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"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","375-22-
4","PFBA",".500000","ng/L","U",".14","MDL","","T",","","5.00","LOQ","YES","-99.000000",",".250000",".000500"
,".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","307-24-
4","PFHxA",".500000","ng/L","U",".19","MDL","","T",","","5.00","LOQ","YES","-99.000000",",".250000",".00050
0",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","375-85-
9","PFHpA",".500000","ng/L","U",".16","MDL","","T","","","5.00","LOQ","YES","-99.000000","",."250000",".00050
0",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","335-67-
1","PFOA","1.570000","ng/L","J",".18","MDL","","T","",","5.00","LOQ","YES","-99.000000","",".250000",".000500
",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","375-95-
1","PFNA","1.000000","ng/L","U",".26","MDL","","T","","","5.00","LOQ","YES","-99.000000","",."250000",".00050
0","1.00",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","335-76-
2","PFDA",".500000","ng/L","U",".16","MDL","","T","","","5.00","LOQ","YES","-99.000000","",".250000",".000500
",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","2058-94-
8","PFUnA","1.000000","ng/L","U",".29","MDL",",""T","",","5.00","LOQ","YES","-99.000000","",".250000",".0005
00","1.00",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","307-55-
1","PFDoA",".500000","ng/L","U",".18","MDL",","'","",","5.00","LOQ","YES","-99.000000","",".250000",".00050
0",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","72629-94-
8","PFTrDA",".500000","ng/L","U",".15","MDL",","T","",","5.00","LOQ","YES","-99.000000","",".250000",".0005
00",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","376-06-
7","PFTeDA","1.000000","ng/L","U",".25","MDL","","T","","","5.00","LOQ","YES","-99.000000","",".250000",".000
500","1.00",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","2355-31-
9","NMeFOSAA","2.000000","ng/L","U",".56","MDL",",",","","","5.00","LOQ","YES","-99.000000","",.250000",".
000500","2.00",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","2991-50-
6","NEtFOSAA","1.000000","ng/L","U",".49","MDL","","T","",","5.00","LOQ","YES","-99.000000","",".250000",".0
00500","1.00",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","375-73-
5","PFBS",".500000","ng/L","U",".13","MDL",",",T","",","5.00","LOQ","YES","-99.000000","",".250000",".000500"
,".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","355-46-
4","PFHxS",".400000","ng/L","U",".11","MDL","","T","",","5.00","LOQ","YES","-99.000000","",".250000",".000500
",".40",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","1763-23-
1","PFOS",".500000","ng/L","U",".19","MDL","","T","",","5.00","LOQ","YES","-99.000000","",".250000",".000500"
,".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","BDO-2105","13C4-
PFBA","1.020000","ng/L",","-99.00","NA",","SIS","102.00","","-99.00","NA","YES","1.000000","",".250000",".000
500",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","BDO-2217","13C5-
PFHxA","1.270000","ng/L","",--99.00","NA","","SIS","127.00","","-99.00","NA","YES","1.000000","",".250000",".00
0500",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","BDO-2218","13C4-
PFHpA","1.280000","ng/L","","-99.00","NA",","SIS","128.00","","-99.00","NA","YES","1.000000","",".250000",".00
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0500",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","BDO-2219","13C8-
PFOA","1.300000","ng/L","","-99.00","NA","","SIS","130.00","","-99.00","NA","YES","1.000000","",".250000",". 000 500",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","BDO-2221","13C9-
PFNA","1.490000","ng/L","","-99.00","NA","","SIS","149.00","","-99.00","NA","YES","1.000000","",".250000",". 000 500",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","BDO-2222","13C6-
PFDA","1.260000","ng/L","","-99.00","NA","","SIS","126.00","","-99.00","NA","YES","1.000000","",".250000",". 000 500",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","BDO-2223","13C7-
PFUnA","1.200000","ng/L","","-99.00","NA","","SIS","120.00","","-99.00","NA","YES","1.000000","",".250000",". 00 0500",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","BDO-2112","13C2-
PFDoA","1.100000","ng/L","","-99.00","NA","","SIS","110.00","","-99.00","NA","YES","1.000000","",".250000",". 00 0500",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","BDO-2224","13C2-
PFTeDA","1.030000","ng/L","","-99.00","NA","","SIS","103.00","","-99.00","NA","YES","1.000000","",".250000",".0 00500",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","BDO-1838","d3-
MeFOSAA","1.110000","ng/L","","-99.00","NA","","SIS","111.00","","-99.00","NA","YES","1.000000","",".250000", ".000500",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","BDO-1839","d5-
EtFOSAA","1.120000","ng/L","","-99.00","NA","","SIS","112.00","","-99.00","NA","YES","1.000000","",".250000",". 000500",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","BDO-2226","13C3-
PFBS",".880000","ng/L","","-99.00","NA","","SIS","94.00","","-99.00","NA","YES",".930000","",".250000",". 000500 ",".50",""
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","BDO-2227","13C3-
PFHxS",".960000","ng/L","","-99.00","NA","","SIS","101.00","","-99.00","NA","YES",".950000","",".250000",". 0005 00",".50","'
"CS469PB-FS","SOP 5-369","Initial","CS469PB-FS","BNO","BDO-2228","13C8-
PFOS","1.080000","ng/L","","-99.00","NA","","SIS","113.00","","-99.00","NA","YES",".960000","",".250000",". 0005 00",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","375-22-
4","PFBA","11.130000","ng/L","",".14","MDL","","T","111.00","","5.00","LOQ","YES","10.000000","",".250000",". 0 00500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","307-24-
4","PFHxA","10.580000","ng/L","",".19","MDL","","T","105.00","","5.00","LOQ","YES","10.100000","",".250000",". 000500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","375-85-
9","PFHpA","9.960000","ng/L","",".16","MDL","","T","100.00","","5.00","LOQ","YES","10.000000","",".250000",".0 00500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","335-67-
1","PFOA","10.490000","ng/L","B",".18","MDL","","T","105.00","","5.00","LOQ","YES","10.000000","",".250000",". 000500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","375-95-
1","PFNA","8.880000","ng/L","",".26","MDL","","T","89.00","","5.00","LOQ","YES","10.000000","",".250000",".000 500","1.00",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","335-76-
2","PFDA","9.370000","ng/L","",".16","MDL","","T","94.00","","5.00","LOQ","YES","10.000000","",".250000",". 000 500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","2058-94-
8","PFUnA","10.670000","ng/L","",".29","MDL","","T","107.00","","5.00","LOQ","YES","10.000000","",".250000",".

000500","1.00",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","307-55-
1","PFDoA","10.460000","ng/L","",".18","MDL","","T","105.00","","5.00","LOQ","YES","10.000000","",".250000",". 000500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","72629-94-
8","PFTrDA","10.010000","ng/L","",".15","MDL","","T","100.00","","5.00","LOQ","YES","10.000000","",".250000"," .000500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","376-06-
7","PFTeDA","10.170000","ng/L","",".25","MDL","","T","102.00","","5.00","LOQ","YES","10.000000","",".250000", ".000500","1.00",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","2355-31-
9","NMeFOSAA","9.700000","ng/L","",".56","MDL","","T","97.00","","5.00","LOQ","YES","10.000000","",".250000 ",".000500","2.00",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","2991-50-
6","NEtFOSAA","9.400000","ng/L","",".49","MDL","","T","94.00","","5.00","LOQ","YES","10.000000","",".250000", ".000500","1.00",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","375-73-
5","PFBS","9.840000","ng/L","",".13","MDL","","T","97.00","","5.00","LOQ","YES","10.100000","",".250000",". 000 500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","355-46-
4","PFHxS","8.990000","ng/L","",".11","MDL","","T","89.00","","5.00","LOQ","YES","10.100000","",".250000",". 00 0500",".40",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","1763-23-
1","PFOS","9.800000","ng/L","",".19","MDL","","T","98.00","","5.00","LOQ","YES","10.000000","",".250000",". 000 500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","BDO-2105","13C4-
PFBA",".890000","ng/L","","-99.00","NA","","SIS","89.00","","-99.00","NA","YES","1.000000","",".250000",". 00050 0",".50","'
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","BDO-2217","13C5-
PFHxA",".980000","ng/L","","-99.00","NA","","SIS","98.00","","-99.00","NA","YES","1.000000","",".250000",".0005 00",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","BDO-2218","13C4-
PFHpA",".940000","ng/L","","-99.00","NA","","SIS","94.00","","-99.00","NA","YES","1.000000","",".250000",". 0005 00",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","BDO-2219","13C8-
PFOA","1.040000","ng/L","","-99.00","NA","","SIS","104.00","","-99.00","NA","YES","1.000000","",".250000",". 000 500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","BDO-2221","13C9-
PFNA","1.130000","ng/L","","-99.00","NA","","SIS","113.00","","-99.00","NA","YES","1.000000","",".250000",". 000 500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","BDO-2222","13C6-
PFDA","1.110000","ng/L","","-99.00","NA","","SIS","111.00","","-99.00","NA","YES","1.000000","",".250000",". 000 500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","BDO-2223","13C7-
PFUnA","1.010000","ng/L","","-99.00","NA","","SIS","101.00","","-99.00","NA","YES","1.000000","",".250000",". 00 0500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","BDO-2112","13C2-
PFDoA","1.000000","ng/L","","-99.00","NA","","SIS","100.00","","-99.00","NA","YES","1.000000","",".250000",". 00 0500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","BDO-2224","13C2-
PFTeDA",".960000","ng/L","","-99.00","NA","","SIS","96.00","","-99.00","NA","YES","1.000000","",".250000",". 000 500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","BDO-1838","d3-
MeFOSAA","1.010000","ng/L","","-99.00","NA","","SIS","101.00","","-99.00","NA","YES","1.000000","",".250000",
".000500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","BDO-1839","d5-
EtFOSAA",".960000","ng/L","","-99.00","NA","","SIS","96.00","","-99.00","NA","YES","1.000000","",".250000",". 00 0500",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","BDO-2226","13C3-
PFBS",".930000","ng/L","","-99.00","NA","","SIS","100.00","","-99.00","NA","YES",".930000","",".250000",". 00050 0",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","BDO-2227","13C3-
PFHxS",".900000","ng/L","","-99.00","NA","","SIS","96.00","","-99.00","NA","YES",".950000","",".250000",". 00050 0",".50",""
"CS470LCS-FS","SOP 5-369","Initial","CS470LCS-FS","BNO","BDO-2228","13C8-
PFOS","1.020000","ng/L","","-99.00","NA","","SIS","107.00","","-99.00","NA","YES",".960000","",".250000",". 0005 00",".50",""
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","375-22-
4","PFBA","18.390000","ng/L","",".13","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",". 000500 ",".47",""
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","307-24-
4","PFHxA",".800000","ng/L","J",".18","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",". 000500 ",".47",""
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","375-85-
9","PFHpA",".440000","ng/L","J",".15","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",". 000500 ",".47",""
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","335-67-
1","PFOA","2.570000","ng/L","J",".17","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",". 000500 ",".47",""
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","375-95-
1","PFNA",".940000","ng/L","U",".25","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",". 000500 ",".94",""
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","335-76-
2","PFDA",".470000","ng/L","U",".15","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",". 000500 ",".47",""
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","2058-94-
8","PFUnA",".940000","ng/L","U",".27","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",". 00050 0",".94",""
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","307-55-
1","PFDoA",".470000","ng/L","U",".17","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",". 00050 0",".47",""
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","72629-94-
8","PFTrDA",".470000","ng/L","U",".14","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",". 0005 00",".47","'
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","376-06-
7","PFTeDA",".940000","ng/L","U",".24","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",". 0005 00",".94",""
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","2355-31-
9","NMeFOSAA","1.890000","ng/L","U",".53","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",". 000500","1.89",""
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","2991-50-
6","NEtFOSAA",".940000","ng/L","U",".46","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",".00 0500",".94",""
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","375-73-
5","PFBS",".360000","ng/L","J",".12","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",".000500", ".47",""
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","355-46-
4","PFHxS","1.140000","ng/L","J",".10","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",". 00050

0",".38","'
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","1763-23-
1","PFOS",".300000","ng/L","J",".18","MDL","',"T","',"',"4.72","LOQ","YES","-99.000000","',".265000",".000500", ".47",""
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","BDO-2105","13C4-
PFBA",".750000","ng/L","',"-99.00","NA","","SIS","79.00","',"-99.00","NA","YES",".940000","",".265000",". 000500 ",".50","'"
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","BDO-2217","13C5-
PFHxA",".920000","ng/L","","-99.00","NA","',"SIS","97.00","","-99.00","NA","YES",".940000","",".265000",".00050 0",".50","'
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","BDO-2218","13C4-
PFHpA","1.070000","ng/L","',"-99.00","NA","',"SIS","113.00","","-99.00","NA","YES",".940000","',".265000",". 000 500",".50","'
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","BDO-2219","13C8-
PFOA","1.020000","ng/L","","-99.00","NA","',"SIS","108.00","","-99.00","NA","YES",".940000","",".265000",".0005 00",".50","'"
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","BDO-2221","13C9-
PFNA","1.020000","ng/L","","-99.00","NA","',"SIS","108.00","',"-99.00',"NA","YES",".940000","',".265000",".0005 00",".50","'"
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","BDO-2222","13C6-
PFDA",".990000","ng/L","","-99.00","NA","","SIS","105.00","","-99.00","NA","YES",".940000","",".265000",".00050 0",".50","'
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","BDO-2223","13C7-
PFUnA",".930000","ng/L","',"-99.00","NA","',"SIS","99.00","","-99.00","NA","YES",".940000',"',". 265000 ",". 00050 0",".50","'"
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","BDO-2112","13C2-
PFDoA",".890000","ng/L","","-99.00","NA","',"SIS","95.00","","-99.00","NA","YES",".940000","",". 265000 ",".00050 0",".50","'
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","BDO-2224","13C2-
PFTeDA",".790000","ng/L","',"-99.00","NA","',"SIS","84.00","',"-99.00","NA","YES",".940000","",".265000",".0005 00",".50","'"
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","BDO-1838","d3-
MeFOSAA",".800000","ng/L","","-99.00","NA","","SIS","85.00","","-99.00","NA","YES",".940000","',".265000",". 00 0500",".50","'"
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","BDO-1839","d5-
EtFOSAA",".810000","ng/L","',"-99.00","NA","","SIS","86.00',"',"-99.00","NA',"YES",".940000","',".265000',". 000 500",".50","'"
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","BDO-2226","13C3-
PFBS",".960000","ng/L","","-99.00","NA","","SIS","109.00","","-99.00","NA","YES",".880000","",".265000",". 00050 0",".50","'
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","BDO-2227","13C3-
PFHxS",".850000","ng/L","","-99.00","NA","","SIS","95.00","","-99.00","NA","YES",".890000","",".265000",". 00050 0",".50","'
"NASB-CW-GW04-1218","SOP 5-369","Initial","J9987-FS","BNO","BDO-2228","13C8-
PFOS",".880000","ng/L","","-99.00","NA","","SIS","97.00","","-99.00","NA","YES",".900000","',". 265000 ",". 000500 ",".50","'
"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","375-22-
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"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","307-24-
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"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","375-85-
9","PFHpA",".520000","ng/L","J",".15","MDL","","T","',"","4.55","LOQ","YES","-99.000000","",".275000",". 000500
",".45",""
"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","335-67-
1","PFOA","2.470000","ng/L","J",".16","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 000500 ",".45",""
"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","375-95-
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"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","335-76-
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"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","2058-94-
8","PFUnA",".910000","ng/L","U",".26","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 00050 0",".91",""
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"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","72629-94-
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"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","376-06-
7","PFTeDA",".910000","ng/L","U",".23","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 0005 00",".91",""
"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","2355-31-
9","NMeFOSAA","1.820000","ng/L","U",".51","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 000500","1.82",""
"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","2991-50-
6","NEtFOSAA",".910000","ng/L","U",".45","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 00 0500",".91",""
"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","375-73-
5","PFBS",".370000","ng/L","J",".12","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500", ".45",""
"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","355-46-
4","PFHxS","1.160000","ng/L","J",".10","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 00050 0",".36",""
"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","1763-23-
1","PFOS",".430000","ng/L","J",".17","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500", ".45",""
"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","BDO-2105","13C4-
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"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","BDO-2217","13C5-
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"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","BDO-2218","13C4-
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"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","BDO-2219","13C8-
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"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","BDO-2222","13C6-
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"NASB-CW-DUP-120618","SOP 5-369","Initial","J9988-FS","BNO","BDO-2112","13C2-
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4","PFBA",".480000","ng/L","U",".13","MDL","","T","","","4.81","LOQ","YES","-99.000000","",".260000",".000500"
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9","PFHpA",".480000","ng/L","U",".15","MDL","","T","","","4.81","LOQ","YES","-99.000000","",".260000",".00050
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7","PFTeDA",".960000","ng/L","U",".24","MDL","","T","","","4.81","LOQ","YES","-99.000000","",".260000",".0005
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5","PFBS",".480000","ng/L","U",".13","MDL","","T","","","4.81","LOQ","YES","-99.000000","",".260000",".000500" ,".48",""
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"NASB-CW-GW-FB01-120618","SOP 5-369","Initial","J9989-FS","BNO","BDO-2223","13C7-
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"NASB-CW-GW-FB01-120618","SOP 5-369","Initial","J9989-FS","BNO","BDO-2112","13C2-
PFDoA",".850000","ng/L","","-99.00","NA","","SIS","88.00","","-99.00","NA","YES",".960000","",".260000",". 00050 0",".50",""
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"NASB-CW-GW-FB01-120618","SOP 5-369","Initial","J9989-FS","BNO","BDO-1838","d3-
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"NASB-CW-GW-FB01-120618","SOP 5-369","Initial","J9989-FS","BNO","BDO-1839","d5-
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"NASB-CW-GW-FB01-120618","SOP 5-369","Initial","J9989-FS","BNO","BDO-2227","13C3-
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"NASB-CW-GW-RB01-120618","SOP 5-369","Initial","J9990-FS","BNO","335-67-
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"NASB-CW-GW-RB01-120618","SOP 5-369","Initial","J9990-FS","BNO","375-73-
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PFOA",".840000","ng/L","","-99.00","NA","","SIS","96.00","","-99.00","NA","YES",".880000","J9992MS-
FS",".285000",".000500",".50",""
"NASB-CW-GW01D-1218MS","SOP 5-369","Initial","J9992MS-FS","BNO","BDO-2221","13C9-
PFNA",".850000","ng/L","","-99.00","NA","","SIS","97.00","","-99.00","NA","YES",".880000","J9992MS-

FS",".285000",".000500",".50",""
"NASB-CW-GW01D-1218MS","SOP 5-369","Initial","J9992MS-FS","BNO","BDO-2222","13C6-
PFDA",".760000","ng/L","","-99.00","NA","","SIS","87.00","","-99.00","NA","YES",".880000","J9992MS-
FS",".285000",".000500",".50",""
"NASB-CW-GW01D-1218MS","SOP 5-369","Initial","J9992MS-FS","BNO","BDO-2223","13C7-
PFUnA",".750000","ng/L","","-99.00","NA","","SIS","86.00","","-99.00","NA","YES",".880000","J9992MS-
FS",".285000",".000500",".50",""
"NASB-CW-GW01D-1218MS","SOP 5-369","Initial","J9992MS-FS","BNO","BDO-2112","13C2-
PFDoA",".770000","ng/L","","-99.00","NA","","SIS","88.00","","-99.00","NA","YES",".880000","J9992MSFS",".285000",".000500",".50",""
"NASB-CW-GW01D-1218MS","SOP 5-369","Initial","J9992MS-FS","BNO","BDO-2224","13C2-
PFTeDA",".750000","ng/L","","-99.00","NA","","SIS","86.00","","-99.00","NA","YES",".880000","J9992MS-
FS",".285000",".000500",".50",""
"NASB-CW-GW01D-1218MS","SOP 5-369","Initial","J9992MS-FS","BNO","BDO-1838","d3-
MeFOSAA",".780000","ng/L","","-99.00","NA","","SIS","89.00","","-99.00","NA","YES",".880000","J9992MS-
FS",".285000",".000500",".50",""
"NASB-CW-GW01D-1218MS","SOP 5-369","Initial","J9992MS-FS","BNO","BDO-1839","d5-
EtFOSAA",".660000","ng/L","","-99.00","NA","","SIS","75.00","","-99.00","NA","YES",".880000","J9992MS-
FS",".285000",".000500",".50",""
"NASB-CW-GW01D-1218MS","SOP 5-369","Initial","J9992MS-FS","BNO","BDO-2226","13C3-
PFBS",".910000","ng/L","","-99.00","NA","","SIS","111.00","","-99.00","NA","YES",".820000","J9992MS-
FS",".285000",".000500",".50",""
"NASB-CW-GW01D-1218MS","SOP 5-369","Initial","J9992MS-FS","BNO","BDO-2227","13C3-
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FS",".285000",".000500",".50",""
"NASB-CW-GW01D-1218MS","SOP 5-369","Initial","J9992MS-FS","BNO","BDO-2228","13C8-
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FS",".285000",".000500",".50",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","375-22-
4","PFBA","27.290000","ng/L","",".12","MDL","","T","103.00","1.0","4.39","LOQ","YES","26.320000","J9992MSD-
FS",".285000",".000500",".44",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","307-24-
4","PFHxA","27.690000","ng/L","",".17","MDL","","T","104.00",".0","4.39","LOQ","YES","26.580000","J9992MSDFS",".285000",".000500",".44",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","375-85-
9","PFHpA","24.960000","ng/L","",".14","MDL","","T","95.00","1.0","4.39","LOQ","YES","26.320000","J9992MSDFS",".285000",".000500",".44",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","335-67-
1","PFOA","26.450000","ng/L","",".16","MDL","","T","95.00","1.0","4.39","LOQ","YES","26.320000","J9992MSDFS",".285000",".000500",".44",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","375-95-
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"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","335-76-
2","PFDA","25.580000","ng/L","",".14","MDL","","T","97.00","4.0","4.39","LOQ","YES","26.320000","J9992MSDFS",".285000",".000500",".44",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","2058-94-
8","PFUnA","27.680000","ng/L","",".25","MDL","","T","105.00","1.9","4.39","LOQ","YES","26.320000","J9992MSD -FS",".285000",".000500",".88",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","307-55-
1","PFDoA","27.140000","ng/L","",".16","MDL","","T","103.00",".0","4.39","LOQ","YES","26.320000","J9992MSDFS",".285000",".000500",".44",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","72629-94-
8","PFTrDA","26.870000","ng/L","",".13","MDL","","T","102.00","1.9","4.39","LOQ","YES","26.320000","J9992MS

D-FS",".285000",".000500",".44",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","376-06-
7","PFTeDA","27.110000","ng/L","",".22","MDL","","T","103.00","1.9","4.39","LOQ","YES","26.320000","J9992MS D-FS",".285000",".000500",".88",""
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9","NMeFOSAA","26.160000","ng/L","",".49","MDL","","T","99.00","12.9","4.39","LOQ","YES","26.320000","J999 2MSD-FS",".285000",".000500","1.75",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","2991-50-
6","NEtFOSAA","25.660000","ng/L","",".43","MDL","","T","98.00","4.0","4.39","LOQ","YES","26.320000","J9992 MSD-FS",".285000",".000500",".88",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","375-73-
5","PFBS","25.150000","ng/L","",".11","MDL","","T","95.00","3.2","4.39","LOQ","YES","26.580000","J9992MSDFS",".285000",".000500",".44",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","355-46-
4","PFHxS","29.430000","ng/L","",".10","MDL","","T","109.00","15.8","4.39","LOQ","YES","26.580000","J9992MS D-FS",".285000",".000500",".35",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","1763-23-
1","PFOS","28.970000","ng/L","",".17","MDL","","T","109.00","9.6","4.39","LOQ","YES","26.320000","J9992MSDFS",".285000",".000500",".44",""
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FS",".285000",".000500",".50",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","BDO-2217","13C5-
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FS",".285000",".000500",".50",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","BDO-2218","13C4-
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"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","BDO-2223","13C7-
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FS",".285000",".000500",".50",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","BDO-2224","13C2-
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"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","BDO-1838","d3-
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"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","BDO-2226","13C3-
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FS",".285000",".000500",".50",""
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FS",".285000",".000500",".50",""
"NASB-CW-GW01D-1218MSD","SOP 5-369","Initial","J9992MSD-FS","BNO","BDO-2228","13C8-
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FS",".285000",".000500",".50",""
"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","375-22-
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"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","307-24-
4","PFHxA","1.000000","ng/L","J",".17","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".00050 0",".45",""
"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","375-85-
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"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","335-67-
1","PFOA","2.420000","ng/L","J",".16","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500 ",".45",""
"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","375-95-
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"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","335-76-
2","PFDA",".450000","ng/L","U",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500 ",".45",""
"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","2058-94-
8","PFUnA",".910000","ng/L","U",".26","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".00050 0",".91",""
"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","307-55-
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8","PFTrDA",".450000","ng/L","U",".14","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".0005 00",".45",""
"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","376-06-
7","PFTeDA",".910000","ng/L","U",".23","MDL","","T","",","4.55","LOQ","YES","-99.000000","",".275000",".0005 00",".91",""
"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","2355-31-
9","NMeFOSAA","1.820000","ng/L","U",".51","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 000500","1.82",""
"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","2991-50-
6","NEtFOSAA",".910000","ng/L","U",".45","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".00 0500",".91",""
"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","375-73-
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"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","355-46-
4","PFHxS",".380000","ng/L","J",".10","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500 ",".36",""
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"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","BDO-2105","13C4-
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0",".50",""
"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","BDO-2218","13C4-
PFHpA",".810000","ng/L","","-99.00","NA","","SIS","89.00","","-99.00","NA","YES",".910000","",".275000",".00050
0",".50",""
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PFUnA",".820000","ng/L","",--99.00","NA",","SIS","90.00",","-99.00","NA","YES",".910000","",.275000",".00050
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"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","BDO-2112","13C2-
PFDoA",".880000","ng/L","",-99.00","NA","","SIS","96.00",","-99.00","NA","YES",".910000","",.275000",".00050
0",".50",""
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"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","BDO-1838","d3-
MeFOSAA",".800000","ng/L","","-99.00","NA","","SIS","88.00","","-99.00","NA","YES",".910000","",".275000",".00
0500",".50",""
"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","BDO-1839","d5-
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"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","BDO-2226","13C3-
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0",".50",""
"NASB-CW-GW02-1218","SOP 5-369","Initial","J9993-FS","BNO","BDO-2228","13C8-
PFOS",".730000","ng/L","",-99.00","NA","","SIS","84.00","","-99.00","NA","YES",".870000",",".275000",".000500
",".50",""
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","375-22-
4","PFBA",".430000","ng/L","J",".13","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500",
".45",""
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","307-24-
4","PFHxA",".450000","ng/L","U",".17","MDL","","T",","","4.55","LOQ","YES","-99.000000","",".275000",".00050
0",".45",""
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","375-85-
9","PFHpA",".450000","ng/L","U",".15","MDL",","T",","","4.55","LOQ","YES","-99.000000","",.275000",".00050
0",".45",""
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","335-67-
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",".45",""
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","375-95-
1","PFNA",".910000","ng/L","U",".24","MDL",",""T","",","4.55","LOQ","YES","-99.000000",",".275000",".000500
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"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","2058-94-
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"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","307-55-
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"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","72629-94-
8","PFTrDA",".450000","ng/L","U",".14","MDL","","T","","","4.55","LOQ","YES","-99.000000","",". $275000 ", " .0005$ 00",".45","'"
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7","PFTeDA",".910000","ng/L","U",".23","MDL","","T","","',"4.55","LOQ","YES","-99.000000","",". $275000 ", " .0005$ 00",".91","'"
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","2355-31-
9","NMeFOSAA","1.820000","ng/L","U",".51","MDL","","T","',"","4.55","LOQ","YES","-99.000000","',".275000",". 000500","1.82",""
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","2991-50-
6","NEtFOSAA",".910000","ng/L","U",".45","MDL","',"T","',"',"4.55","LOQ","YES","-99.000000","',". 275000 ",". 00 0500",".91","'"
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","375-73-
5","PFBS",".720000","ng/L","J",".12","MDL","","T","',"","4.55","LOQ","YES","-99.000000","",".275000",".000500", ".45",""
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","355-46-
4","PFHxS","4.940000","ng/L","",".10","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 000500 ",".36","'
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","1763-23-
1","PFOS",".860000","ng/L","J",".17","MDL","',"T","","","4.55","LOQ","YES","-99.000000","',".275000",".000500", ".45","'"
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","BDO-2105","13C4-
PFBA",".630000","ng/L","","-99.00',"NA","","SIS","69.00","',"-99.00","NA","YES",".910000","",".275000",". 000500 ",".50","'"
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","BDO-2217","13C5-
PFHxA",".730000","ng/L","',"-99.00","NA","","SIS","80.00","',"-99.00","NA","YES",".910000","',". $275000 ", " .00050$ 0",".50","'"
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","BDO-2218","13C4-
PFHpA",".780000","ng/L","","-99.00","NA","","SIS","86.00","","-99.00","NA","YES",".910000","",".275000",".00050 0",".50","'"
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","BDO-2219","13C8-
PFOA",".810000","ng/L","","-99.00","NA","","SIS","89.00","',"-99.00","NA","YES",".910000","',".275000",". 000500 ",".50","'"
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","BDO-2221","13C9-
PFNA",".920000","ng/L","","-99.00","NA","","SIS","101.00","","-99.00","NA","YES",".910000","",".275000",".00050 0",".50","'
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","BDO-2222","13C6-
PFDA",".780000","ng/L","","-99.00","NA","","SIS","85.00","',"-99.00","NA","YES",".910000","',".275000",". 000500 ",".50",""
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","BDO-2223","13C7-
PFUnA",".730000","ng/L","',"-99.00","NA","","SIS","80.00","","-99.00","NA","YES",".910000","',". $275000 ", " .00050$ 0",".50","'"
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","BDO-2112","13C2-
PFDoA",".760000","ng/L","',"-99.00","NA","',"SIS","84.00","","-99.00","NA","YES",".910000","",".275000",".00050

0",".50",""
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","BDO-2224","13C2-
PFTeDA",".740000","ng/L","","-99.00","NA","","SIS","81.00","","-99.00","NA","YES",".910000","",".275000",". 0005 00",".50",""
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","BDO-1838","d3-
MeFOSAA",".740000","ng/L","","-99.00","NA","","SIS","81.00","","-99.00","NA","YES",".910000","",".275000",". 00 0500",".50",""
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","BDO-1839","d5-
EtFOSAA",".660000","ng/L","","-99.00","NA","","SIS","73.00","","-99.00","NA","YES",".910000","",".275000",".000 500",".50",""
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","BDO-2226","13C3-
PFBS",".910000","ng/L","","-99.00","NA","","SIS","108.00","","-99.00","NA","YES",".850000","",".275000",". 00050 0",".50",""
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","BDO-2227","13C3-
PFHxS",".850000","ng/L","","-99.00","NA","","SIS","98.00","","-99.00","NA","YES",".860000","",".275000",". 00050 0",".50",""
"MW-09-204-1218","SOP 5-369","Initial","J9994-FS","BNO","BDO-2228","13C8-
PFOS",".930000","ng/L","","-99.00","NA","","SIS","107.00","","-99.00","NA","YES",".870000","",".275000",". 00050 0",".50",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","375-22-
4","PFBA","1.800000","ng/L","J",".13","MDL","","T","","","4.46","LOQ","YES","-99.000000","",".280000",". 000500 ",".45",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","307-24-
4","PFHxA","5.250000","ng/L","",".17","MDL","","T","","","4.46","LOQ","YES","-99.000000","",".280000",".000500 ",".45",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","375-85-
9","PFHpA","2.220000","ng/L","J",".14","MDL","","T","","","4.46","LOQ","YES","-99.000000","",".280000",". 00050 0",".45",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","335-67-
1","PFOA","31.280000","ng/L","",".16","MDL","","T","","","4.46","LOQ","YES","-99.000000","",".280000",".000500 ",".45",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","375-95-
1","PFNA",".890000","ng/L","U",".23","MDL","","T","","","4.46","LOQ","YES","-99.000000","",".280000",". 000500 ",".89",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","335-76-
2","PFDA",".450000","ng/L","U",".14","MDL","","T","","","4.46","LOQ","YES","-99.000000","",".280000",". 000500 ",".45",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","2058-94-
8","PFUnA",".890000","ng/L","U",".26","MDL","","T","","","4.46","LOQ","YES","-99.000000","",".280000",". 00050 0",".89",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","307-55-
1","PFDoA",".450000","ng/L","U",".16","MDL","","T","","","4.46","LOQ","YES","-99.000000","",".280000",". 00050 0",".45",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","72629-94-
8","PFTrDA",".450000","ng/L","U",".13","MDL","","T","","","4.46","LOQ","YES","-99.000000","",".280000",". 0005 00",".45",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","376-06-
7","PFTeDA",".890000","ng/L","U",".22","MDL","","T","","","4.46","LOQ","YES","-99.000000","",".280000",". 0005 00",".89",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","2355-31-
9","NMeFOSAA","1.790000","ng/L","U",".50","MDL","","T","","","4.46","LOQ","YES","-99.000000","",".280000",". 000500","1.79",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","2991-50-
6","NEtFOSAA",".890000","ng/L","U",".44","MDL","","T","","","4.46","LOQ","YES","-99.000000","",".280000",".00

0500",".89",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","375-73-
5","PFBS","2.630000","ng/L","J",".12","MDL","","T","","","4.46","LOQ","YES","-99.000000","",".280000",".000500" ,".45",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","355-46-
4","PFHxS","18.370000","ng/L","",".10","MDL","","T","","","4.46","LOQ","YES","-99.000000","",".280000",". 00050 0",".36",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","1763-23-
1","PFOS","16.600000","ng/L","",".17","MDL","","T","","","4.46","LOQ","YES","-99.000000","",".280000",". 000500 ",".45",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","BDO-2105","13C4-
PFBA",".660000","ng/L","","-99.00","NA","","SIS","74.00","","-99.00","NA","YES",".890000","",".280000",". 000500 ",".50",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","BDO-2217","13C5-
PFHxA",".780000","ng/L","","-99.00","NA","","SIS","88.00","","-99.00","NA","YES",".890000","",".280000",". 00050 0",".50",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","BDO-2218","13C4-
PFHpA",".830000","ng/L","","-99.00","NA","","SIS","93.00","","-99.00","NA","YES",".890000","",".280000",". 00050 0",".50",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","BDO-2219","13C8-
PFOA",".760000","ng/L","","-99.00","NA","","SIS","85.00","","-99.00","NA","YES",".890000","",".280000",". 000500 ",".50",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","BDO-2221","13C9-
PFNA",".860000","ng/L","","-99.00","NA","","SIS","96.00","","-99.00","NA","YES",".890000","",".280000",". 000500 ",".50",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","BDO-2222","13C6-
PFDA",".850000","ng/L","","-99.00","NA","","SIS","95.00","","-99.00","NA","YES",".890000","",".280000",".000500 ",".50",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","BDO-2223","13C7-
PFUnA",".770000","ng/L","","-99.00","NA","","SIS","86.00","","-99.00","NA","YES",".890000","",".280000",".00050 0",".50",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","BDO-2112","13C2-
PFDoA",".720000","ng/L","","-99.00","NA","","SIS","81.00","","-99.00","NA","YES",".890000","",".280000",". 00050 0",".50",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","BDO-2224","13C2-
PFTeDA",".720000","ng/L","","-99.00","NA","","SIS","81.00","","-99.00","NA","YES",".890000","",".280000",". 0005 00",".50",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","BDO-1838","d3-
MeFOSAA",".630000","ng/L","","-99.00","NA","","SIS","71.00","","-99.00","NA","YES",".890000","",".280000",". 00 0500",".50",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","BDO-1839","d5-
EtFOSAA",".620000","ng/L","","-99.00","NA","","SIS","69.00","","-99.00","NA","YES",".890000","",".280000",".000 500",".50",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","BDO-2226","13C3-
PFBS",".840000","ng/L","","-99.00","NA","","SIS","102.00","","-99.00","NA","YES",". $830000 ", " ", " .280000$ ",". 00050 0",".50",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","BDO-2227","13C3-
PFHxS",".790000","ng/L","","-99.00","NA","","SIS","93.00","","-99.00","NA","YES",".840000","",".280000",". 00050 0",".50",""
"MW-B250-07-1218","SOP 5-369","Initial","J9995-FS","BNO","BDO-2228","13C8-
PFOS",".870000","ng/L","","-99.00","NA","","SIS","102.00","","-99.00","NA","YES",".850000","",".280000",". 00050 0",".50",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","375-22-
4","PFBA",".500000","ng/L","J",".13","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500",
".46",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","307-24-
4","PFHxA","2.970000","ng/L","J",".18","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 00050 0",".46",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","375-85-
9","PFHpA","2.690000","ng/L","J",".15","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 00050 0",".46",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","335-67-
1","PFOA","11.800000","ng/L","B",".17","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 0005 00",".46",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","375-95-
1","PFNA",".300000","ng/L","J",".24","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500", ".93",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","335-76-
2","PFDA",".460000","ng/L","U",".15","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 000500 ",".46",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","2058-94-
8","PFUnA",".930000","ng/L","U",".27","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 00050 0",".93",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","307-55-
1","PFDoA",".460000","ng/L","U",".17","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 00050 0",".46",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","72629-94-
8","PFTrDA",".460000","ng/L","U",".14","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 0005 00",".46",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","376-06-
7","PFTeDA",".930000","ng/L","U",".23","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 0005 00",".93",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","2355-31-
9","NMeFOSAA","1.850000","ng/L","U",".52","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 000500","1.85",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","2991-50-
6","NEtFOSAA",".930000","ng/L","U",".45","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 00 0500",".93",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","375-73-
5","PFBS","2.090000","ng/L","J",".12","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500" ,".46",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","355-46-
4","PFHxS","5.980000","ng/L","",".10","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 000500 ",".37",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","1763-23-
1","PFOS","1.800000","ng/L","J",".18","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 000500 ",".46",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","BDO-2105","13C4-
PFBA",".590000","ng/L","","-99.00","NA","","SIS","63.00","","-99.00","NA","YES",".930000","",".270000",". 000500 ",".50",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","BDO-2217","13C5-
PFHxA",".720000","ng/L","","-99.00","NA","","SIS","78.00","","-99.00","NA","YES",".930000","",".270000",".00050 0",".50",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","BDO-2218","13C4-
PFHpA",".780000","ng/L","","-99.00","NA","","SIS","85.00","","-99.00","NA","YES",".930000","",".270000",". 00050 0",".50",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","BDO-2219","13C8-
PFOA",".830000","ng/L","","-99.00","NA","","SIS","90.00","","-99.00","NA","YES",".930000","",".270000",". 000500
",".50","'"
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","BDO-2221","13C9-
PFNA",".860000","ng/L","',"-99.00","NA","","SIS","93.00","',"-99.00","NA","YES",".930000","',".270000",". 000500 ",".50","'"
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","BDO-2222","13C6-
PFDA",".790000","ng/L","","-99.00","NA","","SIS","86.00","',"-99.00","NA","YES",".930000","",".270000",". 000500 ",".50","'"
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","BDO-2223","13C7-
PFUnA",".680000","ng/L","","-99.00","NA","',"SIS","74.00","","-99.00","NA","YES",".930000","",". 270000 ",". 00050 0",".50","'"
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","BDO-2112","13C2-
PFDoA",".570000","ng/L","","-99.00","NA","","SIS","62.00","","-99.00","NA","YES",".930000","",".270000",".00050 0",".50",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","BDO-2224","13C2-
PFTeDA",".550000","ng/L","","-99.00","NA","","SIS","60.00","","-99.00","NA","YES",".930000","",".270000",". 0005 00",".50",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","BDO-1838","d3-
MeFOSAA",".680000","ng/L","","-99.00","NA","","SIS","73.00","","-99.00","NA","YES",".930000","",".270000",". 00 0500",".50",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","BDO-1839","d5-
EtFOSAA",".650000","ng/L","","-99.00","NA","","SIS","70.00","","-99.00","NA","YES",".930000","",".270000",". 000 500",".50",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","BDO-2226","13C3-
PFBS",".950000","ng/L","","-99.00","NA","","SIS","110.00","","-99.00","NA","YES",".860000","",".270000",". 00050 0",".50",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","BDO-2227","13C3-
PFHxS",".840000","ng/L","","-99.00","NA","","SIS","96.00","","-99.00","NA","YES",".880000","",".270000",". 00050 0",".50",""
"MW-09-22-1218","SOP 5-369","Initial","J9996-FS","BNO","BDO-2228","13C8-
PFOS",".870000","ng/L","","-99.00","NA","","SIS","98.00","","-99.00","NA","YES",".890000","",".270000",".000500 ",".50",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","375-22-
4","PFBA","5.260000","ng/L","",".13","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500", ".46",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","307-24-
4","PFHxA","8.770000","ng/L","",".18","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 000500 ",".46",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","375-85-
9","PFHpA","5.250000","ng/L","",".15","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500 ",".46",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","335-67-
1","PFOA","18.290000","ng/L","",".17","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500 ",".46",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","375-95-
1","PFNA",".440000","ng/L","J",".24","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500", ".93",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","335-76-
2","PFDA",".460000","ng/L","U",".15","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 000500 ",".46",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","2058-94-
8","PFUnA",".930000","ng/L","U",".27","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 00050 0",".93",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","307-55-
1","PFDoA",".460000","ng/L","U",".17","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 00050

