

**MONTHLY PROGRESS REPORT #305  
FOR AUGUST 2022**

**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 1 to 31 August 2022.

**1. SUMMARY OF REMEDIATION ACTIONS**

**Remediation Actions (RA) Underway at Camp Edwards as of 26 August 2022:**

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 2.941 billion gallons of water treated and re-injected as of 26 August 2022. The following Frank Perkins Road Treatment Facility shutdowns occurred in August.

- 0110 on 10 August 2022 due to a power interruption and was restarted at 0720 on 10 August 2022.
- 1707 on 23 August 2022 due to variable frequency drive (VFD) faults associated with a power interruption and was restarted at 0825 on 24 August 2022.

The Base Boundary MTU continues to operate at a flow rate of 65 gpm. As of 26 August 2022, over 341.7 million gallons of water were treated and re-injected. The following Base Boundary MTU shutdowns occurred in August.

- 0811 on 24 August 2022 to install a new VFD and was restarted at 1102 on 24 August 2022.

The Leading Edge system continues to operate at a flow rate of 100 gpm. As of 26 August 2022, over 315.5 million gallons of water were treated and re-injected. No Leading Edge system shutdowns occurred in August.

The Pew Road Mobile Treatment Unit (MTU) was turned off with regulatory approval on 8 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 26 August 2022, over 1.990 billion gallons of water have been treated and re-injected. The following MTU E and F shutdowns occurred in August.

- 0955 on 16 August 2022 to install a new VFD and was restarted at 0930 on 18 August 2022.

The Northern Treatment Building G continues to operate at a flow rate of 225 gpm. As of 26 August 2022, over 1.512 billion gallons of water have been treated and re-injected. No Northern MTU G shutdowns occurred in August.

### 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 26 August 2022, over 1.630 billion gallons of water have been treated and re-injected. The following MTU H and I shutdowns occurred in August.

- 0740 on 15 August 2022 to install a new VFD and was restarted at 1000 on 17 August 2022.

MTU J continues to operate at a flow rate of 120 gpm. As of 26 August 2022, over 760.6 million gallons of water have been treated and re-injected. No MTU J shutdowns occurred in August.

MTU K continues to operate at a flow rate of 125 gpm. As of 26 August 2022, over 883.5 million gallons of water have been treated and re-injected. No MTU K shutdowns occurred in August.

### 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 26 August 2022, over 1.640 billion gallons of water have been treated and re-injected. The following J-3 Range system shutdowns occurred in August.

- 1557 on 4 August 2022 due to FS-12 being off and was restarted at 0734 on 5 August 2022.

- 1557 on 8 August 2022 due to FS-12 being off for energy curtailment and was restarted at 0750 on 9 August 2022.
- 1556 on 9 August 2022 due to FS-12 being off for energy curtailment and was restarted at 0817 on 10 August 2022.
- 0920 on 22 August 2022 due to FS-12 being off and was restarted at 1145 on 22 August 2022.
- 1420 on 22 August 2022 due to a power loss and was restarted at 0655 on 23 August 2022.

### 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 125 gpm. As of 26 August 2022, over 739.5 million gallons of water have been treated and re-injected. The following J-1 Range Southern system shutdowns occurred in August.

- 1708 on 23 August 2022 due to a VFD fault and was restarted at 1115 on 24 August 2022.

#### 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 26 August 2022, over 1.130 billion gallons of water have been treated and re-injected. No J-1 Range Northern MTU shutdowns occurred in August.

### 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 26 August 2022, over 2.949 billion gallons of water have been treated and re-injected. The following CIA system shutdowns occurred in August.

- 1000 on 11 August 2022 to perform a carbon exchange and was restarted at 0745 on 12 August 2022.
- 1707 on 23 August 2022 due to a VFD fault and was restarted at 0905 on 24 August 2022.

## 2. SUMMARY OF ACTIONS TAKEN

### Operable Unit (OU) Activity as of 26 August 2022:

#### CIA

- Intrusive investigations
- Cued data collection
- Routine processing of MD
- Routine check of CSS cover

#### Demolition Area 1

- No activity

#### Demolition Area 2

- No activity

#### J-1 Range

- No activity

#### J-2 Range

- Groundwater sampling within J-2 East SPM
- Hydraulic groundwater monitoring within J-2 East SPM

#### J-3 Range

- Groundwater sampling within J-3 Range SPM
- PFAS sampling within SPM
- Bag filters exchanged.

#### L Range

- No activity

#### Small Arms Ranges

- No activity

#### Northwest Corner

- No activity

#### Training Areas

- Inspected staged soil at H Range

#### 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

**JBCC Impact Area Groundwater Study Program (IAGWSP) Tech Update Meeting Minutes for 11 August 2022**General Update

A discussion was held on recent staffing and workload changes. IAGWSP noted that since several key team members retired earlier this year, and some responsibilities have shifted to cover the work. Specifically, Darrin Smith had picked up all of Jay Ehret's duties and Ben Gregson's workload has been split between several people at IAGWSP and USACE. The Mass Guard has hired Ms. Jodi Cutler to replace Ben, and she will begin on 12 September 2022. Ms. Cutler comes highly recommended and currently runs the private drinking water testing program out of the University of Massachusetts for MassDEP. Before that, she spent time as a private environmental consulting contractor and worked at MassDEP for ten years. She previously worked on the General Electric site in Pittsfield, MA with Bryan Olsen. Her number one priority when she starts will be PFAS. It was also noted that Dr. Ken Heim has retired and that USACE has shifted his work within current team members. IAGWSP will continually review the document and workload schedule and provide updates to the team at technical meeting should any deliverables slip.

