

**MONTHLY PROGRESS REPORT #311  
FOR FEBRUARY 2023**

**EPA REGION I ADMINISTRATIVE ORDERS SDWA 1-97-1019 and 1-2000-0014**

**JOINT BASE CAPE COD (JBCC)  
TRAINING RANGE AND IMPACT AREA**

The following summary of progress is for the period from 01 to 28 February 2023.

**1. SUMMARY OF REMEDIATION ACTIONS**

**Remediation Actions (RA) Underway at Camp Edwards as of 24 February 2023:**

Demolition Area 1 Comprehensive Groundwater RA

The Demolition Area 1 Comprehensive Groundwater RA consists of the removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. Extraction, treatment, and recharge (ETR) systems at Frank Perkins Road, Base Boundary, and the Leading Edge include extraction wells, an ex-situ treatment process to remove explosives compounds and perchlorate from the groundwater, and injection wells to return treated water to the aquifer.

The Frank Perkins Road Treatment Facility has been optimized as part of the Environmental and System Performance Monitoring (ESPM) program at Demolition Area 1. The treatment facility continues to operate at a flow rate of 175 gallons per minute (gpm), with over 2.986 billion gallons of water treated and re-injected as of 24 February 2023. The following Frank Perkins Road Treatment Facility shutdowns occurred in February.

- 1605 on 17 February 2023 due to a power interruption and was restarted at 0730 on 21 February 2023.
- 0005 on 24 February 2023 due to a power interruption and was restarted at 0737 on 24 February 2023.

The Base Boundary Mobile Treatment Unit (MTU) continues to operate at a flow rate of 65 gpm. As of 24 February 2023, over 358.7 million gallons of water were treated and re-injected. No Base Boundary MTU shutdowns occurred in February.

The Leading Edge system continues to operate at a flow rate of 100 gpm. As of 24 February 2023, over 341.2 million gallons of water were treated and re-injected. No Leading Edge system shutdowns occurred in February.

The Pew Road MTU was turned off with regulatory approval on 08 March 2021 (formerly operated at a flow rate of 65 gpm). Over 672.9 million gallons of water were treated and re-injected during the RA.

J-2 Range Groundwater RA

Northern Plant

The J-2 Range Northern Treatment facility consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. The Extraction, Treatment, and Re-infiltration system includes three extraction wells, an ex-situ treatment process to remove explosives compounds and perchlorate from the groundwater, and an infiltration basin to return treated water to the aquifer.

The Northern MTUs E and F continue to operate at a flow rate of 250 gpm. As of 24 February 2023, over 2.053 billion gallons of water have been treated and re-injected. No MTU E and F shutdowns occurred in February.

The Northern Treatment Building G continues to operate at a flow rate of 225 gpm. As of 24 February 2023, over 1.569 billion gallons of water have been treated and re-injected. No Northern MTU G shutdowns occurred in February.

#### Eastern Plant

The J-2 Range Eastern Treatment facility consists of removal and treatment of groundwater to minimize downgradient migration of explosives compounds and perchlorate. The ETI system includes the following components: three extraction wells in an axial array, an ex-situ treatment process consisting of an ion exchange (IX) resin and granular activated carbon (GAC) media to treat perchlorate and explosives compounds, and three infiltration trenches located along the lateral boundaries of the plume where treated water enters the vadose zone and infiltrates into the aquifer. The J-2 Range Eastern system is running at a combined total flow rate of 495 gpm.

The MTUs H and I continue to operate at a flow rate of 250 gpm. As of 24 February 2023, over 1.694 billion gallons of water have been treated and re-injected. No MTU H and I shutdowns occurred in February.

MTU J continues to operate at a flow rate of 120 gpm. As of 24 February 2023, over 791.4 million gallons of water have been treated and re-injected. No MTU J shutdowns occurred in February.

MTU K continues to operate at a flow rate of 125 gpm. As of 24 February 2023, over 916.2 million gallons of water have been treated and re-injected. No MTU K shutdowns occurred in February.

#### J-3 Range Groundwater RA

The J-3 Range Groundwater RA consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. The ETR system includes four extraction wells, an ex-situ treatment process to remove explosives compounds and perchlorate from the groundwater and utilizes the existing Fuel Spill-12 (FS-12) infiltration gallery to return treated water to the aquifer.

The J-3 system is currently operating at a flow rate of 255 gpm. As of 24 February 2023, over 1.697 billion gallons of water have been treated and re-injected. No J-3 Range system shutdowns occurred in February.

#### J-1 Range Groundwater RA

#### Southern Plant

The J-1 Range Southern Groundwater RA consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds. The ETR system includes

two extraction wells, an ex-situ treatment process to remove explosives compounds from the groundwater, and an infiltration trench to return treated water to the aquifer.

The Southern MTU continues to operate at a flow rate of 50 gpm since 21 November 2022 (normal flow rate is 125 gpm). As of 24 February 2023, over 754.2 million gallons of water have been treated and re-injected. No J-1 Range Southern system shutdowns occurred in February.

#### Northern Plant

The J-1 Range Northern Groundwater RA consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. The ETR system includes two extraction wells, an ex-situ treatment process to remove explosives compounds and perchlorate from the groundwater, and an infiltration trench to return treated water to the aquifer.

The Northern MTU continues to operate at a total system flow rate of 250 gpm. As of 24 February 2023, over 1.195 billion gallons of water have been treated and re-injected. No J-1 Range Northern MTU shutdowns occurred in February.

#### Central Impact Area RA

The Central Impact Area (CIA) Groundwater treatment facility consists of removal and treatment of groundwater to minimize downgradient migration of explosives compounds and perchlorate. The ETR system includes the following components: three extraction wells, an ex-situ treatment process consisting of an ion exchange resin and granular activated carbon media to treat explosives compounds, and three infiltration galleries to return treated water to the aquifer. The CIA systems 1, 2, and 3 continue to run at a combined total flow rate of 750 gpm. As of 24 February 2023, over 3.135 billion gallons of water have been treated and re-injected. The following CIA system shutdowns occurred in February.

- 0855 on 14 February 2023 to replace a leaking flange and camlock fitting on an effluent valve and was restarted at 0927 on 14 February 2023.

## **2. SUMMARY OF ACTIONS TAKEN**

### **Operable Unit (OU) Activity as of 24 February 2023:**

#### CIA

- Groundwater sampling within CIA SPM
- Routine visual check of consolidated shot structure (CSS) cover and surface area around perimeter of CSS
- Bag filters changed

#### Demolition Area 1

- No activity

#### Demolition Area 2

- No activity

#### J-1 Range

- Bag filters changed

J-2 Range

- Vegetation clearing at drilling locations and access paths
- Bag filters changed

J-3 Range

- Groundwater sampling within J-3 Range SPM
- Bag filters changed

L Range

- No activity

Small Arms Ranges

- No activity

Northwest Corner

- No activity

Training Areas

- No activity

Impact Area Roads

- No activity

Other

- Collected process water samples from Central Impact Area, Demolition Area 1, J-1 Range Northern, J-1 Range Southern, J-2 Range Eastern, J-2 Range Northern, and J-3 Range treatment systems
- Drill rig and associated vehicles mobilized to JBCC on 20 February 2023
- Well abandonment/decommissioning at MW-554 (Hamilton Landscape Property)

**JBCC Impact Area Groundwater Study Program (IAGWSP) Tech Update Meeting Minutes for 23 February 2023**

Project and Fieldwork Update

USACE provided the project and fieldwork update starting with an update on the groundwater sampling crews. USACE noted that crews are continuing to work in the Central Impact Area (CIA) performing annual sampling. They began mid-January and are scheduled to be finished in mid-March. After CIA sampling is completed, crews will move to perform the J-2 North semi-annual round to include PFAS sampling. USACE referred the group to the weekly fieldwork update for systems shutdown statistics and noted there weren't any significant shutdowns since the last tech update meeting.

USACE continued with a status of operations and maintenance activities, reminding the group that the J-1 South treatment system has been running at a reduced flow rate of 50 gpm, rather than the normal flow rate of 125 gpm since 21 November 2023, because the infiltration gallery failed. The contractor provided a draft design for the new infiltration gallery this week. USACE explained that the plans are undergoing internal review and the goal is to begin construction of

the new gallery in March or April 2023. EPA asked when the plans will be submitted to the regulators. USACE replied that once all internal comments are reviewed and final plans are in place the plans will be provided, hopefully within a couple of weeks.

USACE continued with an update on the drilling activities for the new J-2 North wells, stating that brush clearance for the wells was completed on 7 February 2023. Down holes were done on 21 February and drilling is beginning today, 23 February 2023. USACE noted that the drilling crew completed removal of the monitoring well on the Hamilton Landscaping property in Bourne on 22 February 2023. USACE pointed out that along with the agenda for today's meeting, a map with the well locations, well identifications, and the planned order of drilling were provided to the group. The drilling will begin on location 734 on Gibbs Road continuing in numerical order and finishing on Checkerberry Lane. EPA noted that the primary regulator would be away for a week and asked if there was a tentative date for the first screen setting call. USACE replied that once data was received, a call would be scheduled and would be done location by location, but they did not anticipate having one for at least three weeks because PFAS analytical results are on a two week turn-around.

USACE stated that there were no soil project updates and currently no CIA fieldwork. The contractor anticipates mobilizing to the site on March 20, however, USACE explained that there will be some new team members, so they will use the first week to do site orientation activities with work commencing on 27 March. USACE said the draft 2022 CIA source removal report was submitted for regulator review on 15 February and that the team is now working on the 2023 Quality Assurance Project Plan (QAPP).

#### Demolition Area 1 Packer Options Presentation

USACE provided a presentation on the Demolition Area 1 packering well options to expand the base boundary capture zone. USACE explained that the exercise to evaluate these options came from EPA comments on the Demolition Area 1 monitoring report where EPA specified that full capture at the base boundary should be prioritized.

USACE explained that two well options were simulated to expand the capture for the base boundary well (D1-EW-3.) USACE noted that initially the existing well was designed from -10 to -110 ft above mean sea level (msl) and that, in June 2019, D1-EW-3 was packered to open screen -50 to -110 ft msl resulting in 40 feet of packering. MassDEP asked for a refresher as to why the screen was packered in 2019. USACE responded that it was a similar reason as to why it was being done now - there were increased perchlorate concentrations at MW-544M1. USACE reminded the group that there is limited capacity of 65 gpm at the base boundary system, so an exercise was performed to see if capture could be expanded. For this most recent evaluation, the draft perchlorate plume shell (plan view in 2D) was used to simulate an additional 10 feet of packering, which resulted in open screen -60 to -110 ft msl, which is essentially 50 feet of packering. This expands the horizontal capture zone approximately 20 feet further to the south. Also, an additional 20 feet of packering was simulated with open screen -70 to -110 ft msl, which expands the capture zone approximately 40 feet further to the south, and also expanded the capture zone vertically. USACE explained that the packering will prevent additional off-base non-attenuated perchlorate mass.

A photo of the packer material and description were displayed and discussed. USACE explained that it is a rubber material that fits over a four-inch pipe, which sits below the pump and fits snugly up against the six-inch diameter stainless steel well screen. USACE said that

what is being suggested is 20 feet of packering that should expand capture. A figure showing the full well screen was displayed and discussed. USACE noted that it was important to not simply look at capture horizontally but to make sure that capture is not being lost above the packer. The current capture zone along with lines demarcating capture zone areas with the additional 10 and 20 feet of packering were displayed. USACE pointed out the location of MW-544 and noted that anything around that location is now looped into the capture zone, and packering 20 feet brings the high concentration lobe into it as well. USACE also noted that vertical capture is maintained.

IAGWSP is recommending packering an additional 20-feet of D1-EW-3 and notes that the packering will expand capture laterally and still maintain vertical capture, based on model simulations. USACE showed the 3D simulation with the base case followed by a simulation with the 20-feet packering, noting the lateral and vertical expansion of capture.

USACE explained that the IAGWSP and USACE feels packering is doable and a good solution to expand capture still utilizing the current system. MassDEP asked if the pipe that was packered in 2019 needed to be pulled and replaced before the new packer is installed. USACE replied that the pump assembly will come out and then the existing assembly would be removed, which sits below but is attached at the surface. USACE noted the driller believes the assembly will come out smoothly and, if not, they are prepared to install new baffles. The driller would then need to add 20 more feet of the PVC pipe and packer assembly, then reinstall it along with the pump.

MassDEP said that this exercise sounded promising and asked that the information be provided in a brief technical memorandum so that the agencies could review it. USACE replied that could be done. EPA asked if USACE checked to see if the new plume shell varied differently from the drift function plume shell as it relates to capture. USACE replied that in plan view, it looks fine, but that it will be confirmed moving forward from the 2D to 3D plume shells and noted that it was doubtful that things would change significantly. EPA thanked USACE and the IAGWSP for taking this seriously and for performing the exercise.

#### Demolition Area 1 Perchlorate and RDX Plume Shell Data Migration and 2D Contouring Presentation

USACE continued with a presentation on the development of the Demolition Area 1 perchlorate and RDX plume shell data migration and 2D contouring. In order to develop the plume shells, the following steps were performed:

1. EDMS was queried for perchlorate and RDX data for Demo 1.
2. A transient MODFLOW groundwater flow model was set up for incorporating different well stresses, and 35 stress periods were developed to simulate groundwater sample collection for perchlorate and RDX with the simulation ending on 31 December 2022.
3. Representative groundwater extraction rates were used for the simulation period based on well spreadsheets.
4. Particles were initiated in MODPATH software at locations, depths, and release times of each sample collection point using the transient MODFLOW groundwater flow model.
5. A MODPATH simulation was run to migrate particles (x, y, and z) through to 31 December 2022, and MODPATH model predicted x, y, and z locations were imported in Excel and matched to particles with their respective measured concentrations. USACE noted that the perchlorate concentrations were not attenuated. However, the age of the particles/samples were evaluated when determining whether to retain or delete the

particle in the analysis. The RDX concentrations are decayed using exponential decay (2% remaining after 20 years of transport).

6. The values were imported to ArcView software and used as a guide to manually develop plume contours representing 10-foot intervals with 0.2, 2, 6, and 15  $\mu\text{g/L}$  for perchlorate; and 0.2, 0.6, and 2  $\mu\text{g/L}$  for RDX.

USACE explained that in general, perchlorate and RDX plumes are drawn where data exceed 2.0  $\mu\text{g/L}$  and 0.6  $\mu\text{g/L}$ , respectively. Concentrations less than these thresholds result in “deleted points” or points that are “retained” but only to delineate a bounding contour (0.2  $\mu\text{g/L}$ ).

The start date for perchlorate modeling was 8 August 2000, and the end date was 31 December 2022 with concentrations ranging from non-detect (ND) to 500  $\mu\text{g/L}$ . The number of points migrated was 3,836 with 2,166 points captured. USACE noted that extraction well data are not used in creating the plume shell because there is one point that represents up to 100 foot well screen, so only monitoring well screen or profile data at the mid-point are used.

USACE displayed a graph with the contaminant mass removal at Frank Perkins Road since startup. USACE noted that 75 pounds of perchlorate have been removed, but only one pound in the last eight years. The Pew Road system has removed approximately 40 pounds and at the base boundary, 2.2 pounds of perchlorate have been removed since 2011. USACE noted the high concentration mass has already been removed.

During the modeling process:

- 1,407 points were deleted with a maximum of 14.1  $\mu\text{g/L}$ .
- 333 points were less than the reporting limit of 0.2  $\mu\text{g/L}$ , and 1007 were less than 2  $\mu\text{g/L}$ .
- 67 points were greater than 2  $\mu\text{g/L}$  (with 55 of these point more than 10 years old).
- 263 points were used for the plume shells, 181 were less than 2  $\mu\text{g/L}$ , and 82 were greater than 2  $\mu\text{g/L}$  (with 72 less than 10 years old and a maximum of 30.1  $\mu\text{g/L}$ ).
- 35 points were outside of the model domain.
- The plume contour values were 0.2, 0.6, 2, 6, and 15  $\mu\text{g/L}$ .
- The plume maximum elevation was -15 ft msl, and the plume minimum elevation was -125 ft msl.

A figure was displayed showing all migrated perchlorate data except for the captured points because they were removed. USACE noted the heavier concentration mass was in Zone 3. A zoomed-in figure was displayed showing the Zone 3 perchlorate plumes and data points 2  $\mu\text{g/L}$  or higher.

The start date for RDX modeling was 7 November 1997, and the end date was 31 December 2022. Concentrations ranged from ND to 370  $\mu\text{g/L}$ . The number of points migrated was 3,802 with 2,294 points captured. USACE explained that an exponential decay curve was utilized to attenuate the RDX concentrations.

During the modeling process:

- 1,453 points were deleted with a maximum of 1.32  $\mu\text{g/L}$ .
- 1,445 points were less than the reporting limit of 0.2  $\mu\text{g/L}$ .
- 6 points were between 0.2 and 0.6  $\mu\text{g/L}$ .
- 2 points were greater than 0.6  $\mu\text{g/L}$  (with one point more than 10 years old).

- 55 points were used for the plume shells, 29 points were between 0.2 and 0.6 µg/L, and 26 were greater than 0.6 µg/L (with a maximum of 2.13 µg/L).
- 38 points were outside of the model domain.
- The plume contour values were 0.2, 0.60, and 2 µg/L.
- The plume maximum elevation was +65 feet msl, and the plume minimum elevation was -85 ft msl.

A figure showing all migrated RDX data, excluding the captured points, that were retained and deleted was displayed and discussed. USACE presented the individual layer by layer 2D zoom and full-scale versions of both perchlorate and RDX plumes.

USACE reviewed the next steps in the process, explaining that once agency concurrence is received on the 2D representation presented today (23 February 2023), the 2D control contours would be converted into data points (x, y, z, and c values). Raster tops and bottoms would be converted into values to bound the plume above and below. A single data file consisting of retained points, control contour points, and raster top/bottom points would be developed and interpolated to the model grid (developing the initial concentration matrix). Next, a new plume shell would be run using the existing model scenario and compared to the decision document cleanup times. A presentation of the results would be provided to the regulators once the exercise is completed. EPA asked if during the development of the fate and transport simulations, would the model assume there is no continuing source. USACE said that was correct.

USACE noted that for modelers to move to the next step in the process, USACE would need agency concurrence on the information that was presented. EPA said they will review the presentation materials from today and provide concurrence or feedback as soon as EPA can. MassDEP asked if an email stating that the agencies are satisfied with the 2D representations would be sufficient to move forward. USACE replied that an email that indicated agreement to move forward with the 3D portion of the plume shell using the 2D layer by layer interpretation would be fine.

#### Action Items

USACE used the new document tracking list to review and discuss deliverables.

#### **JBCC Cleanup Team Meeting**

The next JBCC Cleanup Team (JBCCCT) has yet to be scheduled (previous meeting was 07 December 2022). Meeting details and presentation materials from previous meetings can be found on the IAGWSP web site at <http://jbcc-iagwsp.org/community/impact/presentations/>. The Cleanup Team meeting discusses late breaking news and responses to action items, as well as updates from the IAGWSP and the Installation Restoration Program (IRP). The JBCCCT meetings provide a forum for community input regarding issues related to both the IRP and the IAGWSP.

### **3. SUMMARY OF DATA RECEIVED**

Table 1 summarizes sampling for all media from 01 to 28 February 2023. Table 2 summarizes the validated detections of explosives compounds and perchlorate for all groundwater results



received from 01 to 28 February 2023. These results are compared to the Maximum Contaminant Levels/Health Advisory (MCL/HA) values for respective analytes. Explosives and perchlorate are the primary contaminants of concern (COC) at Camp Edwards. Table 3 summarizes sampling of influent and groundwater samples for per- and polyfluoroalkyl substances (PFAS) from 01 June 2019 to present. Table 3 PFAS results are compared to the new Regional Screening Levels (RSL) published by EPA on 17 May 2022 as well as the EPA Lifetime Health Advisory for PFOS+PFOA and the MassDEP MCL for PFAS6.

The operable units (OUs) under investigation and cleanup at Camp Edwards are the Central Impact Area, Demolition Area 1, Demolition Area 2, J-1 Range, J-2 Range, J-3 Range, L Range, Northwest Corner, Small Arms Ranges, and Training Areas. Environmental monitoring reports for each OU are generated each year to evaluate the current year groundwater results. These reports are available on the site Environmental Data Management System (EDMS) and at the project document repositories (IAGWSP office and Jonathan Bourne Library).

#### 4. SUBMITTED DELIVERABLES

Deliverables submitted during the reporting period include the following:

- Monthly Progress Report No. 310 for January 2023 15 February 2023
- Final UFP-QAPP Addendum #2 2023 Per- and Polyfluoroalkyl Substances (PFAS) Sampling and Groundwater Profiling and Well Installation Response to Comments Letter 02 February 2023
- Draft J-2 Range Eastern Environmental Monitoring Report for November 2021 through October 2022 dated February 2023 06 February 2023
- Draft Central Impact Area 2022 Environmental Monitoring Report Response to Comments Letter 13 February 2023
- Draft 2022 Source Removal Annual Report at the Central Impact Area 13 February 2023
- Draft 2021 Source Removal Annual Report 15 February 2023
- Draft Technical Memorandum: Small Arms Ranges Environmental Monitoring Work Plan Addendum 21 February 2023

## 5. SCHEDULED ACTIONS

The following actions and/or documents are being prepared in March 2023.

- Small Arms Ranges Environmental Monitoring Work Plan Addendum
- Draft Central Impact Area Source 2023 Quality Assurance Project Plan
- J-2 Range Eastern 2022 Environmental Monitoring Report
- Response to Comments on the Draft Demolition Area 1 2022 Environmental Monitoring Report
- Response to Comments on the Draft Central Impact Area 2022 Environmental Monitoring Report
- Memorandum of Resolution for the Northwest Corner Demonstration of Compliance Report (*on hold pending resolution of PFAS issues*)
- Draft Five Year Review Report
- Land Use Controls Report

**TABLE 1**  
**Sampling Progress: 01 to 28 February 2023**

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
Central Impact Area	MW-686M2	MW-686M2_S23	N	02-23-2023	Ground Water	194.3	204.3
Central Impact Area	MW-686M1	MW-686M1_S23	N	02-23-2023	Ground Water	243.2	253.2
Central Impact Area	MW-38M4	MW-38M4_S23	N	02-23-2023	Ground Water	132	142
Central Impact Area	MW-38M3	MW-38M3_S23	N	02-23-2023	Ground Water	170	180
Central Impact Area	MW-184M1	MW-184M1_S23	N	02-23-2023	Ground Water	186	196
Central Impact Area	MW-184M1	MW-184M1_S23D	FD	02-23-2023	Ground Water	186	196
Central Impact Area	MW-728M1	MW-728M1_S23	N	02-22-2023	Ground Water	153.4	163.4
Central Impact Area	MW-25	MW-25_S23	N	02-22-2023	Ground Water	108	118
Central Impact Area	MW-115S	MW-115S_S23	N	02-22-2023	Ground Water	116	126
Central Impact Area	MW-115M1	MW-115M1_S23	MS	02-22-2023	Ground Water	138	148
Central Impact Area	MW-115M1	MW-115M1_S23	N	02-22-2023	Ground Water	138	148
Central Impact Area	MW-115M1	MW-115M1_S23	SD	02-22-2023	Ground Water	138	148
Central Impact Area	MW-486M1	MW-486M1_S23	N	02-22-2023	Ground Water	185.7	195.7
Central Impact Area	MW-43M2	MW-43M2_S23	N	02-21-2023	Ground Water	200	210
Central Impact Area	MW-43M1	MW-43M1_S23	N	02-21-2023	Ground Water	223	233
Central Impact Area	MW-223M2	MW-223M2_S23	N	02-21-2023	Ground Water	185	195
Central Impact Area	MW-223M1	MW-223M1_S23	N	02-21-2023	Ground Water	211	221
Central Impact Area	MW-223D	MW-223D_S23	N	02-21-2023	Ground Water	260	270
Central Impact Area	MW-95M2	MW-95M2_S23	N	02-16-2023	Ground Water	167	177
Central Impact Area	MW-95M1	MW-95M1_S23	N	02-16-2023	Ground Water	202	212
Central Impact Area	MW-95M1	MW-95M1_S23D	FD	02-16-2023	Ground Water	202	212
Central Impact Area	MW-607M3	MW-607M3_S23	N	02-16-2023	Ground Water	157.4	167.4
Central Impact Area	MW-607M2	MW-607M2_S23	N	02-16-2023	Ground Water	177.4	187.4
Central Impact Area	MW-607M2	MW-607M2_S23D	FD	02-16-2023	Ground Water	177.4	187.4
Central Impact Area	MW-607M1	MW-607M1_S23	N	02-16-2023	Ground Water	207.4	217.4
Central Impact Area	MW-607M1	MW-607M1_S23D	FD	02-16-2023	Ground Water	207.4	217.4
Central Impact Area	MW-203M2	MW-203M2_S23	N	02-15-2023	Ground Water	176	186
Central Impact Area	MW-485M1	MW-485M1_S23	N	02-15-2023	Ground Water	125.32	135.32
Central Impact Area	MW-485M1	MW-485M1_S23D	FD	02-15-2023	Ground Water	125.32	135.32
Central Impact Area	MW-85S	MW-85S_S23	N	02-15-2023	Ground Water	116	126
Central Impact Area	MW-02M2	MW-02M2_S23	N	02-15-2023	Ground Water	170	175
Central Impact Area	MW-02M1	MW-02M1_S23	N	02-15-2023	Ground Water	212	217
Central Impact Area	MW-27	MW-27_S23	N	02-14-2023	Ground Water	117	127
Central Impact Area	MW-477M2	MW-477M2_S23	N	02-14-2023	Ground Water	145.62	155.62
Central Impact Area	MW-477M2	MW-477M2_S23D	FD	02-14-2023	Ground Water	145.62	155.62
Central Impact Area	MW-477M1	MW-477M1_S23	N	02-14-2023	Ground Water	187.53	197.53
Central Impact Area	MW-107M2	MW-107M2_S23	N	02-14-2023	Ground Water	125	135
Central Impact Area	MW-40S	MW-40S_S23	N	02-13-2023	Ground Water	115.5	126
Central Impact Area	MW-40M1	MW-40M1_S23	N	02-13-2023	Ground Water	132.5	142
Central Impact Area	MW-90S	MW-90S_S23	N	02-13-2023	Ground Water	118	128
Central Impact Area	MW-90M1	MW-90M1_S23	N	02-13-2023	Ground Water	145	155
Central Impact Area	MW-37M2	MW-37M2_S23	N	02-09-2023	Ground Water	145	155
Central Impact Area	OW-1	OW-1_S23	N	02-09-2023	Ground Water	126	136
Central Impact Area	OW-1	OW-1_S23D	FD	02-09-2023	Ground Water	126	136
Central Impact Area	OW-2	OW-2_S23	N	02-09-2023	Ground Water	175	185
Central Impact Area	MW-01S	MW-01S_S23	N	02-09-2023	Ground Water	114	124
Central Impact Area	MW-01M2	MW-01M2_S23	N	02-09-2023	Ground Water	160	165
J3 Range	J3-EFF	J3-EFF-197A	N	02-08-2023	Process Water	0	0
J3 Range	J3-MID-2	J3-MID-2-197A	N	02-08-2023	Process Water	0	0
J3 Range	J3-MID-1	J3-MID-1-197A	N	02-08-2023	Process Water	0	0
J3 Range	J3-INF	J3-INF-197A	N	02-08-2023	Process Water	0	0
J1 Range Southern	J1S-EFF	J1S-EFF-183A	N	02-08-2023	Process Water	0	0
J1 Range Southern	J1S-MID	J1S-MID-183A	N	02-08-2023	Process Water	0	0
J1 Range Southern	J1S-INF-2	J1S-INF-2-183A	N	02-08-2023	Process Water	0	0
Central Impact Area	MW-89M3	MW-89M3_S23	N	02-08-2023	Ground Water	174	184
Central Impact Area	MW-89M2	MW-89M2_S23	N	02-08-2023	Ground Water	214	224
Central Impact Area	MW-89M2	MW-89M2_S23D	FD	02-08-2023	Ground Water	214	224
Demolition Area 1	FPR-2-EFF-A	FPR-2-EFF-A-203A	N	02-08-2023	Process Water	0	0
Demolition Area 1	FPR-2-GAC-MID1A	FPR-2-GAC-MID1A-203A	N	02-08-2023	Process Water	0	0

