



## EMD Process for PFAS Data Collected at HWRB Sites

### **OBJECTIVE**

The NHDES WMD requests that all PFAS data collected be uploaded to the NHDES Environmental Monitoring Database (EMD). Storage of PFAS analytical data in EMD allows NHDES to use GIS in a state-wide assessment of the data.

Those who upload data to EMD must register as an “OneStop Data Provider” by going to <https://www2.des.state.nh.us/OnestopDataProviders/DESLogin.aspx> and applying for the activity “Upload Station or Activity Data for the Environmental Monitoring Database (EMD)”. Alternatively, you may register by emailing [Melanie.Cofrin@des.nh.gov](mailto:Melanie.Cofrin@des.nh.gov) and requesting access.

The following NHDES personnel should be contacted with questions about approval for EMD submissions:

*Melanie Cofrin*      [Melanie.Cofrin@des.nh.gov](mailto:Melanie.Cofrin@des.nh.gov)      (603) 271 – 8803  
*Data Management & Clean Vessel Act Program, Watershed Management Program*

### **PURPOSE**

This document provides supplemental guidance to clarify and streamline the upload process for PFAS data. The EMD upload process follows two steps:

1. Establishing “stations” (i.e., sampling locations); and
2. Reporting “activities” (i.e., sampling results).

**STEP 1 – ESTABLISHING STATIONS**

- 1) Consultant generates Stations using the *Station Template* (\*.xls format) following the directions provided on the “EMD Column Descriptions tab” in the *Station Template* and the *General Site Remediation Station and Activity Guidance* document.

The table below clarifies input for select columns on the *Station Template*. For reference, a printout of the “EMD Column Descriptions” tab (which includes the information provided in the table below) and an example data of the *Station Template* are attached to this guidance document.

Column	Column Name	Clarifications
<b>Column A</b>	ProjID	Enter “HWRB”
<b>Column C</b>	Station ID	Limited to 15 characters and must be unique. Follow modified Site Remediation Station Guidance: <ul style="list-style-type: none"> <li>• Site Number (9 characters) <i>e.g., 199904001</i></li> <li>• Station Type Code (2 characters) <i>e.g., MW = monitoring well</i></li> <li>• Digit Code (can be up to 4 characters, not limited to 2 as the guidance indicates) <i>e.g., “GZA2”, “101S”</i></li> <li>• Treatment Code (not required)</li> </ul> Discuss naming convention questions with HWRB Project Manager.
<b>Column D</b>	Alias ID	This field is not required. If the Station ID character limit could be exceeded, then clarify the name using this field (e.g., Station ID “200907005MWGZA101S” exceeds the character limit so use “200907005MW101S” as the Station ID and enter “GZA-101S” in the Alias ID).
<b>Column O</b>	Station Directions	This field is typically not required, but please use if needed if you feel there is additional important information about the sampling location.  Please separate information by commas to allow for future export of the data into a CSV file.

- 2) Consultant should upload the *Station Template* to EMD via the OneStop provider tool: <https://www2.des.state.nh.us/OnestopDataProviders/DESLogin.aspx>. The upload will be accepted by NHDES Data Management staff for format only. The WMD Project Manager will not review the stations at that time. The upload should be completed at least 1 week prior to the sampling event.
- 3) Consultants should provide station IDs to the laboratories on chain-of-custody forms so those IDs can be used to upload activity data (see Step 2) unless other arrangements are made between the consultant and their laboratory.

**STEP 2 – REPORTING ACTIVITIES**

- 1) Laboratories should provide analytical data on the *Activity (Sample) Template* (\*.xls format). Alternatively, the laboratory can use the *Activity (Sample) Template – Lite Version*. Follow the directions provided on the “EMD Column Descriptions tab” in the *Activity (Sample) Template* and the *General Site Remediation Station and Activity Guidance* document.

The table below clarifies input for select columns on the *Activity (Sample) Template – Lite Version*. For reference, a printout of the “EMD Column Descriptions” tab (which includes the information provided in the table below) and an example template are attached to this guidance document.