0",".46",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","72629-94-
8","PFTrDA",".460000","ng/L","U",".14","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 0005 00",".46",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","376-06-
7","PFTeDA",".930000","ng/L","U",".23","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 0005 00",".93",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","2355-31-
9","NMeFOSAA","1.850000","ng/L","U",".52","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 000500","1.85",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","2991-50-
6","NEtFOSAA",".930000","ng/L","U",".45","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 00 0500",".93",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","375-73-
5","PFBS","19.050000","ng/L","",".12","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",".000500 ",".46",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","355-46-
4","PFHxS","38.080000","ng/L","",".10","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 00050 0",".37",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","1763-23-
1","PFOS","38.180000","ng/L","",".18","MDL","","T","","","4.63","LOQ","YES","-99.000000","",".270000",". 000500 ",".46",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","BDO-2105","13C4-
PFBA",".490000","ng/L","","-99.00","NA","","SIS","53.00","","-99.00","NA","YES",".930000","",".270000",". 000500 ",".50",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","BDO-2217","13C5-
PFHxA",".810000","ng/L","","-99.00","NA","","SIS","87.00","","-99.00","NA","YES",".930000","",".270000",". 00050 0",".50",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","BDO-2218","13C4-
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"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","BDO-2219","13C8-
PFOA",".820000","ng/L","","-99.00","NA","","SIS","89.00","","-99.00","NA","YES",".930000","",".270000",". 000500 ",".50",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","BDO-2221","13C9-
PFNA",".910000","ng/L","","-99.00","NA","","SIS","99.00","","-99.00","NA","YES",".930000","",".270000",". 000500 ",".50",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","BDO-2222","13C6-
PFDA",".850000","ng/L","","-99.00","NA","","SIS","92.00","","-99.00","NA","YES",".930000","",".270000",". 000500 ",".50",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","BDO-2223","13C7-
PFUnA",".770000","ng/L","","-99.00","NA","","SIS","83.00","","-99.00","NA","YES",".930000","",".270000",".00050 0",".50",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","BDO-2112","13C2-
PFDoA",".710000","ng/L","","-99.00","NA","","SIS","76.00","","-99.00","NA","YES",".930000","",".270000",". 00050 0",".50",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","BDO-2224","13C2-
PFTeDA",".640000","ng/L","","-99.00","NA","","SIS","69.00","","-99.00","NA","YES",".930000","",".270000",". 0005 00",".50",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","BDO-1838","d3-
MeFOSAA",".720000","ng/L","","-99.00","NA","","SIS","78.00","","-99.00","NA","YES",".930000","",". 270000 ",". 00 0500",".50",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","BDO-1839","d5-
EtFOSAA",".630000","ng/L","","-99.00","NA","","SIS","68.00","","-99.00","NA","YES",".930000","",".270000",".000

500",".50",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","BDO-2226","13C3-
PFBS",".850000","ng/L","","-99.00","NA","","SIS","99.00","","-99.00","NA","YES",".860000","",".270000",". 000500 ",".50",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","BDO-2227","13C3-
PFHxS",".760000","ng/L","","-99.00","NA","","SIS","87.00","","-99.00","NA","YES",".880000","",".270000",". 00050 0",".50",""
"MW-09-004-1218","SOP 5-369","Initial","J9997-FS","BNO","BDO-2228","13C8-
PFOS",".710000","ng/L","","-99.00","NA","","SIS","80.00","","-99.00","NA","YES",".890000","",".270000",". 000500 ",".50",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","375-22-
4","PFBA","7.480000","ng/L","",".13","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500", ".45",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","307-24-
4","PFHxA","23.600000","ng/L","",".17","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 00050 0",".45",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","375-85-
9","PFHpA","12.300000","ng/L","",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".00050 0",".45",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","335-67-
1","PFOA","56.220000","ng/L","",".16","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500 ",".45",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","375-95-
1","PFNA",".530000","ng/L","J",".24","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500", ".91",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","335-76-
2","PFDA",".450000","ng/L","U",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 000500 ",".45",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","2058-94-
8","PFUnA",".910000","ng/L","U",".26","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 00050 0",".91",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","307-55-
1","PFDoA",".450000","ng/L","U",".16","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 00050 0",".45",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","72629-94-
8","PFTrDA",".450000","ng/L","U",".14","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 0005 00",".45",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","376-06-
7","PFTeDA",".910000","ng/L","U",".23","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 0005 00",".91",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","2355-31-
9","NMeFOSAA","1.820000","ng/L","U",".51","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 000500","1.82",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","2991-50-
6","NEtFOSAA",".910000","ng/L","U",".45","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 00 0500",".91",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","375-73-
5","PFBS","27.410000","ng/L","",".12","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500 ",".45",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","355-46-
4","PFHxS","45.910000","ng/L","",".10","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 00050 0",".36","'
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","1763-23-
1","PFOS","49.180000","ng/L","",".17","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 000500
",".45",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","BDO-2105","13C4-
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"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","BDO-2217","13C5-
PFHxA",".740000","ng/L","","-99.00","NA","","SIS","82.00","","-99.00","NA","YES",".910000","",".275000",". 00050 0",".50",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","BDO-2218","13C4-
PFHpA",".770000","ng/L","","-99.00","NA","","SIS","85.00","","-99.00","NA","YES",".910000","",".275000",". 00050 0",".50",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","BDO-2219","13C8-
PFOA",".730000","ng/L","","-99.00","NA","","SIS","81.00","","-99.00","NA","YES",".910000","",".275000",".000500 ",".50",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","BDO-2221","13C9-
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"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","BDO-2222","13C6-
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PFUnA",".740000","ng/L","","-99.00","NA","","SIS","81.00","","-99.00","NA","YES",".910000","",".275000",". 00050 0",".50",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","BDO-2112","13C2-
PFDoA",".690000","ng/L","","-99.00","NA","","SIS","75.00","","-99.00","NA","YES",".910000","",".275000",". 00050 0",".50",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","BDO-2224","13C2-
PFTeDA",".750000","ng/L","","-99.00","NA","","SIS","83.00","","-99.00","NA","YES",".910000","",".275000",". 0005 00",".50",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","BDO-1838","d3-
MeFOSAA",".610000","ng/L","","-99.00","NA","","SIS","67.00","","-99.00","NA","YES",".910000","",".275000",". 00 0500",".50",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","BDO-1839","d5-
EtFOSAA",".620000","ng/L","","-99.00","NA","","SIS","69.00","","-99.00","NA","YES",".910000","",".275000",". 000 500",".50",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","BDO-2226","13C3-
PFBS","1.030000","ng/L","","-99.00","NA","","SIS","122.00","","-99.00","NA","YES",". $850000 ", " ", " .275000$ ",". 0005 00",".50",""
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PFHxS",".800000","ng/L","","-99.00","NA","","SIS","93.00","","-99.00","NA","YES",".860000","",".275000",". 00050 0",".50",""
"MW-NASB-072-1218","SOP 5-369","Initial","J9998-FS","BNO","BDO-2228","13C8-
PFOS",".720000","ng/L","","-99.00","NA","","SIS","83.00","","-99.00","NA","YES",".870000","",".275000",".000500 ",".50",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","375-22-
4","PFBA",".470000","ng/L","U",".13","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",".000500" ,".47",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","307-24-
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"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","375-85-
9","PFHpA",".470000","ng/L","U",".15","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",". 00050 0",".47",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","335-67-
1","PFOA","1.350000","ng/L","J",".17","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",".000500

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",".94",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","335-76-
2","PFDA",".470000","ng/L","U",".15","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",".000500
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"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","2058-94-
8","PFUnA",".940000","ng/L","U",".27","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",".00050
0",".94",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","307-55-
1","PFDoA",".470000","ng/L","U",".17","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",".00050
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8","PFTrDA",".470000","ng/L","U",".14","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",".0005
00",".47","'
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","376-06-
7","PFTeDA",".940000","ng/L","U",".24","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",".0005
00",".94",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","2355-31-
9","NMeFOSAA","1.890000","ng/L","U",".53","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",".
000500","1.89",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","2991-50-
6","NEtFOSAA",".940000","ng/L","U",".46","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",".00
0500",".94",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","375-73-
5","PFBS",".470000","ng/L","U",".12","MDL","","T","","","4.72","LOQ","YES","-99.000000","",".265000",".000500"
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",".38",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","1763-23-
1","PFOS",".470000","ng/L","U",".18","MDL","","T","",","4.72","LOQ","YES","-99.000000","",".265000",".000500"
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"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","BDO-2105","13C4-
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",".50",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","BDO-2217","13C5-
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"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","BDO-2218","13C4-
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0",".50",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","BDO-2219","13C8-
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PFNA","1.080000","ng/L","","-99.00","NA","","SIS","114.00","","-99.00","NA","YES",".940000","",".265000",".0005
00",".50",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","BDO-2222","13C6-
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PFUnA",".920000","ng/L","","-99.00","NA","","SIS","97.00","","-99.00","NA","YES",".940000","",".265000",".00050
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PFDoA",".920000","ng/L","","-99.00","NA","","SIS","98.00","","-99.00","NA","YES",".940000","",".265000",". 00050 0",".50",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","BDO-2224","13C2-
PFTeDA",".850000","ng/L","","-99.00","NA","","SIS","90.00","","-99.00","NA","YES",".940000","",".265000",". 0005 00",".50",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","BDO-1838","d3-
MeFOSAA",".830000","ng/L","","-99.00","NA","","SIS","88.00","","-99.00","NA","YES",".940000","",".265000",".00 0500",".50",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","BDO-1839","d5-
EtFOSAA",".790000","ng/L","","-99.00","NA","","SIS","84.00","","-99.00","NA","YES",".940000","",".265000",". 000 500",".50",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","BDO-2226","13C3-
PFBS",".710000","ng/L","","-99.00","NA","","SIS","81.00","","-99.00","NA","YES",".880000","",".265000",". 000500 ",".50",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","BDO-2227","13C3-
PFHxS",".710000","ng/L","","-99.00","NA","","SIS","80.00","","-99.00","NA","YES",".890000","",".265000",". 00050 0",".50",""
"NASB-09-GW-FB01-120618","SOP 5-369","Initial","J9999-FS","BNO","BDO-2228","13C8-
PFOS",".760000","ng/L","","-99.00","NA","","SIS","84.00","","-99.00","NA","YES",".900000","",".265000",".000500 ",".50",""
"NASB-CW-GW03-1218","SOP 5-369","Initial","I0064-FS","BNO","375-22-
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"NASB-CW-GW03-1218","SOP 5-369","Initial","I0064-FS","BNO","375-85-
9","PFHpA",".690000","ng/L","J",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500 ",".45",""
"NASB-CW-GW03-1218","SOP 5-369","Initial","I0064-FS","BNO","335-67-
1","PFOA","3.380000","ng/L","J",".16","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 000500 ",".45",""
"NASB-CW-GW03-1218","SOP 5-369","Initial","I0064-FS","BNO","375-95-
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"NASB-CW-GW03-1218","SOP 5-369","Initial","I0064-FS","BNO","335-76-
2","PFDA",".160000","ng/L","J",".15","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",".000500", ".45",""
"NASB-CW-GW03-1218","SOP 5-369","Initial","I0064-FS","BNO","2058-94-
8","PFUnA",".910000","ng/L","U",".26","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 00050 0",".91",""
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"NASB-CW-GW03-1218","SOP 5-369","Initial","I0064-FS","BNO","1763-23-
1","PFOS","1.480000","ng/L","J",".17","MDL","","T","","","4.55","LOQ","YES","-99.000000","",".275000",". 000500 ",".45",""
"NASB-CW-GW03-1218","SOP 5-369","Initial","I0064-FS","BNO","BDO-2105","13C4-
PFBA",".630000","ng/L","","-99.00","NA","","SIS","69.00","","-99.00","NA","YES",".910000","",".275000",". 000500 ",".50",""
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"NASB-CW-GW03-1218","SOP 5-369","Initial","I0064-FS","BNO","BDO-2218","13C4-
PFHpA",".860000","ng/L","","-99.00","NA","","SIS","95.00","","-99.00","NA","YES",".910000","",".275000",". 00050 0",".50",""
"NASB-CW-GW03-1218","SOP 5-369","Initial","I0064-FS","BNO","BDO-2219","13C8-
PFOA",".860000","ng/L","","-99.00","NA","","SIS","94.00","","-99.00","NA","YES",".910000","",".275000",". 000500 ",".50",""
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"NASB-CW-GW03-1218","SOP 5-369","Initial","I0064-FS","BNO","BDO-2222","13C6-
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"NASB-CW-GW03-1218","SOP 5-369","Initial","I0064-FS","BNO","BDO-2224","13C2-
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MeFOSAA",".650000","ng/L","","-99.00","NA","","SIS","71.00","","-99.00","NA","YES",".910000","",".275000",". 00 0500",".50",""
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PFBS",".990000","ng/L","","-99.00","NA","","SIS","117.00","","-99.00","NA","YES",".850000","",".275000",". 00050 0",".50",""
"NASB-CW-GW03-1218","SOP 5-369","Initial","I0064-FS","BNO","BDO-2227","13C3-
PFHxS",".850000","ng/L","","-99.00","NA","","SIS","98.00","","-99.00","NA","YES",".860000","",".275000",". 00050 0",".50",""
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",".50",""
"112G08005-we21.PT.LT","CTO WE21, Former Naval Air Station Brunswick","CS469PB-
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| TO: | J. ORIENT | DATE: | JANUARY 10, 2019 |
| :--- | :--- | :--- | :--- |
| FROM: | MICHELLE L. WOEBER | COPIES: | DV FILE |
| SUBJECT: | ORGANIC DATA VALIDATION - POLYFLUOROALKYL SUBSTANCES (PFAS) |  |  |
|  | FORMER NAVAL AIR STATION (NAS) BRUNSWICK, BRUNSWICK, ME |  |  |
|  | CTO WE21 PFC ASSESSMENT |  |  |

SAMPLES: 14/Aqueous/PFAS

| MW-09-004-1218 | MW-09-204-1218 | MW-09-22-1218 |
| :--- | :--- | :--- |
| MW-B250-07-1218 | MW-NASB-072-1218 | NASB-09-GW-FB01-120618 |
| NASB-CW-DUP-120618 | NASB-CW-GW-FB01-120618 | NASB-CW-GW-RB01-120618 |
| NASB-CW-GW01D-1218 | NASB-CW-GW01S-1218 | NASB-CW-GW02-1218 |
| NASB-CW-GW03-1218 | NASB-CW-GW04-1218 |  |

## Overview

The sample set for former NAS Brunswick, SDG 18-0718 consisted of eleven (11) aqueous environmental samples, two (2) Field Reagent Blanks (FRBs), and one (1) rinsate blank. All fourteen (14) aqueous samples were analyzed for Polyfluoroalkyl Substances (PFAS). One field duplicate pair was included in this Sample Delivery Group (SDG): NASB-CW-DUP-120618/NASB-CW-GW04-1218.

The samples were collected by Tetra Tech, Inc. on December 5-6, \& 9, 2018 and analyzed by Battelle. The analyses were conducted in compliance with Department of Defense (DoD)/Department of Energy (DOE) Quality Systems Manual (QSM) for Environmental Laboratories version 5.1 PFAS using LC/MS/MS Appendix B Table B-15 (July 2017). The data was evaluated based on the following parameters:


The asterisk (*) indicates that all quality control criteria were met for this parameter. Qualified (if applicable) analytical results are summarized in Appendix A. Results as reported by the laboratory are presented in Appendix $B$, and Appendix $C$ contains the documentation to support the findings as discussed in this data

TO: J. ORIENT
PAGE 2
SDGs: 18-0718
validation report. An EPA Region 1 tier II validation was performed on the data in these SDGs. The text of this report has been formulated to address only those areas affecting data quality.

## PFAS

The following compound was detected in the Initial/Continuing Calibration Blanks (ICB/CCBs) at the following maximum concentrations:

|  | Maximum <br> Analyte <br> Concentration | Action Level <br> $1.57 \mathrm{ng} / \mathrm{L}$${ }^{\text {(1) }}$ |
| :--- | :---: | :---: |$\quad$| Limit of Quantitation $(\mathrm{LOQ})>$ or $<$ |
| :---: |
| $<$ LOQ |

${ }^{(1)}$ - Maximum concentration detected in the laboratory method blank, CS469PB-FS, affecting all samples.
The detected results reported for these compounds reported above the Limit of Detection (LOD) were qualified as non-detected, (U).

Field quality control blanks were not qualified for laboratory method blank contamination.
The difference between the detected results for perfluorobutanoic acid (PFBA) in the field duplicate pair exceeded 2X the LOQ. The detected results reported for PFBA in the field duplicate pair were qualified as estimated, (J), due to field duplicate imprecision.

## NOTES

Detected results reported below the LOQ but above the Detection Limit (DL) were qualified as estimated, (J). Non-detected results are reported to LOD.

## EXECUTIVE SUMMARY

Laboratory Performance: A contaminant was detected in the laboratory method blank.
Other Factors Affecting Data Quality: Field duplicate imprecision was noted for one compound. Detected results below the LOQ were estimated.

The data for these analyses were reviewed with reference to the EPA New England Environmental Data Review Supplement for Regional Data Review Elements Superfund Guidance/Procedures (April 2013), National Functional Guidelines for Organic Data Validation (January 2017), and the DoD/DOE QSM for Environmental Laboratories" (July 2017). The text of this report has been formulated to address only those areas affecting data quality.

Michelle 天. Woden
Tetra Tech, Inc.
Michelle L. Woeber
Environmental Chemist

Boule Cc sumkuerk
Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as reported by the Laboratory
Appendix C - Support Documentation

## Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

| $\mathbf{U}$ | The analyte was analyzed for, but was not detected at a level greater than or equal to <br> the level of the adjusted detection limit. |
| :---: | :--- |
| $\mathbf{J}$ | The result is an estimated quantity. The associated numerical value is the <br> approximate concentration of the analyte in the sample (due either to the quality of <br> the data generated because certain quality control criteria were not met, or the <br> concentration of the analyte was below the reporting limit). |
| $\mathbf{J +}$ | The result is an estimated quantity, but the result may be biased high. |$|$| $\mathbf{J -}$ | The result is an estimated quantity, but the result may be biased low. |
| :---: | :--- |

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

## Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., \% RSDs, \%Ds, ICVs, CCVs, RRFs, etc.)
C01 $=$ GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS \% R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (<2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
$\mathrm{S}=$ Pesticide/PCB Resolution
T = \% Breakdown Noncompliance for DDT and Endrin
$U=$ RPD between columns/detectors $>40 \%$ for positive results determined via GC/HPLC
$V=$ Non-linear calibrations; correlation coefficient $\mathrm{r}<0.995$
W = EMPC result
$\mathrm{X}=$ Signal to noise response drop
Y = Percent solids $<30 \%$
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

| PROJ_NO: 08005-WE21 | NSAMPLE | MW-09-004-12 |  |  | MW-09-204-12 |  |  | MW-09-22-121 |  |  | MW-B250-07-1 | 1218 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SDG: 18-0718 | LAB_ID | J9997-FS |  |  | J9994-FS |  |  | J9996-FS |  |  | J9995-FS |  |  |
| FRACTION: PFAS | SAMP_DATE | 12/6/2018 |  |  | 12/6/2018 |  |  | 12/6/2018 |  |  | 12/6/2018 |  |  |
| MEDIA: WATER | QC_TYPE | NM |  |  | NM |  |  | NM |  |  | NM |  |  |
|  | UNITS | NG/L |  |  | NG/L |  |  | NG/L |  |  | NG/L |  |  |
|  | PCT_SOLIDS | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  |
|  | DUP_OF |  |  |  |  |  |  |  |  |  |  |  |  |
| PARAMETER |  | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| N-ETHYLPERFLUOROOC | TANE | 0.93 | U |  | 0.91 | U |  | 0.93 | U |  | 0.89 | U |  |
| SULFONAMIDOACETAT | NEFOSA) |  |  |  |  |  |  |  |  |  |  |  |  |
| N-METHYLPERFLUOROO | CTANE | 1.85 | U |  | 1.82 | U |  | 1.85 | U |  | 1.79 | U |  |
| SULFONAMIDOACETATE | (NMFOSA) |  |  |  |  |  |  |  |  |  |  |  |  |
| PENTADECAFLUOROOC | ANOIC ACID | 18.29 |  |  | 1.87 | U | A | 11.8 |  |  | 31.28 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PERFLUOROBUTANESU | FONIC ACID | 19.05 |  |  | 0.72 | J | P | 2.09 | J | P | 2.63 | J | P |
| (PFBS) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PERFLUOROBUTANOIC | CID (PFBA) | 5.26 |  |  | 0.43 | J | P | 0.5 | J | P | 1.8 | J | P |
| PERFLUORODECANOIC | CID (PFDA) | 0.46 | U |  | 0.45 | U |  | 0.46 | U |  | 0.45 | U |  |
| PERFLUORODODECANO | C ACID | 0.46 | U |  | 0.45 | U |  | 0.46 | U |  | 0.45 | U |  |
| (PFDOA) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PERFLUOROHEPTANOIC | ACID (PFHPA) | 5.25 |  |  | 0.45 | U |  | 2.69 | J | P | 2.22 | J | P |
| PERFLUOROHEXANESU | FONIC ACID | 38.08 |  |  | 4.94 |  |  | 5.98 |  |  | 18.37 |  |  |
| (PFHXS) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PERFLUOROHEXANOIC | CID (PFHXA) | 8.77 |  |  | 0.45 | U |  | 2.97 | J | P | 5.25 |  |  |
| PERFLUORONONANOIC | ACID (PFNA) | 0.44 | J | P | 0.91 | U |  | 0.3 | J | P | 0.89 | U |  |
| PERFLUOROOCTANESU | FONIC ACID | 38.18 |  |  | 0.86 | J | P | 1.8 | J | P | 16.6 |  |  |
| (PFOS) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PERFLUOROTETRADEC | NOIC ACID | 0.93 | U |  | 0.91 | U |  | 0.93 | U |  | 0.89 | U |  |
| (PFTEA) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PERFLUOROTRIDECAN | C ACID | 0.46 | U |  | 0.45 | U |  | 0.46 | U |  | 0.45 | U |  |
| (PFTRIA) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PERFLUOROUNDECANO | C ACID | 0.93 | U |  | 0.91 | U |  | 0.93 | U |  | 0.89 | U |  |



| PROJ_NO: 08005-WE21 | NSAMPLE | NASB-CW-GW | V01S- |  | NASB-CW-GW | 02-12 |  | NASB-CW-GW | 03-1 |  | NASB-CW-GW | 04-1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SDG: 18-0718 | LAB_ID | J9991-FS |  |  | J9993-FS |  |  | IO064-FS |  |  | J9987-FS |  |  |
| FRACTION: PFAS | SAMP_DATE | 12/6/2018 |  |  | 12/6/2018 |  |  | 12/9/2018 |  |  | 12/6/2018 |  |  |
| MEDIA: WATER | QC_TYPE | NM |  |  | NM |  |  | NM |  |  | NM |  |  |
|  | UNITS | NG/L |  |  | NG/L |  |  | NG/L |  |  | NG/L |  |  |
|  | PCT_SOLIDS | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  |
|  | DUP_OF |  |  |  |  |  |  |  |  |  |  |  |  |
| PARAMETER |  | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| N-ETHYLPERFLUOROO | ANE | 0.88 | U |  | 0.91 | U |  | 0.91 | U |  | 0.94 | U |  |
| N-METHYLPERFLUOROO | CTANE | 1.75 | U |  | 1.82 | U |  | 1.82 | U |  | 1.89 | U |  |
| SULFONAMIDOACETATE | NMFOSA) |  |  |  |  |  |  |  |  |  |  |  |  |
| PENTADECAFLUOROOC | ANOIC ACID | 1.33 | U | A | 2.42 | U | A | 3.38 | U | A | 2.57 | U | A |
| (PFOA) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PERFLUOROBUTANESU | FONIC ACID | 0.44 | U |  | 0.45 | U |  | 2.87 | J | P | 0.36 | J | P |
| (PFBS) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PERFLUOROBUTANOIC | CID (PFBA) | 0.38 | J | P | 1.39 | J | P | 0.45 | U |  | 18.39 | J | G |
| PERFLUORODECANOIC | CID (PFDA) | 0.44 | U |  | 0.45 | U |  | 0.16 | J | P | 0.47 | U |  |
| PERFLUORODODECANO | C ACID | 0.44 | U |  | 0.45 | U |  | 0.45 | U |  | 0.47 | U |  |
| (PFDOA) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PERFLUOROHEPTANOIC | ACID (PFHPA) | 0.44 | U |  | 0.38 | J | P | 0.69 | J | P | 0.44 | J | P |
| PERFLUOROHEXANESUL | FONIC ACID | 0.35 | U |  | 0.38 | J | P | 0.36 | U |  | 1.14 | J | P |
| (PFHXS) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PERFLUOROHEXANOIC | CID (PFHXA) | 0.44 | U |  | 1 | J | P | 1.84 | J | P | 0.8 | J | P |
| PERFLUORONONANOIC | ACID (PFNA) | 0.88 | U |  | 0.91 | U |  | 0.54 | J | P | 0.94 | U |  |
| PERFLUOROOCTANESU | FONIC ACID | 0.44 | U |  | 0.62 | J | P | 1.48 | J | P | 0.3 | J | P |
| (PFOS) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PERFLUOROTETRADEC | NOIC ACID | 0.88 | U |  | 0.91 | U |  | 0.91 | U |  | 0.94 | U |  |
| (PFTEA) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PERFLUOROTRIDECAN | C ACID | 0.44 | U |  | 0.45 | U |  | 0.45 | U |  | 0.47 | U |  |
| (PFTRIA) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PERFLUOROUNDECANO | C ACID | 0.88 | U |  | 0.91 | U |  | 0.91 | U |  | 0.94 | U |  |


| PROJ_NO: 08005-WE21 | NSAMPLE | NASB-CW-GW | -FB01 | 20618 | NASB-CW-GW | -RB01 | 20618 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SDG: 18-0718 | LAB_ID | J9989-FS |  |  | J9990-FS |  |  |
| FRACTION: PFAS | SAMP_DATE | 12/6/2018 |  |  | 12/6/2018 |  |  |
| MEDIA: WATER | QC_TYPE | NM |  |  | NM |  |  |
|  | UNITS | NG/L |  |  | NG/L |  |  |
|  | PCT_SOLIDS | 0.0 |  |  | 0.0 |  |  |
|  | DUP_OF |  |  |  |  |  |  |
| PARAMETER |  | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| N-ETHYLPERFLUOROO | ANE | 0.96 | U |  | 0.88 | U |  |
| N-METHYLPERFLUOROO | CTANE | 1.92 | U |  | 1.75 | U |  |
| SULFONAMIDOACETATE | NMFOSA) |  |  |  |  |  |  |
| PENTADECAFLUOROOC | ANOIC ACID | 1.26 | J | P | 1.17 | J | P |
| (PFOA) |  |  |  |  |  |  |  |
| PERFLUOROBUTANESUL | ONIC ACID | 0.48 | U |  | 0.44 | U |  |
| (PFBS) |  |  |  |  |  |  |  |
| PERFLUOROBUTANOIC | CID (PFBA) | 0.48 | U |  | 0.84 | J | P |
| PERFLUORODECANOIC | CID (PFDA) | 0.48 | U |  | 0.44 | U |  |
| PERFLUORODODECANO | C ACID | 0.48 | U |  | 0.44 | U |  |
| (PFDOA) |  |  |  |  |  |  |  |
| PERFLUOROHEPTANOIC | ACID (PFHPA) | 0.48 | U |  | 0.44 | U |  |
| PERFLUOROHEXANESU | FONIC ACID | 0.38 | U |  | 0.35 | U |  |
| (PFHXS) |  |  |  |  |  |  |  |
| PERFLUOROHEXANOIC | CID (PFHXA) | 0.48 | U |  | 0.34 | J | P |
| PERFLUORONONANOIC | CID (PFNA) | 0.96 | U |  | 0.88 | U |  |
| PERFLUOROOCTANESU | FONIC ACID | 0.48 | U |  | 0.44 | U |  |
| (PFOS) |  |  |  |  |  |  |  |
| PERFLUOROTETRADEC | NOIC ACID | 0.96 | U |  | 0.88 | U |  |
| (PFTEA) |  |  |  |  |  |  |  |
| PERFLUOROTRIDECANO | C ACID | 0.48 | U |  | 0.44 | U |  |
| (PFTRIA) |  |  |  |  |  |  |  |
| PERFLUOROUNDECANO | ACID | 0.96 | U |  | 0.88 | U |  |

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

## BATHELIE

It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine Project No.: 100122108-CTOWE21

Client ID
NASB-CW-GW04-1218

| Battelle ID | J9987-FS |
| :--- | ---: |
| Sample Type | SA |
| Collection Date | $12 / 06 / 2018$ |
| Extraction Date | $12 / 13 / 2018$ |
| Analysis Date | $12 / 19 / 2018$ |
| Analytical Instrument | Sciex $5500 \mathrm{LC} / \mathrm{MS} / \mathrm{MS}$ |
| \% Moisture | NA |
| Matrix | GW |
| Sample Size | 0.265 |
| Size Unit-Basis | L |
| Units | $\mathrm{ng} / \mathrm{L}$ |


| Units |  | ng/L | MDL | LOD | LOQ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PFBA | 375-22-4 | 18.39 | 0.13 | 0.47 | 4.72 |
| PFHxA | 307-24-4 | 0.80 J | 0.18 | 0.47 | 4.72 |
| PFHpA | 375-85-9 | 0.44 J | 0.15 | 0.47 | 4.72 |
| PFOA | 335-67-1 | 2.57 J | 0.17 | 0.47 | 4.72 |
| PFNA | 375-95-1 | 0.94 U | 0.25 | 0.94 | 4.72 |
| PFDA | 335-76-2 | 0.47 U | 0.15 | 0.47 | 4.72 |
| PFUnA | 2058-94-8 | 0.94 U | 0.27 | 0.94 | 4.72 |
| PFDoA | 307-55-1 | 0.47 U | 0.17 | 0.47 | 4.72 |
| PFTrDA | 72629-94-8 | 0.47 U | 0.14 | 0.47 | 4.72 |
| PFTeDA | 376-06-7 | 0.94 U | 0.24 | 0.94 | 4.72 |
| NMeFOSAA | 2355-31-9 | 1.89 U | 0.53 | 1.89 | 4.72 |
| NEtFOSAA | 2991-50-6 | 0.94 U | 0.46 | 0.94 | 4.72 |
| PFBS | 375-73-5 | 0.36 J | 0.12 | 0.47 | 4.72 |
| PFHxS | 355-46-4 | 1.14 J | 0.10 | 0.38 | 4.72 |
| PFOS | 1763-23-1 | 0.30 J | 0.18 | 0.47 | 4.72 |

Surrogate Recoveries (\%)

| 13C4-PFBA | 79 |
| :--- | ---: |
| 13C5-PFHxA | 97 |
| 13C4-PFHpA | 113 |
| $13 C 8-P F O A$ | 108 |
| 13C9-PFNA | 108 |
| 13C6-PFDA | 105 |
| 13C7-PFUnA | 99 |
| 13C2-PFDoA | 95 |
| 13C2-PFTeDA | 84 |
| $d 3-M e F O S A A$ | 85 |
| d5-EtFOSAA | 86 |
| 13C3-PFBS | 109 |
| $13 C 3-P F H x S$ | 95 |
| $13 C 8-P F O S$ | 97 |

## BATHELIE

It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine Project No.: 100122108-CTOWE21

| Client ID |  | NASB-CW-DUP-120618 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Battelle ID |  | J9988-FS |  |  |  |
| Sample Type |  | SA |  |  |  |
| Collection Date |  | 12/06/2018 |  |  |  |
| Extraction Date |  | 12/13/2018 |  |  |  |
| Analysis Date |  | 12/19/2018 |  |  |  |
| Analytical Instrument |  | Sciex 5500 LC/MS/MS |  |  |  |
| \% Moisture |  | NA |  |  |  |
| Matrix |  | GW |  |  |  |
| Sample Size |  | 0.275 |  |  |  |
| Size Unit-Basis |  | L |  |  |  |
| Units |  | ng/L | MDL | LOD | LOQ |
| PFBA | 375-22-4 | 1.57 J | 0.13 | 0.45 | 4.55 |
| PFHxA | 307-24-4 | 0.87 J | 0.17 | 0.45 | 4.55 |
| PFHpA | 375-85-9 | 0.52 J | 0.15 | 0.45 | 4.55 |
| PFOA | 335-67-1 | 2.47 J | 0.16 | 0.45 | 4.55 |
| PFNA | 375-95-1 | 0.91 U | 0.24 | 0.91 | 4.55 |
| PFDA | 335-76-2 | 0.45 U | 0.15 | 0.45 | 4.55 |
| PFUnA | 2058-94-8 | 0.91 U | 0.26 | 0.91 | 4.55 |
| PFDoA | 307-55-1 | 0.45 U | 0.16 | 0.45 | 4.55 |
| PFTrDA | 72629-94-8 | 0.45 U | 0.14 | 0.45 | 4.55 |
| PFTeDA | 376-06-7 | 0.91 U | 0.23 | 0.91 | 4.55 |
| NMeFOSAA | 2355-31-9 | 1.82 U | 0.51 | 1.82 | 4.55 |
| NEtFOSAA | 2991-50-6 | 0.91 U | 0.45 | 0.91 | 4.55 |
| PFBS | 375-73-5 | 0.37 J | 0.12 | 0.45 | 4.55 |
| PFHxS | 355-46-4 | 1.16 J | 0.10 | 0.36 | 4.55 |
| PFOS | 1763-23-1 | 0.43 J | 0.17 | 0.45 | 4.55 |
| Surrogate Recoveries (\%) |  |  |  |  |  |
| 13C4-PFBA |  | 79 |  |  |  |
| 13C5-PFHxA |  | 87 |  |  |  |
| 13C4-PFHpA |  | 92 |  |  |  |
| 13C8-PFOA |  | 86 |  |  |  |
| 13C9-PFNA |  | 90 |  |  |  |
| 13C6-PFDA |  | 83 |  |  |  |
| 13C7-PFUnA |  | 85 |  |  |  |
| 13C2-PFDoA |  | 84 |  |  |  |
| 13C2-PFTeDA |  | 84 |  |  |  |
| d3-MeFOSAA |  | 70 |  |  |  |
| d5-EtFOSAA |  | 72 |  |  |  |
| 13C3-PFBS |  | 98 |  |  |  |
| $13 \mathrm{C} 3-\mathrm{PFHxS}$ |  | 84 |  |  |  |
| 13C8-PFOS |  | 93 |  |  |  |

## BATHELIE

It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine Project No.: 100122108-CTOWE21

Client ID
NASB-CW-GW-FB01-120618

| Battelle ID | J9989-FS |
| :--- | ---: |
| Sample Type | SA |
| Collection Date | $12 / 06 / 2018$ |
| Extraction Date | $12 / 13 / 2018$ |
| Analysis Date | $12 / 19 / 2018$ |
| Analytical Instrument | Sciex $5500 \mathrm{LC} / \mathrm{MS} / \mathrm{MS}$ |
| \% Moisture | NA |
| Matrix | QC |
| Sample Size | 0.260 |
| Size Unit-Basis | L |
| Units | $\mathrm{ng} / \mathrm{L}$ |

ng/L

| Unit |  | ng/L | MDL | LOD | OO |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PFBA | 375-22-4 | 0.48 U | 0.13 | 0.48 | 4.81 |
| PFHxA | 307-24-4 | 0.48 U | 0.18 | 0.48 | 4.81 |
| PFHpA | 375-85-9 | 0.48 U | 0.15 | 0.48 | 4.81 |
| PFOA | 335-67-1 | 1.26 J | 0.17 | 0.48 | 4.81 |
| PFNA | 375-95-1 | 0.96 U | 0.25 | 0.96 | 4.81 |
| PFDA | 335-76-2 | 0.48 U | 0.15 | 0.48 | 4.81 |
| PFUnA | 2058-94-8 | 0.96 U | 0.28 | 0.96 | 4.81 |
| PFDoA | 307-55-1 | 0.48 U | 0.17 | 0.48 | 4.81 |
| PFTrDA | 72629-94-8 | 0.48 U | 0.14 | 0.48 | 4.81 |
| PFTeDA | 376-06-7 | 0.96 U | 0.24 | 0.96 | 4.81 |
| NMeFOSAA | 2355-31-9 | 1.92 U | 0.54 | 1.92 | 4.81 |
| NEtFOSAA | 2991-50-6 | 0.96 U | 0.47 | 0.96 | 4.81 |
| PFBS | 375-73-5 | 0.48 U | 0.13 | 0.48 | 4.81 |
| PFHxS | 355-46-4 | 0.38 U | 0.11 | 0.38 | 4.81 |
| PFOS | 1763-23-1 | 0.48 U | 0.18 | 0.48 | 4.81 |

Surrogate Recoveries (\%)

| 13C4-PFBA | 91 |
| :---: | :---: |
| 13C5-PFHxA | 89 |
| 13C4-PFHpA | 98 |
| 13C8-PFOA | 108 |
| 13C9-PFNA | 116 |
| 13C6-PFDA | 102 |
| 13C7-PFUnA | 87 |
| 13C2-PFDoA | 88 |
| 13C2-PFTeDA | 76 |
| d3-MeFOSAA | 107 |
| d5-EtFOSAA | 97 |
| 13C3-PFBS | 90 |
| 13C3-PFHxS | 90 |
| 13C8-PFOS | 105 |

## BATHELIE

It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine
Project No.: 100122108-CTOWE21

Client ID
NASB-CW-GW-RB01-120618

| Battelle ID | J9990-FS |
| :--- | ---: |
| Sample Type | SA |
| Collection Date | $12 / 06 / 2018$ |
| Extraction Date | $12 / 13 / 2018$ |
| Analysis Date | $12 / 19 / 2018$ |
| Analytical Instrument | Sciex $5500 \mathrm{LC} / \mathrm{MS} / \mathrm{MS}$ |
| \% Moisture | NA |
| Matrix | QC |
| Sample Size | 0.285 |
| Size Unit-Basis | L |
| Units | $\mathrm{ng} / \mathrm{L}$ |

ng/L

| Unit |  | ng/L | MDL | LOD | LOQ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PFBA | 375-22-4 | 0.84 J | 0.12 | 0.44 | 4.39 |
| PFHxA | 307-24-4 | 0.34 J | 0.17 | 0.44 | 4.39 |
| PFHpA | 375-85-9 | 0.44 U | 0.14 | 0.44 | 4.39 |
| PFOA | 335-67-1 | 1.17 J | 0.16 | 0.44 | 4.39 |
| PFNA | 375-95-1 | 0.88 U | 0.23 | 0.88 | 4.39 |
| PFDA | 335-76-2 | 0.44 U | 0.14 | 0.44 | 4.39 |
| PFUnA | 2058-94-8 | 0.88 U | 0.25 | 0.88 | 4.39 |
| PFDoA | 307-55-1 | 0.44 U | 0.16 | 0.44 | 4.39 |
| PFTrDA | 72629-94-8 | 0.44 U | 0.13 | 0.44 | 4.39 |
| PFTeDA | 376-06-7 | 0.88 U | 0.22 | 0.88 | 4.39 |
| NMeFOSAA | 2355-31-9 | 1.75 U | 0.49 | 1.75 | 4.39 |
| NEtFOSAA | 2991-50-6 | 0.88 U | 0.43 | 0.88 | 4.39 |
| PFBS | 375-73-5 | 0.44 U | 0.11 | 0.44 | 4.39 |
| PFHxS | 355-46-4 | 0.35 U | 0.10 | 0.35 | 4.39 |
| PFOS | 1763-23-1 | 0.44 U | 0.17 | 0.44 | 4.39 |

Surrogate Recoveries (\%)

| $13 C 4-P F B A$ | 52 |
| :--- | :---: |
| $13 C 5-P F H x A$ | 63 |
| $13 C 4-P F H p A$ | 70 |
| $13 C 8-P F O A$ | 86 |
| $13 C 9-P F N A$ | 105 |
| $13 C 6-P F D A$ | 86 |
| $13 C 7-P F U n A$ | 87 |
| $13 C 2-P F D o A$ | 84 |
| $13 C 2-P F T e D A$ | 81 |
| $d 3-M e F O S A A$ | 84 |
| d5-EtFOSAA | 78 |
| $13 C 3-P F B S$ | 92 |
| $13 C 3-P F H x S$ | 77 |
| $13 C 8-P F O S$ | 95 |

## BATHELIE

It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine Project No.: 100122108-CTOWE21

Client ID
NASB-CW-GW01S-1218

| Battelle ID | J9991-FS |
| :--- | ---: |
| Sample Type | SA |
| Collection Date | $12 / 06 / 2018$ |
| Extraction Date | $12 / 13 / 2018$ |
| Analysis Date | $12 / 19 / 2018$ |
| Analytical Instrument | Sciex $5500 \mathrm{LC} / \mathrm{MS} / \mathrm{MS}$ |
| \% Moisture | NA |
| Matrix | GW |
| Sample Size | 0.285 |
| Size Unit-Basis | L |
| Units | $\mathrm{ng} / \mathrm{L}$ |


| Units |  | ng/L | MDL | LOD | LOQ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PFBA | 375-22-4 | 0.38 J | 0.12 | 0.44 | 4.39 |
| PFHxA | 307-24-4 | 0.44 U | 0.17 | 0.44 | 4.39 |
| PFHpA | 375-85-9 | 0.44 U | 0.14 | 0.44 | 4.39 |
| PFOA | 335-67-1 | 1.33 J | 0.16 | 0.44 | 4.39 |
| PFNA | 375-95-1 | 0.88 U | 0.23 | 0.88 | 4.39 |
| PFDA | 335-76-2 | 0.44 U | 0.14 | 0.44 | 4.39 |
| PFUnA | 2058-94-8 | 0.88 U | 0.25 | 0.88 | 4.39 |
| PFDoA | 307-55-1 | 0.44 U | 0.16 | 0.44 | 4.39 |
| PFTrDA | 72629-94-8 | 0.44 U | 0.13 | 0.44 | 4.39 |
| PFTeDA | 376-06-7 | 0.88 U | 0.22 | 0.88 | 4.39 |
| NMeFOSAA | 2355-31-9 | 1.75 U | 0.49 | 1.75 | 4.39 |
| NEtFOSAA | 2991-50-6 | 0.88 U | 0.43 | 0.88 | 4.39 |
| PFBS | 375-73-5 | 0.44 U | 0.11 | 0.44 | 4.39 |
| PFHxS | 355-46-4 | 0.35 U | 0.10 | 0.35 | 4.39 |
| PFOS | 1763-23-1 | 0.44 U | 0.17 | 0.44 | 4.39 |

Surrogate Recoveries (\%)

| $13 C 4-P F B A$ | 69 |
| :--- | :--- |
| $13 C 5-P F H x A$ | 87 |
| $13 C 4-P F H p A$ | 86 |
| $13 C 8-P F O A$ | 88 |
| $13 C 9-P F N A$ | 98 |
| $13 C 6-P F D A$ | 97 |
| $13 C 7-P F U n A$ | 96 |
| $13 C 2-P F D o A$ | 95 |
| $13 C 2-P F T e D A$ | 86 |
| $d 3-M e F O S A A$ | 63 |
| d5-EtFOSAA | 75 |
| $13 C 3-P F B S$ | 97 |
| $13 C 3-P F H x S$ | 84 |
| $13 C 8-P F O S$ | 101 |