N = Normal Sample  
FD = Field Duplicate

**TABLE 1**  
**Sampling Progress: 01 to 28 February 2023**

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
Demolition Area 1	FPR2-POST-IX-A	FPR2-POST-IX-A-203A	N	02-08-2023	Process Water	0	0
Demolition Area 1	FPR-2-INF	FPR-2-INF-203A	N	02-08-2023	Process Water	0	0
Central Impact Area	MW-89M1	MW-89M1_S23	N	02-08-2023	Ground Water	234	244
Demolition Area 1	D1LE-EFF	D1LE-EFF-79A	N	02-08-2023	Process Water	0	0
Demolition Area 1	D1LE-MID2	D1LE-MID2-79A	N	02-08-2023	Process Water	0	0
Demolition Area 1	D1LE-MID1	D1LE-MID1-79A	N	02-08-2023	Process Water	0	0
Demolition Area 1	D1LE-INF	D1LE-INF-79A	N	02-08-2023	Process Water	0	0
Central Impact Area	MW-88M2	MW-88M2_S23	N	02-08-2023	Ground Water	213	223
Demolition Area 1	D1-EFF	D1-EFF-151A	N	02-08-2023	Process Water	0	0
Demolition Area 1	D1-MID-2	D1-MID-2-151A	N	02-08-2023	Process Water	0	0
Demolition Area 1	D1-MID-1	D1-MID-1-151A	N	02-08-2023	Process Water	0	0
Demolition Area 1	D1-INF	D1-INF-151A	N	02-08-2023	Process Water	0	0
Central Impact Area	MW-88M1	MW-88M1_S23	N	02-08-2023	Ground Water	233	243
Central Impact Area	MW-87M2	MW-87M2_S23	N	02-07-2023	Ground Water	169	179
Central Impact Area	MW-87M1	MW-87M1_S23	N	02-07-2023	Ground Water	194	204
Central Impact Area	MW-42M3	MW-42M3_S23	N	02-07-2023	Ground Water	165.8	176
Central Impact Area	MW-42M2	MW-42M2_S23	N	02-07-2023	Ground Water	185.8	196
Central Impact Area	MW-42M1	MW-42M1_S23	N	02-07-2023	Ground Water	205.8	216
Former A Range	MW-42M1	MW-42M1_S23	N	02-07-2023	Ground Water	205.8	216
Central Impact Area	MW-235M1	MW-235M1_S23	N	02-06-2023	Ground Water	154	164
Central Impact Area	MW-91S	MW-91S_S23	N	02-06-2023	Ground Water	124	134
Central Impact Area	MW-91S	MW-91S_S23D	FD	02-06-2023	Ground Water	124	134
J2 Range Northern	J2N-EFF-G	J2N-EFF-G-197A	N	02-06-2023	Process Water	0	0
J2 Range Northern	J2N-MID-2G	J2N-MID-2G-197A	N	02-06-2023	Process Water	0	0
J2 Range Northern	J2N-MID-1G	J2N-MID-1G-197A	N	02-06-2023	Process Water	0	0
J2 Range Northern	J2N-INF-G	J2N-INF-G-197A	N	02-06-2023	Process Water	0	0
J2 Range Northern	J2N-EFF-EF	J2N-EFF-EF-197A	N	02-06-2023	Process Water	0	0
J2 Range Northern	J2N-MID-2F	J2N-MID-2F-197A	N	02-06-2023	Process Water	0	0
Central Impact Area	MW-91M1	MW-91M1_S23	N	02-06-2023	Ground Water	170	180
J2 Range Northern	J2N-MID-1F	J2N-MID-1F-197A	N	02-06-2023	Process Water	0	0
J2 Range Northern	J2N-INF-EF	J2N-INF-EF-197A	N	02-06-2023	Process Water	0	0
J2 Range Northern	J2N-MID-2E	J2N-MID-2E-197A	N	02-06-2023	Process Water	0	0
J2 Range Northern	J2N-MID-1E	J2N-MID-1E-197A	N	02-06-2023	Process Water	0	0
Central Impact Area	MW-93M2	MW-93M2_S23	N	02-06-2023	Ground Water	145	155
J1 Range Northern	J1N-EFF	J1N-EFF-112A	N	02-06-2023	Process Water	0	0
J1 Range Northern	J1N-MID2	J1N-MID2-112A	N	02-06-2023	Process Water	0	0
Central Impact Area	MW-93M1	MW-93M1_S23	N	02-06-2023	Ground Water	185	195
J1 Range Northern	J1N-MID1	J1N-MID1-112A	N	02-06-2023	Process Water	0	0
J1 Range Northern	J1N-INF2	J1N-INF2-112A	N	02-06-2023	Process Water	0	0
Central Impact Area	MW-101S	MW-101S_S23	N	02-02-2023	Ground Water	131	141
Central Impact Area	CIA2-EFF	CIA2-EFF-109A	N	02-02-2023	Process Water	0	0
Central Impact Area	CIA2-MID2	CIA2-MID2-109A	N	02-02-2023	Process Water	0	0
Central Impact Area	MW-101M1	MW-101M1_S23	N	02-02-2023	Ground Water	158	168
Central Impact Area	MW-101M1	MW-101M1_S23D	FD	02-02-2023	Ground Water	158	168
Central Impact Area	CIA2-MID1	CIA2-MID1-109A	N	02-02-2023	Process Water	0	0
Central Impact Area	CIA2-INF	CIA2-INF-109A	N	02-02-2023	Process Water	0	0
Central Impact Area	CIA1-EFF	CIA1-EFF-109A	N	02-02-2023	Process Water	0	0
Central Impact Area	CIA1-MID2	CIA1-MID2-109A	N	02-02-2023	Process Water	0	0
Central Impact Area	CIA1-MID1	CIA1-MID1-109A	N	02-02-2023	Process Water	0	0
Central Impact Area	CIA1-INF	CIA1-INF-109A	N	02-02-2023	Process Water	0	0
Central Impact Area	MW-727M1	MW-727M1_S23	N	02-02-2023	Ground Water	145.4	155.4
Central Impact Area	CIA3-EFF	CIA3-EFF-80A	N	02-02-2023	Process Water	0	0
Central Impact Area	CIA3-MID2	CIA3-MID2-80A	N	02-02-2023	Process Water	0	0
Central Impact Area	CIA3-MID1	CIA3-MID1-80A	N	02-02-2023	Process Water	0	0
Central Impact Area	CIA3-INF	CIA3-INF-80A	N	02-02-2023	Process Water	0	0
Central Impact Area	MW-725M1	MW-725M1_S23	N	02-02-2023	Ground Water	145.2	155.2
Central Impact Area	MW-725M1	MW-725M1_S23D	FD	02-02-2023	Ground Water	145.2	155.2
Central Impact Area	MW-39M1	MW-39M1_S23	N	02-01-2023	Ground Water	220	230
J2 Range Eastern	J2E-EFF-K	J2E-EFF-K-173A	N	02-01-2023	Process Water	0	0

**TABLE 1**  
**Sampling Progress: 01 to 28 February 2023**

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
Central Impact Area	MW-111M1	MW-111M1_S23	MS	02-01-2023	Ground Water	224	234
Central Impact Area	MW-111M1	MW-111M1_S23	N	02-01-2023	Ground Water	224	234
Central Impact Area	MW-111M1	MW-111M1_S23	SD	02-01-2023	Ground Water	224	234
J2 Range Eastern	J2E-MID-2K	J2E-MID-2K-173A	N	02-01-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-1K	J2E-MID-1K-173A	N	02-01-2023	Process Water	0	0
J2 Range Eastern	J2E-INF-K	J2E-INF-K-173A	N	02-01-2023	Process Water	0	0
J2 Range Eastern	J2E-EFF-J	J2E-EFF-J-173A	N	02-01-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-2J	J2E-MID-2J-173A	N	02-01-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-1J	J2E-MID-1J-173A	N	02-01-2023	Process Water	0	0
J2 Range Eastern	J2E-INF-J	J2E-INF-J-173A	N	02-01-2023	Process Water	0	0
J3 Range	J3EWIP2	J3EWIP2_S23	N	02-01-2023	Ground Water	150.5	170.5
J3 Range	J3EWIP2	J3EWIP2_S23D	FD	02-01-2023	Ground Water	150.5	170.5
J2 Range Eastern	J2E-EFF-IH	J2E-EFF-IH-173A	N	02-01-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-2H	J2E-MID-2H-173A	N	02-01-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-1H	J2E-MID-1H-173A	N	02-01-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-2I	J2E-MID-2I-173A	N	02-01-2023	Process Water	0	0
J2 Range Eastern	J2E-MID-1I	J2E-MID-1I-173A	N	02-01-2023	Process Water	0	0
J2 Range Eastern	J2E-INF-I	J2E-INF-I-173A	N	02-01-2023	Process Water	0	0
J3 Range	J3-EFF	J3-EFF_1Q23	N	02-01-2023	Process Water	0	0
J3 Range	J3-INF	J3-INF_1Q23	N	02-01-2023	Process Water	0	0

**TABLE 2**  
**VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS**  
**Data Received February 2023**

Area of Concern	Location ID	Field Sample ID	Top Depth (ft bgs)	Bottom Depth (ft bgs)	Date Sampled	Test Method	Analyte	Result Value	Qualifier	Units	MCL/HA	> MCL/HA	MDL	RL
Central Impact Area	MW-101M1	MW-101M1_S23	158	168	02-02-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.32		µg/L	400		0.11	0.20
Central Impact Area	MW-101M1	MW-101M1_S23	158	168	02-02-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	6.4		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-101M1	MW-101M1_S23D	158	168	02-02-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	6.3		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-101M1	MW-101M1_S23D	158	168	02-02-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.29		µg/L	400		0.11	0.20
Central Impact Area	MW-727M1	MW-727M1_S23	145.4	155.4	02-02-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.90		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-725M1	MW-725M1_S23	145.2	155.2	02-02-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	2.3		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-725M1	MW-725M1_S23	145.2	155.2	02-02-2023	SW6850	Perchlorate	1.2		µg/L	2.0		0.058	0.20
Central Impact Area	MW-725M1	MW-725M1_S23D	145.2	155.2	02-02-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.60		µg/L	400		0.11	0.20
Central Impact Area	MW-725M1	MW-725M1_S23D	145.2	155.2	02-02-2023	SW6850	Perchlorate	1.2		µg/L	2.0		0.058	0.20
Central Impact Area	MW-725M1	MW-725M1_S23D	145.2	155.2	02-02-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.54		µg/L	400		0.11	0.20
Central Impact Area	MW-725M1	MW-725M1_S23D	145.2	155.2	02-02-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	2.3		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-39M1	MW-39M1_S23	220	230	02-01-2023	SW6850	Perchlorate	0.060	J	µg/L	2.0		0.058	0.20
Central Impact Area	MW-39M1	MW-39M1_S23	220	230	02-01-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.14	J	µg/L	0.60		0.037	0.20
J3 Range	J3EWIP2	J3EWIP2_S23	150.5	170.5	02-01-2023	SW6850	Perchlorate	0.77		µg/L	2.0		0.058	0.20
J3 Range	J3EWIP2	J3EWIP2_S23	150.5	170.5	02-01-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.19	J	µg/L	0.60		0.037	0.20
J3 Range	J3EWIP2	J3EWIP2_S23	150.5	170.5	02-01-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.16	J	µg/L	400		0.11	0.20
J3 Range	J3EWIP2	J3EWIP2_S23D	150.5	170.5	02-01-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.16	J	µg/L	0.60		0.037	0.20
J3 Range	J3EWIP2	J3EWIP2_S23D	150.5	170.5	02-01-2023	SW6850	Perchlorate	0.80		µg/L	2.0		0.058	0.20
J3 Range	J3EWIP2	J3EWIP2_S23D	150.5	170.5	02-01-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.17	J	µg/L	400		0.11	0.20
Central Impact Area	MW-98S	MW-98S_S23	137	147	01-26-2023	SW8330	4-Amino-2,6-dinitrotoluene	0.26		µg/L	7.3		0.036	0.20
Central Impact Area	MW-98S	MW-98S_S23	137	147	01-26-2023	SW8330	2,4,6-Trinitrotoluene	0.25		µg/L	2.0		0.028	0.20
Central Impact Area	MW-98S	MW-98S_S23	137	147	01-26-2023	SW8330	2-Amino-4,6-dinitrotoluene	0.16	J	µg/L	7.3		0.031	0.20
Central Impact Area	MW-98S	MW-98S_S23	137	147	01-26-2023	SW8330	Picric acid	0.033	J	µg/L	365		0.027	0.20
Central Impact Area	MW-98M1	MW-98M1_S23	164	174	01-26-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.3		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-209M2	MW-209M2_S23	220	230	01-25-2023	SW6850	Perchlorate	0.13	J	µg/L	2.0		0.058	0.20
Central Impact Area	MW-209M1	MW-209M1_S23	240	250	01-25-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	2.6		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-209M1	MW-209M1_S23	240	250	01-25-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.34		µg/L	400		0.11	0.20
Central Impact Area	MW-209M1	MW-209M1_S23	240	250	01-25-2023	SW6850	Perchlorate	2.1		µg/L	2.0	X	0.058	0.20
Central Impact Area	MW-209M1	MW-209M1_S23D	240	250	01-25-2023	SW6850	Perchlorate	2.2		µg/L	2.0	X	0.058	0.20
Central Impact Area	MW-209M1	MW-209M1_S23D	240	250	01-25-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.30		µg/L	400		0.11	0.20
Central Impact Area	MW-209M1	MW-209M1_S23D	240	250	01-25-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	2.6		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-96M2	MW-96M2_S23	160	170	01-25-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.85		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-112M1	MW-112M1_S23	195	205	01-24-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.26		µg/L	0.60		0.037	0.20
Central Impact Area	MW-179M1	MW-179M1_S23	187	197	01-24-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.46		µg/L	0.60		0.037	0.20
Central Impact Area	MW-442M2	MW-442M2_S23	215.31	225.32	01-23-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.066	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-204M2	MW-204M2_S23	76	86	01-23-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.16	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-204M1	MW-204M1_S23	141	151	01-23-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	4.0		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-204M1	MW-204M1_S23	141	151	01-23-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.44		µg/L	400		0.11	0.20
Central Impact Area	MW-204M1	MW-204M1_S23D	141	151	01-23-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	4.0		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-204M1	MW-204M1_S23D	141	151	01-23-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.50		µg/L	400		0.11	0.20
Central Impact Area	MW-208M1	MW-208M1_S23	195	205	01-19-2023	SW6850	Perchlorate	0.059	J	µg/L	2.0		0.058	0.20
Central Impact Area	MW-629M1	MW-629M1_S23	216.9	226.9	01-19-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.083	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-638M2	MW-638M2_S23	204.2	214.2	01-19-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.41		µg/L	400		0.11	0.20

J = Estimated Result  
MDL = Method Detection Limit  
RL = Reporting Limit

**TABLE 2**  
**VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS**  
**Data Received February 2023**

Area of Concern	Location ID	Field Sample ID	Top Depth (ft bgs)	Bottom Depth (ft bgs)	Date Sampled	Test Method	Analyte	Result Value	Qualifier	Units	MCL/HA	> MCL/HA	MDL	RL
Central Impact Area	MW-638M2	MW-638M2_S23	204.2	214.2	01-19-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.0		µg/L	0.60	X	0.037	0.20
J2 Range Eastern	MW-324M2	MW-324M2_S23	203.74	214.74	01-18-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.13	J	µg/L	0.60		0.037	0.20
J2 Range Eastern	MW-324M2	MW-324M2_S23	203.74	214.74	01-18-2023	SW6850	Perchlorate	0.84		µg/L	2.0		0.058	0.20
J2 Range Eastern	MW-324M2	MW-324M2_S23	203.74	214.74	01-18-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.17	J	µg/L	400		0.11	0.20
J2 Range Eastern	MW-324M1	MW-324M1_S23	234.85	244.85	01-18-2023	SW6850	Perchlorate	0.22		µg/L	2.0		0.058	0.20
J2 Range Eastern	J2MW-04M1	J2MW-04M1_S23	257	267	01-17-2023	SW6850	Perchlorate	0.075	J	µg/L	2.0		0.058	0.20
J2 Range Eastern	MW-339M1	MW-339M1_S23	233	243	01-17-2023	SW6850	Perchlorate	0.19	J	µg/L	2.0		0.058	0.20
J2 Range Eastern	MW-368M2	MW-368M2_S23	202.73	212.73	01-17-2023	SW6850	Perchlorate	8.2		µg/L	2.0	X	0.058	0.20
J2 Range Eastern	MW-368M2	MW-368M2_S23	202.73	212.73	01-17-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	4.0		µg/L	0.60	X	0.037	0.20
J2 Range Eastern	MW-368M2	MW-368M2_S23	202.73	212.73	01-17-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	3.8		µg/L	400		0.11	0.20
J2 Range Eastern	MW-368M2	MW-368M2_S23D	202.73	212.73	01-17-2023	SW6850	Perchlorate	8.1		µg/L	2.0	X	0.058	0.20
J2 Range Eastern	MW-368M2	MW-368M2_S23D	202.73	212.73	01-17-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	3.9		µg/L	400		0.11	0.20
J2 Range Eastern	MW-368M2	MW-368M2_S23D	202.73	212.73	01-17-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	3.8		µg/L	0.60	X	0.037	0.20
J3 Range	J3EWIP1	J3EWIP1_S23	153	193	01-12-2023	SW6850	Perchlorate	0.16	J	µg/L	2.0		0.058	0.20
J3 Range	J3EWIP1	J3EWIP1_S23	153	193	01-12-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.058	J	µg/L	0.60		0.037	0.20
J3 Range	J3EW0032	J3EW0032_S23	102	152	01-12-2023	SW6850	Perchlorate	0.42		µg/L	2.0		0.058	0.20
J3 Range	J3EW0032	J3EW0032_S23	102	152	01-12-2023	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.25		µg/L	400		0.11	0.20
J3 Range	J3EW0032	J3EW0032_S23	102	152	01-12-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.34		µg/L	0.60		0.037	0.20
J3 Range	90EW0001	90EW0001_S23	83.1	143.8	01-05-2023	SW6850	Perchlorate	0.080	J	µg/L	2.0		0.058	0.20
J3 Range	MW-637M2	MW-637M2_S23	214.1	224.1	01-04-2023	SW6850	Perchlorate	2.1		µg/L	2.0	X	0.058	0.20
J3 Range	MW-637M2	MW-637M2_S23	214.1	224.1	01-04-2023	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.20		µg/L	0.60		0.037	0.20
J3 Range	MW-197M1	MW-197M1_S23	120	125	01-04-2023	SW6850	Perchlorate	0.097	J	µg/L	2.0		0.058	0.20
J3 Range	MW-653M1	MW-653M1_S23	147.5	157.5	01-03-2023	SW6850	Perchlorate	0.42		µg/L	2.0		0.058	0.20

J = Estimated Result  
MDL = Method Detection Limit  
RL = Reporting Limit

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2019 PFAS MW&INF - Demolition Area 1

	Location	D1-INF	FPR-2-INF	MW-258M1	MW-663D	PR-INF
	Field Sample ID	D1-INF_PFAS19	FPR-2-INF_PFAS19	MW-258M1_PFAS19	MW-663D_PFAS19	PR-INF_PFAS19
	Sampling Depth	0.00 - 0.00	0.00 - 0.00	109.00 - 119.00	240.60 - 250.60	0.00 - 0.00
	Sampling Date	06/24/2019	06/25/2019	06/19/2019	06/24/2019	06/25/2019
	SDG	320517141	320517141	320515981	320517141	320517141
	Sample Type	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	19.0 U	20.0 U	20.0 U	20.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.10 U	9.50 U	9.80 U	9.80 U	9.80 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.10 U	9.50 U	9.80 U	9.80 U	9.80 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.10 U	9.50 U	9.80 U	9.80 U	9.80 U
Perfluorobutanesulfonic acid	600	0.910 U	0.950 U	0.980 U	0.980 U	0.980 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	1.50 U	1.50 U	1.50 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.50 U	1.50 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.910 U	0.950 U	0.980 U	<b>2.20</b>	0.980 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.50 U	1.50 U	1.50 U
Perfluoroheptanesulfonic acid (PFHpS)		0.910 U	0.950 U	0.980 U	0.980 U	0.980 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.50 U	1.50 U	1.50 U
Perfluorohexane sulfonate (PFHxS)	39	0.910 U	0.950 U	0.980 U	0.980 U	2.00 U
Perfluorohexanoic acid (PFHxA)		0.910 U	0.950 U	0.980 U	0.980 U	0.980 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.50 U	<b>1.00 J</b>	1.50 U
Perfluorooctanesulfonamide (PFOSA)		2.70 U	2.80 U	2.90 U	3.00 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.70 U	2.80 U	2.90 U	3.00 U	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.50 U	1.50 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.910 U	0.950 U	0.980 U	<b>0.460 J</b>	0.980 U
Perfluorotetradecanoic acid (PFTeDA)		2.70 U	2.80 U	2.90 U	3.00 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.70 U	2.80 U	2.90 U	3.00 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.50 U	<b>1.20 J</b>	1.50 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>



**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	D1-INF	FPR-2-INF	MW-258M1	MW-663D	PR-INF
	<b>Field Sample ID</b>	D1-INF_PFAS19	FPR-2-INF_PFAS19	MW-258M1_PFAS19	MW-663D_PFAS19	PR-INF_PFAS19
	<b>Sampling Depth</b>	0.00 - 0.00	0.00 - 0.00	109.00 - 119.00	240.60 - 250.60	0.00 - 0.00
	<b>Sampling Date</b>	06/24/2019	06/25/2019	06/19/2019	06/24/2019	06/25/2019
	<b>SDG</b>	320517141	320517141	320515981	320517141	320517141
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2.20</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4.86</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2019 PFAS MW&INF - J1 Range Northern

	Location	J1N-INF2	J1N-INF2	MW-136S	MW-564M1	MW-590M2
	Field Sample ID	J1N-INF2_PFAS19	J1N-INF2_PFAS19R	MW-136S_PFAS19	MW-564M1_PFAS19	MW-590M2_PFAS19
	Sampling Depth	0.00 - 0.00	0.00 - 0.00	107.00 - 117.00	227.00 - 237.00	238.00 - 248.00
	Sampling Date	06/17/2019	07/30/2019	06/24/2019	06/24/2019	06/24/2019
	SDG	320514661	320528231	320517141	320517141	320517141
	Sample Type	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	20.0 U	18.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.30 U	9.60 U	9.80 U	9.20 U	9.60 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.30 U	9.60 U	9.80 U	9.20 U	9.60 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.30 U	9.60 U	9.80 U	9.20 U	9.60 U
Perfluorobutanesulfonic acid	600	0.930 U	0.960 U	0.980 U	0.920 U	0.960 U
Perfluorobutanoic acid (PFBA)		1.90 U	1.40 U	<b>0.990 J</b>	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.930 U	0.960 U	0.980 U	0.920 U	0.960 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.930 U	0.960 U	0.980 U	0.920 U	0.960 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.930 U	1.90 U	2.00 U	1.80 U	0.960 U
Perfluorohexanoic acid (PFHxA)		0.930 U	0.960 U	0.980 U	0.920 U	0.960 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		<b>1.80 J</b>	2.90 U	2.90 U	2.80 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	<b>4.90</b>	2.90 U	<b>1.40 J</b>	2.80 U	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	<b>2.40</b>	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.930 U	0.960 U	0.980 U	0.920 U	0.960 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.90 U	2.90 U	2.80 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.90 U	2.90 U	2.80 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>4.90</b>	<b>0.00</b>	<b>3.80</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	J1N-INF2	J1N-INF2	MW-136S	MW-564M1	MW-590M2
	<b>Field Sample ID</b>	J1N-INF2_PFAS19	J1N-INF2_PFAS19R	MW-136S_PFAS19	MW-564M1_PFAS19	MW-590M2_PFAS19
	<b>Sampling Depth</b>	0.00 - 0.00	0.00 - 0.00	107.00 - 117.00	227.00 - 237.00	238.00 - 248.00
	<b>Sampling Date</b>	06/17/2019	07/30/2019	06/24/2019	06/24/2019	06/24/2019
	<b>SDG</b>	320514661	320528231	320517141	320517141	320517141
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>4.90</b>	<b>0.00</b>	<b>2.40</b>	<b>0.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>6.70</b>	<b>0.00</b>	<b>4.79</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2019 PFAS MW&INF - J2 Range Eastern

Location	J2E-INF-I	J2E-INF-J	J2E-INF-K	MW-307M3	MW-307M3	MW-368M1
Field Sample ID	J2E-INF-I_PFAS19	J2E-INF-J_PFAS19	J2E-INF-K_PFAS19	MW-307M3_PFAS19	MW-307M3_PFAS19D	MW-368M1_PFAS19
Sampling Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	125.80 - 135.82	125.80 - 135.82	237.35 - 247.35
Sampling Date	06/20/2019	06/20/2019	06/20/2019	06/18/2019	06/18/2019	06/18/2019
SDG	320515981	320515981	320515981	320514662	320514662	320514662
Sample Type	Normal	Normal	Normal	Normal	Field Duplicate	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	20.0 U	18.0 U	17.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.70 U	9.30 U	9.80 U	9.00 U	8.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.70 U	9.30 U	9.80 U	9.00 U	8.50 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.70 U	9.30 U	9.80 U	9.00 U	8.50 U
Perfluorobutanesulfonic acid	600	0.970 U	0.930 U	0.980 U	0.900 U	0.850 U
Perfluorobutanoic acid (PFBA)		1.50 U	1.40 U	1.50 U	1.80 U	1.70 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U	1.50 U	1.30 U	1.30 U
Perfluorodecanoic acid (PFDA)		0.970 U	0.930 U	0.980 U	0.900 U	0.960 U
Perfluorododecanoic acid (PFDoA)		1.50 U	1.40 U	1.50 U	1.30 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.970 U	0.930 U	0.980 U	0.900 U	0.850 U
Perfluoroheptanoic acid (PFHpA)		1.50 U	1.40 U	1.50 U	1.30 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.970 U	0.930 U	0.980 U	0.900 U	0.850 U
Perfluorohexanoic acid (PFHxA)		0.970 U	0.930 U	0.980 U	0.900 U	0.850 U
Perfluorononanoic acid (PFNA)	5.9	1.50 U	1.40 U	1.50 U	0.880 J	0.730 J
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.80 U	2.90 U	2.70 U	2.60 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	2.80 U	2.90 U	2.70 U	2.60 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.40 U	1.50 U	1.30 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.970 U	0.930 U	0.980 U	0.900 U	0.850 U
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	2.80 U	2.90 U	2.70 U	2.60 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U	2.80 U	2.90 U	2.70 U	2.60 U
Perfluoroundecanoic acid (PFUnA)		1.50 U	1.40 U	1.50 U	1.30 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	MW-368M2	MW-667M1
	<b>Field Sample ID</b>	MW-368M2_PFAS19	MW-667M1_PFAS19
	<b>Sampling Depth</b>	202.73 - 212.73	302.30 - 312.30
	<b>Sampling Date</b>	06/18/2019	06/17/2019
	<b>SDG</b>	320514662	320514661
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		8.80 U	9.00 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		8.80 U	9.00 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		8.80 U	9.00 U
Perfluorobutanesulfonic acid	600	0.880 U	0.900 U
Perfluorobutanoic acid (PFBA)		1.30 U	1.80 U
Perfluorodecanesulfonic acid (PFDS)		1.30 U	1.40 U
Perfluorodecanoic acid (PFDA)		<b>0.800 J</b>	<b>4.30</b>
Perfluorododecanoic acid (PFDoA)		1.30 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.880 U	0.900 U
Perfluoroheptanoic acid (PFHpA)		1.30 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.880 U	0.900 U
Perfluorohexanoic acid (PFHxA)		0.880 U	0.900 U
Perfluorononanoic acid (PFNA)	5.9	1.30 U	<b>2.80</b>
Perfluorooctanesulfonamide (PFOSA)		2.60 U	2.70 U
Perfluorooctanesulfonic acid (PFOS)	4	2.60 U	2.70 U
Perfluorooctanoic acid (PFOA)	6	1.30 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.880 U	0.900 U
Perfluorotetradecanoic acid (PFTeDA)		2.60 U	2.70 U
Perfluorotridecanoic acid (PFTrDA)		2.60 U	2.70 U
Perfluoroundecanoic acid (PFUnA)		<b>2.40</b>	<b>1.60 J</b>
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	J2E-INF-I	J2E-INF-J	J2E-INF-K	MW-307M3	MW-307M3	MW-368M1
	<b>Field Sample ID</b>	J2E-INF-I_PFAS19	J2E-INF-J_PFAS19	J2E-INF-K_PFAS19	MW-307M3_PFAS19	MW-307M3_PFAS19D	MW-368M1_PFAS19
	<b>Sampling Depth</b>	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	125.80 - 135.82	125.80 - 135.82	237.35 - 247.35
	<b>Sampling Date</b>	06/20/2019	06/20/2019	06/20/2019	06/18/2019	06/18/2019	06/18/2019
	<b>SDG</b>	320515981	320515981	320515981	320514662	320514662	320514662
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Field Duplicate</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.880</b>	<b>0.730</b>	<b>7.40</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-368M2	MW-667M1
	<b>Field Sample ID</b>	MW-368M2_PFAS19	MW-667M1_PFAS19
	<b>Sampling Depth</b>	202.73 - 212.73	302.30 - 312.30
	<b>Sampling Date</b>	06/18/2019	06/17/2019
	<b>SDG</b>	320514662	320514661
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>7.10</b>
	<b>§Sum of All Compounds Detected</b>	<b>3.20</b>	<b>8.70</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2019 PFAS MW&INF - J2 Range Northern