Column	Column Name	Clarifications																												
<b>Column A</b>	Monitoring Location Identifier	This must be the SAME as the Station ID on the Station Template (which is why NHDES recommends providing the Station ID to the laboratory on the chain-of-custody).																												
<b>Column C</b>	Project Identifier	<p>Select the appropriate ID for the PFAS release type (note there are options for other, mixed, and unknown).                      Leave blank for a trip or field blank sample.                      Enter one of the following for any routine or duplicate sample.</p> <table border="1"> <thead> <tr> <th>Enter in Template</th> <th>Known or Potential Release Type/Description</th> </tr> </thead> <tbody> <tr> <td>Mfg-textile</td> <td>Manufacturing – textiles</td> </tr> <tr> <td>Mfg-paper</td> <td>Manufacturing – paper</td> </tr> <tr> <td>Mfg-plastic</td> <td>Manufacturing – plastic</td> </tr> <tr> <td>Plating/Metal</td> <td>Metalworking, plating facilities, machine shops</td> </tr> <tr> <td>Semi-condr</td> <td>Semi-conductor industry</td> </tr> <tr> <td>Waste MGMT</td> <td>Waste management facilities (landfills, scrap yards, metal recycling)</td> </tr> <tr> <td>AG</td> <td>Agriculture (e.g. pesticides, wetting chemicals)</td> </tr> <tr> <td>Class B Foam</td> <td>Applications of Class B Foam / AFFF</td> </tr> <tr> <td>Consumer</td> <td>Consumer products (e.g. waxes, sealants, cosmetics, cleaners, treated fabrics)</td> </tr> <tr> <td>Petroleum</td> <td>Petroleum use</td> </tr> <tr> <td>Mixed</td> <td>Mixed sources</td> </tr> <tr> <td>Other</td> <td>Other sources</td> </tr> <tr> <td>Unknown</td> <td>Unknown sources</td> </tr> </tbody> </table>	Enter in Template	Known or Potential Release Type/Description	Mfg-textile	Manufacturing – textiles	Mfg-paper	Manufacturing – paper	Mfg-plastic	Manufacturing – plastic	Plating/Metal	Metalworking, plating facilities, machine shops	Semi-condr	Semi-conductor industry	Waste MGMT	Waste management facilities (landfills, scrap yards, metal recycling)	AG	Agriculture (e.g. pesticides, wetting chemicals)	Class B Foam	Applications of Class B Foam / AFFF	Consumer	Consumer products (e.g. waxes, sealants, cosmetics, cleaners, treated fabrics)	Petroleum	Petroleum use	Mixed	Mixed sources	Other	Other sources	Unknown	Unknown sources
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<b>Column D</b>	Sample Purpose	Typically “Sample - Routine” or “Quality Control Sample-Field Duplicate” is used. At this time, QA/QC data other than duplicates (e.g., field blank, trip blank, equipment blank, LS/LSDs and MS/MSDs) is not required.																												
<b>Column E</b>	Duplicate/Replicate Sample Identifier	Only required for duplicates. If a duplicate, enter Lab ID of the primary sample. If primary sample ID is unknown then																												

		enter "Blind". If needed, have consultant populate this field.																																
<b>Column F</b>	Sample Collection Identifier	Enter "PFAS".																																
<b>Column J through O</b>	-	Only requested for soil samples. Enter the depth range of the soil core that's being tested.																																
<b>Column R</b>	Sample Comments	Not required; use this field to enter comments, if any (e.g., soil sampling depth intervals, site information, weather).																																
<b>Column U</b>	Laboratory Identifier	The ID is for the laboratory that did the analysis, not a laboratory (if any), that subcontracted the service. The laboratory should request a specific ID number from NHDES, if needed.																																