## BATHELIE

It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine Project No.: 100122108-CTOWE21

| Client ID | NASB-CW-GW01D-1218 |
| :--- | ---: |
| Battelle ID | J9992-FS |
| Sample Type | SA |
| Collection Date | $12 / 06 / 2018$ |
| Extraction Date | $12 / 13 / 2018$ |
| Analysis Date | $12 / 19 / 2018$ |
| Analytical Instrument | Sciex $5500 \mathrm{LC} / \mathrm{MS} / \mathrm{MS}$ |
| \% Moisture | NA |
| Matrix | GW |
| Sample Size | 0.290 |
| Size Unit-Basis | L |
| Units | $\mathrm{ng} / \mathrm{L}$ |

L

|  | $\mathrm{ng} / \mathrm{L}$ | MDL | LOD |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| PFBA | $375-22-4$ | 0.18 J | 0.12 | 0.43 | 4.31 |
| PFHxA | $307-24-4$ | 0.43 U | 0.16 | 0.43 | 4.31 |
| PFHpA | $375-85-9$ | 0.43 U | 0.14 | 0.43 | 4.31 |
| PFOA | $335-67-1$ | 1.38 J | 0.16 | 0.43 | 4.31 |
| PFNA | $375-95-1$ | 0.86 U | 0.22 | 0.86 | 4.31 |
| PFDA | $335-76-2$ | 0.43 U | 0.14 | 0.43 | 4.31 |
| PFUnA | $2058-94-8$ | 0.86 U | 0.25 | 0.86 | 4.31 |
| PFDoA | $307-55-1$ | 0.43 U | 0.16 | 0.43 | 4.31 |
| PFTrDA | $72629-94-8$ | 0.43 U | 0.13 | 0.43 | 4.31 |
| PFTeDA | $376-06-7$ | 0.86 U | 0.22 | 0.86 | 4.31 |
| NMeFOSAA | $2355-31-9$ | 1.72 U | 0.48 | 1.72 | 4.31 |
| NEtFOSAA | 0.86 U | 0.42 | 0.86 | 4.31 |  |
| PFBS | $2991-50-6$ | 0.43 U | 0.11 | 0.43 | 4.31 |
| PFHxS | $375-73-5$ | 0.43 J | 0.09 | 0.34 | 4.31 |
| PFOS | $355-46-4$ | 0.33 J | 0.16 | 0.43 | 4.31 |

Surrogate Recoveries (\%)

| $13 C 4-P F B A$ | 76 |
| :--- | ---: |
| $13 C 5-P F H x A$ | 90 |
| $13 C 4-P F H p A$ | 107 |
| $13 C 8-P F O A$ | 94 |
| $13 C 9-P F N A$ | 107 |
| $13 C 6-P F D A$ | 90 |
| $13 C 7-P F U n A$ | 92 |
| $13 C 2-P F D o A$ | 91 |
| $13 C 2-P F T e D A$ | 88 |
| d3-MeFOSAA | 66 |
| d5-EtFOSAA | 79 |
| $13 C 3-P F B S$ | 109 |
| $13 C 3-P F H x S$ | 71 |
| $13 C 8-P F O S$ | 98 |

## BATHELIE

It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine Project No.: 100122108-CTOWE21

Client ID
NASB-CW-GW02-1218

| Battelle ID | J9993-FS |
| :--- | ---: |
| Sample Type | SA |
| Collection Date | $12 / 06 / 2018$ |
| Extraction Date | $12 / 13 / 2018$ |
| Analysis Date | $12 / 19 / 2018$ |
| Analytical Instrument | Sciex $5500 \mathrm{LC} / \mathrm{MS} / \mathrm{MS}$ |
| \% Moisture | NA |
| Matrix | GW |
| Sample Size | 0.275 |
| Size Unit-Basis | L |
| Units | $\mathrm{ng} / \mathrm{L}$ |

$\mathrm{ng} / \mathrm{L}$

| Units | $\mathrm{ng} / \mathrm{L}$ | MDL | LOD |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | $375-22-4$ |  |  |  |  |
| PFBA | $307-24-4$ | 1.39 J | 0.13 | 0.45 | 4.55 |
| PFHxA | $375-85-9$ | 0.00 J | 0.17 | 0.45 | 4.55 |
| PFHPA | $335-67-1$ | 2.42 J | 0.15 | 0.45 | 4.55 |
| PFOA | $375-95-1$ | 0.91 U | 0.16 | 0.45 | 4.55 |
| PFNA | $335-76-2$ | 0.45 U | 0.15 | 0.91 | 4.55 |
| PFDA | $2058-94-8$ | 0.91 U | 0.26 | 0.45 | 4.55 |
| PFUnA | $307-55-1$ | 0.45 U | 0.16 | 0.91 | 4.55 |
| PFDoA | $72629-94-8$ | 0.45 U | 0.14 | 0.45 | 4.55 |
| PFTrDA | $376-06-7$ | 0.91 U | 0.23 | 0.91 | 4.55 |
| PFTeDA | $2355-31-9$ | 0.82 U | 0.51 | 1.82 | 4.55 |
| NMeFOSAA | $2991-50-6$ | 0.45 U | 0.45 | 0.91 | 4.55 |
| NEtFOSAA | $375-73-5$ | 0.38 J | 0.12 | 0.45 | 4.55 |
| PFBS | $355-46-4$ | 0.62 J | 0.10 | 0.36 | 4.55 |
| PFHxS | $1763-23-1$ |  | 0.17 | 0.45 | 4.55 |

Surrogate Recoveries (\%)

| $13 C 4-P F B A$ | 70 |
| :--- | :--- |
| $13 C 5-P F H x A$ | 95 |
| $13 C 4-P F H p A$ | 89 |
| $13 C 8-P F O A$ | 89 |
| $13 C 9-P F N A$ | 99 |
| $13 C 6-P F D A$ | 89 |
| $13 C 7-P F U n A$ | 90 |
| $13 C 2-P F D o A$ | 96 |
| $13 C 2-P F T e D A$ | 67 |
| d3-MeFOSAA | 88 |
| d5-EtFOSAA | 91 |
| $13 C 3-P F B S$ | 100 |
| $13 C 3-P F H x S$ | 73 |
| $13 C 8-P F O S$ | 84 |

## BATHELIE

It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine
Project No.: 100122108-CTOWE21

| Client ID |  | MW-09-204-1218 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Battelle ID |  | J9994-FS |  |  |  |
| Sample Type |  | SA |  |  |  |
| Collection Date |  | 12/06/2018 |  |  |  |
| Extraction Date |  | 12/13/2018 |  |  |  |
| Analysis Date |  | 12/19/2018 |  |  |  |
| Analytical Instrument |  | Sciex 5500 LC/MS/MS |  |  |  |
| \% Moisture |  | NA |  |  |  |
| Matrix |  | GW |  |  |  |
| Sample Size |  | 0.275 |  |  |  |
| Size Unit-Basis |  | L |  |  |  |
| Units |  | $\mathrm{ng} / \mathrm{L}$ | MDL | LOD | LOQ |
| PFBA | 375-22-4 | 0.43 J | 0.13 | 0.45 | 4.55 |
| PFHxA | 307-24-4 | 0.45 U | 0.17 | 0.45 | 4.55 |
| PFHpA | 375-85-9 | 0.45 U | 0.15 | 0.45 | 4.55 |
| PFOA | 335-67-1 | 1.87 J | 0.16 | 0.45 | 4.55 |
| PFNA | 375-95-1 | 0.91 U | 0.24 | 0.91 | 4.55 |
| PFDA | 335-76-2 | 0.45 U | 0.15 | 0.45 | 4.55 |
| PFUnA | 2058-94-8 | 0.91 U | 0.26 | 0.91 | 4.55 |
| PFDoA | 307-55-1 | 0.45 U | 0.16 | 0.45 | 4.55 |
| PFTrDA | 72629-94-8 | 0.45 U | 0.14 | 0.45 | 4.55 |
| PFTeDA | 376-06-7 | 0.91 U | 0.23 | 0.91 | 4.55 |
| NMeFOSAA | 2355-31-9 | 1.82 U | 0.51 | 1.82 | 4.55 |
| NEtFOSAA | 2991-50-6 | 0.91 U | 0.45 | 0.91 | 4.55 |
| PFBS | 375-73-5 | 0.72 J | 0.12 | 0.45 | 4.55 |
| PFHxS | 355-46-4 | 4.94 | 0.10 | 0.36 | 4.55 |
| PFOS | 1763-23-1 | 0.86 J | 0.17 | 0.45 | 4.55 |
| Surrogate Recoveries (\%) |  |  |  |  |  |
| 13C4-PFBA |  | 69 |  |  |  |
| 13C5-PFHxA |  | 80 |  |  |  |
| 13C4-PFHpA |  | 86 |  |  |  |
| 13C8-PFOA |  | 89 |  |  |  |
| 13C9-PFNA |  | 101 |  |  |  |
| 13C6-PFDA |  | 85 |  |  |  |
| 13C7-PFUnA |  | 80 |  |  |  |
| 13C2-PFDoA |  | 84 |  |  |  |
| 13C2-PFTeDA |  | 81 |  |  |  |
| d3-MeFOSAA |  | 81 |  |  |  |
| d5-EtFOSAA |  | 73 |  |  |  |
| 13C3-PFBS |  | 108 |  |  |  |
| 13C3-PFHxS |  | 98 |  |  |  |
| 13C8-PFOS |  | 107 |  |  |  |

## BATHELIE

It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine Project No.: 100122108-CTOWE21

## Client ID

| Battelle ID | J9995-FS |
| :--- | ---: |
| Sample Type | SA |
| Collection Date | $12 / 06 / 2018$ |
| Extraction Date | $12 / 13 / 2018$ |
| Analysis Date | $12 / 19 / 2018$ |
| Analytical Instrument | Sciex $5500 \mathrm{LC} / \mathrm{MS} / \mathrm{MS}$ |
| \% Moisture | NA |
| Matrix | GW |
| Sample Size | 0.280 |
| Size Unit-Basis | L |
| Units | $\mathrm{ng} / \mathrm{L}$ |


| Units | $\mathrm{ng} / \mathrm{L}$ | MDL | LOD |  |  |
| :--- | :--- | :---: | :--- | :---: | :---: |
|  |  |  |  |  |  |
| PFBA | $375-22-4$ | 1.80 J | 0.13 | 0.45 | 4.46 |
| PFHxA | $307-24-4$ | 5.25 | 0.17 | 0.45 | 4.46 |
| PFHpA | $375-85-9$ | 2.22 J | 0.14 | 0.45 | 4.46 |
| PFOA | $335-67-1$ | 31.28 | 0.16 | 0.45 | 4.46 |
| PFNA | $375-95-1$ | 0.89 U | 0.23 | 0.89 | 4.46 |
| PFDA | $335-76-2$ | 0.45 U | 0.14 | 0.45 | 4.46 |
| PFUnA | $2058-94-8$ | 0.89 U | 0.26 | 0.89 | 4.46 |
| PFDoA | $307-55-1$ | 0.45 U | 0.16 | 0.45 | 4.46 |
| PFTrDA | $72629-94-8$ | 0.45 U | 0.13 | 0.45 | 4.46 |
| PFTeDA | $376-06-7$ | 0.89 U | 0.22 | 0.89 | 4.46 |
| NMeFOSAA | $2355-31-9$ | 1.79 U | 0.50 | 1.79 | 4.46 |
| NEtFOSAA | 0.89 U | 0.44 | 0.89 | 4.46 |  |
| PFBS | $2991-50-6$ | 2.63 J | 0.12 | 0.45 | 4.46 |
| PFHxS | $375-73-5$ | 18.37 | 0.10 | 0.36 | 4.46 |
| PFOS | $355-46-4$ | 17.60 | 0.17 | 0.45 | 4.46 |

Surrogate Recoveries (\%)

| 13C4-PFBA | 74 |
| :--- | :---: |
| $13 C 5-P F H x A$ | 88 |
| $13 C 4-P F H p A$ | 93 |
| $13 C 8-P F O A$ | 85 |
| $13 C 9-P F N A$ | 96 |
| $13 C 6-P F D A$ | 95 |
| $13 C 7-P F U n A$ | 86 |
| $13 C 2-P F D o A$ | 81 |
| $13 C 2-P F T e D A$ | 81 |
| d3-MeFOSAA | 71 |
| d5-EtFOSAA | 69 |
| $13 C 3-P F B S$ | 102 |
| $13 C 3-P F H x S$ | 93 |
| $13 C 8-P F O S$ | 102 |

## BATHELIE

It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine Project No.: 100122108-CTOWE21

| Client ID |  | MW-09-22-1218 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Battelle ID |  | J9996-FS |  |  |  |
| Sample Type |  | SA |  |  |  |
| Collection Date |  | 12/06/2018 |  |  |  |
| Extraction Date |  | 12/13/2018 |  |  |  |
| Analysis Date |  | 12/19/2018 |  |  |  |
| Analytical Instrument |  | Sciex 5500 LC/MS/MS |  |  |  |
| \% Moisture |  | NA |  |  |  |
| Matrix |  | GW |  |  |  |
| Sample Size |  | 0.270 |  |  |  |
| Size Unit-Basis |  | L |  |  |  |
| Units |  | ng/L | MDL | LOD | LOQ |
| PFBA | 375-22-4 | 0.50 J | 0.13 | 0.46 | 4.63 |
| PFHxA | 307-24-4 | 2.97 J | 0.18 | 0.46 | 4.63 |
| PFHpA | 375-85-9 | 2.69 J | 0.15 | 0.46 | 4.63 |
| PFOA | 335-67-1 | 11.80 B | 0.17 | 0.46 | 4.63 |
| PFNA | 375-95-1 | 0.30 J | 0.24 | 0.93 | 4.63 |
| PFDA | 335-76-2 | 0.46 U | 0.15 | 0.46 | 4.63 |
| PFUnA | 2058-94-8 | 0.93 U | 0.27 | 0.93 | 4.63 |
| PFDoA | 307-55-1 | 0.46 U | 0.17 | 0.46 | 4.63 |
| PFTrDA | 72629-94-8 | 0.46 U | 0.14 | 0.46 | 4.63 |
| PFTeDA | 376-06-7 | 0.93 U | 0.23 | 0.93 | 4.63 |
| NMeFOSAA | 2355-31-9 | 1.85 U | 0.52 | 1.85 | 4.63 |
| NEtFOSAA | 2991-50-6 | 0.93 U | 0.45 | 0.93 | 4.63 |
| PFBS | 375-73-5 | 2.09 J | 0.12 | 0.46 | 4.63 |
| PFHxS | 355-46-4 | 5.98 | 0.10 | 0.37 | 4.63 |
| PFOS | 1763-23-1 | 1.80 J | 0.18 | 0.46 | 4.63 |
| Surrogate Recoveries (\%) |  |  |  |  |  |
| 13C4-PFBA |  | 63 |  |  |  |
| 13C5-PFHxA |  | 78 |  |  |  |
| 13C4-PFHpA |  | 85 |  |  |  |
| 13C8-PFOA |  | 90 |  |  |  |
| 13C9-PFNA |  | 93 |  |  |  |
| 13C6-PFDA |  | 86 |  |  |  |
| 13C7-PFUnA |  | 74 |  |  |  |
| 13C2-PFDoA |  | 62 |  |  |  |
| 13C2-PFTeDA |  | 60 |  |  |  |
| d3-MeFOSAA |  | 73 |  |  |  |
| d5-EtFOSAA |  | 70 |  |  |  |
| 13C3-PFBS |  | 110 |  |  |  |
| 13C3-PFHxS |  | 96 |  |  |  |
| 13C8-PFOS |  | 98 |  |  |  |

## BATHELIE

It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine Project No.: 100122108-CTOWE21

| Client ID |  | MW-09-004-1218 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Battelle ID |  | J9997-FS |  |  |  |
| Sample Type |  | SA |  |  |  |
| Collection Date |  | 12/06/2018 |  |  |  |
| Extraction Date |  | 12/13/2018 |  |  |  |
| Analysis Date |  | 12/19/2018 |  |  |  |
| Analytical Instrument |  | Sciex 5500 LC/MS/MS |  |  |  |
| \% Moisture |  | NA |  |  |  |
| Matrix |  | GW |  |  |  |
| Sample Size |  | 0.270 |  |  |  |
| Size Unit-Basis |  | L |  |  |  |
| Units |  | $\mathrm{ng} / \mathrm{L}$ | MDL | LOD | LOQ |
| PFBA | 375-22-4 | 5.26 | 0.13 | 0.46 | 4.63 |
| PFHxA | 307-24-4 | 8.77 | 0.18 | 0.46 | 4.63 |
| PFHpA | 375-85-9 | 5.25 | 0.15 | 0.46 | 4.63 |
| PFOA | 335-67-1 | 18.29 | 0.17 | 0.46 | 4.63 |
| PFNA | 375-95-1 | 0.44 J | 0.24 | 0.93 | 4.63 |
| PFDA | 335-76-2 | 0.46 U | 0.15 | 0.46 | 4.63 |
| PFUnA | 2058-94-8 | 0.93 U | 0.27 | 0.93 | 4.63 |
| PFDoA | 307-55-1 | 0.46 U | 0.17 | 0.46 | 4.63 |
| PFTrDA | 72629-94-8 | 0.46 U | 0.14 | 0.46 | 4.63 |
| PFTeDA | 376-06-7 | 0.93 U | 0.23 | 0.93 | 4.63 |
| NMeFOSAA | 2355-31-9 | 1.85 U | 0.52 | 1.85 | 4.63 |
| NEtFOSAA | 2991-50-6 | 0.93 U | 0.45 | 0.93 | 4.63 |
| PFBS | 375-73-5 | 19.05 | 0.12 | 0.46 | 4.63 |
| PFHxS | 355-46-4 | 38.08 | 0.10 | 0.37 | 4.63 |
| PFOS | 1763-23-1 | 38.18 | 0.18 | 0.46 | 4.63 |
| Surrogate Recoveries (\%) |  |  |  |  |  |
| 13C4-PFBA |  | 53 |  |  |  |
| 13C5-PFHxA |  | 87 |  |  |  |
| 13C4-PFHpA |  | 97 |  |  |  |
| 13C8-PFOA |  | 89 |  |  |  |
| 13C9-PFNA |  | 99 |  |  |  |
| 13C6-PFDA |  | 92 |  |  |  |
| 13C7-PFUnA |  | 83 |  |  |  |
| 13C2-PFDoA |  | 76 |  |  |  |
| 13C2-PFTeDA |  | 69 |  |  |  |
| d3-MeFOSAA |  | 78 |  |  |  |
| d5-EtFOSAA |  | 68 |  |  |  |
| 13C3-PFBS |  | 99 |  |  |  |
| 13C3-PFHxS |  | 87 |  |  |  |
| 13C8-PFOS |  | 80 |  |  |  |

## BATHELIE

It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine Project No.: 100122108-CTOWE21

Client ID
MW-NASB-072-1218

| Battelle ID | J9998-FS |
| :--- | ---: |
| Sample Type | SA |
| Collection Date | $12 / 05 / 2018$ |
| Extraction Date | $12 / 13 / 2018$ |
| Analysis Date | $12 / 19 / 2018$ |
| Analytical Instrument | Sciex $5500 \mathrm{LC} / \mathrm{MS} / \mathrm{MS}$ |
| \% Moisture | NA |
| Matrix | GW |
| Sample Size | 0.275 |
| Size Unit-Basis | L |
| Units | $\mathrm{ng} / \mathrm{L}$ |


|  | $\mathrm{ng} / \mathrm{L}$ | MDL | LOD |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| PFBA | $375-22-4$ | 7.48 | 0.13 | 0.45 | 4.55 |
| PFHxA | $307-24-4$ | 23.60 | 0.17 | 0.45 | 4.55 |
| PFHpA | $375-85-9$ | 12.30 | 0.15 | 0.45 | 4.55 |
| PFOA | $335-67-1$ | 56.22 | 0.16 | 0.45 | 4.55 |
| PFNA | $375-95-1$ | 0.53 J | 0.24 | 0.91 | 4.55 |
| PFDA | $335-76-2$ | 0.45 U | 0.15 | 0.45 | 4.55 |
| PFUnA | $2058-94-8$ | 0.91 U | 0.26 | 0.91 | 4.55 |
| PFDoA | $307-55-1$ | 0.45 U | 0.16 | 0.45 | 4.55 |
| PFTrDA | $72629-94-8$ | 0.45 U | 0.14 | 0.45 | 4.55 |
| PFTeDA | $376-06-7$ | 0.91 U | 0.23 | 0.91 | 4.55 |
| NMeFOSAA | $2355-31-9$ | 1.82 U | 0.51 | 1.82 | 4.55 |
| NEtFOSAA | $2991-50-6$ | 0.91 U | 0.45 | 0.91 | 4.55 |
| PFBS | $375-73-5$ | 27.41 | 0.12 | 0.45 | 4.55 |
| PFHxS | $355-46-4$ | 45.91 | 0.10 | 0.36 | 4.55 |
| PFOS | $1763-23-1$ | 49.18 | 0.17 | 0.45 | 4.55 |

Surrogate Recoveries (\%)

| $13 C 4-P F B A$ | 71 |
| :--- | :--- |
| $13 C 5-P F H x A$ | 82 |
| $13 C 4-P F H p A$ | 85 |
| $13 C 8-P F O A$ | 81 |
| $13 C 9-P F N A$ | 85 |
| $13 C 6-P F D A$ | 80 |
| $13 C 7-P F U n A$ | 81 |
| $13 C 2-P F D o A$ | 75 |
| $13 C 2-P F T e D A$ | 83 |
| d3-MeFOSAA | 67 |
| d5-EtFOSAA | 69 |
| $13 C 3-P F B S$ | 122 |
| $13 C 3-P F H x S$ | 93 |
| $13 C 8-P F O S$ | 83 |

## BATHELIE

It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine Project No.: 100122108-CTOWE21

| Client ID |  | NASB-09-GW-FB01-120618 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Battelle ID |  | J9999-FS |  |  |  |
| Sample Type |  | SA |  |  |  |
| Collection Date |  | 12/06/2018 |  |  |  |
| Extraction Date |  | 12/13/2018 |  |  |  |
| Analysis Date |  | 12/19/2018 |  |  |  |
| Analytical Instrument |  | Sciex 5500 LC/MS/MS |  |  |  |
| \% Moisture |  | NA |  |  |  |
| Matrix |  | QC |  |  |  |
| Sample Size |  | 0.265 |  |  |  |
| Size Unit-Basis |  | L |  |  |  |
| Units |  | $\mathrm{ng} / \mathrm{L}$ | MDL | LOD | LOQ |
| PFBA | 375-22-4 | 0.47 U | 0.13 | 0.47 | 4.72 |
| PFHxA | 307-24-4 | 0.47 U | 0.18 | 0.47 | 4.72 |
| PFHpA | 375-85-9 | 0.47 U | 0.15 | 0.47 | 4.72 |
| PFOA | 335-67-1 | 1.35 J | 0.17 | 0.47 | 4.72 |
| PFNA | 375-95-1 | 0.94 U | 0.25 | 0.94 | 4.72 |
| PFDA | 335-76-2 | 0.47 U | 0.15 | 0.47 | 4.72 |
| PFUnA | 2058-94-8 | 0.94 U | 0.27 | 0.94 | 4.72 |
| PFDoA | 307-55-1 | 0.47 U | 0.17 | 0.47 | 4.72 |
| PFTrDA | 72629-94-8 | 0.47 U | 0.14 | 0.47 | 4.72 |
| PFTeDA | 376-06-7 | 0.94 U | 0.24 | 0.94 | 4.72 |
| NMeFOSAA | 2355-31-9 | 1.89 U | 0.53 | 1.89 | 4.72 |
| NEtFOSAA | 2991-50-6 | 0.94 U | 0.46 | 0.94 | 4.72 |
| PFBS | 375-73-5 | 0.47 U | 0.12 | 0.47 | 4.72 |
| PFHxS | 355-46-4 | 0.38 U | 0.10 | 0.38 | 4.72 |
| PFOS | 1763-23-1 | 0.47 U | 0.18 | 0.47 | 4.72 |
| Surrogate Recoveries (\%) |  |  |  |  |  |
| 13C4-PFBA |  | 91 |  |  |  |
| 13C5-PFHxA |  | 90 |  |  |  |
| 13C4-PFHpA |  | 98 |  |  |  |
| 13C8-PFOA |  | 100 |  |  |  |
| 13C9-PFNA |  | 114 |  |  |  |
| 13C6-PFDA |  | 113 |  |  |  |
| 13C7-PFUnA |  | 97 |  |  |  |
| 13C2-PFDoA |  | 98 |  |  |  |
| 13C2-PFTeDA |  | 90 |  |  |  |
| d3-MeFOSAA |  | 88 |  |  |  |
| d5-EtFOSAA |  | 84 |  |  |  |
| 13C3-PFBS |  | 81 |  |  |  |
| 13C3-PFHxS |  | 80 |  |  |  |
| 13C8-PFOS |  | 84 |  |  |  |

## BATHELIE

It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine Project No.: 100122108-CTOWE21

Client ID

| Battelle ID | IO064-FS |
| :--- | ---: |
| Sample Type | SA |
| Collection Date | $12 / 09 / 2018$ |
| Extraction Date | $12 / 13 / 2018$ |
| Analysis Date | $12 / 19 / 2018$ |
| Analytical Instrument | Sciex $5500 \mathrm{LC} / \mathrm{MS} / \mathrm{MS}$ |
| \% Moisture | NA |
| Matrix | GW |
| Sample Size | 0.275 |
| Size Unit-Basis | L |


| Units |  | $\mathrm{ng} / \mathrm{L}$ | MDL | LOD | LOQ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PFBA | 375-22-4 | 0.45 U | 0.13 | 0.45 | 4.55 |
| PFHxA | 307-24-4 | 1.84 J | 0.17 | 0.45 | 4.55 |
| PFHpA | 375-85-9 | 0.69 J | 0.15 | 0.45 | 4.55 |
| PFOA | 335-67-1 | 3.38 J | 0.16 | 0.45 | 4.55 |
| PFNA | 375-95-1 | 0.54 J | 0.24 | 0.91 | 4.55 |
| PFDA | 335-76-2 | 0.16 J | 0.15 | 0.45 | 4.55 |
| PFUnA | 2058-94-8 | 0.91 U | 0.26 | 0.91 | 4.55 |
| PFDoA | 307-55-1 | 0.45 U | 0.16 | 0.45 | 4.55 |
| PFTrDA | 72629-94-8 | 0.45 U | 0.14 | 0.45 | 4.55 |
| PFTeDA | 376-06-7 | 0.91 U | 0.23 | 0.91 | 4.55 |
| NMeFOSAA | 2355-31-9 | 1.82 U | 0.51 | 1.82 | 4.55 |
| NEtFOSAA | 2991-50-6 | 0.91 U | 0.45 | 0.91 | 4.55 |
| PFBS | 375-73-5 | 2.87 J | 0.12 | 0.45 | 4.55 |
| PFHxS | 355-46-4 | 0.36 U | 0.10 | 0.36 | 4.55 |
| PFOS | 1763-23-1 | 1.48 J | 0.17 | 0.45 | 4.55 |

Surrogate Recoveries (\%)

| $13 C 4-P F B A$ | 69 |
| :--- | :---: |
| $13 C 5-P F H x A$ | 91 |
| $13 C 4-P F H p A$ | 95 |
| $13 C 8-P F O A$ | 94 |
| $13 C 9-P F N A$ | 95 |
| $13 C 6-P F D A$ | 90 |
| $13 C 7-P F U n A$ | 90 |
| $13 C 2-P F D o A$ | 74 |
| $13 C 2-P F T e D A$ | 73 |
| d3-MeFOSAA | 71 |
| d5-EtFOSAA | 73 |
| $13 C 3-P F B S$ | 117 |
| $13 C 3-P F H x S$ | 98 |
| $13 C 8-P F O S$ | 84 |

APPENDIX C

```
NAS JACKSONVILLE
SDG 18-0718
PFAS Concentration = [(PA -b)/m]* C IS * PIV * DF/S
Where:
PA Area of target analyte/ area of internal standard
b
C
m
DF
S
PIV
Target Analyte
Sample ID
Laboratory Sample ID
Sample Size (L)
Dilution Factor
PIV (L)
PFOA Area
IS Area
IS Amount (ng/L)
Calibration Curve
Concentration (ng/L)
y Intercept from calibration curve
Concentration of internal standard (ng/L)
Slope of calibration
Dilution factor
Sample Size
Pre-injection volume (L)
```


## PFOA

```
MW-NASB-072-1218
\(J 9998\)
0.275
1
0.001
4380882.28
64387.12
250
\(y=1.10161 x+-0.09167\)
Concentration (ng/L)
56.22
```

$(((4380883.28 / 64387.12)+0.09167) / 1.010161) * 250 * 0.001 * 1 / 0.275$

NAS JACKSONVILLE
SDG 18-0718
Surrgoate Concentration $=[(P A) / m] * C_{I S}$

Where:

PA
$\mathrm{C}_{\text {IS }}$
m
Surrogate spike amount
Surrogate
Sample ID
Laboratory Sample ID
13C2-PFDoA Area
IS Area
IS Amount ( $\mathrm{ng} / \mathrm{L}$ )
Calibration Curve
Concentration (ng/L)

Area of target analyte/ area of internal standard Concentration of internal standard (ng/L)
Slope of calibration 250

13C2-PFDoA
MW-NASB-072-1218
J9998
62932.08
82941.89

250
$y=1.00659 x$
188.45
((56258.36/66168.81)/1.00659)*250
Surrgoate Recovery (\%) Reported Recovery (\%)
((188.45/250)*100)
75.4

75

| Sample Name | J9998-FS(0) | Injection Vial | 31 |
| :--- | :--- | :--- | :--- |
| Sample ID | MW-NASB-072-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T22:34:13 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table |  |
| Sample Comment |  |  | 18-0718 |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM <br> Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| PFBS_1 | 298.9 / 80.0 | 1.46 | 3284771.00 | 7536.90 | 547.5 | false | 13C3-PFBS | 34753.22 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.46 | 964401.80 | 7432.83 | 409.9 | false | 13C3-PFBS | 34753.22 | 232.25 | PFBS | 0.290 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.77 | 1462737.84 | 6490.94 | 121.1 | false | 13C5-PFHxA | 57816.30 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.77 | 98501.10 | 5725.50 | 125.7 | false | 13C5-PFHxA | 57816.30 | 250.00 | PFHxA | 0.070 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.17 | 767242.67 | 3381.96 | 164.2 | false | 13C4-PFHpA | 65241.55 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.18 | 14733.13 | 3342.85 | 107.6 | false | 13C4-PFHpA | 65241.55 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.18 | 5379038.34 | 12624.09 | 372.1 | false | 13C3-PFHxS | 26639.03 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.18 | 1561781.56 | 12980.61 | 358.6 | false | $13 \mathrm{C} 3-\mathrm{PFHxS}$ | 26639.03 | 236.50 | PFHxS | 0.290 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.56 | 4380882.28 | 15461.84 | 295.0 | false | 13C8-PFOA | 64387.12 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.55 | 353743.80 | 18738.11 | 294.0 | false | 13C8-PFOA | 64387.12 | 250.00 | PFOA | 0.080 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.94 | 38998.27 | 146.31 | 65.9 | true | 13C9-PFNA | 63859.59 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 2.94 | 14249.49 | 162.14 | 61.0 | false | 13C9-PFNA | 63859.59 | 250.00 | PFNA | 0.370 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.88 | 6032472.83 | 13523.29 | 228.7 | false | 13C8-PFOS | 22210.46 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.93 | 944373.67 | 11953.34 | 268.5 | false | 13C8-PFOS | 22210.46 | 239.25 | PFOS | 0.160 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 63905.04 | 250.00 | PFDA |  |  |  |
| PFDA_2 | $513.0 / 219.0$ | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 63905.04 | 250.00 | PFDA | N/A | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 63050.36 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 63050.36 | 250.00 | PFUnA | N/A | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 62932.08 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 62932.08 | 250.00 | PFDoA | N/A | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 70877.41 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 70877.41 | 250.00 | PFTrDA | N/A | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.33 | 1790.13 | $<0$ | 37.6 | false | 13C2-PFTeDA | 70877.41 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 70877.41 | 250.00 | PFTeDA | N/A | 0.049 |  |
| NMeFOSAA_1 | 570.0/419.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 12853.22 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 12853.22 | 250.00 | NMeFOSAA | N/A | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 13788.70 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 13788.70 | 250.00 | NEtFOSAA | N/A | 0.063 | , |
| PFBA | 213.0 / 169.0 | 1.04 | 707358.06 | 2057.61 | 467.2 | true | 13C4-PFBA | 61797.84 | 250.00 |  |  |  |  |


| Sample Name | J9998-FS(0) | Injection Vial | 31 |
| :--- | :--- | :--- | :--- |
| Sample ID | MW-NASB-072-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T22:34:13 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table | 18-0718 |

## Chromatograms <br> Target Analytes:

|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 1.0{ }_{\substack{1.5 \\ \text { Time. min }}}^{2.0} \\ \text { PFBS_1 } \end{gathered}$ | $\begin{gathered} 1.0 \\ \text { Time.min }^{1.5}{ }^{2.0} \\ \text { PFBS_2 } \end{gathered}$ | $\begin{aligned} & 1.5 \text { Time.min }_{2.5}^{2.5} \\ & \text { PFHxA_1 } \end{aligned}$ | $\begin{aligned} & 2.5 \\ & \text { Time. min } \\ & \text { PFHxA_2 } \end{aligned}$ | $\begin{aligned} & \text { 2.0 } \quad 2.5 \\ & \text { Time. min } \\ & \text { PFHpA_1 } \end{aligned}$ | $\begin{aligned} & { }_{2}^{2.0} \text { Time. min } \\ & \text { PFHpA_2 } \end{aligned}$ | $\begin{aligned} & 2.0 \quad 2.5 \\ & \text { Time. min } \\ & \text { PFHxS_1 } \end{aligned}$ | $\begin{aligned} & 2.0 \quad 2.5 \\ & \text { Time. min } \\ & \text { PFHxS_2 } \end{aligned}$ |
|  |  |  <br> PFNA 1 | PFNA 2 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  <br> PFBA |  |  |  |


|  |  |  |  |  |  |  | $\AA_{\boxed{2}}^{2.93}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.5 1.0 <br> Time. min  <br>   <br> 13C4-PFBA  | 3.5 ${ }_{\text {Time.min }}^{4.5}$ 13C2-PFDoA |  | $\begin{aligned} & 3.5 \quad 4.0 \\ & \text { Time. min } \\ & \text { d5-EtFOSAA } \end{aligned}$ | $\begin{aligned} & \text { Time. min } \\ & \text { 13C5-PFHxA } \end{aligned}$ | $\begin{gathered} 2.0 \frac{2.5}{\text { Time. min }} \\ 13 \mathrm{C} 4-\mathrm{PFHpA} \end{gathered}$ | $\begin{gathered} 2.5{ }_{\text {Time min }}^{2.0} \\ 13 \mathrm{C} 8 \text {-PFOA } \end{gathered}$ | $\begin{gathered} 3.5{ }_{3}^{3.0}{ }^{3.5} \\ \text { Time. min } \\ \text { 13C9-PFNA } \end{gathered}$ |
|  |  |  |  |  |  |  |  |
| $\begin{aligned} & 3.0 \\ & \text { Time. min } \\ & \text { 13C6-PFDA } \end{aligned}$ | $\begin{gathered} \frac{3.5}{4.0} \\ \text { Time, min } \\ \text { 13C7-PFUnA } \end{gathered}$ | $4.0 \quad 4.5{ }_{\text {Time. min }}^{5.0}$ 13C2-PFTeDA | $\begin{aligned} & 1.5 \text { Time. min }_{2.5}^{2.5} \\ & \text { 13C3-PFBS } \end{aligned}$ | $\begin{gathered} \frac{2.0}{\text { Time. min }} \\ 13 \mathrm{C} 3-\mathrm{PFHxS} \end{gathered}$ | 3.53.0 <br> Time. min <br> 13C8-PFOS  <br>   |  |  |


| Analyte Name | PFOA_1 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $413.0 / 369.0$ | Result Table | 18-0718 |
| Internal Standard | 13C8-PFOA | Instrument Name | QTRAP 5500 |
| Acquisition Date | $12 / 14 / 20189: 35: 22$ PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=1.10161 x+-0.09167(r=0.99913)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $(\mathrm{ng} / \mathrm{L})$ | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 100.122414 | 100.1 |
| 30 | KF35 | L2 | True | 250.00 | 254.398914 | 101.8 |
| 31 | KF36 | L3 | True | 500.00 | 501.814189 | 100.4 |
| 32 | KF37 | L4 | True | 1000.00 | 1000.559694 | 100.1 |
| 33 | KF38 | L5 | True | 2500.00 | 2350.090672 | 94.0 |
| 34 | KF39 | L6 | True | 10000.00 | 10596.103107 | 106.0 |
| 35 | KF40 | L7 | True | 20000.00 | 19546.911009 | 97.7 |



NAS JACKSONVILLE
SDG 18-0718
LABORATORY CONTROL SAMPLE

|  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Result | Target | Calculation | Reported <br> Recovery |  |
| PFHxA | $10.58 \mathrm{ng} / \mathrm{L}$ | $10.10 \mathrm{ng} / \mathrm{L}$ | $10.58 / 10.1^{* 100}$ | 104.7524752 | 105 |

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

NASB-CW-GW01D-1218
0.43U ng/L

PFHxA MS
PFHxA MSD
Result
$27.64 \mathrm{ng} / \mathrm{L}$
27.69

| Target | Calculation |
| :---: | :---: |
|  |  |
| $26.58 \mathrm{ng} / \mathrm{L}$ | $27.64 / 26.58^{\star} 100$ |
| 26.58 | $27.69 / 26.58^{\star} 100$ |

Recovery
$103.9879609 \quad 104 \quad$ 51-137 NA

PFA MSD
27.69
104.1760722

Reported
Recovery QC Limits RPD Limit

104
QC Limits 51-137

Reported
Recovery
96.47

NA
0
30

PENTADECAFLUOROOCTANOIC ACID (PFOA)
PERFLUOROBUTANESULFONIC ACID (PFBS)
PERFLUOROBUTANOIC ACID (PFBA)
PERFLUOROHEPTANOIC ACID (PFHPA)
PERFLUOROHEXANESULFONIC ACID (PFHXS) PERFLUOROHEXANOIC ACID (PFHXA)

SDG 18-0718
NASB-CW-DUP-120618/NASB-CW-GW04-1218

CHAIN OF CUSTODY
NO. 001
Page 1 of 1



CHAIN OF CUSTODY No. 001 Page 1 of 1


## Sample Receipt Form Details



## Total Samples:

 13
## Sample Receipt Form

Approved:


| Project Number: | 112G08005-WE21 | Client: | Tetra Tech |
| :--- | :--- | :--- | :--- |
| Received by: | Schumitz, Matt | Date/Time Received: |  |
| No. of Shipping Containers: $\mathbf{1}$  |  |  |  |

## SHIPMENT

| Method of Delivery: | Commercial Carrier | Tracking Number: <br> No Forms | 784316676099 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| COC Forms: | Shipped with samples |  |  |  |  |  |
| Cooler(s)/Box | (es) |  |  |  |  |  |
| Cntr Type | Tracking No. | Seal Seal | Container | Therm. | Temp C | Smps |
| 1 of 1 Cooler | 784316676099 | Justody Seals Intact | Intact | Therm_2 | 1.2 | 1 |

## Samples



## Sample Receipt Form Details



[^0]| Project: | CTO-WE21: Former Naval Air Station, Brunswick, Maine |
| :--- | :--- |
| Client Project Manager: | Jeff Orient |
| Parameters: | PFAS |
| Laboratory: | Battelle, Norwell, MA |
| Matrix: | GW, QC |
| Data Set: | DP-18-0404 |
| Analytical SOP: | $5-369$ |
| Method Reference: | PFAS to QSM 5.1 Table B-15 |


| Sample Custody |  |  |  |
| :--- | :--- | :---: | :---: |
| Collection Date |  |  |  |
| $12 / 5-6 / 2018$ | Receipt Date | Temp $\left({ }^{\circ} \mathrm{C}\right)$ |  |
| $12 / 9 / 2018$ | $12 / 8 / 2018$ | 0.9 |  |
| Corrective Actions | None. | $12 / 11 / 2018$ |  |
| Sample Storage | The water samples were stored refrigerated until extraction. |  |  |
| Related samples | None. |  |  |


|  | METHOD SUMMARIES |
| :--- | :--- |
| Sample <br> Preparation | Water samples were spiked with surrogates in the original sample container from <br> the field. The water was extracted using a weak ion exchange solid phase <br> extraction (SPE) cartridge and eluted from the SPE with $0.4 \% \mathrm{NH}_{3}$ in methanol. <br> Extracts were and concentrated to dryness under nitrogen with a water bath set <br> between $35^{\circ} \mathrm{C}$ and $45^{\circ} \mathrm{C}$, reconstituted with $80: 20$ methanol/water (V/V) and <br> fortified with internal standard. Extracts were transferred for LC-MS/MS analysis. |
| Prep comments | Sample J9993-FS (NASB-CW-GW02-1218) contained algae, which clogged the SPE <br> filter. The filter was popped and left inside the SPE cartridge for the duration of <br> the extraction and elution. |
| Analysis | PFAS were measured by liquid chromatography tandem mass spectrometry (LC- <br> MS/MS) in the multiple reaction monitoring (MRM). An initial calibration <br> consisting of representative target analytes, labelled analogs, and internal <br> standards was analyzed prior to analysis to demonstrate the linear range of <br> analysis. Calibration verification was performed at the beginning and end of 10 <br> injections and at the end of each sequence. Target PFAS were quantified using <br> the isotope dilution method. Samples are reported in ng/L concentrations. |
| Analysis <br> Comments | Samples analyzed on Sciex 5500 LC-MS/MS. <br> PFHxS and PFOS in the LCS fortification solution are a mixture of linear and <br> branched isomers. The value reported is a combined total of the isomers <br> detected. |


| Holding Times | Extraction Date(s) | Analysis Date(s) |
| :--- | :---: | :---: |
|  | $11 / 13 / 2018$ | $12 / 14 / 2018$ and $12 / 19 / 2018$ |

## QA/QC Summary <br> Batch 18-0718

| Procedural Blank <br> (PB) | A PB was prepared with this analytical batch to ensure the sample extraction <br> and analysis methods are free of contamination. |
| :--- | :--- |
| $\leq 1 / 2$ the LOQ <br> Samples $>10 x$ PB | Two exceedances noted. |
|  | PFOA was detected the LCS and sample J9996-FS (MW-09-22-1218) at <br> concentrations less than 10 times the blank concentration (1.57 ng/L). The <br> blank passes criteria (greater than $1 / 2$ the LOQ). |


| Laboratory Control <br> Spike (LCS) | A LCS was prepared with this analytical batch. The percent recoveries of target <br> analytes were calculated to measure accuracy. |
| :--- | :--- |
| Laboratory derived <br> control limits for <br> recovery | No exceedances noted. |
|  | No comments. |


| Matrix Spike and <br> Matrix Spike <br> Duplicate (MS/MSD) | A MS/MSD was prepared with this analytical batch. The percent recoveries of <br> target analytes were calculated to measure accuracy. |
| :--- | :--- |
| Laboratory derived <br> control limits for <br> recovery and <30\% <br> RPD | No exceedances noted. |
|  | No comments. |


| Extracted Internal <br> Standard Analytes | Labelled analog compounds were added prior to extraction. The recoveries are <br> calculated to measure extraction efficiency. |
| :--- | :--- |
| $50-150 \%$ of true <br> value | No exceedances noted. |
|  | No comments. |


| Internal Standard <br> Analytes | Labelled analog compounds were added prior to analysis. |
| :--- | :--- |
| $+/-50 \%$ of the area |  |
| of the L5 calibration <br> point. | No exceedances noted. |
|  | No comments. |


| Initial Calibration <br> (ICAL) | The LC-MS/MS was calibrated with multi-level calibration curve for all <br> compounds using linear or quadradic curve fitting. |
| :--- | :--- |
| $+/-30 \%$ of true | No exceedances noted. |
| value, $\mathrm{R}^{2} \geq 0.99$ | No comments. |


| Independent <br> Calibration Check <br> (ICC) | The independent check was run after each initial calibration to verify the <br> calibration. This standard is from a different source than the ICAL. |
| :--- | :--- |
| $+/-30 \%$ of true <br> value | No exceedances noted. |
|  | No comments. |


| Continuing <br> Calibration <br> Verification (CCV) | Continuing calibration standards were run at the beginning and end of 10 <br> injections and at the end of the sequence to ensure that initial calibration is <br> still valid. |
| :--- | :--- |
| $+/-30 \%$ of true <br> value | No exceedances noted. |
|  | No comments. |


| Instrument Blank <br> (IB) | Immediately following the highest standard analyzed and daily prior to sample <br> analysis. |
| :--- | :--- |
| $\leq 1 / 2$ the LOQ | No exceedances noted. |
|  | No comments. |



It can be done
BATTELLE - NORWELL OPERATIONS MISCELLANEOUS DOCUMENTATION FORM

| Project Title: | CTO-WE21: Former Naval Air Station, B | Data Set Number: | DP-18-0404 |
| :--- | :--- | :--- | :---: |
| Project Number: | 100122108-CTOWE21 | Prep Batch Number: | 18-0718 |
| Entered By: | Denise Schumitz | Entered On: | 12/20/2018 |
| Test Code (Matrix Type): | Master_369(L) |  |  |

Samples that were manually integrated are noted on the quant reports with the comment (TRUE).
DMS 12/19/18
KF40 was not used for d3-MeFOSAA and 13C3-PFBS for the SIS method. There is no impact on the data once these points are removed.
DMS 12/19/18
KF40 was not used for NMeFOSAA for the BASE method. There is no impact on the data once these points are removed. DMS 12/19/18

KF34 was not used for PFBA for the BASE method. There is no impact on the data once these points are removed.
DMS 12/19/18

Task Leader Approval:
SupervisorApproval:
PM Approval:

BATTELIE<br>It can be done<br>Glossary of Data Qualifiers<br>Flag: Application:

B Analyte found in the sample at a concentration $<10 x$ the level found in the procedural blank
D Dilution Run. Initial run outside the initial calibration range of the instrument
E Estimate, result is greater than the highers concentration level in the calibration
H Surrogate dilut
J Analyte detected below the Limit of Quantitation (LOQ)
ME Significant Matrix Interference - Estimated value.
MI Significant Matrix Interference - value could not be determined.
Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO), but
n meets secondary criteria

N Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO)
NA Not Applicable
T Holding Time (HT) exceeded
Analyte not detected or detected below the Method detection limit (MDL) value, Limit of
U Detection (LOD) reported

## Example Calculation for PFAS

Calculation of final concentration from area:

$$
\text { Concentration }=\left[\frac{P A-b}{m}\right] * C_{I S} * P I V * D F / S
$$

Where:
PA = Area of target / area of internal standard
$b=y$ intercept from calibration curve
CIS = concentration of internal standard (ng/L)
$\mathrm{m}=$ slope of calibration
DF = dilution factor
S = Sample Size
PIV = Pre-injection volume (L)

| Sample ID: | J9995-FS(0) |
| :--- | :--- |
| Client Sample ID: | MW-B250-07-1218 |
| Sample Size: | 0.28 |
| Units: | L |
| Dilution Factor: | 1.000 |
| PIV (L): | 0.001 |
| Target Analyte: | PFHxS |
| MRM Transition: | $399.0 / 80.0$ |
| Data file: | AC_12192018_5-369.wiff |
| Result table: | $18-0718$ |
| Area: | $2,211,562.51$ |
| IS Name: | $13 C 3-P F H x S$ |
| IS Area: | $26,923.21$ |
| IS Amount (ng/L): | 236.5 |
| y-intercept: | -0.24583 |
| slope: | 3.78744 |

$$
\begin{aligned}
\text { Concentration } & = \\
\mathrm{ng} / \mathrm{L} & = \\
3.78744 & {[(2211562.51 / 26923.21)-0.24583] } \\
& 18.37
\end{aligned}
$$

*Final concentration may vary based on rounding.