	Location	J2EW0001	J2EW0002	J2N-INF-E	J2N-INF-F	J2N-INF-F	J2N-INF-G
	Field Sample ID	J2EW0001_PFAS19	J2EW0002_PFAS19	J2N-INF-E_PFAS19	J2N-INF-F_PFAS19	J2N-INF-F_PFAS19R	J2N-INF-G_PFAS19
	Sampling Depth	179.00 - 234.00	198.00 - 233.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
	Sampling Date	11/20/2019	11/20/2019	06/18/2019	06/18/2019	07/30/2019	07/30/2019
	SDG	320565491	320565491	320514662	320514662	320528231	320528231
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	40.0 U	19.0 U	19.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		19.0 U	20.0 U	9.30 U	9.30 U	9.60 U	9.70 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.60 U	10.0 U	9.30 U	9.30 U	9.60 U	9.70 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.60 U	10.0 U	9.30 U	9.30 U	9.60 U	9.70 U
Perfluorobutanesulfonic acid	600	0.960 U	1.00 U	0.930 U	0.930 U	0.960 U	<b>1.40 J</b>
Perfluorobutanoic acid (PFBA)		1.40 U	1.50 U	1.40 U	1.90 U	1.40 U	1.50 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.50 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.960 U	1.00 U	0.930 U	0.930 U	0.960 U	0.970 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.50 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluoroheptanesulfonic acid (PFHpS)		0.960 U	<b>0.370 J</b>	0.930 U	<b>0.400 J</b>	<b>0.500 J</b>	0.970 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	<b>1.00 J</b>	1.40 U	<b>0.940 J</b>	<b>1.00 J</b>	1.50 U
Perfluorohexane sulfonate (PFHxS)	39	0.960 U	<b>11.0</b>	0.930 U	<b>9.90</b>	<b>9.00</b>	1.90 U
Perfluorohexanoic acid (PFHxA)		0.960 U	<b>1.30 J</b>	0.930 U	<b>1.20 J</b>	<b>1.30 J</b>	<b>2.30</b>
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)		2.90 U	3.00 U	2.80 U	2.80 U	2.90 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	<b>1.30 J</b>	2.80 U	2.80 U	<b>1.10 J</b>	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	<b>1.50 J</b>	1.40 U	<b>1.70 J</b>	<b>1.50 J</b>	1.50 U
Perfluoropentanoic acid (PFPeA)		0.960 U	<b>0.910 J</b>	0.930 U	<b>0.840 J</b>	<b>1.00 J</b>	<b>1.20 J</b>
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	3.00 U	2.80 U	2.80 U	2.90 U	2.90 U
Perfluorotridecanoic acid (PFTTrDA)		2.90 U	3.00 U	2.80 U	2.80 U	2.90 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.50 U	1.40 U	1.40 U	1.40 U	1.50 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>2.80</b>	<b>0.00</b>	<b>1.70</b>	<b>2.60</b>	<b>0.00</b>



**PFAS Summary Report – Groundwater  
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	Location	MW-234M2	MW-313M1	MW-587M2
	Field Sample ID	MW-234M2_PFAS19	MW-313M1_PFAS19	MW-587M2_PFAS19
	Sampling Depth	110.00 - 120.00	255.40 - 265.40	220.00 - 230.00
	Sampling Date	06/17/2019	06/19/2019	06/19/2019
	SDG	320514661	320515981	320515981
	Sample Type	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	20.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		8.80 U	9.80 U	9.70 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		8.80 U	9.80 U	9.70 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		8.80 U	9.80 U	9.70 U
Perfluorobutanesulfonic acid	600	0.880 U	0.980 U	0.970 U
Perfluorobutanoic acid (PFBA)		1.80 U	<b>0.700 J</b>	1.50 U
Perfluorodecanesulfonic acid (PFDS)		1.30 U	1.50 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.880 U	<b>1.20 J</b>	0.970 U
Perfluorododecanoic acid (PFDoA)		1.30 U	1.50 U	1.50 U
Perfluoroheptanesulfonic acid (PFHpS)		0.880 U	0.980 U	0.970 U
Perfluoroheptanoic acid (PFHpA)		1.30 U	1.50 U	1.50 U
Perfluorohexane sulfonate (PFHxS)	39	<b>0.600 J</b>	0.980 U	0.970 U
Perfluorohexanoic acid (PFHxA)		0.880 U	0.980 U	0.970 U
Perfluorononanoic acid (PFNA)	5.9	1.30 U	<b>1.10 J</b>	1.50 U
Perfluorooctanesulfonamide (PFOSA)		2.60 U	2.90 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	<b>1.90 J</b>	2.90 U	2.90 U
Perfluorooctanoic acid (PFOA)	6	<b>0.550 J</b>	1.50 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.880 U	<b>0.680 J</b>	0.970 U
Perfluorotetradecanoic acid (PFTeDA)		2.60 U	2.90 U	2.90 U
Perfluorotridecanoic acid (PFTTrDA)		2.60 U	2.90 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.30 U	<b>1.40 J</b>	1.50 U
	<b>†PFOS + PFOA (EPA)</b>	<b>2.45</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	Location	J2EW0001	J2EW0002	J2N-INF-E	J2N-INF-F	J2N-INF-F	J2N-INF-G
<b>Field Sample ID</b>		J2EW0001_PFAS19	J2EW0002_PFAS19	J2N-INF-E_PFAS19	J2N-INF-F_PFAS19	J2N-INF-F_PFAS19R	J2N-INF-G_PFAS19
<b>Sampling Depth</b>		179.00 - 234.00	198.00 - 233.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
<b>Sampling Date</b>		11/20/2019	11/20/2019	06/18/2019	06/18/2019	07/30/2019	07/30/2019
<b>SDG</b>		320565491	320565491	320514662	320514662	320528231	320528231
<b>Sample Type</b>		Normal	Normal	Normal	Normal	Normal	Normal
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>11.0</b>	<b>0.00</b>	<b>9.90</b>	<b>9.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>0.00</b>	<b>17.4</b>	<b>0.00</b>	<b>15.0</b>	<b>15.4</b>	<b>4.90</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-234M2	MW-313M1	MW-587M2
	<b>Field Sample ID</b>	MW-234M2_PFAS19	MW-313M1_PFAS19	MW-587M2_PFAS19
	<b>Sampling Depth</b>	110.00 - 120.00	255.40 - 265.40	220.00 - 230.00
	<b>Sampling Date</b>	06/17/2019	06/19/2019	06/19/2019
	<b>SDG</b>	320514661	320515981	320515981
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>3.05</b>	<b>5.08</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2019 PFAS MW&INF - J3 Range

	Location	J3-INF	J3-INF	MW-163S	MW-163S	MW-163S	MW-227M2
	Field Sample ID	J3-INF_PFA19	J3-INF_PFA19D	MW-163S_PFA19	MW-163S_PFA19D	MW-163S_PFA19R	MW-227M2_PFA19
	Sampling Depth	0.00 - 0.00	0.00 - 0.00	38.00 - 48.00	38.00 - 48.00	38.00 - 48.00	110.00 - 120.00
	Sampling Date	06/17/2019	06/17/2019	06/18/2019	06/18/2019	07/30/2019	06/19/2019
	SDG	320514661	320514661	320514662	320514662	320528231	320515981
	Sample Type	Normal	Field Duplicate	Normal	Field Duplicate	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	18.0 U	17.0 U	17.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.40 U	9.20 U	8.60 U	8.60 U	9.30 U	9.60 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.40 U	9.20 U	8.60 U	8.60 U	9.30 U	9.60 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.40 U	9.20 U	8.60 U	8.60 U	9.30 U	9.60 U
Perfluorobutanesulfonic acid	600	0.940 U	0.920 U	0.860 U	0.860 U	0.930 U	0.960 U
Perfluorobutanoic acid (PFBA)		1.90 U	1.80 U	1.70 U	1.70 U	<b>0.560 J</b>	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.30 U	1.30 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.940 U	0.920 U	0.860 U	0.860 U	0.930 U	0.960 U
Perfluorododecanoic acid (PFDoA)		<b>1.70 J</b>	1.40 U	1.30 U	1.30 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.940 U	0.920 U	0.860 U	0.860 U	0.930 U	0.960 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.30 U	1.30 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	<b>1.50 J</b>	<b>1.50 J</b>	<b>0.690 J</b>	<b>0.610 J</b>	1.90 U	<b>0.540 J</b>
Perfluorohexanoic acid (PFHxA)		0.940 U	0.920 U	<b>0.410 J</b>	0.860 U	0.930 U	0.960 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.30 U	1.30 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.60 U	2.60 U	2.80 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.80 U	<b>12.0</b>	<b>12.0</b>	<b>12.0</b>	2.90 U
Perfluorooctanoic acid (PFOA)	6	<b>0.520 J</b>	1.40 U	<b>1.70</b>	<b>1.60 J</b>	<b>1.30 J</b>	1.40 U
Perfluoropentanoic acid (PFPeA)		0.940 U	0.920 U	0.860 U	0.860 U	0.930 U	0.960 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.60 U	2.60 U	2.80 U	2.90 U
Perfluorotridecanoic acid (PFTTrDA)		<b>1.40 J</b>	2.80 U	2.60 U	2.60 U	2.80 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.30 U	1.30 U	1.40 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.520</b>	<b>0.00</b>	<b>13.7</b>	<b>13.6</b>	<b>13.3</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	<b>Location</b>	MW-250M2
	<b>Field Sample ID</b>	MW-250M2_PFAS19
	<b>Sampling Depth</b>	145.00 - 155.00
	<b>Sampling Date</b>	06/20/2019
	<b>SDG</b>	320515981
	<b>Sample Type</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.70 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.70 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.70 U
Perfluorobutanesulfonic acid	600	0.970 U
Perfluorobutanoic acid (PFBA)		<b>0.710 J</b>
Perfluorodecanesulfonic acid (PFDS)		1.40 U
Perfluorodecanoic acid (PFDA)		0.970 U
Perfluorododecanoic acid (PFDoA)		1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.970 U
Perfluoroheptanoic acid (PFHpA)		1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.970 U
Perfluorohexanoic acid (PFHxA)		0.970 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U
Perfluoropentanoic acid (PFPeA)		0.970 U
Perfluorotetradecanoic acid (PFTeDA)		2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	J3-INF	J3-INF	MW-163S	MW-163S	MW-163S	MW-227M2
	<b>Field Sample ID</b>	J3-INF_PFAS19	J3-INF_PFAS19D	MW-163S_PFAS19	MW-163S_PFAS19D	MW-163S_PFAS19R	MW-227M2_PFAS19
	<b>Sampling Depth</b>	0.00 - 0.00	0.00 - 0.00	38.00 - 48.00	38.00 - 48.00	38.00 - 48.00	110.00 - 120.00
	<b>Sampling Date</b>	06/17/2019	06/17/2019	06/18/2019	06/18/2019	07/30/2019	06/19/2019
	<b>SDG</b>	320514661	320514661	320514662	320514662	320528231	320515981
	<b>Sample Type</b>	<b>Normal</b>	<b>Field Duplicate</b>	<b>Normal</b>	<b>Field Duplicate</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>13.7</b>	<b>12.0</b>	<b>12.0</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>5.12</b>	<b>1.50</b>	<b>14.8</b>	<b>14.2</b>	<b>13.9</b>	<b>0.540</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-250M2
	<b>Field Sample ID</b>	MW-250M2_PFAS19
	<b>Sampling Depth</b>	145.00 - 155.00
	<b>Sampling Date</b>	06/20/2019
	<b>SDG</b>	320515981
	<b>Sample Type</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)
<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	
<b>§Sum of All Compounds Detected</b>	<b>0.710</b>	

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2020 J1 Ranges SPM Fall - J1 Range Northern

	Location	MW-136M1	MW-136M1	MW-191M2	MW-245M1	MW-245M2	MW-303M2
	Field Sample ID	MW-136M1_F20	MW-136M1_F20D	MW-191M2_F20	MW-245M1_F20	MW-245M2_F20	MW-303M2_F20
	Sampling Depth	124.00 - 134.00	124.00 - 134.00	120.00 - 130.00	244.00 - 254.00	204.00 - 214.00	235.09 - 245.10
	Sampling Date	12/07/2020	12/07/2020	12/07/2020	12/07/2020	11/10/2020	12/08/2020
	SDG	320677691	320677691	320677691	320677691	320665921	320677701
	Sample Type	Normal	Field Duplicate	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	18.0 U	19.0 U	19.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.60 U	9.20 U	9.70 U	9.30 U	9.30 U	9.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.60 U	9.20 U	<b>15.0 J</b>	9.30 U	9.30 U	9.50 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.60 U	9.20 U	<b>2.90 J</b>	9.30 U	9.30 U	9.50 U
Perfluorobutanesulfonic acid	600	0.960 U	0.920 U	0.970 U	0.930 U	0.930 U	0.950 U
Perfluorobutanoic acid (PFBA)		<b>0.920 J</b>	<b>0.670 J</b>	1.50 U	1.40 U	<b>4.00</b>	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.960 U	0.920 U	0.970 U	0.930 U	0.930 U	<b>0.700 J</b>
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.50 U	1.40 U	1.40 U	<b>1.70 J</b>
Perfluoroheptanesulfonic acid (PFHpS)		0.960 U	0.920 U	0.970 U	0.930 U	0.930 U	0.950 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.50 U	1.40 U	<b>0.700 J</b>	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	<b>0.360 J</b>	0.920 U	0.970 U	0.930 U	0.930 U	0.950 U
Perfluorohexanoic acid (PFHxA)		0.960 U	0.920 U	0.970 U	0.930 U	<b>0.850 J</b>	0.950 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.960 U	0.920 U	0.970 U	0.930 U	<b>4.00</b>	<b>0.410 J</b>
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.50 U	1.40 U	1.40 U	<b>2.80</b>
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>*PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>



**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	MW-303M3	MW-326M1	MW-326M2	MW-326M3	MW-346M1	MW-346M2
	Field Sample ID	MW-303M3_F20	MW-326M1_F20	MW-326M2_F20	MW-326M3_F20	MW-346M1_F20	MW-346M2_F20
	Sampling Depth	139.74 - 149.69	250.01 - 260.01	196.27 - 206.28	165.24 - 175.26	0.00 - 0.00	0.00 - 0.00
	Sampling Date	12/08/2020	12/09/2020	12/09/2020	12/09/2020	12/02/2020	12/02/2020
	SDG	320677701	320678771	320678771	320678771	320675551	320675551
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	20.0 U	20.0 U	19.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		8.90 U	10.0 U	10.0 U	9.50 U	9.70 U	9.30 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		8.90 U	10.0 U	10.0 U	9.50 U	9.70 U	9.30 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		8.90 U	10.0 U	10.0 U	9.50 U	9.70 U	9.30 U
Perfluorobutanesulfonic acid	600	0.890 U	1.00 U	1.00 U	0.950 U	0.970 U	0.930 U
Perfluorobutanoic acid (PFBA)		<b>0.920 J</b>	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.30 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		<b>1.60 J</b>	<b>0.950 J</b>	<b>5.40</b>	<b>3.50</b>	<b>2.50</b>	<b>2.40</b>
Perfluorododecanoic acid (PFDoA)		1.30 U	1.50 U	<b>1.20 J</b>	<b>0.600 J</b>	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.890 U	1.00 U	1.00 U	0.950 U	0.970 U	0.930 U
Perfluoroheptanoic acid (PFHpA)		1.30 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.890 U	1.00 U	1.00 U	0.950 U	0.970 U	0.930 U
Perfluorohexanoic acid (PFHxA)		0.890 U	1.00 U	1.00 U	0.950 U	0.970 U	0.930 U
Perfluorononanoic acid (PFNA)	5.9	<b>2.60</b>	<b>1.50 J</b>	<b>1.40 J</b>	<b>2.70</b>	<b>3.40</b>	<b>3.50</b>
Perfluorooctanesulfonamide (PFOSA)		2.70 U	3.00 U	3.00 U	2.90 U	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.70 U	3.00 U	3.00 U	2.90 U	2.90 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.30 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.890 U	<b>0.440 J</b>	1.00 U	0.950 U	<b>0.620 J</b>	<b>0.870 J</b>
Perfluorotetradecanoic acid (PFTeDA)		2.70 U	3.00 U	3.00 U	2.90 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.70 U	3.00 U	3.00 U	2.90 U	2.90 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.30 U	<b>1.00 J</b>	<b>13.0</b>	<b>6.90</b>	<b>5.90</b>	<b>2.50</b>
<b>†PFOS + PFOA (EPA)</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>*PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>		<b>2.60</b>	<b>0.00</b>	<b>5.40</b>	<b>6.20</b>	<b>5.90</b>	<b>5.90</b>

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	Location	MW-346M3	MW-346M4	MW-58S
	<b>Field Sample ID</b>	MW-346M3_F20	MW-346M4_F20	MW-58S_F20
	<b>Sampling Depth</b>	0.00 - 0.00	0.00 - 0.00	100.00 - 110.00
	<b>Sampling Date</b>	12/02/2020	12/02/2020	12/07/2020
	<b>SDG</b>	320675551	320675551	320677691
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	<b>Results (ng/L)</b>	<b>Results (ng/L)</b>	<b>Results (ng/L)</b>
6:2 Fluorotelomer sulfonate (6:2 FTS)		20.0 U	18.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.80 U	9.20 U	9.30 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.80 U	9.20 U	9.30 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.80 U	9.20 U	9.30 U
Perfluorobutanesulfonic acid	600	0.980 U	0.920 U	0.930 U
Perfluorobutanoic acid (PFBA)		1.50 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		<b>0.730 J</b>	<b>1.70 J</b>	0.930 U
Perfluorododecanoic acid (PFDoA)		1.50 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.980 U	0.920 U	0.930 U
Perfluoroheptanoic acid (PFHpA)		1.50 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.980 U	0.920 U	0.930 U
Perfluorohexanoic acid (PFHxA)		0.980 U	0.920 U	0.930 U
Perfluorononanoic acid (PFNA)	5.9	<b>2.20</b>	<b>0.650 J</b>	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.80 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	2.80 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		<b>0.750 J</b>	<b>0.410 J</b>	0.930 U
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	2.80 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U	2.80 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		<b>1.00 J</b>	<b>6.00</b>	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>2.20</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	<b>Location</b>	MW-136M1	MW-136M1	MW-191M2	MW-245M1	MW-245M2	MW-303M2
	<b>Field Sample ID</b>	MW-136M1_F20	MW-136M1_F20D	MW-191M2_F20	MW-245M1_F20	MW-245M2_F20	MW-303M2_F20
	<b>Sampling Depth</b>	124.00 - 134.00	124.00 - 134.00	120.00 - 130.00	244.00 - 254.00	204.00 - 214.00	235.09 - 245.10
	<b>Sampling Date</b>	12/07/2020	12/07/2020	12/07/2020	12/07/2020	11/10/2020	12/08/2020
	<b>SDG</b>	320677691	320677691	320677691	320677691	320665921	320677701
	<b>Sample Type</b>	<b>Normal</b>	<b>Field Duplicate</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>1.28</b>	<b>0.670</b>	<b>17.9</b>	<b>0.00</b>	<b>9.55</b>	<b>5.61</b>

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	<b>Location</b>	MW-303M3	MW-326M1	MW-326M2	MW-326M3	MW-346M1	MW-346M2
	<b>Field Sample ID</b>	MW-303M3_F20	MW-326M1_F20	MW-326M2_F20	MW-326M3_F20	MW-346M1_F20	MW-346M2_F20
	<b>Sampling Depth</b>	139.74 - 149.69	250.01 - 260.01	196.27 - 206.28	165.24 - 175.26	0.00 - 0.00	0.00 - 0.00
	<b>Sampling Date</b>	12/08/2020	12/09/2020	12/09/2020	12/09/2020	12/02/2020	12/02/2020
	<b>SDG</b>	320677701	320678771	320678771	320678771	320675551	320675551
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>5.12</b>	<b>3.89</b>	<b>21.0</b>	<b>13.7</b>	<b>12.4</b>	<b>9.27</b>

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	<b>Location</b>	MW-346M3	MW-346M4	MW-58S
	<b>Field Sample ID</b>	MW-346M3_F20	MW-346M4_F20	MW-58S_F20
	<b>Sampling Depth</b>	0.00 - 0.00	0.00 - 0.00	100.00 - 110.00
	<b>Sampling Date</b>	12/02/2020	12/02/2020	12/07/2020
	<b>SDG</b>	320675551	320675551	320677691
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>4.68</b>	<b>8.76</b>	<b>0.00</b>

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KGS 2020 J2 Ranges SPM Fall - J2 Range Northern

	Location	J2EW0002	J2EW0002	J2EW2-MW2-B	J2EW2-MW2-C	MW-293M2	MW-293M2
	Field Sample ID	J2EW0002_F20	J2EW0002_F20D	J2EW2-MW2-B_F20	J2EW2-MW2-C_F20	MW-293M2_F20	MW-293M2_F20D
	Sampling Depth	198.00 - 233.00	198.00 - 233.00	209.79 - 219.79	243.83 - 253.81	196.42 - 206.42	196.42 - 206.42
	Sampling Date	09/10/2020	09/10/2020	09/09/2020	09/09/2020	08/27/2020	08/27/2020
	SDG	320645641	320645641	320645661	320645661	320641331	320641331
	Sample Type	Normal	Field Duplicate	Normal	Normal	Normal	Field Duplicate
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		20.0 U	19.0 U	19.0 U	19.0 U	18.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.90 U	9.50 U	9.40 U	9.70 U	9.20 U	9.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.90 U	9.50 U	9.40 U	9.70 U	9.20 U	9.50 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.90 U	9.50 U	9.40 U	9.70 U	9.20 U	9.50 U
Perfluorobutanesulfonic acid	600	0.990 U	0.950 U	0.940 U	0.970 U	<b>3.40</b>	<b>3.60</b>
Perfluorobutanoic acid (PFBA)		1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.990 U	0.950 U	0.940 U	0.970 U	<b>4.90</b>	<b>4.50</b>
Perfluorododecanoic acid (PFDoA)		1.50 U	1.40 U	1.40 U	1.50 U	<b>3.50</b>	<b>3.60</b>
Perfluoroheptanesulfonic acid (PFHpS)		0.990 U	0.950 U	0.940 U	0.970 U	0.920 U	0.950 U
Perfluoroheptanoic acid (PFHpA)		<b>0.930 J</b>	<b>0.910 J</b>	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	<b>9.80</b>	<b>9.30</b>	0.940 U	0.970 U	0.920 U	0.950 U
Perfluorohexanoic acid (PFHxA)		<b>1.10 J</b>	<b>1.10 J</b>	0.940 U	0.970 U	0.920 U	0.950 U
Perfluorononanoic acid (PFNA)	5.9	1.50 U	1.40 U	1.40 U	1.50 U	<b>2.00</b>	<b>1.50 J</b>
Perfluorooctanesulfonamide (PFOSA)		3.00 U	2.80 U	2.80 U	2.90 U	2.80 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	3.00 U	2.80 U	2.80 U	2.90 U	2.80 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	<b>1.70 J</b>	<b>1.70 J</b>	1.40 U	1.50 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		<b>1.10 J</b>	<b>1.20 J</b>	0.940 U	0.970 U	<b>0.460 J</b>	<b>0.410 J</b>
Perfluorotetradecanoic acid (PFTeDA)		3.00 U	2.80 U	2.80 U	2.90 U	2.80 U	2.80 U
Perfluorotridecanoic acid (PFTTrDA)		3.00 U	2.80 U	2.80 U	2.90 U	<b>1.50 J</b>	<b>1.90 J</b>
Perfluoroundecanoic acid (PFUnA)		1.50 U	1.40 U	1.40 U	1.50 U	<b>25.0</b>	<b>28.0</b>
	<b>†PFOS + PFOA (EPA)</b>	<b>1.70</b>	<b>1.70</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	Location	MW-300M1	MW-300M2	MW-300M3	MW-302M2	MW-305M1	MW-348M2
	Field Sample ID	MW-300M1_F20	MW-300M2_F20	MW-300M3_F20	MW-302M2_F20	MW-305M1_F20	MW-348M2_F20
	Sampling Depth	293.03 - 303.02	197.23 - 207.23	135.31 - 145.31	194.35 - 204.43	202.82 - 212.82	206.54 - 216.54
	Sampling Date	09/08/2020	09/08/2020	09/08/2020	08/27/2020	08/31/2020	08/31/2020
	SDG	320644781	320644781	320644781	320641331	320642421	320642421
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	18.0 U	19.0 U	18.0 U	18.0 U	20.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.50 U	9.00 U	9.40 U	9.20 U	9.10 U	9.80 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.50 U	9.00 U	9.40 U	9.20 U	9.10 U	9.80 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.50 U	9.00 U	9.40 U	9.20 U	9.10 U	9.80 U
Perfluorobutanesulfonic acid	600	0.950 U	0.900 U	0.940 U	0.920 U	0.910 U	0.980 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	<b>0.550 J</b>	1.40 U	1.40 U	<b>1.00 J</b>
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorodecanoic acid (PFDA)		<b>3.10</b>	<b>3.60</b>	<b>1.50 J</b>	<b>2.80</b>	<b>2.40</b>	<b>2.50</b>
Perfluorododecanoic acid (PFDoA)		<b>0.800 J</b>	<b>1.10 J</b>	<b>0.610 J</b>	<b>1.70 J</b>	1.40 U	<b>2.20</b>
Perfluoroheptanesulfonic acid (PFHpS)		0.950 U	0.900 U	0.940 U	0.920 U	0.910 U	0.980 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorohexane sulfonate (PFHxS)	39	1.90 U	0.900 U	0.940 U	0.920 U	0.910 U	0.980 U
Perfluorohexanoic acid (PFHxA)		0.950 U	0.900 U	0.940 U	0.920 U	0.910 U	0.980 U
Perfluorononanoic acid (PFNA)	5.9	<b>3.90</b>	<b>2.30</b>	<b>0.960 J</b>	<b>1.00 J</b>	<b>1.40 J</b>	1.50 U
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.70 U	2.80 U	2.80 U	2.70 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	2.70 U	2.80 U	2.80 U	2.70 U	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluoropentanoic acid (PFPeA)		<b>0.580 J</b>	<b>0.430 J</b>	0.940 U	<b>1.40 J</b>	0.910 U	<b>1.20 J</b>
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	2.70 U	2.80 U	2.80 U	2.70 U	2.90 U
Perfluorotridecanoic acid (PFTTrDA)		2.90 U	<b>0.880 J</b>	2.80 U	2.80 U	2.70 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		<b>8.50</b>	<b>9.20</b>	<b>4.80</b>	<b>22.0</b>	<b>1.40 J</b>	<b>8.10</b>
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	Location	MW-586M1	MW-586M2	MW-587M1	MW-588M1	MW-588M2	MW-589M1
	Field Sample ID	MW-586M1_F20	MW-586M2_F20	MW-587M1_F20	MW-588M1_F20	MW-588M2_F20	MW-589M1_F20
	Sampling Depth	237.00 - 247.00	211.00 - 221.00	250.00 - 260.00	238.00 - 248.00	198.00 - 208.00	240.00 - 250.00
	Sampling Date	09/02/2020	09/02/2020	09/10/2020	08/27/2020	08/27/2020	09/02/2020
	SDG	320643521	320643521	320645641	320641331	320641331	320643521
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	19.0 U	19.0 U	19.0 U	18.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.20 U	9.60 U	9.40 U	9.30 U	9.20 U	9.00 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.20 U	9.60 U	9.40 U	9.30 U	9.20 U	9.00 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.20 U	9.60 U	9.40 U	9.30 U	9.20 U	9.00 U
Perfluorobutanesulfonic acid	600	0.920 U	0.960 U	0.940 U	0.930 U	<b>3.60</b>	0.900 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.920 U	0.960 U	0.940 U	0.930 U	0.920 U	0.900 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.920 U	0.960 U	0.940 U	0.930 U	0.920 U	0.900 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.920 U	0.960 U	0.940 U	0.930 U	0.920 U	0.900 U
Perfluorohexanoic acid (PFHxA)		0.920 U	0.960 U	0.940 U	0.930 U	0.920 U	0.900 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.70 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.70 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	<b>0.600 J</b>
Perfluoropentanoic acid (PFPeA)		<b>0.490 J</b>	<b>0.490 J</b>	0.940 U	<b>0.420 J</b>	0.920 U	<b>0.600 J</b>
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.70 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.70 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.600</b>