<b>Column V and W</b>	Sample Analytical Method Identifier and Context ID	Request a modification if needed. Current list for PFAS is: <table border="1" data-bbox="646 785 1432 1008"> <thead> <tr> <th>Method Name</th> <th>Enter in Column V</th> <th>Enter in Column W</th> </tr> </thead> <tbody> <tr> <td>USEPA Method 537 Rev 1.1</td> <td>537</td> <td>USEPA</td> </tr> <tr> <td>USEPA Method 537 Rev 1.1 (modified/isotope dilution)</td> <td>537 MOD</td> <td>USEPA</td> </tr> <tr> <td>Other PFAS method</td> <td>PFAS-other</td> <td>NHDES</td> </tr> </tbody> </table>	Method Name	Enter in Column V	Enter in Column W	USEPA Method 537 Rev 1.1	537	USEPA	USEPA Method 537 Rev 1.1 (modified/isotope dilution)	537 MOD	USEPA	Other PFAS method	PFAS-other	NHDES																				
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<b>Columns Y, Z, and AA</b>	Substance Code, Substance Code Context, and Substance Name	Contact NHDES if another code is needed. For reference, the EMD currently has the following analytes: <table border="1" data-bbox="659 1230 1437 1885"> <thead> <tr> <th>Compound Name</th> <th>CAS #</th> </tr> </thead> <tbody> <tr> <td>PERFLUOROBUTANESULFONIC ACID (PFBS)</td> <td>375-73-5</td> </tr> <tr> <td>PERFLUOROBUTANOIC ACID - PFBA</td> <td>375-22-4</td> </tr> <tr> <td>PERFLUORODECANE SULFONATE - PFDS</td> <td>30783</td> </tr> <tr> <td>PERFLUORODECANOIC ACID - PFDA</td> <td>335-76-2</td> </tr> <tr> <td>PERFLUORODODECANOIC ACID - PFDOA</td> <td>307-55-1</td> </tr> <tr> <td>PERFLUOROHEPTANE SULFONATE - PFHPS</td> <td>375-92-8</td> </tr> <tr> <td>PERFLUOROHEPTANOIC ACID - PFHPA</td> <td>375-85-9</td> </tr> <tr> <td>PERFLUOROHEXANESULFONIC ACID (PFHXS)</td> <td>355-46-4</td> </tr> <tr> <td>PERFLUOROHEXANOIC ACID - PFHXA</td> <td>307-24-4</td> </tr> <tr> <td>PERFLUORONONANOIC ACID - PFNA</td> <td>375-95-1</td> </tr> <tr> <td>PERFLUOROTETRADECANOIC ACID - PFTEDA</td> <td>376-06-7</td> </tr> <tr> <td>PERFLUORO-N-TRIDECANOIC ACID - PFTRDA</td> <td>72629-94-8</td> </tr> <tr> <td>PERFLUOROOCETANESULFONIC ACID (PFOS)</td> <td>1763-23-1</td> </tr> <tr> <td>PERFLUOROOCETANOIC ACID - PFOA</td> <td>335-67-1</td> </tr> <tr> <td>PERFLUOROOCETANESULFONAMIDE - FOSA</td> <td>754-91-6</td> </tr> </tbody> </table>	Compound Name	CAS #	PERFLUOROBUTANESULFONIC ACID (PFBS)	375-73-5	PERFLUOROBUTANOIC ACID - PFBA	375-22-4	PERFLUORODECANE SULFONATE - PFDS	30783	PERFLUORODECANOIC ACID - PFDA	335-76-2	PERFLUORODODECANOIC ACID - PFDOA	307-55-1	PERFLUOROHEPTANE SULFONATE - PFHPS	375-92-8	PERFLUOROHEPTANOIC ACID - PFHPA	375-85-9	PERFLUOROHEXANESULFONIC ACID (PFHXS)	355-46-4	PERFLUOROHEXANOIC ACID - PFHXA	307-24-4	PERFLUORONONANOIC ACID - PFNA	375-95-1	PERFLUOROTETRADECANOIC ACID - PFTEDA	376-06-7	PERFLUORO-N-TRIDECANOIC ACID - PFTRDA	72629-94-8	PERFLUOROOCETANESULFONIC ACID (PFOS)	1763-23-1	PERFLUOROOCETANOIC ACID - PFOA	335-67-1	PERFLUOROOCETANESULFONAMIDE - FOSA	754-91-6
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		PERFLUOROPENTANOIC ACID - PFPEA	2706-90-3
		PERFLUOROUNDECANOIC ACID - PFUNA	2058-94-8
		2-(N-ETHYLPERFLUORO-A-OCTANESULFONAMIDO)-ETHANOL - N-ETFOSE	1691-99-2
		2-(N-METHYLPERFLUORO-A-OCTANESULFONAMIDO)-ETHANOL - N-MEFOSE	24448-09-7
		6:2 FLUOROTELOMERSULFONATE - 6:2FTS	17619-97-2
		8:2 FLUOROTELOMERSULFONATE - 8:2 FTS	39635
		ETHYLPERFLUORO-1-OCTANESULFONAMIDE - N-ETFOSA	4151-50-2
		METHYLPERFLUORO-1-OCTANESULFONAMIDE - N-MEFOSA	31506-32-8
		2,3,3,3-TETRAFLUORO-2-(HEPTAFLUOROPROPOXY)PROPANOIC ACID (HFPO-DA)	13252-13-6
<b>Column AI</b>	Substance Analysis Comments	Not required. If validated data are entered, please report flag comments here.	
<b>Column AM</b>	Result Status	Not required unless data are validated. If data were validated, the validated data should be uploaded (not the raw data). If data are validated, enter Y in this column.	