## B1/TETIF <br> It ean lee done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine
Project No.: 100122108-CTOWE21
Preparation Batch: 18-0718
Data Set: DP-18-0404

|  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFBA | 375-22-4 | - | L | L | L | L | L | - | L | L |
| PFHxA | 307-24-4 | - | L | L | L | L | L | - | L | - |
| PFHpA | 375-85-9 | - | L | L | L | L | L | - | - | - |
| PFOA | 335-67-1 | L | L | L | L | L | L | L | L | L |
| PFNA | 375-95-1 | - | L | L | L | - | - | - | - | - |
| PFDA | 335-76-2 | - | L | L | L | - | - | - | - | - |
| PFUnA | 2058-94-8 | - | L | L | L | - | - | - | - | - |
| PFDoA | 307-55-1 | - | L | L | L | - | - | - | - | - |
| PFTrDA | 72629-94-8 | - | L | L | L | - | - | - | - | - |
| PFTeDA | 376-06-7 | - | L | L | L | - | - | - | - | - |
| NMeFOSAA | 2355-31-9 | - | L | L | L | - | - | - | - | - |
| NEtFOSAA | 2991-50-6 | - | L | L | L | - | - | - | - | - |
| PFBS | 375-73-5 | - | L | L | L | L | L | - | - | - |
| PFHxS | 355-46-4 | - | L/Br | L/Br | L/Br | L/Br | L/Br | - | - | - |
| PFOS | 1763-23-1 | - | L/Br | L/Br | L/Br | L/Br | L/Br | - | - | - |

"L" :Linear
"Br": branched
"L/Br": Linear/Branched
"-": Not detected

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine
Project No.: 100122108-CTOWE21
Preparation Batcl
Data Set: DP-18-1

|  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFBA | L | L | L | L | L | L | L | - | - |
| PFHxA | - | L |  | L | L | L | L | - | L |
| PFHpA | - | L | L | L | L | L | L | - | L |
| PFOA | L | L |  | L | L | L | L | L | L |
| PFNA | - | - | - | - | L | L | L | - | L |
| PFDA | - | - | - | - | - | - | - | - | L |
| PFUnA | - | - | - | - | - | - | - | - | - |
| PFDoA | - | - | - | - | - | - | - | - | - |
| PFTrDA | - | - | - | - | - | - | - | - | - |
| PFTeDA | - | - | - | - | - | - | - | - | - |
| NMeFOSAA | - | - | - | - | - | - | - | - | - |
| NEtFOSAA | - | - | - | - | - | - | - | - | - |
| PFBS | - | - | L | L | L | L | L | - | L |
| PFHxS | $\mathrm{L} / \mathrm{Br}$ | L/Br | L/Br | L/Br | L/Br | L/Br | L/Br | - | - |
| PFOS | L/Br | L/Br | L/Br | L/Br | L/Br | L/Br | $\mathrm{L} / \mathrm{Br}$ | - | L/Br |

"L" :Linear
"Br": branched
"L/Br": Linear/Bra
"-": Not detected

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine

Project No.: 100122108-CTOWE21

| Sample Name | Sample ID | Analysis Date | Analyte | Area | Lower | Upper |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| KF38 | L5 | $12 / 14 / 1822: 29$ | $13 C 3-P F B A$ | $48,205.64$ | $24,102.82$ | $72,308.46$ |


| Sample Name | Sample ID | Analysis Date | Analyte | Area | Lower | Upper | Qualifier |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KF34 | L1 | 12/14/18 21:46 | 13C3-PFBA | 51,147.92 | 24,102.82 | 72,308.46 |  |
| KF35 | L2 | 12/14/18 21:57 | 13C3-PFBA | 50,397.31 | 24,102.82 | 72,308.46 |  |
| KF36 | L3 | 12/14/18 22:07 | 13C3-PFBA | 48,113.66 | 24,102.82 | 72,308.46 |  |
| KF37 | L4 | 12/14/18 22:18 | 13C3-PFBA | 49,482.19 | 24,102.82 | 72,308.46 |  |
| KF38 | L5 | 12/14/18 22:29 | 13C3-PFBA | 48,205.64 | 24,102.82 | 72,308.46 |  |
| KF39 | L6 | 12/14/18 22:40 | 13C3-PFBA | 46,467.92 | 24,102.82 | 72,308.46 |  |
| KF40 | L7 | 12/14/18 22:51 | 13C3-PFBA | 49,366.90 | 24,102.82 | 72,308.46 |  |
| KF41 IB | Instrument Blank | 12/14/18 23:02 | 13C3-PFBA | 48,319.56 | 24,102.82 | 72,308.46 |  |
| KF42 ICC | ICC | 12/14/18 23:13 | 13C3-PFBA | 49,175.05 | 24,102.82 | 72,308.46 |  |
| KF37 ISC | Instrument Sensitivity Check | 12/19/18 12:42 | 13C3-PFBA | 52,926.71 | 24,102.82 | 72,308.46 |  |
| KF41 IB | Instrument Blank | 12/19/18 12:53 | 13C3-PFBA | 53,282.19 | 24,102.82 | 72,308.46 |  |
| KF37 CCV | CCV | 12/19/18 17:29 | 13C3-PFBA | 51,122.91 | 24,102.82 | 72,308.46 |  |
| CS469PB-FS(0) | Procedural Blank | 12/19/18 17:51 | 13C3-PFBA | 54,111.12 | 24,102.82 | 72,308.46 |  |
| CS470LCS-FS(0) | Laboratory Control Sample | 12/19/18 18:02 | 13C3-PFBA | 50,408.95 | 24,102.82 | 72,308.46 |  |
| J9989-FS(0) | NASB-CW-GW-FB01-120618 | 12/19/18 18:13 | 13C3-PFBA | 54,331.74 | 24,102.82 | 72,308.46 |  |
| J9999-FS(0) | NASB-09-GW-FB01-120618 | 12/19/18 18:24 | 13C3-PFBA | 56,009.33 | 24,102.82 | 72,308.46 |  |
| J9992-FS(0) | NASB-CW-GW01D-1218 | 12/19/18 18:35 | 13C3-PFBA | 41,286.94 | 24,102.82 | 72,308.46 |  |
| J9992MS-FS(0) | NASB-CW-GW01D-1218 | 12/19/18 18:45 | 13C3-PFBA | 39,107.47 | 24,102.82 | 72,308.46 |  |
| J9992MSD-FS(0) | NASB-CW-GW01D-1218 | 12/19/18 18:56 | 13C3-PFBA | 40,355.75 | 24,102.82 | 72,308.46 |  |
| J9993-FS(0) | NASB-CW-GW02-1218 | 12/19/18 19:07 | 13C3-PFBA | 53,215.35 | 24,102.82 | 72,308.46 |  |
| J9994-FS(0) | MW-09-204-1218 | 12/19/18 19:18 | 13C3-PFBA | 40,111.93 | 24,102.82 | 72,308.46 |  |
| J9996-FS(0) | MW-09-22-1218 | 12/19/18 19:29 | 13C3-PFBA | 66,407.35 | 24,102.82 | 72,308.46 |  |
| KF38 CCV | CCV | 12/19/18 19:40 | 13C3-PFBA | 55,873.26 | 24,102.82 | 72,308.46 |  |
| J9987-FS(0) | NASB-CW-GW04-1218 | 12/19/18 20:02 | 13C3-PFBA | 44,192.96 | 24,102.82 | 72,308.46 |  |
| 19987-FS-D(3) | NASB-CW-GW04-1218 | 12/19/1820:12 | 13C3-PFBA | 55,024.08 | 24,102.82 | 72,308.46 | 1 |
| J9988-FS(0) | NASB-CW-DUP-120618 | 12/19/18 20:23 | 13C3-PFBA | 42,062.27 | 24,102.82 | 72,308.46 |  |
| 19988-FS-D(3) | NASB-CW-DUP-120618 | 12/19/1820:34 | 13C3-PFBA | 47,820.27 | 24,102.82 | 72,308.46 | 1 |
| J9990-FS(0) | NASB-CW-GW-RB01-120618 | 12/19/18 20:45 | 13C3-PFBA | 59,106.56 | 24,102.82 | 72,308.46 |  |
| J9990-FS-D(3) | NASB-CW-GW-RB01-120618 | 12/19/18 20:56 | 13C3-PFBA | 52,559.84 | 24,102.82 | 72,308.46 | 1 |
| J9991-FS(0) | NASB-CW-GW01S-1218 | 12/19/18 21:07 | 13C3-PFBA | 60,926.96 | 24,102.82 | 72,308.46 |  |
| 19991-FS-D(3) | AASB-CW-GW01S-1218 | 12/19/18 21:18 | 13C3-PFBA | 57,953.63 | 24,102.82 | 72,308.46 | 1 |
| KF37 CCV | CCV | 12/19/18 21:29 | 13C3-PFBA | 48,839.73 | 24,102.82 | 72,308.46 |  |
| J9995-FS(0) | MW-B250-07-1218 | 12/19/18 21:50 | 13C3-PFBA | 61,442.57 | 24,102.82 | 72,308.46 |  |
| 19995-FS-D(3) | AWW-B250-07-1218 | 12/19/18 22:01 | 13C3-PFBA | 55,147.97 | 24,102.82 | 72,308.46 | 1 |
| J9997-FS(0) | MW-09-004-1218 | 12/19/18 22:12 | 13C3-PFBA | 47,092.96 | 24,102.82 | 72,308.46 |  |
| 19997-FS-D(3) | AWW-09-004-1218 | 12/19/18 22:23 | 13C3-PFBA | 61,585.79 | 24,102.82 | 72,308.46 | 1 |
| J9998-FS(0) | MW-NASB-072-1218 | 12/19/18 22:34 | 13C3-PFBA | 57,023.90 | 24,102.82 | 72,308.46 |  |
| 19998-FS-D(3) | MW-NASB-072-1218 | 12/19/18 22:45 | 13C3-PFBA | 54,712.12 | 24,102.82 | 72,308.46 | 1 |
| IO064-FS(0) | NASB-CW-GW03-1218 | 12/19/18 22:55 | 13C3-PFBA | 38,901.08 | 24,102.82 | 72,308.46 |  |
| H0064-FS-D(3) | NASB-CW-GW03-1218 | 12/19/1823:06 | 13C3-PFBA | 63,854.16 | 24,102.82 | 72,308.46 | 1 |
| KF38 CCV | CCV | 12/19/18 23:17 | 13C3-PFBA | 53,206.02 | 24,102.82 | 72,308.46 |  |

1 Dilutions made and run but not needed DMS 12/20/2018

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine

## BATTELIE <br> It can be done

Project No.: 100122108-CTOWE21

| Sample Name | Sample ID | Analysis Date | Analyte | Area | Lower | Upper |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KF38 | L5 | 12/14/18 22:29 | 13C2-PFOA | 94,506.28 | 47,253.14 | 141,759.42 |  |
| Sample Name | Sample ID | Analysis Date | Analyte | Area | Lower | Upper | Qualifier |
| KF34 | L1 | 12/14/18 21:46 | 13C2-PFOA | 96,585.14 | 47,253.14 | 141,759.42 |  |
| KF35 | L2 | 12/14/18 21:57 | 13C2-PFOA | 93,637.07 | 47,253.14 | 141,759.42 |  |
| KF36 | L3 | 12/14/18 22:07 | 13C2-PFOA | 91,323.66 | 47,253.14 | 141,759.42 |  |
| KF37 | L4 | 12/14/18 22:18 | 13C2-PFOA | 100,485.00 | 47,253.14 | 141,759.42 |  |
| KF38 | L5 | 12/14/18 22:29 | 13C2-PFOA | 94,506.28 | 47,253.14 | 141,759.42 |  |
| KF39 | L6 | 12/14/18 22:40 | 13C2-PFOA | 88,454.29 | 47,253.14 | 141,759.42 |  |
| KF40 | L7 | 12/14/18 22:51 | 13C2-PFOA | 90,137.42 | 47,253.14 | 141,759.42 |  |
| KF41 IB | Instrument Blank | 12/14/18 23:02 | 13C2-PFOA | 90,491.57 | 47,253.14 | 141,759.42 |  |
| KF42 ICC | ICC | 12/14/18 23:13 | 13C2-PFOA | 89,619.28 | 47,253.14 | 141,759.42 |  |
| KF37 ISC | Instrument Sensitivity Check | 12/19/18 12:42 | 13C2-PFOA | 85,449.25 | 47,253.14 | 141,759.42 |  |
| KF41 IB | Instrument Blank | 12/19/18 12:53 | 13C2-PFOA | 85,039.73 | 47,253.14 | 141,759.42 |  |
| KF37 CCV | CCV | 12/19/18 17:29 | 13C2-PFOA | 79,040.58 | 47,253.14 | 141,759.42 |  |
| CS469PB-FS(0) | Procedural Blank | 12/19/18 17:51 | 13C2-PFOA | 64,191.17 | 47,253.14 | 141,759.42 |  |
| CS470LCS-FS(0) | Laboratory Control Sample | 12/19/18 18:02 | 13C2-PFOA | 70,603.85 | 47,253.14 | 141,759.42 |  |
| J9989-FS(0) | NASB-CW-GW-FB01-120618 | 12/19/18 18:13 | 13C2-PFOA | 73,795.02 | 47,253.14 | 141,759.42 |  |
| J9999-FS(0) | NASB-09-GW-FB01-120618 | 12/19/18 18:24 | 13C2-PFOA | 80,461.89 | 47,253.14 | 141,759.42 |  |
| J9992-FS(0) | NASB-CW-GW01D-1218 | 12/19/18 18:35 | 13C2-PFOA | 70,509.53 | 47,253.14 | 141,759.42 |  |
| J9992MS-FS(0) | NASB-CW-GW01D-1218 | 12/19/18 18:45 | 13C2-PFOA | 70,538.58 | 47,253.14 | 141,759.42 |  |
| J9992MSD-FS(0) | NASB-CW-GW01D-1218 | 12/19/18 18:56 | 13C2-PFOA | 71,634.79 | 47,253.14 | 141,759.42 |  |
| J9993-FS(0) | NASB-CW-GW02-1218 | 12/19/18 19:07 | 13C2-PFOA | 71,156.17 | 47,253.14 | 141,759.42 |  |
| J9994-FS(0) | MW-09-204-1218 | 12/19/18 19:18 | 13C2-PFOA | 71,515.61 | 47,253.14 | 141,759.42 |  |
| J9996-FS(0) | MW-09-22-1218 | 12/19/18 19:29 | 13C2-PFOA | 79,582.45 | 47,253.14 | 141,759.42 |  |
| KF38 CCV | CCV | 12/19/18 19:40 | 13C2-PFOA | 84,561.97 | 47,253.14 | 141,759.42 |  |
| J9987-FS(0) | NASB-CW-GW04-1218 | 12/19/18 20:02 | 13C2-PFOA | 72,659.87 | 47,253.14 | 141,759.42 |  |
| 19987-FS-D(3) | NASB-CW-GW04-1218 | 12/19/18-20:12 | 13C2-PFOA | 73,364.09 | 47,253.14 | 141,759.42 | 1 |
| J9988-FS(0) | NASB-CW-DUP-120618 | 12/19/18 20:23 | 13C2-PFOA | 71,118.18 | 47,253.14 | 141,759.42 |  |
| 19988-FS-D(3) | NASB-CW-DUP-120618 | 12/19/18-20:34 | 13C2-PFOA | 69,708.95 | 47,253.14 | 141,759.42 | 1 |
| J9990-FS(0) | NASB-CW-GW-RB01-120618 | 12/19/18 20:45 | 13C2-PFOA | 78,923.29 | 47,253.14 | 141,759.42 |  |
| 19990-FS-D(3) | NASB-CW-GW-RB01-120618 | 12/19/18 20:56 | 13C2-PFOA | 77,367.56 | 47,253.14 | 141,759.42 | 1 |
| J9991-FS(0) | NASB-CW-GW01S-1218 | 12/19/18 21:07 | 13C2-PFOA | 78,444.65 | 47,253.14 | 141,759.42 |  |
| 19991-FS-D(3) | AASB-CW-GW01S-1218 | 12/19/18-21:18 | 13C2-PFOA | 74,675.55 | 47,253.14 | 141,759.42 | 1 |
| KF37 CCV | CCV | 12/19/18 21:29 | 13C2-PFOA | 72,893.96 | 47,253.14 | 141,759.42 |  |
| J9995-FS(0) | MW-B250-07-1218 | 12/19/18 21:50 | 13C2-PFOA | 85,546.11 | 47,253.14 | 141,759.42 |  |
| 19995-FS-D(3) | AWW-B250-07-1218 | 12/19/1822:01 | 13C2-PFOA | 74,409.25 | 47,253.14 | 141,759.42 | 1 |
| J9997-FS(0) | MW-09-004-1218 | 12/19/18 22:12 | 13C2-PFOA | 78,051.15 | 47,253.14 | 141,759.42 |  |
| 19997-FS-D(3) | AW-09-004-1218 | 12/19/18-22:23 | 13C2-PFOA | 80,701.67 | 47,253.14 | 141,759.42 | 1 |
| J9998-FS(0) | MW-NASB-072-1218 | 12/19/18 22:34 | 13C2-PFOA | 79,894.03 | 47,253.14 | 141,759.42 |  |
| 19998-FS-D(3) | MW-NASB-072-1218 | 12/19/18 22:45 | 13C2-PFOA | 78,017.94 | 47,253.14 | 141,759.42 | 1 |
| I0064-FS(0) | NASB-CW-GW03-1218 | 12/19/18 22:55 | 13C2-PFOA | 72,216.82 | 47,253.14 | 141,759.42 |  |
| 10064-FS-D(3) | NASB-CW-GW03-1218 | 12/19/18-23:06 | 13C2-PFOA | 75,361.79 | 47,253.14 | 141,759.42 | 1 |
| KF38 CCV | CCV | 12/19/18 23:17 | 13C2-PFOA | 94,428.93 | 47,253.14 | 141,759.42 |  |

1 Dilutions made and run but not needed DMS 12/20/2018

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine

Project No.: 100122108-CTOWE21

| Sample Name | Sample ID | Analysis Date | Analyte | Area | Lower | Upper |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KF38 | L5 | 12/14/18 22:29 | 13C2-PFDA | 86,272.87 | 43,136.44 | 129,409.31 |  |
| Sample Name | Sample ID | Analysis Date | Analyte | Area | Lower | Upper | Qualifier |
| KF34 | L1 | 12/14/18 21:46 | 13C2-PFDA | 87,176.19 | 43,136.44 | 129,409.31 |  |
| KF35 | L2 | 12/14/18 21:57 | 13C2-PFDA | 85,041.75 | 43,136.44 | 129,409.31 |  |
| KF36 | L3 | 12/14/18 22:07 | 13C2-PFDA | 89,264.58 | 43,136.44 | 129,409.31 |  |
| KF37 | L4 | 12/14/18 22:18 | 13C2-PFDA | 92,190.84 | 43,136.44 | 129,409.31 |  |
| KF38 | L5 | 12/14/18 22:29 | 13C2-PFDA | 86,272.87 | 43,136.44 | 129,409.31 |  |
| KF39 | L6 | 12/14/18 22:40 | 13C2-PFDA | 76,288.92 | 43,136.44 | 129,409.31 |  |
| KF40 | L7 | 12/14/18 22:51 | 13C2-PFDA | 82,856.34 | 43,136.44 | 129,409.31 |  |
| KF41 IB | Instrument Blank | 12/14/18 23:02 | 13C2-PFDA | 84,046.94 | 43,136.44 | 129,409.31 |  |
| KF42 ICC | ICC | 12/14/18 23:13 | 13C2-PFDA | 85,799.21 | 43,136.44 | 129,409.31 |  |
| KF37 ISC | Instrument Sensitivity Check | 12/19/18 12:42 | 13C2-PFDA | 89,189.26 | 43,136.44 | 129,409.31 |  |
| KF41 IB | Instrument Blank | 12/19/18 12:53 | 13C2-PFDA | 93,957.44 | 43,136.44 | 129,409.31 |  |
| KF37 CCV | CCV | 12/19/18 17:29 | 13C2-PFDA | 84,249.18 | 43,136.44 | 129,409.31 |  |
| CS469PB-FS(0) | Procedural Blank | 12/19/18 17:51 | 13C2-PFDA | 70,658.54 | 43,136.44 | 129,409.31 |  |
| CS470LCS-FS(0) | Laboratory Control Sample | 12/19/18 18:02 | 13C2-PFDA | 66,108.37 | 43,136.44 | 129,409.31 |  |
| J9989-FS(0) | NASB-CW-GW-FB01-120618 | 12/19/18 18:13 | 13C2-PFDA | 81,723.01 | 43,136.44 | 129,409.31 |  |
| J9999-FS(0) | NASB-09-GW-FB01-120618 | 12/19/18 18:24 | 13C2-PFDA | 77,193.46 | 43,136.44 | 129,409.31 |  |
| J9992-FS(0) | NASB-CW-GW01D-1218 | 12/19/18 18:35 | 13C2-PFDA | 74,768.84 | 43,136.44 | 129,409.31 |  |
| J9992MS-FS(0) | NASB-CW-GW01D-1218 | 12/19/18 18:45 | 13C2-PFDA | 76,079.60 | 43,136.44 | 129,409.31 |  |
| J9992MSD-FS(0) | NASB-CW-GW01D-1218 | 12/19/18 18:56 | 13C2-PFDA | 80,172.80 | 43,136.44 | 129,409.31 |  |
| J9993-FS(0) | NASB-CW-GW02-1218 | 12/19/18 19:07 | 13C2-PFDA | 74,902.32 | 43,136.44 | 129,409.31 |  |
| J9994-FS(0) | MW-09-204-1218 | 12/19/18 19:18 | 13C2-PFDA | 72,276.74 | 43,136.44 | 129,409.31 |  |
| J9996-FS(0) | MW-09-22-1218 | 12/19/18 19:29 | 13C2-PFDA | 83,090.29 | 43,136.44 | 129,409.31 |  |
| KF38 CCV | CCV | 12/19/18 19:40 | 13C2-PFDA | 84,584.76 | 43,136.44 | 129,409.31 |  |
| J9987-FS(0) | NASB-CW-GW04-1218 | 12/19/18 20:02 | 13C2-PFDA | 75,942.41 | 43,136.44 | 129,409.31 |  |
| 19987-FS-D(3) | NASB-CW-GW04-1218 | 12/19/1820:12 | 13C2-PFDA | 75,019.97 | 43,136.44 | 129,409.31 | 1 |
| J9988-FS(0) | NASB-CW-DUP-120618 | 12/19/18 20:23 | 13C2-PFDA | 76,110.82 | 43,136.44 | 129,409.31 |  |
| 19988-FS-D(3) | NASB-CW DUP-120618 | 12/19/1820:34 | 13C2-PFDA | 71,343.90 | 43,136.44 | 129,409.31 | 1 |
| J9990-FS(0) | NASB-CW-GW-RB01-120618 | 12/19/18 20:45 | 13C2-PFDA | 88,238.01 | 43,136.44 | 129,409.31 |  |
| 19990-FS-D(3) | NASB-CW-GW-RB01-120618 | 12/19/18 20:56 | 13C2-PFDA | 78,082.21 | 43,136.44 | 129,409.31 | 1 |
| J9991-FS(0) | NASB-CW-GW01S-1218 | 12/19/18 21:07 | 13C2-PFDA | 79,138.50 | 43,136.44 | 129,409.31 |  |
| 19991 FS-D(3) | AASB-CW-GW01S-1218 | 12/19/18 21:18 | 13C2-PFDA | 77,855.80 | 43,136.44 | 129,409.31 | 1 |
| KF37 CCV | CCV | 12/19/18 21:29 | 13C2-PFDA | 80,761.89 | 43,136.44 | 129,409.31 |  |
| J9995-FS(0) | MW-B250-07-1218 | 12/19/18 21:50 | 13C2-PFDA | 82,252.10 | 43,136.44 | 129,409.31 |  |
| 19995-FS-D(3) | AWW-B250-07-1218 | 12/19/18 22:01 | 13C2-PFDA | 83,462.54 | 43,136.44 | 129,409.31 | 1 |
| J9997-FS(0) | MW-09-004-1218 | 12/19/18 22:12 | 13C2-PFDA | 76,949.05 | 43,136.44 | 129,409.31 |  |
| 19997-FS-D(3) | AWW-09-004-1218 | 12/19/1822:23 | 13C2-PFDA | 85,981.96 | 43,136.44 | 129,409.31 | 1 |
| J9998-FS(0) | MW-NASB-072-1218 | 12/19/18 22:34 | 13C2-PFDA | 82,941.89 | 43,136.44 | 129,409.31 |  |
| 19998-FS-D(3) | MW-NASB-072-1218 | 12/19/18 22:45 | 13C2-PFDA | 81,926.92 | 43,136.44 | 129,409.31 | 1 |
| 10064-FS(0) | NASB-CW-GW03-1218 | 12/19/18 22:55 | 13C2-PFDA | 78,290.02 | 43,136.44 | 129,409.31 |  |
| Ю064-FS-D(3) | NASB-CW-GW03-1218 | 12/19/1823:06 | 13C2-PFDA | 80,910.46 | 43,136.44 | 129,409.31 | 1 |
| KF38 CCV | CCV | 12/19/18 23:17 | 13C2-PFDA | 88,350.02 | 43,136.44 | 129,409.31 |  |

1 Dilutions made and run but not needed DMS 12/20/2018

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine

Project No.: 100122108-CTOWE21

| Sample Name | Sample ID | Analysis Date | Analyte | Area | Lower | Upper |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KF38 | L5 | 12/14/18 22:29 | 13C4-PFOS | 29,951.07 | 14,975.54 | 44,926.61 |  |
| Sample Name | Sample ID | Analysis Date | Analyte | Area | Lower | Upper | Qualifier |
| KF34 | L1 | 12/14/18 21:46 | 13C4-PFOS | 29,522.38 | 14,975.54 | 44,926.61 |  |
| KF35 | L2 | 12/14/18 21:57 | 13C4-PFOS | 26,278.59 | 14,975.54 | 44,926.61 |  |
| KF36 | L3 | 12/14/18 22:07 | 13C4-PFOS | 27,322.78 | 14,975.54 | 44,926.61 |  |
| KF37 | L4 | 12/14/18 22:18 | 13C4-PFOS | 29,250.92 | 14,975.54 | 44,926.61 |  |
| KF38 | L5 | 12/14/18 22:29 | 13C4-PFOS | 29,951.07 | 14,975.54 | 44,926.61 |  |
| KF39 | L6 | 12/14/18 22:40 | 13C4-PFOS | 27,833.94 | 14,975.54 | 44,926.61 |  |
| KF40 | L7 | 12/14/18 22:51 | 13C4-PFOS | 21,481.26 | 14,975.54 | 44,926.61 |  |
| KF41 IB | Instrument Blank | 12/14/18 23:02 | 13C4-PFOS | 26,611.96 | 14,975.54 | 44,926.61 |  |
| KF42 ICC | ICC | 12/14/18 23:13 | 13C4-PFOS | 28,010.11 | 14,975.54 | 44,926.61 |  |
| KF37 ISC | Instrument Sensitivity Check | 12/19/18 12:42 | 13C4-PFOS | 31,058.84 | 14,975.54 | 44,926.61 |  |
| KF41 IB | Instrument Blank | 12/19/18 12:53 | 13C4-PFOS | 29,880.82 | 14,975.54 | 44,926.61 |  |
| KF37 CCV | CCV | 12/19/18 17:29 | 13C4-PFOS | 28,937.39 | 14,975.54 | 44,926.61 |  |
| CS469PB-FS(0) | Procedural Blank | 12/19/18 17:51 | 13C4-PFOS | 25,033.83 | 14,975.54 | 44,926.61 |  |
| CS470LCS-FS(0) | Laboratory Control Sample | 12/19/18 18:02 | 13C4-PFOS | 21,953.34 | 14,975.54 | 44,926.61 |  |
| J9989-FS(0) | NASB-CW-GW-FB01-120618 | 12/19/18 18:13 | 13C4-PFOS | 24,860.73 | 14,975.54 | 44,926.61 |  |
| J9999-FS(0) | NASB-09-GW-FB01-120618 | 12/19/18 18:24 | 13C4-PFOS | 27,995.14 | 14,975.54 | 44,926.61 |  |
| J9992-FS(0) | NASB-CW-GW01D-1218 | 12/19/18 18:35 | 13C4-PFOS | 25,523.27 | 14,975.54 | 44,926.61 |  |
| J9992MS-FS(0) | NASB-CW-GW01D-1218 | 12/19/18 18:45 | 13C4-PFOS | 24,651.48 | 14,975.54 | 44,926.61 |  |
| J9992MSD-FS(0) | NASB-CW-GW01D-1218 | 12/19/18 18:56 | 13C4-PFOS | 21,998.35 | 14,975.54 | 44,926.61 |  |
| J9993-FS(0) | NASB-CW-GW02-1218 | 12/19/18 19:07 | 13C4-PFOS | 25,041.98 | 14,975.54 | 44,926.61 |  |
| J9994-FS(0) | MW-09-204-1218 | 12/19/18 19:18 | 13C4-PFOS | 20,941.30 | 14,975.54 | 44,926.61 |  |
| J9996-FS(0) | MW-09-22-1218 | 12/19/18 19:29 | 13C4-PFOS | 26,115.85 | 14,975.54 | 44,926.61 |  |
| KF38 CCV | CCV | 12/19/18 19:40 | 13C4-PFOS | 29,749.72 | 14,975.54 | 44,926.61 |  |
| J9987-FS(0) | NASB-CW-GW04-1218 | 12/19/18 20:02 | 13C4-PFOS | 25,782.56 | 14,975.54 | 44,926.61 |  |
| 19987-FS-D(3) | NASB-CW-GW04-1218 | 12/19/1820:12 | 13C4-PFOS | 24,353.54 | 14,975.54 | 44,926.61 | 1 |
| J9988-FS(0) | NASB-CW-DUP-120618 | 12/19/18 20:23 | 13C4-PFOS | 25,734.34 | 14,975.54 | 44,926.61 |  |
| 19988-FS-D(3) | NASB-CW-DUP-120618 | 12/19/1820:34 | 13C4-PFOS | 24,356.46 | 14,975.54 | 44,926.61 | 1 |
| J9990-FS(0) | NASB-CW-GW-RB01-120618 | 12/19/18 20:45 | 13C4-PFOS | 28,586.12 | 14,975.54 | 44,926.61 |  |
| 19990-FS-D(3) | NASB-CW-GW-RB01-120618 | 12/19/18 20:56 | 13C4-PFOS | 26,083.07 | 14,975.54 | 44,926.61 | 1 |
| J9991-FS(0) | NASB-CW-GW01S-1218 | 12/19/18 21:07 | 13C4-PFOS | 27,274.94 | 14,975.54 | 44,926.61 |  |
| 19991-FS-D(3) | AASB-CW-GW01S-1218 | 12/19/18 21:18 | 13C4-PFOS | 29,316.02 | 14,975.54 | 44,926.61 | 1 |
| KF37 CCV | CCV | 12/19/18 21:29 | 13C4-PFOS | 27,408.34 | 14,975.54 | 44,926.61 |  |
| J9995-FS(0) | MW-B250-07-1218 | 12/19/18 21:50 | 13C4-PFOS | 27,123.45 | 14,975.54 | 44,926.61 |  |
| \$9995-FS-D(3) | AWW-B250-07-1218 | 12/19/1822:01 | 13C4-PFOS | 27,468.63 | 14,975.54 | 44,926.61 | 1 |
| J9997-FS(0) | MW-09-004-1218 | 12/19/18 22:12 | 13C4-PFOS | 25,214.85 | 14,975.54 | 44,926.61 |  |
| 19997-FS-D(3) | AWW-09-004-1218 | 12/19/1822:23 | 13C4-PFOS | 23,916.42 | 14,975.54 | 44,926.61 | 1 |
| J9998-FS(0) | MW-NASB-072-1218 | 12/19/18 22:34 | 13C4-PFOS | 26,254.21 | 14,975.54 | 44,926.61 |  |
| 19998-FS-D(3) | MW-NASB-072-1218 | 12/19/18 22:45 | 13C4-PFOS | 26,595.17 | 14,975.54 | 44,926.61 | 1 |
| I0064-FS(0) | NASB-CW-GW03-1218 | 12/19/18 22:55 | 13C4-PFOS | 22,981.24 | 14,975.54 | 44,926.61 |  |
| 10064-FS-D(3) | NASB-CW-GW03-1218 | 12/19/18 23:06 | 13C4-PFOS | 26,975.85 | 14,975.54 | 44,926.61 | 1 |
| KF38 CCV | CCV | 12/19/18 23:17 | 13C4-PFOS | 28,789.10 | 14,975.54 | 44,926.61 |  |

1 Dilutions made and run but not needed DMS 12/20/2018

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Created with Analyst Reporter Printed: 20/12/2018 2:05:58 PM

| Sample Name | KF40 | Injection Vial | 35 |
| :--- | :--- | :--- | :--- |
| Sample ID | L7 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | QTRAP 5500 |
| Acquisition Date | $12 / 14 / 201810: 51: 24$ PM | Data File | AC_12142018_5-0369.wiff |
| Acquisition Method | 5-0369.dam | Result Table | 18-0718 |
| Sample Comment |  |  |  |

Results Summary

| Analyte | MRM Transition | RT | Spectra Acquisition Rate | Passing Range |
| :--- | :--- | :--- | :--- | :--- |
| PFBS_1 | $298.9 / 80.0$ | 1.50 | 56 | $>10$ |
| PFBS_2 | $298.9 / 99.0$ | 1.49 | 51 | $>10$ |
| PFHxA_1 | $313.0 / 269.0$ | 1.80 | 27 | $>10$ |
| PFHxA_2 | $313.0 / 119.0$ | 1.80 | 27 | $>10$ |
| PFHpA_1 | $363.0 / 319.0$ | 2.21 | 32 | $>10$ |
| PFHpA_2 | $363.0 / 169.0$ | 2.21 | 33 | $>10$ |
| PFHxS_1 | $399.0 / 80.0$ | 2.24 | 56 | $>10$ |
| PFHxS_2 | $399.0 / 99.0$ | 2.24 | 49 | $>10$ |
| PFOA_1 | $413.0 / 369.0$ | 2.63 | 57 | $>10$ |
| PFOA_2 | $413.0 / 169.0$ | 2.62 | 57 | $>10$ |
| PFNA_1 | $463.0 / 419.0$ | 3.02 | 54 | $>10$ |
| PFNA_2 | $463.0 / 219.0$ | 3.02 | 55 | $>10$ |
| PFOS_1 | $499.0 / 80.0$ | 3.01 | 59 | $>10$ |
| PFOS_2 | $499.0 / 99.0$ | 3.02 | 52 | $>10$ |
| PFDA_1 | $513.0 / 469.0$ | 3.38 | 58 | $>10$ |
| PFDA_2 | $513.0 / 219.0$ | 3.38 | 50 | $>10$ |
| PFUnA_1 | $563.0 / 519.0$ | 3.70 | 60 | $>10$ |
| PFUnA_2 | $563.0 / 269.0$ | 3.70 | 61 | $>10$ |
| PFDoA_1 | $613.0 / 569.0$ | 3.99 | 75 | $>10$ |
| PFDoA_2 | $613.0 / 319.0$ | 3.99 | 61 | $>10$ |
| PFTrDA_1 | $663.0 / 619.0$ | 4.23 | 79 | $>10$ |
| PFTrDA_2 | $663.0 / 169.0$ | 4.23 | 76 | $>10$ |
| PFTeDA_1 | $713.0 / 669.0$ | 4.45 | 125 | $>10$ |
| PFTeDA_2 | $713.0 / 169.0$ | 4.45 | 69 | $>10$ |
| NMeFOSAA_1 | $570.0 / 419.0$ | 3.53 | 50 | $>10$ |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.53 | 51 | $>10$ |
| NEtFOSAA_1 | $584.0 / 419.0$ | 3.69 | 54 | $>10$ |
| NEtFOSAA_2 | $584.0 / 483.0$ | 3.70 | 50 | $>10$ |
| PFBA | $213.0 / 169.0$ | 1.04 | 56 | $>10$ |
|  |  |  |  |  | Printed: 20/12/2018 2:21:59 PM


| Sample Name | KF40 | Injection Vial | 35 |
| :--- | :--- | :--- | :--- |
| Sample ID | L7 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | QTRAP 5500 |
| Acquisition Date | $12 / 14 / 2018$ 10:51:24 PM | Data File | AC_12142018_5-0369.wiff |
| Acquisition Method | $5-0369 . d a m$ | Result Table | 18-0718_SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Spectra Acquisition Rate | Passing Range |
| :--- | :--- | :--- | :--- | :--- |
| 13C4-PFBA | $217.0 / 172.0$ | 1.04 | 110 | $>10$ |
| 13C2-PFDoA | $615.0 / 570.0$ | 3.98 | 38 | $>10$ |
| d3-MeFOSAA | $573.0 / 419.0$ | 3.52 | 33 | $>10$ |
| d5-EtFOSAA | $589.0 / 419.0$ | 3.68 | 33 | $>10$ |
| 13C5-PFHxA | $318.0 / 273.0$ | 1.79 | 47 | $>10$ |
| 13C4-PFHpA | $367.0 / 322.0$ | 2.20 | 38 | $>10$ |
| 13C8-PFOA | $421.0 / 376.0$ | 2.61 | 62 | $>10$ |
| 13C9-PFNA | $472.0 / 427.0$ | 3.01 | 45 | $>10$ |
| 13C6-PFDA | $519.0 / 474.0$ | 3.37 | 43 | $>10$ |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.69 | 53 | $>10$ |
| 13C2-PFTeDA | $715.0 / 670.0$ | 4.45 | 69 | $>10$ |
| 13C3-PFBS | $302.0 / 99.0$ | 1.48 | 42 | $>10$ |
| 13C3-PFHXS | $402.0 / 99.0$ | 2.24 | 32 | $>10$ |
| 13C8-PFOS | $507.0 / 99.0$ | 3.02 | 35 | $>10$ |