**PFAS Summary Report – Groundwater  
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	Location	MW-589M2	MW-621M1	MW-621M2	MW-622M1	MW-622M2	MW-631M1
	Field Sample ID	MW-589M2_F20	MW-621M1_F20	MW-621M2_F20	MW-622M1_F20	MW-622M2_F20	MW-631M1_F20
	Sampling Depth	211.00 - 221.00	249.40 - 259.40	219.40 - 229.40	245.40 - 255.40	220.40 - 230.40	233.10 - 243.10
	Sampling Date	09/02/2020	08/26/2020	08/26/2020	09/01/2020	09/01/2020	08/26/2020
	SDG	320643521	320641331	320641331	320642411	320642411	320641331
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	19.0 U	19.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.40 U	9.60 U	9.40 U	9.30 U	9.40 U	9.60 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.40 U	9.60 U	9.40 U	9.30 U	9.40 U	9.60 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.40 U	9.60 U	9.40 U	9.30 U	9.40 U	9.60 U
Perfluorobutanesulfonic acid	600	0.940 U	0.960 U	0.940 U	0.930 U	0.940 U	0.960 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.940 U	0.960 U	0.940 U	0.930 U	0.940 U	0.960 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.940 U	0.960 U	0.940 U	0.930 U	0.940 U	0.960 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.940 U	0.960 U	0.940 U	0.930 U	0.940 U	0.960 U
Perfluorohexanoic acid (PFHxA)		0.940 U	0.960 U	0.940 U	0.930 U	0.940 U	0.960 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.940 U	<b>0.440 J</b>	0.940 U	<b>0.400 J</b>	0.940 U	<b>0.420 J</b>
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	MW-631M2	MW-632M1	MW-632M2	MW-632M2	MW-640M1	MW-640M2
	Field Sample ID	MW-631M2_F20	MW-632M1_F20	MW-632M2_F20	MW-632M2_F20D	MW-640M1_F20	MW-640M2_F20
	Sampling Depth	200.10 - 210.10	254.50 - 264.50	229.50 - 239.50	229.50 - 239.50	246.00 - 256.00	216.00 - 226.00
	Sampling Date	08/26/2020	09/03/2020	09/03/2020	09/03/2020	09/03/2020	09/03/2020
	SDG	320641331	320643511	320643511	320643511	320643511	320643511
	Sample Type	Normal	Normal	Normal	Field Duplicate	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	19.0 U	18.0 U	19.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.20 U	9.40 U	9.00 U	9.60 U	9.40 U	9.30 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.20 U	9.40 U	9.00 U	9.60 U	9.40 U	9.30 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.20 U	9.40 U	9.00 U	9.60 U	9.40 U	9.30 U
Perfluorobutanesulfonic acid	600	<b>8.50</b>	0.940 U	0.900 U	0.960 U	0.940 U	0.930 U
Perfluorobutanoic acid (PFBA)		<b>1.70 J</b>	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.920 U	0.940 U	0.900 U	0.960 U	0.940 U	0.930 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.920 U	0.940 U	0.900 U	0.960 U	0.940 U	0.930 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	1.80 U	0.940 U	0.900 U	0.960 U	<b>0.360 J</b>	0.930 U
Perfluorohexanoic acid (PFHxA)		<b>5.40</b>	0.940 U	0.900 U	0.960 U	0.940 U	0.930 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.70 U	2.90 U	2.80 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.80 U	2.70 U	2.90 U	2.80 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		<b>1.90</b>	<b>0.450 J</b>	0.900 U	0.960 U	<b>0.630 J</b>	0.930 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.70 U	2.90 U	2.80 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	2.70 U	2.90 U	2.80 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	MW-703M1	MW-703M2	MW-704M1	MW-704M2
	Field Sample ID	MW-703M1_F20	MW-703M2_F20	MW-704M1_F20	MW-704M2_F20
	Sampling Depth	248.00 - 258.00	224.10 - 234.10	244.00 - 254.00	217.80 - 227.80
	Sampling Date	08/31/2020	08/31/2020	09/01/2020	09/01/2020
	SDG	320642421	320642421	320642411	320642411
	Sample Type	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	18.0 U	19.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.10 U	9.20 U	9.70 U	9.20 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.10 U	9.20 U	9.70 U	9.20 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.10 U	9.20 U	9.70 U	9.20 U
Perfluorobutanesulfonic acid	600	0.910 U	0.920 U	0.970 U	0.920 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	<b>1.40 J</b>	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.50 U	1.40 U
Perfluorodecanoic acid (PFDA)		<b>3.20</b>	<b>1.60 J</b>	<b>1.50 J</b>	<b>1.90</b>
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.50 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.910 U	0.920 U	0.970 U	0.920 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.50 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.910 U	0.920 U	0.970 U	0.920 U
Perfluorohexanoic acid (PFHxA)		0.910 U	0.920 U	0.970 U	0.920 U
Perfluorononanoic acid (PFNA)	5.9	<b>1.80</b>	<b>0.900 J</b>	1.50 U	<b>0.890 J</b>
Perfluorooctanesulfonamide (PFOSA)		<b>1.30 J</b>	<b>2.20 J</b>	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.70 U	2.70 U	2.90 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.50 U	1.40 U
Perfluoropentanoic acid (PFPeA)		<b>0.650 J</b>	<b>0.830 J</b>	<b>1.10 J</b>	<b>0.400 J</b>
Perfluorotetradecanoic acid (PFTeDA)		2.70 U	2.70 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTTrDA)		2.70 U	2.70 U	2.90 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		<b>0.650 J</b>	1.40 U	<b>1.00 J</b>	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	J2EW0002	J2EW0002	J2EW2-MW2-B	J2EW2-MW2-C	MW-293M2	MW-293M2
	<b>Field Sample ID</b>	J2EW0002_F20	J2EW0002_F20D	J2EW2-MW2-B_F20	J2EW2-MW2-C_F20	MW-293M2_F20	MW-293M2_F20D
	<b>Sampling Depth</b>	198.00 - 233.00	198.00 - 233.00	209.79 - 219.79	243.83 - 253.81	196.42 - 206.42	196.42 - 206.42
	<b>Sampling Date</b>	09/10/2020	09/10/2020	09/09/2020	09/09/2020	08/27/2020	08/27/2020
	<b>SDG</b>	320645641	320645641	320645661	320645661	320641331	320641331
	<b>Sample Type</b>	<b>Normal</b>	<b>Field Duplicate</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Field Duplicate</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>9.80</b>	<b>9.30</b>	<b>0.00</b>	<b>0.00</b>	<b>6.90</b>	<b>4.50</b>
	<b>§Sum of All Compounds Detected</b>	<b>14.6</b>	<b>14.2</b>	<b>0.00</b>	<b>0.00</b>	<b>40.8</b>	<b>43.5</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-300M1	MW-300M2	MW-300M3	MW-302M2	MW-305M1	MW-348M2
	<b>Field Sample ID</b>	MW-300M1_F20	MW-300M2_F20	MW-300M3_F20	MW-302M2_F20	MW-305M1_F20	MW-348M2_F20
	<b>Sampling Depth</b>	293.03 - 303.02	197.23 - 207.23	135.31 - 145.31	194.35 - 204.43	202.82 - 212.82	206.54 - 216.54
	<b>Sampling Date</b>	09/08/2020	09/08/2020	09/08/2020	08/27/2020	08/31/2020	08/31/2020
	<b>SDG</b>	320644781	320644781	320644781	320641331	320642421	320642421
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>7.00</b>	<b>5.90</b>	<b>0.00</b>	<b>2.80</b>	<b>2.40</b>	<b>2.50</b>
	<b>§Sum of All Compounds Detected</b>	<b>16.9</b>	<b>17.5</b>	<b>8.42</b>	<b>28.9</b>	<b>5.20</b>	<b>15.0</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-586M1	MW-586M2	MW-587M1	MW-588M1	MW-588M2	MW-589M1
	<b>Field Sample ID</b>	MW-586M1_F20	MW-586M2_F20	MW-587M1_F20	MW-588M1_F20	MW-588M2_F20	MW-589M1_F20
	<b>Sampling Depth</b>	237.00 - 247.00	211.00 - 221.00	250.00 - 260.00	238.00 - 248.00	198.00 - 208.00	240.00 - 250.00
	<b>Sampling Date</b>	09/02/2020	09/02/2020	09/10/2020	08/27/2020	08/27/2020	09/02/2020
	<b>SDG</b>	320643521	320643521	320645641	320641331	320641331	320643521
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>0.490</b>	<b>0.490</b>	<b>0.00</b>	<b>0.420</b>	<b>3.60</b>	<b>1.20</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-589M2	MW-621M1	MW-621M2	MW-622M1	MW-622M2	MW-631M1
	<b>Field Sample ID</b>	MW-589M2_F20	MW-621M1_F20	MW-621M2_F20	MW-622M1_F20	MW-622M2_F20	MW-631M1_F20
	<b>Sampling Depth</b>	211.00 - 221.00	249.40 - 259.40	219.40 - 229.40	245.40 - 255.40	220.40 - 230.40	233.10 - 243.10
	<b>Sampling Date</b>	09/02/2020	08/26/2020	08/26/2020	09/01/2020	09/01/2020	08/26/2020
	<b>SDG</b>	320643521	320641331	320641331	320642411	320642411	320641331
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>0.00</b>	<b>0.440</b>	<b>0.00</b>	<b>0.400</b>	<b>0.00</b>	<b>0.420</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-631M2	MW-632M1	MW-632M2	MW-632M2	MW-640M1	MW-640M2
	<b>Field Sample ID</b>	MW-631M2_F20	MW-632M1_F20	MW-632M2_F20	MW-632M2_F20D	MW-640M1_F20	MW-640M2_F20
	<b>Sampling Depth</b>	200.10 - 210.10	254.50 - 264.50	229.50 - 239.50	229.50 - 239.50	246.00 - 256.00	216.00 - 226.00
	<b>Sampling Date</b>	08/26/2020	09/03/2020	09/03/2020	09/03/2020	09/03/2020	09/03/2020
	<b>SDG</b>	320641331	320643511	320643511	320643511	320643511	320643511
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Field Duplicate</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>17.5</b>	<b>0.450</b>	<b>0.00</b>	<b>0.00</b>	<b>0.990</b>	<b>0.00</b>



**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-703M1	MW-703M2	MW-704M1	MW-704M2
	<b>Field Sample ID</b>	MW-703M1_F20	MW-703M2_F20	MW-704M1_F20	MW-704M2_F20
	<b>Sampling Depth</b>	248.00 - 258.00	224.10 - 234.10	244.00 - 254.00	217.80 - 227.80
	<b>Sampling Date</b>	08/31/2020	08/31/2020	09/01/2020	09/01/2020
	<b>SDG</b>	320642421	320642421	320642411	320642411
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>5.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.90</b>
	<b>§Sum of All Compounds Detected</b>	<b>7.60</b>	<b>5.53</b>	<b>5.00</b>	<b>3.19</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2020 J3 Range SPM Fall - J3 Range

	Location	MW-143M2	MW-143M3	MW-163S	MW-163S	MW-181S	MW-193M1
	Field Sample ID	MW-143M2_F20	MW-143M3_F20	MW-163S_F20	MW-163S_F20D	MW-181S_F20	MW-193M1_F20
	Sampling Depth	117.00 - 122.00	107.00 - 112.00	38.00 - 48.00	38.00 - 48.00	32.25 - 42.25	57.50 - 62.50
	Sampling Date	07/20/2020	07/21/2020	07/16/2020	07/16/2020	07/21/2020	07/16/2020
	SDG	320629171	320629171	320627321	320627321	320629171	320627321
	Sample Type	Normal	Normal	Normal	Field Duplicate	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	19.0 U	20.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.40 U	9.50 U	9.70 U	9.80 U	9.40 U	9.60 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.40 U	9.50 U	9.70 U	9.80 U	9.40 U	9.60 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.40 U	9.50 U	9.70 U	9.80 U	9.40 U	9.60 U
Perfluorobutanesulfonic acid	600	<b>1.20 J</b>	<b>0.620 J</b>	0.970 U	0.980 U	0.940 U	0.960 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	<b>1.00 J</b>	<b>1.00 J</b>	1.40 U	<b>0.570 J</b>
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.50 U	1.50 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.940 U	0.950 U	0.970 U	0.980 U	0.940 U	0.960 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.50 U	1.50 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.940 U	0.950 U	0.970 U	0.980 U	0.940 U	0.960 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.50 U	1.50 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	<b>26.0</b>	<b>4.20</b>	1.90 U	2.00 U	1.90 U	1.90 U
Perfluorohexanoic acid (PFHxA)		0.940 U	0.950 U	0.970 U	0.980 U	0.940 U	0.960 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.50 U	1.50 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.90 U	2.90 U	2.80 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.80 U	<b>4.90</b>	<b>5.00</b>	<b>16.0</b>	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	<b>0.840 J</b>	<b>0.940 J</b>	<b>0.510 J</b>	1.40 U
Perfluoropentanoic acid (PFPeA)		0.940 U	0.950 U	0.970 U	<b>0.460 J</b>	0.940 U	<b>0.490 J</b>
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.90 U	2.90 U	2.80 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	2.90 U	2.90 U	2.80 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.50 U	1.50 U	1.40 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>5.74</b>	<b>5.94</b>	<b>16.5</b>	<b>0.00</b>
	<b>*PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>26.0</b>	<b>4.20</b>	<b>4.90</b>	<b>5.00</b>	<b>16.0</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	MW-193S	MW-196M1	MW-196S	MW-197M1	MW-197M2	MW-197M3
	Field Sample ID	MW-193S_F20	MW-196M1_F20	MW-196S_F20	MW-197M1_F20	MW-197M2_F20	MW-197M3_F20
	Sampling Depth	32.50 - 37.50	45.00 - 50.00	32.00 - 37.00	120.00 - 125.00	80.20 - 85.20	60.20 - 65.20
	Sampling Date	07/16/2020	07/23/2020	07/23/2020	07/20/2020	07/20/2020	07/20/2020
	SDG	320627321	320630121	320630121	320629171	320629171	320629171
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	18.0 U	18.0 U	19.0 U	19.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.20 U	9.20 U	9.00 U	9.40 U	9.30 U	9.20 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.20 U	9.20 U	9.00 U	9.40 U	9.30 U	9.20 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.20 U	9.20 U	9.00 U	9.40 U	9.30 U	9.20 U
Perfluorobutanesulfonic acid	600	<b>2.20</b>	0.920 U	0.900 U	0.940 U	<b>1.80 J</b>	0.920 U
Perfluorobutanoic acid (PFBA)		<b>1.20 J</b>	1.80 U	1.80 U	1.40 U	<b>4.90</b>	<b>1.50 J</b>
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.30 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.920 U	<b>0.550 J</b>	0.900 U	0.940 U	0.930 U	0.920 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.30 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.920 U	0.920 U	0.900 U	0.940 U	0.930 U	0.920 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.30 U	1.40 U	<b>4.00</b>	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	<b>19.0</b>	<b>1.00 J</b>	0.900 U	1.90 U	<b>37.0</b>	1.80 U
Perfluorohexanoic acid (PFHxA)		<b>0.830 J</b>	<b>0.950 J</b>	<b>0.510 J</b>	0.940 U	<b>8.40</b>	0.920 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	<b>1.10 J</b>	<b>3.80</b>	2.80 U	<b>10.0</b>	<b>1.00 J</b>
Perfluorooctanoic acid (PFOA)	6	1.40 U	<b>2.10</b>	<b>1.10 J</b>	<b>0.550 J</b>	<b>3.10</b>	<b>0.990 J</b>
Perfluoropentanoic acid (PFPeA)		<b>1.30 J</b>	<b>0.660 J</b>	<b>0.440 J</b>	<b>0.400 J</b>	<b>6.50</b>	<b>0.430 J</b>
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.30 U	1.40 U	1.40 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>3.20</b>	<b>4.90</b>	<b>0.550</b>	<b>13.1</b>	<b>1.99</b>
	<b>*PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>19.0</b>	<b>2.10</b>	<b>3.80</b>	<b>0.00</b>	<b>54.1</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	Location	MW-197M3	MW-198M1	MW-198M2	MW-198M3	MW-198M4	MW-232M1
	Field Sample ID	MW-197M3_F20D	MW-198M1_F20	MW-198M2_F20	MW-198M3_F20	MW-198M4_F20	MW-232M1_F20
	Sampling Depth	60.20 - 65.20	150.00 - 155.00	120.00 - 125.00	100.00 - 105.00	70.00 - 75.00	77.50 - 82.50
	Sampling Date	07/20/2020	07/15/2020	07/15/2020	07/15/2020	07/15/2020	07/16/2020
	SDG	320629171	320627321	320627321	320627321	320627321	320627321
	Sample Type	Field Duplicate	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	19.0 U	19.0 U	19.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.20 U	9.50 U	9.50 U	9.50 U	9.50 U	9.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.20 U	9.50 U	9.50 U	9.50 U	9.50 U	9.50 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.20 U	9.50 U	9.50 U	9.50 U	9.50 U	9.50 U
Perfluorobutanesulfonic acid	600	0.920 U	0.950 U	0.950 U	0.950 U	0.950 U	0.950 U
Perfluorobutanoic acid (PFBA)		<b>1.40 J</b>	1.40 U	<b>0.740 J</b>	<b>0.740 J</b>	<b>6.50</b>	<b>2.20</b>
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.920 U	0.950 U	0.950 U	0.950 U	0.950 U	0.950 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.920 U	0.950 U	0.950 U	0.950 U	0.950 U	0.950 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.40 U	<b>1.80 J</b>	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	1.80 U	0.950 U	0.950 U	1.90 U	<b>4.40</b>	0.950 U
Perfluorohexanoic acid (PFHxA)		<b>0.450 J</b>	0.950 U	0.950 U	0.950 U	<b>3.70</b>	0.950 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.80 U	2.90 U	2.80 U	<b>2.30 J</b>	2.90 U
Perfluorooctanoic acid (PFOA)	6	<b>1.10 J</b>	1.40 U	1.40 U	1.40 U	<b>2.30</b>	<b>0.640 J</b>
Perfluoropentanoic acid (PFPeA)		<b>0.440 J</b>	<b>0.460 J</b>	0.950 U	0.950 U	<b>2.80</b>	<b>0.420 J</b>
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>1.10</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4.60</b>	<b>0.640</b>
	<b>*PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>6.70</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	MW-232M2	MW-30
	<b>Field Sample ID</b>	MW-232M2_F20	MW-30_F20
	<b>Sampling Depth</b>	61.00 - 66.00	26.00 - 36.00
	<b>Sampling Date</b>	07/16/2020	07/21/2020
	<b>SDG</b>	320627321	320629171
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	<b>Results (ng/L)</b>	<b>Results (ng/L)</b>
6:2 Fluorotelomer sulfonate (6:2 FTS)		20.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		10.0 U	9.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		10.0 U	9.40 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		10.0 U	9.40 U
Perfluorobutanesulfonic acid	600	1.00 U	0.940 U
Perfluorobutanoic acid (PFBA)		<b>3.20</b>	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U
Perfluorodecanoic acid (PFDA)		1.00 U	0.940 U
Perfluorododecanoic acid (PFDoA)		1.50 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		1.00 U	0.940 U
Perfluoroheptanoic acid (PFHpA)		1.50 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	1.00 U	0.940 U
Perfluorohexanoic acid (PFHxA)		1.00 U	0.940 U
Perfluorononanoic acid (PFNA)	5.9	1.50 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		3.00 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	3.00 U	<b>15.0</b>
Perfluorooctanoic acid (PFOA)	6	<b>1.10 J</b>	<b>0.790 J</b>
Perfluoropentanoic acid (PFPeA)		<b>0.520 J</b>	0.940 U
Perfluorotetradecanoic acid (PFTeDA)		3.00 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		3.00 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.50 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>1.10</b>	<b>15.8</b>
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>15.0</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-143M2	MW-143M3	MW-163S	MW-163S	MW-181S	MW-193M1
	<b>Field Sample ID</b>	MW-143M2_F20	MW-143M3_F20	MW-163S_F20	MW-163S_F20D	MW-181S_F20	MW-193M1_F20
	<b>Sampling Depth</b>	117.00 - 122.00	107.00 - 112.00	38.00 - 48.00	38.00 - 48.00	32.25 - 42.25	57.50 - 62.50
	<b>Sampling Date</b>	07/20/2020	07/21/2020	07/16/2020	07/16/2020	07/21/2020	07/16/2020
	<b>SDG</b>	320629171	320629171	320627321	320627321	320629171	320627321
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Field Duplicate</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>27.2</b>	<b>4.82</b>	<b>6.74</b>	<b>7.40</b>	<b>16.5</b>	<b>1.06</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-193S	MW-196M1	MW-196S	MW-197M1	MW-197M2	MW-197M3
	<b>Field Sample ID</b>	MW-193S_F20	MW-196M1_F20	MW-196S_F20	MW-197M1_F20	MW-197M2_F20	MW-197M3_F20
	<b>Sampling Depth</b>	32.50 - 37.50	45.00 - 50.00	32.00 - 37.00	120.00 - 125.00	80.20 - 85.20	60.20 - 65.20
	<b>Sampling Date</b>	07/16/2020	07/23/2020	07/23/2020	07/20/2020	07/20/2020	07/20/2020
	<b>SDG</b>	320627321	320630121	320630121	320629171	320629171	320629171
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>24.5</b>	<b>6.36</b>	<b>5.85</b>	<b>0.950</b>	<b>75.7</b>	<b>3.92</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-197M3	MW-198M1	MW-198M2	MW-198M3	MW-198M4	MW-232M1
	<b>Field Sample ID</b>	MW-197M3_F20D	MW-198M1_F20	MW-198M2_F20	MW-198M3_F20	MW-198M4_F20	MW-232M1_F20
	<b>Sampling Depth</b>	60.20 - 65.20	150.00 - 155.00	120.00 - 125.00	100.00 - 105.00	70.00 - 75.00	77.50 - 82.50
	<b>Sampling Date</b>	07/20/2020	07/15/2020	07/15/2020	07/15/2020	07/15/2020	07/16/2020
	<b>SDG</b>	320629171	320627321	320627321	320627321	320627321	320627321
	<b>Sample Type</b>	<b>Field Duplicate</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>3.39</b>	<b>0.460</b>	<b>0.740</b>	<b>0.740</b>	<b>23.8</b>	<b>3.26</b>



**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-232M2	MW-30
	<b>Field Sample ID</b>	MW-232M2_F20	MW-30_F20
	<b>Sampling Depth</b>	61.00 - 66.00	26.00 - 36.00
	<b>Sampling Date</b>	07/16/2020	07/21/2020
	<b>SDG</b>	320627321	320629171
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>4.82</b>	<b>15.8</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2021 J2 North SPM Fall - J2 Range Northern