- 2) The upload of the *Activity (Sample) Template* can be completed by either the laboratory or the consultant, as determined on a project-specific basis. In most cases, it is likely most efficient for the laboratory to complete the upload to EMD. There may be projects when the consultant may choose to upload, such as when:
- The information needed to complete **Columns J through P** (sample event depth measurements and units) is known by the consultant and not readily available to the laboratory (e.g., when soil sampling depths need to be entered);
  - Blind duplicates are collected for QA/QC analysis, it may be applicable for the consultant to populate **Column E** (Duplicate/Replicate Sample Identifier); or
  - The data will be validated and thus the consultant may need to edit data or provide validation comments on **Column AI** (Substance Analysis Comments) and **Column AM** (Results Status). (It is expected that this will only apply to few projects.)
- 3) The *Activity (Sample) Template* upload should be completed within 45 days of completion of sampling. The upload will be reviewed for acceptance by NHDES Data Management staff for format only. The WMD Project Manager will not review the data at that time.

The WMD Project Manager will complete a limited review of the data in the EMD when reviewing the laboratory analytical reports provided with the formal project submittal. Note that any site-specific decisions will be based on the project-specific reports and related documentation uploaded to the WMD digital library (and not the EMD).

**Attachments:**

Attachment A – *Station Template* with example entry

Attachment B – *Activity (Sample) Template (Lite Version)* with example entry

# ATTACHMENT A

**EMD Stations Template Column Descriptions**

EMD Stations Template Column Descriptions						
Schema Column Name Used in Template	Column Description	Format Considerations (Columns dependent on pick lists are highlighted in orange. See "EMD Pick Lists" worksheet for pick list values.)	Example	Size/Type	Required?	Comments for PFAS Projects (gray shaded cells are not required for all uploads)
ProjID	Project ID the station is associated to/related. In the Sample-Activity Template, this column is called "ProjectIdentifier".	Pick list. Must be valid ID. Contact project manager for correct ID to use.	HWR/ORCB	Ch (15)	Yes	Use "HWRB"
SiteNumber	Site/facility/system number the station is associated to/related. In the Sample-Activity Template, this column is called "FacilitySiteIdentifier".		2003040123	Ch (20)	Conditionally required if ProjID = "HWR/ORCB", then a valid site number must be entered.	-
StationID	ID for the location where samples/measurements are taken. In the Sample-Activity template, this column is called "MonitoringLocationIdentifier".	Must be a unique station ID. If it already exists in the database, you will be prompted to create a different value or see if station has already been submitted.	2003040123MW1	Ch (15)	Yes	See " Site Remediation Station Creation Guidance" spreadsheet. Limited to 15 characters. Site Number (9 characters) + Station Type Code (2 characters) + Digit Code (can be up to 4 characters, not limited to 2 as the guidance indicates) + Treatment Code (not required)
AliasID	Alias (alternate) ID for the station. In the Sample-Activity Template, this column is called "MonitoringLocationAlternateName".		GZA-1	Ch (25)	No	Not required (provide only if needed).
StatName	Brief, geographically descriptive name for the station.		Monitoring well 1 at NW corner of tank area.	Ch (100)	Yes	-
Address	Address for the station.		12 Maple Street	Ch (50)	No	-
Town	Town the station is in. Proper town names only - no village names.	Pick list.	Hopkinton	Ch (40)	Yes	-
County	County the station is in.	Pick list.	Merrimack	Ch (20)	Yes	-
State	State the station is in.	Pick list.	NH	Ch (2)	Yes	-
TaxMap	Tax map for the station.		125	Ch (20)	No, except required for Waste Management Division (WMD) submittals.	-
TaxLot	Tax lot for the station.		U-3	Ch (20)	No, except required for WMD submittals.	-
StatType	Station type.	Pick list.	Well	Ch (45)	Yes	-
DateEst	Date the station was established or drilled.	MM/DD/YYYY	04/01/2003	Date	No	Not required (provide if possible).
StatDescr	Description of the station.		4" driven well on the NW edge of the tank excavation area. Well is flush with pavement and topped with bronze cap.	Ch (4000)	No	Not required (provide only if needed).
StatDir	Directions to the station.		Station is at SE corner of the property where UST tank was formerly located.	Ch (1999)	No	Not required (provide only if needed). Please separate information by commas.
LatDecDeg	Latitude location of station in decimal degrees.		42.7658	N (8.6)	Yes	-
LongDecDeg	Longitude location of station in decimal degrees prefaced with - value for this area.		-71.2345	N (9.6)	Yes	-
DateLoc	Date the station was located.	MM/DD/YYYY	05/10/2003	Date	No	Not required.
GeoMeth	Method used to determine the latitude/longitude coordinates.	Pick list.	GPS corrected	Ch (45)	Yes	-
Scale	Scale used if latitude/longitude coordinates were derived from a map, photo etc.		1:24,000	Ch (10)	Conditionally required if GeoMethod is other than via GPS.	Not required (provide only if needed).
GeoDatum	Datum used to determine the latitude/longitude coordinates.	Pick list.	World Geodetic System 1984	Ch (30)	Yes	-
Elev	Elevation measurement for the station.		256.9	N (6.2)	No	Not required (provide if possible).
ElevUnits	Units for elevation.	Pick list.	Ft	Ch (2)	Conditionally required if Elev is entered.	Not required (provide only if needed).
ElevMeth	Method used to determine the elevation.	Pick list.	Differential Mode GPS	Ch (65)	Conditionally required if Elev is entered.	Not required (provide only if needed).
ElevDatum	Datum used to determine the elevation.	Pick list.	WGS 1984	Ch (25)	Conditionally required if Elev is entered.	Not required (provide only if needed).
Active	Whether the station is active (still exists) or not.	Y or N	Y	Ch (1)	No	Not required (provide if possible).
WellUsage	The primary usage for the well.	Pick list.	Monitoring	Ch (40)	Conditionally required if StatType1 = "Well".	Only use for a well.
WaterVapUsage	The primary usage for the water/air from the well.	Pick list.	Sampling-Water	Ch (40)	Conditionally required if StatType1 = "Well".	Only use for a well.
StrataType	Type of material the well has been constructed in.	Pick list.	Overburden	Ch (30)	Conditionally required if StatType1 = "Well".	Only use for a well.
WellDepth	Depth of the well		12.6	N (6.2)	No, except required for WMD submittals and StatType = Well.	Only use for a well.
WellUnit	Units for the WellDepth and following measurement related columns. All should be reported as one unit type (i.e., all in meters or feet).	Pick list.	Ft	Ch (15)	Conditionally required if WellDepth, TopCasing, DTopScreen, or DBotScreen are entered.	Only use for a well.
TopCasing	Top of casing elevation for the well.		88.62	N (6.2)	No, except required for WMD submittals and StatType = Well.	Only use for a well.
TopCasingMethod	Locational method used to determine top of casing elevation.	Pick list.	Conventional Survey	Ch (65)	Conditionally required if TopCasing is entered.	Only use for a well.
TopCasingDatum	Elevation datum used to determine top of casing.	Pick list.	Local Land Datum	Ch (65)	Conditionally required if TopCasing is entered.	Only use for a well.
TopCasingDatumO	Used to further define TopCasingDatum if it = "Local Land Datum" or "Other"		Top of hydrant = 100.00'	Ch (65)	Conditionally required if TopCasingDatum = "Local Land Datum" or "Other".	Only use for a well.
DTopScreen	Depth to top of screen (not elevation).		2.74	N (6.2)	Conditionally required if DBotScreen is entered. Required for WMD submittals where StatType = Well	Only use for a well.
DBotScreen	Depth to bottom of screen.		10.52	N (6.2)	Conditionally required if DBotScreen is entered. Required for WMD submittals where StatType = Well	Only use for a well.