Project and Fieldwork Update

On 26 August, the groundwater sampling crews completed the three Demolition Area 1 system performance monitoring (SPM) wells where trees needed to be removed. The J-2 Range Eastern hydraulic sampling event was completed on 9 August. Sampling at the J-3 Range system performance monitoring (SPM) wells started on 17 August and will continue for the next three to four weeks. Once those are completed, crews will move to the J-2 Range Eastern SPM (Fall) wells. There are 63 locations, and it is anticipated to take three to four weeks to complete. All groundwater treatment systems are currently operating a normal flow rates. The monthly process water samples were collected from the systems from 1-9 August. Sampling for PFAS (Post-IX) was performed at the J-2 North MTU F and the J-3 system on 8 August. The J-1 North extraction well 2 was redeveloped between 25-29 August for maintenance to maintain efficient capture. CIA 1 showed RDX (0.26 ug/L) breakthrough on 5 August mid sample with change out scheduled for today, 11 August 2022.

Notable system shutdowns since last tech meeting include: J-1 North was down for approximately 45 hours on 23-25 August due to a tripped variable frequency drive (VFD) fault alarm. It was down again for approximately 76 hours on 26-29 August for the redevelopment of extraction well 2. The J-3 system was down over several days during 4-9 August due to FS-12 being off for energy conservation starting 4 August. CIA-1 is currently off to drain the vessels for GAC changeout today. The updated Explosives Safety Submission (ESS) for offsite disposal of the ~50 CY of soil staged at H Range was approved on 8 August; currently waiting on contractor mobilization. The improvement of Turpentine Road from the southern CIA boundary to north of the CIA Consolidated Shot Structure (CSS) was completed on 28 August. The improvement of Barlow Road from Jefferson Road to Gibbs Road is pending UXO clearance by Dawson. The preliminary perchlorate and explosives sampling results for all CIA blow in place (BIP) cover material samples were non-detect (ND). The CIA CSS waste characterization preliminary sample results from material removed within and around CSS structure indicate the material will be appropriate for disposal in Massachusetts non-hazardous landfills.

In the CIA, there has been annual training, so there is no field activity for this week. As of last week, Weston has three Metal Mappers that are continuing to collect queued data in SU-7 and SU-10. There are three dig teams continuing to do the polygons at SU3-2, SU-11, and SU-9. Field activities will resume next week once training has completed.

It was noted that it was published in *The Enterprise* that the IAGWSP was on the Town of Sandwich Board of Selectmen agenda for the request for a right of entry to install a monitoring well on Checkerberry Lane. IAGWSP explained that while they had been on the agenda, they were removed at the last minute, after the notice was published in the paper. IAGWSP and USACE Real Estate office determined that it would be prudent to seek an easement rather than a right-of-entry, which would save a step in the process. USACE Real Estate is currently researching the road ownership and drafting paperwork. IAGWSP will reschedule with the town once the documents are ready.

### Action Items

The action items were discussed and updated.

### EPA PFAS Information Request Discussion

Discussion was held on EPA's most recent request for information regarding PFAS and the status of IAGWSP's response. For background, IAGWSP noted that since receiving the first letter from EPA in April, IAGWSP has participated in weekly meetings with the National Guard Bureau (NGB), the Army, and the Office of the Secretary of Defense to respond to the requests for information on PFAS. IAGWSP explained that part of the issue with responding quickly is that IAGWSP does not have access to the Army's Munitions Items Disposition Action System (MIDAS) database but are currently working with the head of the Army for munitions to try to either get access or find someone who can perform some of the information searches requested by EPA. IAGWSP asked EPA how they determined the keywords required for the searches. EPA mentioned that some keywords came out of Textron activities noted in the IAGWSP administrative record and others known to contain PFAS. IAGWSP noted that while a response would be provided by the 15 August deadline, it would most likely be requesting an extension to provide the required information. EPA asked that IAGWSP provide specific dates when the material will be delivered in the response.

## **JBCC Impact Area Groundwater Study Program (IAGWSP) Tech Update Meeting Minutes for 25 August 2022**

### Project and Fieldwork Update

The KGS groundwater sampling crew is currently sampling the J-2 East annual system performance monitoring (SPM) wells. That should be completed by the first full week of September. They will move to the J-2 North SPM wells, which should take through the end of September to complete. All the treatment plants are currently operating at normal flow rates. Notable system shutdowns since the last tech meeting were: J-2 East units H&I were shut off on 15 August for a VFD installation/upgrade, J-2 East unit E was shut off on 16 August to begin VFD installation/upgrade (using the unit from H&I), J-3 was off from 23-24 August due to power interruption associated with a storm, and J-1 South, CIA-2, and Demolition Area 1 Frank Perkins Road systems were all off from 23-24 August due to VFD faults. The updated ESS for offsite disposal of the ~50 CY of soil staged at H Range was approved on 8 August. IAGWSP is

waiting on contractor mobilization, and KGS is hoping to dispose of the soil before Labor Day. MassDEP noted that the KD Range project note needed to be finalized as soon as possible and IAGWSP agreed. IAGWSP will prepare a project note to explain the protocol followed when using cover soil for individual BIPs. The improvement of Barlow Rd from Jefferson to Gibbs (3,750 LF) is pending UXO clearance by Dawson.

In the CIA, DGM, AGC, and all Phase IV Area 2 survey units except for SU6 (40%) are done. While they currently have three Metal Mappers available, only one is continuing to collect queued data in SU-6. There are four dig teams, and a fifth team is mobilizing to the site next week. They began the 100% verification investigation at grid 53-54 and are starting with the TOIs then will move to DGM digs.