	Location	J2EW0002	J2EW0002	J2EW2-MW2-B	J2EW2-MW2-C	MW-293M2	MW-293M2
	Field Sample ID	J2EW0002_F21	J2EW0002_F21D	J2EW2-MW2-B_F21	J2EW2-MW2-C_F21	MW-293M2_F21	MW-293M2_F21D
	Sampling Depth	198.00 - 233.00	198.00 - 233.00	209.79 - 219.79	243.83 - 253.81	0.00 - 0.00	0.00 - 0.00
	Sampling Date	09/27/2021	09/27/2021	09/15/2021	09/15/2021	09/08/2021	09/08/2021
	SDG	320796651	320796651	320791141	320791141	320787611	320787611
	Sample Type	Normal	Field Duplicate	Normal	Normal	Normal	Field Duplicate
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		<b>6.70 J</b>	<b>6.70 J</b>	19.0 U	20.0 U	18.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.40 U	9.00 U	9.50 U	10.0 U	9.20 U	8.90 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.40 U	9.00 U	9.50 U	10.0 U	9.20 U	8.90 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.40 U	9.00 U	9.50 U	10.0 U	9.20 U	8.90 U
Perfluorobutanesulfonic acid	600	0.940 U	0.900 U	0.950 U	1.00 U	<b>3.90</b>	<b>3.80</b>
Perfluorobutanoic acid (PFBA)		1.40 U	1.30 U	1.40 U	1.50 U	<b>0.840 J</b>	<b>1.10 J</b>
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.30 U	1.40 U	1.50 U	1.40 U	1.30 U
Perfluorodecanoic acid (PFDA)		0.940 U	0.900 U	0.950 U	1.00 U	<b>3.20</b>	<b>2.80</b>
Perfluorododecanoic acid (PFDoA)		1.40 U	1.30 U	1.40 U	1.50 U	<b>2.40</b>	<b>2.30</b>
Perfluoroheptanesulfonic acid (PFHpS)		0.940 U	0.900 U	0.950 U	1.00 U	0.920 U	0.890 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	<b>0.550 J</b>	1.40 U	1.50 U	1.40 U	1.30 U
Perfluorohexane sulfonate (PFHxS)	39	<b>8.10</b>	<b>7.70</b>	0.950 U	1.00 U	0.920 U	0.890 U
Perfluorohexanoic acid (PFHxA)		<b>0.820 J</b>	<b>0.770 J</b>	0.950 U	1.00 U	<b>1.30 J</b>	<b>1.10 J</b>
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.30 U	1.40 U	1.50 U	<b>1.30 J</b>	<b>1.10 J</b>
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.70 U	2.90 U	3.10 U	2.80 U	2.70 U
Perfluorooctanesulfonic acid (PFOS)	4	<b>1.30 J</b>	<b>1.10 J</b>	2.90 U	3.10 U	2.80 U	2.70 U
Perfluorooctanoic acid (PFOA)	6	<b>1.80 J</b>	<b>1.20 J</b>	1.40 U	1.50 U	1.40 U	1.30 U
Perfluoropentanoic acid (PFPeA)		<b>0.680 J</b>	<b>0.640 J</b>	0.950 U	1.00 U	<b>1.10 J</b>	<b>1.00 J</b>
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.70 U	2.90 U	3.10 U	2.80 U	2.70 U
Perfluorotridecanoic acid (PFTTrDA)		2.80 U	2.70 U	2.90 U	3.10 U	<b>0.760 J</b>	2.70 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.30 U	1.40 U	1.50 U	<b>23.0</b>	<b>22.0</b>
	<b>†PFOS + PFOA (EPA)</b>	<b>3.10</b>	<b>2.30</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	MW-300M1	MW-300M1	MW-300M2	MW-300M3	MW-302M2	MW-302M2
	Field Sample ID	MW-300M1_F21	MW-300M1_F21D	MW-300M2_F21	MW-300M3_F21	MW-302M2_F21	MW-302M2_F21D
	Sampling Depth	293.03 - 303.02	293.03 - 303.02	197.23 - 207.23	135.31 - 145.31	194.35 - 204.43	194.35 - 204.43
	Sampling Date	09/21/2021	09/21/2021	09/21/2021	09/21/2021	09/13/2021	09/13/2021
	SDG	320793351	320793351	320793351	320793351	320790821	320790821
	Sample Type	Normal	Field Duplicate	Normal	Normal	Normal	Field Duplicate
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	19.0 U	19.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.70 U	9.60 U	9.30 U	9.50 U	9.60 U	9.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.70 U	9.60 U	9.30 U	9.50 U	9.60 U	9.40 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.70 U	9.60 U	9.30 U	9.50 U	9.60 U	9.40 U
Perfluorobutanesulfonic acid	600	0.970 U	0.960 U	0.930 U	0.950 U	0.960 U	0.940 U
Perfluorobutanoic acid (PFBA)		1.50 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		<b>3.40</b>	<b>3.60</b>	<b>4.00</b>	<b>1.70 J</b>	<b>2.60</b>	<b>2.50</b>
Perfluorododecanoic acid (PFDoA)		<b>0.520 J</b>	<b>0.680 J</b>	<b>1.10 J</b>	<b>0.710 J</b>	<b>2.80</b>	<b>3.00</b>
Perfluoroheptanesulfonic acid (PFHpS)		0.970 U	0.960 U	0.930 U	0.950 U	0.960 U	0.940 U
Perfluoroheptanoic acid (PFHpA)		1.50 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.970 U	0.960 U	0.930 U	<b>0.440 J</b>	0.960 U	0.940 U
Perfluorohexanoic acid (PFHxA)		0.970 U	0.960 U	0.930 U	0.950 U	0.960 U	0.940 U
Perfluorononanoic acid (PFNA)	5.9	<b>4.80</b>	<b>4.80</b>	<b>3.60</b>	<b>2.10</b>	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.90 U	2.80 U	2.90 U	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	2.90 U	2.80 U	2.90 U	2.90 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.970 U	0.960 U	0.930 U	0.950 U	0.960 U	0.940 U
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	2.90 U	2.80 U	2.90 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U	2.90 U	<b>0.700 J</b>	<b>0.840 J</b>	<b>1.10 J</b>	<b>1.20 J</b>
Perfluoroundecanoic acid (PFUnA)		<b>8.30</b>	<b>8.60</b>	<b>7.80</b>	<b>4.40</b>	<b>27.0</b>	<b>27.0</b>
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	Location	MW-305M1	MW-330M1	MW-330M2	MW-330M3	MW-340D	MW-340M1
	Field Sample ID	MW-305M1_F21	MW-330M1_F21	MW-330M2_F21	MW-330M3_F21	MW-340D_F21	MW-340M1_F21
	Sampling Depth	202.82 - 212.82	313.10 - 323.13	238.01 - 248.04	154.97 - 164.99	329.60 - 339.60	255.85 - 265.85
	Sampling Date	09/14/2021	09/17/2021	09/17/2021	09/17/2021	09/23/2021	09/23/2021
	SDG	320790821	320791141	320791141	320791141	320793861	320793861
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	19.0 U	20.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.70 U	9.60 U	9.70 U	9.90 U	9.50 U	9.60 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.70 U	9.60 U	9.70 U	9.90 U	9.50 U	9.60 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.70 U	9.60 U	9.70 U	9.90 U	9.50 U	9.60 U
Perfluorobutanesulfonic acid	600	0.970 U	0.960 U	0.970 U	0.990 U	0.950 U	0.960 U
Perfluorobutanoic acid (PFBA)		1.50 U	<b>1.60 J</b>	<b>0.890 J</b>	1.50 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U	1.50 U	1.50 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		<b>3.60</b>	<b>38.0</b>	<b>8.90</b>	<b>19.0</b>	<b>18.0</b>	<b>2.30</b>
Perfluorododecanoic acid (PFDoA)		1.50 U	<b>2.50</b>	<b>2.20</b>	<b>0.810 J</b>	<b>1.80 J</b>	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.970 U	0.960 U	0.970 U	0.990 U	0.950 U	0.960 U
Perfluoroheptanoic acid (PFHpA)		1.50 U	<b>1.10 J</b>	1.50 U	1.50 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.970 U	0.960 U	0.970 U	0.990 U	0.950 U	0.960 U
Perfluorohexanoic acid (PFHxA)		0.970 U	<b>0.770 J</b>	0.970 U	0.990 U	0.950 U	0.960 U
Perfluorononanoic acid (PFNA)	5.9	<b>2.20</b>	<b>16.0</b>	<b>12.0</b>	<b>25.0</b>	<b>14.0</b>	<b>1.60 J</b>
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.90 U	2.90 U	3.00 U	2.80 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	2.90 U	2.90 U	3.00 U	2.80 U	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	<b>0.660 J</b>	<b>0.650 J</b>	1.50 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.970 U	<b>2.50</b>	<b>1.20 J</b>	0.990 U	0.950 U	0.960 U
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	<b>1.10 J</b>	2.90 U	3.00 U	<b>0.840 J</b>	2.90 U
Perfluorotridecanoic acid (PFTTrDA)		2.90 U	<b>1.60 J</b>	<b>2.10 J</b>	3.00 U	<b>1.20 J</b>	2.90 U
Perfluoroundecanoic acid (PFUnA)		<b>3.30</b>	<b>23.0</b>	<b>9.60</b>	<b>8.90</b>	<b>18.0</b>	<b>1.50 J</b>
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.660</b>	<b>0.650</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	Location	MW-340M2	MW-345M1	MW-345M2	MW-348M2	MW-586M1	MW-586M2
	Field Sample ID	MW-340M2_F21	MW-345M1_F21	MW-345M2_F21	MW-348M2_F21	MW-586M1_F21	MW-586M2_F21
	Sampling Depth	215.83 - 225.08	311.50 - 321.50	236.62 - 246.62	206.54 - 216.54	237.00 - 247.00	211.00 - 221.00
	Sampling Date	09/23/2021	09/20/2021	09/20/2021	09/07/2021	09/09/2021	09/09/2021
	SDG	320793861	320793351	320793351	320787611	320787751	320787751
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	18.0 U	20.0 U	18.0 U	19.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.50 U	9.20 U	9.90 U	8.90 U	9.30 U	9.10 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.50 U	9.20 U	9.90 U	8.90 U	9.30 U	9.10 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.50 U	9.20 U	9.90 U	8.90 U	9.30 U	9.10 U
Perfluorobutanesulfonic acid	600	0.950 U	0.920 U	0.990 U	0.890 U	0.930 U	0.910 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	<b>0.790 J</b>	1.30 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.50 U	1.30 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		<b>1.60 J</b>	<b>56.0</b>	<b>2.90</b>	<b>2.40</b>	0.930 U	0.910 U
Perfluorododecanoic acid (PFDoA)		1.40 U	<b>3.40</b>	<b>0.760 J</b>	<b>2.40</b>	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.950 U	0.920 U	0.990 U	0.890 U	0.930 U	0.910 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	<b>0.910 J</b>	1.50 U	1.30 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.950 U	<b>0.410 J</b>	<b>0.810 J</b>	0.890 U	0.930 U	0.910 U
Perfluorohexanoic acid (PFHxA)		0.950 U	0.920 U	0.990 U	0.890 U	0.930 U	0.910 U
Perfluorononanoic acid (PFNA)	5.9	<b>4.00</b>	<b>14.0</b>	<b>6.80</b>	1.30 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.70 U	3.00 U	2.70 U	2.80 U	2.70 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.70 U	<b>1.20 J</b>	2.70 U	2.80 U	2.70 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	<b>1.10 J</b>	<b>0.580 J</b>	1.30 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.950 U	<b>0.480 J</b>	<b>0.960 J</b>	0.890 U	0.930 U	0.910 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	<b>0.930 J</b>	3.00 U	2.70 U	2.80 U	2.70 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	<b>1.80 J</b>	<b>0.840 J</b>	<b>0.740 J</b>	2.80 U	2.70 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	<b>32.0</b>	<b>3.60</b>	<b>8.70</b>	1.40 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>1.10</b>	<b>1.78</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	Location	MW-587M1	MW-588M1	MW-588M2	MW-589M1	MW-589M2	MW-612M1
	Field Sample ID	MW-587M1_F21	MW-588M1_F21	MW-588M2_F21	MW-589M1_F21	MW-589M2_F21	MW-612M1_F21
	Sampling Depth	250.00 - 260.00	238.00 - 248.00	198.00 - 208.00	240.00 - 250.00	211.00 - 221.00	297.00 - 307.00
	Sampling Date	08/24/2021	09/08/2021	09/08/2021	09/09/2021	09/09/2021	09/14/2021
	SDG	320781081	320787611	320787611	320787751	320787751	320790821
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	19.0 U	18.0 U	19.0 U	19.0 U	20.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.20 U	9.30 U	9.10 U	9.40 U	9.40 U	9.80 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.20 U	9.30 U	9.10 U	9.40 U	9.40 U	9.80 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.20 U	9.30 U	9.10 U	9.40 U	9.40 U	9.80 U
Perfluorobutanesulfonic acid	600	0.920 U	0.930 U	<b>1.70 J</b>	0.940 U	0.940 U	0.980 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.920 U	0.930 U	0.910 U	0.940 U	0.940 U	0.980 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluoroheptanesulfonic acid (PFHpS)		0.920 U	0.930 U	0.910 U	0.940 U	0.940 U	0.980 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorohexane sulfonate (PFHxS)	39	0.920 U	0.930 U	0.910 U	0.940 U	0.940 U	0.980 U
Perfluorohexanoic acid (PFHxA)		0.920 U	0.930 U	0.910 U	0.940 U	0.940 U	0.980 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	3.00 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	3.00 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	<b>0.570 J</b>	1.40 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.920 U	0.930 U	0.910 U	0.940 U	0.940 U	0.980 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	3.00 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	3.00 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.570</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	Location	MW-612M2	MW-613M1	MW-613M2	MW-621M1	MW-621M2	MW-622M1
	Field Sample ID	MW-612M2_F21	MW-613M1_F21	MW-613M2_F21	MW-621M1_F21	MW-621M2_F21	MW-622M1_F21
	Sampling Depth	267.00 - 277.00	267.10 - 277.10	246.10 - 256.10	249.40 - 259.40	219.40 - 229.40	245.40 - 255.40
	Sampling Date	09/14/2021	09/17/2021	09/17/2021	09/08/2021	09/08/2021	09/13/2021
	SDG	320790821	320791141	320791141	320787611	320787611	320790821
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	19.0 U	19.0 U	18.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.30 U	9.40 U	9.40 U	9.30 U	8.90 U	9.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.30 U	9.40 U	9.40 U	9.30 U	8.90 U	9.40 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.30 U	9.40 U	9.40 U	9.30 U	8.90 U	9.40 U
Perfluorobutanesulfonic acid	600	0.930 U	0.940 U	0.940 U	0.930 U	0.890 U	0.940 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.930 U	0.940 U	0.940 U	0.930 U	0.890 U	0.940 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.930 U	0.940 U	0.940 U	0.930 U	0.890 U	0.940 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.930 U	0.940 U	0.940 U	0.930 U	0.890 U	0.940 U
Perfluorohexanoic acid (PFHxA)		0.930 U	0.940 U	0.940 U	0.930 U	0.890 U	0.940 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.80 U	2.80 U	2.70 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.80 U	2.80 U	2.80 U	2.70 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.930 U	0.940 U	0.940 U	0.930 U	0.890 U	0.940 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.80 U	2.80 U	2.70 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	2.80 U	2.80 U	2.70 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	Location	MW-622M2	MW-631M1	MW-631M2	MW-632M1	MW-632M2	MW-640M1
	Field Sample ID	MW-622M2_F21	MW-631M1_F21	MW-631M2_F21	MW-632M1_F21	MW-632M2_F21	MW-640M1_F21
	Sampling Depth	220.40 - 230.40	233.10 - 243.10	200.10 - 210.10	254.50 - 264.50	229.50 - 239.50	246.00 - 256.00
	Sampling Date	09/13/2021	08/23/2021	08/23/2021	09/07/2021	09/07/2021	09/07/2021
	SDG	320790821	320781081	320781081	320787611	320787611	320787611
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	18.0 U	18.0 U	18.0 U	18.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.60 U	8.80 U	9.00 U	9.00 U	9.00 U	9.60 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.60 U	8.80 U	9.00 U	9.00 U	9.00 U	9.60 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.60 U	8.80 U	9.00 U	9.00 U	9.00 U	9.60 U
Perfluorobutanesulfonic acid	600	0.960 U	0.880 U	<b>12.0</b>	0.900 U	0.900 U	0.960 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.30 U	<b>2.80</b>	1.40 U	1.30 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.30 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.960 U	0.880 U	0.900 U	0.900 U	0.900 U	0.960 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.30 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.960 U	0.880 U	0.900 U	0.900 U	0.900 U	0.960 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.30 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.960 U	0.880 U	0.900 U	0.900 U	0.900 U	0.960 U
Perfluorohexanoic acid (PFHxA)		0.960 U	0.880 U	<b>23.0</b>	0.900 U	0.900 U	0.960 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.30 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.60 U	2.70 U	2.70 U	2.70 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	2.60 U	2.70 U	2.70 U	2.70 U	2.90 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.30 U	1.40 U	1.40 U	1.30 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.960 U	0.880 U	<b>11.0</b>	0.900 U	0.900 U	0.960 U
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	2.60 U	2.70 U	2.70 U	2.70 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U	2.60 U	2.70 U	2.70 U	2.70 U	2.90 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.30 U	1.40 U	1.40 U	1.30 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>



**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	MW-640M2	MW-703M1	MW-703M2	MW-704M1	MW-704M2
	Field Sample ID	MW-640M2_F21	MW-703M1_F21	MW-703M2_F21	MW-704M1_F21	MW-704M2_F21
	Sampling Depth	216.00 - 226.00	248.00 - 258.00	224.10 - 234.10	244.00 - 254.00	217.80 - 227.80
	Sampling Date	09/07/2021	09/14/2021	09/14/2021	09/13/2021	09/13/2021
	SDG	320787611	320790821	320790821	320790821	320790821
	Sample Type	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	20.0 U	19.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.10 U	9.80 U	9.70 U	9.70 U	9.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.10 U	9.80 U	9.70 U	9.70 U	9.40 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.10 U	9.80 U	9.70 U	9.70 U	9.40 U
Perfluorobutanesulfonic acid	600	0.910 U	0.980 U	0.970 U	0.970 U	0.940 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.50 U	1.50 U	<b>3.30</b>	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.910 U	<b>3.90</b>	<b>2.00</b>	<b>2.00</b>	<b>2.20</b>
Perfluorododecanoic acid (PFDoA)		1.40 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.910 U	0.980 U	0.970 U	0.970 U	0.940 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.910 U	0.980 U	0.970 U	0.970 U	0.940 U
Perfluorohexanoic acid (PFHxA)		0.910 U	0.980 U	0.970 U	<b>0.900 J</b>	0.940 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	<b>1.60 J</b>	<b>0.640 J</b>	<b>1.10 J</b>	<b>0.830 J</b>
Perfluorooctanesulfonamide (PFOSA)		2.70 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.70 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.910 U	<b>0.700 J</b>	0.970 U	<b>3.20</b>	0.940 U
Perfluorotetradecanoic acid (PFTeDA)		2.70 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTTrDA)		2.70 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.50 U	1.50 U	1.50 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	J2EW0002	J2EW0002	J2EW2-MW2-B	J2EW2-MW2-C	MW-293M2	MW-293M2
	<b>Field Sample ID</b>	J2EW0002_F21	J2EW0002_F21D	J2EW2-MW2-B_F21	J2EW2-MW2-C_F21	MW-293M2_F21	MW-293M2_F21D
	<b>Sampling Depth</b>	198.00 - 233.00	198.00 - 233.00	209.79 - 219.79	243.83 - 253.81	0.00 - 0.00	0.00 - 0.00
	<b>Sampling Date</b>	09/27/2021	09/27/2021	09/15/2021	09/15/2021	09/08/2021	09/08/2021
	<b>SDG</b>	320796651	320796651	320791141	320791141	320787611	320787611
	<b>Sample Type</b>	<b>Normal</b>	<b>Field Duplicate</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Field Duplicate</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>8.10</b>	<b>7.70</b>	<b>0.00</b>	<b>0.00</b>	<b>3.20</b>	<b>2.80</b>
	<b>§Sum of All Compounds Detected</b>	<b>19.4</b>	<b>18.7</b>	<b>0.00</b>	<b>0.00</b>	<b>37.8</b>	<b>35.2</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-300M1	MW-300M1	MW-300M2	MW-300M3	MW-302M2	MW-302M2
	<b>Field Sample ID</b>	MW-300M1_F21	MW-300M1_F21D	MW-300M2_F21	MW-300M3_F21	MW-302M2_F21	MW-302M2_F21D
	<b>Sampling Depth</b>	293.03 - 303.02	293.03 - 303.02	197.23 - 207.23	135.31 - 145.31	194.35 - 204.43	194.35 - 204.43
	<b>Sampling Date</b>	09/21/2021	09/21/2021	09/21/2021	09/21/2021	09/13/2021	09/13/2021
	<b>SDG</b>	320793351	320793351	320793351	320793351	320790821	320790821
	<b>Sample Type</b>	<b>Normal</b>	<b>Field Duplicate</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Field Duplicate</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>8.20</b>	<b>8.40</b>	<b>7.60</b>	<b>2.10</b>	<b>2.60</b>	<b>2.50</b>
	<b>§Sum of All Compounds Detected</b>	<b>17.0</b>	<b>17.7</b>	<b>17.2</b>	<b>10.2</b>	<b>33.5</b>	<b>33.7</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-305M1	MW-330M1	MW-330M2	MW-330M3	MW-340D	MW-340M1
	<b>Field Sample ID</b>	MW-305M1_F21	MW-330M1_F21	MW-330M2_F21	MW-330M3_F21	MW-340D_F21	MW-340M1_F21
	<b>Sampling Depth</b>	202.82 - 212.82	313.10 - 323.13	238.01 - 248.04	154.97 - 164.99	329.60 - 339.60	255.85 - 265.85
	<b>Sampling Date</b>	09/14/2021	09/17/2021	09/17/2021	09/17/2021	09/23/2021	09/23/2021
	<b>SDG</b>	320790821	320791141	320791141	320791141	320793861	320793861
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>5.80</b>	<b>54.0</b>	<b>20.9</b>	<b>44.0</b>	<b>32.0</b>	<b>2.30</b>
	<b>§Sum of All Compounds Detected</b>	<b>9.10</b>	<b>88.8</b>	<b>37.5</b>	<b>53.7</b>	<b>53.8</b>	<b>5.40</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-340M2	MW-345M1	MW-345M2	MW-348M2	MW-586M1	MW-586M2
	<b>Field Sample ID</b>	MW-340M2_F21	MW-345M1_F21	MW-345M2_F21	MW-348M2_F21	MW-586M1_F21	MW-586M2_F21
	<b>Sampling Depth</b>	215.83 - 225.08	311.50 - 321.50	236.62 - 246.62	206.54 - 216.54	237.00 - 247.00	211.00 - 221.00
	<b>Sampling Date</b>	09/23/2021	09/20/2021	09/20/2021	09/07/2021	09/09/2021	09/09/2021
	<b>SDG</b>	320793861	320793351	320793351	320787611	320787751	320787751
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>4.00</b>	<b>70.0</b>	<b>9.70</b>	<b>2.40</b>	<b>0.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>5.60</b>	<b>111</b>	<b>19.2</b>	<b>14.2</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-587M1	MW-588M1	MW-588M2	MW-589M1	MW-589M2	MW-612M1
	<b>Field Sample ID</b>	MW-587M1_F21	MW-588M1_F21	MW-588M2_F21	MW-589M1_F21	MW-589M2_F21	MW-612M1_F21
	<b>Sampling Depth</b>	250.00 - 260.00	238.00 - 248.00	198.00 - 208.00	240.00 - 250.00	211.00 - 221.00	297.00 - 307.00
	<b>Sampling Date</b>	08/24/2021	09/08/2021	09/08/2021	09/09/2021	09/09/2021	09/14/2021
	<b>SDG</b>	320781081	320787611	320787611	320787751	320787751	320790821
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>0.00</b>	<b>0.00</b>	<b>1.70</b>	<b>0.570</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-612M2	MW-613M1	MW-613M2	MW-621M1	MW-621M2	MW-622M1
	<b>Field Sample ID</b>	MW-612M2_F21	MW-613M1_F21	MW-613M2_F21	MW-621M1_F21	MW-621M2_F21	MW-622M1_F21
	<b>Sampling Depth</b>	267.00 - 277.00	267.10 - 277.10	246.10 - 256.10	249.40 - 259.40	219.40 - 229.40	245.40 - 255.40
	<b>Sampling Date</b>	09/14/2021	09/17/2021	09/17/2021	09/08/2021	09/08/2021	09/13/2021
	<b>SDG</b>	320790821	320791141	320791141	320787611	320787611	320790821
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-622M2	MW-631M1	MW-631M2	MW-632M1	MW-632M2	MW-640M1
	<b>Field Sample ID</b>	MW-622M2_F21	MW-631M1_F21	MW-631M2_F21	MW-632M1_F21	MW-632M2_F21	MW-640M1_F21
	<b>Sampling Depth</b>	220.40 - 230.40	233.10 - 243.10	200.10 - 210.10	254.50 - 264.50	229.50 - 239.50	246.00 - 256.00
	<b>Sampling Date</b>	09/13/2021	08/23/2021	08/23/2021	09/07/2021	09/07/2021	09/07/2021
	<b>SDG</b>	320790821	320781081	320781081	320787611	320787611	320787611
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>0.00</b>	<b>0.00</b>	<b>48.8</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>



**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-640M2	MW-703M1	MW-703M2	MW-704M1	MW-704M2
	<b>Field Sample ID</b>	MW-640M2_F21	MW-703M1_F21	MW-703M2_F21	MW-704M1_F21	MW-704M2_F21
	<b>Sampling Depth</b>	216.00 - 226.00	248.00 - 258.00	224.10 - 234.10	244.00 - 254.00	217.80 - 227.80
	<b>Sampling Date</b>	09/07/2021	09/14/2021	09/14/2021	09/13/2021	09/13/2021
	<b>SDG</b>	320787611	320790821	320790821	320790821	320790821
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>3.90</b>	<b>2.00</b>	<b>2.00</b>	<b>2.20</b>
	<b>§Sum of All Compounds Detected</b>	<b>0.00</b>	<b>6.20</b>	<b>2.64</b>	<b>10.5</b>	<b>3.03</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2021 J2 Ranges SPM Spring - J2 Range Northern

<b>Location</b>	J2EW0002
<b>Field Sample ID</b>	J2EW0002_521
<b>Sampling Depth</b>	198.00 - 233.00
<b>Sampling Date</b>	01/13/2021
<b>SDG</b>	320689351

<b>Sample Type</b>	<b>Normal</b>
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<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	<b>Results (ng/L)</b>
6:2 Fluorotelomer sulfonate (6:2 FTS)		<b>7.40 J</b>
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.40 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.40 U
Perfluorobutanesulfonic acid	600	0.940 U
Perfluorobutanoic acid (PFBA)		1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U
Perfluorodecanoic acid (PFDA)		0.940 U
Perfluorododecanoic acid (PFDoA)		1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		<b>0.430 J</b>
Perfluoroheptanoic acid (PFHpA)		<b>0.860 J</b>
Perfluorohexane sulfonate (PFHxS)	39	<b>11.0</b>
Perfluorohexanoic acid (PFHxA)		<b>0.900 J</b>
Perfluorononanoic acid (PFNA)	5.9	1.40 U
Perfluorooctanesulfonamide (PFOSA)		<b>1.80 J</b>
Perfluorooctanesulfonic acid (PFOS)	4	<b>1.00 J</b>
Perfluorooctanoic acid (PFOA)	6	<b>1.80 J</b>
Perfluoropentanoic acid (PFPeA)		1.90 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U
<b>†PFOS + PFOA (EPA)</b>		<b>2.80</b>
<b>*PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>		<b>11.0</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	J2EW0002
	<b>Field Sample ID</b>	J2EW0002_521
	<b>Sampling Depth</b>	198.00 - 233.00
	<b>Sampling Date</b>	01/13/2021
	<b>SDG</b>	320689351
	<b>Sample Type</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>25.2</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2021 J3 Range SPM Fall - J3 Range

	Location	90EW0001	90WT0004	J3-EFF	J3-EFF	J3EW0032	J3EWIP1
	Field Sample ID	90EW0001_F21	90WT0004_F21	J3-EFF_4Q21	J3-EFF_F21	J3EW0032_F21	J3EWIP1_F21
	Sampling Depth	83.10 - 143.80	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	102.00 - 152.00	153.00 - 193.00
	Sampling Date	07/13/2021	08/10/2021	10/20/2021	07/13/2021	07/13/2021	07/13/2021
	SDG	320762631	320775331	320807451	320762631	320762631	320762631
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	18.0 U	19.0 U	19.0 U	20.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.20 U	9.20 U	9.60 U	9.50 U	9.80 U	9.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.20 U	9.20 U	9.60 U	9.50 U	9.80 U	9.40 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.20 U	9.20 U	9.60 U	9.50 U	9.80 U	9.40 U
Perfluorobutanesulfonic acid	600	0.920 U	0.920 U	0.960 U	0.950 U	0.980 U	0.940 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	1.40 U	1.40 U	1.50 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.50 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.920 U	0.920 U	0.960 U	0.950 U	0.980 U	0.940 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.40 U	1.50 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.920 U	0.920 U	0.960 U	0.950 U	0.980 U	0.940 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.40 U	1.50 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	<b>0.500 J</b>	0.920 U	0.960 U	0.950 U	<b>0.720 J</b>	<b>0.520 J</b>
Perfluorohexanoic acid (PFHxA)		0.920 U	0.920 U	0.960 U	0.950 U	0.980 U	0.940 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.70 U	2.80 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.70 U	2.80 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.920 U	0.920 U	0.960 U	0.950 U	0.980 U	0.940 U
Perfluorotetradecanoic acid (PFTeDA)		2.70 U	2.80 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTTrDA)		2.70 U	2.80 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.40 U	1.50 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

