MONTHLY PROGRESS REPORT #302
FOR MAY 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 May 2022.

1. SUMMARY OF REMEDIATION ACTIONS

Remediation Actions (RA) Underway at Camp Edwards as of 27 May 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 2.918 billion gallons of water treated and re-injected as of 27 May 2022. The following Frank Perkins Road Treatment Facility shutdowns occurred in May.

- 1806 on 2 May 2022 due to a power interruption and was restarted at 0730 on 3 May 2022.

The Base Boundary MTU continues to operate at a flow rate of 65 gpm. As of 27 May 2022, over 333.1 million gallons of water were treated and re-injected. The following Base Boundary MTU shutdowns occurred in May.

- 0920 on 17 May 2022 to replace a camlock fitting on the lead GAC vessel and was restarted at 1253 on 17 May 2022.

The Leading Edge system continues to operate at a flow rate of 100 gpm. As of 27 May 2022, over 302.4 million gallons of water were treated and re-injected. The following Leading Edge system shutdowns occurred in May.

- 1130 on 11 May 2022 to replace a leaking ball valve on the influent sample port and was restarted at 1217 on 11 May 2022.
- 1734 on 27 May 2022 due to a power interruption and was restarted at 1151 on 31 May 2022.

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

J-2 Range Groundwater RA

Northern Plant

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

The Northern MTUs E and F continue to operate at a flow rate of 250 gpm. As of 27 May 2022, over 1.957 billion gallons of water have been treated and re-injected. The following MTU E and F shutdowns occurred in May.

- 1250 on 13 May 2022 due to a power interruption and was restarted at 1310 on 13 May 2022.
- 1729 on 28 May 2022 due to a power interruption and was restarted at 0934 on 31 May 2022.

The Northern Treatment Building G continues to operate at a flow rate of 225 gpm. As of 27 May 2022, over 1.482 billion gallons of water have been treated and re-injected. No Northern MTU G shutdowns occurred in May.

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 27 May 2022, over 1.597 billion gallons of water have been treated and re-injected. No MTU H and I shutdowns occurred in May.

MTU J continues to operate at a flow rate of 120 gpm. As of 27 May 2022, over 744.9 million gallons of water have been treated and re-injected. The following MTU J shutdowns occurred in May.

- 1250 on 13 May 2022 due to a power interruption and was restarted at 1340 on 13 May 2022.

MTU K continues to operate at a flow rate of 125 gpm. As of 27 May 2022, over 867.1 million gallons of water have been treated and re-injected. No MTU K shutdowns occurred in May.

<u>J-3 Range Groundwater RA</u>

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 195 gpm while EW-IP2 is inactive during maintenance. As of 27 May 2022, over 1.607 billion gallons of water have been treated and re-injected. The following J-3 Range system shutdowns occurred in May.

- 1250 on 13 May 2022 due to a power interruption and was restarted at 1400 on 13 May 2022.
- 1700 on 23 May 2022 to replace a bad fiber optic cable and was restarted at 0930 on 24 May 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 27 May 2022, over 723.1 million gallons of water have been treated and re-injected. The following J-1 Range Southern system shutdowns occurred in May.

- 0905 on 9 May 2022 to allow for sample collection and was restarted at 1000 on 9 May 2022.
- 1250 on 13 May 2022 due to a power interruption and was restarted at 1420 on 13 May 2022.
- 0905 on 27 May 2022 to reconfigure the lead and guard GAC vessels and was restarted at 1000 on 27 May 2022.
- 0524 on 30 May 2022 due to a “Floor Sump High” alarm due to a cracked GAC vessel lid requiring replacement and was restarted at 0908 on 31 May 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 27 May 2022, over 1.097 billion gallons of water have been treated and re-injected. The following J-1 Range Northern MTU shutdowns occurred in May.

- 1250 on 13 May 2022 due to a power interruption and was restarted at 1320 on 13 May 2022.

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 27 May 2022, over 2.850 billion gallons of water have been treated and re-injected. The following CIA system shutdowns occurred in May.

- 1732 on 28 May 2022 due to a power interruption and was restarted at 1035 on 31 May 2022.

2. SUMMARY OF ACTIONS TAKEN

Operable Unit (OU) Activity as of 27 May 2022:

CIA

- QC Seeding
- BIP demolition operations
- Intrusive investigations
- Surface and vegetation clearance
- Routine processing of MD
- Routine check of CSS cover

Demolition Area 1

- Groundwater sampling within Demo 1 SPM
- Hydraulic monitoring within Demo 1 SPM

Demolition Area 2

- Groundwater sampling within Demo 2 LTM

J-1 Range

- Groundwater sampling within J-1 South SPM

J-2 Range

- Bag filters exchanged.

J-3 Range

- Groundwater sampling within J-3 SPM

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
- Hydraulic monitoring of CO-OP wells (WS-2)

JBCC Impact Area Groundwater Study Program (IAGWSP) Tech Update Meeting Minutes for 12 May 2022

Project and Fieldwork Update

The groundwater sampling crews are currently sampling the Demolition Area 2 wells. Sampling should take approximately six days and then crews will move to Demolition Area 1. That work will take about a month to complete. Since the last tech meeting, crews finished sampling the J-3 treatment plant influent and effluent monitoring wells for PFAS, and the Central Impact Area (CIA) and J-1 South system performance monitoring. All the treatment systems are currently up and running at normal flow rates except for the J-3 system. The J-3 system is running at a reduced capacity of 195 gallons per minute because J3EWIP2 is offline. The pump and the motor of that extraction well need to be replaced. They are waiting for the parts to come in. Treatment system process water samples were collected 4 May through 10 May. The disposal of the 50 cubic yards of soil currently staged at H Range is still pending. USACE Huntsville District is in the process of reviewing the updated Explosives Safety Submission (ESS). Once everyone has signed off on it, disposal will be scheduled.

In the CIA, Weston continues to operate with between three and four teams. They are performing intrusive operations in Phase IV Area 1 priority 2 grids (SU3-2 and SU4), which are carryovers from last year's 15 acres. There were 4,100 digs remaining to include 700 verification grids in the 100% grid, which is grid 48-35. Of the 4,100 digs, crews are about 35% completed. They conducted blow in place (BIP) demolition operations last week, will continue through next week, and will finish demolitions with consolidated shot operations after BIPs are complete.

Action Items

The action items were discussed and updated.

Small Arms Range Groundwater Monitoring Presentation

A presentation was provided on the Small Arms Ranges (SAR) groundwater monitoring program for the reporting period of March 2021 through March 2022, which included one annual sampling round. No post-source removal activities were conducted during the reporting period. Source removal activities and site restoration were completed in October 2019.

No new wells were installed in the SAR operable unit since the GA/GB wells were installed in 2017. There are 16 wells included in the program, 15 of which were sampled; MW-538M1 was dry and could not be sampled. There were two detections of tungsten at MW-72S of 1.5 µg/L and MW-490S of 0.7 µg/L. Everything else was non-detect (ND) in metals except for an estimated antimony detection at MW-470S of 0.28 µg/L.

Metals have been below cleanup levels or non-detect since 2010. The Decision Document has no timeline for remedy completion for the SAR. Camp Edwards is managing land use control (LUC) infrastructure and must approve all subsurface digging. Dig Safe is another added layer of protection for monitoring wells and other environmental sampling equipment. Camp Edwards' Range Control has also implemented range safety measures and ensures training activities are not conducted outside of approved dig sites without authorization.

Going forward, LUCs will be maintained and IAGWSP is recommending that the long-term groundwater sampling frequency be reduced from an annual to a five-year basis. The annual report is currently being reviewed by EPA and MassDEP.

L Range Annual Environmental Monitoring Report Presentation

A presentation was provided on the L Range Annual Environmental Monitoring Report. It was noted that during the reporting period (March 2021 to February 2022), new work included PFAS sampling at MW- 236S as part of the J-2 Northern PFAS investigation. Results showed 2.3 ng/L of PFAS6 (MMCL=20.0 ng/L) and 3.6 ng/L of PFOS + PFOA (EPA Lifetime Health Advisory [HA]=70.0 ng/L). The July 2021 semi-annual event included MW-242M1, MW-595M1/M2, MW-596M1, and MW-651M1. RDX was detected in one sample above the risk-based concentration (RBC) of 0.6 µg/L. The maximum detected concentration was 1.57 µg/L (MW-595M1). RDX concentrations at MW-242M1, located along the base boundary, continue to be below the RBC and reporting limit of 0.2 µg/L since July 2019. The February 2022 annual event included 11 wells. RDX was detected in three samples above the RBC and one above the EPA regional screening level (RSL) of 0.97 µg/L. The maximum detected concentration was 0.99 µg/L at MW-651M1. The RDX concentrations at the base boundary continued to be below the reporting limit of 0.2 µg/L. It was noted that RDX at well MW-595M1 declined from 1.57 µg/L in July 2021 to 0.65 µg/L in February 2022. Well MW-596M1, which bounds the RDX plumes to the south of the eastern lobe, was either below the reporting limit (RL) or ND during the reporting limit. Well MW-650M1 increased from 0.29 µg/L in January 2021 to 0.9 µg/L in February 2022, consistent with the model depicting the plume migration.

Comparisons to Decision Document criteria were discussed. Based on the updated plume shell, RDX is predicted to be below the RBC (0.6 µg/L) by 2031 and below background levels (0.25 µg/L) by 2053. The model estimates ninety percent of the RDX mass will have attenuated below 0.25 µg/L by 2040, consistent with the Decision Document. The remaining 10% (less than 1.4 grams) will take an additional 13 years to attenuate as it migrates through the relatively low hydraulic conductivity materials. The Decision Document predicted that RDX would attenuate below the 2 µg/L health advisory by 2013, the RBC level by 2027, and reporting limits by 2040.

IAGWSP is recommending that the three wells sampled on a biennial frequency, MW-529M1, MW-530S and MW-153M1, be removed from the chemical monitoring program and that MW-595M2 be reduced to biennial.

The rationale for the removal is that MW-529M1 is a source area well that has been sampled 14 times since March 2010 and, since January 2016, has been sampled on a biennial basis. This well has never detected the presence of RDX.

MW-530S is also a source area well that has been sampled 14 times since March 2010 and, since January 2016, has been sampled on a biennial basis. This well detected the presence of RDX in a single sample collected in October 2010 at 0.25 µg/L and has been ND since.

MW-153S is located downgradient of the source area and has been sampled 32 times since March 2001. RDX was detected at its maximum concentration of 9.2 µg/L in March 2001 and continued above the 2 µg/L HA through March 2008. MW-153S was last detected above the RBC in February 2010 (1.07 µg/L). RDX has been ND in this well since March 2012.

MW-595M2 is collocated with MW-595M1 but screened shallower in the aquifer. This well has been sampled 19 times since August 2013 and has never detected the presence of RDX. As RDX is present in MW-595M1 above the RBC, it is recommended that the sample frequency be reduced from semi-annual to biennial. EPA and MassDEP comments on the report are pending.

JBCC Impact Area Groundwater Study Program (IAGWSP) Tech Update Meeting Minutes for 26 May 2022

J-2 and J-3 Range Revised Draft Workplan for PFAS

Discussion was held on the status of the revised draft PFAS workplans, which are due to the agencies no later than 31 May. For the J-2 Range, IAGWSP noted they are on schedule to get the workplan submitted by the end of the month and all comments had been addressed. Responses to comments, as well as a revised workplan, will be submitted. IAGWSP explained that they were successful in locating three of the four hydraulic monitoring wells that were installed as part of the permitting of the water supply well. IAGWSP received permission from the Upper Cape Water Supply Cooperative to open the wells, which appear to be clean. The wells had been welded shut but have been reopened and secured with lockable caps. IAGWSP will be able to go ahead and sample them. IAGWSP suggests that the profile borings along Wood Road described in the workplan should be the first wells installed. For J-3 Range, the workplan is ready to be submitted and could be delivered before the 31 May deadline. Like with the J-2 Range, all comments have been addressed.

EPA reminded the group that revised regional screening levels are being published that could lower the PFAS level to six nanograms per liter and will need to be considered. IAGWSP noted that the Secretary of Defense's office within the Department of Defense (DoD) has been working to change the policy within DoD to ensure the numbers being used by DoD were the same as the newly published EPA values. EPA asked that as soon as J-3 influent and effluent PFAS results are available, they be submitted to the group. IAGWSP noted that they are also working on EPA's PFAS information request letter, and it will be submitted on 31 May.

Project and Fieldwork Update

The groundwater sampling crews completed the Demolition Area 2 wells on 16 May and completed the Demolition Area 1 synoptic wells yesterday, 25 May 2022. Crews are currently sampling the Demolition Area 1 system performance monitoring wells, which should take approximately 26 days. After that, they will move to J-1 Northern long-term monitoring wells. Also on the schedule is Snake Pond surface water sampling for next week. The pump and motor for J-3 extraction well J3EWIP2 have not arrived yet, so the well is still offline. The treatment plant is running at a reduced capacity of 195 gallons per minute. It is expected to be repaired next week.

The disposal of the 50 cubic yards of soil currently staged at H Range is still pending approval of the updated ESS. Once everyone has signed off on it, disposal will be scheduled. EPA asked

why it had been delayed for so long. USACE explained that the ESS needed to be updated by the Huntsville District and it had been overtaken by other projects. Huntsville is working on the ESS now, and it should be approved soon.

In the Central Impact Area (CIA), Weston is going to begin shots next week. They will be done in 150 item increments, with a total of approximately 400 items. Weston is performing digs in Phase IV, Area 1 priority 2 grids. They are 28% complete in SU3-2, 58% complete in SU4, and they have completed the 100% grids. The presentation on the results will be provided at the tech meeting on 30 June.

Action Items

The action items were discussed and updated.

JBCC Cleanup Team Meeting

The next JBCC Cleanup Team (JBCCCT) is tentatively scheduled for 27 July 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 May 2022. Table 2 summarizes the validated detections of explosives compounds and perchlorate for all groundwater results received from 1 to 31 May 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.