IAGWSP reviewed the status on the new Demolition Area 1 well that was intended to reduce the cleanup time and explained that the project is currently on hold. It was noted that while a new well was initially discussed in 2020, it took some time to scope and design it. By the time that process was completed, and cost estimates were developed, it came back above the Military Construction (MILCON) threshold. IAGWSP noted they initially thought the project would come in lower than that and be able to be executed with end of the year money. While it is considered a "Minor MILCON" project, it is still a long process. In addition to this complication, the lease for the property with the off-base extraction well will expire in 2025. IAGWSP reminded the group that when the program negotiated the lease with the private landowners, at the last minute they refused to sign anything longer than a ten-year lease. Because of these two issues, IAGWSP plans to redevelop the Demolition Area 1 plume shell this year to determine the best path forward with the resources available.

MassDEP asked how much lead time would be needed to renegotiate with the landowner and noted that based on current data and trends, there was a possibility that by 2025 the off base well would not be needed, and it could be shut down. IAGWSP noted that they were discussing that internally and determining if that system could potentially be moved and reused. EPA asked if a larger and wider plume boundary would be expected at the base boundary if this additional extraction well wasn't installed. USACE explained that the new extraction well would have been right on the border of the current capture zone for the base boundary system. All the model simulations still show that no contamination would be coming off base. The purpose of the new extraction well was to capture contamination at a deeper well (MW-663) that was migrating and to cut it off, so it didn't have to travel to the base boundary to be captured. This new extraction well was intended to reduce the time of cleanup, and the well would have guaranteed capture of this part of the plume, which, even if not captured, would not migrate off base.

### PFAS

Discussion was held on the next steps for the J-2 Northern PFAS investigation, specifically the sequencing of the proposed new wells. IAGWSP noted that a couple of parallel well fences are being discussed, and IAGWSP recommends completing the Gibbs Road well fence before moving to the downgradient locations. It was noted that there were PFAS6 exceedances in six wells in the vicinity of Gibbs Road, so it seems more prudent to complete the investigation in that area to best locate the next well fence. MassDEP noted they agree with the approach to start where there is known contamination and learn from there. They are concerned with the vertical distribution of the contamination at Gibbs Road.

EPA asked which wells in the capture zone for Upper Cape Water Supply Well 2 had exceedances. It was explained that only MW-340D had both PFAS6 and risk screening level (RSL) exceedances, but currently there are no exceedances (in the latest sample.) EPA noted that they felt that exceedances within the capture zone should be prioritized. IAGWSP said they are anxious to prioritize the sequencing of the wells whereas EPA asked that the workplan be finalized to describe the next steps. IAGWSP explained that because there is such a long lead time needed to mobilize the drill rig (six to eight weeks) they thought it was prudent to get agreement on locations. It was also noted that there is a lag in the turnaround time for laboratories because of the number of PFAS samples being processed. EPA asked for a site walk to the wells next week, so they can look at the landscape and the well locations. A meeting was scheduled for Tuesday, 30 August 2022.

### **JBCC Cleanup Team Meeting**

The next JBCC Cleanup Team (JBCCCT) is tentatively scheduled for 7 December 2022 (previous meeting was 3 August 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 1 to 31 August 2022. Table 2 summarizes the validated detections of explosives compounds and perchlorate for all groundwater results received from 1 to 31 August 2022. 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 1 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. 304 for July 2022 10 August 2022
- Final Technical Memorandum: J-2 Range Eastern Perchlorate and RDX Plume Shell Development 2 August 2022
- Draft Five-Year Review 2017-2021 3 August 2022



- Final Technical Memorandum: J-2 Range Northern Perchlorate Plume Shell Development 3 August 2022
- Response to Comments on the Draft Work Plan: J-2 Range Northern PFAS Evaluation 3 August 2022
- Response to Comments on the Draft Remedial Investigation Uniform Federal Policy - Quality Assurance Project Plan - Addendum 1 Supplemental Remedial Investigation for Otis Gun Club Munitions Response Area 8 August 2022
- Final Project Note: Demolition Area 2 Optimized Chemical Monitoring Network 22 August 2022
- Response to Comments on the Draft Demolition Area 2 2022 Environmental Monitoring Report 24 August 2022
- Memorandum of Resolution on the Draft J-2 Range Eastern 2021 Environmental Monitoring Report 24 August 2022
- Memorandum of Resolution on the Draft J-2 Range Northern 2021 Environmental Monitoring Report 24 August 2022

## 5. SCHEDULED ACTIONS

The following actions and/or documents are being prepared in August 2022.

- Small Arms Ranges Annual Environmental Monitoring Report Work Plan Addendum
- Draft Final Central Impact Area 2021 Source Removal Annual Report
- Draft Final Central Impact Area 2022 Source Quality Assurance Project Plan Update
- J-3 Range Additional PFAS Sampling Technical Memorandum
- Memorandum of Resolution on the Draft Demolition Area 2 2022 Environmental Monitoring Report
- Memorandum of Resolution on the Draft J-2 Range Northern 2021 Environmental Monitoring Report
- Response to Comments on the Draft Work Plan: J-2 Range Northern PFAS Evaluation
- Memorandum of Resolution on the Northwest Corner Demonstration of Compliance Report
- Response to Comments on the J-2 Range, Phase-2, Addendum to the Post-DD Confirmation Geophysical and Soil Investigation Findings Revised Technical Memorandum
- Former E Range Completion of Work Report
- Former KD Range Completion of Work Report
- Five Year Review Report