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Precision and Bias at the LOQ for PFAS in non-potable Water

| Analyte | CAS No. | Average (ng/L) | ST DEV | 2 Sigma | n |
| :--- | :---: | :---: | :---: | :---: | :---: |
| PFBA | $375-22-4$ | 12.17 | 1.90 | 3.80 | 15 |
| PFPeA | $2706-90-3$ | 10.58 | 1.50 | 3.00 | 10 |
| PFHxA | $307-24-4$ | 9.95 | 1.24 | 2.48 | 43 |
| PFHpA | $375-85-9$ | 9.46 | 1.50 | 3.00 | 43 |
| PFOA | $335-67-1$ | 10.22 | 1.44 | 2.88 | 45 |
| PFNA | $375-95-1$ | 9.72 | 1.17 | 2.34 | 43 |
| PFDA | $335-76-2$ | 9.90 | 1.27 | 2.54 | 43 |
| PFUnA | $2058-94-8$ | 9.89 | 1.26 | 2.52 | 43 |
| PFDoA | $307-55-1$ | 10.74 | 1.24 | 2.48 | 43 |
| PFTrDA | $72629-94-8$ | 11.15 | 1.47 | 2.94 | 43 |
| PFTeDA | $376-06-7$ | 10.70 | 1.82 | 3.64 | 43 |
| NMeFOSAA | $2355-31-9$ | 10.36 | 1.85 | 3.70 | 43 |
| NEtFOSAA | $2991-50-6$ | 9.66 | 1.48 | 2.96 | 43 |
| PFOSA | $754-91-6$ | 9.72 | 0.93 | 1.86 | 5 |
| PFBS | $375-73-5$ | 10.07 | 1.39 | 2.78 | 44 |
| PFPeS | $2706-91-4$ | 9.59 | 0.96 | 1.92 | 6 |
| PFHxS | $355-46-4$ | 9.79 | 1.43 | 2.86 | 43 |
| PFHpS | $375-92-8$ | 10.79 | 1.05 | 2.10 | 11 |
| PFOS | $1763-23-1$ | 10.04 | 1.30 | 2.60 | 43 |
| PFNS | $68259-12-1$ | 9.50 | 1.02 | 2.04 | 5 |
| PFDS | $335-77-3$ | 10.11 | 1.77 | 3.54 | 10 |
| $4: 2 F T S$ | $414911-30-1$ | 10.81 | 1.37 | 2.74 | 10 |
| $6: 2 F T S$ | $27619-97-2$ | 12.34 | 2.80 | 5.60 | 10 |
| $8: 2 F F S$ | $39108-34-4$ | 11.96 | 2.44 | 4.88 | 10 |
|  |  |  |  |  |  |

## BATTELLE DETECTION LIMITS FOR PFAS IN NON-POTABLE WATER

Analytical SOP 5-369
Extraction SOP 5-370
PFAS by LC-MS/MS Compliant with QSM 5.1 Compliant Table B-15

| Analyte | CAS No. | MDL (ng/L) | LOD (ng/L) | LOQ (ng/L) |
| :--- | :--- | :--- | :--- | :--- |
| PFBA | $375-22-4$ | 0.14 | 0.5 | 5.0 |
| PFPeA | $2706-90-3$ | 0.31 | 1.0 | 5.0 |
| PFHxA | $307-24-4$ | 0.19 | 0.5 | 5.0 |
| PFHpA | $375-85-9$ | 0.16 | 0.5 | 5.0 |
| PFOA | $335-67-1$ | 0.18 | 0.5 | 5.0 |
| PFNA | $375-95-1$ | 0.26 | 1.0 | 5.0 |
| PFDA | $335-76-2$ | 0.16 | 0.5 | 5.0 |
| PFUnA | $2058-94-8$ | 0.29 | 1.0 | 5.0 |
| PFDoA | $307-55-1$ | 0.18 | 0.5 | 5.0 |
| PFTrDA | $72629-94-8$ | 0.15 | 0.5 | 5.0 |
| PFTeDA | $376-06-7$ | 0.25 | 1.0 | 5.0 |
| NMeFOSAA | $2355-31-9$ | 0.56 | 2.0 | 5.0 |
| NEtFOSAA | $2991-50-6$ | 0.49 | 1.0 | 5.0 |
| PFOSA | $754-91-6$ | TBD | TBD | 5.0 |
| PFBS | $375-73-5$ | 0.13 | 0.5 | 5.0 |
| PFPeS | BDO-2114 | 0.67 | 2.5 | 5.0 |
| PFHxS | $355-46-4$ | 0.11 | 0.4 | 5.0 |
| PFHpS | $375-99-6$ | 0.20 | 0.5 | 5.0 |
| PFOS | $1763-23-1$ | 0.19 | 0.5 | 5.0 |
| PFNS | $98789-57-2$ | 0.46 | 1.0 | 5.0 |
| PFDS | $2806-15-7$ | 0.17 | 0.5 | 5.0 |
| 4:2FTS | BDO-2205 | 0.14 | 0.5 |  |
| 6:2FTS | $27619-97-2$ | 1.36 | 0.5 | 5 |
| 8:2FTS | $39108-34-4$ | 0.22 |  |  |
| An | Pa |  |  |  |

Analytes on NELAP and ELAP QSM 5.1 Scope of accreditation
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Analytical Transitions for PFAS in non-potable water, solid, and tissue

EPA 537 MOD DoD QSM 5.1 compliant with Table B-15 requirements

| Analyte | CAS No. | Type | Primary Transition | Secondary Transition |
| :---: | :---: | :---: | :---: | :---: |
| PFBA | 375-22-4 | Target | 213.0/169.0 | NA |
| PFPeA | 2706-90-3 | Target | 263.0 / 219.0 | NA |
| PFHxA | 307-24-4 | Target | 313.0 / 269.0 | 313.0 / 119.0 |
| PFHpA | 375-85-9 | Target | 363.0 / 319.0 | 363.0 / 169.0 |
| PFOA | 335-67-1 | Target | 413.0 / 369.0 | 413.0 / 169.0 |
| PFNA | 375-95-1 | Target | 463.0 / 419.0 | 463.0 / 219.0 |
| PFDA | 335-76-2 | Target | 513.0/469.0 | 513.0 / 219.0 |
| PFUnA | 2058-94-8 | Target | 563.0 / 519.0 | 563.0 / 269.0 |
| PFDoA | 307-55-1 | Target | 613.0 / 569.0 | 613.0 / 319.0 |
| PFTrDA | 72629-94-8 | Target | 663.0 / 619.0 | 663.0 / 169.0 |
| PFTeDA | 376-06-7 | Target | 713.0 / 669.0 | 713.0 / 169.0 |
| NMeFOSAA | 2355-31-9 | Target | 570.0 / 419.0 | $570.0 / 512.0$ |
| NEtFOSAA | 2991-50-6 | Target | 584.0 / 419.0 | 584.0 / 483.0 |
| PFOSA | 754-91-6 | Target | 498.0 / 78.0 | 498.0 / 83.0 |
| PFBS | 375-73-5 | Target | 299.0 / 80.0 | 299.0 / 99.0 |
| PFPeS | BDO-2114 | Target | 349.0 / 99.0 | 249.0 / 80.0 |
| PFHxS | 355-46-4 | Target | 399.0 / 80.0 | 399.0 / 99.0 |
| PFHpS | 375-99-6 | Target | 449.0 / 80.0 | 449.0 / 99.0 |
| PFOS | 1763-23-1 | Target | 499.0 / 80.0 | 499.0 / 99.0 |
| PFNS | 98789-57-2 | Target | 549.0 / 99.0 | 549.0 / 80.0 |
| PFDS | 2806-15-7 | Target | 599.0 / 80.0 | 599.0 / 99.0 |
| 4:2FTS | BDO-2205 | Target | 327.0 / 307.0 | 327.0 / 80.0 |
| 6:2FTS | 27619-97-2 | Target | 427.0 / 407.0 | 427.0 / 81.0 |
| 8:2FTS | 39108-34-4 | Target | $527.0 / 507.0$ | 527.0 / 487.0 |
| 13C4-PFBA | BDO-2105 | SIS ${ }^{1}$ | 217.0/172.0 | NA |
| 13C5-PFPeA | BDO-2216 | SIS ${ }^{1}$ | 268.0 / 223.0 | NA |
| 13C5-PFHxA | BDO-2217 | SIS ${ }^{1}$ | 318.0 / 273.0 | NA |


| Analyte | CAS No. | Type | Primary <br> Transition | Secondary <br> Transition |
| :--- | :--- | :--- | :---: | :---: |
| 13C4-PFHpA | BDO-2218 | SIS $^{1}$ | $367.0 / 322.0$ | NA |
| 13C8-PFOA | BDO-2219 | SIS $^{1}$ | $421.0 / 376.0$ | NA |
| 13C9-PFNA | BDO-2221 | SIS $^{1}$ | $472.0 / 427.0$ | NA |
| 13C6-PFDA | BDO-2222 | SIS $^{1}$ | $519.0 / 474.0$ | NA |
| 13C7-PFUnA | BDO-2223 | SIS $^{1}$ | $570.0 / 525.0$ | NA |
| 13C2-PFDoA | BDO-2112 | SIS $^{1}$ | $615.0 / 570.0$ | NA |
| 13C2-PFTeDA | BDO-2224 | SIS $^{1}$ | $715.0 / 670.0$ | NA |
| d3-MeFOSAA | BDO-1838 | SIS $^{1}$ | $573.0 / 419.0$ | NA |
| d5-EtFOSAA | BDO-1839 | SIS $^{1}$ | $589.0 / 419.0$ | NA |
| 13C8-FOSA | BDO-2225 | SIS $^{1}$ | $506.0 / 78.0$ | NA |
| 13C3-PFBS | BDO-2226 | SIS $^{1}$ | $302.0 / 99.0$ | NA |
| 13C3-PFHxS | BDO-2227 | SIS $^{1}$ | $402.0 / 99.0$ | NA |
| 13C8-PFOS | BDO-2228 | SIS $^{1}$ | $507.0 / 99.0$ | NA |
| 13C2-4:2FTS | BDO-2229 | SIS $^{1}$ | $329.0 / 81.0$ | NA |
| 13C2-6:2FTS | BDO-2230 | SIS $^{1}$ | $429.0 / 81.0$ | NA |
| 13C2-8:2FTS | BDO-2220 | SIS $^{1}$ | $529.0 / 81.0$ | NA |
| 13C3-PFBA | BDO-2231 | IS $^{2}$ | $216.0 / 172.0$ | NA |
| 13C2-PFOA | BDO-2107 | IS $^{2}$ | $415.0 / 370.0$ | NA |
| 13C2-PFDA | BDO-2110 | IS $^{2}$ | $515.0 / 470.0$ | NA |
| 13C4-PFOS | BDO-2121 | IS $^{2}$ | $503.0 / 99.0$ | NA |
| 1 |  |  |  |  |

${ }^{1}$ - extracted internal standard (surrogate)
${ }^{2}$ - injection internal standard

Non-Potable Water Calibration to Sample Equivalents

| ICAL $(\mathrm{ng} / \mathrm{L})$ | PIV (mL) | DF $^{1}$ | Sample Size <br> $(\mathrm{L})$ | Sample Equivalent <br> $(\mathrm{ng} / \mathrm{L})^{2}$ |
| :---: | :---: | :---: | :---: | :---: |
| 25 | 1 | 1 | 0.250 | 0.1 |
| 50 | 1 | 1 | 0.250 | 0.2 |
| 100 | 1 | 1 | 0.250 | 0.4 |
| 250 | 1 | 1 | 0.250 | 1.0 |
| 500 | 1 | 1 | 0.250 | 2.0 |
| 1,000 | 1 | 1 | 0.250 | 4.0 |
| 2,500 | 1 | 1 | 0.250 | 10.0 |
| 10,000 | 1 | 1 | 0.250 | 40.0 |
| 20,000 | 1 | 1 | 0.250 | 80.0 |

${ }^{1}$ - base level dilution as part of the extraction procedure
${ }^{2}$ - calculated equivalent of a sample based on the ICAL concentration

# QTRAP 5500 <br> Preventive Maintenance Checklist 

| Preventive Maintenance Date: | 13-Dec-2018 |
| :--- | :---: |
| Request ID: | 12358 |
| Company Name: | Battelle Memorial Institute |
| Instrument ID: | Instrument AC |
| Instrument Model: | QTrap 5500 |
| Instrument Serial Number: | AU 23051004 |

$\square$ PASS
$\square$ FAIL
Any failure will lead to an automatic Service Call being open to investigate fault.
Preventive Maintenance is performed twice every year unless specified in the Service Contract. It is designed to help maintain optimum system performance and to help diagnose any system deficiencies.

Engineer is required the assigned Request ID for this PM otherwise making this job invalid.
Comments: $\qquad$
$\qquad$
$\qquad$

Performed By: $\qquad$ Date: $\qquad$ 13-Dec-2018 Approved By $\qquad$ Date: $\qquad$
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# QTRAP 5500 

## PRE PM PPG PERFORMANCE EVALUATION:

$\checkmark$ Consult Customer concerning the unit overall performance.
$\square$ Check Logbook for Services recently performed.
$\square$ Check Vacuum Pressure:

| CAD Settings | Vacuum Reading <br> $\left(\times \mathbf{1 0} \mathbf{0}^{-5}\right.$ $\left.\mathbf{~ o r r}\right)$ | Acceptance Criteria |
| :--- | :---: | :---: |
| $\square$ CAD 0 | 0.5 | 0.4 to $1.1 \times 10^{-5}$ Torr |
| $\square$ CAD Low | 1.2 | Read Only |
| $\square$ CAD Medium | 3.3 | Read Only |
| $\square$ CAD High | 4.1 | Read Only |
| $\square$ CAD 12 | 4.1 | 2.4 to $4.5 \times 10^{-5}$ Torr |

$\checkmark$ Check for Front end contamination symptoms. Run Q1 POS PPG using PPG 2e-7for a few minutes and check for any TIC signal degradation or huge sensitivity drop where the sensitivity result can't pass specification
$\checkmark$ No degradation or Sensitivity drop
1 Check for Q3 contamination symptoms. Run Q3 POS PPG using PPG 2e-7for a few minutes and check for any TIC signal degradation or huge sensitivity drop where the sensitivity result can't pass specification

No degradation or Sensitivity drop
Pre PM PPG Test: Perform each of the following tests. Optimize ion source position only. The specifications listed for these Pre PM tests are guidelines only, not required to be met.
$\checkmark$ Perform Q1 POS using POS PPG 2e-7M. Scan Rate $10 \mathrm{Da} / \mathrm{s}$. Record 10 mca .

| Mass | Q1 Intensity |  | Q1 Width <br> Value | Width Specs |
| :---: | :---: | :---: | :---: | :---: |
|  | Value | Spec |  |  |
| Q1 175.133 | 3.02 e6 | Read Only | 0.9336 | Read Only |
| Q1 500.380 | 1.70 e7 | Read Only | 0.9827 | Read Only |
| Q1 906.673 | 2.56 e7 | Read Only | 1.0305 | Read Only |

Perform Q3 POS using POS PPG 2e-7M. Scan Rate 10 Da .s. Record 10 mca .

| Mass | Q3 Intensity |  | Q3 Width | Width Specs |
| :---: | :---: | :---: | :---: | :---: |
|  | Value | Spec |  |  |
| Q3 175.133 | 2.90 e6 | Read Only | 0.6413 | Read Only |
| Q3 500.380 | 1.43 e7 | Read Only | 0.7689 | Read Only |
| Q3 906.673 | 2.17 e7 | Read Only | 0.7984 | Read Only |

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Perform MSMS POS in Product Ion scan with 609.3 parent and record daughter 195.1 using Reserpine $0.167 \mathrm{pmol} / \mathrm{ul}$ at the scan rate of $10 \mathrm{Da} / \mathrm{s}$ for 10 MCA . Calculate transmission efficiency comparing Q1POS 609 intensity. Transmission Efficiency: : 31.42\% (Read Only)

| Mass | MSMS Intensity |  | MSMS Width Value | Width Specs |
| :---: | :---: | :---: | :---: | :---: |
|  | Value | Spec |  |  |
| Q1 609.3 | 2.18 e 7 | Read Only | 0.8899 | Read Only |
| MS/MS 195.1 | 6.85 e 6 | Read Only | 0.6696 |  |

$\checkmark$ Perform Q1 NEG using NEG PPG 3e-5M. Scan Rate 10 Da/s. Record 10 mca.

| Mass | Q1 Intensity |  | Q1 Width <br>  <br>  <br> Value | Width Specs |
| :---: | :---: | :---: | :---: | :---: |
|  | 4.27 e6 | Read Only |  |  |

Perform Q3 NEG using NEG PPG 3e-5M. Scan Rate 10 Da/s. Record 10 mca.

| Mass | Q3 Intensity |  | Q3 Width <br> Value | Width Specs |
| :---: | :---: | :---: | :---: | :---: |
|  | Value | Spec |  |  |
| Q3 933.636 | 5.71 e6 | Read Only | 0.7457 | Read Only |

Perform Product Ion scan using NEG PPG 3e-5M. Record10mca.

| Mass | Scan Rate | MCA | MSMS Intensity |  | MSMS | Width Specs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Value | Spec | Width Value |  |
| MSMS 45 | 10 | 10 | 8.82 e5 | Read Only | 0.6745 | Read Only |

## PREVENTIVE MAINTENANCE CHECKLIST:

$\qquad$ Check Cooling Fans for Turbo Pumps while MS is ON.Check QJet and QPS tuning voltage for reference.
Record AC input Voltage while MS is OFF: $\qquad$ (200-240VAC). If Out-of-Range, notify customer.
$\checkmark$ Clean Interface
$\checkmark$ Curtain Plate
Orifice Plate
QJet
Q0 Rods.
$\checkmark$ Replace Roughing Pump Oil.
$\checkmark$ Inspect Oil Exhaust Filter, if Applicable.
$\square$ N/A
$\checkmark$ Clean and inspect built-in divert valve if used.
$\checkmark$ Check Multiplier Voltage, optimize if necessary.
$\checkmark$ Replace four Air Filters at the bottom of the mass spectrometer.
$\square$ Pump down overnight if possible.
$\square$ Perform Maintenance on Turbo V source.
$\square$ Replace Electrode, if necessary.
$\checkmark$ Check Turbo heaters resistances.
$\square$ Check if Temperature is reached at 500C with TIS Probe installed.
$\square$ Check if Temperature is reached at 500 C with APCI Probe installed. $\square \mathrm{N} / \mathrm{A}$

# QTRAP 5500 

LC/MS/MS Detector System
1975 Hymus Blvd.
Appendix ZEFPM003-2L

## POST PM PPG PERFORMANCE TESTS:

$\square$ Set-up Sample for Infusion.
$\checkmark$ Check spray and adjust sprayer's position of the TIS source.
$\square$ Check Vacuum Pressure:

| CAD Settings | Vacuum Reading ( $\times 10^{-5}$ Torr) | Acceptance Criteria |
| :---: | :---: | :---: |
| $\checkmark$ CAD 0 | 0.6 | 0.4 to $1.1 \times 10^{-5}$ Torr |
| $\square$ CAD Low | 1.2 | Read Only |
| [ ${ }^{\text {r CAD }}$ CAD Medium | 3.3 | Read Only |
| $\square$ CAD High | 4.1 | Read Only |
| ( CAD 12 | 4.1 | 2.4 to $4.5 \times 10^{-5}$ Torr |

$\checkmark$ Perform Q1 POS using POS PPG 2e-7M. Mass calibrate to less than 0.1 amu .

| Mass | Q1 Intensity |  | Q1 Width <br> Value | Width Specs |
| :---: | :---: | :---: | :---: | :---: |
|  | Value | Spec |  |  |
| Scan |  |  |  |  |
| Q1 175.133 | 4.47 e 6 | $\geq 1.2^{\mathrm{e}} 6$ | 0.7356 | 0.6 to 0.8 |
| Q1 500.380 | 2.51 e 7 | $\geq 9.0^{\mathrm{e}} 6$ | 0.7263 | 0.6 to 0.8 |
| Q1 906.673 | 3.04 e 7 | $\geq 1.4^{\mathrm{e}} 7$ | 0.7080 | 0.6 to 0.8 |
| Scan Rate 1000 Da/s Record 50 mca |  |  |  |  |
| Q1 906.673 | 1.57 e 8 | $\geq 6.8^{\mathrm{e}} 7$ | 0.6639 | 0.6 to 0.8 |

$\checkmark$ Perform Q3 POS using POS PPG 2e-7M. Mass calibrate to less than 0.1 amu .

| Mass | Q3 Intensity |  | Q3 Width <br> Value | Width Specs |
| :---: | :---: | :---: | :---: | :---: |
|  | Value | Spec |  |  |
| Scan Rate $10 \mathrm{Da} / \mathrm{s}$ Record 10 mca |  |  |  |  |
| Q3 175.133 | 4.30 e 6 | $\geq 1.2^{\mathrm{e}} 6$ | 0.6905 | 0.6 to 0.8 |
| Q3 500.380 | 2.33 e 7 | $\geq 9.0^{\mathrm{e}} 6$ | 0.7752 | 0.6 to 0.8 |
| Q3 906.673 | 3.51 e 7 | $\geq 1.4^{\mathrm{e}} 7$ | 0.7682 | 0.6 to 0.8 |
| Scan Rate $1000 \mathrm{Da} / \mathrm{s}$ Record 50 mca |  |  |  |  |
| Q3 906.673 | 1.58 e 8 | $\geq 6.8^{\mathrm{e}} 7$ | 0.7088 | 0.6 to 0.8 |

$\checkmark$ Perform "Product of 609.3 " POS and record product ion 195.1 using Reserpine 0.167 pmol/uL. Record 10 mca . Calculate Transmission efficiency comparing Q1POS 609 intensity.
Transmission Efficiency: 16.76\% ( $\geq 10.0 \%$ )

| Mass | MSMS Intensity |  | Width <br> Value | Width Specs |
| :---: | :---: | :---: | :---: | :---: |
|  | Value | Spec |  |  |
| Q1 609.3 | 6.74 e7 | N/A | 0.7430 | Read Only |
| MS/MS 195.1 | 1.13 e7 | N/A | 0.7152 | Read Only |

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Appendix ZEFPM003-2L
$\checkmark$ Perform Q1 NEG using NEG PPG 3e-5M. Mass calibrate to less than 0.1 amu.

| Mass | Scan Rate | Mca | Q1 Intensity |  | Q1 Width <br> Value | Width Specs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Value | Spec |  |  |
| Q1 933.636 | 10 | 10 | 1.25 e 7 | $\geq 1.0^{\circ} 7$ | 0.7544 | 0.6 to 0.8 |
| Q1 933.636 | 1000 | 50 | 7.51 e 7 | $\geq 4.0^{\circ} 7$ | 0.7671 | 0.6 to 0.8 |

$\checkmark$ Perform Q3 NEG using NEG PPG 3e-5M. Mass calibrate to less than 0.1 amu.

| Mass | Scan Rate | Mca | Q3 Intensity |  | Q3 Width | Width Specs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Value | Spec |  |  |
| Q3 933.636 | 10 | 10 | 2.10 e 7 | $\geq 8.0^{\circ} 6$ | 0.7313 | 0.6 to 0.8 |
| Q3 933.636 | 1000 | 50 | 8.17 e 7 | $\geq 4.0^{\circ} 7$ | 0.7088 | 0.6 to 0.8 |

Perform Product lon scan using NEG PPG 3e-5M.

| Mass | Scan Rate | Mca | MSMS Intensity |  | MSMS Width |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Width Specs |  |  |  |
| MSMS 45 | 10 | 10 | 2.97 e6 | Read Only | 0.6850 | Read Only |

$\checkmark$ Perform ER POS 118.087 and 922.01 using ESI Tuning Mix 1:100 in ES Tuning Dilution Solvent. Apply suggested Scan Rate and Record number of MCA. Mass calibrate to less than 0.1 amu .

| Mass | Fill Time <br> $(\mathbf{m s})$ | ER Intensity |  |  |  |  | ER Width | Width Specs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Spec | Value |  |  |  |  |  |
| ER 118.087 | 0.05 | 1.03 e 7 | $\geq 7.2^{\mathrm{e}} 6$ | 0.1483 | $<0.35$ |  |  |  |
| ER 922.010 | 0.05 | 5.37 e 7 | $\geq 2.8^{\mathrm{e}} 6$ | 0.2138 | $<0.35$ |  |  |  |
| ScanRate $: 10000 \mathrm{Da} / \mathrm{s} ; 50 \mathrm{Mca}$ |  |  |  |  |  |  |  |  |
| ER 118.087 | 0.05 | 2.80 e 7 | $\geq 2.4^{\mathrm{e}} 7$ | 0.4635 | $<0.65$ |  |  |  |
| ER 922.010 | 0.05 | 1.33 e 8 | $\geq 6.8^{\mathrm{e}} 7$ | 0.6022 | $<0.65$ |  |  |  |

Perform ER NEG 431.982 and 601.978 using ESI Tuning Mix 1:100 in ES Tuning Dilution Solvent. Apply suggested Scan Rate and Record number of MCA. Mass calibrate to less than 0.1 amu.

| Mass | Fill Time(ms) | ER Intensity |  | ER WidthValue | Width Specs |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Value | Spec |  |  |
| ScanRate : $1000 \mathrm{Da} / \mathrm{s}$; 50 Mca |  |  |  |  |  |
| ER 431.982 | 0.05 | 3.53 e8 | $\geq 4.4{ }^{\text {e }} 7$ | 0.1869 | <0.35 |
| ER 601.978 | 0.05 | 3.46 e8 | $\geq 5.6{ }^{\text {e }} 7$ | 0.1883 | <0.35 |
| ScanRate : $10000 \mathrm{Da} / \mathrm{s} ; 50 \mathrm{Mca}$ |  |  |  |  |  |
| ER 431.982 | 0.05 | 1.08 e9 | $\geq 1.2{ }^{\text {e }} 8$ | 0.4373 | <0.65 |
| ER 601.978 | 0.05 | 1.25 e9 | $\geq 1.6{ }^{\text {e }} 8$ | 0.4196 | <0.65 |

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## QTRAP 5500 <br> LC/MS/MS Detector System

Appendix ZEFPM003-2L

| Mass | Scan Rate (Da/s) | Q0 Trapping OFF |  | Q0 Trapping ON |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Intensity | Spec | Intensity | Spec |
| EPI 397.2 | 10000 | > 2.8 e6 | $\geq 2.0{ }^{\text {e }} 6$ | > 1.0 e7 | $\geq 6.4{ }^{\text {e }} 6$ |

Perform MS3 POS full scan Fragmentation ON \& OFF using Reserpine 0.167pmol/uL. Record 20 mca .

| Mass | Scan Rate <br> $(\mathrm{Da} / \mathbf{s})$ | Fragamentation OFF |  | Fragmentation ON |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Spec | Intensity | Spec |  |
| MS3 397.2 | 1000 | Yes | Contains only 397.2 | N/A | N/A |
| $\square 236$ OR $\square 365$ | 1000 | Yes | Fragment Intensity | $>4.5$ e6 | $\geq 1.6 \times 10^{\mathrm{e}} 6$ |

## REVIEW:

Attach all spectrums printouts to this procedure.If any parameter setting access modes were changed during the PM, ensure they are returned to their normal access mode and that their offsets are adjusted to match optimized values from the post-PM acquisition files.$\square$ Empty tuning cache folder, if necessary
$\checkmark$ Update Service Work Order statusFill and replace PM Label.

## END OF PREVENTIVE MAINTENANCE CHECKLIST

## Document history:

06 OCT 2016: Appendix ZEFPM003-2L: Removed requirements to fit Manufacturer's testing criteria.

| Battelle Standard ID | Description | Intermediate Solutions |  |  | Battelle Reagent ID (purchased solutions) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| KE95 | PFAS - DoD Low Level Labelled Extracted Internal Standards (SIS) | KE94 | - | - | 181130-01 |
| KE95 | PFAS - DoD Low Level Labelled Extracted Internal Standards (SIS) | KE94 | KE92 | - | 181203-06 |
| KF43 | PFAS - IR\&D Combined LCS Solution | KE60 | - | - | 181203-02 |
| KF43 | PFAS - IR\&D Combined LCS Solution | KE60 | - | - | 181203-04 |
| KF43 | PFAS - IR\&D Combined LCS Solution | KE60 | - | - | 181203-01 |
| KF43 | PFAS - IR\&D Combined LCS Solution | KE60 | - | - | 181203-08 |
| KF43 | PFAS - IR\&D Combined LCS Solution | KE60 | - | - | 181203-03 |
| KF43 | PFAS - IR\&D Combined LCS Solution | - | - | - | 181017-02 |
| KF43 | PFAS - IR\&D Combined LCS Solution | KE60 | - | - | 181203-07 |
| KF43 | PFAS - IR\&D Combined LCS Solution | KE60 | - | - | 181203-05 |
| KE96 | PFAS - DoD Internal Standard Spiking Solution | KE93 | - | - | 180913-05 |
| KF34 | PFAS - DoD Calibration L1 | KE42 | - | - | 181017-01 |
| KF34 | PFAS - DoD Calibration L1 | KE93 | - | - | 180913-05 |
| KF34 | PFAS - DoD Calibration L1 | KE94 | - | - | 181130-01 |
| KF34 | PFAS - DoD Calibration L1 | KE73 | KE72 | KE61 | 181203-07 |
| KF34 | PFAS - DoD Calibration L1 | KE73 | KE72 | KE61 | 181203-08 |
| KF34 | PFAS - DoD Calibration L1 | KE73 | KE72 | KE61 | 181203-02 |
| KF34 | PFAS - DoD Calibration L1 | KE73 | KE72 | KE61 | 181203-03 |
| KF34 | PFAS - DoD Calibration L1 | KE73 | KE72 | KE61 | 181203-04 |
| KF34 | PFAS - DoD Calibration L1 | KE73 | KE72 | KE61 | 181203-05 |
| KF34 | PFAS - DoD Calibration L1 | KE73 | KE72 | KE61 | 181203-01 |
| KF34 | PFAS - DoD Calibration L1 | KE94 | KE92 | - | 181203-06 |
| KF35 | PFAS - DoD Calibration L2 | KE94 | KE92 | - | 181203-06 |
| KF35 | PFAS - DoD Calibration L2 | KE73 | KE72 | KE61 | 181203-01 |
| KF35 | PFAS - DoD Calibration L2 | KE73 | KE72 | KE61 | 181203-05 |
| KF35 | PFAS - DoD Calibration L2 | KE73 | KE72 | KE61 | 181203-04 |
| KF35 | PFAS - DoD Calibration L2 | KE73 | KE72 | KE61 | 181203-03 |
| KF35 | PFAS - DoD Calibration L2 | KE73 | KE72 | KE61 | 181203-02 |
| KF35 | PFAS - DoD Calibration L2 | KE73 | KE72 | KE61 | 181203-08 |
| KF35 | PFAS - DoD Calibration L2 | KE73 | KE72 | KE61 | 181203-07 |
| KF35 | PFAS - DoD Calibration L2 | KE94 | - | - | 181130-01 |
| KF35 | PFAS - DoD Calibration L2 | KE93 | - | - | 180913-05 |
| KF35 | PFAS - DoD Calibration L2 | KE42 | - | - | 181017-01 |
| KF36 | PFAS - DoD Calibration L3 | KE93 | - | - | 180913-05 |
| KF36 | PFAS - DoD Calibration L3 | KE94 | - | - | 181130-01 |
| KF36 | PFAS - DoD Calibration L3 | KE94 | KE92 | - | 181203-06 |
| KF36 | PFAS - DoD Calibration L3 | KE41 | - | - | 181017-01 |
| KF36 | PFAS - DoD Calibration L3 | KE72 | KE61 | - | 181203-01 |
| KF36 | PFAS - DoD Calibration L3 | KE72 | KE61 | - | 181203-02 |
| KF36 | PFAS - DoD Calibration L3 | KE72 | KE61 | - | 181203-03 |
| KF36 | PFAS - DoD Calibration L3 | KE72 | KE61 | - | 181203-04 |
| KF36 | PFAS - DoD Calibration L3 | KE72 | KE61 | - | 181203-05 |
| KF36 | PFAS - DoD Calibration L3 | KE72 | KE61 | - | 181203-07 |
| KF36 | PFAS - DoD Calibration L3 | KE72 | KE61 | - | 181203-08 |
| KF37 | PFAS - DoD Calibration L4 | KE72 | KE61 | - | 181203-08 |
| KF37 | PFAS - DoD Calibration L4 | KE72 | KE61 | - | 181203-07 |
| KF37 | PFAS - DoD Calibration L4 | KE72 | KE61 | - | 181203-05 |
| KF37 | PFAS - DoD Calibration L4 | KE72 | KE61 | - | 181203-04 |
| KF37 | PFAS - DoD Calibration L4 | KE72 | KE61 | - | 181203-03 |
| KF37 | PFAS - DoD Calibration L4 | KE72 | KE61 | - | 181203-02 |
| KF37 | PFAS - DoD Calibration L4 | KE72 | KE61 | - | 181203-01 |
| KF37 | PFAS - DoD Calibration L4 | KE41 | - | - | 181017-01 |
| KF37 | PFAS - DoD Calibration L4 | KE94 | KE92 | - | 181203-06 |
| KF37 | PFAS - DoD Calibration L4 | KE94 | - | - | 181130-01 |
| KF37 | PFAS - DoD Calibration L4 | KE93 | - | - | 180913-05 |
| KF38 | PFAS - DoD Calibration L5 | KE93 | - | - | 180913-05 |
| KF38 | PFAS - DoD Calibration L5 | KE94 | - | - | 181130-01 |
| KF38 | PFAS - DoD Calibration L5 | KE94 | KE92 | - | 181203-06 |


| Battelle Standard ID | Description | Intermediate Solutions |  |  | Battelle Reagent ID (purchased solutions) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| KF38 | PFAS - DoD Calibration L5 | KE41 | - | - | 181017-01 |
| KF38 | PFAS - DoD Calibration L5 | KE72 | KE61 | - | 181203-01 |
| KF38 | PFAS - DoD Calibration L5 | KE72 | KE61 | - | 181203-02 |
| KF38 | PFAS - DoD Calibration L5 | KE72 | KE61 | - | 181203-03 |
| KF38 | PFAS - DoD Calibration L5 | KE72 | KE61 | - | 181203-04 |
| KF38 | PFAS - DoD Calibration L5 | KE72 | KE61 | - | 181203-05 |
| KF38 | PFAS - DoD Calibration L5 | KE72 | KE61 | - | 181203-07 |
| KF38 | PFAS - DoD Calibration L5 | KE72 | KE61 | - | 181203-08 |
| KF39 | PFAS - DoD Calibration L6 | KE72 | KE61 | - | 181203-08 |
| KF39 | PFAS - DoD Calibration L6 | KE72 | KE61 | - | 181203-07 |
| KF39 | PFAS - DoD Calibration L6 | KE72 | KE61 | - | 181203-05 |
| KF39 | PFAS - DoD Calibration L6 | KE72 | KE61 | - | 181203-04 |
| KF39 | PFAS - DoD Calibration L6 | KE72 | KE61 | - | 181203-03 |
| KF39 | PFAS - DoD Calibration L6 | KE72 | KE61 | - | 181203-02 |
| KF39 | PFAS - DoD Calibration L6 | KE72 | KE61 | - | 181203-01 |
| KF39 | PFAS - DoD Calibration L6 | KE94 | KE92 | - | 181203-06 |
| KF39 | PFAS - DoD Calibration L6 | KE41 | - | - | 181017-01 |
| KF39 | PFAS - DoD Calibration L6 | KE94 | - | - | 181130-01 |
| KF39 | PFAS - DoD Calibration L6 | KE93 | - | - | 180913-05 |
| KF40 | PFAS - DoD Calibration L7 | KE94 | - | - | 181130-01 |
| KF40 | PFAS - DoD Calibration L7 | KE41 | - | - | 181017-01 |
| KF40 | PFAS - DoD Calibration L7 | KE93 | - | - | 180913-05 |
| KF40 | PFAS - DoD Calibration L7 | KE94 | KE92 | - | 181203-06 |
| KF40 | PFAS - DoD Calibration L7 | KE72 | KE61 | - | 181203-01 |
| KF40 | PFAS - DoD Calibration L7 | KE72 | KE61 | - | 181203-02 |
| KF40 | PFAS - DoD Calibration L7 | KE72 | KE61 | - | 181203-03 |
| KF40 | PFAS - DoD Calibration L7 | KE72 | KE61 | - | 181203-04 |
| KF40 | PFAS - DoD Calibration L7 | KE72 | KE61 | - | 181203-05 |
| KF40 | PFAS - DoD Calibration L7 | KE72 | KE61 | - | 181203-07 |
| KF40 | PFAS - DoD Calibration L7 | KE72 | KE61 | - | 181203-08 |
| KF41 | PFAS - DoD Instrument Blank | KE94 | KE92 | - | 181203-06 |
| KF41 | PFAS - DoD Instrument Blank | KE93 | - | - | 180913-05 |
| KF41 | PFAS - DoD Instrument Blank | KE94 | - | - | 181130-01 |
| KF42 | PFAS - DoD ICC | KE94 | - | - | 181130-01 |
| KF42 | PFAS - DoD ICC | KF43 | - | - | 181017-02 |
| KF42 | PFAS - DoD ICC | KE93 | - | - | 180913-05 |
| KF42 | PFAS - DoD ICC | KE94 | KE92 | - | 181203-06 |
| KF42 | PFAS - DoD ICC | KF43 | KE60 | - | 181203-01 |
| KF42 | PFAS - DoD ICC | KF43 | KE60 | - | 181203-02 |
| KF42 | PFAS - DoD ICC | KF43 | KE60 | - | 181203-04 |
| KF42 | PFAS - DoD ICC | KF43 | KE60 | - | 181203-03 |
| KF42 | PFAS - DoD ICC | KF43 | KE60 | - | 181203-05 |
| KF42 | PFAS - DoD ICC | KF43 | KE60 | - | 181203-07 |
| KF42 | PFAS - DoD ICC | KF43 | KE60 | - | 181203-08 |

It can be done
BATTELLE - NORWELL OPERATIONS SAMPLE PREPARATION RECORDS

## Project Title(s)

## Project No.(s)

CTO-WE21: Former Naval Air Station, Brunswick, Maine 100122108-
CTOWE21
18-0718
CTO-WE21: Former Naval Air Station, Brunswick, Maine GW, QC

SOP Numbers (see workplan for modifications)
ExtractionSOP No. 5-370

This Batch Contains The Following Samples:

| CS469PB-FS | J9990-FS | J9994-FS |
| :--- | :--- | :--- |
| CS470LCS-FS | J9991-FS | J9995-FS |
| I0064-FS | J9992-FS | J9996-FS |
| J9987-FS | J9992MS-FS | J9997-FS |
| J9988-FS | J9992MSD-FS | J9998-FS |
| J9989-FS | J9993-FS | J9999-FS |

Laboratory Preparation Records
COMPLETE AND VALIDATED

Prep Task Leader: Stephanie Schultz

| Approved By: | Date | Initials |
| :--- | :--- | :--- |
| Denise Schumitz | $12 / 21 / 2018$ | DMS |

It can be done

## BATTELLE - NORWELL OPERATIONS SAMPLE IDENTIFICATION PAGE

## Project Title(s)

## Project No.(s)

CTO-WE21: Former Naval Air Station, Brunswick, Maine 100122108-
CTOWE21
18-0718
CTO-WE21: Former Naval Air Station, Brunswick, Maine GW, QC

| Sample ID | Description |
| :--- | :--- |
| CS469PB-FS | Procedural Blank |
| CS470LCS-FS | Laboratory Control Sample |
| I0064-FS | NASB-CW-GW03-1218 |
| J9987-FS | NASB-CW-GW04-1218 |
| J9988-FS | NASB-CW-DUP-120618 |
| J9989-FS | NASB-CW-GW-FB01-120618 |
| J9990-FS | NASB-CW-GW-RB01-120618 |
| J9991-FS | NASB-CW-GW01S-1218 |
| J9992-FS | NASB-CW-GW01D-1218 |
| J9992MS-FS | Matrix Spike of NASB-CW-GW01D-1218 |
| J9992MSD-FS | Matrix Spike Duplicate of NASB-CW-GW01D-1218 |
| J9993-FS | NASB-CW-GW02-1218 |
| J9994-FS | MW-09-204-1218 |
| J9995-FS | MW-B250-07-1218 |
| J9996-FS | MW-09-22-1218 |
| J9997-FS | MW-09-004-1218 |
| J9998-FS | MW-NASB-072-1218 |
| J9999-FS | NASB-09-GW-FB01-120618 |

Samples Assigned By:
Jonathan Thorn
Date : December 10, 2018

Comments:

It can be done

# BATTELLE - NORWELL OPERATIONS <br> LIQUID SAMPLE ID FORM 

Project Title(s)
Project No.(s)
CTO-WE21: Former Naval Air Station, Brunswick, Maine 100122108-
CTOWE21
18-0718
CTO-WE21: Former Naval Air Station, Brunswick, Maine GW, QC

| Sample ID | Description | Volume (mL) | Bottles | * | Date Initials |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CS469PB-FS | Procedural Blank | 250.0 | NA | -- | 12/13/18 KB |
| CS470LCS-FS | Laboratory Control Sample | 250.0 | NA | -- | 12/13/18 KB |
| I0064-FS | NASB-CW-GW03-1218 | 275.0 | 1 | C | 12/17/18 SAS |
| J9987-FS | NASB-CW-GW04-1218 | 265.0 | 1 | C | 12/17/18 SAS |
| J9988-FS | NASB-CW-DUP-120618 | 275.0 | 1 | C | 12/17/18 SAS |
| J9989-FS | NASB-CW-GW-FB01-120618 | 260.0 | 1 | C | 12/17/18 SAS |
| J9990-FS | NASB-CW-GW-RB01-120618 | 285.0 | 1 | C | 12/17/18 SAS |
| J9991-FS | NASB-CW-GW01S-1218 | 285.0 | 1 | C | 12/17/18 SAS |
| J9992-FS | NASB-CW-GW01D-1218 | 290.0 | 1 | C | 12/17/18 SAS |
| J9992MS-FS | Matrix Spike | 285.0 | 3 | C | 12/17/18 SAS |
| J9992MSD-FS | Matrix Spike Duplicate | 285.0 | 5 | C | 12/17/18 SAS |
| J9993-FS | NASB-CW-GW02-1218 | 275.0 | 1 | C | 12/17/18 SAS |
| J9994-FS | MW-09-204-1218 | 275.0 | 1 | C | 12/17/18 SAS |
| J9995-FS | MW-B250-07-1218 | 280.0 | 1 | C | 12/17/18 SAS |
| J9996-FS | MW-09-22-1218 | 270.0 | 1 | C | 12/17/18 SAS |
| J9997-FS | MW-09-004-1218 | 270.0 | 1 | C | 12/17/18 SAS |
| J9998-FS | MW-NASB-072-1218 | 275.0 | 1 | C | 12/17/18 SAS |
| J9999-FS | NASB-09-GW-FB01-120618 | 265.0 | 1 | C | 12/17/18 SAS |

Comments:

Samples Assigned By
Jonathan Thorn
Date : December 10, 2018

*     - "C" = Sample is Consumed

It can be done
BATTELLE - NORWELL OPERATIONS SURROGATE SPIKE FORM

## Project Title(s)

## Project No.(s)

CTO-WE21: Former Naval Air Station, Brunswick, Maine 100122108-
CTOWE21

## 18-0718

## CTO-WE21: Former Naval Air Station, Brunswick, Maine GW, QC

| Sample ID | Standard <br> ID | Type | Vial <br> No. | Vol Added <br> $(u L)$ | Date Spiked/ <br> Spiked By | Witn'd <br> By | Comment |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS469PB-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| CS470LCS-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| CS470LCS-FS | KF43 | LCS/MS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| I0064-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9987-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9988-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9989-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9990-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9991-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9992-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9992MS-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9992MS-FS | KF43 | LCS/MS | 1 | 150 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9992MSD-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9992MSD-FS | KF43 | LCS/MS | 1 | 150 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9993-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9994-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9995-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9996-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9997-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9998-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |
| J9999-FS | KE95 | SIS | 1 | 50 | $12 / 13 / 18 \mathrm{~KB}$ | SAS | NA |

It can be done

## BATTELLE - NORWELL OPERATIONS INTERNAL STANDARD SPIKING FORM

## Project Title(s)

## Project No.(s)

CTO-WE21: Former Naval Air Station, Brunswick, Maine 100122108-
CTOWE21

## 18-0718

## CTO-WE21: Former Naval Air Station, Brunswick, Maine GW, QC

## (N/A Fraction)

| Extract Id <br> Vol. (uL) | Added <br> $(\mathrm{uL})$ | Std. Id | Accm <br> $\cdot(\mathrm{uL})$ | Vial <br> No. | Pre Inj. <br> Vol. (uL) | Final <br> Dilution | Date Spiked/ <br> Spiked By | Witn'd <br> By |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS469PB-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| CS470LCS-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| I0064-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| I0064-FS-D(3) | 955 | 45 | KE96 | 50 | 1 | 1000 | 10.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9987-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9987-FS-D(3) | 960 | 40 | KE96 | 50 | 1 | 1000 | 5.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9988-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9988-FS-D(3) | 975 | 25 | KE96 | 50 | 1 | 1000 | 2.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9989-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9990-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9990-FS-D(3) | 970 | 30 | KE96 | 50 | 1 | 1000 | 2.500 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9991-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9991-FS-D(3) | 975 | 25 | KE96 | 50 | 1 | 1000 | 2.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9992-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9992MS-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9992MSD-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9993-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9994-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9995-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |

*     - Final Dilution is any HPLC, dilutions, or other manipulation
$\wedge$ - Pre Injection Volume (PIV) includes any RIS spikes.