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	Location	J3EWIP2	J3-INF	J3-INF	MW-142M2	MW-142S	MW-143M1
	Field Sample ID	J3EWIP2_F21	J3-INF_4Q21	J3-INF_F21	MW-142M2_F21	MW-142S_F21	MW-143M1_F21
	Sampling Depth	150.50 - 170.50	0.00 - 0.00	0.00 - 0.00	140.00 - 150.00	42.00 - 52.00	144.00 - 154.00
	Sampling Date	07/13/2021	10/20/2021	07/13/2021	07/27/2021	07/27/2021	07/26/2021
	SDG	320762631	320807451	320762631	320769671	320769671	320769671
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		20.0 U	19.0 U	19.0 U	19.0 UJ	19.0 UJ	19.0 UJ
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.80 U	9.70 U	9.50 U	9.70 UJ	9.30 UJ	9.60 UJ
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.80 U	9.70 U	9.50 U	9.70 UJ	9.30 UJ	9.60 UJ
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.80 U	9.70 U	9.50 U	9.70 UJ	9.30 UJ	9.60 UJ
Perfluorobutanesulfonic acid	600	0.980 U	0.970 U	0.950 U	0.970 UJ	0.930 UJ	0.960 UJ
Perfluorobutanoic acid (PFBA)		1.50 U	1.50 U	1.40 U	1.50 UJ	1.40 UJ	1.40 UJ
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.50 U	1.40 U	1.50 UJ	1.40 UJ	1.40 UJ
Perfluorodecanoic acid (PFDA)		0.980 U	0.970 U	0.950 U	0.970 UJ	0.930 UJ	0.960 UJ
Perfluorododecanoic acid (PFDoA)		1.50 U	1.50 U	1.40 U	1.50 UJ	1.40 UJ	1.40 UJ
Perfluoroheptanesulfonic acid (PFHpS)		0.980 U	0.970 U	0.950 U	0.970 UJ	0.930 UJ	0.960 UJ
Perfluoroheptanoic acid (PFHpA)		1.50 U	1.50 U	1.40 U	1.50 UJ	1.40 UJ	1.40 UJ
Perfluorohexane sulfonate (PFHxS)	39	<b>2.80</b>	<b>1.00 J</b>	<b>1.20 J</b>	<b>2.80 J</b>	0.930 UJ	0.960 UJ
Perfluorohexanoic acid (PFHxA)		0.980 U	0.970 U	0.950 U	0.970 UJ	0.930 UJ	0.960 UJ
Perfluorononanoic acid (PFNA)	5.9	1.50 U	1.50 U	1.40 U	1.50 UJ	1.40 UJ	1.40 UJ
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.90 U	2.80 U	2.90 UJ	2.80 UJ	2.90 UJ
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	2.90 U	2.80 U	2.90 UJ	2.80 UJ	2.90 UJ
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.50 U	1.40 U	1.50 UJ	<b>0.510 J</b>	1.40 UJ
Perfluoropentanoic acid (PFPeA)		0.980 U	0.970 U	0.950 U	0.970 UJ	0.930 UJ	0.960 UJ
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	2.90 U	2.80 U	2.90 UJ	2.80 UJ	2.90 UJ
Perfluorotridecanoic acid (PFTTrDA)		2.90 U	2.90 U	2.80 U	2.90 UJ	2.80 UJ	2.90 UJ
Perfluoroundecanoic acid (PFUnA)		1.50 U	1.50 U	1.40 U	1.50 UJ	1.40 UJ	1.40 UJ
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.510</b>	<b>0.00</b>

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	Location	MW-143M2	MW-143M2	MW-144M2	MW-144S	MW-145M1	MW-145S
	Field Sample ID	MW-143M2_F21DR	MW-143M2_F21R	MW-144M2_F21	MW-144S_F21R	MW-145M1_F21	MW-145S_F21
	Sampling Depth	117.00 - 122.00	117.00 - 122.00	130.00 - 140.00	26.00 - 36.00	125.00 - 135.00	30.00 - 40.00
	Sampling Date	09/16/2021	09/16/2021	07/27/2021	09/16/2021	08/11/2021	08/11/2021
	SDG	320791142	320791142	320769671	320791142	320776031	320776031
	Sample Type	Field Duplicate	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	19.0 UJ	20.0 U	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.50 U	9.40 U	9.40 UJ	9.90 U	9.50 U	9.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.50 U	9.40 U	9.40 UJ	9.90 U	9.50 U	9.40 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.50 U	9.40 U	9.40 UJ	9.90 U	9.50 U	9.40 U
Perfluorobutanesulfonic acid	600	<b>0.640 J</b>	<b>0.700 J</b>	0.940 UJ	0.990 U	0.950 U	0.940 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	1.40 UJ	1.50 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 UJ	1.50 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.950 U	0.940 U	0.940 UJ	0.990 U	0.950 U	0.940 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 UJ	1.50 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.950 U	0.940 U	0.940 UJ	0.990 U	0.950 U	0.940 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 UJ	1.50 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	<b>4.10</b>	<b>4.00</b>	0.940 UJ	0.990 U	0.950 U	<b>1.50 J</b>
Perfluorohexanoic acid (PFHxA)		0.950 U	0.940 U	0.940 UJ	0.990 U	0.950 U	<b>0.630 J</b>
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 UJ	1.50 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.80 UJ	3.00 U	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.80 U	2.80 UJ	<b>3.60 J</b>	2.90 U	<b>3.90</b>
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 UJ	<b>0.570 J</b>	1.40 U	<b>0.760 J</b>
Perfluoropentanoic acid (PFPeA)		0.950 U	0.940 U	0.940 UJ	0.990 U	0.950 U	0.940 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.80 UJ	3.00 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTTrDA)		2.80 U	2.80 U	2.80 UJ	3.00 U	2.90 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 UJ	1.50 U	1.40 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4.17</b>	<b>0.00</b>	<b>4.66</b>

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	Location	MW-157M1	MW-157M2	MW-157M3	MW-163S	MW-181S	MW-181S
	Field Sample ID	MW-157M1_F21	MW-157M2_F21	MW-157M3_F21	MW-163S_F21	MW-181S_F21	MW-181S_F21D
	Sampling Depth	154.00 - 164.00	110.00 - 120.00	70.00 - 80.00	38.00 - 48.00	32.25 - 42.25	32.25 - 42.25
	Sampling Date	07/14/2021	07/14/2021	07/14/2021	07/14/2021	08/02/2021	08/02/2021
	SDG	320763871	320763871	320763871	320763871	320772471	320772471
	Sample Type	Normal	Normal	Normal	Normal	Normal	Field Duplicate
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	20.0 U	19.0 U	19.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.30 U	9.70 U	10.0 U	9.40 U	9.50 U	9.00 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.30 U	9.70 U	10.0 U	9.40 U	9.50 U	9.00 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.30 U	9.70 U	10.0 U	9.40 U	9.50 U	9.00 U
Perfluorobutanesulfonic acid	600	0.930 U	<b>9.40</b>	1.00 U	0.940 U	0.950 U	0.900 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.930 U	0.970 U	1.00 U	0.940 U	0.950 U	0.900 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.930 U	0.970 U	1.00 U	0.940 U	0.950 U	0.900 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.930 U	<b>0.720 J</b>	<b>1.50 J</b>	<b>0.450 J</b>	0.950 U	0.900 U
Perfluorohexanoic acid (PFHxA)		0.930 U	0.970 U	1.00 U	0.940 U	0.950 U	0.900 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.90 U	3.00 U	2.80 U	2.80 U	2.70 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.90 U	3.00 U	<b>4.80</b>	<b>15.0</b>	<b>15.0</b>
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.50 U	<b>0.730 J</b>	<b>1.10 J</b>	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.930 U	0.970 U	1.00 U	0.940 U	0.950 U	0.900 U
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.90 U	3.00 U	2.80 U	2.80 U	2.70 U
Perfluorotridecanoic acid (PFTTrDA)		2.80 U	2.90 U	3.00 U	2.80 U	2.80 U	2.70 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.730</b>	<b>5.90</b>	<b>15.0</b>	<b>15.0</b>

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	Location	MW-193S	MW-193S	MW-196M1	MW-196S	MW-197M2	MW-197M2
	Field Sample ID	MW-193S_F21	MW-193S_F21D	MW-196M1_F21	MW-196S_F21	MW-197M2_F21	MW-197M2_F21D
	Sampling Depth	32.50 - 37.50	32.50 - 37.50	45.00 - 50.00	32.00 - 37.00	80.20 - 85.20	80.20 - 85.20
	Sampling Date	08/04/2021	08/04/2021	08/11/2021	08/11/2021	08/02/2021	08/02/2021
	SDG	320772871	320772871	320776031	320776031	320772471	320772471
	Sample Type	Normal	Field Duplicate	Normal	Normal	Normal	Field Duplicate
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	19.0 U	20.0 U	19.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.40 U	9.40 U	9.60 U	10.0 U	9.60 U	9.20 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.40 U	9.40 U	9.60 U	10.0 U	9.60 U	9.20 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.40 U	9.40 U	9.60 U	10.0 U	9.60 U	9.20 U
Perfluorobutanesulfonic acid	600	0.940 U	0.940 U	0.960 U	1.00 U	<b>0.450 J</b>	<b>0.460 J</b>
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	<b>0.900 J</b>	1.50 U	<b>2.60</b>	<b>2.60</b>
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.940 U	0.940 U	0.960 U	1.00 U	0.960 U	0.920 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.940 U	0.940 U	0.960 U	1.00 U	0.960 U	0.920 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.50 U	<b>3.00</b>	<b>3.00</b>
Perfluorohexane sulfonate (PFHxS)	39	<b>2.80</b>	<b>2.60</b>	0.960 U	<b>0.440 J</b>	<b>15.0</b>	<b>15.0</b>
Perfluorohexanoic acid (PFHxA)		0.940 U	0.940 U	<b>0.760 J</b>	<b>0.480 J</b>	<b>5.00</b>	<b>5.50</b>
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.90 U	3.00 U	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	2.80 U	2.90 U	<b>5.30 J</b>	<b>4.90</b>	<b>4.80</b>
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	<b>1.40 J</b>	<b>0.700 J</b>	<b>2.70</b>	<b>2.90</b>
Perfluoropentanoic acid (PFPeA)		0.940 U	0.940 U	0.960 U	1.00 U	<b>4.20</b>	<b>4.20</b>
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	2.90 U	3.00 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	2.90 U	3.00 U	2.90 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>1.40</b>	<b>6.00</b>	<b>7.60</b>	<b>7.70</b>



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	Location	MW-197M3	MW-198M4	MW-218M1	MW-218M1	MW-218M2	MW-218M2
	Field Sample ID	MW-197M3_F21	MW-198M4_F21	MW-218M1_F21	MW-218M1_F21R	MW-218M2_F21	MW-218M2_F21R
	Sampling Depth	60.20 - 65.20	70.00 - 75.00	128.00 - 133.00	128.00 - 133.00	98.00 - 103.00	98.00 - 103.00
	Sampling Date	08/02/2021	08/05/2021	08/16/2021	09/30/2021	08/16/2021	09/30/2021
	SDG	320772471	320773351	320778561	320797671	320778561	320797671
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	18.0 U	19.0 U	19.0 U	20.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.40 U	9.30 U	9.10 U	9.50 U	9.40 U	10.0 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.40 U	9.30 U	9.10 U	9.50 U	9.40 U	10.0 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.40 U	9.30 U	9.10 U	9.50 U	9.40 U	10.0 U
Perfluorobutanesulfonic acid	600	0.940 U	0.930 U	<b>0.420 J</b>	0.950 U	0.940 U	1.00 U
Perfluorobutanoic acid (PFBA)		<b>1.30 J</b>	<b>1.40 J</b>	<b>400</b>	1.40 U	<b>64.0</b>	<b>3.00</b>
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.940 U	0.930 U	<b>42.0</b>	<b>5.60</b>	<b>10.0</b>	<b>5.10</b>
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	<b>32.0</b>	1.40 U	<b>2.30</b>	<b>0.600 J</b>
Perfluoroheptanesulfonic acid (PFHpS)		0.940 U	0.930 U	0.910 U	0.950 U	0.940 U	1.00 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	<b>360</b>	1.40 U	<b>100</b>	<b>2.10</b>
Perfluorohexane sulfonate (PFHxS)	39	<b>2.40</b>	<b>8.50</b>	0.910 U	0.950 U	0.940 U	1.00 U
Perfluorohexanoic acid (PFHxA)		<b>0.590 J</b>	0.930 U	<b>350</b>	0.950 U	<b>57.0</b>	<b>1.90 J</b>
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	<b>75.0</b>	<b>6.20</b>	<b>35.0</b>	<b>6.20</b>
Perfluorooctanesulfonamide (PFOSA)		2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	3.00 U
Perfluorooctanesulfonic acid (PFOS)	4	2.80 U	<b>1.70 J</b>	2.70 U	2.80 U	2.80 U	3.00 U
Perfluorooctanoic acid (PFOA)	6	<b>1.00 J</b>	<b>0.870 J</b>	<b>120</b>	<b>5.70</b>	<b>49.0</b>	<b>2.10</b>
Perfluoropentanoic acid (PFPeA)		0.940 U	0.930 U	<b>770</b>	0.950 U	<b>110</b>	<b>5.00</b>
Perfluorotetradecanoic acid (PFTeDA)		2.80 U	2.80 U	<b>35.0</b>	2.80 U	<b>2.00 J</b>	3.00 U
Perfluorotridecanoic acid (PFTrDA)		2.80 U	2.80 U	<b>49.0</b>	2.80 U	<b>2.60 J</b>	3.00 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	<b>48.0</b>	<b>3.60</b>	<b>6.80</b>	<b>3.50</b>
	<b>†PFOS + PFOA (EPA)</b>	<b>1.00</b>	<b>2.57</b>	<b>120</b>	<b>5.70</b>	<b>49.0</b>	<b>2.10</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	MW-218M3	MW-218M3	MW-250M1	MW-250M3	MW-30	MW-576M2
	Field Sample ID	MW-218M3_F21	MW-218M3_F21R	MW-250M1_F21	MW-250M3_F21	MW-30_F21	MW-576M2_F21
	Sampling Depth	78.00 - 83.00	78.00 - 83.00	185.00 - 195.00	95.00 - 105.00	26.00 - 36.00	133.90 - 143.90
	Sampling Date	08/16/2021	09/30/2021	07/15/2021	07/15/2021	08/02/2021	08/10/2021
	SDG	320778561	320797671	320763871	320763871	320772471	320775331
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		18.0 U	19.0 U	18.0 U	18.0 U	18.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.10 U	9.30 U	9.00 U	9.00 U	9.00 U	9.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.10 U	9.30 U	9.00 U	9.00 U	9.00 U	9.40 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.10 U	9.30 U	9.00 U	9.00 U	9.00 U	9.40 U
Perfluorobutanesulfonic acid	600	0.910 U	0.930 U	0.900 U	0.900 U	0.900 U	0.940 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.910 U	0.930 U	0.900 U	0.900 U	0.900 U	0.940 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.910 U	0.930 U	0.900 U	0.900 U	0.900 U	0.940 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.910 U	0.930 U	<b>0.550 J</b>	<b>1.90</b>	0.900 U	<b>0.470 J</b>
Perfluorohexanoic acid (PFHxA)		0.910 U	0.930 U	0.900 U	0.900 U	0.900 U	0.940 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.70 U	2.80 U	2.70 U	2.70 U	2.70 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	4	2.70 U	2.80 U	2.70 U	<b>1.00 J</b>	<b>7.00</b>	2.80 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.910 U	0.930 U	0.900 U	0.900 U	0.900 U	0.940 U
Perfluorotetradecanoic acid (PFTeDA)		2.70 U	2.80 U	2.70 U	2.70 U	2.70 U	2.80 U
Perfluorotridecanoic acid (PFTTrDA)		2.70 U	2.80 U	2.70 U	2.70 U	2.70 U	2.80 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.00</b>	<b>7.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	MW-636M1	MW-636M2	MW-653M1	MW-653M2
	Field Sample ID	MW-636M1_F21	MW-636M2_F21	MW-653M1_F21	MW-653M2_F21
	Sampling Depth	141.60 - 151.60	110.50 - 120.50	147.50 - 157.50	59.30 - 69.30
	Sampling Date	07/29/2021	07/29/2021	07/29/2021	07/29/2021
	SDG	320769861	320769861	320769861	320769861
	Sample Type	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		19.0 U	19.0 U	20.0 U	18.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		9.50 U	9.30 U	9.80 U	9.10 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		9.50 U	9.30 U	9.80 U	9.10 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		9.50 U	9.30 U	9.80 U	9.10 U
Perfluorobutanesulfonic acid	600	0.950 U	<b>1.20 J</b>	<b>3.50</b>	0.910 U
Perfluorobutanoic acid (PFBA)		1.40 U	1.40 U	<b>1.20 J</b>	1.40 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.50 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.950 U	0.930 U	0.980 U	0.910 U
Perfluorododecanoic acid (PFDoA)		1.40 U	1.40 U	1.50 U	1.40 U
Perfluoroheptanesulfonic acid (PFHpS)		0.950 U	0.930 U	0.980 U	0.910 U
Perfluoroheptanoic acid (PFHpA)		1.40 U	1.40 U	<b>2.50</b>	1.40 U
Perfluorohexane sulfonate (PFHxS)	39	0.950 U	<b>4.80</b>	<b>83.0</b>	0.910 U
Perfluorohexanoic acid (PFHxA)		<b>0.460 J</b>	<b>0.570 J</b>	<b>5.80</b>	0.910 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.50 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		2.90 U	2.80 U	2.90 U	2.70 U
Perfluorooctanesulfonic acid (PFOS)	4	2.90 U	<b>1.60 J</b>	<b>5.30</b>	2.70 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	<b>1.80 J</b>	1.40 U
Perfluoropentanoic acid (PFPeA)		0.950 U	0.930 U	<b>3.30</b>	0.910 U
Perfluorotetradecanoic acid (PFTeDA)		2.90 U	2.80 U	2.90 U	2.70 U
Perfluorotridecanoic acid (PFTrDA)		2.90 U	2.80 U	2.90 U	2.70 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.50 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>1.60</b>	<b>7.10</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	90EW0001	90WT0004	J3-EFF	J3-EFF	J3EW0032	J3EWIP1
	<b>Field Sample ID</b>	90EW0001_F21	90WT0004_F21	J3-EFF_4Q21	J3-EFF_F21	J3EW0032_F21	J3EWIP1_F21
	<b>Sampling Depth</b>	83.10 - 143.80	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	102.00 - 152.00	153.00 - 193.00
	<b>Sampling Date</b>	07/13/2021	08/10/2021	10/20/2021	07/13/2021	07/13/2021	07/13/2021
	<b>SDG</b>	320762631	320775331	320807451	320762631	320762631	320762631
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>0.500</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.720</b>	<b>0.520</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	J3EWIP2	J3-INF	J3-INF	MW-142M2	MW-142S	MW-143M1
	<b>Field Sample ID</b>	J3EWIP2_F21	J3-INF_4Q21	J3-INF_F21	MW-142M2_F21	MW-142S_F21	MW-143M1_F21
	<b>Sampling Depth</b>	150.50 - 170.50	0.00 - 0.00	0.00 - 0.00	140.00 - 150.00	42.00 - 52.00	144.00 - 154.00
	<b>Sampling Date</b>	07/13/2021	10/20/2021	07/13/2021	07/27/2021	07/27/2021	07/26/2021
	<b>SDG</b>	320762631	320807451	320762631	320769671	320769671	320769671
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>2.80</b>	<b>0.00</b>	<b>0.00</b>	<b>2.80</b>	<b>0.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>2.80</b>	<b>1.00</b>	<b>1.20</b>	<b>2.80</b>	<b>0.510</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	MW-143M2	MW-143M2	MW-144M2	MW-144S	MW-145M1	MW-145S
	<b>Field Sample ID</b>	MW-143M2_F21DR	MW-143M2_F21R	MW-144M2_F21	MW-144S_F21R	MW-145M1_F21	MW-145S_F21
	<b>Sampling Depth</b>	117.00 - 122.00	117.00 - 122.00	130.00 - 140.00	26.00 - 36.00	125.00 - 135.00	30.00 - 40.00
	<b>Sampling Date</b>	09/16/2021	09/16/2021	07/27/2021	09/16/2021	08/11/2021	08/11/2021
	<b>SDG</b>	320791142	320791142	320769671	320791142	320776031	320776031
	<b>Sample Type</b>	<b>Field Duplicate</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>4.10</b>	<b>4.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3.90</b>
	<b>§Sum of All Compounds Detected</b>	<b>4.74</b>	<b>4.70</b>	<b>0.00</b>	<b>4.17</b>	<b>0.00</b>	<b>6.79</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-157M1	MW-157M2	MW-157M3	MW-163S	MW-181S	MW-181S
	<b>Field Sample ID</b>	MW-157M1_F21	MW-157M2_F21	MW-157M3_F21	MW-163S_F21	MW-181S_F21	MW-181S_F21D
	<b>Sampling Depth</b>	154.00 - 164.00	110.00 - 120.00	70.00 - 80.00	38.00 - 48.00	32.25 - 42.25	32.25 - 42.25
	<b>Sampling Date</b>	07/14/2021	07/14/2021	07/14/2021	07/14/2021	08/02/2021	08/02/2021
	<b>SDG</b>	320763871	320763871	320763871	320763871	320772471	320772471
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Field Duplicate</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4.80</b>	<b>15.0</b>	<b>15.0</b>
	<b>§Sum of All Compounds Detected</b>	<b>0.00</b>	<b>10.1</b>	<b>2.23</b>	<b>6.35</b>	<b>15.0</b>	<b>15.0</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	MW-193S	MW-193S	MW-196M1	MW-196S	MW-197M2	MW-197M2
	Field Sample ID	MW-193S_F21	MW-193S_F21D	MW-196M1_F21	MW-196S_F21	MW-197M2_F21	MW-197M2_F21D
	Sampling Depth	32.50 - 37.50	32.50 - 37.50	45.00 - 50.00	32.00 - 37.00	80.20 - 85.20	80.20 - 85.20
	Sampling Date	08/04/2021	08/04/2021	08/11/2021	08/11/2021	08/02/2021	08/02/2021
	SDG	320772871	320772871	320776031	320776031	320772471	320772471
	Sample Type	Normal	Field Duplicate	Normal	Normal	Normal	Field Duplicate
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	2.80	2.60	0.00	5.30	25.6	25.7
	§Sum of All Compounds Detected	2.80	2.60	3.06	6.92	37.9	38.5



**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	MW-197M3	MW-198M4	MW-218M1	MW-218M1	MW-218M2	MW-218M2
	<b>Field Sample ID</b>	MW-197M3_F21	MW-198M4_F21	MW-218M1_F21	MW-218M1_F21R	MW-218M2_F21	MW-218M2_F21R
	<b>Sampling Depth</b>	60.20 - 65.20	70.00 - 75.00	128.00 - 133.00	128.00 - 133.00	98.00 - 103.00	98.00 - 103.00
	<b>Sampling Date</b>	08/02/2021	08/05/2021	08/16/2021	09/30/2021	08/16/2021	09/30/2021
	<b>SDG</b>	320772471	320773351	320778561	320797671	320778561	320797671
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>2.40</b>	<b>8.50</b>	<b>597</b>	<b>17.5</b>	<b>194</b>	<b>15.5</b>
	<b>§Sum of All Compounds Detected</b>	<b>5.29</b>	<b>12.5</b>	<b>2280</b>	<b>21.1</b>	<b>439</b>	<b>29.5</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-218M3	MW-218M3	MW-250M1	MW-250M3	MW-30	MW-576M2
	<b>Field Sample ID</b>	MW-218M3_F21	MW-218M3_F21R	MW-250M1_F21	MW-250M3_F21	MW-30_F21	MW-576M2_F21
	<b>Sampling Depth</b>	78.00 - 83.00	78.00 - 83.00	185.00 - 195.00	95.00 - 105.00	26.00 - 36.00	133.90 - 143.90
	<b>Sampling Date</b>	08/16/2021	09/30/2021	07/15/2021	07/15/2021	08/02/2021	08/10/2021
	<b>SDG</b>	320778561	320797671	320763871	320763871	320772471	320775331
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.90</b>	<b>7.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>0.00</b>	<b>0.00</b>	<b>0.550</b>	<b>2.90</b>	<b>7.00</b>	<b>0.470</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-636M1	MW-636M2	MW-653M1	MW-653M2
	<b>Field Sample ID</b>	MW-636M1_F21	MW-636M2_F21	MW-653M1_F21	MW-653M2_F21
	<b>Sampling Depth</b>	141.60 - 151.60	110.50 - 120.50	147.50 - 157.50	59.30 - 69.30
	<b>Sampling Date</b>	07/29/2021	07/29/2021	07/29/2021	07/29/2021
	<b>SDG</b>	320769861	320769861	320769861	320769861
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>4.80</b>	<b>90.8</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>0.460</b>	<b>8.17</b>	<b>106</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2022 J MID PFAS - J2 Range Northern

	<b>Location</b>	J2N-MID-1F
	<b>Field Sample ID</b>	J2N-MID-1F-P01
	<b>Sampling Depth</b>	0.00 - 0.00
	<b>Sampling Date</b>	08/08/2022
	<b>SDG</b>	320909141
	<b>Sample Type</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	<b>Results (ng/L)</b>
6:2 Fluorotelomer sulfonate (6:2 FTS)		<b>2.00 J</b>
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.930 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.930 U
Perfluorobutanesulfonic acid	600	0.930 U
Perfluorobutanoic acid (PFBA)		<b>0.220 J</b>
Perfluorodecanesulfonic acid (PFDS)		1.40 U
Perfluorodecanoic acid (PFDA)		0.930 U
Perfluorododecanoic acid (PFDoA)		0.930 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U
Perfluoroheptanoic acid (PFHpA)		0.930 U
Perfluorohexane sulfonate (PFHxS)	39	0.930 U
Perfluorohexanoic acid (PFHxA)		<b>1.00 J</b>
Perfluorononanoic acid (PFNA)	5.9	1.40 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U
Perfluorooctanoic acid (PFOA)	6	1.40 U
Perfluoropentanoic acid (PFPeA)		<b>0.790 J</b>
Perfluorotetradecanoic acid (PFTeDA)		1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U
Perfluoroundecanoic acid (PFUnA)		1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>
	<b>*PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	J2N-MID-1F
	<b>Field Sample ID</b>	J2N-MID-1F-P01
	<b>Sampling Depth</b>	0.00 - 0.00
	<b>Sampling Date</b>	08/08/2022
	<b>SDG</b>	320909141
	<b>Sample Type</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>4.01</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2022 J MID PFAS - J3 Range

	<b>Location</b>	J3-MID-1
	<b>Field Sample ID</b>	J3-MID-1-P01
	<b>Sampling Depth</b>	0.00 - 0.00
	<b>Sampling Date</b>	08/08/2022
	<b>SDG</b>	320909141
	<b>Sample Type</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	<b>Results (ng/L)</b>
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.950 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.950 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.950 U
Perfluorobutanesulfonic acid	600	0.950 U
Perfluorobutanoic acid (PFBA)		0.480 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U
Perfluorodecanoic acid (PFDA)		0.950 U
Perfluorododecanoic acid (PFDoA)		0.950 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U
Perfluoroheptanoic acid (PFHpA)		0.950 U
Perfluorohexane sulfonate (PFHxS)	39	0.950 U
Perfluorohexanoic acid (PFHxA)		1.40 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U
Perfluorooctanoic acid (PFOA)	6	1.40 U
Perfluoropentanoic acid (PFPeA)		0.480 U
Perfluorotetradecanoic acid (PFTeDA)		1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U
Perfluoroundecanoic acid (PFUnA)		1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>
	<b>*PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	J3-MID-1
	<b>Field Sample ID</b>	J3-MID-1-P01
	<b>Sampling Depth</b>	0.00 - 0.00
	<b>Sampling Date</b>	08/08/2022
	<b>SDG</b>	320909141
	<b>Sample Type</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2022 J2 North PFAS Fall - J2 Range Northern