**TABLE 1**  
**Sampling Progress: 1 to 31 August 2022**

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
J2 Range Eastern	MW-709S	MW-709S_F22	N	08-30-2022	Ground Water	106.2	116.2
J2 Range Eastern	MW-321M2	MW-321M2_F22	N	08-30-2022	Ground Water	155.67	165.67
J2 Range Eastern	MW-321M1	MW-321M1_F22	N	08-30-2022	Ground Water	174.61	184.61
J2 Range Eastern	MW-335M2	MW-335M2_F22	N	08-30-2022	Ground Water	215.25	225.25
J2 Range Eastern	MW-335M1	MW-335M1_F22	N	08-30-2022	Ground Water	255.2	265.2
J2 Range Eastern	J2MW-01M2	J2MW-01M2_F22	N	08-29-2022	Ground Water	245	255
J2 Range Eastern	J2MW-01M1	J2MW-01M1_F22	N	08-29-2022	Ground Water	275	285
J2 Range Eastern	MW-170M2	MW-170M2_F22	N	08-29-2022	Ground Water	198	208
J2 Range Eastern	MW-170M1	MW-170M1_F22	N	08-29-2022	Ground Water	265	275
J2 Range Eastern	MW-215M2	MW-215M2_F22	N	08-29-2022	Ground Water	205	215
J2 Range Eastern	MW-215M2	MW-215M2_F22D	FD	08-29-2022	Ground Water	205	215
J2 Range Eastern	MW-215M1	MW-215M1_F22	N	08-29-2022	Ground Water	240	250
J2 Range Eastern	MW-319M2	MW-319M2_F22	N	08-25-2022	Ground Water	165.17	175.17
J2 Range Eastern	MW-319M1	MW-319M1_F22	N	08-25-2022	Ground Water	200.25	210.25
J2 Range Eastern	MW-627M1	MW-627M1_F22	N	08-25-2022	Ground Water	269.5	279.5
J2 Range Eastern	MW-57D	MW-57D_F22	N	08-25-2022	Ground Water	213	223
J2 Range Eastern	MW-334M1	MW-334M1_F22	MS	08-25-2022	Ground Water	0	0
J2 Range Eastern	MW-334M1	MW-334M1_F22	N	08-25-2022	Ground Water	0	0
J2 Range Eastern	MW-334M1	MW-334M1_F22	SD	08-25-2022	Ground Water	0	0
J2 Range Eastern	MW-372M1	MW-372M1_F22	N	08-24-2022	Ground Water	0	0
J2 Range Eastern	MW-357M1	MW-357M1_F22	N	08-24-2022	Ground Water	0	0
J2 Range Eastern	MW-436M1	MW-436M1_F22	N	08-24-2022	Ground Water	295.47	305.47
J2 Range Eastern	MW-351M2	MW-351M2_F22	N	08-24-2022	Ground Water	233.67	243.67
J2 Range Eastern	MW-351M1	MW-351M1_F22	N	08-24-2022	Ground Water	278.64	288.64
J2 Range Eastern	J2MW-04M2	J2MW-04M2_F22	N	08-23-2022	Ground Water	210	220
J2 Range Eastern	J2MW-04M1	J2MW-04M1_F22	N	08-23-2022	Ground Water	257	267
J2 Range Eastern	MW-393M2	MW-393M2_F22	N	08-23-2022	Ground Water	0	0
J2 Range Eastern	MW-393M1	MW-393M1_F22	N	08-23-2022	Ground Water	0	0
J2 Range Eastern	MW-393D	MW-393D_F22	N	08-23-2022	Ground Water	0	0
J2 Range Eastern	MW-685M1	MW-685M1_F22	N	08-18-2022	Ground Water	166.2	176.2
J2 Range Eastern	MW-705M2	MW-705M2_F22	N	08-18-2022	Ground Water	185.9	195.9
J2 Range Eastern	MW-705M1	MW-705M1_F22	N	08-18-2022	Ground Water	209.7	219.7
J2 Range Eastern	J2MW-05M2	J2MW-05M2_F22	MS	08-18-2022	Ground Water	185	195
J2 Range Eastern	J2MW-05M2	J2MW-05M2_F22	N	08-18-2022	Ground Water	185	195
J2 Range Eastern	J2MW-05M2	J2MW-05M2_F22	SD	08-18-2022	Ground Water	185	195
J2 Range Eastern	J2MW-05M1	J2MW-05M1_F22	N	08-18-2022	Ground Water	225	235
J2 Range Eastern	MW-339M2	MW-339M2_F22	N	08-17-2022	Ground Water	0	0
J2 Range Eastern	MW-339M1	MW-339M1_F22	N	08-17-2022	Ground Water	0	0
J2 Range Eastern	MW-666M3	MW-666M3_F22	N	08-17-2022	Ground Water	199.8	209.8
J2 Range Eastern	MW-666M2	MW-666M2_F22	N	08-17-2022	Ground Water	219.8	229.8
J2 Range Eastern	MW-666M1	MW-666M1_F22	N	08-17-2022	Ground Water	244.8	254.8
J2 Range Eastern	MW-366M2	MW-366M2_F22	N	08-16-2022	Ground Water	0	0
J2 Range Eastern	MW-366M1	MW-366M1_F22	N	08-16-2022	Ground Water	0	0
J2 Range Eastern	MW-368M3	MW-368M3_F22	N	08-16-2022	Ground Water	0	0
J2 Range Eastern	MW-368M2	MW-368M2_F22	N	08-16-2022	Ground Water	0	0
J2 Range Eastern	MW-368M1	MW-368M1_F22	N	08-16-2022	Ground Water	0	0
J2 Range Eastern	MW-368M1	MW-368M1_F22D	FD	08-16-2022	Ground Water	0	0
J2 Range Eastern	MW-668M1	MW-668M1_F22	N	08-15-2022	Ground Water	168.7	178.7
J2 Range Eastern	MW-668M1	MW-668M1_F22D	FD	08-15-2022	Ground Water	168.7	178.7
J2 Range Eastern	MW-665M3	MW-665M3_F22	N	08-15-2022	Ground Water	175.2	185.2
J2 Range Eastern	MW-665M2	MW-665M2_F22	N	08-15-2022	Ground Water	205.2	215.2
J2 Range Eastern	MW-665M2	MW-665M2_F22D	FD	08-15-2022	Ground Water	205.2	215.2
J2 Range Eastern	MW-665M1	MW-665M1_F22	N	08-15-2022	Ground Water	225.2	235.2
J2 Range Eastern	MW-310M1	MW-310M1_F22	N	08-11-2022	Ground Water	0	0
J3 Range	MW-197M3	MW-197M3_F22	N	08-11-2022	Ground Water	60.2	65.2
J3 Range	MW-197M2	MW-197M2_F22	N	08-11-2022	Ground Water	80.2	85.2
J3 Range	MW-197M2	MW-197M2_F22D	FD	08-11-2022	Ground Water	80.2	85.2
J3 Range	MW-197M1	MW-197M1_F22	N	08-11-2022	Ground Water	120	125
J3 Range	SP3-91M	SP3-91M_F22	N	08-10-2022	Ground Water	0	0