ProjID	SiteNumber	StationID	AliasID	StatName	Address	Town	County	State	TaxMap	TaxLot	StatType
HWRB	200907005	200907005MW101S	GZA-101S	Monitoring WellI by intersection of Main and Second St	52 Second St	Concord	Merrimack	NH	211	1-B	Well
HWRB	200907005	200907005MW102	GZA-102	Monitoring WellI in Field, about 100 ft from Main St	75 Main St	Concord	Merrimack	NH	211	2	Well
HWRB	200907005	200907005MW103	GZA-103	Monitoring WellI near GZA-103	75 Main St	Concord	Merrimack	NH	211	2	Well

DateEst	StatDescr	StatDir	LatDecDeg	LongDecDeg	DateLoc	GeoMeth	Scale	GeoDatum	Elev	ElevUnits	ElevMeth	ElevDatum
1/1/2017	Well is located about 10 ft from t	From 93	43.123456	-71.123456	4/1/2017	INTERPOLATION-SATELLITE	1:24,000	UNKNOWN				
1/1/2017	Well is located about 100 feet frc	From 93	43.123456	-71.123456	4/1/2017	INTERPOLATION-SATELLITE	1:24,000	UNKNOWN				
1/1/2017	Well is located about 100 feet frc	From 93	43.123456	-71.123456	4/1/2017	INTERPOLATION-SATELLITE	1:24,000	UNKNOWN				



## ATTACHMENT B

EMD Sample-Activity Template Column Descriptions

EMD Sample-Activity Template Column Descriptions							
Schema Column Name Used in Template	EMD Column Name (for staff purposes only)	EMD Column Description	Format Considerations (Columns dependent on pick lists are highlighted in orange. See "EMD Pick Lists" worksheet for pick list values or where otherwise indicated.)	Examples of expected values in EMD	Size/Type	Required?	Comments for PFAS Projects (gray shaded cells are not required for all uploads)
MonitoringLocationIdentifier	StationID	ID for the station (location) where the activity occurred. In the Station template, this column is called "StationID".	Must match a valid existing StationID (MonitoringLocationIdentifier). Leave blank if activity is related to other activities (such as a Trip Blank) and use a corresponding appropriate SamplePurpose value.	04-CGF	Ch (15)	Yes except if SamplePurpose = "QC Sample", then leave blank.	Consultant to provide Station ID to lab - recommend to provide on COC
LaboratorySampleIdentifier	ActivityID	ID for the activity. Usually it is the laboratory sample ID if it is a sample. If it is a field measurement, an appropriate ID must be created. A suggested format is to start with a few characters from the ProjectIdentifier and concatenate with the sample date and then a sequence # to differentiate samples taken on the same day for the same project.	Must be unique.	SA48679-1 VL10100901	Ch (25)	Yes	
ProjectIdentifier	ProjID	ID of the project (purpose of sampling) the station (MonitoringLocationIdentifier) is related or associated to. In the Station template, this column is called "ProjID".	Pick list. Must be a valid ID. Contact project manager for correct ID. Valid combo of ProjectIdentifier to MonitoringLocationIdentifier must exist prior to associating a sample to the match. Relationships are made via Station file uploads or by DES staff.	VLAP	Ch (15)	Yes, except if SamplePurpose = "QC Sample" then leave blank.	Choose from Pick List: Manufacturing – textile = Mfg-textile Manufacturing – paper = Mfg-paper Manufacturing – plastic = Mfg-plastic Metalworking, plating facilities, machine shops = Plating/Metal Semi-conductor industry = Semi-condr Waste management facilities (landfills, scrap yards, metal recycling) = Waste mgmt Agriculture (e.g., pesticides, wetting chemicals) = Ag Consumer product use (e.g., waxes, sealants, cosmetics, cleaners, treated fabrics) = Consumer Petroleum use = Petroleum Mixed sources = Mixed Other = Other Unknown = Unknown
SamplePurpose	ActType	Type of activity (such as a routine sample or field measurement or QC trip blank sample). If both field measurements and lab sample results are contained in the same activity, label it as sample or QC sample (if appropriate) instead of a field measurement.	Pick list. Values can be found in the "EMD Pick Lists" worksheet in this spreadsheet.	Sample - Routine	Ch (70)	Yes	Typically use "sample-routine" or QA/QC sample types. Only Field Duplicate data must be uploaded; other QA/QC data not required at this time.
