/18/23 09:55

Lab Sample ID: 320-99004-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			287.7 mL	10.0 mL	669614	04/23/23 18:58	AM	EET SAC
Total/NA	Analysis	537 (modified)		1	1 mL	1 mL	670709	04/28/23 06:31	RS1	EET SAC

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 320-99004-1
Project/Site: Caldwell County Landfill

Laboratory: Eurofins Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4040	01-29-24

Method Summary

Client: Hart & Hickman, PC
Project/Site: Caldwell County Landfill

Job ID: 320-99004-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	EET SAC
3535	Solid-Phase Extraction (SPE)	SW846	EET SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Hart & Hickman, PC
Project/Site: Caldwell County Landfill

Job ID: 320-99004-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-99004-1	FPC-MW-01	Water	04/13/23 15:58	04/18/23 09:55
320-99004-2	FPC-MW-03	Water	04/12/23 15:35	04/18/23 09:55
320-99004-3	FPC-MW-05	Water	04/13/23 12:55	04/18/23 09:55
320-99004-4	GM-4	Water	04/13/23 14:00	04/18/23 09:55
320-99004-5	GM-6	Water	04/13/23 15:09	04/18/23 09:55
320-99004-6	MW-C	Water	04/13/23 16:32	04/18/23 09:55
320-99004-7	DW-1	Water	04/13/23 10:30	04/18/23 09:55
320-99004-8	DUP-2	Water	04/12/23 00:00	04/18/23 09:55
320-99004-9	Equipment Blank 2	Water	04/12/23 09:35	04/18/23 09:55
320-99004-10	Equipment Blank 3	Water	04/13/23 08:25	04/18/23 09:55
320-99004-11	Field Blank 2	Water	04/12/23 09:40	04/18/23 09:55

Eurofins Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone (916) 373-5600

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: NWS / HMW / JH	Lab PM: Karen Dahl	Carrier Tracking No(s):	COC No:
Client Contact: Carlin Slusher	Phone: 919-847-4241	E-Mail: Karen.Dahl@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Company: Hart and Hickman	PWSID:	Analysis Requested		Job #: CAL-005-002
Address: 3921 Sunset Ridge Rd R Ste 301	Due Date Requested: HH Standard			Preservation Codes:
City: Raleigh	TAT Requested (days): HH Standard			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
State, Zip: NC, 27606	Compliance Project: Δ Yes Δ No			
Phone: 919-847-4241	PO #:			Other:
Email: CSlusher@harthickman.com	WO #:			
Project Name: Caldwell County Landfill	Project #: CAL-005-002			
Site:	SSOW#:			

320-99004 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	537.1 (Modified) Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FPC-MW-01	4/13/23	1554	G	W			X		(Site specific analyte list - report to LOQ
FPC-MW-03	4/12/23	1535	G	W			X		
FPC-MW-05	4/13/23	1255	G	W			X		
GM-4	4/13/23	1400	G	W			X		
GM-6	4/13/23	1509	G	W			X		
MW-C	4/13/23	1632	G	W			X		
DW-1	4/13/23	1030	G	W			X		
Dup-2	—	—	G	W			X		
Equipment Blank 2	4/12/23	0935	G	W			X		
Equipment Blank 3	4/13/23	0825	G	W			X		
Field Blank 2	4/12/23	0940	G	W			X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Yuki Stone	4/17/23 0952	HH	Brent Nuckles	4/17/23 0952	Eurofins
2	Brent Nuckles	4/17/23 1700	Eurofins		4/18/23 955	ESS SAC
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 2116594

Cooler Temperature(s) °C and Other Remarks: 3.1

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 320-99004-1

Login Number: 99004
List Number: 1
Creator: Fisher, Jamyiah L

List Source: Eurofins Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	2118844
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Refer to Job Narrative for details.
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