N = Normal Sample  
FD = Field Duplicate

**TABLE 1**  
**Sampling Progress: 1 to 31 August 2022**

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
J3 Range	MW-218M3	MW-218M3_F22	N	08-10-2022	Ground Water	78	83
J3 Range	LKSNK0006	LKSNK0006_F22	N	08-10-2022	Ground Water	0	0
J3 Range	LKSNK0007	LKSNK0007_F22	N	08-10-2022	Ground Water	0	0
J3 Range	LKSNK0005	LKSNK0005_F22	N	08-10-2022	Ground Water	0	0
Demolition Area 1	FPR-2-EFF-A	FPR-2-EFF-A-197A	N	08-09-2022	Process Water	0	0
Demolition Area 1	FPR-2-GAC-MID1A	FPR-2-GAC-MID1A-197A	N	08-09-2022	Process Water	0	0
Demolition Area 1	FPR2-POST-IX-A	FPR2-POST-IX-A-197A	N	08-09-2022	Process Water	0	0
Demolition Area 1	FPR-2-INF	FPR-2-INF-197A	N	08-09-2022	Process Water	0	0
Demolition Area 1	D1LE-EFF	D1LE-EFF-73A	N	08-09-2022	Process Water	0	0
Demolition Area 1	D1LE-MID2	D1LE-MID2-73A	N	08-09-2022	Process Water	0	0
Demolition Area 1	D1LE-MID1	D1LE-MID1-73A	N	08-09-2022	Process Water	0	0
Demolition Area 1	D1LE-INF	D1LE-INF-73A	N	08-09-2022	Process Water	0	0
Demolition Area 1	D1-EFF	D1-EFF-145A	N	08-09-2022	Process Water	0	0
Demolition Area 1	D1-MID-2	D1-MID-2-145A	N	08-09-2022	Process Water	0	0
Demolition Area 1	D1-MID-1	D1-MID-1-145A	N	08-09-2022	Process Water	0	0
Demolition Area 1	D1-INF	D1-INF-145A	N	08-09-2022	Process Water	0	0
J3 Range	MW-343M2	MW-343M2_F22	MS	08-08-2022	Ground Water	0	0
J3 Range	MW-343M2	MW-343M2_F22	N	08-08-2022	Ground Water	0	0
J3 Range	MW-343M2	MW-343M2_F22	SD	08-08-2022	Ground Water	0	0
J3 Range	MW-343M1	MW-343M1_F22	N	08-08-2022	Ground Water	0	0
J3 Range	J3-EFF	J3-EFF-191A	N	08-08-2022	Process Water	0	0
J3 Range	J3-MID-2	J3-MID-2-191A	N	08-08-2022	Process Water	0	0
J3 Range	J3-MID-1	J3-MID-1-191A	N	08-08-2022	Process Water	0	0
J3 Range	J3-INF	J3-INF-191A	N	08-08-2022	Process Water	0	0
J1 Range Southern	J1S-EFF	J1S-EFF-177A	N	08-08-2022	Process Water	0	0
J1 Range Southern	J1S-MID	J1S-MID-177A	N	08-08-2022	Process Water	0	0
J1 Range Southern	J1S-INF-2	J1S-INF-2-177A	N	08-08-2022	Process Water	0	0
J2 Range Northern	J2N-MID-1F	J2N-MID-1F-P01	N	08-08-2022	Ground Water	0	0
J3 Range	J3-MID-1	J3-MID-1-P01	N	08-08-2022	Ground Water	0	0
J3 Range	MW-576M3	MW-576M3_F22	N	08-04-2022	Ground Water	98.9	108.9
J3 Range	MW-576M2	MW-576M2_F22	N	08-04-2022	Ground Water	133.9	143.9
J3 Range	MW-576M1	MW-576M1_F22	N	08-04-2022	Ground Water	173.9	183.9
J3 Range	90MW0104C	90MW0104C_F22	N	08-04-2022	Ground Water	0	0
J3 Range	90MW0104B	90MW0104B_F22	N	08-04-2022	Ground Water	0	0
J2 Range Northern	J2N-EFF-G	J2N-EFF-G-191A	N	08-03-2022	Process Water	0	0
J2 Range Northern	J2N-MID-2G	J2N-MID-2G-191A	N	08-03-2022	Process Water	0	0
J2 Range Northern	J2N-MID-1G	J2N-MID-1G-191A	N	08-03-2022	Process Water	0	0
J2 Range Northern	J2N-INF-G	J2N-INF-G-191A	N	08-03-2022	Process Water	0	0
J3 Range	MW-163S	MW-163S_F22	N	08-03-2022	Ground Water	38	48
J3 Range	MW-163S	MW-163S_F22D	FD	08-03-2022	Ground Water	38	48
J3 Range	J3EWIP1	J3EWIP1_F22	N	08-03-2022	Ground Water	153	193
J2 Range Northern	J2N-EFF-EF	J2N-EFF-EF-191A	N	08-03-2022	Process Water	0	0
J2 Range Northern	J2N-MID-2F	J2N-MID-2F-191A	N	08-03-2022	Process Water	0	0
J2 Range Northern	J2N-MID-1F	J2N-MID-1F-191A	N	08-03-2022	Process Water	0	0
J2 Range Northern	J2N-INF-EF	J2N-INF-EF-191A	N	08-03-2022	Process Water	0	0
J3 Range	90MP0059B	90MP0059B_F22	N	08-03-2022	Ground Water	0	0
J2 Range Northern	J2N-MID-2E	J2N-MID-2E-191A	N	08-03-2022	Process Water	0	0
J2 Range Northern	J2N-MID-1E	J2N-MID-1E-191A	N	08-03-2022	Process Water	0	0
J1 Range Northern	J1N-EFF	J1N-EFF-106A	N	08-03-2022	Process Water	0	0
J1 Range Northern	J1N-MID2	J1N-MID2-106A	N	08-03-2022	Process Water	0	0
J1 Range Northern	J1N-MID1	J1N-MID1-106A	N	08-03-2022	Process Water	0	0
J1 Range Northern	J1N-INF2	J1N-INF2-106A	N	08-03-2022	Process Water	0	0
J3 Range	J3EW0032	J3EW0032_F22	N	08-03-2022	Ground Water	102	152
J3 Range	90EW0001	90EW0001_F22	N	08-03-2022	Ground Water	0	0
J3 Range	MW-193S	MW-193S_F22	N	08-02-2022	Ground Water	32.5	37.5
Central Impact Area	CIA2-EFF	CIA2-EFF-103A	N	08-02-2022	Process Water	0	0
Central Impact Area	CIA2-MID2	CIA2-MID2-103A	N	08-02-2022	Process Water	0	0
Central Impact Area	CIA2-MID1	CIA2-MID1-103A	N	08-02-2022	Process Water	0	0
J3 Range	MW-193M1	MW-193M1_F22	N	08-02-2022	Ground Water	57.5	62.5