Duplicate/ReplicateSampleIdentifier	RepNumber	The ID of the activity the current activity is a duplicate or replicate of (if applicable).		SA48679-9	Ch (12)	Conditionally required if SamplePurpose contains the words "Replicate" or "Duplicate".	If the sample is a duplicate, enter the Lab ID of the primary sample. Otherwise, not required.
SampleCollectionIdentifier	SC_ID	ID for the sample collection method used	Pick list. Latest values can be obtained from OneStop Data Provider web site. A list is also in "Samp Coll Meth" worksheet but may not be current. If not a registered OneStop Provider and need current info or to add a method, call (603) 271-1152.	VLAPTRIP	Ch (10)	Yes	Enter "PFAS"
FieldActivityStartDate	StartDate	Date the activity began or was collected.	MM/DD/YYYY	10/10/2008	Date	Yes	Sample collection date.
FieldActivityStartTime	StartTime	Time (military) the activity began or was collected.	24HH:MM:SS	13:56:00	Time	No	Not required
RainPrior	RainPrior	Whether precipitation occurred within 72 hours of the activity start time (FieldActivityStartTime).	Y or N.	Y	Ch (1)	No	Not required
SampleEventDepthHeightMeasure	Depth	Depth to where the activity was sampled/measured.		1.5	N (7.2)	No	Only required for soil data
SampleEventDepthHeightUnit	DepthUnits	Depth units.	Pick list. Values can be found in the "EMD Pick Lists" worksheet in this spreadsheet.	Ft	Ch (2)	Conditionally required if Depth/AltitudeMeasurementValue is entered.	Only required for soil data
SampleEventDepthAltitudeReferencePoint	DepthMeasFrom	Depth measured from (such as surface, bottom etc.)		Surface	Ch (125)	No	Only required for soil data
SampleEventTopDepthHeightMeasure	UpDepth	Upper depth in range for activity.		1	N (7.2)	No	Only required for soil data
SampleEventTopDepthHeightUnit	RangeDUnits	Units for depth ranges - both top and bottom values.	Pick list. Units for both top and bottom depths are assumed to be the same. See "SampleEventDepthHeightUnit" values in "EMD Pick Lists" worksheet for allowable values.	Ft	Ch (2)	Conditionally required if TopDepth/AltitudeMeasurementValue or BottomDepth/AltitudeMeasurementValue is entered.	Only required for soil data
SampleEventBottomDepthHeightMeasure	LowDepth	Lower depth in range for activity.		2	N (7.2)	No	Only required for soil data
SampleEventDepthZone	DepthZone	Depth zone for activity.	Pick list. Values can be found in the "EMD Pick Lists" worksheet in this spreadsheet.	Midwater Epilimnion	Ch (15)	No	Only required for soil data
SamplerIndividualFullName	Personnel	Person(s) conducting the activity.	First initial followed by a period and last name with names separated by commas.	B. Smith, J. Jones	Ch (256)	No	Not required
SampleComments	ActCmts	Activity comments. Includes all lab and field comments about the overall activity/sample.		Birds swimming nearby.	Ch (4000)	No	Not required (provide only if needed).
BatchReceiptExceptionIndicator	SampleReceiptException	Whether there was an exception to the condition or expected batch receipt procedures that might affect analytical results. A value of "N" would mean that there were no issues encountered during the sample receipt/chain of custody process.	Y or N	Y	Ch (1)	No	Not required
BatchReceiptCommentText	SampleReceiptComments	Text describing the reason for the BatchReceivedExceptionIndicator being set to "Y" or other characteristics of the sample receipt process which should be noted.		Samples weren't preserved on ice during transport.	Ch (4000)	Conditionally required if BatchReceiptExceptionIndicator = Y.	Not required (provide only if needed).