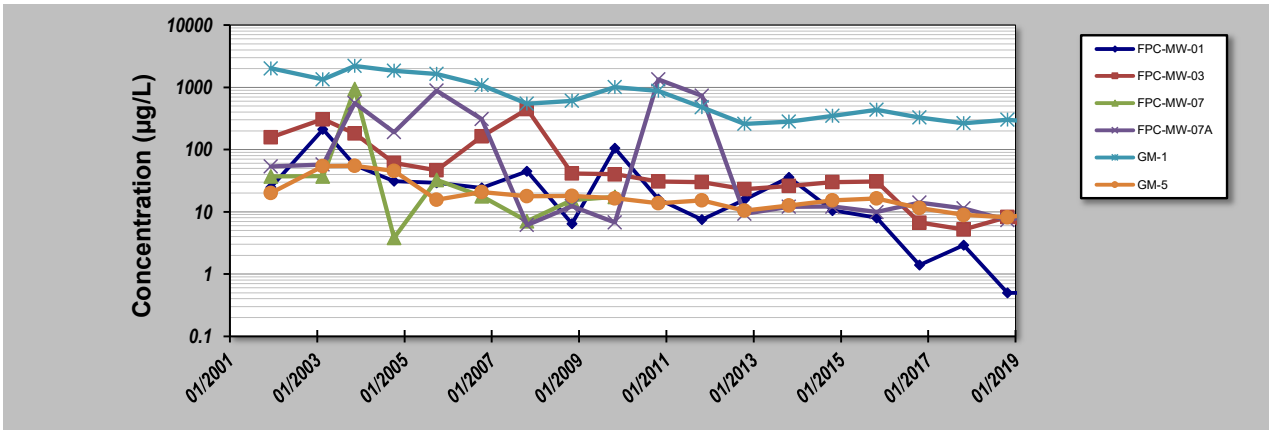
Appendix D
Mann-Kendall Analysis

Total VOCs Mann-Kendall Analysis
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-004

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	14-Mar-24	Job ID:	CAL.005
Facility Name:	Former CSI Facility	Constituent:	Total VOCs
Conducted By:	C. Slusher	Concentration Units:	µg/L

Sampling Point ID:	FPC-MW-01	FPC-MW-03	FPC-MW-07	FPC-MW-07A	GM-1	GM-5
Sampling Event	Sampling Date	TOTAL VOCS CONCENTRATION (µg/L)					
1	12-Dec-01	24.7	157.5	36.9	53.4	2016.6	20.1
2	19-Feb-03	210.9	306.9	37.3	57.7	1333.59	53.97
3	12-Nov-03	56.4	180.8	936.8	560.2	2208	55
4	6-Oct-04	30.9	61.1	3.8	190	1836	45.5
5	28-Sep-05	29.3	46.4	32.4	887.5	1639.9	15.6
6	11-Oct-06	24.2	162.8	17.8	308.8	1078.9	20.7
7	24-Oct-07	44.7	443.2	7.1	6.1	544.7	17.7
8	4-Nov-08	6.44	41.31	15.36	12.35	604.89	18.04
9	28-Oct-09	104.61	40.03	17.44	6.71	1011.35	16.47
10	27-Oct-10	16	30.7		1333.4	876.2	13.7
11	26-Oct-11	7.5	29.9		729.3	478.8	15.2
12	16-Oct-12	15.6	23.1		9.3	258.4	10.4
13	23-Oct-13	35.7	26.1		12	280.8	12.6
14	22-Oct-14	10.5	30		12.1	348.3	15.2
15	28-Oct-15	8	30.8		9.9	436.6	16.3
16	19-Oct-16	1.4	6.7		14	328	11.5
17	25-Oct-17	2.9	5.2		11.4	265.1	8.9
18	25-Oct-18	*0.5*	8.2		7.3	300.2	8.1
19	7-Nov-19	*0.5*	2.8		10.8	261.1	10.4
20	29-Oct-20	1.1	1.5		10.2	201.4	10
21	28-Oct-21	*0.5*	*0.5*		8.3	145.1	13.2
22	20-Oct-22	1.3	*0.5*		12.5	91.3	9.5
23	23-Oct-23	*0.5*	*0.5*		11.1	80.1	6.9
24		*Note: Non-detects reported as half the reporting limit.*					
25							
Coefficient of Variation:		1.70	1.56	2.49	1.90	0.91	0.74
Mann-Kendall Statistic (S):		-171	-206	-14	-75	-209	-182
Confidence Factor:		>99.9%	>99.9%	91.0%	97.5%	>99.9%	>99.9%
Concentration Trend:		Decreasing	Decreasing	Prob. Decreasing	Decreasing	Decreasing	Decreasing



Notes:

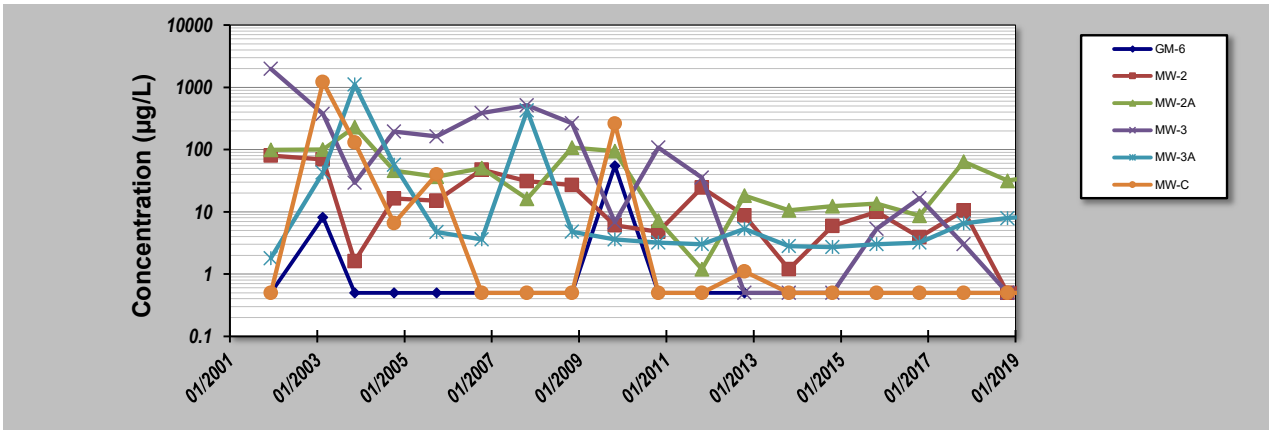
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

Total VOCs Mann-Kendall Analysis
Former CSI Facility
Hudson, Caldwell County, North Carolina
H&H Job No. CAL-004

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	14-Mar-24	Job ID:	CAL.005
Facility Name:	Former CSI Facility	Constituent:	Total VOCs
Conducted By:	C. Slusher	Concentration Units:	µg/L

Sampling Point ID:	GM-6	MW-2	MW-2A	MW-3	MW-3A	MW-C
Sampling Event	Sampling Date	TOTAL VOCS CONCENTRATION (µg/L)					
1	12-Dec-01	*0.5*	79.9	99.5	1974.9	1.8	*0.5*
2	19-Feb-03	8.11	69.22	100.3	371.8	42.5	1224.85
3	12-Nov-03	*0.5*	1.6	230.9	29.3	1106.2	130
4	6-Oct-04	*0.5*	16.4	46	194.4	56.6	6.6
5	28-Sep-05	*0.5*	15	36.8	162	4.7	40
6	11-Oct-06	*0.5*	47.5	50.6	385.7	3.6	*0.5*
7	24-Oct-07	*0.5*	31	16.2	512.3	423.2	*0.5*
8	4-Nov-08	*0.5*	26.99	108.04	264.55	4.76	*0.5*
9	28-Oct-09	54.6	6.03	94.64	6.78	3.58	262.9
10	27-Oct-10	*0.5*	4.8	7.2	107.2	3.2	*0.5*
11	26-Oct-11	*0.5*	24.4	1.2	35.4	3	*0.5*
12	16-Oct-12	*0.5*	8.7	18.3	*0.5*	5.3	1.1
13	23-Oct-13	*0.5*	1.2	10.6	*0.5*	2.8	*0.5*
14	22-Oct-14	*0.5*	5.9	12.3	*0.5*	2.7	*0.5*
15	28-Oct-15	*0.5*	10	13.6	5.3	3	*0.5*
16	19-Oct-16	*0.5*	3.9	8.6	16.5	3.2	*0.5*
17	25-Oct-17	*0.5*	10.4	64.1	3	6.5	*0.5*
18	25-Oct-18	*0.5*	*0.5*	31.6	*0.5*	7.9	*0.5*
19	7-Nov-19	*0.5*	1.2	40.8	*0.5*	8.8	*0.5*
20	29-Oct-20	*0.5*	1.2	36.2	*0.5*	7.9	*0.5*
21	28-Oct-21	*0.5*	11.4	36.8	25.1	4.2	*0.5*
22	20-Oct-22	*0.5*	2.6	33.7	*0.5*	8.2	*0.5*
23	23-Oct-23	*0.5*	*0.5*	28.3	*0.5*	8.7	15.5
24		*Note: Non-detects reported as half the reporting limit.*					
25							
Coefficient of Variation:		3.56	1.32	1.04	2.35	3.22	3.51
Mann-Kendall Statistic (S):		-25	-131	-64	-147	8	-61
Confidence Factor:		73.5%	>99.9%	95.2%	>99.9%	57.3%	94.3%
Concentration Trend:		No Trend	Decreasing	Decreasing	Decreasing	No Trend	Prob. Decreasing



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