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. 301 for April 2022	10 May 2022
• Response to Comments on the Draft J-2 Range Eastern 2021 Environmental Monitoring Report	3 May 2022
• Demolition Area 1 Draft Technical Memorandum: D1-EW-533 System Startup Monitoring Plan	4 May 2022
• Central Impact Area Final Technical Memorandum: RDX Plume Shell Development	5 May 2022
• Demolition Area 1 Final Technical Memorandum: Groundwater Extraction System Well Field Design – MW-533	5 May 2022
• L Range Draft 2022 Environmental Monitoring Report	11 May 2022
• Small Arms Ranges Draft 2022 Environmental Monitoring Report	11 May 2022
• Response to Comments on the Draft Technical Memorandum: Discontinuation of Northwest Corner Perchlorate Groundwater Monitoring	13 May 2022
• Response to Comments on the Draft Technical Memorandum: J-1 Range Southern Additional Monitoring Well	18 May 2022
• J-1 Range Southern Final 2021 Environmental Monitoring Report	19 May 2022
• Response to Comments on the J-2 Range Northern Draft 2021 Environmental Monitoring Report	27 May 2022
• J-2 Range Northern Draft PFAS Evaluation Work Plan	31 May 2022
• J-3 Range Draft Confirmatory PFAS Sampling Work Plan	31 May 2022
• Demolition Area 1 Final Technical Memorandum: D1-EW-533 System Startup Monitoring Plan	31 May 2022
• J-1 Range Southern Final Technical Memorandum: Additional Monitoring Well	31 May 2022
• Northwest Corner Final Technical Memorandum: Discontinuation of Perchlorate Groundwater Monitoring	31 May 2022

5. SCHEDULED ACTIONS

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

- Response to Comments on the L Range Draft 2022 Annual Environmental Monitoring Report
- Response to Comments on the Small Arms Ranges Draft 2022 Environmental Monitoring Report
- Response to Comments Letter on the Central Impact Area Draft Source Area Removal Report
- Response to Comments Letter on the J-3 Draft 2021 Annual Environmental Monitoring Report

- Response to Comments on the J-2 Eastern Plume Shell Development Technical Memorandum
- Response to Comments on the J-2 Northern Plume Shell Development Technical Memorandum
- Small Arms Ranges Final Completion of Work Report
- Response to Comments Letter on the J-2 Range, Phase-2, Addendum to the Post-DD Confirmation Geophysical and Soil Investigation Findings Revised Technical Memorandum
- Five Year Review Report

TABLE 1
Sampling Progress: 1 to 31 May 2022

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
Demolition Area 1	MW-240M2	MW-240M2_S22	MS	05-26-2022	Ground Water	125	135
Demolition Area 1	MW-240M2	MW-240M2_S22	N	05-26-2022	Ground Water	125	135
Demolition Area 1	MW-240M2	MW-240M2_S22	SD	05-26-2022	Ground Water	125	135
Demolition Area 1	MW-240M1	MW-240M1_S22	N	05-26-2022	Ground Water	198	208
Demolition Area 1	MW-231M2	MW-231M2_S22	N	05-23-2022	Ground Water	165.5	175.5
Demolition Area 1	MW-231M1	MW-231M1_S22	N	05-23-2022	Ground Water	210.5	220.5
Demolition Area 1	MW-662D	MW-662D_S22	N	05-23-2022	Ground Water	202.3	212.3
Demolition Area 1	MW-225M3	MW-225M3_S22	N	05-23-2022	Ground Water	125	135
Demolition Area 1	MW-225M2	MW-225M2_S22	N	05-23-2022	Ground Water	145	155
Demolition Area 1	MW-225M1	MW-225M1_S22	N	05-23-2022	Ground Water	175	185
Demolition Area 1	MW-698M1	MW-698M1_S22	N	05-19-2022	Ground Water	212.4	222.4
Demolition Area 1	MW-531M1	MW-531M1_S22	N	05-19-2022	Ground Water	138	148
Demolition Area 1	MW-531M1	MW-531M1_S22D	FD	05-19-2022	Ground Water	138	148
Demolition Area 1	MW-258M3	MW-258M3_S22	N	05-19-2022	Ground Water	77	82
Demolition Area 1	MW-258M2	MW-258M2_S22	N	05-19-2022	Ground Water	87	92
Demolition Area 1	MW-258M1	MW-258M1_S22	N	05-19-2022	Ground Water	109	119
Demolition Area 1	MW-661D	MW-661D_S22	N	05-18-2022	Ground Water	251.6	261.6
Demolition Area 1	MW-221M1	MW-221M1_S22	N	05-18-2022	Ground Water	221	231
Demolition Area 1	MW-542M1	MW-542M1_S22	N	05-18-2022	Ground Water	144	154
Demolition Area 1	MW-532M2	MW-532M2_S22	N	05-18-2022	Ground Water	138	148
Demolition Area 1	MW-532M1	MW-532M1_S22	N	05-18-2022	Ground Water	168	178
Demolition Area 1	MW-698M1	MW-698M1_S22	N	05-17-2022	Ground Water	212.4	222.4
Demolition Area 1	MW-533M1	MW-533M1_S22	N	05-17-2022	Ground Water	160	170
Demolition Area 1	MW-533M1	MW-533M1_S22D	FD	05-17-2022	Ground Water	160	170
Demolition Area 1	MW-697M1	MW-697M1_S22	N	05-17-2022	Ground Water	243	253
Demolition Area 1	MW-248M3	MW-248M3_S22	N	05-17-2022	Ground Water	143	153
Demolition Area 1	MW-248M2	MW-248M2_S22	N	05-17-2022	Ground Water	178	188
Demolition Area 1	MW-248M1	MW-248M1_S22	N	05-17-2022	Ground Water	216.3	226.3
Demolition Area 2	MW-160S	MW-160S_S22	N	05-16-2022	Ground Water	137.5	147.5
Demolition Area 2	MW-259M1	MW-259M1_S22	N	05-16-2022	Ground Water	189	199
Demolition Area 2	MW-262M1	MW-262M1_S22	N	05-16-2022	Ground Water	226	236
Demolition Area 2	MW-16S	MW-16S_S22	N	05-16-2022	Ground Water	125	135
Demolition Area 2	MW-161S	MW-161S_S22	N	05-12-2022	Ground Water	145.5	155.5
Demolition Area 2	MW-161S	MW-161S_S22D	FD	05-12-2022	Ground Water	145.5	155.5
Demolition Area 2	MW-380M2	MW-380M2_S22	N	05-12-2022	Ground Water	205.66	215.66
Demolition Area 2	MW-380M1	MW-380M1_S22	N	05-12-2022	Ground Water	226.55	236.55
Demolition Area 2	MW-311M2	MW-311M2_S22	N	05-12-2022	Ground Water	200	210
Demolition Area 2	MW-311M1	MW-311M1_S22	N	05-12-2022	Ground Water	222	232
Demolition Area 2	MW-406M2	MW-406M2_S22	N	05-11-2022	Ground Water	202.54	212.54
Demolition Area 2	MW-404M2	MW-404M2_S22	N	05-11-2022	Ground Water	200.04	210.04
Demolition Area 2	MW-404M1	MW-404M1_S22	N	05-11-2022	Ground Water	219.48	229.48
Demolition Area 2	MW-573M2	MW-573M2_S22	N	05-11-2022	Ground Water	155.4	165.4
Demolition Area 2	MW-573M1	MW-573M1_S22	N	05-11-2022	Ground Water	176.4	186.4
Demolition Area 2	MW-572M1	MW-572M1_S22	N	05-11-2022	Ground Water	164.9	174.9
Demolition Area 2	MW-435M2	MW-435M2_S22	MS	05-10-2022	Ground Water	149.57	159.93
Demolition Area 2	MW-435M2	MW-435M2_S22	N	05-10-2022	Ground Water	149.57	159.93
Demolition Area 2	MW-435M2	MW-435M2_S22	SD	05-10-2022	Ground Water	149.57	159.93
Demolition Area 2	MW-435M1	MW-435M1_S22	N	05-10-2022	Ground Water	169.94	179.95
J2 Range Northern	J2N-EFF-G	J2N-EFF-G-188A	N	05-10-2022	Process Water	0	0
Demolition Area 2	MW-655M2	MW-655M2_S22	N	05-10-2022	Ground Water	156	166
J2 Range Northern	J2N-MID-2G	J2N-MID-2G-188A	N	05-10-2022	Process Water	0	0
J2 Range Northern	J2N-MID-1G	J2N-MID-1G-188A	N	05-10-2022	Process Water	0	0
J2 Range Northern	J2N-INF-G	J2N-INF-G-188A	N	05-10-2022	Process Water	0	0
Demolition Area 2	MW-655M1	MW-655M1_S22	N	05-10-2022	Ground Water	178	188
J2 Range Northern	J2N-EFF-EF	J2N-EFF-EF-188A	N	05-10-2022	Process Water	0	0
J2 Range Northern	J2N-MID-2F	J2N-MID-2F-188A	N	05-10-2022	Process Water	0	0
J2 Range Northern	J2N-MID-1F	J2N-MID-1F-188A	N	05-10-2022	Process Water	0	0
J2 Range Northern	J2N-INF-EF	J2N-INF-EF-188A	N	05-10-2022	Process Water	0	0
J2 Range Northern	J2N-MID-2E	J2N-MID-2E-188A	N	05-10-2022	Process Water	0	0

N = Normal Sample
FD = Field Duplicate

TABLE 1
Sampling Progress: 1 to 31 May 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 Northern	J2N-MID-1E	J2N-MID-1E-188A	N	05-10-2022	Process Water	0	0
J3 Range	MW-197M1	MW-197M1_S22	N	05-10-2022	Ground Water	120	125
Demolition Area 2	MW-654M1	MW-654M1_S22	N	05-09-2022	Ground Water	154	164
J1 Range Southern	MW-524M1	MW-524M1_S22	N	05-09-2022	Ground Water	148	158
J1 Range Southern	MW-524M1	MW-524M1_S22D	FD	05-09-2022	Ground Water	148	158
J1 Range Northern	J1N-EFF	J1N-EFF-103A	N	05-09-2022	Process Water	0	0
J1 Range Northern	J1N-MID2	J1N-MID2-103A	N	05-09-2022	Process Water	0	0
J1 Range Northern	J1N-MID1	J1N-MID1-103A	N	05-09-2022	Process Water	0	0
J1 Range Northern	J1N-INF2	J1N-INF2-103A	N	05-09-2022	Process Water	0	0
J1 Range Southern	J1S-EW1-INF	J1S-EW1-INF_S22	N	05-09-2022	Process Water	0	0
J1 Range Southern	J1S-EW2-INF	J1S-EW2-INF_S22	N	05-09-2022	Process Water	0	0
J1 Range Southern	J1S-EFF	J1S-EFF-174A	N	05-05-2022	Process Water	0	0
J1 Range Southern	J1S-MID	J1S-MID-174A	N	05-05-2022	Process Water	0	0
J1 Range Southern	J1S-INF-2	J1S-INF-2-174A	N	05-05-2022	Process Water	0	0
J3 Range	J3-EFF	J3-EFF-188A	N	05-05-2022	Process Water	0	0
J3 Range	J3-MID-2	J3-MID-2-188A	N	05-05-2022	Process Water	0	0
J3 Range	J3-MID-1	J3-MID-1-188A	N	05-05-2022	Process Water	0	0
J3 Range	J3-INF	J3-INF-188A	N	05-05-2022	Process Water	0	0
J1 Range Southern	MW-720M2	MW-720M2_S22	N	05-05-2022	Ground Water	126.2	136.2
Central Impact Area	CIA2-EFF	CIA2-EFF-100A	N	05-05-2022	Process Water	0	0
Central Impact Area	CIA2-MID2	CIA2-MID2-100A	N	05-05-2022	Process Water	0	0
Central Impact Area	CIA2-MID1	CIA2-MID1-100A	N	05-05-2022	Process Water	0	0
Central Impact Area	CIA2-INF	CIA2-INF-100A	N	05-05-2022	Process Water	0	0
J1 Range Southern	MW-720M1	MW-720M1_S22	N	05-05-2022	Ground Water	146.6	156.6
J1 Range Southern	MW-721M2	MW-721M2_S22	N	05-05-2022	Ground Water	138.5	148.5
Central Impact Area	CIA1-EFF	CIA1-EFF-100A	N	05-05-2022	Process Water	0	0
Central Impact Area	CIA1-MID2	CIA1-MID2-100A	N	05-05-2022	Process Water	0	0
J1 Range Southern	MW-721M1	MW-721M1_S22	N	05-05-2022	Ground Water	168.1	178.1
Central Impact Area	CIA1-MID1	CIA1-MID1-100A	N	05-05-2022	Process Water	0	0
Central Impact Area	CIA1-INF	CIA1-INF-100A	N	05-05-2022	Process Water	0	0
J1 Range Southern	MW-722M2	MW-722M2_S22	N	05-05-2022	Ground Water	93.9	103.9
Central Impact Area	CIA3-EFF	CIA3-EFF-71A	N	05-05-2022	Process Water	0	0
Central Impact Area	CIA3-MID2	CIA3-MID2-71A	N	05-05-2022	Process Water	0	0
Central Impact Area	CIA3-MID1	CIA3-MID1-71A	N	05-05-2022	Process Water	0	0
Central Impact Area	CIA3-INF	CIA3-INF-71A	N	05-05-2022	Process Water	0	0
J2 Range Eastern	J2E-EFF-K	J2E-EFF-K-164A	N	05-04-2022	Process Water	0	0
J2 Range Eastern	J2E-MID-2K	J2E-MID-2K-164A	N	05-04-2022	Process Water	0	0
J2 Range Eastern	J2E-MID-1K	J2E-MID-1K-164A	N	05-04-2022	Process Water	0	0
J2 Range Eastern	J2E-INF-K	J2E-INF-K-164A	N	05-04-2022	Process Water	0	0
J1 Range Southern	MW-592M2	MW-592M2_S22	N	05-04-2022	Ground Water	158	168
J2 Range Eastern	J2E-EFF-J	J2E-EFF-J-164A	N	05-04-2022	Process Water	0	0
J2 Range Eastern	J2E-MID-2J	J2E-MID-2J-164A	N	05-04-2022	Process Water	0	0
J2 Range Eastern	J2E-MID-1J	J2E-MID-1J-164A	N	05-04-2022	Process Water	0	0
J2 Range Eastern	J2E-INF-J	J2E-INF-J-164A	N	05-04-2022	Process Water	0	0
J1 Range Southern	MW-592M1	MW-592M1_S22	N	05-04-2022	Ground Water	201	211
J1 Range Southern	MW-403M2	MW-403M2_S22	N	05-04-2022	Ground Water	127.26	137.36
J2 Range Eastern	J2E-EFF-IH	J2E-EFF-IH-164A	N	05-04-2022	Process Water	0	0
J2 Range Eastern	J2E-MID-2H	J2E-MID-2H-164A	N	05-04-2022	Process Water	0	0
J2 Range Eastern	J2E-MID-1H	J2E-MID-1H-164A	N	05-04-2022	Process Water	0	0
J2 Range Eastern	J2E-MID-2I	J2E-MID-2I-164A	N	05-04-2022	Process Water	0	0
J2 Range Eastern	J2E-MID-1I	J2E-MID-1I-164A	N	05-04-2022	Process Water	0	0
J2 Range Eastern	J2E-INF-I	J2E-INF-I-164A	N	05-04-2022	Process Water	0	0
J1 Range Southern	MW-403M1	MW-403M1_S22	N	05-04-2022	Ground Water	159.9	169.89
Demolition Area 1	FPR-2-EFF-A	FPR-2-EFF-A-194A	N	05-04-2022	Process Water	0	0
Demolition Area 1	FPR-2-GAC-MID1A	FPR-2-GAC-MID1A-194A	N	05-04-2022	Process Water	0	0
J1 Range Southern	MW-669M2	MW-669M2_S22	N	05-04-2022	Ground Water	201.7	211.7
Demolition Area 1	FPR2-POST-IX-A	FPR2-POST-IX-A-194A	N	05-04-2022	Process Water	0	0
Demolition Area 1	FPR-2-INF	FPR-2-INF-194A	N	05-04-2022	Process Water	0	0
Demolition Area 1	D1LE-EFF	D1LE-EFF-70A	N	05-04-2022	Process Water	0	0

N = Normal Sample
FD = Field Duplicate

TABLE 1
Sampling Progress: 1 to 31 May 2022

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
Demolition Area 1	D1LE-MID2	D1LE-MID2-70A	N	05-04-2022	Process Water	0	0
J1 Range Southern	MW-669M1	MW-669M1_S22	N	05-04-2022	Ground Water	223.7	233.7
J1 Range Southern	MW-669M1	MW-669M1_S22D	FD	05-04-2022	Ground Water	223.7	233.7
Demolition Area 1	D1LE-MID1	D1LE-MID1-70A	N	05-04-2022	Process Water	0	0
Demolition Area 1	D1LE-INF	D1LE-INF-70A	N	05-04-2022	Process Water	0	0
Demolition Area 1	D1-EFF	D1-EFF-142A	N	05-04-2022	Process Water	0	0
Demolition Area 1	D1-MID-2	D1-MID-2-142A	N	05-04-2022	Process Water	0	0
Demolition Area 1	D1-MID-1	D1-MID-1-142A	N	05-04-2022	Process Water	0	0
Demolition Area 1	D1-INF	D1-INF-142A	N	05-04-2022	Process Water	0	0
J1 Range Southern	MW-647M2	MW-647M2_S22	N	05-03-2022	Ground Water	189.3	199.3
J1 Range Southern	MW-647M1	MW-647M1_S22	N	05-03-2022	Ground Water	211.3	221.3
J1 Range Southern	MW-591M2	MW-591M2_S22	N	05-03-2022	Ground Water	165	175
J1 Range Southern	MW-591M1	MW-591M1_S22	N	05-03-2022	Ground Water	200	210
J1 Range Southern	MW-646M2	MW-646M2_S22	N	05-03-2022	Ground Water	168	178
J1 Range Southern	MW-646M1	MW-646M1_S22	MS	05-03-2022	Ground Water	198	208
J1 Range Southern	MW-646M1	MW-646M1_S22	N	05-03-2022	Ground Water	198	208
J1 Range Southern	MW-646M1	MW-646M1_S22	SD	05-03-2022	Ground Water	198	208
J1 Range Southern	MW-670M2	MW-670M2_S22	N	05-02-2022	Ground Water	198.5	208.5
J1 Range Southern	MW-670M1	MW-670M1_S22	N	05-02-2022	Ground Water	220.5	230.5
J1 Range Southern	MW-402M2	MW-402M2_S22	N	05-02-2022	Ground Water	155.24	165.27
J1 Range Southern	MW-402M1	MW-402M1_S22	N	05-02-2022	Ground Water	190.14	200.13
J1 Range Southern	MW-400M2	MW-400M2_S22	MS	05-02-2022	Ground Water	138.9	148.9
J1 Range Southern	MW-400M2	MW-400M2_S22	N	05-02-2022	Ground Water	138.9	148.9
J1 Range Southern	MW-400M2	MW-400M2_S22	SD	05-02-2022	Ground Water	138.9	148.9
J1 Range Southern	MW-400M1	MW-400M1_S22	N	05-02-2022	Ground Water	192.76	202.75