EMD Sample-Activity Template Column Descriptions

Schema Column Name Used in Template	EMD Column Name (for staff purposes only)	EMD Column Description	Format Considerations (Columns dependent on pick lists are highlighted in orange. See "EMD Pick Lists" worksheet for pick list values or where otherwise indicated.)	Examples of expected values in EMD	Size/Type	Required?	Comments for PFAS Projects (gray shaded cells are not required for all uploads)
LaboratoryIdentifier	LabID	ID for laboratory that analyzed parameter.	Pick list. Must be a valid ID. Latest values can be obtained from the OneStop Data Provider web site. A list is also provided in the "Lab" worksheet but may become out of date. If another value is needed, please contact (603) 271-1152.	3000	Ch (8)	No, but desired if analysis was done by a lab.	The ID is for the laboratory that did the analysis, not a laboratory (if any), that subcontracted the service.
SampleAnalyticalMethodIdentifier	AnalyticalMethod	Method used to analyze the parameter.	Pick list. Latest values can be obtained from the OneStop Data Provider web site. A list has also been included in the "Analytical Method" worksheet but may not be up to date. Please call (603) 271-1152 if another method is needed.	365.2	Ch (20)	Conditionally required if SampleAnalyticalMethodIdentifierContextID is entered.	Request a modification if needed. Current list includes: • PFAS – USEPA Method 537 Rev 1.1 • PFAS – USEPA Method 537 Rev 1.1 (modified/isotope dilution) • PFAS – ASTM D7968-14 (soil) • PFAS – ASTM D7979-15 (water, sludge, wastewater) • PFAS – other
SampleAnalyticalMethodIdentifierContextID	AM_Source_ID	Source of the method used to analyze the parameter.	Pick list. Latest values can be obtained from the OneStop Data Provider web site. A list has also been included in the "Analytical Method" worksheet but may not be up to date. Please call (603) 271-1152 if another source is needed.	USEPA	Ch (15)	Conditionally required if SampleAnalyticalMethodIdentifier is entered.	-
AnalysisMatrix	Medium	Sample medium (such as soil, water etc.)	Pick list. Values can be found in the "EMD Pick Lists" worksheet in this spreadsheet.	Water	Ch (8)	Yes	-
SubstanceIdentifier	AnalyteCode	Code for the parameter/substance.	Must be a valid code based on the AnalyteCodeContext. Latest values can be obtained from the EMD Provider form on the web. A list is also provided in the "Analytes" worksheet but may become outdated. If a parameter is needed, please call (603) 271-8863.	7723-14-0		Conditionally required if AnalyteCodeContext is entered.	EMD has been updated with CAS #s for 26 PFAS.
SubstanceCodeContext	AnalyteCodeContext	Coding system (such as CAS) used for the SubstanceIdentifier.	Pick list. Values can be found in the "EMD Pick Lists" worksheet in this spreadsheet.	CAS		Conditionally required if AnalyteCode is entered.	-
SubstanceName	AnalyteName	Parameter/substance name.	Pick list. Latest values can be obtained from the EMD Provider form on the web. A list has also been added to the "Analytes" worksheet but may not be current. If a parameter is needed, please call (603) 271-8863.	PHOSPHORUS AS P	Ch (120)	Conditionally required if AnalyteCode and AnalyteCodeContext are not entered.	-
ResultMeasureQualifierCode	LabQual	Qualifier used by the lab for the results.	Pick list. Values can be found in the "EMD Pick Lists" worksheet in this spreadsheet.  If a value of "U" is submitted with no result value, then the data will automatically be converted and uploaded with a result value of <RDL.	U	Ch (1)	No	-
ResultMeasureValue	TextResult or NumResult + Qualifier	Result for the parameter/substance.		0.074	Ch (500)	No, since there may be no results for a particular parameter and the submitter wants a record that an attempt was made to collect the data during a sampling event.	-
ResultMeasureUnit	ResultUnits	Units for result.	Pick list. Latest values can be obtained from the OneStop Data Provider web site. A list has also been included in the "EMD Pick Lists" worksheet but may not be current. Please call (603) 271-1152 if another unit is needed.	mg/L	Ch (15)	Conditionally required if AnalyteMeasurementValue is numeric.	-
ResultValueTypeName	ValueType	A name that qualifies the process which was used in the determination of the result value: Actual = The value reported is the actual value reported by the instrument or the method used. Calculated = The value reported is derived, either as a result of the method used, or as the result of a mathematical computation. Estimated = The value reported is the approximate value of what is measured or analyzed.	Pick list. Values can be found in the "EMD Pick Lists" worksheet in this spreadsheet.	Actual	Ch (12)	Yes	-
ResultBasisName	FractionType	For physically partitioned samples, this column describes the portion of the sample that was associated with the results.	Pick list. Values can be found in the "EMD Pick Lists" worksheet in this spreadsheet.	Total	Ch (20)	No	Not required
RDLMeasureValue	DetLim	Detection limit (reporting detection level).		0.01	N (20.5)	Conditionally required if ResultMeasureQualifierCode = U and no result value is entered.	-
RDLMeasureUnit	DetLimU	Units for detection limit.	Pick list. Latest values can be obtained from the OneStop Data Provider web site or in the "EMD Pick Lists" although this list may become outdated over time.	mg/L	Ch (15)	Conditionally required if RDLMeasureValue or MDLMeasureValue is entered.	-
SubstanceAnalysisComments	ResultCmt	Comments about the result.		Potential problem with instrument.	Ch (4000)	No	Use only if needed. Additional validation flags, if needed, can be added here.
SubstanceUpperControllimit	UpQLim	Upper quantification limit.		10	N (20.5)	No	Not required
StatisticalBaseCode	StatType	Statistical type (mean, min, max etc.) if result is inclusive of more than one measurement/sample for the parameter/substance.	Pick list. Values can be found in the "EMD Pick Lists" worksheet in this spreadsheet.	Mean	Ch (25)	Conditionally required if StatisticalSampleSize is entered.	Not required
StatisticalSampleSize	SampSize	Number of measurements/samples used to determine the StatisticalBaseCode.		3	N (2.0)	Conditionally required if StatisticalBaseCode is entered.	Not required
ResultStatus	Valid	Whether the result meets quality assurance project and program plans (QAPPs) or other quality control protocols.	Y or N	N	Ch (1)	No	Only use if data is validated (validated results should be uploaded)