	Location	J2EW0002	J2N-EFF-F	J2N-INF-F	MW-293M1	MW-330M1	MW-330M1
	Field Sample ID	J2EW0002_P22	J2N-EFF-F_P22	J2N-INF-F_P22	MW-293M1_P22	MW-330M1_P22	MW-330M1_P22D
	Sampling Depth	198.00 - 233.00	0.00 - 0.00	0.00 - 0.00	296.26 - 306.27	313.10 - 323.13	313.10 - 323.13
	Sampling Date	10/11/2022	10/11/2022	10/11/2022	10/06/2022	10/06/2022	10/06/2022
	SDG	320931732	320931732	320931732	320929361	320929361	320929361
	Sample Type	Normal	Normal	Normal	Normal	Normal	Field Duplicate
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		<b>10.0</b>	0.990 U	<b>8.20</b>	0.950 U	0.970 U	0.960 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.930 U	0.990 U	0.980 U	0.950 U	0.970 U	0.960 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.930 U	0.990 U	0.980 U	0.950 U	0.970 U	0.960 U
Perfluorobutanesulfonic acid	600	0.930 U	0.990 U	0.980 U	0.950 U	0.970 U	0.960 U
Perfluorobutanoic acid (PFBA)		<b>0.410 J</b>	0.490 U	<b>0.390 J</b>	<b>0.530 J</b>	<b>1.40 J</b>	<b>1.30 J</b>
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.930 U	0.990 U	0.980 U	<b>11.0</b>	<b>19.0</b>	<b>20.0</b>
Perfluorododecanoic acid (PFDoA)		0.930 U	0.990 U	0.980 U	<b>0.830 J</b>	<b>1.20 J</b>	<b>1.50 J</b>
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanoic acid (PFHpA)		<b>1.20 J</b>	0.990 U	<b>1.10 J</b>	0.950 U	<b>0.950 J</b>	<b>0.960 J</b>
Perfluorohexane sulfonate (PFHxS)	39	<b>16.0</b>	0.990 U	<b>12.0</b>	0.950 U	0.970 U	0.960 U
Perfluorohexanoic acid (PFHxA)		<b>1.70 J</b>	1.50 U	<b>1.40 J</b>	1.40 U	<b>0.650 J</b>	<b>0.700 J</b>
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.50 U	1.50 U	<b>1.80 J</b>	<b>6.40</b>	<b>7.20</b>
Perfluorooctanesulfonamide (PFOSA)		1.40 U	<b>0.530 J</b>	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	<b>2.20 J</b>	1.50 U	<b>1.50 J</b>	1.40 U	1.40 U	1.40 U
Perfluorooctanoic acid (PFOA)	6	<b>2.90</b>	1.50 U	<b>2.30</b>	1.40 U	1.40 U	<b>0.600 J</b>
Perfluoropentanoic acid (PFPeA)		<b>1.70 J</b>	0.490 U	<b>1.10 J</b>	<b>0.850 J</b>	<b>2.00</b>	<b>2.00</b>
Perfluorotetradecanoic acid (PFTeDA)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.50 U	1.50 U	<b>13.0</b>	<b>19.0</b>	<b>19.0</b>
	<b>†PFOS + PFOA (EPA)</b>	<b>5.10</b>	<b>0.00</b>	<b>3.80</b>	<b>0.00</b>	<b>0.00</b>	<b>0.600</b>
	<b>*PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>21.1</b>	<b>0.00</b>	<b>14.3</b>	<b>11.0</b>	<b>25.4</b>	<b>27.2</b>



**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	MW-330M2	MW-330M3	MW-337D	MW-340D	MW-345M1	MW-345M2
	Field Sample ID	MW-330M2_P22	MW-330M3_P22	MW-337D_P22	MW-340D_P22	MW-345M1_P22	MW-345M2_P22
	Sampling Depth	238.01 - 248.04	154.97 - 164.99	310.00 - 320.00	329.60 - 339.60	311.50 - 321.50	236.62 - 246.62
	Sampling Date	10/06/2022	10/06/2022	10/12/2022	10/05/2022	10/05/2022	10/05/2022
	SDG	320929361	320929361	320932701	320929441	320929441	320929441
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.990 U	0.950 U	0.990 U	0.910 U	0.960 U	0.950 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.990 U	0.950 U	0.990 U	0.910 U	0.960 U	0.950 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.990 U	0.950 U	0.990 U	0.910 U	0.960 U	0.950 U
Perfluorobutanesulfonic acid	600	0.990 U	0.950 U	0.990 U	0.910 U	0.960 U	0.950 U
Perfluorobutanoic acid (PFBA)		0.500 U	<b>0.670 J</b>	<b>0.250 J</b>	0.460 U	0.480 U	<b>0.360 J</b>
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		<b>2.40</b>	<b>16.0</b>	<b>14.0</b>	<b>12.0</b>	<b>19.0</b>	<b>1.90</b>
Perfluorododecanoic acid (PFDoA)		0.990 U	<b>0.770 J</b>	<b>0.670 J</b>	<b>1.30 J</b>	<b>3.40</b>	0.950 U
Perfluoroheptanesulfonic acid (PFHpS)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanoic acid (PFHpA)		0.990 U	0.950 U	0.990 U	0.910 U	0.960 U	0.950 U
Perfluorohexane sulfonate (PFHxS)	39	0.990 U	0.950 U	0.990 U	0.910 U	0.960 U	0.950 U
Perfluorohexanoic acid (PFHxA)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorononanoic acid (PFNA)	5.9	<b>4.50</b>	<b>11.0</b>	<b>5.70</b>	<b>7.10</b>	<b>2.80</b>	<b>6.00</b>
Perfluorooctanesulfonamide (PFOSA)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	1.50 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.40 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		<b>0.480 J</b>	<b>0.370 J</b>	<b>0.280 J</b>	<b>0.380 J</b>	<b>0.380 J</b>	<b>0.660 J</b>
Perfluorotetradecanoic acid (PFTeDA)		1.50 U	1.40 U	1.50 U	1.40 U	<b>1.30 J</b>	1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.50 U	1.40 U	1.50 U	1.40 U	<b>3.30</b>	1.40 U
Perfluoroundecanoic acid (PFUnA)		<b>3.40</b>	<b>9.50</b>	<b>12.0</b>	<b>19.0</b>	<b>46.0</b>	<b>3.10</b>
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>*PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>6.90</b>	<b>27.0</b>	<b>19.7</b>	<b>19.1</b>	<b>21.8</b>	<b>7.90</b>

**PFAS Summary Report – Groundwater  
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	<b>Location</b>	J2EW0002	J2N-EFF-F	J2N-INF-F	MW-293M1	MW-330M1	MW-330M1
	<b>Field Sample ID</b>	J2EW0002_P22	J2N-EFF-F_P22	J2N-INF-F_P22	MW-293M1_P22	MW-330M1_P22	MW-330M1_P22D
	<b>Sampling Depth</b>	198.00 - 233.00	0.00 - 0.00	0.00 - 0.00	296.26 - 306.27	313.10 - 323.13	313.10 - 323.13
	<b>Sampling Date</b>	10/11/2022	10/11/2022	10/11/2022	10/06/2022	10/06/2022	10/06/2022
	<b>SDG</b>	320931732	320931732	320931732	320929361	320929361	320929361
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Field Duplicate</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>36.1</b>	<b>0.530</b>	<b>28.0</b>	<b>28.0</b>	<b>50.6</b>	<b>53.3</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-330M2	MW-330M3	MW-337D	MW-340D	MW-345M1	MW-345M2
	<b>Field Sample ID</b>	MW-330M2_P22	MW-330M3_P22	MW-337D_P22	MW-340D_P22	MW-345M1_P22	MW-345M2_P22
	<b>Sampling Depth</b>	238.01 - 248.04	154.97 - 164.99	310.00 - 320.00	329.60 - 339.60	311.50 - 321.50	236.62 - 246.62
	<b>Sampling Date</b>	10/06/2022	10/06/2022	10/12/2022	10/05/2022	10/05/2022	10/05/2022
	<b>SDG</b>	320929361	320929361	320932701	320929441	320929441	320929441
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>10.8</b>	<b>38.3</b>	<b>32.9</b>	<b>39.8</b>	<b>76.2</b>	<b>12.0</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2022 J2 North PFAS Spring - J2 Range Eastern

	Location	MW-128S	MW-18D	MW-18S	MW-48D	MW-48M2	MW-48S
	Field Sample ID	MW-128S_S22	MW-18D_S22	MW-18S_S22	MW-48D_S22	MW-48M2_S22	MW-48S_S22
	Sampling Depth	87.00 - 97.00	265.00 - 275.00	35.00 - 45.00	221.00 - 231.00	161.00 - 171.00	99.00 - 109.00
	Sampling Date	01/11/2022	12/27/2021	12/27/2021	01/04/2022	01/04/2022	01/05/2022
	SDG	320838001	320834481	320834481	320836321	320836321	320837121
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.960 U	1.00 U	0.980 U	0.950 U	0.990 U	1.00 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.960 U	1.00 U	0.980 U	0.950 U	0.990 U	1.00 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.960 U	1.00 U	0.980 U	0.950 U	0.990 U	1.00 U
Perfluorobutanesulfonic acid	600	0.960 U	1.00 U	0.980 U	0.950 U	0.990 U	1.00 U
Perfluorobutanoic acid (PFBA)		0.480 U	0.500 U	0.490 U	0.470 U	0.490 U	0.500 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.960 U	1.00 U	0.980 U	0.950 U	0.990 U	1.00 U
Perfluorododecanoic acid (PFDoA)		0.960 U	1.00 U	0.980 U	0.950 U	0.990 U	1.00 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		0.960 U	1.00 U	0.980 U	0.950 U	0.990 U	1.00 U
Perfluorohexane sulfonate (PFHxS)	39	<b>4.30</b>	1.00 U	0.980 U	0.950 U	0.990 U	<b>0.600 J</b>
Perfluorohexanoic acid (PFHxA)		1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.480 U	0.500 U	0.490 U	0.470 U	0.490 U	0.500 U
Perfluorotetradecanoic acid (PFTeDA)		1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>*PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>4.30</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	MW-49D	MW-49M1	MW-49M2	MW-49M3	MW-49S
	Field Sample ID	MW-49D_S22	MW-49M1_S22	MW-49M2_S22	MW-49M3_S22	MW-49S_S22
	Sampling Depth	185.00 - 195.00	160.00 - 170.00	130.00 - 140.00	100.50 - 110.50	68.50 - 78.00
	Sampling Date	01/03/2022	01/03/2022	01/03/2022	01/03/2022	01/03/2022
	SDG	320836321	320836321	320836321	320836321	320836321
	Sample Type	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		1.00 U	0.960 U	0.980 U	0.960 U	0.960 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		1.00 U	0.960 U	0.980 U	0.960 U	0.960 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		1.00 U	0.960 U	0.980 U	0.960 U	0.960 U
Perfluorobutanesulfonic acid	600	1.00 U	0.960 U	0.980 U	0.960 U	0.960 U
Perfluorobutanoic acid (PFBA)		0.500 U	0.480 U	0.490 U	0.480 U	0.480 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		1.00 U	0.960 U	0.980 U	0.960 U	0.960 U
Perfluorododecanoic acid (PFDoA)		1.00 U	0.960 U	0.980 U	0.960 U	0.960 U
Perfluoroheptanesulfonic acid (PFHpS)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluoroheptanoic acid (PFHpA)		1.00 U	0.960 U	0.980 U	0.960 U	0.960 U
Perfluorohexane sulfonate (PFHxS)	39	1.00 U	0.960 U	0.980 U	0.960 U	0.960 U
Perfluorohexanoic acid (PFHxA)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorononanoic acid (PFNA)	5.9	1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.500 U	0.480 U	0.490 U	0.480 U	0.480 U
Perfluorotetradecanoic acid (PFTeDA)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluoroundecanoic acid (PFUnA)		1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>*PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	<b>Location</b>	MW-128S	MW-18D	MW-18S	MW-48D	MW-48M2	MW-48S
	<b>Field Sample ID</b>	MW-128S_S22	MW-18D_S22	MW-18S_S22	MW-48D_S22	MW-48M2_S22	MW-48S_S22
	<b>Sampling Depth</b>	87.00 - 97.00	265.00 - 275.00	35.00 - 45.00	221.00 - 231.00	161.00 - 171.00	99.00 - 109.00
	<b>Sampling Date</b>	01/11/2022	12/27/2021	12/27/2021	01/04/2022	01/04/2022	01/05/2022
	<b>SDG</b>	320838001	320834481	320834481	320836321	320836321	320837121
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>4.30</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.600</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-49D	MW-49M1	MW-49M2	MW-49M3	MW-49S
	<b>Field Sample ID</b>	MW-49D_S22	MW-49M1_S22	MW-49M2_S22	MW-49M3_S22	MW-49S_S22
	<b>Sampling Depth</b>	185.00 - 195.00	160.00 - 170.00	130.00 - 140.00	100.50 - 110.50	68.50 - 78.00
	<b>Sampling Date</b>	01/03/2022	01/03/2022	01/03/2022	01/03/2022	01/03/2022
	<b>SDG</b>	320836321	320836321	320836321	320836321	320836321
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2022 J2 North PFAS Spring - J2 Range Northern

	Location	C-4D	C-4D	C-4M	C-4S	C-7D	C-7M
	Field Sample ID	C-4D_S22	C-4D_S22D	C-4M_S22	C-4S_S22	C-7D_S22	C-7M_S22
	Sampling Depth	310.00 - 350.00	310.00 - 350.00	260.00 - 300.00	200.00 - 250.00	295.00 - 335.00	247.00 - 287.00
	Sampling Date	01/13/2022	01/13/2022	01/13/2022	01/13/2022	01/12/2022	01/12/2022
	SDG	320838831	320838831	320838831	320838831	320838831	320838831
	Sample Type	Normal	Field Duplicate	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.960 U	0.950 U	0.920 U	0.950 U	0.930 U	0.950 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.960 U	0.950 U	0.920 U	0.950 U	0.930 U	0.950 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.960 U	0.950 U	0.920 U	0.950 U	0.930 U	0.950 U
Perfluorobutanesulfonic acid	600	0.960 U	0.950 U	0.920 U	0.950 U	0.930 U	0.950 U
Perfluorobutanoic acid (PFBA)		0.480 U	0.470 U	0.460 U	0.480 U	0.470 U	0.480 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		<b>4.30</b>	<b>4.50</b>	<b>5.90</b>	<b>5.30</b>	<b>4.80</b>	<b>4.20</b>
Perfluorododecanoic acid (PFDoA)		<b>0.760 J</b>	<b>1.00 J</b>	<b>1.60 J</b>	<b>1.10 J</b>	<b>1.70 J</b>	<b>0.960 J</b>
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanoic acid (PFHpA)		0.960 U	0.950 U	0.920 U	0.950 U	0.930 U	0.950 U
Perfluorohexane sulfonate (PFHxS)	39	0.960 U	0.950 U	0.920 U	0.950 U	0.930 U	0.950 U
Perfluorohexanoic acid (PFHxA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorononanoic acid (PFNA)	5.9	<b>0.900 J</b>	<b>0.930 J</b>	<b>1.30 J</b>	<b>1.90</b>	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.480 U	0.470 U	0.460 U	0.480 U	0.470 U	0.480 U
Perfluorotetradecanoic acid (PFTeDA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U	1.40 U	1.40 U	<b>0.970 J</b>	<b>0.940 J</b>	1.40 U
Perfluoroundecanoic acid (PFUnA)		<b>4.60</b>	<b>4.30</b>	<b>13.0</b>	<b>14.0</b>	<b>12.0</b>	<b>5.80</b>
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>



**PFAS Summary Report – Groundwater  
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	Location	C-7S	J2EW3-MW1-A	J2EW3-MW1-B	J2EW3-MW1-C	J2EW3-MW-2-A	J2EW3-MW-2-B
	Field Sample ID	C-7S_S22	J2EW3-MW1-A_S22	J2EW3-MW1-B_S22	J2EW3-MW1-C_S22	J2EW3-MW-2-A_S22	J2EW3-MW-2-B_S22
	Sampling Depth	199.00 - 239.00	145.66 - 155.66	210.66 - 220.66	245.66 - 255.66	151.16 - 161.16	216.16 - 226.16
	Sampling Date	01/12/2022	01/05/2022	01/05/2022	01/05/2022	01/06/2022	01/06/2022
	SDG	320838831	320837121	320837121	320837121	320836691	320836691
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.990 U	0.990 U	0.990 U	0.930 U	1.00 U	1.00 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.990 U	0.990 U	0.990 U	0.930 U	1.00 U	1.00 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.990 U	0.990 U	0.990 U	0.930 U	1.00 U	1.00 U
Perfluorobutanesulfonic acid	600	0.990 U	0.990 U	0.990 U	0.930 U	1.00 U	1.00 U
Perfluorobutanoic acid (PFBA)		0.490 U	0.490 U	0.490 U	0.460 U	0.500 U	0.510 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorodecanoic acid (PFDA)		<b>2.20</b>	0.990 U	0.990 U	0.930 U	1.00 U	1.00 U
Perfluorododecanoic acid (PFDoA)		<b>1.70 J</b>	0.990 U	0.990 U	0.930 U	1.00 U	1.00 U
Perfluoroheptanesulfonic acid (PFHpS)		1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		0.990 U	0.990 U	0.990 U	0.930 U	1.00 U	1.00 U
Perfluorohexane sulfonate (PFHxS)	39	0.990 U	0.990 U	0.990 U	0.930 U	1.00 U	1.00 U
Perfluorohexanoic acid (PFHxA)		1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorononanoic acid (PFNA)	5.9	1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)		1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.490 U	0.490 U	0.490 U	0.460 U	0.500 U	0.510 U
Perfluorotetradecanoic acid (PFTeDA)		1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorotridecanoic acid (PFTrDA)		1.50 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluoroundecanoic acid (PFUnA)		<b>13.0</b>	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

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	Location	J2EW3-MW-2-C	J2N-EFF-E	J2N-EFF-F	J2N-EFF-G	MW-130D	MW-18M1
	Field Sample ID	J2EW3-MW-2-C_S22	J2N-EFF-E_S22	J2N-EFF-F_S22	J2N-EFF-G_S22	MW-130D_S22	MW-18M1_S22
	Sampling Depth	251.13 - 261.13	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	320.00 - 330.00	171.00 - 176.00
	Sampling Date	01/06/2022	01/10/2022	01/10/2022	01/10/2022	12/29/2021	12/27/2021
	SDG	320836691	320838001	320838001	320838001	320835011	320834481
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.950 U	0.970 U	<b>1.20 J</b>	0.950 U	1.00 U	0.990 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.950 U	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.950 U	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluorobutanesulfonic acid	600	<b>1.30 J</b>	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluorobutanoic acid (PFBA)		<b>0.380 J</b>	0.490 U	<b>0.250 J</b>	<b>0.290 J</b>	0.510 U	0.500 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.950 U	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluorododecanoic acid (PFDoA)		0.950 U	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		0.950 U	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluorohexane sulfonate (PFHxS)	39	<b>1.20 J</b>	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluorohexanoic acid (PFHxA)		<b>1.70 J</b>	1.50 U	<b>1.00 J</b>	<b>1.60 J</b>	1.50 U	1.50 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U	1.50 U	1.40 U	1.40 U	<b>1.00 J</b>	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
Perfluoropentanoic acid (PFPeA)		<b>0.900 J</b>	0.490 U	<b>0.620 J</b>	<b>0.510 J</b>	0.510 U	0.500 U
Perfluorotetradecanoic acid (PFTeDA)		1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
Perfluorotridecanoic acid (PFTTrDA)		1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	Location	MW-18M2	MW-289M1	MW-293M1	MW-296M1	MW-296M2	MW-318M1
	Field Sample ID	MW-18M2_S22	MW-289M1_S22	MW-293M1_S22	MW-296M1_S22	MW-296M2_S22	MW-318M1_S22
	Sampling Depth	107.00 - 112.00	0.00 - 0.00	296.26 - 306.27	255.08 - 265.08	214.98 - 224.98	305.79 - 315.81
	Sampling Date	12/27/2021	12/22/2021	01/11/2022	01/10/2022	01/10/2022	12/22/2021
	SDG	320834481	320833751	320838001	320838001	320838001	320833751
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		1.00 U	0.970 U	0.960 U	0.940 U	0.930 U	<b>5.30</b>
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		1.00 U	0.970 U	0.960 U	0.940 U	0.930 U	0.950 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		1.00 U	0.970 U	<b>0.590 J</b>	0.940 U	0.930 U	0.950 U
Perfluorobutanesulfonic acid	600	1.00 U	0.970 U	0.960 U	0.940 U	0.930 U	0.950 U
Perfluorobutanoic acid (PFBA)		0.500 U	1.90 U	0.480 U	<b>0.310 J</b>	0.460 U	1.90 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		1.00 U	<b>2.00</b>	<b>14.0</b>	0.940 U	<b>1.20 J</b>	<b>3.50</b>
Perfluorododecanoic acid (PFDoA)		1.00 U	<b>1.10 J</b>	<b>1.30 J</b>	<b>0.780 J</b>	<b>0.490 J</b>	0.950 U
Perfluoroheptanesulfonic acid (PFHpS)		1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanoic acid (PFHpA)		1.00 U	0.970 U	0.960 U	0.940 U	0.930 U	0.950 U
Perfluorohexane sulfonate (PFHxS)	39	1.00 U	<b>0.700 J</b>	0.960 U	0.940 U	0.930 U	0.950 U
Perfluorohexanoic acid (PFHxA)		1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorononanoic acid (PFNA)	5.9	1.50 U	1.50 U	<b>20.0</b>	<b>0.570 J</b>	<b>1.10 J</b>	<b>1.70 J</b>
Perfluorooctanesulfonamide (PFOSA)		1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.500 U	0.490 U	0.480 U	0.470 U	0.460 U	0.480 U
Perfluorotetradecanoic acid (PFTeDA)		1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.50 U	1.50 U	<b>0.990 J</b>	1.40 U	1.40 U	1.40 U
Perfluoroundecanoic acid (PFUnA)		1.50 U	<b>10.0</b>	<b>15.0</b>	<b>3.20</b>	<b>1.20 J</b>	<b>6.50</b>
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	Location	MW-318M2	MW-318M2	MW-327M1	MW-327M2	MW-327M3	MW-330M1
	Field Sample ID	MW-318M2_S22	MW-318M2_S22D	MW-327M1_S22	MW-327M2_S22	MW-327M3_S22	MW-330M1_S22
	Sampling Depth	205.80 - 215.82	205.80 - 215.82	296.06 - 306.04	265.01 - 275.01	220.16 - 230.15	313.10 - 323.13
	Sampling Date	12/22/2021	12/22/2021	12/28/2021	12/28/2021	12/28/2021	12/16/2021
	SDG	320833751	320833751	320834481	320834481	320834481	320831661
	Sample Type	Normal	Field Duplicate	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.920 U	0.960 U	0.910 U	0.950 U	0.960 U	0.990 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.920 U	0.960 U	0.910 U	0.950 U	0.960 U	0.990 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.920 U	0.960 U	0.910 U	0.950 U	0.960 U	0.990 U
Perfluorobutanesulfonic acid	600	0.920 U	0.960 U	0.910 U	<b>0.450 J</b>	0.960 U	0.990 U
Perfluorobutanoic acid (PFBA)		1.80 U	1.90 U	0.460 U	<b>1.80 J</b>	0.480 U	<b>1.40 J</b>
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorodecanoic acid (PFDA)		<b>1.60 J</b>	<b>1.40 J</b>	<b>2.00</b>	<b>1.40 J</b>	<b>2.10</b>	<b>23.0</b>
Perfluorododecanoic acid (PFDoA)		0.920 U	0.960 U	<b>3.20</b>	<b>8.80</b>	<b>0.820 J</b>	<b>1.40 J</b>
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		0.920 U	0.960 U	0.910 U	<b>0.470 J</b>	0.960 U	<b>0.910 J</b>
Perfluorohexane sulfonate (PFHxS)	39	0.920 U	0.960 U	0.910 U	0.950 U	0.960 U	0.990 U
Perfluorohexanoic acid (PFHxA)		<b>1.30 J</b>	<b>1.20 J</b>	1.40 U	<b>0.560 J</b>	1.40 U	<b>0.680 J</b>
Perfluorononanoic acid (PFNA)	5.9	<b>0.560 J</b>	<b>0.630 J</b>	1.40 U	1.40 U	1.40 U	<b>4.20</b>
Perfluorooctanesulfonamide (PFOSA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluoropentanoic acid (PFPeA)		<b>1.10 J</b>	<b>1.00 J</b>	<b>0.240 J</b>	<b>0.900 J</b>	0.480 U	<b>1.70 J</b>
Perfluorotetradecanoic acid (PFTeDA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U	1.40 U	<b>0.650 J</b>	<b>1.70 J</b>	1.40 U	<b>0.880 J</b>
Perfluoroundecanoic acid (PFUnA)		<b>5.80</b>	<b>5.80</b>	<b>17.0</b>	<b>17.0</b>	<b>4.70</b>	<b>18.0</b>
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	Location	MW-330M1	MW-330M2	MW-330M3	MW-330M3	MW-337D	MW-337M1
	Field Sample ID	MW-330M1_S22D	MW-330M2_S22	MW-330M3_S22	MW-330M3_S22D	MW-337D_S22	MW-337M1_S22
	Sampling Depth	313.10 - 323.13	238.01 - 248.04	154.97 - 164.99	154.97 - 164.99	310.00 - 320.00	243.71 - 253.71
	Sampling Date	12/16/2021	12/16/2021	12/16/2021	12/16/2021	12/20/2021	12/20/2021
	SDG	320831661	320831661	320831661	320831661	320833421	320833421
	Sample Type	Field Duplicate	Normal	Normal	Field Duplicate	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.970 U	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.50 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.970 U	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.970 U	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
Perfluorobutanesulfonic acid	600	0.970 U	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
Perfluorobutanoic acid (PFBA)		<b>1.30 J</b>	<b>0.400 J</b>	<b>0.510 J</b>	0.490 U	2.10 U	2.10 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorodecanoic acid (PFDA)		<b>18.0</b>	<b>5.10</b>	<b>14.0</b>	<b>11.0</b>	<b>23.0</b>	<b>1.00 J</b>
Perfluorododecanoic acid (PFDoA)		<b>0.800 J</b>	<b>0.650 J</b>	<b>0.560 J</b>	0.980 U	<b>0.640 J</b>	1.00 U
Perfluoroheptanesulfonic acid (PFHpS)		1.50 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		<b>0.870 J</b>	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
Perfluorohexane sulfonate (PFHxS)	39	0.970 U	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
Perfluorohexanoic acid (PFHxA)		<b>0.580 J</b>	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorononanoic acid (PFNA)	5.9	<b>3.50</b>	<b>4.70</b>	<b>6.50</b>	<b>6.00</b>	<b>19.0</b>	<b>5.80</b>
Perfluorooctanesulfonamide (PFOSA)		1.50 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.50 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluoropentanoic acid (PFPeA)		<b>1.60 J</b>	<b>0.250 J</b>	0.500 U	0.490 U	0.520 U	0.510 U
Perfluorotetradecanoic acid (PFTeDA)		1.50 U	1.50 U	1.50 U	1.50 U	<b>0.530 J</b>	1.50 U
Perfluorotridecanoic acid (PFTrDA)		1.50 U	<b>0.820 J</b>	1.50 U	1.50 U	1.60 U	1.50 U
Perfluoroundecanoic acid (PFUnA)		<b>16.0</b>	<b>5.20</b>	<b>6.50</b>	<b>5.70</b>	<b>16.0</b>	<b>1.90 J</b>
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