It can be done

## BATTELLE - NORWELL OPERATIONS INTERNAL STANDARD SPIKING FORM

## Project Title(s)

## Project No.(s)

CTO-WE21: Former Naval Air Station, Brunswick, Maine 100122108-
CTOWE21
18-0718

## CTO-WE21: Former Naval Air Station, Brunswick, Maine GW, QC

(N/A Fraction)

| Extract Id | Extr. <br> Vol. (uL) | Added <br> $(\mathrm{uL})$ | Std. Id | Accm <br> $\cdot(\mathrm{uL})$ | Vial <br> No. | Pre Inj. <br> Vol. (uL) | Final <br> Dilution <br> $*$ | Date Spiked/ <br> Spiked By | Witn'd <br> By |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| J9995-FS-D(3) | 975 | 25 | KE96 | 50 | 1 | 1000 | 2.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9996-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9997-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9997-FS-D(3) | 975 | 25 | KE96 | 50 | 1 | 1000 | 2.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9998-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9998-FS-D(3) | 975 | 25 | KE96 | 50 | 1 | 1000 | 2.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9999-FS(0) | 950 | 50 | KE96 | 50 | 1 | 1000 | 1.000 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |

Syringes/Pipettes Used:

| Std ID | Type | Syr/Pip |
| :---: | :--- | :---: |
| KE95 | Pipette | B814659662 |
| KE96 | Pipette | B814659662 |

*     - Final Dilution is any HPLC, dilutions, or other manipulation
$\wedge$ - Pre Injection Volume (PIV) includes any RIS spikes.


## It can be done

# BATTELLE - NORWELL OPERATIONS EXTRACT SPIKE FORM 

## Project Title(s)

## Project No.(s)

CTO-WE21: Former Naval Air Station, Brunswick, Maine 100122108-
CTOWE21
18-0718

## CTO-WE21: Former Naval Air Station, Brunswick, Maine GW, QC

| Extract Id | DF | Std. <br> ID | Type | Vial <br> No. | Vol. <br> Added <br> $(\mathrm{uL})$ | Conc <br> $(\mathrm{ug} / \mathrm{mL})$ | Added <br> $(\mathrm{ng})$ | Date Spiked/ <br> Spiked By | Witn'd <br> By |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I0064-FS-D(3) | 10 | KE95 | SIS | 1 | 45 | 0 | 0 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9987-FS-D(3) | 5 | KE95 | SIS | 1 | 40 | 0 | 0 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9988-FS-D(3) | 2 | KE95 | SIS | 1 | 25 | 0 | 0 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9990-FS-D(3) | 2.5 | KE95 | SIS | 1 | 30 | 0 | 0 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9991-FS-D(3) | 2 | KE95 | SIS | 1 | 25 | 0 | 0 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9995-FS-D(3) | 2 | KE95 | SIS | 1 | 25 | 0 | 0 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9997-FS-D(3) | 2 | KE95 | SIS | 1 | 25 | 0 | 0 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |
| J9998-FS-D(3) | 2 | KE95 | SIS | 1 | 25 | 0 | 0 | $12 / 17 / 18 \mathrm{~KB}$ | LMG |

Syringes/Pipettes Used:

| Std ID | Type | Syr/Pip |
| :---: | :--- | :---: |
| KE95 | Pipette | B814659662 |
| KE96 | Pipette | B814659662 |

## BATIELIE

It can be done
BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

## Project Title(s)

CTO-WE21: Former Naval Air Station, Brunswick, Maine

## Project No.(s)

100122108-
CTOWE21

18-0718
CTO-WE21: Former Naval Air Station, Brunswick, Maine

## GW, QC

| Extract |  | * | Extract Date | Source |  | Initial Extract Vol (uL) | Extract Split | Extract Split | Total Dilution | Date/Initials |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name | \# |  |  | Name | \# |  |  |  |  |  |
| CS469PB-FS | 0 | -- | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |
| CS470LCS-FS | 0 | -- | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |
| I0064-FS | 0 | C | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |
| I0064-FS | 2 | -- | 12/17/2018 1:22:00 PM | I0064-FS | 0 | 1000 | 900 | 1.111 | 1.111 | 12/17/18 KB |
| I0064-FS-D | 3 | -- | 12/17/2018 1:22:00 PM | I0064-FS | 0 | 1000 | 100 | 10.000 | 10.000 | 12/17/18 KB |
| J9987-FS | 0 | C | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |
| J9987-FS | 2 | -- | 12/17/2018 1:26:00 PM | J9987-FS | 0 | 1000 | 800 | 1.250 | 1.250 | 12/17/18 KB |
| J9987-FS-D | 3 | -- | 12/17/2018 1:26:00 PM | J9987-FS | 0 | 1000 | 200 | 5.000 | 5.000 | 12/17/18 KB |
| J9988-FS | 0 | C | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |
| J9988-FS | 2 | -- | 12/17/2018 1:30:00 PM | J9988-FS | 0 | 1000 | 500 | 2.000 | 2.000 | 12/17/18 KB |
| J9988-FS-D | 3 | -- | 12/17/2018 1:30:00 PM | J9988-FS | 0 | 1000 | 500 | 2.000 | 2.000 | 12/17/18 KB |
| J9989-FS | 0 | -- | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |
| J9990-FS | 0 | C | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |
| J9990-FS | 2 | -- | 12/17/2018 1:35:00 PM | J9990-FS | 0 | 1000 | 600 | 1.667 | 1.667 | 12/17/18 KB |

Total Oil $=[$ Sample Volume (uL) / Aliquot Volume (uL) $*$ [Aliquot Weight (mg)]
Dilution Factor $=[$ Sample Volume $(\mathrm{uL}) /$ Aliqot Volume $(\mathrm{uL}))] *$ Prior Dilution Factor

*     - "C" = Extract is Consumed


## BATIELIE

It can be done
BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

## Project Title(s)

CTO-WE21: Former Naval Air Station, Brunswick, Maine

## Project No.(s)

100122108-
CTOWE21

18-0718
CTO-WE21: Former Naval Air Station, Brunswick, Maine
GW, QC

| Extract |  | * | Extract Date | Source |  | Initial Extract Vol (uL) | Extract Split | Extract Split | Total Dilution | Date/Initials |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name | \# |  |  | Name | \# |  |  |  |  |  |
| J9990-FS-D | 3 | -- | 12/17/2018 1:35:00 PM | J9990-FS | 0 | 1000 | 400 | 2.500 | 2.500 | 12/17/18 KB |
| J9991-FS | 0 | C | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |
| J9991-FS | 2 | -- | 12/17/2018 1:30:00 PM | J9991-FS | 0 | 1000 | 500 | 2.000 | 2.000 | 12/17/18 KB |
| J9991-FS-D | 3 | -- | 12/17/2018 1:30:00 PM | J9991-FS | 0 | 1000 | 500 | 2.000 | 2.000 | 12/17/18 KB |
| J9992-FS | 0 | -- | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |
| J9992MS-FS | 0 | -- | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |
| J9992MSD-FS | 0 | -- | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |
| J9993-FS | 0 | -- | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |
| J9994-FS | 0 | -- | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |
| J9995-FS | 0 | C | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |
| J9995-FS | 2 | -- | 12/17/2018 1:30:00 PM | J9995-FS | 0 | 1000 | 500 | 2.000 | 2.000 | 12/17/18 KB |
| J9995-FS-D | 3 | -- | 12/17/2018 1:30:00 PM | J9995-FS | 0 | 1000 | 500 | 2.000 | 2.000 | 12/17/18 KB |
| J9996-FS | 0 | -- | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |
| J9997-FS | 0 | C | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |

Total Oil $=[$ Sample Volume (uL) / Aliquot Volume (uL)] $*[$ Aliquot Weight (mg)]
Dilution Factor $=[$ Sample Volume $(\mathrm{uL}) /$ Aliqot Volume $(\mathrm{uL}))]$ * Prior Dilution Factor

*     - "C" = Extract is Consumed


## BATIELIE

## Project Title(s)

CTO-WE21: Former Naval Air Station, Brunswick, Maine

## Project No.(s)

100122108-
CTOWE21

## 18-0718

CTO-WE21: Former Naval Air Station, Brunswick, Maine
GW, QC

| Extract |  | * | Extract Date | Source |  | Initial Extract Vol (uL) | Extract Split | Extract Split | Total Dilution | Date/Initials |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name | \# |  |  | Name | \# |  |  |  |  |  |
| J9997-FS | 2 | -- | 12/17/2018 1:30:00 PM | J9997-FS | 0 | 1000 | 500 | 2.000 | 2.000 | 12/17/18 KB |
| J9997-FS-D | 3 | -- | 12/17/2018 1:30:00 PM | J9997-FS | 0 | 1000 | 500 | 2.000 | 2.000 | 12/17/18 KB |
| J9998-FS | 0 | C | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |
| J9998-FS | 2 | -- | 12/17/2018 1:30:00 PM | J9998-FS | 0 | 1000 | 500 | 2.000 | 2.000 | 12/17/18 KB |
| J9998-FS-D | 3 | -- | 12/17/2018 1:30:00 PM | J9998-FS | 0 | 1000 | 500 | 2.000 | 2.000 | 12/17/18 KB |
| J9999-FS | 0 | -- | 12/13/2018 11:17:00 AM | NA |  | NA | NA | 1.000 | 1.000 | 12/13/18 KB |

[^1]*     - "C" = Extract is Consumed

It can be done
BATTELLE - NORWELL OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

## Project Title(s)

Project No.(s)
CTO-WE21: Former Naval Air Station, Brunswick, Maine 100122108-
CTOWE21
18-0718

## CTO-WE21: Former Naval Air Station, Brunswick, Maine GW, QC

| Purpose: |  | LC-MS/MS TRANSFER |  |  |  | Last Activity: | Prep->Inst |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Relinquished On/By: <br> Relinquished From: |  | Dec 192018 4:43PM KB <br> Sample Preparation: NA |  |  |  | Received On/By: <br> Received Location: | Dec 192018 5:07PM LMG |
|  |  | LC Laboratory: NA |  |
| Relinquish Comment: |  |  |  |  |  |  |  |  |  | Received Comment: | NA |
| No. | BDO-ID: |  | PIV: | DF: | Condition: | Custody Comment |  |
| 1 | CS469PB-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 2 | CS470LCS-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 3 | 10064-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 4 | I0064-FS-D(3) |  | 1000 | 10 | Intact | NA |  |
| 5 | J9987-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 6 | J9987-FS-D(3) |  | 1000 | 5 | Intact | NA |  |
| 7 | J9988-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 8 | J9988-FS-D(3) |  | 1000 | 2 | Intact | NA |  |
| 9 | J9989-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 10 | J9990-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 11 | J9990-FS-D(3) |  | 1000 | 2.5 | Intact | NA |  |
| 12 | J9991-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 13 | J9991-FS-D(3) |  | 1000 | 2 | Intact | NA |  |
| 14 | J9992-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 15 | J9992MS-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 16 | J9992MSD-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 17 | J9993-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 18 | J9994-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 19 | J9995-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 20 | J9995-FS-D(3) |  | 1000 | 2 | Intact | NA |  |
| 21 | J9996-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 22 | J9997-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 23 | J9997-FS-D(3) |  | 1000 | 2 | Intact | NA |  |
| 24 | J9998-FS(0) |  | 1000 | 1 | Intact | NA |  |
| 25 | J9998-FS-D(3) |  | 1000 | 2 | Intact | NA |  |
| 26 | J9999-FS(0) |  | 1000 | 1 | Intact | NA |  |
| Total Extracts: 26 |  |  |  |  |  |  |  |

It can be done

## BATTELLE - NORWELL OPERATIONS SAMPLE SPECIFIC COMMENTS

## Project Title(s)

Project No.(s)
CTO-WE21: Former Naval Air Station, Brunswick, Maine 100122108-
CTOWE21

## 18-0718 <br> CTO-WE21: Former Naval Air Station, Brunswick, Maine GW, QC

| Sample ID: |  | Comment: |
| :--- | :--- | :--- |
| CS469PB-FS | Extraction started 11:17am, extraction block 1, ended 12:22pm | Date/Initials: |
| CS470LCS-FS | Extraction started 11:17am, extraction block 1, ended 12:23pm | $12 / 13 / 18 \mathrm{~KB}$ |
| I0064-FS | Extraction started 2:52pm, extraction block 1, ended 4:18pm | $12 / 13 / 18 \mathrm{~KB}$ |
| J9987-FS | Extraction started 11:17am, extraction block 1, ended 12:32pm | $12 / 13 / 18 \mathrm{~KB}$ |
| J9988-FS | Extraction started 11:17am, extraction block 1, ended 12:30pm | $12 / 13 / 18 \mathrm{~KB}$ |
| J9989-FS | Extraction started 11:17am, extraction block 1, ended 12:23pm | $12 / 13 / 18 \mathrm{~KB}$ |
| J9990-FS | Extraction started 11:17am, extraction block 1, ended 12:32 pm | $12 / 13 / 18 \mathrm{~KB}$ |
| J9991-FS | Extraction started 11:17am, extraction block 1, ended 12:38pm | $12 / 13 / 18 \mathrm{~KB}$ |
| J9992-FS | Extraction started 2:52pm, extraction block 1, ended 4:06pm | $12 / 13 / 18 \mathrm{~KB}$ |
| J9992MS-FS | Extraction started 2:52pm, extraction block 1, ended 4:06pm | $12 / 13 / 18 \mathrm{~KB}$ |
| J9992MSD-FS | Extraction started 2:52pm, extraction block 1, ended 4:05pm | $12 / 13 / 18 \mathrm{~KB}$ |
| J9993-FS | Extraction started 2:52pm, extraction block 1, ended 4:55pm | $12 / 13 / 18 \mathrm{~KB}$ |
| J9993-FS | Sample contained some algae, which clogged the filter. The filter was popped to allow <br> sample to pass through the column. | $12 / 13 / 18 \mathrm{~KB}$ |
| J9994-FS | Extraction started 2:52pm, extraction block 1, ended 4:06pm | $12 / 13 / 18 \mathrm{~KB}$ |
| J9995-FS | Extraction started 2:52pm, extraction block 1, ended 4:06pm | $12 / 13 / 18 \mathrm{~KB}$ |
| J9996-FS | Extraction started 2:52pm, extraction block 1, ended 4:14pm | $12 / 13 / 18 \mathrm{~KB}$ |
| J9997-FS | Extraction started 2:52pm, extraction block 1, ended 4:02pm | $12 / 13 / 18 \mathrm{~KB}$ |
| J9998-FS | Extraction started 11:17am, extraction block 1, ended 12:34pm | $12 / 13 / 18 \mathrm{~KB}$ |
| J9999-FS | Extraction started 11:17am, extraction block 1, ended 12:20pm | $12 / 13 / 18 \mathrm{~KB}$ |

## BATHELIE <br> It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine Project No.: 100122108-CTOWE21

| Client ID |  | KF41 IB |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Battelle ID |  | KF41 IB_12/14/2018 |  |  |  |
| Sample Type |  | IB |  |  |  |
| Collection Date |  | NA |  |  |  |
| Extraction Date |  | NA |  |  |  |
| Analysis Date |  | 12/14/2018 |  |  |  |
| Analytical Instrument |  | Sciex 5500 LC/MS/MS |  |  |  |
| \% Moisture |  | NA |  |  |  |
| Matrix |  | Water |  |  |  |
| Sample Size |  | 0.250 |  |  |  |
| Size Unit-Basis |  | L |  |  |  |
| Units |  | ng/L | MDL | LOD | LOQ |
| PFBA | 375-22-4 | 0.50 U | 0.14 | 0.50 | 5.00 |
| PFHxA | 307-24-4 | 0.50 U | 0.19 | 0.50 | 5.00 |
| PFHpA | 375-85-9 | 0.50 U | 0.16 | 0.50 | 5.00 |
| PFOA | 335-67-1 | 0.50 U | 0.18 | 0.50 | 5.00 |
| PFNA | 375-95-1 | 1.00 U | 0.26 | 1.00 | 5.00 |
| PFDA | 335-76-2 | 0.50 U | 0.16 | 0.50 | 5.00 |
| PFUnA | 2058-94-8 | 1.00 U | 0.29 | 1.00 | 5.00 |
| PFDoA | 307-55-1 | 0.50 U | 0.18 | 0.50 | 5.00 |
| PFTrDA | 72629-94-8 | 0.50 U | 0.15 | 0.50 | 5.00 |
| PFTeDA | 376-06-7 | 1.00 U | 0.25 | 1.00 | 5.00 |
| NMeFOSAA | 2355-31-9 | 2.00 U | 0.56 | 2.00 | 5.00 |
| NEtFOSAA | 2991-50-6 | 1.00 U | 0.49 | 1.00 | 5.00 |
| PFBS | 375-73-5 | 0.50 U | 0.13 | 0.50 | 5.00 |
| PFHxS | 355-46-4 | 0.14 J | 0.11 | 0.40 | 5.00 |
| PFOS | 1763-23-1 | 0.50 U | 0.19 | 0.50 | 5.00 |


| Surrogate Recoveries (\%) |  |
| :--- | :---: |
| 13C4-PFBA | 93 |
| 13C5-PFHxA | 94 |
| 13C4-PFHpA | 96 |
| 13C8-PFOA | 98 |
| 13C9-PFNA | 103 |
| 13C6-PFDA | 101 |
| 13C7-PFUnA | 96 |
| 13C2-PFDoA | 86 |
| 13C2-PFTeDA | 92 |
| d3-MeFOSAA | 95 |
| d5-EtFOSAA | 98 |
| 13C3-PFBS | 97 |
| $13 C 3-P F H x S$ | 90 |
| 13C8-PFOS | 93 |

NO ACTION, NO SAMPLES ASSOCIATED, CLEAN IB ANALYZED BEFORE SAMPLES

## BATHELIE <br> It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine Project No.: 100122108-CTOWE21

Client ID
KF41 IB

| Battelle ID | KF41 IB_12/19/2018 |
| :--- | ---: |
| Sample Type | IB |
| Collection Date | NA |
| Extraction Date | NA |
| Analysis Date | $12 / 19 / 2018$ |
| Analytical Instrument | Sciex $5500 \mathrm{LC} / \mathrm{MS} / \mathrm{MS}$ |
| \% Moisture | NA |
| Matrix | Water |
| Sample Size | 0.250 |
| Size Unit-Basis | L |
| Units | $\mathrm{ng} / \mathrm{L}$ |


| Units |  | ng/L | MDL | LOD | LOQ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PFBA | 375-22-4 | 0.50 U | 0.14 | 0.50 | 5.00 |
| PFHxA | 307-24-4 | 0.50 U | 0.19 | 0.50 | 5.00 |
| PFHpA | 375-85-9 | 0.50 U | 0.16 | 0.50 | 5.00 |
| PFOA | 335-67-1 | 0.50 U | 0.18 | 0.50 | 5.00 |
| PFNA | 375-95-1 | 1.00 U | 0.26 | 1.00 | 5.00 |
| PFDA | 335-76-2 | 0.50 U | 0.16 | 0.50 | 5.00 |
| PFUnA | 2058-94-8 | 1.00 U | 0.29 | 1.00 | 5.00 |
| PFDoA | 307-55-1 | 0.50 U | 0.18 | 0.50 | 5.00 |
| PFTrDA | 72629-94-8 | 0.50 U | 0.15 | 0.50 | 5.00 |
| PFTeDA | 376-06-7 | 1.00 U | 0.25 | 1.00 | 5.00 |
| NMeFOSAA | 2355-31-9 | 2.00 U | 0.56 | 2.00 | 5.00 |
| NEtFOSAA | 2991-50-6 | 1.00 U | 0.49 | 1.00 | 5.00 |
| PFBS | 375-73-5 | 0.50 U | 0.13 | 0.50 | 5.00 |
| PFHxS | 355-46-4 | 0.40 U | 0.11 | 0.40 | 5.00 |
| PFOS | 1763-23-1 | 0.50 U | 0.19 | 0.50 | 5.00 |


| Surrogate Recoveries (\%) |  |
| :--- | ---: |
| 13C4-PFBA | 108 |
| 13C5-PFHxA | 93 |
| 13C4-PFHpA | 100 |
| 13C8-PFOA | 106 |
| 13C9-PFNA | 115 |
| 13C6-PFDA | 99 |
| 13C7-PFUnA | 89 |
| 13C2-PFDoA | 85 |
| 13C2-PFTeDA | 73 |
| d3-MeFOSAA | 98 |
| d5-EtFOSAA | 92 |
| 13C3-PFBS | 84 |
| 13C3-PFHxS | 79 |
| 13C8-PFOS | 95 |

## BATHELIE <br> It can be done

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine
Project No.: 100122108-CTOWE21

| Client ID | Procedural Blank |
| :--- | ---: |
| Battelle ID | CS469PB-FS |
| Sample Type | PB |
| Collection Date | $12 / 13 / 2018$ |
| Extraction Date | $12 / 13 / 2018$ |
| Analysis Date | $12 / 19 / 2018$ |
| Analytical Instrument | Sciex $5500 \mathrm{LC} / \mathrm{MS} / \mathrm{MS}$ |
| \% Moisture | NA |
| Matrix | WATER |
| Sample Size | 0.250 |
| Size Unit-Basis | L |
| Units | $\mathrm{ng} / \mathrm{L}$ |


| PFBA | 375-22-4 | 0.50 U | 0.14 | 0.50 | 5.00 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PFHxA | 307-24-4 | 0.50 U | 0.19 | 0.50 | 5.00 |
| PFHpA | 375-85-9 | 0.50 U | 0.16 | 0.50 | 5.00 |
| PFOA | 335-67-1 | 1.57 J | 0.18 | 0.50 | 5.00 |
| PFNA | 375-95-1 | 1.00 U | 0.26 | 1.00 | 5.00 |
| PFDA | 335-76-2 | 0.50 U | 0.16 | 0.50 | 5.00 |
| PFUnA | 2058-94-8 | 1.00 U | 0.29 | 1.00 | 5.00 |
| PFDoA | 307-55-1 | 0.50 U | 0.18 | 0.50 | 5.00 |
| PFTrDA | 72629-94-8 | 0.50 U | 0.15 | 0.50 | 5.00 |
| PFTeDA | 376-06-7 | 1.00 U | 0.25 | 1.00 | 5.00 |
| NMeFOSAA | 2355-31-9 | 2.00 U | 0.56 | 2.00 | 5.00 |
| NEtFOSAA | 2991-50-6 | 1.00 U | 0.49 | 1.00 | 5.00 |
| PFBS | 375-73-5 | 0.50 U | 0.13 | 0.50 | 5.00 |
| PFHxS | 355-46-4 | 0.40 U | 0.11 | 0.40 | 5.00 |
| PFOS | 1763-23-1 | 0.50 U | 0.19 | 0.50 | 5.00 |

Surrogate Recoveries (\%)

| $13 C 4-P F B A$ | 102 |
| :--- | :--- |
| $13 C 5-P F H x A$ | 127 |
| $13 C 4-P F H p A$ | 128 |
| $13 C 8-P F O A$ | 130 |
| $13 C 9-P F N A$ | 149 |
| 13C6-PFDA | 126 |
| 13C7-PFUnA | 120 |
| $13 C 2-P F D o A$ | 110 |
| 13C2-PFTeDA | 103 |
| d3-MeFOSAA | 111 |
| d5-EtFOSAA | 112 |
| $13 C 3-P F B S$ | 94 |
| $13 C 3-P F H x S$ | 101 |
| $13 C 8-P F O S$ | 113 |

Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine
Project No.: 100122108-CTOWE21

| Client ID |  | Laboratory Control Sample |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Battelle ID |  | CS470LCS-FS |  |  |  |  |  |
| Sample Type |  | LCS |  |  |  |  |  |
| Collection Date |  | 12/13/2018 |  |  |  |  |  |
| Extraction Date |  | 12/13/2018 |  |  |  |  |  |
| Analysis Date |  | 12/19/2018 |  |  |  |  |  |
| Analytical Instrument |  | Sciex 5500 LC/MS/MS |  |  |  |  |  |
| \% Moisture |  | NA |  |  |  |  |  |
| Matrix |  | WATER |  |  |  |  |  |
| Sample Size |  | 0.250 |  |  |  |  |  |
| Size Unit-Basis |  | L |  |  |  | Contr | imits |
| Units |  | $\mathrm{ng} / \mathrm{L}$ | Target | Recovery | Qual | Lower | Upper |
|  |  |  |  |  |  |  |  |
| PFBA | 375-22-4 | 11.13 | 10.00 | 111 |  | 61 | 139 |
| PFHxA | 307-24-4 | 10.58 | 10.10 | 105 |  | 51 | 137 |
| PFHpA | 375-85-9 | 9.96 | 10.00 | 100 |  | 48 | 136 |
| PFOA | 335-67-1 | 10.49 B | 10.00 | 105 |  | 49 | 141 |
| PFNA | 375-95-1 | 8.88 | 10.00 | 89 |  | 58 | 122 |
| PFDA | 335-76-2 | 9.37 | 10.00 | 94 |  | 59 | 135 |
| PFUnA | 2058-94-8 | 10.67 | 10.00 | 107 |  | 64 | 134 |
| PFDoA | 307-55-1 | 10.46 | 10.00 | 105 |  | 75 | 131 |
| PFTrDA | 72629-94-8 | 10.01 | 10.00 | 100 |  | 42 | 148 |
| PFTeDA | 376-06-7 | 10.17 | 10.00 | 102 |  | 42 | 158 |
| NMeFOSAA | 2355-31-9 | 9.70 | 10.00 | 97 |  | 50 | 146 |
| NEtFOSAA | 2991-50-6 | 9.40 | 10.00 | 94 |  | 51 | 131 |
| PFBS | 375-73-5 | 9.84 | 10.10 | 97 |  | 56 | 134 |
| PFHxS | 355-46-4 | 8.99 | 10.10 | 89 |  | 52 | 128 |
| PFOS | 1763-23-1 | 9.80 | 10.00 | 98 |  | 40 | 144 |

## Surrogate Recoveries (\%)

| 13C4-PFBA | 89 |
| :--- | ---: |
| 13C5-PFHxA | 98 |
| 13C4-PFHpA | 94 |
| 13C8-PFOA | 104 |
| 13C9-PFNA | 113 |
| 13C6-PFDA | 111 |
| 13C7-PFUnA | 101 |
| 13C2-PFDoA | 100 |
| 13C2-PFTeDA | 96 |
| d3-MeFOSAA | 101 |
| d5-EtFOSAA | 96 |
| 13C3-PFBS | 100 |
| 13C3-PFHxS | 96 |
| 13C8-PFOS | 107 |

## BATTELLE

It can be done
Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine
Project No.: 100122108-CTOWE21
Project No.: 100122108-CTOWE21

| Client ID |  | NASB-CW-GW01D-1218 | NASB-CW-GW01D-1218 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Battelle ID |  | J9992-FS | J9992MS-FS |  |  |  |  |  |
| Sample Type |  | SA | MS |  |  |  |  |  |
| Collection Date |  | 12/06/2018 | 12/06/2018 |  |  |  |  |  |
| Extraction Date |  | 12/13/2018 | 12/13/2018 |  |  |  |  |  |
| Analysis Date |  | 12/19/2018 | 12/19/2018 |  |  |  |  |  |
| Analytical Instrument |  | Sciex $5500 \mathrm{LC} / \mathrm{MS} / \mathrm{MS}$ | Sciex 5500 LC/MS/MS |  |  |  |  |  |
| \% Moisture |  | NA | NA |  |  |  |  |  |
| Matrix |  | GW | GW |  |  |  |  |  |
| Sample Size |  | 0.290 | 0.285 |  |  |  |  |  |
| Size Unit-Basis |  | L | L |  |  |  | Cont | imits |
| Units |  | ng/L | ng/L | Target | Recovery | Qual | Lower | Upper |
| PFBA | 375-22-4 | 0.18 J | 27.47 | 26.32 | 104 |  | 61 | 139 |
| PFHxA | 307-24-4 | 0.43 U | 27.64 | 26.58 | 104 |  | 51 | 137 |
| PFHpA | 375-85-9 | 0.43 U | 25.31 | 26.32 | 96 |  | 48 | 136 |
| PFOA | 335-67-1 | 1.38 J | 26.66 | 26.32 | 96 |  | 49 | 141 |
| PFNA | 375-95-1 | 0.86 U | 25.50 | 26.32 | 97 |  | 58 | 122 |
| PFDA | 335-76-2 | 0.43 U | 26.61 | 26.32 | 101 |  | 59 | 135 |
| PFUnA | 2058-94-8 | 0.86 U | 27.22 | 26.32 | 103 |  | 64 | 134 |
| PFDoA | 307-55-1 | 0.43 U | 27.15 | 26.32 | 103 |  | 75 | 131 |
| PFTrDA | 72629-94-8 | 0.43 U | 27.48 | 26.32 | 104 |  | 42 | 148 |
| PFTeDA | 376-06-7 | 0.86 U | 27.62 | 26.32 | 105 |  | 42 | 158 |
| NMeFOSAA | 2355-31-9 | 1.72 U | 23.02 | 26.32 | 87 |  | 50 | 146 |
| NEtFOSAA | 2991-50-6 | 0.86 U | 26.82 | 26.32 | 102 |  | 51 | 131 |
| PFBS | 375-73-5 | 0.43 U | 24.44 | 26.58 | 92 |  | 56 | 134 |
| PFHxS | 355-46-4 | 0.43 J | 25.28 | 26.58 | 93 |  | 52 | 128 |
| PFOS | 1763-23-1 | 0.33 J | 26.49 | 26.32 | 99 |  | 40 | 144 |


| Surrogate Recoveries (\%) |  |  |
| :--- | ---: | ---: |
| 13C4-PFBA | 76 | 82 |
| 13C5-PFHxA | 90 | 99 |
| 13C4-PFHpA | 107 | 103 |
| 13C8-PFOA | 94 | 96 |
| 13C9-PFNA | 107 | 97 |
| 13C6-PFDA | 90 | 87 |
| 13C7-PFUnA | 92 | 86 |
| 13C2-PFDoA | 91 | 88 |
| 13C2-PFTeDA | 88 | 86 |
| d3-MeFOSAA | 66 | 89 |
| d5-EtFOSAA | 79 | 75 |
| 13C3-PFBS | 109 | 111 |
| 13C3-PFHxS | 71 | 90 |
| 13C8-PFOS | 98 | 88 |

## BATTELLE

It can be done
Project Client: Tetra Tech
Project Name: CTO-WE21: Former Naval Air Station, Brunswick, Maine
Project No.: 100122108-CTOWE21

Client ID
Battelle ID
Sample Type
Collection Date 12/06/2018
NASB-CW-GW01D-1218

Analysis Date
$\begin{array}{lr}\text { Analytical Instrument } & \text { Sciex } 5500 \text { LC/MS/MS } \\ \text { \% Moisture } & \text { NA } \\ \text { Matrix } & \text { GW }\end{array}$
Matrix
Sample Size
Size Unit-Basis
Units

| PFBA | 375-22-4 | 27.29 | 26.32 | 103 | 61 | 139 | 1.0 | $\leq 30$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFHxA | 307-24-4 | 27.69 | 26.58 | 104 | 51 | 137 | 0.0 | $\leq 30$ |
| PFHpA | 375-85-9 | 24.96 | 26.32 | 95 | 48 | 136 | 1.0 | $\leq 30$ |
| PFOA | 335-67-1 | 26.45 | 26.32 | 95 | 49 | 141 | 1.0 | $\leq 30$ |
| PFNA | 375-95-1 | 23.32 | 26.32 | 89 | 58 | 122 | 8.6 | $\leq 30$ |
| PFDA | 335-76-2 | 25.58 | 26.32 | 97 | 59 | 135 | 4.0 | $\leq 30$ |
| PFUnA | 2058-94-8 | 27.68 | 26.32 | 105 | 64 | 134 | 1.9 | $\leq 30$ |
| PFDoA | 307-55-1 | 27.14 | 26.32 | 103 | 75 | 131 | 0.0 | $\leq 30$ |
| PFTrDA | 72629-94-8 | 26.87 | 26.32 | 102 | 42 | 148 | 1.9 | $\leq 30$ |
| PFTeDA | 376-06-7 | 27.11 | 26.32 | 103 | 42 | 158 | 1.9 | $\leq 30$ |
| NMeFOSAA | 2355-31-9 | 26.16 | 26.32 | 99 | 50 | 146 | 12.9 | $\leq 30$ |
| NEtFOSAA | 2991-50-6 | 25.66 | 26.32 | 98 | 51 | 131 | 4.0 | $\leq 30$ |
| PFBS | 375-73-5 | 25.15 | 26.58 | 95 | 56 | 134 | 3.2 | $\leq 30$ |
| PFHxS | 355-46-4 | 29.43 | 26.58 | 109 | 52 | 128 | 15.8 | $\leq 30$ |
| PFOS | 1763-23-1 | 28.97 | 26.32 | 109 | 40 | 144 | 9.6 | $\leq 30$ |


| Surrogate Recoveries (\%) |  |
| :--- | ---: |
| 13C4-PFBA | 81 |
| 13C5-PFHxA | 96 |
| 13C4-PFHpA | 105 |
| 13C8-PFOA | 94 |
| 13C9-PFNA | 103 |
| 13C6-PFDA | 85 |
| 13C7-PFUnA | 79 |
| 13C2-PFDoA | 82 |
| 13C2-PFTeDA | 80 |
| d3-MeFOSAA | 84 |
| d5-EtFOSAA | 80 |
| 13C3-PFBS | 126 |
| 13C3-PFHxS | 89 |
| 13C8-PFOS | 97 |


| Vial | Laboratory Sample ID | Client Sample ID | Acquisition Date | Acquisition Method | Data File |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 28 | MeOH |  | 12/14/2018 9:35:22 PM | 5-0369.dam | AC_12142018_5-0369.wiff |
| 29 | KF34 | L1 | 12/14/2018 9:46:13 PM | 5-0369.dam | AC_12142018_5-0369.wiff |
| 30 | KF35 | L2 | 12/14/2018 9:57:05 PM | 5-0369.dam | AC_12142018_5-0369.wiff |
| 31 | KF36 | L3 | 12/14/2018 10:07:57 PM | 5-0369.dam | AC_12142018_5-0369.wiff |
| 32 | KF37 | L4 | 12/14/2018 10:18:49 PM | 5-0369.dam | AC_12142018_5-0369.wiff |
| 33 | KF38 | L5 | 12/14/2018 10:29:41 PM | 5-0369.dam | AC_12142018_5-0369.wiff |
| 34 | KF39 | L6 | 12/14/2018 10:40:33 PM | 5-0369.dam | AC_12142018_5-0369.wiff |
| 35 | KF40 | L7 | 12/14/2018 10:51:24 PM | 5-0369.dam | AC_12142018_5-0369.wiff |
| 36 | KF41 IB | Instrument Blank | 12/14/2018 11:02:16 PM | 5-0369.dam | AC_12142018_5-0369.wiff |
| 37 | KF42 ICC | ICC | 12/14/2018 11:13:07 PM | 5-0369.dam | AC_12142018_5-0369.wiff |
| 38 | KC75 Branch | Branch Standard | 12/14/2018 11:23:59 PM | 5-0369.dam | AC_12142018_5-0369.wiff |

Sequence Report
Created with Analyst Reporter Printed: 20/12/2018 2:13:32 PM

| Vial | Laboratory Sample ID | Client Sample ID | Acquisition Date | Acquisition Method | Data File |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4 | KF37 ISC | Instrument Sensitivity Check | 12/19/2018 12:42:56 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 5 | KF41 IB | Instrument Blank | 12/19/2018 12:53:47 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 6 | 10169-FS(0) |  | 12/19/2018 1:04:39-PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 7 | 10172 FS $(0)$ |  | 12/19/2018 1:15:31 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 3 | MEOH |  | 12/19/2018 1:26:23-PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 8 | $10160 \mathrm{MS-FS-D}(3)$ |  | 12/19/2018 1:37:15 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 9 | 10160MSD-FS-D(3) |  | 12/19/2018 1:48:06 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 3 | MEOH |  | 12/19/2018 1:58:57 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 10 | KF38-CCV | CCV | 12/19/2018 2:09:50-PM | 5-0369.dam | AC 12192018=5-369.wiff |
| 3 | MEOH |  | 12/19/2018 2:20:41 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 3 | MEOH |  | 12/19/2018 2:31:33 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 4 | MEOH |  | 12/19/2018 5:18:58 PM | 5-0369.dam | AC 12192018_5-369.wiff |
| 3 | KF37 CCV | CCV | 12/19/2018 5:29:51 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 4 | MEOH |  | 12/19/2018 5:40:43 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 5 | CS469PB-FS(0) | Procedural Blank | 12/19/2018 5:51:36 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 6 | CS470LCS-FS(0) | Laboratory Control Sample | 12/19/2018 6:02:28 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 7 | J9989-FS(0) | NASB-CW-GW-FB01-120618 | 12/19/2018 6:13:20 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 8 | J9999-FS(0) | NASB-09-GW-FB01-120618 | 12/19/2018 6:24:12 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 9 | J9992-FS(0) | NASB-CW-GW01D-1218 | 12/19/2018 6:35:04 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 10 | J9992MS-FS(0) | NASB-CW-GW01D-1218 | 12/19/2018 6:45:55 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 11 | J9992MSD-FS(0) | NASB-CW-GW01D-1218 | 12/19/2018 6:56:47 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 12 | J9993-FS(0) | NASB-CW-GW02-1218 | 12/19/2018 7:07:41 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 13 | J9994-FS(0) | MW-09-204-1218 | 12/19/2018 7:18:33 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 14 | J9996-FS(0) | MW-09-22-1218 | 12/19/2018 7:29:26 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 15 | KF38 CCV | CCV | 12/19/2018 7:40:19 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 16 | MEOH |  | 12/19/2018 7:51:11 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 17 | J9987-FS(0) | NASB-CW-GW04-1218 | 12/19/2018 8:02:03 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 18 | 19987 FS-D(3) | NASB-CW-GW04-1218 | 12/19/2018-8:12:55-PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 19 | J9988-FS(0) | NASB-CW-DUP-120618 | 12/19/2018 8:23:47 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 20 | d9988-FS-D(3) | NASB-CW-DUP-120618 | 12/19/2018-8:34:39-PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 21 | J9990-FS(0) | NASB-CW-GW-RB01-120618 | 12/19/2018 8:45:32 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 22 | 19990-FS-D(3) | NASB-CW GW RB01-120618 | 12/19/2018-8:56:25-PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 23 | J9991-FS(0) | NASB-CW-GW01S-1218 | 12/19/2018 9:07:18 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 24 | d9991-FS-D(3) | NASB-CW- GW01S-1218 | 12/19/2018-9:18:09-PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 25 | KF37 CCV | CCV | 12/19/2018 9:29:02 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 26 | MEOH |  | 12/19/2018 9:39:53 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 27 | J9995-FS(0) | MW-B250-07-1218 | 12/19/2018 9:50:45 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 28 | 19995-FS-D(3) | MWN B250-07-1218 | 12/19/2018-10:01:37 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 29 | J9997-FS(0) | MW-09-004-1218 | 12/19/2018 10:12:29 PM | 5-0369.dam | AC_12192018_5-369.wiff |