N = Normal Sample
FD = Field Duplicate

TABLE 2
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS
Data Received May 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
Central Impact Area	MW-270D	MW-270D_S22	132	137	04-28-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.061	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-284M1	MW-284M1_S22	115	125	04-25-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.11	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-204M1	MW-204M1_S22	141	151	04-25-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.29		µg/L	400		0.11	0.20
Central Impact Area	MW-204M1	MW-204M1_S22	141	151	04-25-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	3.4		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-204M1	MW-204M1_S22D	141	151	04-25-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.31		µg/L	400		0.11	0.20
Central Impact Area	MW-204M1	MW-204M1_S22D	141	151	04-25-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	3.4		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-51D	MW-51D_S22	264	274	04-21-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.076	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-203M2	MW-203M2_S22	176	186	04-20-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.27		µg/L	0.60		0.037	0.20
Central Impact Area	MW-39M1	MW-39M1_S22	220	230	04-20-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.11	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-687M2	MW-687M2_S22	188	198	04-19-2022	SW6850	Perchlorate	0.086	J	µg/L	2.0		0.086	0.20
Central Impact Area	MW-687M2	MW-687M2_S22	188	198	04-19-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.065	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-686M2	MW-686M2_S22	194.3	204.3	04-19-2022	SW6850	Perchlorate	0.11	J	µg/L	2.0		0.086	0.20
Central Impact Area	MW-686M2	MW-686M2_S22	194.3	204.3	04-19-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.2		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-95M1	MW-95M1_S22	202	212	04-18-2022	SW6850	Perchlorate	1.5		µg/L	2.0		0.086	0.20
Central Impact Area	MW-95M1	MW-95M1_S22	202	212	04-18-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.3		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-95M1	MW-95M1_S22	202	212	04-18-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.12	J	µg/L	400		0.11	0.20
Central Impact Area	MW-95M1	MW-95M1_S22D	202	212	04-18-2022	SW6850	Perchlorate	1.5		µg/L	2.0		0.086	0.20
Central Impact Area	MW-89M3	MW-89M3_S22	174	184	04-18-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.24		µg/L	0.60		0.037	0.20
Central Impact Area	MW-89M2	MW-89M2_S22	214	224	04-18-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	7.0		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-89M2	MW-89M2_S22	214	224	04-18-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.98		µg/L	400		0.11	0.20
Central Impact Area	MW-89M2	MW-89M2_S22	214	224	04-18-2022	SW6850	Perchlorate	2.4		µg/L	2.0	X	0.086	0.20
Central Impact Area	MW-89M2	MW-89M2_S22D	214	224	04-18-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.99		µg/L	400		0.11	0.20
Central Impact Area	MW-89M2	MW-89M2_S22D	214	224	04-18-2022	SW6850	Perchlorate	2.3		µg/L	2.0	X	0.086	0.20
Central Impact Area	MW-89M2	MW-89M2_S22D	214	224	04-18-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	7.1		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-89M1	MW-89M1_S22	234	244	04-18-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.23		µg/L	0.60		0.037	0.20
Central Impact Area	MW-89M1	MW-89M1_S22	234	244	04-18-2022	SW6850	Perchlorate	0.21		µg/L	2.0		0.086	0.20
Central Impact Area	MW-43M1	MW-43M1_S22	223	233	04-14-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.82		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-86S	MW-86S_S22	143	153	04-14-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.27		µg/L	0.60		0.037	0.20
Central Impact Area	MW-86M2	MW-86M2_S22	158	168	04-14-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.52		µg/L	0.60		0.037	0.20
Central Impact Area	MW-87M1	MW-87M1_S22	194	204	04-13-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.15	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-87M1	MW-87M1_S22	194	204	04-13-2022	SW6850	Perchlorate	0.83		µg/L	2.0		0.086	0.20
Central Impact Area	MW-88M2	MW-88M2_S22	213	223	04-13-2022	SW6850	Perchlorate	1.2		µg/L	2.0		0.086	0.20
Central Impact Area	MW-88M2	MW-88M2_S22	213	223	04-13-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.20		µg/L	400		0.11	0.20
Central Impact Area	MW-88M2	MW-88M2_S22	213	223	04-13-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.84		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-88M1	MW-88M1_S22	233	243	04-13-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.11	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-123M1	MW-123M1_S22	291	301	04-12-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.21		µg/L	0.60		0.037	0.20
Central Impact Area	MW-629M1	MW-629M1_S22	216.9	226.9	04-12-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.13	J	µg/L	400		0.11	0.20
Central Impact Area	MW-638M2	MW-638M2_S22	204.2	214.2	04-12-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.93		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-638M2	MW-638M2_S22	204.2	214.2	04-12-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.31		µg/L	400		0.11	0.20
Central Impact Area	MW-623M2	MW-623M2_S22	291.8	301.8	04-11-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.12	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-623M1	MW-623M1_S22	340	350	04-11-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.059	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-485M1	MW-485M1_S22	125.32	135.32	04-07-2022	SW8330	4-Amino-2,6-dinitrotoluene	0.060	J	µg/L	7.3		0.036	0.20
Central Impact Area	MW-485M1	MW-485M1_S22	125.32	135.32	04-07-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.9		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-485M1	MW-485M1_S22	125.32	135.32	04-07-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.42		µg/L	400		0.11	0.20

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

MCL/HA= Either the MCL or Lowest Health Advisory Limit
June 07, 2022

TABLE 2
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS
Data Received May 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
Central Impact Area	MW-485M1	MW-485M1_S22D	125.32	135.32	04-07-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.43		µg/L	400		0.11	0.20
Central Impact Area	MW-485M1	MW-485M1_S22D	125.32	135.32	04-07-2022	SW8330	4-Amino-2,6-dinitrotoluene	0.061	J	µg/L	7.3		0.036	0.20
Central Impact Area	MW-485M1	MW-485M1_S22D	125.32	135.32	04-07-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.8		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-477M2	MW-477M2_S22	145.62	155.62	04-07-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.49		µg/L	400		0.11	0.20
Central Impact Area	MW-477M2	MW-477M2_S22	145.62	155.62	04-07-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	3.5		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-477M2	MW-477M2_S22D	145.62	155.62	04-07-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.50		µg/L	400		0.11	0.20
Central Impact Area	MW-477M2	MW-477M2_S22D	145.62	155.62	04-07-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	3.5		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-107M2	MW-107M2_S22	125	135	04-06-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.57		µg/L	0.60		0.037	0.20
Central Impact Area	MW-40M1	MW-40M1_S22	132.5	142	04-06-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.50		µg/L	0.60		0.037	0.20
Central Impact Area	MW-25	MW-25_S22	108	118	04-06-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.98		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-184M1	MW-184M1_S22	186	196	04-06-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.63		µg/L	400		0.11	0.20
Central Impact Area	MW-184M1	MW-184M1_S22	186	196	04-06-2022	SW6850	Perchlorate	1.3		µg/L	2.0		0.086	0.20
Central Impact Area	MW-184M1	MW-184M1_S22	186	196	04-06-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	3.7		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-184M1	MW-184M1_S22D	186	196	04-06-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	3.8		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-184M1	MW-184M1_S22D	186	196	04-06-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.66		µg/L	400		0.11	0.20
Central Impact Area	MW-728M1	MW-728M1_S22	153.4	163.4	04-05-2022	SW6850	Perchlorate	0.089	J	µg/L	2.0		0.086	0.20
Central Impact Area	MW-38M4	MW-38M4_S22	132	142	04-05-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.16	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-38M3	MW-38M3_S22	170	180	04-05-2022	SW6850	Perchlorate	0.11	J	µg/L	2.0		0.086	0.20
Central Impact Area	MW-38M3	MW-38M3_S22	170	180	04-05-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.43		µg/L	0.60		0.037	0.20
Central Impact Area	MW-725M1	MW-725M1_S22	145.2	155.2	04-05-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.38		µg/L	400		0.11	0.20
Central Impact Area	MW-725M1	MW-725M1_S22	145.2	155.2	04-05-2022	SW6850	Perchlorate	1.2		µg/L	2.0		0.086	0.20
Central Impact Area	MW-725M1	MW-725M1_S22	145.2	155.2	04-05-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.4		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-725M1	MW-725M1_S22D	145.2	155.2	04-05-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.7		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-725M1	MW-725M1_S22D	145.2	155.2	04-05-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.45		µg/L	400		0.11	0.20
Central Impact Area	MW-85S	MW-85S_S22	116	126	04-05-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.12	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-37M2	MW-37M2_S22	145	155	04-04-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.76		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-37M2	MW-37M2_S22	145	155	04-04-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.12	J	µg/L	400		0.11	0.20
Central Impact Area	MW-01S	MW-01S_S22	114	124	04-04-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.39		µg/L	0.60		0.037	0.20
Central Impact Area	MW-01S	MW-01S_S22	114	124	04-04-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.17	J	µg/L	400		0.11	0.20
Central Impact Area	MW-01M2	MW-01M2_S22	160	165	04-04-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.31		µg/L	400		0.11	0.20
Central Impact Area	MW-01M2	MW-01M2_S22	160	165	04-04-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	4.5		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-90S	MW-90S_S22	118	128	04-04-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.73		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-179M1	MW-179M1_S22	187	197	04-04-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.34		µg/L	0.60		0.037	0.20
Central Impact Area	MW-112M1	MW-112M1_S22	195	205	04-01-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.63		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-98S	MW-98S_S22	137	147	03-31-2022	SW8330	2,4,6-Trinitrotoluene	0.26		µg/L	2.0		0.028	0.20
Central Impact Area	MW-98S	MW-98S_S22	137	147	03-31-2022	SW8330	2,4-Dinitrotoluene	0.036	J	µg/L	5.0		0.020	0.20
Central Impact Area	MW-98S	MW-98S_S22	137	147	03-31-2022	SW8330	2-Amino-4,6-dinitrotoluene	0.14	J	µg/L	7.3		0.031	0.20
Central Impact Area	MW-98S	MW-98S_S22	137	147	03-31-2022	SW8330	4-Amino-2,6-dinitrotoluene	0.13	J	µg/L	7.3		0.036	0.20
Central Impact Area	MW-98M1	MW-98M1_S22	164	174	03-31-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.86		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-729M1	MW-729M1_S22	231.5	241.5	03-31-2022	SW6850	Perchlorate	0.92		µg/L	2.0		0.086	0.20
Central Impact Area	MW-729M1	MW-729M1_S22	231.5	241.5	03-31-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.6		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-100M1	MW-100M1_S22	179	189	03-30-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.22		µg/L	0.60		0.037	0.20
Central Impact Area	MW-235M1	MW-235M1_S22	154	164	03-30-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.059	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-487M2	MW-487M2_S22	195.84	205.84	03-30-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.22		µg/L	0.60		0.037	0.20

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MCL/HA= Either the MCL or Lowest Health Advisory Limit
June 07, 2022

TABLE 2
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS
Data Received May 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
Central Impact Area	MW-101M1	MW-101M1_S22	158	168	03-29-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.17	J	µg/L	400		0.11	0.20
Central Impact Area	MW-101M1	MW-101M1_S22	158	168	03-29-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	2.4		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-101M1	MW-101M1_S22D	158	168	03-29-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.18	J	µg/L	400		0.11	0.20
Central Impact Area	MW-101M1	MW-101M1_S22D	158	168	03-29-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	2.3		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-93M2	MW-93M2_S22	145	155	03-29-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.43		µg/L	0.60		0.037	0.20
Central Impact Area	MW-93M1	MW-93M1_S22	185	195	03-29-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.17	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-91S	MW-91S_S22	124	134	03-29-2022	SW8330	1,3,5-Trinitrobenzene	0.23	J	µg/L	1090		0.11	0.20
Central Impact Area	MW-91S	MW-91S_S22	124	134	03-29-2022	SW8330	2,4,6-Trinitrotoluene	2.0		µg/L	2.0		0.028	0.20
Central Impact Area	MW-91S	MW-91S_S22	124	134	03-29-2022	SW8330	4-Amino-2,6-dinitrotoluene	0.37		µg/L	7.3		0.036	0.20
Central Impact Area	MW-91S	MW-91S_S22	124	134	03-29-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.6	J	µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-91S	MW-91S_S22	124	134	03-29-2022	SW8330	2,4-Dinitrotoluene	0.080	J	µg/L	5.0		0.020	0.20
Central Impact Area	MW-91S	MW-91S_S22	124	134	03-29-2022	SW8330	2-Amino-4,6-dinitrotoluene	0.29		µg/L	7.3		0.031	0.20
Central Impact Area	MW-91S	MW-91S_S22	124	134	03-29-2022	SW8330	1,3-Dinitrobenzene	0.036	J	µg/L	1.0		0.031	0.20
Central Impact Area	MW-91S	MW-91S_S22	124	134	03-29-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.20		µg/L	400		0.11	0.20
Central Impact Area	MW-91S	MW-91S_S22D	124	134	03-29-2022	SW8330	1,3,5-Trinitrobenzene	0.23	J	µg/L	1090		0.11	0.20
Central Impact Area	MW-91S	MW-91S_S22D	124	134	03-29-2022	SW8330	2,4,6-Trinitrotoluene	2.0		µg/L	2.0		0.028	0.20
Central Impact Area	MW-91S	MW-91S_S22D	124	134	03-29-2022	SW8330	4-Amino-2,6-dinitrotoluene	0.36		µg/L	7.3		0.036	0.20
Central Impact Area	MW-91S	MW-91S_S22D	124	134	03-29-2022	SW8330	2,4-Dinitrotoluene	0.076	J	µg/L	5.0		0.020	0.20
Central Impact Area	MW-91S	MW-91S_S22D	124	134	03-29-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.26		µg/L	400		0.11	0.20
Central Impact Area	MW-91S	MW-91S_S22D	124	134	03-29-2022	SW8330	2-Amino-4,6-dinitrotoluene	0.29		µg/L	7.3		0.031	0.20
Central Impact Area	MW-91S	MW-91S_S22D	124	134	03-29-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.7	J	µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-91M1	MW-91M1_S22	170	180	03-29-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.7		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-91M1	MW-91M1_S22	170	180	03-29-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.13	J	µg/L	400		0.11	0.20
Central Impact Area	MW-726S	MW-726S_S22	135.5	145.5	03-28-2022	SW8330	2,4,6-Trinitrotoluene	0.48		µg/L	2.0		0.028	0.20
Central Impact Area	MW-726S	MW-726S_S22	135.5	145.5	03-28-2022	SW8330	4-Amino-2,6-dinitrotoluene	0.34		µg/L	7.3		0.036	0.20
Central Impact Area	MW-726S	MW-726S_S22	135.5	145.5	03-28-2022	SW8330	2,4-Dinitrotoluene	0.075	J	µg/L	5.0		0.020	0.20
Central Impact Area	MW-726S	MW-726S_S22	135.5	145.5	03-28-2022	SW8330	2-Amino-4,6-dinitrotoluene	0.31		µg/L	7.3		0.031	0.20
Central Impact Area	MW-726S	MW-726S_S22	135.5	145.5	03-28-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.13	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-695S	MW-695S_S22	130	140	03-28-2022	SW8330	1,3-Dinitrobenzene	0.059	J	µg/L	1.0		0.031	0.20
Central Impact Area	MW-695S	MW-695S_S22	130	140	03-28-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.1	J	µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-695S	MW-695S_S22	130	140	03-28-2022	SW6850	Perchlorate	0.59		µg/L	2.0		0.086	0.20
Central Impact Area	MW-695S	MW-695S_S22	130	140	03-28-2022	SW8330	2,4,6-Trinitrotoluene	1.2		µg/L	2.0		0.028	0.20
Central Impact Area	MW-695S	MW-695S_S22	130	140	03-28-2022	SW8330	2,4-Dinitrotoluene	0.13	J	µg/L	5.0		0.020	0.20
Central Impact Area	MW-695S	MW-695S_S22	130	140	03-28-2022	SW8330	2-Amino-4,6-dinitrotoluene	0.33		µg/L	7.3		0.031	0.20
Central Impact Area	MW-695S	MW-695S_S22	130	140	03-28-2022	SW8330	4-Amino-2,6-dinitrotoluene	0.50		µg/L	7.3		0.036	0.20
Central Impact Area	MW-695S	MW-695S_S22	130	140	03-28-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.12	J	µg/L	400		0.11	0.20
Central Impact Area	MW-695S	MW-695S_S22D	130	140	03-28-2022	SW8330	2,4,6-Trinitrotoluene	1.1		µg/L	2.0		0.028	0.20
Central Impact Area	MW-695S	MW-695S_S22D	130	140	03-28-2022	SW8330	2,4-Dinitrotoluene	0.13	J	µg/L	5.0		0.020	0.20
Central Impact Area	MW-695S	MW-695S_S22D	130	140	03-28-2022	SW8330	2-Amino-4,6-dinitrotoluene	0.32		µg/L	7.3		0.031	0.20
Central Impact Area	MW-695S	MW-695S_S22D	130	140	03-28-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.1	J	µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-695S	MW-695S_S22D	130	140	03-28-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.13	J	µg/L	400		0.11	0.20
Central Impact Area	MW-695S	MW-695S_S22D	130	140	03-28-2022	SW8330	1,3-Dinitrobenzene	0.050	J	µg/L	1.0		0.031	0.20
Central Impact Area	MW-695S	MW-695S_S22D	130	140	03-28-2022	SW8330	4-Amino-2,6-dinitrotoluene	0.50		µg/L	7.3		0.036	0.20
Central Impact Area	OW-1	OW-1_S22	126	136	03-28-2022	SW8330	2,4,6-Trinitrotoluene	3.2		µg/L	2.0	X	0.028	0.20