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	Location	MW-340D	MW-340D	MW-345M1	MW-345M1	MW-48M1	MW-48M3
	Field Sample ID	MW-340D_S22	MW-340D_S22D	MW-345M1_S22	MW-345M1_S22D	MW-48M1_S22	MW-48M3_S22
	Sampling Depth	329.60 - 339.60	329.60 - 339.60	311.50 - 321.50	311.50 - 321.50	191.00 - 201.00	131.50 - 142.00
	Sampling Date	12/29/2021	12/29/2021	12/16/2021	12/16/2021	01/04/2022	01/04/2022
	SDG	320835011	320835011	320831661	320831661	320836321	320836321
	Sample Type	Normal	Field Duplicate	Normal	Field Duplicate	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		<b>6.50 J</b>	0.970 U	0.970 U	0.990 U	0.980 U	0.990 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		1.00 U	0.970 U	0.970 U	0.990 U	0.980 U	0.990 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		1.00 U	0.970 U	0.970 U	0.990 U	0.980 U	0.990 U
Perfluorobutanesulfonic acid	600	1.00 U	0.970 U	0.970 U	0.990 U	0.980 U	0.990 U
Perfluorobutanoic acid (PFBA)		<b>0.310 J</b>	0.490 U	<b>0.440 J</b>	<b>0.280 J</b>	0.490 U	0.490 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluorodecanoic acid (PFDA)		<b>13.0</b>	<b>14.0</b>	<b>21.0</b>	<b>28.0</b>	0.980 U	0.990 U
Perfluorododecanoic acid (PFDoA)		<b>0.830 J</b>	<b>0.990 J</b>	<b>0.960 J</b>	<b>1.70 J</b>	0.980 U	0.990 U
Perfluoroheptanesulfonic acid (PFHpS)		1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		1.00 U	0.970 U	0.970 U	0.990 U	0.980 U	0.990 U
Perfluorohexane sulfonate (PFHxS)	39	1.00 U	0.970 U	0.970 U	0.990 U	0.980 U	0.990 U
Perfluorohexanoic acid (PFHxA)		1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluorononanoic acid (PFNA)	5.9	<b>3.50</b>	<b>3.60</b>	<b>3.00</b>	<b>4.50</b>	1.50 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)		1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.500 U	0.490 U	0.490 U	0.490 U	0.490 U	0.490 U
Perfluorotetradecanoic acid (PFTeDA)		1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluorotridecanoic acid (PFTrDA)		1.50 U	1.50 U	1.50 U	<b>1.30 J</b>	1.50 U	1.50 U
Perfluoroundecanoic acid (PFUnA)		<b>19.0</b>	<b>20.0</b>	<b>20.0</b>	<b>23.0</b>	1.50 U	1.50 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	Location	MW-55D	MW-55M1	MW-55M2	MW-55M3	MW-619M1	MW-619M2
	Field Sample ID	MW-55D_S22	MW-55M1_S22	MW-55M2_S22	MW-55M3_S22	MW-619M1_S22	MW-619M2_S22
	Sampling Depth	255.00 - 265.00	225.00 - 235.00	195.00 - 205.00	164.50 - 174.00	255.10 - 265.10	234.10 - 244.10
	Sampling Date	12/21/2021	12/21/2021	12/21/2021	12/21/2021	12/20/2021	12/20/2021
	SDG	320833421	320833421	320833421	320833421	320833421	320833421
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.970 U	0.950 U	0.950 U	1.00 U	0.950 U	0.970 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.970 U	0.950 U	0.950 U	1.00 U	0.950 U	0.970 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.970 U	0.950 U	0.950 U	1.00 U	0.950 U	0.970 U
Perfluorobutanesulfonic acid	600	0.970 U	0.950 U	0.950 U	1.00 U	0.950 U	0.970 U
Perfluorobutanoic acid (PFBA)		1.90 U	1.90 U	1.90 U	2.00 U	1.90 U	1.90 U
Perfluorodecanesulfonic acid (PFDS)		1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.970 U	0.950 U	0.950 U	1.00 U	0.950 U	0.970 U
Perfluorododecanoic acid (PFDoA)		0.970 U	0.950 U	0.950 U	1.00 U	0.950 U	0.970 U
Perfluoroheptanesulfonic acid (PFHpS)		1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		0.970 U	0.950 U	0.950 U	1.00 U	0.950 U	0.970 U
Perfluorohexane sulfonate (PFHxS)	39	0.970 U	0.950 U	0.950 U	1.00 U	0.950 U	0.970 U
Perfluorohexanoic acid (PFHxA)		1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluorononanoic acid (PFNA)	5.9	1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)		<b>0.590 J</b>	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.480 U	0.480 U	0.470 U	0.500 U	0.480 U	0.480 U
Perfluorotetradecanoic acid (PFTeDA)		<b>0.620 J</b>	<b>0.540 J</b>	1.40 U	1.50 U	1.40 U	<b>0.620 J</b>
Perfluorotridecanoic acid (PFTTrDA)		1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluoroundecanoic acid (PFUnA)		1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	Location	MW-620M1	MW-634M1	MW-63D	MW-63M1	MW-63M2	MW-63M3
	Field Sample ID	MW-620M1_S22	MW-634M1_S22	MW-63D_S22	MW-63M1_S22	MW-63M2_S22	MW-63M3_S22
	Sampling Depth	268.60 - 278.60	305.60 - 315.60	375.00 - 380.00	244.00 - 254.00	214.00 - 224.00	182.00 - 192.00
	Sampling Date	12/20/2021	12/22/2021	12/15/2021	12/15/2021	12/15/2021	12/15/2021
	SDG	320833421	320833751	320831661	320831661	320831661	320831661
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.960 U	0.980 U	0.990 U	0.980 U	1.00 U	0.970 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.960 U	0.980 U	0.990 U	0.980 U	1.00 U	0.970 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.960 U	0.980 U	0.990 U	0.980 U	1.00 U	0.970 U
Perfluorobutanesulfonic acid	600	0.960 U	0.980 U	0.990 U	0.980 U	1.00 U	0.970 U
Perfluorobutanoic acid (PFBA)		0.480 U	2.00 U	2.00 U	0.490 U	<b>0.290 J</b>	0.490 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.960 U	0.980 U	0.990 U	0.980 U	<b>2.20</b>	0.970 U
Perfluorododecanoic acid (PFDoA)		0.960 U	0.980 U	0.990 U	0.980 U	1.00 U	0.970 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		0.960 U	0.980 U	0.990 U	0.980 U	1.00 U	0.970 U
Perfluorohexane sulfonate (PFHxS)	39	0.960 U	0.980 U	0.990 U	0.980 U	1.00 U	0.970 U
Perfluorohexanoic acid (PFHxA)		1.40 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.50 U	1.50 U	1.50 U	<b>1.20 J</b>	1.50 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U	1.50 U	<b>0.790 J</b>	<b>0.590 J</b>	1.60 U	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.480 U	0.490 U	0.490 U	0.490 U	0.520 U	0.490 U
Perfluorotetradecanoic acid (PFTeDA)		<b>0.610 J</b>	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorotridecanoic acid (PFTTrDA)		1.40 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.50 U	1.50 U	1.50 U	<b>1.40 J</b>	1.50 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.790</b>	<b>0.590</b>	<b>0.00</b>	<b>0.00</b>



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	<b>Location</b>	MW-63S
	<b>Field Sample ID</b>	MW-63S_S22
	<b>Sampling Depth</b>	153.00 - 163.00
	<b>Sampling Date</b>	12/15/2021
	<b>SDG</b>	320831661
	<b>Sample Type</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.950 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.950 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.950 U
Perfluorobutanesulfonic acid	600	0.950 U
Perfluorobutanoic acid (PFBA)		0.470 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U
Perfluorodecanoic acid (PFDA)		0.950 U
Perfluorododecanoic acid (PFDoA)		0.950 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U
Perfluoroheptanoic acid (PFHpA)		0.950 U
Perfluorohexane sulfonate (PFHxS)	39	0.950 U
Perfluorohexanoic acid (PFHxA)		1.40 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U
Perfluorooctanoic acid (PFOA)	6	1.40 U
Perfluoropentanoic acid (PFPeA)		0.470 U
Perfluorotetradecanoic acid (PFTeDA)		1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U
Perfluoroundecanoic acid (PFUnA)		1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	Location	C-4D	C-4D	C-4M	C-4S	C-7D	C-7M
	<b>Field Sample ID</b>	C-4D_S22	C-4D_S22D	C-4M_S22	C-4S_S22	C-7D_S22	C-7M_S22
	<b>Sampling Depth</b>	310.00 - 350.00	310.00 - 350.00	260.00 - 300.00	200.00 - 250.00	295.00 - 335.00	247.00 - 287.00
	<b>Sampling Date</b>	01/13/2022	01/13/2022	01/13/2022	01/13/2022	01/12/2022	01/12/2022
	<b>SDG</b>	320838831	320838831	320838831	320838831	320838831	320838831
	<b>Sample Type</b>	<b>Normal</b>	<b>Field Duplicate</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>4.30</b>	<b>4.50</b>	<b>5.90</b>	<b>7.20</b>	<b>4.80</b>	<b>4.20</b>
	<b>§Sum of All Compounds Detected</b>	<b>10.6</b>	<b>10.7</b>	<b>21.8</b>	<b>23.3</b>	<b>19.4</b>	<b>11.0</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	C-7S	J2EW3-MW1-A	J2EW3-MW1-B	J2EW3-MW1-C	J2EW3-MW-2-A	J2EW3-MW-2-B
	<b>Field Sample ID</b>	C-7S_S22	J2EW3-MW1-A_S22	J2EW3-MW1-B_S22	J2EW3-MW1-C_S22	J2EW3-MW-2-A_S22	J2EW3-MW-2-B_S22
	<b>Sampling Depth</b>	199.00 - 239.00	145.66 - 155.66	210.66 - 220.66	245.66 - 255.66	151.16 - 161.16	216.16 - 226.16
	<b>Sampling Date</b>	01/12/2022	01/05/2022	01/05/2022	01/05/2022	01/06/2022	01/06/2022
	<b>SDG</b>	320838831	320837121	320837121	320837121	320836691	320836691
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>2.20</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>16.9</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	J2EW3-MW-2-C	J2N-EFF-E	J2N-EFF-F	J2N-EFF-G	MW-130D	MW-18M1
	<b>Field Sample ID</b>	J2EW3-MW-2-C_S22	J2N-EFF-E_S22	J2N-EFF-F_S22	J2N-EFF-G_S22	MW-130D_S22	MW-18M1_S22
	<b>Sampling Depth</b>	251.13 - 261.13	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	320.00 - 330.00	171.00 - 176.00
	<b>Sampling Date</b>	01/06/2022	01/10/2022	01/10/2022	01/10/2022	12/29/2021	12/27/2021
	<b>SDG</b>	320836691	320838001	320838001	320838001	320835011	320834481
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>5.48</b>	<b>0.00</b>	<b>3.07</b>	<b>2.40</b>	<b>1.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-18M2	MW-289M1	MW-293M1	MW-296M1	MW-296M2	MW-318M1
	<b>Field Sample ID</b>	MW-18M2_S22	MW-289M1_S22	MW-293M1_S22	MW-296M1_S22	MW-296M2_S22	MW-318M1_S22
	<b>Sampling Depth</b>	107.00 - 112.00	0.00 - 0.00	296.26 - 306.27	255.08 - 265.08	214.98 - 224.98	305.79 - 315.81
	<b>Sampling Date</b>	12/27/2021	12/22/2021	01/11/2022	01/10/2022	01/10/2022	12/22/2021
	<b>SDG</b>	320834481	320833751	320838001	320838001	320838001	320833751
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>2.00</b>	<b>34.0</b>	<b>0.00</b>	<b>0.00</b>	<b>3.50</b>
	<b>§Sum of All Compounds Detected</b>	<b>0.00</b>	<b>13.8</b>	<b>51.9</b>	<b>4.86</b>	<b>3.99</b>	<b>17.0</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	MW-318M2	MW-318M2	MW-327M1	MW-327M2	MW-327M3	MW-330M1
	<b>Field Sample ID</b>	MW-318M2_S22	MW-318M2_S22D	MW-327M1_S22	MW-327M2_S22	MW-327M3_S22	MW-330M1_S22
	<b>Sampling Depth</b>	205.80 - 215.82	205.80 - 215.82	296.06 - 306.04	265.01 - 275.01	220.16 - 230.15	313.10 - 323.13
	<b>Sampling Date</b>	12/22/2021	12/22/2021	12/28/2021	12/28/2021	12/28/2021	12/16/2021
	<b>SDG</b>	320833751	320833751	320834481	320834481	320834481	320831661
	<b>Sample Type</b>	<b>Normal</b>	<b>Field Duplicate</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>2.00</b>	<b>0.00</b>	<b>2.10</b>	<b>27.2</b>
	<b>§Sum of All Compounds Detected</b>	<b>10.4</b>	<b>10.0</b>	<b>23.1</b>	<b>33.1</b>	<b>7.62</b>	<b>52.2</b>

**PFAS Summary Report – Groundwater  
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	Location	MW-330M1	MW-330M2	MW-330M3	MW-330M3	MW-337D	MW-337M1
	Field Sample ID	MW-330M1_S22D	MW-330M2_S22	MW-330M3_S22	MW-330M3_S22D	MW-337D_S22	MW-337M1_S22
	Sampling Depth	313.10 - 323.13	238.01 - 248.04	154.97 - 164.99	154.97 - 164.99	310.00 - 320.00	243.71 - 253.71
	Sampling Date	12/16/2021	12/16/2021	12/16/2021	12/16/2021	12/20/2021	12/20/2021
	SDG	320831661	320831661	320831661	320831661	320833421	320833421
	Sample Type	Field Duplicate	Normal	Normal	Field Duplicate	Normal	Normal
<b>PFAS 21 Cmps</b>	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	21.5	9.80	20.5	17.0	42.0	5.80
	§Sum of All Compounds Detected	42.7	17.1	28.1	22.7	59.2	8.70

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	MW-340D	MW-340D	MW-345M1	MW-345M1	MW-48M1	MW-48M3
	<b>Field Sample ID</b>	MW-340D_S22	MW-340D_S22D	MW-345M1_S22	MW-345M1_S22D	MW-48M1_S22	MW-48M3_S22
	<b>Sampling Depth</b>	329.60 - 339.60	329.60 - 339.60	311.50 - 321.50	311.50 - 321.50	191.00 - 201.00	131.50 - 142.00
	<b>Sampling Date</b>	12/29/2021	12/29/2021	12/16/2021	12/16/2021	01/04/2022	01/04/2022
	<b>SDG</b>	320835011	320835011	320831661	320831661	320836321	320836321
	<b>Sample Type</b>	<b>Normal</b>	<b>Field Duplicate</b>	<b>Normal</b>	<b>Field Duplicate</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>16.5</b>	<b>17.6</b>	<b>24.0</b>	<b>32.5</b>	<b>0.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>43.1</b>	<b>38.6</b>	<b>45.4</b>	<b>58.8</b>	<b>0.00</b>	<b>0.00</b>



**PFAS Summary Report – Groundwater  
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	<b>Location</b>	MW-55D	MW-55M1	MW-55M2	MW-55M3	MW-619M1	MW-619M2
	<b>Field Sample ID</b>	MW-55D_S22	MW-55M1_S22	MW-55M2_S22	MW-55M3_S22	MW-619M1_S22	MW-619M2_S22
	<b>Sampling Depth</b>	255.00 - 265.00	225.00 - 235.00	195.00 - 205.00	164.50 - 174.00	255.10 - 265.10	234.10 - 244.10
	<b>Sampling Date</b>	12/21/2021	12/21/2021	12/21/2021	12/21/2021	12/20/2021	12/20/2021
	<b>SDG</b>	320833421	320833421	320833421	320833421	320833421	320833421
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>1.21</b>	<b>0.540</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.620</b>

**PFAS Summary Report – Groundwater  
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	<b>Location</b>	MW-620M1	MW-634M1	MW-63D	MW-63M1	MW-63M2	MW-63M3
	<b>Field Sample ID</b>	MW-620M1_S22	MW-634M1_S22	MW-63D_S22	MW-63M1_S22	MW-63M2_S22	MW-63M3_S22
	<b>Sampling Depth</b>	268.60 - 278.60	305.60 - 315.60	375.00 - 380.00	244.00 - 254.00	214.00 - 224.00	182.00 - 192.00
	<b>Sampling Date</b>	12/20/2021	12/22/2021	12/15/2021	12/15/2021	12/15/2021	12/15/2021
	<b>SDG</b>	320833421	320833751	320831661	320831661	320831661	320831661
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2.20</b>	<b>0.00</b>
	<b>§Sum of All Compounds Detected</b>	<b>0.610</b>	<b>0.00</b>	<b>0.790</b>	<b>0.590</b>	<b>5.09</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
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	<b>Location</b>	MW-63S
	<b>Field Sample ID</b>	MW-63S_S22
	<b>Sampling Depth</b>	153.00 - 163.00
	<b>Sampling Date</b>	12/15/2021
	<b>SDG</b>	320831661
	<b>Sample Type</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)
<b>‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	
<b>§Sum of All Compounds Detected</b>	<b>0.00</b>	

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2022 J2 North PFAS Spring - J3 Range

		Location	MW-237S
		Field Sample ID	MW-237S_S22
		Sampling Depth	49.00 - 59.00
		Sampling Date	12/29/2021
		SDG	320835011
		Sample Type	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.990 U	
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.50 U	
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.990 U	
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.990 U	
Perfluorobutanesulfonic acid	600	0.990 U	
Perfluorobutanoic acid (PFBA)		0.500 U	
Perfluorodecanesulfonic acid (PFDS)		1.50 U	
Perfluorodecanoic acid (PFDA)		0.990 U	
Perfluorododecanoic acid (PFDoA)		0.990 U	
Perfluoroheptanesulfonic acid (PFHpS)		1.50 U	
Perfluoroheptanoic acid (PFHpA)		0.990 U	
Perfluorohexane sulfonate (PFHxS)	39	0.990 U	
Perfluorohexanoic acid (PFHxA)		1.50 U	
Perfluorononanoic acid (PFNA)	5.9	1.50 U	
Perfluorooctanesulfonamide (PFOSA)		1.50 U	
Perfluorooctanesulfonic acid (PFOS)	4	1.50 U	
Perfluorooctanoic acid (PFOA)	6	1.50 U	
Perfluoropentanoic acid (PFPeA)		0.500 U	
Perfluorotetradecanoic acid (PFTeDA)		1.50 U	
Perfluorotridecanoic acid (PFTrDA)		1.50 U	
Perfluoroundecanoic acid (PFUnA)		1.50 U	
<b>†PFOS + PFOA (EPA)</b>		<b>0.00</b>	
<b>*PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>		<b>0.00</b>	

**PFAS Summary Report – Groundwater  
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	<b>Location</b>	MW-237S
	<b>Field Sample ID</b>	MW-237S_S22
	<b>Sampling Depth</b>	49.00 - 59.00
	<b>Sampling Date</b>	12/29/2021
	<b>SDG</b>	320835011
	<b>Sample Type</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

KGS 2022 J2 North PFAS Spring - Lima Range

		Location	MW-236S
		Field Sample ID	MW-236S_S22
		Sampling Depth	96.00 - 106.00
		Sampling Date	01/11/2022
		SDG	320838001
		Sample Type	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.960 U	
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.960 U	
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.960 U	
Perfluorobutanesulfonic acid	600	0.960 U	
Perfluorobutanoic acid (PFBA)		<b>1.50 J</b>	
Perfluorodecanesulfonic acid (PFDS)		1.40 U	
Perfluorodecanoic acid (PFDA)		0.960 U	
Perfluorododecanoic acid (PFDoA)		0.960 U	
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	
Perfluoroheptanoic acid (PFHpA)		<b>1.20 J</b>	
Perfluorohexane sulfonate (PFHxS)	39	0.960 U	
Perfluorohexanoic acid (PFHxA)		<b>1.20 J</b>	
Perfluorononanoic acid (PFNA)	5.9	1.40 U	
Perfluorooctanesulfonamide (PFOSA)		1.40 U	
Perfluorooctanesulfonic acid (PFOS)	4	<b>2.30</b>	
Perfluorooctanoic acid (PFOA)	6	<b>1.30 J</b>	
Perfluoropentanoic acid (PFPeA)		<b>0.640 J</b>	
Perfluorotetradecanoic acid (PFTeDA)		1.40 U	
Perfluorotridecanoic acid (PFTTrDA)		1.40 U	
Perfluoroundecanoic acid (PFUnA)		1.40 U	
<b>†PFOS + PFOA (EPA)</b>		<b>3.60</b>	
<b>*PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>		<b>2.30</b>	

**PFAS Summary Report – Groundwater  
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	<b>Location</b>	MW-236S
	<b>Field Sample ID</b>	MW-236S_S22
	<b>Sampling Depth</b>	96.00 - 106.00
	<b>Sampling Date</b>	01/11/2022
	<b>SDG</b>	320838001
	<b>Sample Type</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>8.14</b>

**PFAS Summary Report – Groundwater  
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KGS 2022 J3 Range SPM Spring - J3 Range

	Location	J3-EFF	J3-EFF	J3-EFF	J3-EFF	J3-INF	J3-INF
	Field Sample ID	J3-EFF_1Q22	J3-EFF_2Q22	J3-EFF_3Q22	J3-EFF_4Q22	J3-INF_1Q22	J3-INF_2Q22
	Sampling Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
	Sampling Date	01/24/2022	04/28/2022	07/11/2022	10/11/2022	01/24/2022	04/28/2022
	SDG	320842111	320873411	320899771	320931731	320842111	320873411
	Sample Type	Normal	Normal	Normal	Normal	Normal	Normal
PFAS 21 Cmps	Screening Limit	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.940 U	0.960 U	0.930 U	0.940 U	0.950 U	0.960 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.940 U	0.960 U	0.930 U	0.940 U	0.950 U	0.960 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.940 U	0.960 U	0.930 U	0.940 U	0.950 U	0.960 U
Perfluorobutanesulfonic acid	600	0.940 U	0.960 U	0.930 U	0.940 U	0.950 U	0.960 U
Perfluorobutanoic acid (PFBA)		<b>0.240 J</b>	0.480 U	0.470 U	0.470 U	<b>0.250 J</b>	0.480 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)		0.940 U	0.960 U	0.930 U	0.940 U	0.950 U	0.960 U
Perfluorododecanoic acid (PFDoA)		0.940 U	0.960 U	0.930 U	0.940 U	0.950 U	0.960 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanoic acid (PFHpA)		0.940 U	0.960 U	0.930 U	0.940 U	0.950 U	0.960 U
Perfluorohexane sulfonate (PFHxS)	39	0.940 U	0.960 U	0.930 U	0.940 U	<b>1.10 J</b>	<b>0.480 J</b>
Perfluorohexanoic acid (PFHxA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)		0.470 U	0.480 U	0.470 U	0.470 U	0.470 U	0.480 U
Perfluorotetradecanoic acid (PFTeDA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>*PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>



**PFAS Summary Report – Groundwater  
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	Location	J3-INF	J3-INF
	<b>Field Sample ID</b>	J3-INF_3Q22	J3-INF_4Q22
	<b>Sampling Depth</b>	0.00 - 0.00	0.00 - 0.00
	<b>Sampling Date</b>	07/11/2022	10/11/2022
	<b>SDG</b>	320899771	320931731
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	<b>Results (ng/L)</b>	<b>Results (ng/L)</b>
6:2 Fluorotelomer sulfonate (6:2 FTS)		0.950 U	0.970 U
8:2 Fluorotelomer sulfonate (8:2 FTS)		1.40 U	1.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		0.950 U	0.970 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.950 U	0.970 U
Perfluorobutanesulfonic acid	600	0.950 U	0.970 U
Perfluorobutanoic acid (PFBA)		0.480 U	0.480 U
Perfluorodecanesulfonic acid (PFDS)		1.40 U	1.50 U
Perfluorodecanoic acid (PFDA)		0.950 U	0.970 U
Perfluorododecanoic acid (PFDoA)		0.950 U	0.970 U
Perfluoroheptanesulfonic acid (PFHpS)		1.40 U	1.50 U
Perfluoroheptanoic acid (PFHpA)		0.950 U	0.970 U
Perfluorohexane sulfonate (PFHxS)	39	<b>1.10 J</b>	<b>1.10 J</b>
Perfluorohexanoic acid (PFHxA)		1.40 U	1.50 U
Perfluorononanoic acid (PFNA)	5.9	1.40 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)		1.40 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	4	1.40 U	1.50 U
Perfluorooctanoic acid (PFOA)	6	1.40 U	1.50 U
Perfluoropentanoic acid (PFPeA)		0.480 U	0.480 U
Perfluorotetradecanoic acid (PFTeDA)		1.40 U	1.50 U
Perfluorotridecanoic acid (PFTrDA)		1.40 U	1.50 U
Perfluoroundecanoic acid (PFUnA)		1.40 U	1.50 U
	<b>†PFOS + PFOA (EPA)</b>	<b>0.00</b>	<b>0.00</b>
	<b>*PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)</b>	<b>0.00</b>	<b>0.00</b>

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	Location	J3-EFF	J3-EFF	J3-EFF	J3-EFF	J3-INF	J3-INF
	<b>Field Sample ID</b>	J3-EFF_1Q22	J3-EFF_2Q22	J3-EFF_3Q22	J3-EFF_4Q22	J3-INF_1Q22	J3-INF_2Q22
	<b>Sampling Depth</b>	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
	<b>Sampling Date</b>	01/24/2022	04/28/2022	07/11/2022	10/11/2022	01/24/2022	04/28/2022
	<b>SDG</b>	320842111	320873411	320899771	320931731	320842111	320873411
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>0.240</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.35</b>	<b>0.480</b>

**Notes:**

ng/L = nanograms per liter; ug/kg = micrograms per kilogram; U = not detected; J = estimated; UJ = estimated non detect

Non detects are calculated as zero in the summations.

**Bolded results indicate detections of PFAS**

**Bolded and highlighted results indicate detection of PFAS above the EPA Lifetime Health Advisory: PFOS + PFOA > 70 ng/L.**

**Bolded and highlighted results indicate detection of PFAS6 above the MassDEP MCL: PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA > 20 ng/L**

**Bolded and highlighted results indicate detection of PFAS above the 2022 May EPA Tapwater (THQ 0.1)**

† Lifetime Health Advisory, US Environmental Protection Agency, May 2016

The PFOS and PFOA summation includes all detections at and above the DL.

‡ PFAS Maximum Contaminant Level (MCL) Final Amendments ("MCL", 310 CMR 22.00 PFAS MCL Amendments), Massachusetts Department of Environmental Protection, October 2, 2020

The MassDEP PFAS summation includes all quantifiable results reported at and above the LOQ.

PFHxS represents the reported presence of Perfluorohexanesulfonic acid or Perfluorohexane sulfonate as reported for the project.

§ Sum of All Compounds Detected includes all detections at and above the DL.

**PFAS Summary Report – Groundwater  
Joint Base Cape Cod, IAGWSP**

	<b>Location</b>	J3-INF	J3-INF
	<b>Field Sample ID</b>	J3-INF_3Q22	J3-INF_4Q22
	<b>Sampling Depth</b>	0.00 - 0.00	0.00 - 0.00
	<b>Sampling Date</b>	07/11/2022	10/11/2022
	<b>SDG</b>	320899771	320931731
	<b>Sample Type</b>	<b>Normal</b>	<b>Normal</b>
<b>PFAS 21 Cmps</b>	<b>Screening Limit</b>	Results (ng/L)	Results (ng/L)
	<b>§Sum of All Compounds Detected</b>	<b>1.10</b>	<b>1.10</b>