1Samples from another batch not reported with this one. DMS 12/27/2018
Form NAL-073 | Rev 2 | 12/20/2018 | Page 1 of 2 2Dilutions made and run but not needed. DMS 12/27/2018
uence Report
Created with Analyst Reporter Printed: 20/12/2018 2:13:32 PM

| Vial | Laboratory Sample ID | Client Sample ID | Acquisition Date | Acquisition Method | Data File |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 19997 FS-D(3) | MWV 09-004-1218 | 12/19/2018-10:23:21 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 31 | J9998-FS(0) | MW-NASB-072-1218 | 12/19/2018 10:34:13 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 32 | d9998-FS-D(3) | MW-NASB-072-1218 | 12/19/2018 10:45:04 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 33 | I0064-FS(0) | NASB-CW-GW03-1218 | 12/19/2018 10:55:55 PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 34 | 10064-FS-D(3) | NASB-CW GWO3-1218 | 12/19/2018-11:06:46-PM | 5-0369.dam | AC_12192018_5-369.wiff |
| 35 | KF38 CCV | CCV | 12/19/2018 11:17:39 PM | 5-0369.dam | AC_12192018_5-369.wiff |

1Dilutions made and run but not needed. DMS 12/27/2018

Calibration Summary Report

| Analyte Name | PFBS_1 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $298.9 / 80.0$ | Result Table | 18-0718 |
| Internal Standard | 13C3-PFBS | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=2.91046 x+0.06786(r=0.99845)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $($ ng/L) $)$ | Calculated <br> Conc. $(\mathbf{n g} / \mathrm{L})$ | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 101.00 | 93.223883 | 92.3 |
| 30 | KF35 | L2 | True | 252.50 | 242.987284 | 96.2 |
| 31 | KF36 | L3 | True | 505.00 | 554.189348 | 109.7 |
| 32 | KF37 | L4 | True | 1010.00 | 1038.309759 | 102.8 |
| 33 | KF38 | L5 | True | 2525.00 | 2390.945288 | 94.7 |
| 34 | KF39 | L6 | True | 10100.00 | 10881.064908 | 107.7 |
| 35 | KF40 | L7 | True | 20200.00 | 19492.779530 | 96.5 |



| Analyte Name | PFBS_2 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $298.9 / 99.0$ | Result Table | 18-0718 |
| Internal Standard | 13C3-PFBS | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=0.86241 x+0.14973(r=0.99823)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> (ng/L) | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 101.00 | 85.559563 | 84.7 |
| 30 | KF35 | L2 | True | 252.50 | 263.945751 | 104.5 |
| 31 | KF36 | L3 | True | 505.00 | 548.689269 | 108.7 |
| 32 | KF37 | L4 | True | 1010.00 | 1049.001640 | 103.9 |
| 33 | KF38 | L5 | True | 2525.00 | 2367.499359 | 93.8 |
| 34 | KF39 | L6 | True | 10100.00 | 10926.024528 | 108.2 |
| 35 | KF40 | L7 | True | 20200.00 | 19452.779891 | 96.3 |



| Analyte Name | PFHxA_1 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $313.0 / 269.0$ | Result Table | 18-0718 |
| Internal Standard | 13C5-PFHxA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=0.97425 x+0.00449(r=0.99994)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $(\mathrm{ng} / \mathrm{L})$ | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 101.00 | 108.898472 | 107.8 |
| 30 | KF35 | L2 | True | 252.50 | 239.344191 | 94.8 |
| 31 | KF36 | L3 | True | 505.00 | 501.312313 | 99.3 |
| 32 | KF37 | L4 | True | 1010.00 | 988.213650 | 97.8 |
| 33 | KF38 | L5 | True | 2525.00 | 2509.264316 | 99.4 |
| 34 | KF39 | L6 | True | 10100.00 | 10235.423208 | 101.3 |
| 35 | KF40 | L7 | True | 20200.00 | 20111.043850 | 99.6 |



| Analyte Name | PFHxA_2 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $313.0 / 119.0$ | Result Table | 18-0718 |
| Internal Standard | 13C5-PFHxA | Instrument Name | QTRAP 5500 |
| Acquisition Date | $12 / 14 / 20189: 35: 22$ PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=0.07484 x+-0.01026(r=0.99933)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $(\mathrm{ng} / \mathrm{L})$ | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 101.00 | 123.799555 | 122.6 |
| 30 | KF35 | L2 | True | 252.50 | 185.616254 | 73.5 |
| 31 | KF36 | L3 | True | 505.00 | 498.892288 | 98.8 |
| 32 | KF37 | L4 | True | 1010.00 | 1043.210273 | 103.3 |
| 33 | KF38 | L5 | True | 2525.00 | 2524.118590 | 100.0 |
| 34 | KF39 | L6 | True | 10100.00 | 10460.079964 | 103.6 |
| 35 | KF40 | L7 | True | 20200.00 | 19857.783076 | 98.3 |



| Analyte Name | PFHpA_1 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $363.0 / 319.0$ | Result Table | 18-0718 |
| Internal Standard | 13C4-PFHpA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=0.87269 x+-0.04560(r=0.99965)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $($ ng/L) | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 108.343732 | 108.3 |
| 30 | KF35 | L2 | True | 250.00 | 241.788301 | 96.7 |
| 31 | KF36 | L3 | True | 500.00 | 489.315879 | 97.9 |
| 32 | KF37 | L4 | True | 1000.00 | 978.377848 | 97.8 |
| 33 | KF38 | L5 | True | 2500.00 | 2419.252737 | 96.8 |
| 34 | KF39 | L6 | True | 10000.00 | 10381.053997 | 103.8 |
| 35 | KF40 | L7 | True | 20000.00 | 19731.867506 | 98.7 |



| Analyte Name | PFHpA_2 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $363.0 / 169.0$ | Result Table | 18-0718 |
| Internal Standard | 13C4-PFHpA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=0.01657 x+0.00426(r=0.99939)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $($ ng/L) $)$ | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | False | 100.00 | 21.346403 | 21.4 |
| 30 | KF35 | L2 | True | 250.00 | 283.968695 | 113.6 |
| 31 | KF36 | L3 | True | 500.00 | 506.598340 | 101.3 |
| 32 | KF37 | L4 | True | 1000.00 | 840.463026 | 84.1 |
| 33 | KF38 | L5 | True | 2500.00 | 2535.623529 | 101.4 |
| 34 | KF39 | L6 | True | 10000.00 | 9840.975635 | 98.4 |
| 35 | KF40 | T7 | True | 20000.00 | 20242.370775 | 101.2 |



| Analyte Name | PFHxS_1 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $399.0 / 80.0$ | Result Table | 18-0718 |
| Internal Standard | $13 C 3-P F H x S$ | Instrument Name | QTRAP 5500 |
| Acquisition Date | $12 / 14 / 20189: 35: 22$ PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=3.78744 x+-0.24583(r=0.99770)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $(\mathrm{ng} / \mathrm{L})$ | Calculated <br> Conc. $(\mathrm{ng} / \mathrm{L})$ | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 101.00 | 100.371027 | 99.4 |
| 30 | KF35 | L2 | True | 252.50 | 239.302977 | 94.8 |
| 31 | KF36 | L3 | True | 505.00 | 526.091852 | 104.2 |
| 32 | KF37 | True | 1010.00 | 1062.611311 | 105.2 |  |
| 33 | KF38 | L5 | True | 2525.00 | 2294.521440 | 90.9 |
| 34 | KF39 | True | 10100.00 | 11058.883288 | 109.5 |  |
| 35 | KF40 | True | 20200.00 | 19411.718105 | 96.1 |  |



| Analyte Name | PFHxS_2 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $399.0 / 99.0$ | Result Table | 18-0718 |
| Internal Standard | 13C3-PFHxS | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=1.06869 x+-0.02883(r=0.99703)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> (ng/L) | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 101.00 | 87.982828 | 87.1 |
| 30 | KF35 | L2 | True | 252.50 | 265.574107 | 105.2 |
| 31 | KF36 | L3 | True | 505.00 | 523.611418 | 103.7 |
| 32 | KF37 | L4 | True | 1010.00 | 1081.530189 | 107.1 |
| 33 | KF38 | L5 | True | 2525.00 | 2294.401281 | 90.9 |
| 34 | KF39 | L6 | True | 10100.00 | 11186.834924 | 110.8 |
| 35 | KF40 | L7 | True | 20200.00 | 19253.565252 | 95.3 |



| Analyte Name | PFOA_1 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $413.0 / 369.0$ | Result Table | 18-0718 |
| Internal Standard | 13C8-PFOA | Instrument Name | QTRAP 5500 |
| Acquisition Date | $12 / 14 / 20189: 35: 22$ PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=1.10161 x+-0.09167(r=0.99913)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $(\mathrm{ng} / \mathrm{L})$ | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 100.122414 | 100.1 |
| 30 | KF35 | L2 | True | 250.00 | 254.398914 | 101.8 |
| 31 | KF36 | L3 | True | 500.00 | 501.814189 | 100.4 |
| 32 | KF37 | L4 | True | 1000.00 | 1000.559694 | 100.1 |
| 33 | KF38 | L5 | True | 2500.00 | 2350.090672 | 94.0 |
| 34 | KF39 | L6 | True | 10000.00 | 10596.103107 | 106.0 |
| 35 | KF40 | L7 | True | 20000.00 | 19546.911009 | 97.7 |



| Analyte Name | PFOA_2 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $413.0 / 169.0$ | Result Table | 18-0718 |
| Internal Standard | 13C8-PFOA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=0.07340 x+-0.00731(r=0.99864)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $($ ng/L) | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 119.369190 | 119.4 |
| 30 | KF35 | L2 | True | 250.00 | 269.122641 | 107.7 |
| 31 | KF36 | L3 | True | 500.00 | 454.142405 | 90.8 |
| 32 | KF37 | L4 | True | 1000.00 | 838.980160 | 83.9 |
| 33 | KF38 | L5 | True | 2500.00 | 2339.521490 | 93.6 |
| 34 | KF39 | L6 | True | 10000.00 | 10606.015357 | 106.1 |
| 35 | KF40 | L7 | True | 20000.00 | 19722.848757 | 98.6 |



| Analyte Name | PFNA_1 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | 463.0/419.0 | Result Table | 18-0718 |
| Internal Standard | 13C9-PFNA | Instrument Name | QTRAP5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=1.05750 x+-0.00822(r=0.99936)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $(\mathrm{ng} / \mathrm{L})$ | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 87.103163 | 87.1 |
| 30 | KF35 | L2 | True | 250.00 | 231.922632 | 92.8 |
| 31 | KF36 | L3 | True | 500.00 | 535.616929 | 107.1 |
| 32 | KF37 | L4 | True | 1000.00 | 1038.299444 | 103.8 |
| 33 | KF38 | L5 | True | 2500.00 | 2764.926782 | 110.6 |
| 34 | KF39 | L6 | True | 10000.00 | 10023.345464 | 100.2 |
| 35 | KF40 | L7 | True | 20000.00 | 19668.785585 | 98.3 |



Calibration Summary Report

| Analyte Name | PFNA_2 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | 463.0/219.0 | Result Table | 18-0718 |
| Internal Standard | 13C9-PFNA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=0.33890 x+0.00334(r=0.99929)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $(\mathrm{ng} / \mathrm{L})$ | Calculated <br> Conc. $(\mathrm{ng} / \mathrm{L})$ | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 93.407510 | 93.4 |
| 30 | KF35 | L2 | True | 250.00 | 215.467270 | 86.2 |
| 31 | KF36 | L3 | True | 500.00 | 518.940035 | 103.8 |
| 32 | KF37 | True | 1000.00 | 1101.114116 | 110.1 |  |
| 33 | KF38 | L5 | True | 2500.00 | 2661.870703 | 106.5 |
| 34 | KF39 | T6 | True | 10000.00 | 10247.066689 | 102.5 |
| 35 | KF40 | True | 20000.00 | 19512.133676 | 97.6 |  |



| Analyte Name | PFOS_1 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $499.0 / 80.0$ | Result Table | 18-0718 |
| Internal Standard | 13C8-PFOS | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=4.81000 x+-0.27380(r=0.99960)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $(\mathrm{ng} / \mathrm{L})$ | Calculated <br> Conc. $(\mathrm{ng} / \mathrm{L})$ | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 101.00 | 93.401656 | 92.5 |
| 30 | KF35 | L2 | True | 252.50 | 263.779800 | 104.5 |
| 31 | KF36 | L3 | True | 505.00 | 503.615526 | 99.7 |
| 32 | KF37 | L4 | True | 1010.00 | 1114.087177 | 110.3 |
| 33 | KF38 | L5 | True | 2525.00 | 2339.064244 | 92.6 |
| 34 | KF39 | L6 | True | 10100.00 | 10098.854744 | 100.0 |
| 35 | KF40 | T7 | True | 20200.00 | 20280.696854 | 100.4 |



Calibration Summary Report

| Analyte Name | PFOS_2 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $499.0 / 99.0$ | Result Table | 18-0718 |
| Internal Standard | 13C8-PFOS | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=0.85195 x+-0.04564(r=0.99940)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $($ ng/L) | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 101.00 | 78.295545 | 77.5 |
| 30 | KF35 | L2 | True | 252.50 | 282.827099 | 112.0 |
| 31 | KF36 | L3 | True | 505.00 | 522.617173 | 103.5 |
| 32 | KF37 | L4 | True | 1010.00 | 1132.074385 | 112.1 |
| 33 | KF38 | L5 | True | 2525.00 | 2372.596170 | 94.0 |
| 34 | KF39 | L6 | True | 10100.00 | 10282.689577 | 101.8 |
| 35 | KF40 | L7 | True | 20200.00 | 20022.400052 | 99.1 |



Calibration Summary Report

| Analyte Name | PFDA_1 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | 513.0/469.0 | Result Table | 18-0718 |
| Internal Standard | 13C6-PFDA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=1.16712 x+-0.02107(r=0.99896)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $(\mathrm{ng} / \mathrm{L})$ | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 93.177980 | 93.2 |
| 30 | KF35 | L2 | True | 250.00 | 243.382706 | 97.4 |
| 31 | KF36 | L3 | True | 500.00 | 556.128066 | 111.2 |
| 32 | KF37 | L4 | True | 1000.00 | 972.956807 | 97.3 |
| 33 | KF38 | L5 | True | 2500.00 | 2439.400790 | 97.6 |
| 34 | KF39 | L6 | True | 10000.00 | 10629.368777 | 106.3 |
| 35 | KF40 | T7 | True | 20000.00 | 19415.584874 | 97.1 |



| Analyte Name | PFDA_2 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | 513.0/219.0 | Result Table | 18-0718 |
| Internal Standard | 13C6-PFDA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=0.04691 x+6.66055 \mathrm{e}-4(r=0.99834)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $(\mathrm{ng} / \mathrm{L})$ | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 121.941145 | 121.9 |
| 30 | KF35 | L2 | True | 250.00 | 193.770217 | 77.5 |
| 31 | KF36 | L3 | True | 500.00 | 450.139905 | 90.0 |
| 32 | KF37 | L4 | True | 1000.00 | 1144.450682 | 114.5 |
| 33 | KF38 | L5 | True | 2500.00 | 2310.747530 | 92.4 |
| 34 | KF39 | L6 | True | 10000.00 | 10600.613093 | 106.0 |
| 35 | KF40 | L7 | True | 20000.00 | 19528.337429 | 97.6 |



| Analyte Name | PFUnA_1 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $563.0 / 519.0$ | Result Table | 18-0718 |
| Internal Standard | 13C7-PFUnA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=1.05554 x+-0.01558(r=0.99964)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $($ ng/L) | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 90.719180 | 90.7 |
| 30 | KF35 | L2 | True | 250.00 | 242.809462 | 97.1 |
| 31 | KF36 | L3 | True | 500.00 | 543.578442 | 108.7 |
| 32 | KF37 | L4 | True | 1000.00 | 992.678843 | 99.3 |
| 33 | KF38 | L5 | True | 2500.00 | 2582.197356 | 103.3 |
| 34 | KF39 | L6 | True | 10000.00 | 10279.096890 | 102.8 |
| 35 | KF40 | L7 | True | 20000.00 | 19618.919827 | 98.1 |



| Analyte Name | PFUnA_2 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | 563.0/269.0 | Result Table | 18-0718 |
| Internal Standard | 13C7-PFUnA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=0.05398 x+-0.00494(r=0.99942)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $(\mathrm{ng} / \mathrm{L})$ | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 89.413276 | 89.4 |
| 30 | KF35 | L2 | True | 250.00 | 236.170749 | 94.5 |
| 31 | KF36 | L3 | True | 500.00 | 555.073329 | 111.0 |
| 32 | KF37 | L4 | True | 1000.00 | 965.857345 | 96.6 |
| 33 | KF38 | L5 | True | 2500.00 | 2728.318430 | 109.1 |
| 34 | KF39 | L6 | True | 10000.00 | 10101.890587 | 101.0 |
| 35 | KF40 | L7 | True | 20000.00 | 19673.276284 | 98.4 |



| Analyte Name | PFDoA_1 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | 613.0 / 569.0 | Result Table | 18-0718 |
| Internal Standard | 13C2-PFDoA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=0.93197 x+0.01146(r=0.99766)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $(\mathrm{ng} / \mathrm{L})$ | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 92.222632 | 92.2 |
| 30 | KF35 | L2 | True | 250.00 | 246.991874 | 98.8 |
| 31 | KF36 | L3 | True | 500.00 | 521.995099 | 104.4 |
| 32 | KF37 | L4 | True | 1000.00 | 996.716385 | 99.7 |
| 33 | KF38 | L5 | True | 2500.00 | 2500.733623 | 100.0 |
| 34 | KF39 | L6 | True | 10000.00 | 10984.782560 | 109.9 |
| 35 | KF40 | L7 | True | 20000.00 | 19006.557826 | 95.0 |



| Analyte Name | PFDoA_2 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | 613.0/319.0 | Result Table | 18-0718 |
| Internal Standard | 13C2-PFDoA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=0.16415 x+0.01045(r=0.99756)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $(\mathrm{ng} / \mathrm{L})$ | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 87.357136 | 87.4 |
| 30 | KF35 | L2 | True | 250.00 | 272.682995 | 109.1 |
| 31 | KF36 | L3 | True | 500.00 | 501.521460 | 100.3 |
| 32 | KF37 | L4 | True | 1000.00 | 979.021561 | 97.9 |
| 33 | KF38 | L5 | True | 2500.00 | 2508.838210 | 100.4 |
| 34 | KF39 | L6 | True | 10000.00 | 11001.359322 | 110.0 |
| 35 | KF40 | L7 | True | 20000.00 | 18999.219316 | 95.0 |



| Analyte Name | PFTrDA_1 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | 663.0/619.0 | Result Table | 18-0718 |
| Internal Standard | 13C2-PFTeDA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $y=0.84529 x+0.05282(r=0.99789)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $($ ng/L) | Calculated <br> Conc. $\mathbf{( n g / L )}$ | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 72.196811 | 72.2 |
| 30 | KF35 | L2 | True | 250.00 | 226.319185 | 90.5 |
| 31 | KF36 | L3 | True | 500.00 | 570.505876 | 114.1 |
| 32 | KF37 | L4 | True | 1000.00 | 1130.798470 | 113.1 |
| 33 | KF38 | L5 | True | 2500.00 | 2729.948315 | 109.2 |
| 34 | KF39 | L6 | True | 10000.00 | 10559.080700 | 105.6 |
| 35 | KF40 | L7 | True | 20000.00 | 19061.150642 | 95.3 |



Calibration Summary Report

| Analyte Name | PFTrDA_2 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | 663.0/169.0 | Result Table | 18-0718 |
| Internal Standard | 13C2-PFTeDA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=0.05927 x+0.01389(r=0.99857)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> (ng/L) | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | False | 100.00 | 6.726447 | 6.7 |
| 30 | KF35 | L2 | True | 250.00 | 221.261810 | 88.5 |
| 31 | KF36 | L3 | True | 500.00 | 490.980868 | 98.2 |
| 32 | KF37 | L4 | True | 1000.00 | 1053.082071 | 105.3 |
| 33 | KF38 | L5 | True | 2500.00 | 2640.479559 | 105.6 |
| 34 | KF39 | L6 | True | 10000.00 | 10630.146877 | 106.3 |
| 35 | KF40 | L7 | True | 20000.00 | 19214.048815 | 96.1 |



| Analyte Name | PFTeDA_1 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $713.0 / 669.0$ | Result Table | 18-0718 |
| Internal Standard | 13C2-PFTeDA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=1.15518 x+0.06733(r=0.99834)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> (ng/L) | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 70.017684 | 70.0 |
| 30 | KF35 | L2 | True | 250.00 | 244.809404 | 97.9 |
| 31 | KF36 | L3 | True | 500.00 | 565.692338 | 113.1 |
| 32 | KF37 | L4 | True | 1000.00 | 1103.666885 | 110.4 |
| 33 | KF38 | L5 | True | 2500.00 | 2689.620502 | 107.6 |
| 34 | KF39 | L6 | True | 10000.00 | 10517.522494 | 105.2 |
| 35 | KF40 | L7 | True | 20000.00 | 19158.670693 | 95.8 |



Calibration Summary Report

| Analyte Name | PFTeDA_2 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $713.0 / 169.0$ | Result Table | 18-0718 |
| Internal Standard | 13C2-PFTeDA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=0.05687 x+0.00223(r=0.99811)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $(\mathrm{ng} / \mathrm{L})$ | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 91.772738 | 91.8 |
| 30 | KF35 | L2 | True | 250.00 | 238.038639 | 95.2 |
| 31 | KF36 | L3 | True | 500.00 | 483.532962 | 96.7 |
| 32 | KF37 | L4 | True | 1000.00 | 1053.415851 | 105.3 |
| 33 | KF38 | L5 | True | 2500.00 | 2712.614191 | 108.5 |
| 34 | KF39 | L6 | True | 10000.00 | 10721.186616 | 107.2 |
| 35 | KF40 | L7 | True | 20000.00 | 19049.439002 | 95.3 |



Calibration Summary Report

| Analyte Name | NMeFOSAA_1 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $570.0 / 419.0$ | Result Table | 18-0718 |
| Internal Standard | d3-MeFOSAA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=1.11774 x+0.01355(r=0.99707)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $(\mathrm{ng} / \mathrm{L})$ | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 82.825066 | 82.8 |
| 30 | KF35 | L2 | True | 250.00 | 271.733384 | 108.7 |
| 31 | KF36 | L3 | True | 500.00 | 458.099083 | 91.6 |
| 32 | KF37 | L4 | True | 1000.00 | 1071.173074 | 107.1 |
| 33 | KF38 | L5 | True | 2500.00 | 2836.092064 | 113.4 |
| 34 | KF39 | L6 | True | 10000.00 | 9630.077328 | 96.3 |
| 35 | KF40 | L7 | False | 20000.00 | 17794.170709 | 89.0 |



| Analyte Name | NMeFOSAA_2 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | $570.0 / 512.0$ | Result Table | 18-0718 |
| Internal Standard | d3-MeFOSAA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=0.54233 x+0.03498(r=0.99837)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> (ng/L) | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 78.727301 | 78.7 |
| 30 | KF35 | L2 | True | 250.00 | 284.654078 | 113.9 |
| 31 | KF36 | L3 | True | 500.00 | 473.232125 | 94.7 |
| 32 | KF37 | L4 | True | 1000.00 | 1070.741432 | 107.1 |
| 33 | KF38 | L5 | True | 2500.00 | 2708.801634 | 108.4 |
| 34 | KF39 | L6 | True | 10000.00 | 9733.843430 | 97.3 |
| 35 | KF40 | L7 | False | 20000.00 | 17713.023581 | 88.6 |



| Analyte Name | NEtFOSAA_1 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | 584.0/419.0 | Result Table | 18-0718 |
| Internal Standard | d5-EtFOSAA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=1.06406 x+-0.02540(r=0.99926)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $(\mathrm{ng} / \mathrm{L})$ | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 104.501296 | 104.5 |
| 30 | KF35 | L2 | True | 250.00 | 229.083262 | 91.6 |
| 31 | KF36 | L3 | True | 500.00 | 507.527484 | 101.5 |
| 32 | KF37 | L4 | True | 1000.00 | 1046.068596 | 104.6 |
| 33 | KF38 | L5 | True | 2500.00 | 2367.629679 | 94.7 |
| 34 | KF39 | L6 | True | 10000.00 | 10514.381437 | 105.1 |
| 35 | KF40 | L7 | True | 20000.00 | 19580.808246 | 97.9 |



| Analyte Name | NEtFOSAA_2 | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | 584.0/483.0 | Result Table | 18-0718 |
| Internal Standard | d5-EtFOSAA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=0.06535 x+4.17511 e-4(r=0.99863)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> ng/L) | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | True | 100.00 | 111.797347 | 111.8 |
| 30 | KF35 | L2 | True | 250.00 | 202.036458 | 80.8 |
| 31 | KF36 | L3 | True | 500.00 | 629.500144 | 125.9 |
| 32 | KF37 | L4 | True | 1000.00 | 888.774224 | 88.9 |
| 33 | KF38 | L5 | True | 2500.00 | 2252.091855 | 90.1 |
| 34 | KF39 | L6 | True | 10000.00 | 10239.588865 | 102.4 |
| 35 | KF40 | L7 | True | 20000.00 | 20026.211106 | 100.1 |



| Analyte Name | PFBA | Data File | AC_12142018_5-0369.wiff |
| :--- | :--- | :--- | :--- |
| MRM Transition | 213.0 / 169.0 | Result Table | 18-0718 |
| Internal Standard | 13C4-PFBA | Instrument Name | QTRAP 5500 |
| Acquisition Date | 12/14/2018 9:35:22 PM | Acquisition Method | 5-0369.dam |

Regression Equation: $\quad y=1.20446 x+1.53305(r=0.99953)$ (weighting: $1 / x$ )

| Vial | Sample Name | Sample ID | Used for <br> ICAL | Target Conc. <br> $($ ng/L) $)$ | Calculated <br> Conc. (ng/L) | Recovery <br> $(\%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | KF34 | L1 | False | 100.00 | 277.952521 | 278.0 |
| 30 | KF35 | L2 | True | 250.00 | 288.738668 | 115.5 |
| 31 | KF36 | L3 | True | 500.00 | 412.387210 | 82.5 |
| 32 | KF37 | L4 | True | 1000.00 | 1000.381834 | 100.0 |
| 33 | KF38 | L5 | True | 2500.00 | 2519.665202 | 100.8 |
| 34 | KF39 | L6 | True | 10000.00 | 10211.632783 | 102.1 |
| 35 | KF40 | T7 | True | 20000.00 | 19817.194303 | 99.1 |



BATHELIE

|  | Isotope Dilution Calibration Curve Concentrations (ng/L) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | KF34 | KF35 | KF36 | KF37 | KF38 | KF39 | KF40 |
| PFBA | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| PFPeA | 101.00 | 252.50 | 505.00 | 1,010.00 | 2,525.00 | 10,100.00 | 20,200.00 |
| PFHxA | 101.00 | 252.50 | 505.00 | 1,010.00 | 2,525.00 | 10,100.00 | 20,200.00 |
| PFHpA | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| PFOA | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| PFNA | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| PFDA | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| PFUnA | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| PFDoA | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| PFTrDA | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| PFTeDA | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| NMeFOSAA | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| NEtFOSAA | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| PFOSA | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| PFBS | 101.00 | 252.50 | 505.00 | 1,010.00 | 2,525.00 | 10,100.00 | 20,200.00 |
| PFPeS | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| PFHxS (Branched) | 101.00 | 252.50 | 505.00 | 1,010.00 | 2,525.00 | 10,100.00 | 20,200.00 |
| PFHpS | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| PFOS (Branched) | 101.00 | 252.50 | 505.00 | 1,010.00 | 2,525.00 | 10,100.00 | 20,200.00 |
| PFDS | 101.00 | 252.50 | 505.00 | 1,010.00 | 2,525.00 | 10,100.00 | 20,200.00 |
| PFNS | 101.00 | 252.50 | 505.00 | 1,010.00 | 2,525.00 | 10,100.00 | 20,200.00 |
| 4:2FTS | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| 6:2FTS | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| 8:2FTS | 101.00 | 252.50 | 505.00 | 1,010.00 | 2,525.00 | 10,100.00 | 20,200.00 |
| 3:3 FTCA | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| 5:3 FTCA | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| 7:3 FTCA | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| HFPO-DA | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| Adona | 100.00 | 250.00 | 500.00 | 1,000.00 | 2,500.00 | 10,000.00 | 20,000.00 |
| 9Cl-PF3ONS | 93.20 | 233.00 | 466.00 | 932.00 | 2,330.00 | 9,320.00 | 18,640.00 |
| 11CI-PF3OUdS | 94.20 | 235.50 | 471.00 | 942.00 | 2,355.00 | 9,420.00 | 18,840.00 |
|  | Surrogates / Extracted Internal Standards |  |  |  |  |  |  |
| 13C4-PFBA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| 13C5-PFPeA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| 13C5-PFHxA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| 13C4-PFHpA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| 13C8-PFOA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| 13C9-PFNA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| 13C6-PFDA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| 13C7-PFUnA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| 13C2-PFDoA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| 13C2-PFTeDA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| d3-MeFOSAA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| d5-EtFOSAA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| 13C8-FOSA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| 13C3-PFBS | 232.25 | 232.25 | 232.25 | 232.25 | 232.25 | 232.25 | 232.25 |
| 13C3-PFHxS | 236.50 | 236.50 | 236.50 | 236.50 | 236.50 | 236.50 | 236.50 |
| 13C8-PFOS | 239.25 | 239.25 | 239.25 | 239.25 | 239.25 | 239.25 | 239.25 |
| 13C2-4:2FTS | 233.75 | 233.75 | 233.75 | 233.75 | 233.75 | 233.75 | 233.75 |
| 13C2-6:2FTS | 237.25 | 237.25 | 237.25 | 237.25 | 237.25 | 237.25 | 237.25 |
| 13C2-8:2FTS | 239.50 | 239.50 | 239.50 | 239.50 | 239.50 | 239.50 | 239.50 |
| 13C3-HFPO-DA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
|  | Internal Standards |  |  |  |  |  |  |
| 13C3-PFBA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| 13C2-PFOA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| 13C2-PFDA | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| 13C4-PFOS | 238.75 | 238.75 | 238.75 | 238.75 | 238.75 | 238.75 | 238.75 |


|  | ICC (ng/L) |
| :---: | :---: |
|  | KF42 |
| PFBA | 1,000.00 |
| PFPeA | 1,010.00 |
| PFHxA | 1,010.00 |
| PFHpA | 1,000.00 |
| PFOA | 1,000.00 |
| PFNA | 1,000.00 |
| PFDA | 1,000.00 |
| PFUnA | 1,000.00 |
| PFDoA | 1,000.00 |
| PFTrDA | 1,000.00 |
| PFTeDA | 1,000.00 |
| NMeFOSAA | 1,000.00 |
| NEtFOSAA | 1,000.00 |
| PFOSA | 1,000.00 |
| PFBS | 1,010.00 |
| PFPeS | 1,000.00 |
| PFHxS (Branched) | 1,010.00 |
| PFHpS | 1,000.00 |
| PFOS (Branched) | 1,000.00 |
| PFDS | 1,010.00 |
| PFNS | 1,010.00 |
| 4:2FTS | 1,000.00 |
| 6:2FTS | 1,000.00 |
| 8:2FTS | 1,010.00 |
| 3:3 FTCA | 1,000.00 |
| 5:3 FTCA | 1,000.00 |
| 7:3 FTCA | 1,000.00 |
| HFPO-DA | 1,000.00 |
| Adona | 942.00 |
| 9CI-PF3ONS | 932.00 |
| 11Cl-PF30UdS | 942.00 |
| 13C4-PFBA | 250.00 |
| 13C5-PFPeA | 250.00 |
| 13C5-PFHxA | 250.00 |
| 13C4-PFHpA | 250.00 |
| 13C8-PFOA | 250.00 |
| 13C9-PFNA | 250.00 |
| 13C6-PFDA | 250.00 |
| 13C7-PFUnA | 250.00 |
| 13C2-PFDoA | 250.00 |
| 13C2-PFTeDA | 250.00 |
| d3-MeFOSAA | 250.00 |
| d5-EtFOSAA | 250.00 |
| 13C8-FOSA | 250.00 |
| 13C3-PFBS | 232.25 |
| 13C3-PFHxS | 236.50 |
| 13C8-PFOS | 239.25 |
| 13C2-4:2FTS | 233.75 |
| 13C2-6:2FTS | 237.25 |
| 13C2-8:2FTS | 239.50 |
| 13C3-HFPO-DA | 250.00 |
| 13C3-PFBA | 250.00 |
| 13C2-PFOA | 250.00 |
| 13C2-PFDA | 250.00 |
| 13C4-PFOS | 238.75 |


| Sample Name | KF34 | Injection Vial | 29 |
| :--- | :--- | :--- | :--- |
| Sample ID | L1 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name |  |
| Acquisition Date | 2018-12-14T21:46:13 | Data File | QTRAP 5500 |
| Acquisition Method | $5-0369 . d a m$ | Result Table | AC_12142018_5-0369.wiff |
| Sample Comment |  |  | 18-0718 |


| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \text { S/N } \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.50 | 39548.14 | 93.22 | 198.8 | false | 13C3-PFBS | 31994.27 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9 / 99.0 | 1.50 | 14955.23 | 85.56 | 148.1 | false | 13C3-PFBS | 31994.27 | 232.25 | PFBS | 0.380 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.82 | 35307.54 | 108.90 | 16.7 | true | 13C5-PFHxA | 82326.95 | 250.00 | PFHxA |  |  |  |
| PFHxA_2 | 313.0 / 119.0 | 1.79 | 2206.73 | 123.80 | 10.9 | false | 13C5-PFHxA | 82326.95 | 250.00 | PFHxA | 0.060 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.23 | 31292.02 | 108.34 | 30.5 | true | 13C4-PFHpA | 94083.41 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.21 | 533.89 | 21.35 | 16.0 | true | 13C4-PFHpA | 94083.41 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.25 | 44871.35 | 100.37 | 141.2 | false | 13C3-PFHxS | 32955.63 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.25 | 12152.32 | 87.98 | 55.2 | false | 13C3-PFHxS | 32955.63 | 236.50 | PFHxS | 0.270 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.64 | 36688.89 | 100.12 | 52.8 | true | 13C8-PFOA | 104971.85 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.64 | 2911.63 | 119.37 | 51.2 | true | 13C8-PFOA | 104971.85 | 250.00 | PFOA | 0.080 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 3.04 | 34349.92 | 87.10 | 64.1 | false | 13C9-PFNA | 95355.37 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 3.03 | 12393.03 | 93.41 | 69.8 | false | 13C9-PFNA | 95355.37 | 250.00 | PFNA | 0.360 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 3.03 | 51864.99 | 93.40 | 91.9 | true | 13C8-PFOS | 32334.87 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 3.05 | 7539.35 | 78.30 | 32.0 | true | 13C8-PFOS | 32334.87 | 239.25 | PFOS | 0.150 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.39 | 35805.20 | 93.18 | 68.1 | false | 13C6-PFDA | 86501.97 | 250.00 | PFDA |  |  |  |
| PFDA_2 | 513.0 / 219.0 | 3.40 | 2036.97 | 121.94 | 88.9 | true | 13C6-PFDA | 86501.97 | 250.00 | PFDA | 0.060 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | 3.71 | 29895.05 | 90.72 | 42.8 | true | 13C7-PFUnA | 81358.64 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.69 | 1168.67 | 89.41 | 23.1 | true | 13C7-PFUnA | 81358.64 | 250.00 | PFUnA | 0.040 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 4.00 | 30063.14 | 92.22 | 65.9 | false | 13C2-PFDoA | 84623.68 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.99 | 5738.16 | 87.36 | 62.2 | false | 13C2-PFDoA | 84623.68 | 250.00 | PFDoA | 0.190 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.24 | 26825.45 | 72.20 | 90.4 | false | 13C2-PFTeDA | 90343.69 | 250.00 | PFTrDA |  |  |  |
| PFTrDA 2 | 663.0 / 169.0 | 4.22 | 1399.08 | 6.73 | 32.8 | false | 13C2-PFTeDA | 90343.69 | 250.00 | PFTrDA | 0.050 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.46 | 35312.06 | 70.02 | 160.1 | false | 13C2-PFTeDA | 90343.69 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.46 | 2087.72 | 91.77 | 84.0 | false | 13C2-PFTeDA | 90343.69 | 250.00 | PFTeDA | 0.060 | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.55 | 7765.07 | 82.83 | 811.3 | false | d3-MeFOSAA | 20229.30 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.53 | 4162.47 | 78.73 | 131.8 | false | d3-MeFOSAA | 20229.30 | 250.00 | NMeFOSAA | 0.540 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.70 | 8129.28 | 104.50 | 136.0 | true | d5-EtFOSAA | 19384.09 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA 2 | 584.0 / 483.0 | 3.69 | 574.57 | 111.80 | 136.8 | false | d5-EtFOSAA | 19384.09 | 250.00 | NEtFOSAA | 0.070 | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.04 | 246212.79 | 277.95 | 319.6 | true | 13C4-PFBA | 85723.15 | 250.00 |  |  |  |  |


| Sample Name | KF35 | Injection Vial | 30 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | L2 | Injection Volume | 10.00 |  |
| Sample Type | Standard | Instrument Name | QTRAP 5500 |  |
| Acquisition Date | 2018-12-14T21:57:05 | Data File | AC_12142018_5-0369.wiff |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |
| Sample Comment |  |  |  |  |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM <br> Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. | Ratio Group | Ion | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| PFBS_1 | 298.9 / 80.0 | 1.49 | 91537.09 | 242.99 | 398.6 | false | 13C3-PFBS | 29406.00 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.49 | 33223.91 | 263.95 | 178.1 | false | 13C3-PFBS | 29406.00 | 232.25 | PFBS | 0.360 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.80 | 78913.26 | 239.34 | 26.0 | true | 13C5-PFHxA | 84199.50 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.80 | 3815.03 | 185.62 | 18.4 | false | 13C5-PFHxA | 84199.50 | 250.00 | PFHxA | 0.050 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.21 | 70497.40 | 241.79 | 42.8 | true | 13C4-PFHpA | 88295.89 | 250.00 | PFHpA |  |  |  |
| PFHpA 2 | 363.0 / 169.0 | 2.19 | 2037.99 | 283.97 | 41.7 | true | 13C4-PFHpA | 88295.89 | 250.00 | PFHpA | 0.030 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.24 | 104442.46 | 239.30 | 286.5 | false | 13C3-PFHxS | 29120.99 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.24 | 34107.74 | 265.57 | 167.4 | false | 13C3-PFHxS | 29120.99 | 236.50 | PFHxS | 0.330 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.62 | 91222.29 | 254.40 | 74.9 | true | 13C8-PFOA | 88623.90 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.61 | 6354.63 | 269.12 | 62.7 | true | 13C8-PFOA | 88623.90 | 250.00 | PFOA | 0.070 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 3.02 | 88266.03 | 231.92 | 102.4 | false | 13C9-PFNA | 90732.32 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 3.02 | 26805.03 | 215.47 | 86.4 | false | 13C9-PFNA | 90732.32 | 250.00 | PFNA | 0.300 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 3.02 | 129159.68 | 263.78 | 161.8 | true | 13C8-PFOS | 25681.14 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 3.02 | 24692.07 | 282.83 | 107.4 | true | 13C8-PFOS | 25681.14 | 239.25 | PFOS | 0.190 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.38 | 89833.32 | 243.38 | 107.8 | false | 13C6-PFDA | 80557.26 | 250.00 | PFDA |  |  |  |
| PFDA_2 | 513.0 / 219.0 | 3.38 | 2982.79 | 193.77 | 65.7 | false | 13C6-PFDA | 80557.26 | 250.00 | PFDA | 0.030 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | 3.70 | 80399.66 | 242.81 | 81.3 | false | 13C7-PFUnA | 79635.55 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.70 | 3667.34 | 236.17 | 71.5 | false | 13C7-PFUnA | 79635.55 | 250.00 | PFUnA | 0.050 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 3.98 | 75416.83 | 246.99 | 100.0 | false | 13C2-PFDoA | 80900.63 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.99 | 15330.27 | 272.68 | 95.0 | false | 13C2-PFDoA | 80900.63 | 250.00 | PFDoA | 0.200 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.23 | 69439.28 | 226.32 | 133.2 | false | 13C2-PFTeDA | 84884.96 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | 4.23 | 5631.73 | 221.26 | 98.2 | false | 13C2-PFTeDA | 84884.96 | 250.00 | PFTrDA | 0.080 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.44 | 101736.73 | 244.81 | 233.7 | false | 13C2-PFTeDA | 84884.96 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.44 | 4786.16 | 238.04 | 135.5 | false | 13C2-PFTeDA | 84884.96 | 250.00 | PFTeDA | 0.050 | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.52 | 22398.56 | 271.73 | $\begin{gathered} 161925 . \\ 2 \\ \hline \end{gathered}$ | false | d3-MeFOSAA | 18233.15 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.53 | 11896.93 | 284.65 | 509.3 | false | d3-MeFOSAA | 18233.15 | 250.00 | NMeFOSAA | 0.530 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.69 | 20418.30 | 229.08 | 333.7 | false | d5-EtFOSAA | 21501.38 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA 2 | 584.0 / 483.0 | 3.71 | 1144.51 | 202.04 | 34.1 | false | d5-EtFOSAA | 21501.38 | 250.00 | NEtFOSAA | 0.060 | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.02 | 200384.12 | 288.74 | 190.2 | true | 13C4-PFBA | 68527.26 | 250.00 |  |  |  |  |