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MCL/HA= Either the MCL or Lowest Health Advisory Limit
June 07, 2022

TABLE 2
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS
Data Received May 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
Central Impact Area	OW-1	OW-1_S22	126	136	03-28-2022	SW8330	4-Amino-2,6-dinitrotoluene	0.33		µg/L	7.3		0.036	0.20
Central Impact Area	OW-1	OW-1_S22	126	136	03-28-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.16	J	µg/L	0.60		0.037	0.20
Central Impact Area	OW-1	OW-1_S22	126	136	03-28-2022	SW8330	2,4-Dinitrotoluene	0.14	J	µg/L	5.0		0.020	0.20
Central Impact Area	OW-1	OW-1_S22	126	136	03-28-2022	SW8330	2-Amino-4,6-dinitrotoluene	0.30		µg/L	7.3		0.031	0.20
Central Impact Area	OW-1	OW-1_S22D	126	136	03-28-2022	SW8330	2,4-Dinitrotoluene	0.13	J	µg/L	5.0		0.020	0.20
Central Impact Area	OW-1	OW-1_S22D	126	136	03-28-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.16	J	µg/L	0.60		0.037	0.20
Central Impact Area	OW-1	OW-1_S22D	126	136	03-28-2022	SW8330	2,4,6-Trinitrotoluene	3.1		µg/L	2.0	X	0.028	0.20
Central Impact Area	OW-1	OW-1_S22D	126	136	03-28-2022	SW8330	2-Amino-4,6-dinitrotoluene	0.29		µg/L	7.3		0.031	0.20
Central Impact Area	OW-1	OW-1_S22D	126	136	03-28-2022	SW8330	4-Amino-2,6-dinitrotoluene	0.35		µg/L	7.3		0.036	0.20
Central Impact Area	MW-727M1	MW-727M1_S22	145.4	155.4	03-28-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	3.4		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-338M1	MW-338M1_S22	189	199	03-24-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.038	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-608M4	MW-608M4_S22	185.4	195.4	03-24-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.62		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-96M2	MW-96M2_S22	160	170	03-23-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.32		µg/L	0.60		0.037	0.20
Central Impact Area	MW-607M2	MW-607M2_S22	177.4	187.4	03-22-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.9		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-607M2	MW-607M2_S22D	177.4	187.4	03-22-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.9		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-607M1	MW-607M1_S22	207.4	217.4	03-22-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	3.3		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-607M1	MW-607M1_S22D	207.4	217.4	03-22-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	3.3		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-108M4	MW-108M4_S22	240	250	03-21-2022	SW6850	Perchlorate	0.14	J	µg/L	2.0		0.086	0.20
Central Impact Area	MW-108M1	MW-108M1_S22	297	307	03-21-2022	SW6850	Perchlorate	0.28		µg/L	2.0		0.086	0.20
Central Impact Area	MW-616M1	MW-616M1_S22	217.1	227.1	03-21-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.91		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-617M1	MW-617M1_S22	175.8	185.8	03-21-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.43		µg/L	0.60		0.037	0.20
Central Impact Area	MW-628M1	MW-628M1_S22	230.8	240.8	03-17-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.34		µg/L	0.60		0.037	0.20
Central Impact Area	MW-618M1	MW-618M1_S22	238.5	248.5	03-17-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.47		µg/L	0.60		0.037	0.20
Central Impact Area	MW-618M1	MW-618M1_S22	238.5	248.5	03-17-2022	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.17	J	µg/L	400		0.11	0.20
Central Impact Area	MW-614M1	MW-614M1_S22	275	285	03-16-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.4		µg/L	0.60	X	0.037	0.20
Central Impact Area	MW-614M1	MW-614M1_S22	275	285	03-16-2022	SW6850	Perchlorate	0.37		µg/L	2.0		0.086	0.20
Central Impact Area	MW-102M2	MW-102M2_S22	237	247	03-16-2022	SW6850	Perchlorate	0.24		µg/L	2.0		0.086	0.20
Central Impact Area	MW-102M2	MW-102M2_S22	237	247	03-16-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.10	J	µg/L	0.60		0.037	0.20
Central Impact Area	MW-102M1	MW-102M1_S22	267	277	03-16-2022	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.29		µg/L	0.60		0.037	0.20

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

MCL/HA= Either the MCL or Lowest Health Advisory Limit
June 07, 2022

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	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	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	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	**2.20**	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)	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)	1.40 U	1.40 U	1.50 U	**1.00 J**	1.50 U
Perfluorooctanesulfonamide (PFOSA)	2.70 U	2.80 U	2.90 U	3.00 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	2.70 U	2.80 U	2.90 U	3.00 U	2.90 U
Perfluorooctanoic acid (PFOA)	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	**0.460 J**	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	**1.20 J**	1.50 U
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**2.20**	**0.00**

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	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	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps		Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	§Sum of All Compounds Detected	**0.00**	**0.00**	**0.00**	**4.86**	**0.00**

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KGS 2019 PFAS MW&INF

J1 Range Northern

Location	J1N-INF2	J1N-INF2	MW-136S	MW-564M1	MW-590M2
Field Sample ID	J1N-INF2_PFAS19	J1N-INF2_PFAS19R	MW-136S_PFAS19	MW-564M1_PFAS19	MW-590M2_PFAS19
Sampling Depth	0.00 - 0.00	0.00 - 0.00	107.00 - 117.00	227.00 - 237.00	238.00 - 248.00
Sampling Date	06/17/2019	07/30/2019	06/24/2019	06/24/2019	06/24/2019
SDG	320514661	320528231	320517141	320517141	320517141
Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	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	0.930 U	0.960 U	0.980 U	0.920 U	0.960 U
Perfluorobutanoic acid (PFBA)	1.90 U	1.40 U	**0.990 J**	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)	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)	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)	**1.80 J**	2.90 U	2.90 U	2.80 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	**4.90**	2.90 U	**1.40 J**	2.80 U	2.90 U
Perfluorooctanoic acid (PFOA)	1.40 U	1.40 U	**2.40**	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
†PFOS + PFOA (EPA)	**4.90**	**0.00**	**3.80**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**4.90**	**0.00**	**2.40**	**0.00**	**0.00**

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Location	J1N-INF2	J1N-INF2	MW-136S	MW-564M1	MW-590M2
Field Sample ID	J1N-INF2_PFAS19	J1N-INF2_PFAS19R	MW-136S_PFAS19	MW-564M1_PFAS19	MW-590M2_PFAS19
Sampling Depth	0.00 - 0.00	0.00 - 0.00	107.00 - 117.00	227.00 - 237.00	238.00 - 248.00
Sampling Date	06/17/2019	07/30/2019	06/24/2019	06/24/2019	06/24/2019
SDG	320514661	320528231	320517141	320517141	320517141
Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected	**6.70**	**0.00**	**4.79**	**0.00**	**0.00**

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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	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	18.0 U	19.0 U	17.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)	9.70 U	9.30 U	9.80 U	9.00 U	9.60 U	8.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	9.70 U	9.30 U	9.80 U	9.00 U	9.60 U	8.50 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	9.70 U	9.30 U	9.80 U	9.00 U	9.60 U	8.50 U
Perfluorobutanesulfonic acid	0.970 U	0.930 U	0.980 U	0.900 U	0.960 U	0.850 U
Perfluorobutanoic acid (PFBA)	1.50 U	1.40 U	1.50 U	1.80 U	1.90 U	1.70 U
Perfluorodecanesulfonic acid (PFDS)	1.50 U	1.40 U	1.50 U	1.30 U	1.40 U	1.30 U
Perfluorodecanoic acid (PFDA)	0.970 U	0.930 U	0.980 U	0.900 U	0.960 U	**1.40 J**
Perfluorododecanoic acid (PFDoA)	1.50 U	1.40 U	1.50 U	1.30 U	1.40 U	**0.450 J**
Perfluoroheptanesulfonic acid (PFHpS)	0.970 U	0.930 U	0.980 U	0.900 U	0.960 U	0.850 U
Perfluoroheptanoic acid (PFHpA)	1.50 U	1.40 U	1.50 U	1.30 U	1.40 U	1.30 U
Perfluorohexane sulfonate (PFHxS)	0.970 U	0.930 U	0.980 U	0.900 U	0.960 U	0.850 U
Perfluorohexanoic acid (PFHxA)	0.970 U	0.930 U	0.980 U	0.900 U	0.960 U	0.850 U
Perfluorononanoic acid (PFNA)	1.50 U	1.40 U	1.50 U	**0.880 J**	**0.730 J**	**0.650 J**
Perfluorooctanesulfonamide (PFOSA)	2.90 U	2.80 U	2.90 U	2.70 U	2.90 U	2.60 U
Perfluorooctanesulfonic acid (PFOS)	2.90 U	2.80 U	2.90 U	2.70 U	2.90 U	2.60 U
Perfluorooctanoic acid (PFOA)	1.50 U	1.40 U	1.50 U	1.30 U	1.40 U	1.30 U
Perfluoropentanoic acid (PFPeA)	0.970 U	0.930 U	0.980 U	0.900 U	0.960 U	0.850 U
Perfluorotetradecanoic acid (PFTeDA)	2.90 U	2.80 U	2.90 U	2.70 U	2.90 U	2.60 U
Perfluorotridecanoic acid (PFTrDA)	2.90 U	2.80 U	2.90 U	2.70 U	2.90 U	2.60 U
Perfluoroundecanoic acid (PFUnA)	1.50 U	1.40 U	1.50 U	1.30 U	1.40 U	**4.90**
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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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	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected	**0.00**	**0.00**	**0.00**	**0.880**	**0.730**	**7.40**

PFAS Summary Report – Groundwater
Joint Base Cape Cod, IAGWSP

KGS 2019 PFAS MW&INF

J2 Range Eastern

Location	MW-368M2	MW-667M1
Field Sample ID	MW-368M2_PFAS19	MW-667M1_PFAS19
Sampling Depth	202.73 - 212.73	302.30 - 312.30
Sampling Date	06/18/2019	06/17/2019
SDG	320514662	320514661
Sample Type	**Normal**	**Normal**
PFAS 21 Cmps	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	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)	**0.800 J**	**4.30**
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)	0.880 U	0.900 U
Perfluorohexanoic acid (PFHxA)	0.880 U	0.900 U
Perfluorononanoic acid (PFNA)	1.30 U	**2.80**
Perfluorooctanesulfonamide (PFOSA)	2.60 U	2.70 U
Perfluorooctanesulfonic acid (PFOS)	2.60 U	2.70 U
Perfluorooctanoic acid (PFOA)	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)	**2.40**	**1.60 J**
†PFOS + PFOA (EPA)	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**7.10**

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Location	MW-368M2	MW-667M1
Field Sample ID	MW-368M2_PFAS19	MW-667M1_PFAS19
Sampling Depth	202.73 - 212.73	302.30 - 312.30
Sampling Date	06/18/2019	06/17/2019
SDG	320514662	320514661
Sample Type	**Normal**	**Normal**
PFAS 21 Cmps	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected	**3.20**	**8.70**

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	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	0.960 U	1.00 U	0.930 U	0.930 U	0.960 U	**1.40 J**
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	**0.370 J**	0.930 U	**0.400 J**	**0.500 J**	0.970 U
Perfluoroheptanoic acid (PFHpA)	1.40 U	**1.00 J**	1.40 U	**0.940 J**	**1.00 J**	1.50 U
Perfluorohexane sulfonate (PFHxS)	0.960 U	**11.0**	0.930 U	**9.90**	**9.00**	1.90 U
Perfluorohexanoic acid (PFHxA)	0.960 U	**1.30 J**	0.930 U	**1.20 J**	**1.30 J**	**2.30**
Perfluorononanoic acid (PFNA)	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)	2.90 U	**1.30 J**	2.80 U	2.80 U	**1.10 J**	2.90 U
Perfluorooctanoic acid (PFOA)	1.40 U	**1.50 J**	1.40 U	**1.70 J**	**1.50 J**	1.50 U
Perfluoropentanoic acid (PFPeA)	0.960 U	**0.910 J**	0.930 U	**0.840 J**	**1.00 J**	**1.20 J**
Perfluorotetradecanoic acid (PFTeDA)	2.90 U	3.00 U	2.80 U	2.80 U	2.90 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)	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
†PFOS + PFOA (EPA)	**0.00**	**2.80**	**0.00**	**1.70**	**2.60**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**11.0**	**0.00**	**9.90**	**9.00**	**0.00**

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	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		Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	§Sum of All Compounds Detected	**0.00**	**17.4**	**0.00**	**15.0**	**15.4**	**4.90**