SampleAnalyticalMethodIdentifierCon textID	AnalysisMatrix	SubstanceIdentifier	SubstanceCodeContext	SubstanceName	ResultMeasureQualifierCode	ResultMeasureValue	ResultMeasureUnit	ResultValueTypeName
USEPA	WATER	754-91-6	CAS	PERFLUOROOCCTANESULFONAMIDE - FOSA	U	<3	ng/L	Actual
USEPA	WATER	335-67-1	CAS	PERFLUOROOCCTANOIC ACID - PFOA	U	<0.6	ng/L	Actual
USEPA	WATER	375-95-1	CAS	PERFLUORONONANOIC ACID - PFNA	U	<0.6	ng/L	Actual
USEPA	WATER	335-76-2	CAS	PERFLUORODECANOIC ACID - PFDA	U	<0.5	ng/L	Actual
USEPA	WATER	2058-94-8	CAS	PERFLUOROUNDECANOIC ACID - PFUNA	U	<1	ng/L	Actual
USEPA	WATER	307-55-1	CAS	PERFLUORODODECANOIC ACID - PFDOA	U	<0.5	ng/L	Actual
USEPA	WATER	72629-94-8	CAS	PERFLUORO-N-TRIDECANOIC ACID - PFTRDA	U	<0.5	ng/L	Actual
USEPA	WATER	376-06-7	CAS	PERFLUOROTETRADECANOIC ACID - PFTEDA	U	<0.5	ng/L	Actual
USEPA	WATER	307-24-4	CAS	PERFLUOROHEXANOIC ACID - PFHXA	U	<0.6	ng/L	Actual
USEPA	WATER	375-85-9	CAS	PERFLUOROHEPTANOIC ACID - PFHPA	U	<0.5	ng/L	Actual
USEPA	WATER	375-73-5	CAS	PERFLUOROBUTANESULFONIC ACID	U	<0.8	ng/L	Actual
USEPA	WATER	355-46-4	CAS	PERFLUOROHEXYLSULFONIC ACID	U	<1	ng/L	Actual
USEPA	WATER	1763-23-1	CAS	PERFLUOROOCCTYLSULFONIC ACID	U	<2	ng/L	Actual
USEPA	WATER	375-22-4	CAS	PERFLUOROBUTANOIC ACID - PFBA	U	<3	ng/L	Actual
USEPA	WATER	2706-90-3	CAS	PERFLUOROPENTANOIC ACID - PFPEA	U	<0.5	ng/L	Actual
USEPA	WATER	335-77-3	CAS	PERFLUORODECANE SULFONATE - PFDS	U	<2	ng/L	Actual
USEPA	WATER	754-91-6	CAS	PERFLUOROOCCTANESULFONAMIDE - FOSA	U	<3	ng/L	Actual
USEPA	WATER	335-67-1	CAS	PERFLUOROOCCTANOIC ACID - PFOA	U	<0.6	ng/L	Actual
USEPA	WATER	375-95-1	CAS	PERFLUORONONANOIC ACID - PFNA	U	<0.6	ng/L	Actual
USEPA	WATER	335-76-2	CAS	PERFLUORODECANOIC ACID - PFDA	U	<0.5	ng/L	Actual
USEPA	WATER	2058-94-8	CAS	PERFLUOROUNDECANOIC ACID - PFUNA	U	<1	ng/L	Actual
USEPA	WATER	307-55-1	CAS	PERFLUORODODECANOIC ACID - PFDOA	U	<0.5	ng/L	Actual
USEPA	WATER	72629-94-8	CAS	PERFLUORO-N-TRIDECANOIC ACID - PFTRDA	U	<0.5	ng/L	Actual
USEPA	WATER	376-06-7	CAS	PERFLUOROTETRADECANOIC ACID - PFTEDA	U	<0.5	ng/L	Actual
USEPA	WATER	307-24-4	CAS	PERFLUOROHEXANOIC ACID - PFHXA	U	<0.6	ng/L	Actual
USEPA	WATER	375-85-9	CAS	PERFLUOROHEPTANOIC ACID - PFHPA	U	<0.5	ng/L	Actual
USEPA	WATER	375-73-5	CAS	PERFLUOROBUTANESULFONIC ACID	U	<0.8	ng/L	Actual
USEPA	WATER	355-46-4	CAS	PERFLUOROHEXYLSULFONIC ACID	U	<1	ng/L	Actual
USEPA	WATER	1763-23-1	CAS	PERFLUOROOCCTYLSULFONIC ACID	U	<2	ng/L	Actual
USEPA	WATER	375-22-4	CAS	PERFLUOROBUTANOIC ACID - PFBA	U	<3	ng/L	Actual
USEPA	WATER	2706-90-3	CAS	PERFLUOROPENTANOIC ACID - PFPEA	U	<0.5	ng/L	Actual
USEPA	WATER	335-77-3	CAS	PERFLUORODECANE SULFONATE - PFDS	U	<2	ng/L	Actual
USEPA	WATER	754-91-6	CAS	PERFLUOROOCCTANESULFONAMIDE - FOSA	U	<3	ng/L	Actual

ResultBasisName	RDLMeasureValue	RDLMeasureUnit	SubstanceAnalysisComments	SubstanceUpperControlLimit	StatisticalBaseCode	StatisticalSampleSize	ResultStatus
TOTAL	3	ng/L		1			
TOTAL	0.6	ng/L		1			
TOTAL	0.6	ng/L		1			
TOTAL	0.5	ng/L		1			
TOTAL	1	ng/L		1			
TOTAL	0.5	ng/L		1			
TOTAL	0.5	ng/L		1			
TOTAL	0.5	ng/L		1			
TOTAL	0.6	ng/L		1			
TOTAL	0.5	ng/L		1			
TOTAL	0.8	ng/L		1			
TOTAL	1	ng/L		1			
TOTAL	2	ng/L		1			
TOTAL	3	ng/L		1			
TOTAL	0.5	ng/L		1			
TOTAL	2	ng/L		1			
TOTAL	3	ng/L		1			
TOTAL	0.6	ng/L		1			
TOTAL	0.6	ng/L		1			
TOTAL	0.5	ng/L		1			
TOTAL	1	ng/L		1			
TOTAL	0.5	ng/L		1			
TOTAL	0.5	ng/L		1			
TOTAL	0.5	ng/L		1			
TOTAL	0.6	ng/L		1			
TOTAL	0.5	ng/L		1			
TOTAL	0.8	ng/L		1			
TOTAL	1	ng/L		1			
TOTAL	2	ng/L		1			
TOTAL	3	ng/L		1			
TOTAL	0.5	ng/L		1			
TOTAL	2	ng/L		1			
TOTAL	3	ng/L		1			