N = Normal Sample  
FD = Field Duplicate

**TABLE 1**  
**Sampling Progress: 1 to 31 August 2022**

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	CIA2-INF	CIA2-INF-103A	N	08-02-2022	Process Water	0	0
J3 Range	MW-243M2	MW-243M2_F22	N	08-02-2022	Ground Water	84.5	94.5
Central Impact Area	CIA1-EFF	CIA1-EFF-103A	N	08-02-2022	Process Water	0	0
Central Impact Area	CIA1-MID2	CIA1-MID2-103A	N	08-02-2022	Process Water	0	0
Central Impact Area	CIA1-MID1	CIA1-MID1-103A	N	08-02-2022	Process Water	0	0
Central Impact Area	CIA1-INF	CIA1-INF-103A	N	08-02-2022	Process Water	0	0
J3 Range	MW-243M1	MW-243M1_F22	N	08-02-2022	Ground Water	114.5	124.5
Central Impact Area	CIA3-EFF	CIA3-EFF-74A	N	08-02-2022	Process Water	0	0
J3 Range	MW-359M2	MW-359M2_F22	N	08-02-2022	Ground Water	148.62	158.62
Central Impact Area	CIA3-MID2	CIA3-MID2-74A	N	08-02-2022	Process Water	0	0
Central Impact Area	CIA3-MID1	CIA3-MID1-74A	N	08-02-2022	Process Water	0	0
Central Impact Area	CIA3-INF	CIA3-INF-74A	N	08-02-2022	Process Water	0	0
J2 Range Eastern	J2E-EFF-K	J2E-EFF-K-167A	N	08-01-2022	Process Water	0	0
J2 Range Eastern	J2E-MID-2K	J2E-MID-2K-167A	N	08-01-2022	Process Water	0	0
J2 Range Eastern	J2E-MID-1K	J2E-MID-1K-167A	N	08-01-2022	Process Water	0	0
J2 Range Eastern	J2E-INF-K	J2E-INF-K-167A	N	08-01-2022	Process Water	0	0
J3 Range	MW-198M4	MW-198M4_F22	N	08-01-2022	Ground Water	70	75
J2 Range Eastern	J2E-EFF-J	J2E-EFF-J-167A	N	08-01-2022	Process Water	0	0
J2 Range Eastern	J2E-MID-2J	J2E-MID-2J-167A	N	08-01-2022	Process Water	0	0
J2 Range Eastern	J2E-MID-1J	J2E-MID-1J-167A	N	08-01-2022	Process Water	0	0
J3 Range	MW-198M3	MW-198M3_F22	MS	08-01-2022	Ground Water	100	105
J3 Range	MW-198M3	MW-198M3_F22	N	08-01-2022	Ground Water	100	105
J3 Range	MW-198M3	MW-198M3_F22	SD	08-01-2022	Ground Water	100	105
J2 Range Eastern	J2E-INF-J	J2E-INF-J-167A	N	08-01-2022	Process Water	0	0
J3 Range	MW-198M2	MW-198M2_F22	N	08-01-2022	Ground Water	120	125
J2 Range Eastern	J2E-EFF-IH	J2E-EFF-IH-167A	N	08-01-2022	Process Water	0	0
J2 Range Eastern	J2E-MID-2H	J2E-MID-2H-167A	N	08-01-2022	Process Water	0	0
J3 Range	MW-198M1	MW-198M1_F22	N	08-01-2022	Ground Water	150	155
J2 Range Eastern	J2E-MID-1H	J2E-MID-1H-167A	N	08-01-2022	Process Water	0	0
J2 Range Eastern	J2E-MID-2I	J2E-MID-2I-167A	N	08-01-2022	Process Water	0	0
J2 Range Eastern	J2E-MID-1I	J2E-MID-1I-167A	N	08-01-2022	Process Water	0	0
J2 Range Eastern	J2E-INF-I	J2E-INF-I-167A	N	08-01-2022	Process Water	0	0