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KGS 2019 PFAS MW&INF

J2 Range Northern

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	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	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	0.880 U	0.980 U	0.970 U
Perfluorobutanoic acid (PFBA)	1.80 U	**0.700 J**	1.50 U
Perfluorodecanesulfonic acid (PFDS)	1.30 U	1.50 U	1.50 U
Perfluorodecanoic acid (PFDA)	0.880 U	**1.20 J**	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)	**0.600 J**	0.980 U	0.970 U
Perfluorohexanoic acid (PFHxA)	0.880 U	0.980 U	0.970 U
Perfluorononanoic acid (PFNA)	1.30 U	**1.10 J**	1.50 U
Perfluorooctanesulfonamide (PFOSA)	2.60 U	2.90 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	**1.90 J**	2.90 U	2.90 U
Perfluorooctanoic acid (PFOA)	**0.550 J**	1.50 U	1.50 U
Perfluoropentanoic acid (PFPeA)	0.880 U	**0.680 J**	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	**1.40 J**	1.50 U
†PFOS + PFOA (EPA)	**2.45**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**

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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	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps		Results (ng/L)	Results (ng/L)	Results (ng/L)
	§Sum of All Compounds Detected	**3.05**	**5.08**	**0.00**

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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_PFAS19	J3-INF_PFAS19D	MW-163S_PFAS19	MW-163S_PFAS19D	MW-163S_PFAS19R	MW-227M2_PFAS19
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	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	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	**0.560 J**	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)	**1.70 J**	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)	**1.50 J**	**1.50 J**	**0.690 J**	**0.610 J**	1.90 U	**0.540 J**
Perfluorohexanoic acid (PFHxA)	0.940 U	0.920 U	**0.410 J**	0.860 U	0.930 U	0.960 U
Perfluorononanoic acid (PFNA)	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)	2.80 U	2.80 U	**12.0**	**12.0**	**12.0**	2.90 U
Perfluorooctanoic acid (PFOA)	**0.520 J**	1.40 U	**1.70**	**1.60 J**	**1.30 J**	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 (PFTrDA)	**1.40 J**	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
†PFOS + PFOA (EPA)	**0.520**	**0.00**	**13.7**	**13.6**	**13.3**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**13.7**	**12.0**	**12.0**	**0.00**

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Location	J3-INF	J3-INF	MW-163S	MW-163S	MW-163S	MW-227M2
Field Sample ID	J3-INF_PFAS19	J3-INF_PFAS19D	MW-163S_PFAS19	MW-163S_PFAS19D	MW-163S_PFAS19R	MW-227M2_PFAS19
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	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected	**5.12**	**1.50**	**14.8**	**14.2**	**13.9**	**0.540**

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KGS 2019 PFAS MW&INF

J3 Range

Location	MW-250M2
Field Sample ID	MW-250M2_PFAS19
Sampling Depth	145.00 - 155.00
Sampling Date	06/20/2019
SDG	320515981
Sample Type	**Normal**
PFAS 21 Cmps	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	0.970 U
Perfluorobutanoic acid (PFBA)	**0.710 J**
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)	0.970 U
Perfluorohexanoic acid (PFHxA)	0.970 U
Perfluorononanoic acid (PFNA)	1.40 U
Perfluorooctanesulfonamide (PFOSA)	2.90 U
Perfluorooctanesulfonic acid (PFOS)	2.90 U
Perfluorooctanoic acid (PFOA)	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
†PFOS + PFOA (EPA)	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**

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Location	MW-250M2
Field Sample ID	MW-250M2_PFAS19
Sampling Depth	145.00 - 155.00
Sampling Date	06/20/2019
SDG	320515981
Sample Type	**Normal**
PFAS 21 Cmps	Results (ng/L)
§Sum of All Compounds Detected	**0.710**

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	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	**15.0 J**	9.30 U	9.30 U	9.50 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	9.60 U	9.20 U	**2.90 J**	9.30 U	9.30 U	9.50 U
Perfluorobutanesulfonic acid	0.960 U	0.920 U	0.970 U	0.930 U	0.930 U	0.950 U
Perfluorobutanoic acid (PFBA)	**0.920 J**	**0.670 J**	1.50 U	1.40 U	**4.00**	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	**0.700 J**
Perfluorododecanoic acid (PFDoA)	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U	**1.70 J**
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	**0.700 J**	1.40 U
Perfluorohexane sulfonate (PFHxS)	**0.360 J**	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	**0.850 J**	0.950 U
Perfluorononanoic acid (PFNA)	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)	2.90 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluorooctanoic acid (PFOA)	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	**4.00**	**0.410 J**
Perfluorotetradecanoic acid (PFTeDA)	2.90 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)	2.90 U	2.80 U	2.90 U	2.80 U	2.80 U	2.90 U
Perfluoroundecanoic acid (PFUnA)	1.40 U	1.40 U	1.50 U	1.40 U	1.40 U	**2.80**
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected	**1.28**	**0.670**	**17.9**	**0.00**	**9.55**	**5.61**

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KGS 2020 J1 Ranges SPM Fall

J1 Range Northern

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	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	0.890 U	1.00 U	1.00 U	0.950 U	0.970 U	0.930 U
Perfluorobutanoic acid (PFBA)	**0.920 J**	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)	**1.60 J**	**0.950 J**	**5.40**	**3.50**	**2.50**	**2.40**
Perfluorododecanoic acid (PFDoA)	1.30 U	1.50 U	**1.20 J**	**0.600 J**	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)	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)	**2.60**	**1.50 J**	**1.40 J**	**2.70**	**3.40**	**3.50**
Perfluorooctanesulfonamide (PFOSA)	2.70 U	3.00 U	3.00 U	2.90 U	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	2.70 U	3.00 U	3.00 U	2.90 U	2.90 U	2.80 U
Perfluorooctanoic acid (PFOA)	1.30 U	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)	0.890 U	**0.440 J**	1.00 U	0.950 U	**0.620 J**	**0.870 J**
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	**1.00 J**	**13.0**	**6.90**	**5.90**	**2.50**
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**2.60**	**0.00**	**5.40**	**6.20**	**5.90**	**5.90**
§Sum of All Compounds Detected	**5.12**	**3.89**	**21.0**	**13.7**	**12.4**	**9.27**

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KGS 2020 J1 Ranges SPM Fall

J1 Range Northern

Location	MW-346M3	MW-346M4	MW-58S
Field Sample ID	MW-346M3_F20	MW-346M4_F20	MW-58S_F20
Sampling Depth	0.00 - 0.00	0.00 - 0.00	100.00 - 110.00
Sampling Date	12/02/2020	12/02/2020	12/07/2020
SDG	320675551	320675551	320677691
Sample Type	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	Results (ng/L)	Results (ng/L)	Results (ng/L)
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	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)	**0.730 J**	**1.70 J**	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)	0.980 U	0.920 U	0.930 U
Perfluorohexanoic acid (PFHxA)	0.980 U	0.920 U	0.930 U
Perfluorononanoic acid (PFNA)	**2.20**	**0.650 J**	1.40 U
Perfluorooctanesulfonamide (PFOSA)	2.90 U	2.80 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	2.90 U	2.80 U	2.80 U
Perfluorooctanoic acid (PFOA)	1.50 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)	**0.750 J**	**0.410 J**	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)	**1.00 J**	**6.00**	1.40 U
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**2.20**	**0.00**	**0.00**
§Sum of All Compounds Detected	**4.68**	**8.76**	**0.00**

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	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	0.990 U	0.950 U	0.940 U	0.970 U	**3.40**	**3.60**
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	**4.90**	**4.50**
Perfluorododecanoic acid (PFDoA)	1.50 U	1.40 U	1.40 U	1.50 U	**3.50**	**3.60**
Perfluoroheptanesulfonic acid (PFHpS)	0.990 U	0.950 U	0.940 U	0.970 U	0.920 U	0.950 U
Perfluoroheptanoic acid (PFHpA)	**0.930 J**	**0.910 J**	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	**9.80**	**9.30**	0.940 U	0.970 U	0.920 U	0.950 U
Perfluorohexanoic acid (PFHxA)	**1.10 J**	**1.10 J**	0.940 U	0.970 U	0.920 U	0.950 U
Perfluorononanoic acid (PFNA)	1.50 U	1.40 U	1.40 U	1.50 U	**2.00**	**1.50 J**
Perfluorooctanesulfonamide (PFOSA)	3.00 U	2.80 U	2.80 U	2.90 U	2.80 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	3.00 U	2.80 U	2.80 U	2.90 U	2.80 U	2.80 U
Perfluorooctanoic acid (PFOA)	**1.70 J**	**1.70 J**	1.40 U	1.50 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)	**1.10 J**	**1.20 J**	0.940 U	0.970 U	**0.460 J**	**0.410 J**
Perfluorotetradecanoic acid (PFTeDA)	3.00 U	2.80 U	2.80 U	2.90 U	2.80 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)	3.00 U	2.80 U	2.80 U	2.90 U	**1.50 J**	**1.90 J**
Perfluoroundecanoic acid (PFUnA)	1.50 U	1.40 U	1.40 U	1.50 U	**25.0**	**28.0**
†PFOS + PFOA (EPA)	**1.70**	**1.70**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**9.80**	**9.30**	**0.00**	**0.00**	**6.90**	**4.50**

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	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		Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	§Sum of All Compounds Detected	**14.6**	**14.2**	**0.00**	**0.00**	**40.8**	**43.5**

PFAS Summary Report – Groundwater
Joint Base Cape Cod, IAGWSP

KGS 2020 J2 Ranges SPM Fall
J2 Range Northern

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	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	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	**0.550 J**	1.40 U	1.40 U	**1.00 J**
Perfluorodecanesulfonic acid (PFDS)	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorodecanoic acid (PFDA)	**3.10**	**3.60**	**1.50 J**	**2.80**	**2.40**	**2.50**
Perfluorododecanoic acid (PFDoA)	**0.800 J**	**1.10 J**	**0.610 J**	**1.70 J**	1.40 U	**2.20**
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)	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)	**3.90**	**2.30**	**0.960 J**	**1.00 J**	**1.40 J**	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)	2.90 U	2.70 U	2.80 U	2.80 U	2.70 U	2.90 U
Perfluorooctanoic acid (PFOA)	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluoropentanoic acid (PFPeA)	**0.580 J**	**0.430 J**	0.940 U	**1.40 J**	0.910 U	**1.20 J**
Perfluorotetradecanoic acid (PFTeDA)	2.90 U	2.70 U	2.80 U	2.80 U	2.70 U	2.90 U
Perfluorotridecanoic acid (PFTrDA)	2.90 U	**0.880 J**	2.80 U	2.80 U	2.70 U	2.90 U
Perfluoroundecanoic acid (PFUnA)	**8.50**	**9.20**	**4.80**	**22.0**	**1.40 J**	**8.10**
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**7.00**	**5.90**	**0.00**	**2.80**	**2.40**	**2.50**
§Sum of All Compounds Detected	**16.9**	**17.5**	**8.42**	**28.9**	**5.20**	**15.0**

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KGS 2020 J2 Ranges SPM Fall
J2 Range Northern

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	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	0.920 U	0.960 U	0.940 U	0.930 U	**3.60**	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)	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)	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)	2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.70 U
Perfluorooctanoic acid (PFOA)	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	**0.600 J**
Perfluoropentanoic acid (PFPeA)	**0.490 J**	**0.490 J**	0.940 U	**0.420 J**	0.920 U	**0.600 J**
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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.600**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected	**0.490**	**0.490**	**0.00**	**0.420**	**3.60**	**1.20**

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KGS 2020 J2 Ranges SPM Fall
J2 Range Northern

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	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	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)	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)	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)	2.80 U	2.90 U	2.80 U	2.80 U	2.80 U	2.90 U
Perfluorooctanoic acid (PFOA)	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)	0.940 U	**0.440 J**	0.940 U	**0.400 J**	0.940 U	**0.420 J**
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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected	**0.00**	**0.440**	**0.00**	**0.400**	**0.00**	**0.420**

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KGS 2020 J2 Ranges SPM Fall
J2 Range Northern

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	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	**8.50**	0.940 U	0.900 U	0.960 U	0.940 U	0.930 U
Perfluorobutanoic acid (PFBA)	**1.70 J**	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)	1.80 U	0.940 U	0.900 U	0.960 U	**0.360 J**	0.930 U
Perfluorohexanoic acid (PFHxA)	**5.40**	0.940 U	0.900 U	0.960 U	0.940 U	0.930 U
Perfluorononanoic acid (PFNA)	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)	2.80 U	2.80 U	2.70 U	2.90 U	2.80 U	2.80 U
Perfluorooctanoic acid (PFOA)	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)	**1.90**	**0.450 J**	0.900 U	0.960 U	**0.630 J**	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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected	**17.5**	**0.450**	**0.00**	**0.00**	**0.990**	**0.00**

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KGS 2020 J2 Ranges SPM Fall

J2 Range Northern

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	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	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	0.910 U	0.920 U	0.970 U	0.920 U
Perfluorobutanoic acid (PFBA)	1.40 U	1.40 U	**1.40 J**	1.40 U
Perfluorodecanesulfonic acid (PFDS)	1.40 U	1.40 U	1.50 U	1.40 U
Perfluorodecanoic acid (PFDA)	**3.20**	**1.60 J**	**1.50 J**	**1.90**
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)	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)	**1.80**	**0.900 J**	1.50 U	**0.890 J**
Perfluorooctanesulfonamide (PFOSA)	**1.30 J**	**2.20 J**	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	2.70 U	2.70 U	2.90 U	2.80 U
Perfluorooctanoic acid (PFOA)	1.40 U	1.40 U	1.50 U	1.40 U
Perfluoropentanoic acid (PFPeA)	**0.650 J**	**0.830 J**	**1.10 J**	**0.400 J**
Perfluorotetradecanoic acid (PFTeDA)	2.70 U	2.70 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)	2.70 U	2.70 U	2.90 U	2.80 U
Perfluoroundecanoic acid (PFUnA)	**0.650 J**	1.40 U	**1.00 J**	1.40 U
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**5.00**	**0.00**	**0.00**	**1.90**
§Sum of All Compounds Detected	**7.60**	**5.53**	**5.00**	**3.19**

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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	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	**1.20 J**	**0.620 J**	0.970 U	0.980 U	0.940 U	0.960 U
Perfluorobutanoic acid (PFBA)	1.40 U	1.40 U	**1.00 J**	**1.00 J**	1.40 U	**0.570 J**
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)	**26.0**	**4.20**	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)	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)	2.80 U	2.80 U	**4.90**	**5.00**	**16.0**	2.90 U
Perfluorooctanoic acid (PFOA)	1.40 U	1.40 U	**0.840 J**	**0.940 J**	**0.510 J**	1.40 U
Perfluoropentanoic acid (PFPeA)	0.940 U	0.950 U	0.970 U	**0.460 J**	0.940 U	**0.490 J**
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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**5.74**	**5.94**	**16.5**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**26.0**	**4.20**	**4.90**	**5.00**	**16.0**	**0.00**
§Sum of All Compounds Detected	**27.2**	**4.82**	**6.74**	**7.40**	**16.5**	**1.06**

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KGS 2020 J3 Range SPM Fall

J3 Range

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_F20D
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**	**Field Duplicate**
PFAS 21 Cmps	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	**2.20**	0.920 U	0.900 U	0.940 U	**1.80 J**	0.920 U
Perfluorobutanoic acid (PFBA)	**1.20 J**	1.80 U	1.80 U	1.40 U	**4.90**	**1.40 J**
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	**0.550 J**	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	**4.00**	1.40 U
Perfluorohexane sulfonate (PFHxS)	**19.0**	**1.00 J**	0.900 U	1.90 U	**37.0**	1.80 U
Perfluorohexanoic acid (PFHxA)	**0.830 J**	**0.950 J**	**0.510 J**	0.940 U	**8.40**	**0.450 J**
Perfluorononanoic acid (PFNA)	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)	2.80 U	**1.10 J**	**3.80**	2.80 U	**10.0**	2.80 U
Perfluorooctanoic acid (PFOA)	1.40 U	**2.10**	**1.10 J**	**0.550 J**	**3.10**	**1.10 J**
Perfluoropentanoic acid (PFPeA)	**1.30 J**	**0.660 J**	**0.440 J**	**0.400 J**	**6.50**	**0.440 J**
Perfluorotetradecanoic acid (PFTeDA)	2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)	2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	2.80 U
Perfluoroundecanoic acid (PFUnA)	1.40 U	1.40 U	1.30 U	1.40 U	1.40 U	1.40 U
†PFOS + PFOA (EPA)	**0.00**	**3.20**	**4.90**	**0.550**	**13.1**	**1.10**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**19.0**	**2.10**	**3.80**	**0.00**	**54.1**	**0.00**
§Sum of All Compounds Detected	**24.5**	**6.36**	**5.85**	**0.950**	**75.7**	**3.39**

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KGS 2020 J3 Range SPM Fall

J3 Range

Location	MW-197M3	MW-198M1	MW-198M2	MW-198M3	MW-198M4	MW-232M1
Field Sample ID	MW-197M3_F20	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	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	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	0.920 U	0.950 U	0.950 U	0.950 U	0.950 U	0.950 U
Perfluorobutanoic acid (PFBA)	**1.50 J**	1.40 U	**0.740 J**	**0.740 J**	**6.50**	**2.20**
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	**1.80 J**	1.40 U
Perfluorohexane sulfonate (PFHxS)	1.80 U	0.950 U	0.950 U	1.90 U	**4.40**	0.950 U
Perfluorohexanoic acid (PFHxA)	0.920 U	0.950 U	0.950 U	0.950 U	**3.70**	0.950 U
Perfluorononanoic acid (PFNA)	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)	**1.00 J**	2.80 U	2.90 U	2.80 U	**2.30 J**	2.90 U
Perfluorooctanoic acid (PFOA)	**0.990 J**	1.40 U	1.40 U	1.40 U	**2.30**	**0.640 J**
Perfluoropentanoic acid (PFPeA)	**0.430 J**	**0.460 J**	0.950 U	0.950 U	**2.80**	**0.420 J**
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
†PFOS + PFOA (EPA)	**1.99**	**0.00**	**0.00**	**0.00**	**4.60**	**0.640**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**0.00**	**6.70**	**0.00**
§Sum of All Compounds Detected	**3.92**	**0.460**	**0.740**	**0.740**	**23.8**	**3.26**

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KGS 2020 J3 Range SPM Fall

J3 Range

Location	MW-232M2	MW-30
Field Sample ID	MW-232M2_F20	MW-30_F20
Sampling Depth	61.00 - 66.00	26.00 - 36.00
Sampling Date	07/16/2020	07/21/2020
SDG	320627321	320629171
Sample Type	**Normal**	**Normal**
PFAS 21 Cmps	Results (ng/L)	Results (ng/L)
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	1.00 U	0.940 U
Perfluorobutanoic acid (PFBA)	**3.20**	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)	1.00 U	0.940 U
Perfluorohexanoic acid (PFHxA)	1.00 U	0.940 U
Perfluorononanoic acid (PFNA)	1.50 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)	3.00 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	3.00 U	**15.0**
Perfluorooctanoic acid (PFOA)	**1.10 J**	**0.790 J**
Perfluoropentanoic acid (PFPeA)	**0.520 J**	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
†PFOS + PFOA (EPA)	**1.10**	**15.8**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**15.0**
§Sum of All Compounds Detected	**4.82**	**15.8**

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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	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)	**6.70 J**	**6.70 J**	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	0.940 U	0.900 U	0.950 U	1.00 U	**3.90**	**3.80**
Perfluorobutanoic acid (PFBA)	1.40 U	1.30 U	1.40 U	1.50 U	**0.840 J**	**1.10 J**
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	**3.20**	**2.80**
Perfluorododecanoic acid (PFDoA)	1.40 U	1.30 U	1.40 U	1.50 U	**2.40**	**2.30**
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	**0.550 J**	1.40 U	1.50 U	1.40 U	1.30 U
Perfluorohexane sulfonate (PFHxS)	**8.10**	**7.70**	0.950 U	1.00 U	0.920 U	0.890 U
Perfluorohexanoic acid (PFHxA)	**0.820 J**	**0.770 J**	0.950 U	1.00 U	**1.30 J**	**1.10 J**
Perfluorononanoic acid (PFNA)	1.40 U	1.30 U	1.40 U	1.50 U	**1.30 J**	**1.10 J**
Perfluorooctanesulfonamide (PFOSA)	2.80 U	2.70 U	2.90 U	3.10 U	2.80 U	2.70 U
Perfluorooctanesulfonic acid (PFOS)	**1.30 J**	**1.10 J**	2.90 U	3.10 U	2.80 U	2.70 U
Perfluorooctanoic acid (PFOA)	**1.80 J**	**1.20 J**	1.40 U	1.50 U	1.40 U	1.30 U
Perfluoropentanoic acid (PFPeA)	**0.680 J**	**0.640 J**	0.950 U	1.00 U	**1.10 J**	**1.00 J**
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	**0.760 J**	2.70 U
Perfluoroundecanoic acid (PFUnA)	1.40 U	1.30 U	1.40 U	1.50 U	**23.0**	**22.0**
†PFOS + PFOA (EPA)	**3.10**	**2.30**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**8.10**	**7.70**	**0.00**	**0.00**	**3.20**	**2.80**

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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	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
§Sum of All Compounds Detected	**19.4**	**18.7**	**0.00**	**0.00**	**37.8**	**35.2**

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KGS 2021 J2 North SPM Fall
J2 Range Northern

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	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	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)	**3.40**	**3.60**	**4.00**	**1.70 J**	**2.60**	**2.50**
Perfluorododecanoic acid (PFDoA)	**0.520 J**	**0.680 J**	**1.10 J**	**0.710 J**	**2.80**	**3.00**
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)	0.970 U	0.960 U	0.930 U	**0.440 J**	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)	**4.80**	**4.80**	**3.60**	**2.10**	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)	2.90 U	2.90 U	2.80 U	2.90 U	2.90 U	2.80 U
Perfluorooctanoic acid (PFOA)	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)	0.970 U	0.960 U	0.930 U	0.950 U	0.960 U	0.940 U
Perfluorotetradecanoic acid (PFTeDA)	2.90 U	2.90 U	2.80 U	2.90 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)	2.90 U	2.90 U	**0.700 J**	**0.840 J**	**1.10 J**	**1.20 J**
Perfluoroundecanoic acid (PFUnA)	**8.30**	**8.60**	**7.80**	**4.40**	**27.0**	**27.0**
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**8.20**	**8.40**	**7.60**	**2.10**	**2.60**	**2.50**
§Sum of All Compounds Detected	**17.0**	**17.7**	**17.2**	**10.2**	**33.5**	**33.7**

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KGS 2021 J2 North SPM Fall
J2 Range Northern

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	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	0.970 U	0.960 U	0.970 U	0.990 U	0.950 U	0.960 U
Perfluorobutanoic acid (PFBA)	1.50 U	**1.60 J**	**0.890 J**	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)	**3.60**	**38.0**	**8.90**	**19.0**	**18.0**	**2.30**
Perfluorododecanoic acid (PFDoA)	1.50 U	**2.50**	**2.20**	**0.810 J**	**1.80 J**	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	**1.10 J**	1.50 U	1.50 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	0.970 U	0.960 U	0.970 U	0.990 U	0.950 U	0.960 U
Perfluorohexanoic acid (PFHxA)	0.970 U	**0.770 J**	0.970 U	0.990 U	0.950 U	0.960 U
Perfluorononanoic acid (PFNA)	**2.20**	**16.0**	**12.0**	**25.0**	**14.0**	**1.60 J**
Perfluorooctanesulfonamide (PFOSA)	2.90 U	2.90 U	2.90 U	3.00 U	2.80 U	2.90 U
Perfluorooctanesulfonic acid (PFOS)	2.90 U	2.90 U	2.90 U	3.00 U	2.80 U	2.90 U
Perfluorooctanoic acid (PFOA)	1.50 U	**0.660 J**	**0.650 J**	1.50 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)	0.970 U	**2.50**	**1.20 J**	0.990 U	0.950 U	0.960 U
Perfluorotetradecanoic acid (PFTeDA)	2.90 U	**1.10 J**	2.90 U	3.00 U	**0.840 J**	2.90 U
Perfluorotridecanoic acid (PFTrDA)	2.90 U	**1.60 J**	**2.10 J**	3.00 U	**1.20 J**	2.90 U
Perfluoroundecanoic acid (PFUnA)	**3.30**	**23.0**	**9.60**	**8.90**	**18.0**	**1.50 J**
†PFOS + PFOA (EPA)	**0.00**	**0.660**	**0.650**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**5.80**	**54.0**	**20.9**	**44.0**	**32.0**	**2.30**
§Sum of All Compounds Detected	**9.10**	**88.8**	**37.5**	**53.7**	**53.8**	**5.40**

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KGS 2021 J2 North SPM Fall
J2 Range Northern

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	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	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	**0.790 J**	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)	**1.60 J**	**56.0**	**2.90**	**2.40**	0.930 U	0.910 U
Perfluorododecanoic acid (PFDoA)	1.40 U	**3.40**	**0.760 J**	**2.40**	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	**0.910 J**	1.50 U	1.30 U	1.40 U	1.40 U
Perfluorohexane sulfonate (PFHxS)	0.950 U	**0.410 J**	**0.810 J**	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)	**4.00**	**14.0**	**6.80**	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)	2.80 U	2.70 U	**1.20 J**	2.70 U	2.80 U	2.70 U
Perfluorooctanoic acid (PFOA)	1.40 U	**1.10 J**	**0.580 J**	1.30 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)	0.950 U	**0.480 J**	**0.960 J**	0.890 U	0.930 U	0.910 U
Perfluorotetradecanoic acid (PFTeDA)	2.80 U	**0.930 J**	3.00 U	2.70 U	2.80 U	2.70 U
Perfluorotridecanoic acid (PFTrDA)	2.80 U	**1.80 J**	**0.840 J**	**0.740 J**	2.80 U	2.70 U
Perfluoroundecanoic acid (PFUnA)	1.40 U	**32.0**	**3.60**	**8.70**	1.40 U	1.40 U
†PFOS + PFOA (EPA)	**0.00**	**1.10**	**1.78**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**4.00**	**70.0**	**9.70**	**2.40**	**0.00**	**0.00**
§Sum of All Compounds Detected	**5.60**	**111**	**19.2**	**14.2**	**0.00**	**0.00**

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KGS 2021 J2 North SPM Fall

J2 Range Northern

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	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	0.920 U	0.930 U	**1.70 J**	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)	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)	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)	2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	3.00 U
Perfluorooctanoic acid (PFOA)	1.40 U	1.40 U	1.40 U	**0.570 J**	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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.570**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected	**0.00**	**0.00**	**1.70**	**0.570**	**0.00**	**0.00**

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KGS 2021 J2 North SPM Fall
J2 Range Northern

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	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	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)	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)	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)	2.80 U	2.80 U	2.80 U	2.80 U	2.70 U	2.80 U
Perfluorooctanoic acid (PFOA)	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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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KGS 2021 J2 North SPM Fall

J2 Range Northern

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	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	0.960 U	0.880 U	**12.0**	0.900 U	0.900 U	0.960 U
Perfluorobutanoic acid (PFBA)	1.40 U	1.30 U	**2.80**	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)	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	**23.0**	0.900 U	0.900 U	0.960 U
Perfluorononanoic acid (PFNA)	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)	2.90 U	2.60 U	2.70 U	2.70 U	2.70 U	2.90 U
Perfluorooctanoic acid (PFOA)	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	**11.0**	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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected	**0.00**	**0.00**	**48.8**	**0.00**	**0.00**	**0.00**

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KGS 2021 J2 North SPM Fall

J2 Range Northern

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	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	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	**3.30**	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	**3.90**	**2.00**	**2.00**	**2.20**
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)	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	**0.900 J**	0.940 U
Perfluorononanoic acid (PFNA)	1.40 U	**1.60 J**	**0.640 J**	**1.10 J**	**0.830 J**
Perfluorooctanesulfonamide (PFOSA)	2.70 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorooctanesulfonic acid (PFOS)	2.70 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorooctanoic acid (PFOA)	1.40 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluoropentanoic acid (PFPeA)	0.910 U	**0.700 J**	0.970 U	**3.20**	0.940 U
Perfluorotetradecanoic acid (PFTeDA)	2.70 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)	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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**3.90**	**2.00**	**2.00**	**2.20**
§Sum of All Compounds Detected	**0.00**	**6.20**	**2.64**	**10.5**	**3.03**

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KGS 2021 J2 Ranges SPM Spring

J2 Range Northern

Location	J2EW0002
Field Sample ID	J2EW0002_521
Sampling Depth	198.00 - 233.00
Sampling Date	01/13/2021
SDG	320689351
Sample Type	**Normal**
PFAS 21 Cmps	Results (ng/L)
6:2 Fluorotelomer sulfonate (6:2 FTS)	**7.40 J**
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	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)	**0.430 J**
Perfluoroheptanoic acid (PFHpA)	**0.860 J**
Perfluorohexane sulfonate (PFHxS)	**11.0**
Perfluorohexanoic acid (PFHxA)	**0.900 J**
Perfluorononanoic acid (PFNA)	1.40 U
Perfluorooctanesulfonamide (PFOSA)	**1.80 J**
Perfluorooctanesulfonic acid (PFOS)	**1.00 J**
Perfluorooctanoic acid (PFOA)	**1.80 J**
Perfluoropentanoic acid (PFPeA)	1.90 U
Perfluorotetradecanoic acid (PFTeDA)	2.80 U
Perfluorotridecanoic acid (PFTrDA)	2.80 U
Perfluoroundecanoic acid (PFUnA)	1.40 U
†PFOS + PFOA (EPA)	**2.80**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**11.0**
§Sum of All Compounds Detected	**25.2**

KGS 2021 J3 Range SPM Fall
J3 Range

Location	90EW0001	90WT0004	J3-EFF	J3-EFF	J3-INF	J3-INF
Field Sample ID	90EW0001_F21	90WT0004_F21	J3-EFF_4Q21	J3-EFF_F21	J3-INF_4Q21	J3-INF_F21
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	07/13/2021	08/10/2021	10/20/2021	07/13/2021	10/20/2021	07/13/2021
SDG	320762631	320775331	320807451	320762631	320807451	320762631
Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	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	19.0 U	19.0 U
8:2 Fluorotelomer sulfonate (8:2 FTS)	9.20 U	9.20 U	9.60 U	9.50 U	9.70 U	9.50 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	9.20 U	9.20 U	9.60 U	9.50 U	9.70 U	9.50 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	9.20 U	9.20 U	9.60 U	9.50 U	9.70 U	9.50 U
Perfluorobutanesulfonic acid	0.920 U	0.920 U	0.960 U	0.950 U	0.970 U	0.950 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	0.970 U	0.950 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	0.970 U	0.950 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)	**0.500 J**	0.920 U	0.960 U	0.950 U	**1.00 J**	**1.20 J**
Perfluorohexanoic acid (PFHxA)	0.920 U	0.920 U	0.960 U	0.950 U	0.970 U	0.950 U
Perfluorononanoic acid (PFNA)	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)	2.70 U	2.80 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorooctanoic acid (PFOA)	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	0.970 U	0.950 U
Perfluorotetradecanoic acid (PFTeDA)	2.70 U	2.80 U	2.90 U	2.90 U	2.90 U	2.80 U
Perfluorotridecanoic acid (PFTrDA)	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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected	**0.500**	**0.00**	**0.00**	**0.00**	**1.00**	**1.20**

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KGS 2021 J3 Range SPM Fall
J3 Range