**TABLE 2  
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS  
Data Received August 2022**

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
Demolition Area 1	MW-582M2	MW-582M2_S22	84	94	07-21-2022	SW6850	Perchlorate	0.20		µg/L	2.0		0.058	0.20
Demolition Area 1	MW-582M1	MW-582M1_S22	134	144	07-21-2022	SW6850	Perchlorate	0.50		µg/L	2.0		0.058	0.20
Lima Range	MW-242M1	MW-242M1_F22	235	245	07-13-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.17	J	µg/L	0.60		0.037	0.20
Lima Range	MW-651M1	MW-651M1_F22	242.3	252.3	07-13-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.90		µg/L	0.60	X	0.037	0.20
Lima Range	MW-595M1	MW-595M1_F22	255.3	265.3	07-11-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.41		µg/L	0.60		0.037	0.20
Lima Range	MW-595M1	MW-595M1_F22D	255.3	265.3	07-11-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.46		µg/L	0.60		0.037	0.20
J1 Range Northern	MW-303M2	MW-303M2_S22	235.09	245.1	07-07-2022	SW6850	Perchlorate	0.095	J	µg/L	2.0		0.058	0.20
J1 Range Northern	MW-303M2	MW-303M2_S22	235.09	245.1	07-07-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	5.2		µg/L	0.60	X	0.037	0.20
J1 Range Northern	MW-303M2	MW-303M2_S22	235.09	245.1	07-07-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2.7		µg/L	400		0.11	0.20
J1 Range Northern	MW-245M2	MW-245M2_S22	204	214	07-07-2022	SW6850	Perchlorate	12.0		µg/L	2.0	X	0.058	0.20
J1 Range Northern	MW-245M2	MW-245M2_S22	204	214	07-07-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	21.0		µg/L	0.60	X	0.19	1.0
J1 Range Northern	MW-245M2	MW-245M2_S22	204	214	07-07-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	4.9		µg/L	400		0.11	0.20
J1 Range Northern	MW-245M2	MW-245M2_S22D	204	214	07-07-2022	SW6850	Perchlorate	11.0		µg/L	2.0	X	0.058	0.20
J1 Range Northern	MW-245M2	MW-245M2_S22D	204	214	07-07-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	21.0		µg/L	0.60	X	0.19	1.0
J1 Range Northern	MW-245M2	MW-245M2_S22D	204	214	07-07-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	4.9		µg/L	400		0.11	0.20
J1 Range Northern	MW-430M2	MW-430M2_S22	188.41	198.41	07-07-2022	SW6850	Perchlorate	0.16	J	µg/L	2.0		0.058	0.20
J1 Range Northern	MW-430M1	MW-430M1_S22	245.23	255.23	07-07-2022	SW6850	Perchlorate	0.059	J	µg/L	2.0		0.058	0.20
J1 Range Northern	MW-590M2	MW-590M2_S22	238	248	07-06-2022	SW6850	Perchlorate	1.7		µg/L	2.0		0.058	0.20
J1 Range Northern	MW-590M2	MW-590M2_S22D	238	248	07-06-2022	SW6850	Perchlorate	1.6		µg/L	2.0		0.058	0.20
J1 Range Northern	MW-584M1	MW-584M1_S22	248	258	07-06-2022	SW6850	Perchlorate	1.8		µg/L	2.0		0.058	0.20
J1 Range Northern	MW-689M1	MW-689M1_S22	253.5	263.5	07-05-2022	SW6850	Perchlorate	0.37		µg/L	2.0		0.058	0.20
J1 Range Northern	MW-606M1	MW-606M1_S22	233.3	243.3	06-30-2022	SW6850	Perchlorate	0.46		µg/L	2.0		0.058	0.20
J1 Range Northern	MW-549M1	MW-549M1_S22	227.4	237.4	06-29-2022	SW6850	Perchlorate	2.8		µg/L	2.0	X	0.058	0.20
J1 Range Northern	MW-549M1	MW-549M1_S22	227.4	237.4	06-29-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.043	J	µg/L	0.60		0.037	0.20
J1 Range Northern	MW-567M1	MW-567M1_S22	215.5	225.5	06-29-2022	SW6850	Perchlorate	0.83		µg/L	2.0		0.058	0.20
J1 Range Northern	MW-566M1	MW-566M1_S22	232	242	06-28-2022	SW6850	Perchlorate	1.0		µg/L	2.0		0.086	0.20
J1 Range Northern	MW-547M1	MW-547M1_S22	237	247	06-28-2022	SW6850	Perchlorate	3.6		µg/L	2.0	X	0.086	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_PFA19	J1N-INF2_PFA19R	MW-136S_PFA19	MW-564M1_PFA19	MW-590M2_PFA19
	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  
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	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  
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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	<b>0.880 J</b>	<b>0.730 J</b>
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>