Location	J3EW0032	J3EWIP1	J3EWIP2	MW-142M2	MW-142S	MW-143M1
Field Sample ID	J3EW0032_F21	J3EWIP1_F21	J3EWIP2_F21	MW-142M2_F21	MW-142S_F21	MW-143M1_F21
Sampling Depth	102.00 - 152.00	153.00 - 193.00	150.50 - 170.50	140.00 - 150.00	42.00 - 52.00	144.00 - 154.00
Sampling Date	07/13/2021	07/13/2021	07/13/2021	07/27/2021	07/27/2021	07/26/2021
SDG	320762631	320762631	320762631	320769671	320769671	320769671
Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	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	20.0 U	19.0 UJ	19.0 UJ	19.0 UJ
8:2 Fluorotelomer sulfonate (8:2 FTS)	9.80 U	9.40 U	9.80 U	9.70 UJ	9.30 UJ	9.60 UJ
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	9.80 U	9.40 U	9.80 U	9.70 UJ	9.30 UJ	9.60 UJ
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	9.80 U	9.40 U	9.80 U	9.70 UJ	9.30 UJ	9.60 UJ
Perfluorobutanesulfonic acid	0.980 U	0.940 U	0.980 U	0.970 UJ	0.930 UJ	0.960 UJ
Perfluorobutanoic acid (PFBA)	1.50 U	1.40 U	1.50 U	1.50 UJ	1.40 UJ	1.40 UJ
Perfluorodecanesulfonic acid (PFDS)	1.50 U	1.40 U	1.50 U	1.50 UJ	1.40 UJ	1.40 UJ
Perfluorodecanoic acid (PFDA)	0.980 U	0.940 U	0.980 U	0.970 UJ	0.930 UJ	0.960 UJ
Perfluorododecanoic acid (PFDoA)	1.50 U	1.40 U	1.50 U	1.50 UJ	1.40 UJ	1.40 UJ
Perfluoroheptanesulfonic acid (PFHpS)	0.980 U	0.940 U	0.980 U	0.970 UJ	0.930 UJ	0.960 UJ
Perfluoroheptanoic acid (PFHpA)	1.50 U	1.40 U	1.50 U	1.50 UJ	1.40 UJ	1.40 UJ
Perfluorohexane sulfonate (PFHxS)	**0.720 J**	**0.520 J**	**2.80**	**2.80 J**	0.930 UJ	0.960 UJ
Perfluorohexanoic acid (PFHxA)	0.980 U	0.940 U	0.980 U	0.970 UJ	0.930 UJ	0.960 UJ
Perfluorononanoic acid (PFNA)	1.50 U	1.40 U	1.50 U	1.50 UJ	1.40 UJ	1.40 UJ
Perfluorooctanesulfonamide (PFOSA)	2.90 U	2.80 U	2.90 U	2.90 UJ	2.80 UJ	2.90 UJ
Perfluorooctanesulfonic acid (PFOS)	2.90 U	2.80 U	2.90 U	2.90 UJ	2.80 UJ	2.90 UJ
Perfluorooctanoic acid (PFOA)	1.50 U	1.40 U	1.50 U	1.50 UJ	**0.510 J**	1.40 UJ
Perfluoropentanoic acid (PFPeA)	0.980 U	0.940 U	0.980 U	0.970 UJ	0.930 UJ	0.960 UJ
Perfluorotetradecanoic acid (PFTeDA)	2.90 U	2.80 U	2.90 U	2.90 UJ	2.80 UJ	2.90 UJ
Perfluorotridecanoic acid (PFTrDA)	2.90 U	2.80 U	2.90 U	2.90 UJ	2.80 UJ	2.90 UJ
Perfluoroundecanoic acid (PFUnA)	1.50 U	1.40 U	1.50 U	1.50 UJ	1.40 UJ	1.40 UJ
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.510**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**2.80**	**2.80**	**0.00**	**0.00**
§Sum of All Compounds Detected	**0.720**	**0.520**	**2.80**	**2.80**	**0.510**	**0.00**

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KGS 2021 J3 Range SPM Fall

J3 Range

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	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	**0.640 J**	**0.700 J**	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)	**4.10**	**4.00**	0.940 UJ	0.990 U	0.950 U	**1.50 J**
Perfluorohexanoic acid (PFHxA)	0.950 U	0.940 U	0.940 UJ	0.990 U	0.950 U	**0.630 J**
Perfluorononanoic acid (PFNA)	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)	2.80 U	2.80 U	2.80 UJ	**3.60 J**	2.90 U	**3.90**
Perfluorooctanoic acid (PFOA)	1.40 U	1.40 U	1.40 UJ	**0.570 J**	1.40 U	**0.760 J**
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 (PFTrDA)	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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**4.17**	**0.00**	**4.66**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**4.10**	**4.00**	**0.00**	**0.00**	**0.00**	**3.90**

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	Location	MW-143M2	MW-143M2	MW-144M2	MW-144S	MW-145M1	MW-145S
	Field Sample ID	MW-143M2_F21DR	MW-143M2_F21R	MW-144M2_F21	MW-144S_F21R	MW-145M1_F21	MW-145S_F21
	Sampling Depth	117.00 - 122.00	117.00 - 122.00	130.00 - 140.00	26.00 - 36.00	125.00 - 135.00	30.00 - 40.00
	Sampling Date	09/16/2021	09/16/2021	07/27/2021	09/16/2021	08/11/2021	08/11/2021
	SDG	320791142	320791142	320769671	320791142	320776031	320776031
	Sample Type	**Field Duplicate**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps		Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	§Sum of All Compounds Detected	**4.74**	**4.70**	**0.00**	**4.17**	**0.00**	**6.79**

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KGS 2021 J3 Range SPM Fall

J3 Range

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	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	0.930 U	**9.40**	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)	0.930 U	**0.720 J**	**1.50 J**	**0.450 J**	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)	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)	2.80 U	2.90 U	3.00 U	**4.80**	**15.0**	**15.0**
Perfluorooctanoic acid (PFOA)	1.40 U	1.50 U	**0.730 J**	**1.10 J**	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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.730**	**5.90**	**15.0**	**15.0**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**4.80**	**15.0**	**15.0**
§Sum of All Compounds Detected	**0.00**	**10.1**	**2.23**	**6.35**	**15.0**	**15.0**

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KGS 2021 J3 Range SPM Fall
J3 Range

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	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	0.940 U	0.940 U	0.960 U	1.00 U	**0.450 J**	**0.460 J**
Perfluorobutanoic acid (PFBA)	1.40 U	1.40 U	**0.900 J**	1.50 U	**2.60**	**2.60**
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	**3.00**	**3.00**
Perfluorohexane sulfonate (PFHxS)	**2.80**	**2.60**	0.960 U	**0.440 J**	**15.0**	**15.0**
Perfluorohexanoic acid (PFHxA)	0.940 U	0.940 U	**0.760 J**	**0.480 J**	**5.00**	**5.50**
Perfluorononanoic acid (PFNA)	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)	2.80 U	2.80 U	2.90 U	**5.30 J**	**4.90**	**4.80**
Perfluorooctanoic acid (PFOA)	1.40 U	1.40 U	**1.40 J**	**0.700 J**	**2.70**	**2.90**
Perfluoropentanoic acid (PFPeA)	0.940 U	0.940 U	0.960 U	1.00 U	**4.20**	**4.20**
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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**1.40**	**6.00**	**7.60**	**7.70**
‡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**

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KGS 2021 J3 Range SPM Fall
J3 Range

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	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	0.940 U	0.930 U	**0.420 J**	0.950 U	0.940 U	1.00 U
Perfluorobutanoic acid (PFBA)	**1.30 J**	**1.40 J**	**400**	1.40 U	**64.0**	**3.00**
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	**42.0**	**5.60**	**10.0**	**5.10**
Perfluorododecanoic acid (PFDoA)	1.40 U	1.40 U	**32.0**	1.40 U	**2.30**	**0.600 J**
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	**360**	1.40 U	**100**	**2.10**
Perfluorohexane sulfonate (PFHxS)	**2.40**	**8.50**	0.910 U	0.950 U	0.940 U	1.00 U
Perfluorohexanoic acid (PFHxA)	**0.590 J**	0.930 U	**350**	0.950 U	**57.0**	**1.90 J**
Perfluorononanoic acid (PFNA)	1.40 U	1.40 U	**75.0**	**6.20**	**35.0**	**6.20**
Perfluorooctanesulfonamide (PFOSA)	2.80 U	2.80 U	2.70 U	2.80 U	2.80 U	3.00 U
Perfluorooctanesulfonic acid (PFOS)	2.80 U	**1.70 J**	2.70 U	2.80 U	2.80 U	3.00 U
Perfluorooctanoic acid (PFOA)	**1.00 J**	**0.870 J**	**120**	**5.70**	**49.0**	**2.10**
Perfluoropentanoic acid (PFPeA)	0.940 U	0.930 U	**770**	0.950 U	**110**	**5.00**
Perfluorotetradecanoic acid (PFTeDA)	2.80 U	2.80 U	**35.0**	2.80 U	**2.00 J**	3.00 U
Perfluorotridecanoic acid (PFTrDA)	2.80 U	2.80 U	**49.0**	2.80 U	**2.60 J**	3.00 U
Perfluoroundecanoic acid (PFUnA)	1.40 U	1.40 U	**48.0**	**3.60**	**6.80**	**3.50**
†PFOS + PFOA (EPA)	**1.00**	**2.57**	**120**	**5.70**	**49.0**	**2.10**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**2.40**	**8.50**	**597**	**17.5**	**194**	**15.5**
§Sum of All Compounds Detected	**5.29**	**12.5**	**2280**	**21.1**	**439**	**29.5**

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KGS 2021 J3 Range SPM Fall

J3 Range

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	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	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)	0.910 U	0.930 U	**0.550 J**	**1.90**	0.900 U	**0.470 J**
Perfluorohexanoic acid (PFHxA)	0.910 U	0.930 U	0.900 U	0.900 U	0.900 U	0.940 U
Perfluorononanoic acid (PFNA)	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)	2.70 U	2.80 U	2.70 U	**1.00 J**	**7.00**	2.80 U
Perfluorooctanoic acid (PFOA)	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 (PFTrDA)	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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**1.00**	**7.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**1.90**	**7.00**	**0.00**
§Sum of All Compounds Detected	**0.00**	**0.00**	**0.550**	**2.90**	**7.00**	**0.470**

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KGS 2021 J3 Range SPM Fall

J3 Range

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	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	0.950 U	**1.20 J**	**3.50**	0.910 U
Perfluorobutanoic acid (PFBA)	1.40 U	1.40 U	**1.20 J**	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	**2.50**	1.40 U
Perfluorohexane sulfonate (PFHxS)	0.950 U	**4.80**	**83.0**	0.910 U
Perfluorohexanoic acid (PFHxA)	**0.460 J**	**0.570 J**	**5.80**	0.910 U
Perfluorononanoic acid (PFNA)	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)	2.90 U	**1.60 J**	**5.30**	2.70 U
Perfluorooctanoic acid (PFOA)	1.40 U	1.40 U	**1.80 J**	1.40 U
Perfluoropentanoic acid (PFPeA)	0.950 U	0.930 U	**3.30**	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
†PFOS + PFOA (EPA)	**0.00**	**1.60**	**7.10**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**4.80**	**90.8**	**0.00**
§Sum of All Compounds Detected	**0.460**	**8.17**	**106**	**0.00**

PFAS Summary Report – Groundwater
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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	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	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)	**4.30**	1.00 U	0.980 U	0.950 U	0.990 U	**0.600 J**
Perfluorohexanoic acid (PFHxA)	1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorononanoic acid (PFNA)	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)	1.40 U	1.50 U	1.50 U	1.40 U	1.50 U	1.50 U
Perfluorooctanoic acid (PFOA)	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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**4.30**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected	**4.30**	**0.00**	**0.00**	**0.00**	**0.00**	**0.600**

PFAS Summary Report – Groundwater
Joint Base Cape Cod, IAGWSP

KGS 2022 J2 North PFAS Spring

J2 Range Eastern

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	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	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)	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)	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)	1.50 U	1.40 U	1.50 U	1.40 U	1.40 U
Perfluorooctanoic acid (PFOA)	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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

PFAS Summary Report – Groundwater
Joint Base Cape Cod, IAGWSP

KGS 2022 J2 North PFAS Spring

J2 Range Northern

Location	C-4D	C-4D	C-4M	C-4S	C-7D	C-7M
Field Sample ID	C-4D_S22	C-4D_S22D	C-4M_S22	C-4S_S22	C-7D_S22	C-7M_S22
Sampling Depth	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	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	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)	**4.30**	**4.50**	**5.90**	**5.30**	**4.80**	**4.20**
Perfluorododecanoic acid (PFDoA)	**0.760 J**	**1.00 J**	**1.60 J**	**1.10 J**	**1.70 J**	**0.960 J**
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)	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)	**0.900 J**	**0.930 J**	**1.30 J**	**1.90**	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)	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanoic acid (PFOA)	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	**0.970 J**	**0.940 J**	1.40 U
Perfluoroundecanoic acid (PFUnA)	**4.60**	**4.30**	**13.0**	**14.0**	**12.0**	**5.80**
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**4.30**	**4.50**	**5.90**	**7.20**	**4.80**	**4.20**
§Sum of All Compounds Detected	**10.6**	**10.7**	**21.8**	**23.3**	**19.4**	**11.0**

PFAS Summary Report – Groundwater
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KGS 2022 J2 North PFAS Spring
J2 Range Northern

Location	C-7S	J2EW3-MW1-A	J2EW3-MW1-B	J2EW3-MW-2-A	J2EW3-MW-2-B	J2EW3-MW-2-C
Field Sample ID	C-7S_S22	J2EW3-MW1-A_S22	J2EW3-MW1-B_S22	J2EW3-MW-2-A_S22	J2EW3-MW-2-B_S22	J2EW3-MW-2-C_S22
Sampling Depth	0.00 - 0.00	145.66 - 155.66	210.66 - 220.66	151.16 - 161.16	216.16 - 226.16	251.13 - 261.13
Sampling Date	01/12/2022	01/05/2022	01/05/2022	01/06/2022	01/06/2022	01/06/2022
SDG	320838831	320837121	320837121	320836691	320836691	320836691
Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	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	1.00 U	1.00 U	0.950 U
8:2 Fluorotelomer sulfonate (8:2 FTS)	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.990 U	0.990 U	0.990 U	1.00 U	1.00 U	0.950 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.990 U	0.990 U	0.990 U	1.00 U	1.00 U	0.950 U
Perfluorobutanesulfonic acid	0.990 U	0.990 U	0.990 U	1.00 U	1.00 U	**1.30 J**
Perfluorobutanoic acid (PFBA)	0.490 U	0.490 U	0.490 U	0.500 U	0.510 U	**0.380 J**
Perfluorodecanesulfonic acid (PFDS)	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluorodecanoic acid (PFDA)	**2.20**	0.990 U	0.990 U	1.00 U	1.00 U	0.950 U
Perfluorododecanoic acid (PFDoA)	**1.70 J**	0.990 U	0.990 U	1.00 U	1.00 U	0.950 U
Perfluoroheptanesulfonic acid (PFHpS)	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluoroheptanoic acid (PFHpA)	0.990 U	0.990 U	0.990 U	1.00 U	1.00 U	0.950 U
Perfluorohexane sulfonate (PFHxS)	0.990 U	0.990 U	0.990 U	1.00 U	1.00 U	**1.20 J**
Perfluorohexanoic acid (PFHxA)	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	**1.70 J**
Perfluorononanoic acid (PFNA)	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluorooctanesulfonamide (PFOSA)	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluorooctanesulfonic acid (PFOS)	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluorooctanoic acid (PFOA)	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluoropentanoic acid (PFPeA)	0.490 U	0.490 U	0.490 U	0.500 U	0.510 U	**0.900 J**
Perfluorotetradecanoic acid (PFTeDA)	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluorotridecanoic acid (PFTrDA)	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.40 U
Perfluoroundecanoic acid (PFUnA)	**13.0**	1.50 U	1.50 U	1.50 U	1.50 U	1.40 U
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**2.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	C-7S	J2EW3-MW1-A	J2EW3-MW1-B	J2EW3-MW-2-A	J2EW3-MW-2-B	J2EW3-MW-2-C
	Field Sample ID	C-7S_S22	J2EW3-MW1-A_S22	J2EW3-MW1-B_S22	J2EW3-MW-2-A_S22	J2EW3-MW-2-B_S22	J2EW3-MW-2-C_S22
	Sampling Depth	0.00 - 0.00	145.66 - 155.66	210.66 - 220.66	151.16 - 161.16	216.16 - 226.16	251.13 - 261.13
	Sampling Date	01/12/2022	01/05/2022	01/05/2022	01/06/2022	01/06/2022	01/06/2022
	SDG	320838831	320837121	320837121	320836691	320836691	320836691
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps		Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	§Sum of All Compounds Detected	**16.9**	**0.00**	**0.00**	**0.00**	**0.00**	**5.48**