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	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  
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	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>

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	<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  
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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>

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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 (PFTrDA)		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>

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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  
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	<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  
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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  
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	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  
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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)
<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  
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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 (PFTTrDA)		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>

**PFAS Summary Report – Groundwater  
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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>

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

	<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>

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

	<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>

**PFAS Summary Report – Groundwater  
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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>

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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>

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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>

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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>

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	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>



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	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 (PFTTrDA)		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  
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	<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  
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	<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  
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	<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  
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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 (PFTrDA)		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  
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	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 (PFTTrDA)		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  
Joint Base Cape Cod, IAGWSP**

	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	0.00 - 0.00	0.00 - 0.00
	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  
Joint Base Cape Cod, IAGWSP**

	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	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	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  
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	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	0.00 - 0.00	0.00 - 0.00
	<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>	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	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	0.00 - 0.00	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>

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

	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>

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

	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>

**PFAS Summary Report – Groundwater  
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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 (PFTrDA)		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>

**PFAS Summary Report – Groundwater  
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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>

**PFAS Summary Report – Groundwater  
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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  
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	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  
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	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>	0.00 - 0.00	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**

	<b>Location</b>	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  
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	<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 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  
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	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  
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	<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  
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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	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	01/13/2022	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	0.00 - 0.00	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	<b>Normal</b>	<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)	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 (PFTTrDA)		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	<b>Normal</b>	<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)	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	0.00 - 0.00	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 (PFTTrDA)		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	0.00 - 0.00	0.00 - 0.00
	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 (PFTTrDA)		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>

**PFAS Summary Report – Groundwater  
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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	0.00 - 0.00	0.00 - 0.00	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 (PFTTrDA)		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>	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>	01/13/2022	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>	0.00 - 0.00	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	0.00 - 0.00	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  
Joint Base Cape Cod, IAGWSP**

	Location	MW-330M1	MW-330M2	MW-330M3	MW-330M3	MW-337D	MW-337M1
	<b>Field Sample ID</b>	MW-330M1_S22D	MW-330M2_S22	MW-330M3_S22	MW-330M3_S22D	MW-337D_S22	MW-337M1_S22
	<b>Sampling Depth</b>	313.10 - 323.13	238.01 - 248.04	154.97 - 164.99	154.97 - 164.99	0.00 - 0.00	0.00 - 0.00
	<b>Sampling Date</b>	12/16/2021	12/16/2021	12/16/2021	12/16/2021	12/20/2021	12/20/2021
	<b>SDG</b>	320831661	320831661	320831661	320831661	320833421	320833421
	<b>Sample Type</b>	<b>Field Duplicate</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>21.5</b>	<b>9.80</b>	<b>20.5</b>	<b>17.0</b>	<b>42.0</b>	<b>5.80</b>
	<b>§Sum of All Compounds Detected</b>	<b>42.7</b>	<b>17.1</b>	<b>28.1</b>	<b>22.7</b>	<b>59.2</b>	<b>8.70</b>

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

	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	0.00 - 0.00	0.00 - 0.00	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)
	#PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	16.5	17.6	24.0	32.5	0.00	0.00
	§Sum of All Compounds Detected	43.1	38.6	45.4	58.8	0.00	0.00

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

	<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  
Joint Base Cape Cod, IAGWSP**

	<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  
Joint Base Cape Cod, IAGWSP**

	<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  
Joint Base Cape Cod, IAGWSP**

	<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 (PFTrDA)		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  
Joint Base Cape Cod, IAGWSP**

	<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  
Joint Base Cape Cod, IAGWSP**

KGS 2022 J3 Range SPM Spring - J3 Range

	Location	J3-EFF	J3-EFF	J3-EFF	J3-INF	J3-INF	J3-INF
	Field Sample ID	J3-EFF_1Q22	J3-EFF_2Q22	J3-EFF_3Q22	J3-INF_1Q22	J3-INF_2Q22	J3-INF_3Q22
	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	01/24/2022	04/28/2022	07/11/2022
	SDG	320842111	320873411	320899771	320842111	320873411	320899771
	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	0.950 U	0.960 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)		0.940 U	0.960 U	0.930 U	0.950 U	0.960 U	0.950 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		0.940 U	0.960 U	0.930 U	0.950 U	0.960 U	0.950 U
Perfluorobutanesulfonic acid	600	0.940 U	0.960 U	0.930 U	0.950 U	0.960 U	0.950 U
Perfluorobutanoic acid (PFBA)		<b>0.240 J</b>	0.480 U	0.470 U	<b>0.250 J</b>	0.480 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)		0.940 U	0.960 U	0.930 U	0.950 U	0.960 U	0.950 U
Perfluorododecanoic acid (PFDoA)		0.940 U	0.960 U	0.930 U	0.950 U	0.960 U	0.950 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	0.950 U	0.960 U	0.950 U
Perfluorohexane sulfonate (PFHxS)	39	0.940 U	0.960 U	0.930 U	<b>1.10 J</b>	<b>0.480 J</b>	<b>1.10 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	0.480 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  
Joint Base Cape Cod, IAGWSP**

	Location	J3-EFF	J3-EFF	J3-EFF	J3-INF	J3-INF	J3-INF
	<b>Field Sample ID</b>	J3-EFF_1Q22	J3-EFF_2Q22	J3-EFF_3Q22	J3-INF_1Q22	J3-INF_2Q22	J3-INF_3Q22
	<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	01/24/2022	04/28/2022	07/11/2022
	<b>SDG</b>	320842111	320873411	320899771	320842111	320873411	320899771
	<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>1.35</b>	<b>0.480</b>	<b>1.10</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.

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