PFAS Summary Report – Groundwater
Joint Base Cape Cod, IAGWSP

KGS 2022 J2 North PFAS Spring
J2 Range Northern

Location	J2EW3-MW1-C	J2N-EFF-E	J2N-EFF-F	J2N-EFF-G	MW-130D	MW-18M1
Field Sample ID	J2EW3-MW1-C_S22	J2N-EFF-E_S22	J2N-EFF-F_S22	J2N-EFF-G_S22	MW-130D_S22	MW-18M1_S22
Sampling Depth	245.66 - 255.66	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	320.00 - 330.00	171.00 - 176.00
Sampling Date	01/05/2022	01/10/2022	01/10/2022	01/10/2022	12/29/2021	12/27/2021
SDG	320837121	320838001	320838001	320838001	320835011	320834481
Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	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)	0.930 U	0.970 U	**1.20 J**	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)	0.930 U	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.930 U	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluorobutanesulfonic acid	0.930 U	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluorobutanoic acid (PFBA)	0.460 U	0.490 U	**0.250 J**	**0.290 J**	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)	0.930 U	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluorododecanoic acid (PFDoA)	0.930 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)	0.930 U	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluorohexane sulfonate (PFHxS)	0.930 U	0.970 U	0.960 U	0.950 U	1.00 U	0.990 U
Perfluorohexanoic acid (PFHxA)	1.40 U	1.50 U	**1.00 J**	**1.60 J**	1.50 U	1.50 U
Perfluorononanoic acid (PFNA)	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)	1.40 U	1.50 U	1.40 U	1.40 U	**1.00 J**	1.50 U
Perfluorooctanoic acid (PFOA)	1.40 U	1.50 U	1.40 U	1.40 U	1.50 U	1.50 U
Perfluoropentanoic acid (PFPeA)	0.460 U	0.490 U	**0.620 J**	**0.510 J**	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 (PFTrDA)	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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**1.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	Location	J2EW3-MW1-C	J2N-EFF-E	J2N-EFF-F	J2N-EFF-G	MW-130D	MW-18M1
	Field Sample ID	J2EW3-MW1-C_S22	J2N-EFF-E_S22	J2N-EFF-F_S22	J2N-EFF-G_S22	MW-130D_S22	MW-18M1_S22
	Sampling Depth	245.66 - 255.66	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	320.00 - 330.00	171.00 - 176.00
	Sampling Date	01/05/2022	01/10/2022	01/10/2022	01/10/2022	12/29/2021	12/27/2021
	SDG	320837121	320838001	320838001	320838001	320835011	320834481
	Sample Type	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps		Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)	Results (ng/L)
	§Sum of All Compounds Detected	**0.00**	**0.00**	**3.07**	**2.40**	**1.00**	**0.00**

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KGS 2022 J2 North PFAS Spring
J2 Range Northern

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	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	**5.30**
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	**0.590 J**	0.940 U	0.930 U	0.950 U
Perfluorobutanesulfonic acid	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	**0.310 J**	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	**2.00**	**14.0**	0.940 U	**1.20 J**	**3.50**
Perfluorododecanoic acid (PFDoA)	1.00 U	**1.10 J**	**1.30 J**	**0.780 J**	**0.490 J**	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)	1.00 U	**0.700 J**	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)	1.50 U	1.50 U	**20.0**	**0.570 J**	**1.10 J**	**1.70 J**
Perfluorooctanesulfonamide (PFOSA)	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanesulfonic acid (PFOS)	1.50 U	1.50 U	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanoic acid (PFOA)	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	**0.990 J**	1.40 U	1.40 U	1.40 U
Perfluoroundecanoic acid (PFUnA)	1.50 U	**10.0**	**15.0**	**3.20**	**1.20 J**	**6.50**
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**2.00**	**34.0**	**0.00**	**0.00**	**3.50**
§Sum of All Compounds Detected	**0.00**	**13.8**	**51.9**	**4.86**	**3.99**	**17.0**

PFAS Summary Report – Groundwater
Joint Base Cape Cod, IAGWSP

KGS 2022 J2 North PFAS Spring
J2 Range Northern

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_S22D
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**	**Field Duplicate**
PFAS 21 Cmps	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	0.970 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	0.970 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.920 U	0.960 U	0.910 U	0.950 U	0.960 U	0.970 U
Perfluorobutanesulfonic acid	0.920 U	0.960 U	0.910 U	**0.450 J**	0.960 U	0.970 U
Perfluorobutanoic acid (PFBA)	1.80 U	1.90 U	0.460 U	**1.80 J**	0.480 U	**1.30 J**
Perfluorodecanesulfonic acid (PFDS)	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorodecanoic acid (PFDA)	**1.60 J**	**1.40 J**	**2.00**	**1.40 J**	**2.10**	**18.0**
Perfluorododecanoic acid (PFDoA)	0.920 U	0.960 U	**3.20**	**8.80**	**0.820 J**	**0.800 J**
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	**0.470 J**	0.960 U	**0.870 J**
Perfluorohexane sulfonate (PFHxS)	0.920 U	0.960 U	0.910 U	0.950 U	0.960 U	0.970 U
Perfluorohexanoic acid (PFHxA)	**1.30 J**	**1.20 J**	1.40 U	**0.560 J**	1.40 U	**0.580 J**
Perfluorononanoic acid (PFNA)	**0.560 J**	**0.630 J**	1.40 U	1.40 U	1.40 U	**3.50**
Perfluorooctanesulfonamide (PFOSA)	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorooctanoic acid (PFOA)	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluoropentanoic acid (PFPeA)	**1.10 J**	**1.00 J**	**0.240 J**	**0.900 J**	0.480 U	**1.60 J**
Perfluorotetradecanoic acid (PFTeDA)	1.40 U	1.40 U	1.40 U	1.40 U	1.40 U	1.50 U
Perfluorotridecanoic acid (PFTrDA)	1.40 U	1.40 U	**0.650 J**	**1.70 J**	1.40 U	1.50 U
Perfluoroundecanoic acid (PFUnA)	**5.80**	**5.80**	**17.0**	**17.0**	**4.70**	**16.0**
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**2.00**	**0.00**	**2.10**	**21.5**
§Sum of All Compounds Detected	**10.4**	**10.0**	**23.1**	**33.1**	**7.62**	**42.7**

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KGS 2022 J2 North PFAS Spring
J2 Range Northern

Location	MW-330M1	MW-330M2	MW-330M3	MW-330M3	MW-337D	MW-337M1
Field Sample ID	MW-330M1_S22	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	**Normal**	**Normal**	**Normal**	**Field Duplicate**	**Normal**	**Normal**
PFAS 21 Cmps	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	0.970 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)	0.990 U	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.990 U	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
Perfluorobutanesulfonic acid	0.990 U	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
Perfluorobutanoic acid (PFBA)	**1.40 J**	**0.400 J**	**0.510 J**	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)	**23.0**	**5.10**	**14.0**	**11.0**	**23.0**	**1.00 J**
Perfluorododecanoic acid (PFDoA)	**1.40 J**	**0.650 J**	**0.560 J**	0.980 U	**0.640 J**	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)	**0.910 J**	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
Perfluorohexane sulfonate (PFHxS)	0.990 U	0.970 U	1.00 U	0.980 U	1.00 U	1.00 U
Perfluorohexanoic acid (PFHxA)	**0.680 J**	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorononanoic acid (PFNA)	**4.20**	**4.70**	**6.50**	**6.00**	**19.0**	**5.80**
Perfluorooctanesulfonamide (PFOSA)	1.50 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	1.50 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorooctanoic acid (PFOA)	1.50 U	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluoropentanoic acid (PFPeA)	**1.70 J**	**0.250 J**	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	**0.530 J**	1.50 U
Perfluorotridecanoic acid (PFTrDA)	**0.880 J**	**0.820 J**	1.50 U	1.50 U	1.60 U	1.50 U
Perfluoroundecanoic acid (PFUnA)	**18.0**	**5.20**	**6.50**	**5.70**	**16.0**	**1.90 J**
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**27.2**	**9.80**	**20.5**	**17.0**	**42.0**	**5.80**
§Sum of All Compounds Detected	**52.2**	**17.1**	**28.1**	**22.7**	**59.2**	**8.70**

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KGS 2022 J2 North PFAS Spring
J2 Range Northern

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	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)	**6.50 J**	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	1.00 U	0.970 U	0.970 U	0.990 U	0.980 U	0.990 U
Perfluorobutanoic acid (PFBA)	**0.310 J**	0.490 U	**0.440 J**	**0.280 J**	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)	**13.0**	**14.0**	**21.0**	**28.0**	0.980 U	0.990 U
Perfluorododecanoic acid (PFDoA)	**0.830 J**	**0.990 J**	**0.960 J**	**1.70 J**	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)	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)	**3.50**	**3.60**	**3.00**	**4.50**	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)	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluorooctanoic acid (PFOA)	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluoropentanoic acid (PFPeA)	0.500 U	0.490 U	0.490 U	0.490 U	0.490 U	0.490 U
Perfluorotetradecanoic acid (PFTeDA)	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
Perfluorotridecanoic acid (PFTrDA)	1.50 U	1.50 U	1.50 U	**1.30 J**	1.50 U	1.50 U
Perfluoroundecanoic acid (PFUnA)	**19.0**	**20.0**	**20.0**	**23.0**	1.50 U	1.50 U
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡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
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KGS 2022 J2 North PFAS Spring
J2 Range Northern

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	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	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)	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)	1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluorooctanesulfonamide (PFOSA)	**0.590 J**	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluorooctanesulfonic acid (PFOS)	1.50 U	1.40 U	1.40 U	1.50 U	1.40 U	1.50 U
Perfluorooctanoic acid (PFOA)	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)	**0.620 J**	**0.540 J**	1.40 U	1.50 U	1.40 U	**0.620 J**
Perfluorotridecanoic acid (PFTrDA)	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
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected	**1.21**	**0.540**	**0.00**	**0.00**	**0.00**	**0.620**

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KGS 2022 J2 North PFAS Spring
J2 Range Northern

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	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	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	**0.290 J**	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	**2.20**	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)	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)	1.40 U	1.50 U	1.50 U	1.50 U	**1.20 J**	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)	1.40 U	1.50 U	**0.790 J**	**0.590 J**	1.60 U	1.50 U
Perfluorooctanoic acid (PFOA)	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)	**0.610 J**	1.50 U	1.50 U	1.50 U	1.60 U	1.50 U
Perfluorotridecanoic acid (PFTrDA)	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	**1.40 J**	1.50 U
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.790**	**0.590**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**0.00**	**2.20**	**0.00**
§Sum of All Compounds Detected	**0.610**	**0.00**	**0.790**	**0.590**	**5.09**	**0.00**

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KGS 2022 J2 North PFAS Spring

J2 Range Northern

Location	MW-63S
Field Sample ID	MW-63S_S22
Sampling Depth	153.00 - 163.00
Sampling Date	12/15/2021
SDG	320831661
Sample Type	**Normal**

PFAS 21 Cmps	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	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)	0.950 U
Perfluorohexanoic acid (PFHxA)	1.40 U
Perfluorononanoic acid (PFNA)	1.40 U
Perfluorooctanesulfonamide (PFOSA)	1.40 U
Perfluorooctanesulfonic acid (PFOS)	1.40 U
Perfluorooctanoic acid (PFOA)	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
†PFOS + PFOA (EPA)	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**
§Sum of All Compounds Detected	**0.00**

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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	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	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)	0.990 U
Perfluorohexanoic acid (PFHxA)	1.50 U
Perfluorononanoic acid (PFNA)	1.50 U
Perfluorooctanesulfonamide (PFOSA)	1.50 U
Perfluorooctanesulfonic acid (PFOS)	1.50 U
Perfluorooctanoic acid (PFOA)	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
†PFOS + PFOA (EPA)	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**
§Sum of All Compounds Detected	**0.00**

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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	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	0.960 U
Perfluorobutanoic acid (PFBA)	**1.50 J**
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)	**1.20 J**
Perfluorohexane sulfonate (PFHxS)	0.960 U
Perfluorohexanoic acid (PFHxA)	**1.20 J**
Perfluorononanoic acid (PFNA)	1.40 U
Perfluorooctanesulfonamide (PFOSA)	1.40 U
Perfluorooctanesulfonic acid (PFOS)	**2.30**
Perfluorooctanoic acid (PFOA)	**1.30 J**
Perfluoropentanoic acid (PFPeA)	**0.640 J**
Perfluorotetradecanoic acid (PFTeDA)	1.40 U
Perfluorotridecanoic acid (PFTrDA)	1.40 U
Perfluoroundecanoic acid (PFUnA)	1.40 U
†PFOS + PFOA (EPA)	**3.60**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**2.30**
§Sum of All Compounds Detected	**8.14**

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KGS 2022 J3 Range SPM Spring
J3 Range

Location	J3-EFF	J3-EFF	J3-INF	J3-INF
Field Sample ID	J3-EFF_1Q22	J3-EFF_2Q22	J3-INF_1Q22	J3-INF_2Q22
Sampling Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sampling Date	01/24/2022	04/28/2022	01/24/2022	04/28/2022
SDG	320842111	320873411	320842111	320873411
Sample Type	**Normal**	**Normal**	**Normal**	**Normal**
PFAS 21 Cmps	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	0.950 U	0.960 U
8:2 Fluorotelomer sulfonate (8:2 FTS)	1.40 U	1.40 U	1.40 U	1.40 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.940 U	0.960 U	0.950 U	0.960 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.940 U	0.960 U	0.950 U	0.960 U
Perfluorobutanesulfonic acid	0.940 U	0.960 U	0.950 U	0.960 U
Perfluorobutanoic acid (PFBA)	**0.240 J**	0.480 U	**0.250 J**	0.480 U
Perfluorodecanesulfonic acid (PFDS)	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorodecanoic acid (PFDA)	0.940 U	0.960 U	0.950 U	0.960 U
Perfluorododecanoic acid (PFDoA)	0.940 U	0.960 U	0.950 U	0.960 U
Perfluoroheptanesulfonic acid (PFHpS)	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoroheptanoic acid (PFHpA)	0.940 U	0.960 U	0.950 U	0.960 U
Perfluorohexane sulfonate (PFHxS)	0.940 U	0.960 U	**1.10 J**	**0.480 J**
Perfluorohexanoic acid (PFHxA)	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorononanoic acid (PFNA)	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
Perfluorooctanesulfonic acid (PFOS)	1.40 U	1.40 U	1.40 U	1.40 U
Perfluorooctanoic acid (PFOA)	1.40 U	1.40 U	1.40 U	1.40 U
Perfluoropentanoic acid (PFPeA)	0.470 U	0.480 U	0.470 U	0.480 U
Perfluorotetradecanoic acid (PFTeDA)	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
Perfluoroundecanoic acid (PFUnA)	1.40 U	1.40 U	1.40 U	1.40 U
†PFOS + PFOA (EPA)	**0.00**	**0.00**	**0.00**	**0.00**
‡PFOS + PFOA + PFDA + PFHpA + PFHxS + PFNA (MassDEP)	**0.00**	**0.00**	**0.00**	**0.00**
§Sum of All Compounds Detected	**0.240**	**0.00**	**1.35**	**0.480**

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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

† 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.