| Sample Name | KF36 | Injection Vial | 31 |
| :--- | :--- | :--- | :--- |
| Sample ID | L3 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name |  |
| Acquisition Date | 2018-12-14T22:07:57 | Data File | QTRAP 5500 |
| Acquisition Method | $5-0369 . d a m$ | Result Table | AC_12142018_5-0369.wiff |
| Sample Comment |  |  | 18-0718 |


| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. <br> (ng/L) | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.50 | 201602.50 | 554.19 | 529.3 | false | 13C3-PFBS | 28748.11 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.50 | 62877.00 | 548.69 | 251.7 | false | 13C3-PFBS | 28748.11 | 232.25 | PFBS | 0.310 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.80 | 152633.11 | 501.31 | 36.3 | true | 13C5-PFHxA | 77949.23 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.79 | 10841.93 | 498.89 | 37.6 | false | 13C5-PFHxA | 77949.23 | 250.00 | PFHxA | 0.070 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.22 | 141775.06 | 489.32 | 54.5 | true | 13C4-PFHpA | 85279.11 | 250.00 | PFHpA |  |  |  |
| PFHpA 2 | 363.0 / 169.0 | 2.22 | 3226.73 | 506.60 | 62.5 | true | 13C4-PFHpA | 85279.11 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.25 | 224362.93 | 526.09 | 405.8 | false | 13C3-PFHxS | 27430.59 | 236.50 | PFHxS |  |  |  |
| PFHxS 2 | 399.0 / 99.0 | 2.26 | 64112.26 | 523.61 | 251.0 | false | 13C3-PFHxS | 27430.59 | 236.50 | PFHxS | 0.290 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.63 | 192404.22 | 501.81 | 112.9 | false | 13C8-PFOA | 90776.59 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.63 | 11439.97 | 454.14 | 84.7 | false | 13C8-PFOA | 90776.59 | 250.00 | PFOA | 0.060 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 3.03 | 191468.52 | 535.62 | 172.5 | false | 13C9-PFNA | 84816.40 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 3.03 | 59949.45 | 518.94 | 153.7 | false | 13C9-PFNA | 84816.40 | 250.00 | PFNA | 0.310 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 3.03 | 264670.43 | 503.62 | 207.5 | true | 13C8-PFOS | 26867.00 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 3.03 | 48773.33 | 522.62 | 196.8 | false | 13C8-PFOS | 26867.00 | 239.25 | PFOS | 0.180 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.40 | 201085.43 | 556.13 | 167.3 | false | 13C6-PFDA | 78085.71 | 250.00 | PFDA |  |  |  |
| PFDA_2 | 513.0 / 219.0 | 3.40 | 6647.79 | 450.14 | 119.3 | false | 13C6-PFDA | 78085.71 | 250.00 | PFDA | 0.030 | 0.041 |  |
| PFUnA_1 | $563.0 / 519.0$ | 3.71 | 172242.35 | 543.58 | 129.3 | false | 13C7-PFUnA | 75561.94 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.70 | 8682.64 | 555.07 | 101.5 | false | 13C7-PFUnA | 75561.94 | 250.00 | PFUnA | 0.050 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 4.00 | 159209.63 | 522.00 | 159.8 | false | 13C2-PFDoA | 81337.69 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.99 | 27634.73 | 501.52 | 173.8 | false | 13C2-PFDoA | 81337.69 | 250.00 | PFDoA | 0.170 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.24 | 160636.61 | 570.51 | 236.3 | false | 13C2-PFTeDA | 81056.25 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | 4.23 | 10560.56 | 490.98 | 153.8 | false | 13C2-PFTeDA | 81056.25 | 250.00 | PFTrDA | 0.070 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.46 | 217330.53 | 565.69 | 347.0 | false | 13C2-PFTeDA | 81056.25 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.45 | 9097.27 | 483.53 | 210.8 | false | 13C2-PFTeDA | 81056.25 | 250.00 | PFTeDA | 0.040 | 0.049 |  |
| NMeFOSAA_1 | 570.0/419.0 | 3.54 | 45504.22 | 458.10 | 908.5 | false | d3-MeFOSAA | 22071.38 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.54 | 23430.49 | 473.23 | 412.7 | false | d3-MeFOSAA | 22071.38 | 250.00 | NMeFOSAA | 0.510 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.71 | 41296.43 | 507.53 | 362.7 | false | d5-EtFOSAA | 19344.88 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA 2 | 584.0 / 483.0 | 3.69 | 3191.28 | 629.50 | 34954.9 | true | d5-EtFOSAA | 19344.88 | 250.00 | NEtFOSAA | 0.080 | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.02 | 236346.08 | 412.39 | 224.6 | true | 13C4-PFBA | 67146.20 | 250.00 |  |  |  |  |


| Sample Name | KF37 | Injection Vial | 32 |
| :--- | :--- | :--- | :--- |
| Sample ID | L4 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name |  |
| Acquisition Date | 2018-12-14T22:18:49 | Data File | QTRAP 5500 |
| Acquisition Method | $5-0369 . d a m$ | Result Table | AC_12142018_5-0369.wiff |
| Sample Comment |  |  | 18-0718 |


| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. <br> (ng/L) | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.51 | 425929.12 | 1038.31 | 991.6 | false | 13C3-PFBS | 32564.60 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.51 | 131723.04 | 1049.00 | 369.0 | false | 13C3-PFBS | 32564.60 | 232.25 | PFBS | 0.310 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.81 | 333858.42 | 988.21 | 60.6 | true | 13C5-PFHxA | 86591.26 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.81 | 26153.40 | 1043.21 | 63.6 | false | 13C5-PFHxA | 86591.26 | 250.00 | PFHxA | 0.080 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.23 | 318643.86 | 978.38 | 99.6 | false | 13C4-PFHpA | 94561.97 | 250.00 | PFHpA |  |  |  |
| PFHpA 2 | 363.0 / 169.0 | 2.22 | 5670.49 | 840.46 | 71.7 | false | 13C4-PFHpA | 94561.97 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.26 | 487711.86 | 1062.61 | 472.3 | false | 13C3-PFHxS | 29079.95 | 236.50 | PFHxS |  |  |  |
| PFHxS 2 | 399.0 / 99.0 | 2.26 | 141280.92 | 1081.53 | 327.4 | false | 13C3-PFHxS | 29079.95 | 236.50 | PFHxS | 0.290 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.64 | 422199.90 | 1000.56 | 214.1 | false | 13C8-PFOA | 97794.41 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.64 | 23373.63 | 838.98 | 109.0 | false | 13C8-PFOA | 97794.41 | 250.00 | PFOA | 0.060 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 3.04 | 391539.65 | 1038.30 | 218.6 | false | 13C9-PFNA | 89315.18 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 3.03 | 133615.83 | 1101.11 | 231.6 | false | 13C9-PFNA | 89315.18 | 250.00 | PFNA | 0.340 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 3.03 | 573012.22 | 1114.09 | 287.9 | false | 13C8-PFOS | 25899.62 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 3.03 | 103225.37 | 1132.07 | 307.8 | false | 13C8-PFOS | 25899.62 | 239.25 | PFOS | 0.180 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.40 | 403744.65 | 972.96 | 221.0 | false | 13C6-PFDA | 89301.56 | 250.00 | PFDA |  |  |  |
| PFDA_2 | 513.0 / 219.0 | 3.39 | 19237.49 | 1144.45 | 183.4 | false | 13C6-PFDA | 89301.56 | 250.00 | PFDA | 0.050 | 0.041 |  |
| PFUnA_1 | $563.0 / 519.0$ | 3.71 | 356513.61 | 992.68 | 211.8 | false | 13C7-PFUnA | 85379.13 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.71 | 17383.38 | 965.86 | 187.8 | false | 13C7-PFUnA | 85379.13 | 250.00 | PFUnA | 0.050 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 4.00 | 344600.28 | 996.72 | 253.2 | false | 13C2-PFDoA | 92458.33 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.99 | 60401.64 | 979.02 | 198.9 | false | 13C2-PFDoA | 92458.33 | 250.00 | PFDoA | 0.180 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.24 | 352683.50 | 1130.80 | 315.8 | false | 13C2-PFTeDA | 90986.14 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | 4.24 | 23978.70 | 1053.08 | 232.1 | false | 13C2-PFTeDA | 90986.14 | 250.00 | PFTrDA | 0.070 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.46 | 470130.25 | 1103.67 | 502.8 | false | 13C2-PFTeDA | 90986.14 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.45 | 22007.93 | 1053.42 | 378.5 | false | 13C2-PFTeDA | 90986.14 | 250.00 | PFTeDA | 0.050 | 0.049 |  |
| NMeFOSAA_1 | 570.0/419.0 | 3.54 | 100430.52 | 1071.17 | 768.1 | false | d3-MeFOSAA | 20911.23 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.54 | 49304.01 | 1070.74 | 518.3 | false | d3-MeFOSAA | 20911.23 | 250.00 | NMeFOSAA | 0.490 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.70 | 88523.71 | 1046.07 | 546.4 | false | d5-EtFOSAA | 19996.78 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA 2 | 584.0 / 483.0 | 3.71 | 4654.08 | 888.77 | 17476.0 | false | d5-EtFOSAA | 19996.78 | 250.00 | NEtFOSAA | 0.050 | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.05 | 509519.38 | 1000.38 | 387.3 | true | 13C4-PFBA | 80204.56 | 250.00 |  |  |  |  |


| Sample Name | KF38 | Injection Vial | 33 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | L5 | Injection Volume | 10.00 |  |
| Sample Type | Standard | Instrument Name | QTRAP 5500 |  |
| Acquisition Date | 2018-12-14T22:29:41 | Data File | AC_12142018_5-0369.wiff |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |
| Sample Comment |  |  |  |  |


| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.50 | 1006038.29 | 2390.95 | 1191.0 | false | 13C3-PFBS | 33500.93 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9 / 99.0 | 1.50 | 299529.88 | 2367.50 | 605.4 | false | 13C3-PFBS | 33500.93 | 232.25 | PFBS | 0.300 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.80 | 816350.35 | 2509.26 | 103.2 | false | 13C5-PFHxA | 83444.85 | 250.00 | PFHxA |  |  |  |
| PFHxA_2 | 313.0 / 119.0 | 1.80 | 62195.38 | 2524.12 | 99.9 | false | 13C5-PFHxA | 83444.85 | 250.00 | PFHxA | 0.080 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.21 | 788772.57 | 2419.25 | 166.9 | false | 13C4-PFHpA | 93907.78 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.21 | 16182.31 | 2535.62 | 131.4 | false | 13C4-PFHpA | 93907.78 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.25 | 1147679.03 | 2294.52 | 645.8 | false | 13C3-PFHxS | 31443.35 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.24 | 325094.33 | 2294.40 | 529.7 | false | 13C3-PFHxS | 31443.35 | 236.50 | PFHxS | 0.280 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.63 | 1017931.84 | 2350.09 | 312.5 | false | 13C8-PFOA | 99176.67 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.63 | 67395.69 | 2339.52 | 179.3 | false | 13C8-PFOA | 99176.67 | 250.00 | PFOA | 0.070 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 3.02 | 1003173.76 | 2764.93 | 290.9 | false | 13C9-PFNA | 85833.47 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 3.02 | 310008.96 | 2661.87 | 402.7 | false | 13C9-PFNA | 85833.47 | 250.00 | PFNA | 0.310 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 3.02 | 1419015.43 | 2339.06 | 384.8 | false | 13C8-PFOS | 30352.05 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 3.02 | 255048.32 | 2372.60 | 396.3 | false | 13C8-PFOS | 30352.05 | 239.25 | PFOS | 0.180 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.39 | 978371.11 | 2439.40 | 363.3 | false | 13C6-PFDA | 86069.85 | 250.00 | PFDA |  |  |  |
| PFDA_2 | 513.0 / 219.0 | 3.39 | 37378.12 | 2310.75 | 403.0 | false | 13C6-PFDA | 86069.85 | 250.00 | PFDA | 0.040 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | 3.71 | 865139.39 | 2582.20 | 300.9 | true | 13C7-PFUnA | 79466.59 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.71 | 46419.99 | 2728.32 | 270.7 | false | 13C7-PFUnA | 79466.59 | 250.00 | PFUnA | 0.050 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 3.99 | 839241.93 | 2500.73 | 368.0 | false | 13C2-PFDoA | 89913.70 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.99 | 149057.14 | 2508.84 | 363.1 | false | 13C2-PFDoA | 89913.70 | 250.00 | PFDoA | 0.180 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.24 | 815937.95 | 2729.95 | 480.5 | false | 13C2-PFTeDA | 87893.83 | 250.00 | PFTrDA |  |  |  |
| PFTrDA 2 | 663.0 / 169.0 | 4.23 | 56239.86 | 2640.48 | 392.9 | false | 13C2-PFTeDA | 87893.83 | 250.00 | PFTrDA | 0.070 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.45 | 1098258.02 | 2689.62 | 811.8 | false | 13C2-PFTeDA | 87893.83 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.45 | 54437.00 | 2712.61 | 533.1 | false | 13C2-PFTeDA | 87893.83 | 250.00 | PFTeDA | 0.050 | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.53 | 236500.77 | 2836.09 | 996.6 | false | d3-MeFOSAA | 18631.54 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.53 | 110136.23 | 2708.80 | 586.5 | false | d3-MeFOSAA | 18631.54 | 250.00 | NMeFOSAA | 0.470 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.70 | 221175.56 | 2367.63 | 862.0 | false | d5-EtFOSAA | 22003.68 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA 2 | 584.0 / 483.0 | 3.70 | 12962.59 | 2252.09 | 50786.6 | true | d5-EtFOSAA | 22003.68 | 250.00 | NEtFOSAA | 0.060 | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.04 | 1037770.81 | 2519.67 | 403.3 | true | 13C4-PFBA | 75902.38 | 250.00 |  |  |  |  |


| Sample Name | KF39 | Injection Vial | 34 |
| :--- | :--- | :--- | :--- |
| Sample ID | L6 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-14T22:40:33 | Data File | AC_12142018_5-0369.wiff |
| Acquisition Method | $5-0369 . d a m$ | Result Table | 18-0718 |
| Sample Comment |  |  |  |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM <br> Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. <br> (ng/L) | Ratio Group | Ion | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| PFBS_1 | 298.9 / 80.0 | 1.50 | 3940111.59 | 10881.06 | 2507.3 | false | 13C3-PFBS | 28881.22 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9 / 99.0 | 1.50 | 1176079.09 | 10926.02 | 1174.3 | false | 13C3-PFBS | 28881.22 | 232.25 | PFBS | 0.300 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.81 | 3177151.80 | 10235.42 | 254.8 | false | 13C5-PFHxA | 79643.81 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.80 | 248568.44 | 10460.08 | 219.6 | false | 13C5-PFHxA | 79643.81 | 250.00 | PFHxA | 0.080 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.22 | 3046181.91 | 10381.05 | 410.9 | false | 13C4-PFHpA | 84166.78 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.22 | 55257.26 | 9840.98 | 272.2 | false | 13C4-PFHpA | 84166.78 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.25 | 4386921.61 | 11058.88 | 836.9 | false | 13C3-PFHxS | 24804.88 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.25 | 1253190.31 | 11186.83 | 725.8 | false | 13C3-PFHxS | 24804.88 | 236.50 | PFHxS | 0.290 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.63 | 3820578.76 | 10596.10 | 462.4 | false | 13C8-PFOA | 81988.00 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.63 | 254696.75 | 10606.02 | 307.0 | false | 13C8-PFOA | 81988.00 | 250.00 | PFOA | 0.070 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 3.03 | 3544609.16 | 10023.35 | 569.1 | false | 13C9-PFNA | 83617.80 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 3.03 | 1161799.40 | 10247.07 | 637.0 | false | 13C9-PFNA | 83617.80 | 250.00 | PFNA | 0.330 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 3.02 | 5161231.66 | 10098.85 | 523.3 | false | 13C8-PFOS | 25455.07 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 3.03 | 930898.84 | 10282.69 | 621.1 | false | 13C8-PFOS | 25455.07 | 239.25 | PFOS | 0.180 | 0.177 |  |
| PFDA_1 | 513.0/469.0 | 3.39 | 3679348.55 | 10629.37 | 626.7 | false | 13C6-PFDA | 74177.82 | 250.00 | PFDA |  |  |  |
| PFDA_2 | $513.0 / 219.0$ | 3.39 | 147603.89 | 10600.61 | 541.3 | false | 13C6-PFDA | 74177.82 | 250.00 | PFDA | 0.040 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | 3.71 | 3354433.39 | 10279.10 | 573.8 | false | 13C7-PFUnA | 77319.13 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.71 | 168262.89 | 10101.89 | 484.9 | false | 13C7-PFUnA | 77319.13 | 250.00 | PFUnA | 0.050 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 3.99 | 3276655.09 | 10984.78 | 529.7 | false | 13C2-PFDoA | 79994.02 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.99 | 578682.08 | 11001.36 | 521.3 | false | 13C2-PFDoA | 79994.02 | 250.00 | PFDoA | 0.180 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.24 | 3074203.37 | 10559.08 | 715.9 | false | 13C2-PFTeDA | 85980.14 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | 4.24 | 217868.96 | 10630.15 | 595.8 | false | 13C2-PFTeDA | 85980.14 | 250.00 | PFTrDA | 0.070 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.46 | 4184285.40 | 10517.52 | 1243.8 | false | 13C2-PFTeDA | 85980.14 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.45 | 209903.17 | 10721.19 | 1026.0 | false | 13C2-PFTeDA | 85980.14 | 250.00 | PFTeDA | 0.050 | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.54 | 892525.10 | 9630.08 | 1607.9 | false | d3-MeFOSAA | 20723.07 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.54 | 438312.90 | 9733.84 | 1276.2 | false | d3-MeFOSAA | 20723.07 | 250.00 | NMeFOSAA | 0.490 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.70 | 808462.72 | 10514.38 | 975.5 | false | d5-EtFOSAA | 18075.85 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.70 | 48389.52 | 10239.59 | 474.1 | true | d5-EtFOSAA | 18075.85 | 250.00 | NEtFOSAA | 0.060 | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.05 | 3626729.40 | 10211.63 | 709.9 | true | 13C4-PFBA | 71489.05 | 250.00 |  |  |  |  |


| Sample Name | KF40 | Injection Vial | 35 |
| :--- | :--- | :--- | :--- |
| Sample ID | L7 | Injection Volume | 10.00 |
| Sample Type | Standard | Instrument Name |  |
| Acquisition Date | 2018-12-14T22:51:24 | Data File | QTRAP 5500 |
| Acquisition Method | $5-0369 . d a m$ | Result Table | AC_12142018_5-0369.wiff |
| Sample Comment |  |  | 18-0718 |


| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. <br> (ng/L) | Ratio Group | Ion Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.50 | 8235681.11 | 19492.78 | 3084.0 | false | 13C3-PFBS | 33705.41 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.49 | 2439717.81 | 19452.78 | 1532.0 | false | 13C3-PFBS | 33705.41 | 232.25 | PFBS | 0.300 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.80 | 6719729.88 | 20111.04 | 360.8 | false | 13C5-PFHxA | 85735.58 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.80 | 508774.85 | 19857.78 | 328.0 | false | 13C5-PFHxA | 85735.58 | 250.00 | PFHxA | 0.080 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.21 | 6233700.62 | 19731.87 | 417.1 | false | 13C4-PFHpA | 90561.75 | 250.00 | PFHpA |  |  |  |
| PFHpA 2 | 363.0 / 169.0 | 2.21 | 121889.50 | 20242.37 | 374.0 | false | 13C4-PFHpA | 90561.75 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.24 | 8804902.29 | 19411.72 | 790.2 | false | 13C3-PFHxS | 28345.85 | 236.50 | PFHxS |  |  |  |
| PFHxS 2 | 399.0 / 99.0 | 2.24 | 2465341.33 | 19253.57 | 872.9 | false | 13C3-PFHxS | 28345.85 | 236.50 | PFHxS | 0.280 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.63 | 7937824.95 | 19546.91 | 550.1 | false | 13C8-PFOA | 92257.07 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.62 | 533534.10 | 19722.85 | 428.3 | false | 13C8-PFOA | 92257.07 | 250.00 | PFOA | 0.070 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 3.02 | 7103281.91 | 19668.79 | 765.4 | false | 13C9-PFNA | 85385.34 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 3.02 | 2258766.16 | 19512.13 | 673.0 | false | 13C9-PFNA | 85385.34 | 250.00 | PFNA | 0.320 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 3.01 | 10303854.00 | 20280.70 | 484.2 | false | 13C8-PFOS | 25288.06 | 239.25 | PFOS |  |  |  |
| PFOS 2 | 499.0 / 99.0 | 3.02 | 1801842.14 | 20022.40 | 624.1 | false | 13C8-PFOS | 25288.06 | 239.25 | PFOS | 0.170 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.38 | 7328566.62 | 19415.58 | 795.1 | false | 13C6-PFDA | 80871.54 | 250.00 | PFDA |  |  |  |
| PFDA_2 | $513.0 / 219.0$ | 3.38 | 296406.17 | 19528.34 | 500.9 | false | 13C6-PFDA | 80871.54 | 250.00 | PFDA | 0.040 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | 3.70 | 6540395.52 | 19618.92 | 591.1 | false | 13C7-PFUnA | 78972.78 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.70 | 335067.51 | 19673.28 | 493.6 | false | 13C7-PFUnA | 78972.78 | 250.00 | PFUnA | 0.050 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 3.99 | 6571741.86 | 19006.56 | 647.8 | false | 13C2-PFDoA | 92735.62 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.99 | 1157855.52 | 18999.22 | 607.3 | false | 13C2-PFDoA | 92735.62 | 250.00 | PFDoA | 0.180 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.23 | 6194076.14 | 19061.15 | 928.6 | false | 13C2-PFTeDA | 96029.65 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | 4.23 | 438750.08 | 19214.05 | 745.1 | false | 13C2-PFTeDA | 96029.65 | 250.00 | PFTrDA | 0.070 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.45 | 8507644.11 | 19158.67 | 1409.5 | false | 13C2-PFTeDA | 96029.65 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.45 | 416382.07 | 19049.44 | 1347.4 | false | 13C2-PFTeDA | 96029.65 | 250.00 | PFTeDA | 0.050 | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.53 | 1764518.68 | 17794.17 | 706.6 | false | d3-MeFOSAA | 22175.57 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.53 | 852883.00 | 17713.02 | 795.1 | false | d3-MeFOSAA | 22175.57 | 250.00 | NMeFOSAA | 0.480 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.69 | 1577521.61 | 19580.81 | 887.0 | false | d5-EtFOSAA | 18934.46 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.70 | 99126.25 | 20026.21 | 775.4 | false | d5-EtFOSAA | 18934.46 | 250.00 | NEtFOSAA | 0.060 | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.04 | 7203869.08 | 19817.19 | 868.7 | true | 13C4-PFBA | 74259.42 | 250.00 |  |  |  |  |


| Sample Name | KF34 | Injection Vial | 29 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | L1 | Injection Volume | 10.00 |  |
| Sample Type | Standard | Instrument Name |  |  |
| Acquisition Date | 2018-12-14T21:46:13 | Data File | QTRAP 5500 |  |
| Acquisition Method | 5-0369.dam | Result Table | AC_12142018_5-0369.wiff |  |
| Sample Comment |  |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.06 | 85723.15 | 274.90 | 1366.9 | false | 13C3-PFBA | 51147.92 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.99 | 84623.68 | 241.09 | 710.4 | false | 13C2-PFDA | 87176.19 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.54 | 19720.67 | 232.88 | 183.3 | false | 13C4-PFOS | 29522.38 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.70 | 19559.03 | 223.28 | 233.4 | false | 13C4-PFOS | 29522.38 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.81 | 82326.95 | 240.54 | 795.6 | false | 13C2-PFOA | 96585.14 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.22 | 94083.41 | 252.85 | 562.5 | false | 13C2-PFOA | 96585.14 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.63 | 104971.85 | 271.69 | 889.4 | false | 13C2-PFOA | 96585.14 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 3.02 | 95355.37 | 262.78 | 698.6 | false | 13C2-PFOA | 96585.14 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.38 | 86501.97 | 258.06 | 587.6 | false | 13C2-PFDA | 87176.19 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.70 | 81358.64 | 250.11 | 419.4 | false | 13C2-PFDA | 87176.19 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.45 | 90343.69 | 250.69 | 1247.1 | false | 13C2-PFDA | 87176.19 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.49 | 31994.27 | 231.47 | 294.1 | false | 13C4-PFOS | 29522.38 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.25 | 32333.12 | 240.82 | 336.6 | false | 13C4-PFOS | 29522.38 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 3.02 | 31644.03 | 258.19 | 171.8 | false | 13C4-PFOS | 29522.38 | 238.75 |  | N/A | N/A |  |

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| Sample Name | KF35 | Injection Vial | 30 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | L2 | Injection Volume | 10.00 |  |
| Sample Type | Standard | Instrument Name | QTRAP 5500 |  |
| Acquisition Date | 2018-12-14T21:57:05 | Data File | AC_12142018_5-0369.wiff |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |
| Sample Comment |  |  |  |  |

## Results Summary

| Analyte | MRM <br> Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.05 | 68527.26 | 223.02 | 589.8 | false | 13C3-PFBA | 50397.31 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.98 | 80900.63 | 236.27 | 847.3 | false | 13C2-PFDA | 85041.75 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.53 | 18905.05 | 250.80 | 250.9 | false | 13C4-PFOS | 26278.59 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.69 | 21623.58 | 277.32 | 315.1 | false | 13C4-PFOS | 26278.59 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.78 | 84199.50 | 253.75 | 704.2 | false | 13C2-PFOA | 93637.07 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.20 | 88295.89 | 244.77 | 757.5 | false | 13C2-PFOA | 93637.07 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.62 | 88623.90 | 236.60 | 1401.7 | false | 13C2-PFOA | 93637.07 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 3.01 | 90732.32 | 257.92 | 992.2 | false | 13C2-PFOA | 93637.07 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.37 | 80557.26 | 246.35 | 831.4 | false | 13C2-PFDA | 85041.75 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.69 | 79635.55 | 250.96 | 365.5 | false | 13C2-PFDA | 85041.75 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.44 | 84884.96 | 241.46 | 1287.0 | false | 13C2-PFDA | 85041.75 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.48 | 29406.00 | 239.00 | 236.8 | false | 13C4-PFOS | 26278.59 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.24 | 30019.80 | 251.19 | 330.6 | false | 13C4-PFOS | 26278.59 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 3.01 | 26746.58 | 245.17 | 142.3 | false | 13C4-PFOS | 26278.59 | 238.75 |  | N/A | N/A |  |


| Sample Name | KF36 | Injection Vial | 31 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | L3 | Injection Volume | 10.00 |  |
| Sample Type | Standard | Instrument Name | QTRAP 5500 |  |
| Acquisition Date | 2018-12-14T22:07:57 | Data File | AC_12142018_5-0369.wiff |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |
| Sample Comment |  |  |  |  |

## Results Summary

| Analyte | MRM <br> Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | Expected <br> Ion <br> Ratio | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.05 | 67146.20 | 228.90 | 677.5 | false | 13C3-PFBA | 48113.66 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.98 | 81337.69 | 226.31 | 953.5 | false | 13C2-PFDA | 89264.58 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.54 | 22135.81 | 282.44 | 309.9 | false | 13C4-PFOS | 27322.78 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.70 | 19123.46 | 235.89 | 271.8 | false | 13C4-PFOS | 27322.78 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.79 | 77949.23 | 240.87 | 596.9 | false | 13C2-PFOA | 91323.66 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.21 | 85279.11 | 242.39 | 626.6 | false | 13C2-PFOA | 91323.66 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.63 | 90776.59 | 248.49 | 825.2 | false | 13C2-PFOA | 91323.66 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 3.02 | 84816.40 | 247.21 | 1094.2 | false | 13C2-PFOA | 91323.66 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.38 | 78085.71 | 227.50 | 796.2 | false | 13C2-PFDA | 89264.58 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.70 | 75561.94 | 226.85 | 720.6 | false | 13C2-PFDA | 89264.58 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.45 | 81056.25 | 219.66 | 1169.2 | false | 13C2-PFDA | 89264.58 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.49 | 28748.11 | 224.73 | 351.6 | false | 13C4-PFOS | 27322.78 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.25 | 27707.08 | 222.98 | 296.4 | false | 13C4-PFOS | 27322.78 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 3.02 | 26452.65 | 233.21 | 175.4 | false | 13C4-PFOS | 27322.78 | 238.75 |  | N/A | N/A |  |


| Sample Name | KF37 | Injection Vial | 32 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | L4 | Injection Volume | 10.00 |  |
| Sample Type | Standard | Instrument Name | QTRAP 5500 |  |
| Acquisition Date | 2018-12-14T22:18:49 | Data File | AC_12142018_5-0369.wiff |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |
| Sample Comment |  |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. <br> (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS (ng/L) | Ratio Group | Ion Ratio | Expected <br> Ion <br> Ratio | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.05 | 80204.56 | 265.86 | 959.3 | false | 13C3-PFBA | 49482.19 | 250.00 |  |  |  |  |
| 13C2-PFDoA | $615.0 / 570.0$ | 3.99 | 92458.33 | 249.08 | 731.6 | false | 13C2-PFDA | 92190.84 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.55 | 22188.13 | 264.45 | 243.4 | false | 13C4-PFOS | 29250.92 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0/419.0 | 3.70 | 20191.93 | 232.65 | 314.1 | false | 13C4-PFOS | 29250.92 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.80 | 86591.26 | 243.18 | 809.2 | false | 13C2-PFOA | 100485.00 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.22 | 94561.97 | 244.27 | 567.0 | false | 13C2-PFOA | 100485.00 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.63 | 97794.41 | 243.29 | 578.7 | false | 13C2-PFOA | 100485.00 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 3.02 | 89315.18 | 236.59 | 883.3 | false | 13C2-PFOA | 100485.00 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.38 | 89301.56 | 251.92 | 700.3 | false | 13C2-PFDA | 92190.84 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.70 | 85379.13 | 248.19 | 524.3 | false | 13C2-PFDA | 92190.84 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.45 | 90986.14 | 238.74 | 1199.7 | false | 13C2-PFDA | 92190.84 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.49 | 32564.60 | 237.78 | 281.7 | false | 13C4-PFOS | 29250.92 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.25 | 30136.62 | 226.54 | 275.2 | false | 13C4-PFOS | 29250.92 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 3.03 | 26261.93 | 216.27 | 188.4 | false | 13C4-PFOS | 29250.92 | 238.75 |  | N/A | N/A |  |


| Sample Name | KF38 | Injection Vial | 33 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | L5 | Injection Volume | 10.00 |  |
| Sample Type | Standard | Instrument Name | QTRAP 5500 |  |
| Acquisition Date | 2018-12-14T22:29:41 | Data File | AC_12142018_5-0369.wiff |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |
| Sample Comment |  |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.04 | 75902.38 | 258.26 | 668.5 | false | 13C3-PFBA | 48205.64 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.98 | 89913.70 | 258.84 | 963.6 | false | 13C2-PFDA | 86272.87 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.54 | 18759.56 | 218.36 | 250.2 | false | 13C4-PFOS | 29951.07 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.69 | 21722.40 | 244.43 | 257.0 | false | 13C4-PFOS | 29951.07 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.79 | 83444.85 | 249.17 | 655.7 | false | 13C2-PFOA | 94506.28 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.21 | 93907.78 | 257.93 | 469.1 | false | 13C2-PFOA | 94506.28 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.62 | 99176.67 | 262.34 | 938.5 | false | 13C2-PFOA | 94506.28 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 3.01 | 85833.47 | 241.75 | 735.8 | false | 13C2-PFOA | 94506.28 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.38 | 86069.85 | 259.46 | 2980.3 | false | 13C2-PFDA | 86272.87 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.69 | 79466.59 | 246.85 | 673.3 | false | 13C2-PFDA | 86272.87 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.45 | 87893.83 | 246.45 | 1161.7 | false | 13C2-PFDA | 86272.87 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.48 | 33500.93 | 238.90 | 287.3 | false | 13C4-PFOS | 29951.07 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.25 | 31451.25 | 230.90 | 332.1 | false | 13C4-PFOS | 29951.07 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 3.02 | 29630.76 | 238.30 | 174.0 | false | 13C4-PFOS | 29951.07 | 238.75 |  | N/A | N/A |  |


| Sample Name | KF39 | Injection Vial | 34 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | L6 | Injection Volume | 10.00 |  |
| Sample Type | Standard | Instrument Name | QTRAP 5500 |  |
| Acquisition Date | 2018-12-14T22:40:33 | Data File | AC_12142018_5-0369.wiff |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |
| Sample Comment |  |  |  |  |

## Results Summary

| Analyte | MRM <br> Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | Expected <br> Ion <br> Ratio | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.05 | 71489.05 | 252.34 | 693.0 | false | 13C3-PFBA | 46467.92 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.98 | 79994.02 | 260.43 | 741.7 | false | 13C2-PFDA | 76288.92 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.53 | 20046.13 | 251.08 | 137.8 | false | 13C4-PFOS | 27833.94 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.69 | 19448.37 | 235.49 | 272.2 | false | 13C4-PFOS | 27833.94 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.80 | 79643.81 | 254.09 | 697.6 | false | 13C2-PFOA | 88454.29 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.21 | 84166.78 | 246.99 | 672.0 | false | 13C2-PFOA | 88454.29 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.62 | 81988.00 | 231.71 | 874.0 | false | 13C2-PFOA | 88454.29 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 3.02 | 83617.80 | 251.62 | 769.8 | false | 13C2-PFOA | 88454.29 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.38 | 74177.82 | 252.87 | 695.8 | false | 13C2-PFDA | 76288.92 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.69 | 77319.13 | 271.61 | 586.7 | false | 13C2-PFDA | 76288.92 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.45 | 85980.14 | 272.63 | 1135.0 | false | 13C2-PFDA | 76288.92 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.49 | 28881.22 | 221.62 | 312.0 | false | 13C4-PFOS | 27833.94 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.25 | 24445.77 | 193.12 | 238.3 | false | 13C4-PFOS | 27833.94 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 3.03 | 23860.43 | 206.49 | 134.2 | false | 13C4-PFOS | 27833.94 | 238.75 |  | N/A | N/A |  |


| Sample Name | KF40 | Injection Vial | 35 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | L7 | Injection Volume | 10.00 |  |
| Sample Type | Standard | Instrument Name | QTRAP 5500 |  |
| Acquisition Date | 2018-12-14T22:51:24 | Data File | AC_12142018_5-0369.wiff |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |
| Sample Comment |  |  |  |  |

## Results Summary

| Analyte | MRM <br> Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | Expected <br> Ion <br> Ratio | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.04 | 74259.42 | 246.72 | 696.8 | false | 13C3-PFBA | 49366.90 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.98 | 92735.62 | 277.98 | 798.4 | false | 13C2-PFDA | 82856.34 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.52 | 22377.04 | 363.16 | 136.7 | false | 13C4-PFOS | 21481.26 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.68 | 19181.44 | 300.94 | 261.2 | false | 13C4-PFOS | 21481.26 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.79 | 85735.58 | 268.41 | 694.9 | false | 13C2-PFOA | 90137.42 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.20 | 90561.75 | 260.80 | 502.9 | false | 13C2-PFOA | 90137.42 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.61 | 92257.07 | 255.87 | 1407.4 | false | 13C2-PFOA | 90137.42 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 3.01 | 85385.34 | 252.14 | 1000.1 | false | 13C2-PFOA | 90137.42 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.37 | 80871.54 | 253.84 | 2061.8 | false | 13C2-PFDA | 82856.34 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.69 | 78972.78 | 255.43 | 521.0 | false | 13C2-PFDA | 82856.34 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.45 | 96029.65 | 280.36 | 1363.0 | false | 13C2-PFDA | 82856.34 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.48 | 33705.41 | 335.13 | 349.8 | false | 13C4-PFOS | 21481.26 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.24 | 28325.30 | 289.94 | 260.9 | false | 13C4-PFOS | 21481.26 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 3.02 | 24712.42 | 277.11 | 188.4 | false | 13C4-PFOS | 21481.26 | 238.75 |  | N/A | N/A |  |


| Sample Name | KF42 ICC | Injection Vial | 37 |
| :--- | :--- | :--- | :--- |
| Sample ID | ICC | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-14T23:13:07 | Data File | AC_12142018_5-0369.wiff |
| Acquisition Method | $5-0369$. dam | Result Table | $18-0718$ |
| Sample Comment |  |  |  |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.50 | 974.370061 | 1010.00 | 96.47 |
| PFBS_2 | 298.9/99.0 | 1.50 | 984.221414 | 1010.00 | 97.45 |
| PFHxA_1 | 313.0 / 269.0 | 1.81 | 970.708734 | 1010.00 | 96.11 |
| PFHxA_2 | 313.0 / 119.0 | 1.80 | 927.879721 | 1010.00 | 91.87 |
| PFHpA_1 | 363.0 / 319.0 | 2.22 | 874.593380 | 1000.00 | 87.46 |
| PFHpA_2 | 363.0 / 169.0 | 2.22 | 723.659629 | 1000.00 | 72.37 |
| PFHxS_1 | 399.0 / 80.0 | 2.24 | 925.376037 | 1010.00 | 91.62 |
| PFHxS_2 | 399.0 / 99.0 | 2.25 | 831.635203 | 1010.00 | 82.34 |
| PFOA_1 | 413.0 / 369.0 | 2.63 | 951.835362 | 1000.00 | 95.18 |
| PFOA_2 | 413.0 / 169.0 | 2.63 | 958.832139 | 1000.00 | 95.88 |
| PFNA_1 | 463.0 / 419.0 | 3.02 | 906.257152 | 1000.00 | 90.63 |
| PFNA_2 | 463.0 / 219.0 | 3.02 | 865.311938 | 1000.00 | 86.53 |
| PFOS_1 | 499.0 / 80.0 | 3.02 | 944.962857 | 1010.00 | 93.56 |
| PFOS_2 | 499.0 / 99.0 | 3.02 | 996.591888 | 1010.00 | 98.67 |
| PFDA_1 | 513.0 / 469.0 | 3.38 | 930.877075 | 1000.00 | 93.09 |
| PFDA_2 | 513.0 / 219.0 | 3.39 | 900.406532 | 1000.00 | 90.04 |
| PFUnA_1 | 563.0 / 519.0 | 3.70 | 930.694217 | 1000.00 | 93.07 |
| PFUnA_2 | 563.0 / 269.0 | 3.71 | 1149.681407 | 1000.00 | 114.97 |
| PFDoA_1 | 613.0 / 569.0 | 3.98 | 989.020325 | 1000.00 | 98.90 |
| PFDoA_2 | 613.0 / 319.0 | 3.98 | 975.938415 | 1000.00 | 97.59 |
| PFTrDA_1 | 663.0 / 619.0 | 4.23 | 1041.504254 | 1000.00 | 104.15 |
| PFTrDA 2 | 663.0 / 169.0 | 4.23 | 954.832799 | 1000.00 | 95.48 |
| PFTeDA_1 | 713.0 / 669.0 | 4.45 | 1000.978335 | 1000.00 | 100.10 |
| PFTeDA_2 | 713.0 / 169.0 | 4.44 | 944.222187 | 1000.00 | 94.42 |
| NMeFOSAA 1 | 570.0/419.0 | 3.53 | 967.768562 | 1000.00 | 96.78 |
| NMeFOSAA 2 | 570.0 / 512.0 | 3.53 | 1000.213280 | 1000.00 | 100.02 |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.69 | 985.681351 | 1000.00 | 98.57 |
| NEtFOSAA 2 | 584.0 / 483.0 | 3.70 | 780.856297 | 1000.00 | 78.09 |
| PFBA | 213.0 / 169.0 | 1.05 | 1105.074743 | 1000.00 | 110.51 |


| Sample Name | KF37 ISC | Injection Vial | 4 |
| :--- | :--- | :--- | :--- |
| Sample ID | Instrument Sensitivity Check | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T12:42:56 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369$. dam | Result Table | $18-0718$ |
| Sample Comment |  |  |  |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| PFBS_1 | $298.9 / 80.0$ | 1.47 | 1113.464222 | 1010.00 | Recovery (\%) |
| PFBS_2 | $298.9 / 99.0$ | 1.47 | 1104.749714 | 10.24 |  |
| PFHxA_1 | $313.0 / 269.0$ | 1.79 | 1018.489016 | 109.38 |  |
| PFHxA_2 | $313.0 / 119.0$ | 1.79 | 1072.142338 | 1010.00 | 100.84 |
| PFHpA_1 | $363.0 / 319.0$ | 2.18 | 1014.071938 | 1010.00 | 106.15 |
| PFHpA_2 | $363.0 / 169.0$ | 2.18 | 1079.629324 | 1000.00 | 101.41 |
| PFHxS_1 | $399.0 / 80.0$ | 2.20 | 991.230822 | 1000.00 | 107.96 |
| PFHxS_2 | $399.0 / 99.0$ | 2.20 | 1019.485613 | 1010.00 | 98.14 |
| PFOA_1 | $413.0 / 369.0$ | 2.59 | 959.771325 | 1010.00 | 100.94 |
| PFOA_2 | $413.0 / 169.0$ | 2.58 | 937.532413 | 1000.00 | 95.98 |
| PFNA_1 | $463.0 / 419.0$ | 2.97 | 987.974094 | 1000.00 | 93.75 |
| PFNA_2 | $463.0 / 219.0$ | 2.97 | 1051.233238 | 1000.00 | 98.80 |
| PFOS_1 | $499.0 / 80.0$ | 2.96 | 1027.045334 | 1000.00 | 105.12 |
| PFOS_2 | $499.0 / 99.0$ | 2.96 | 1039.008216 | 1010.00 | 101.69 |
| PFDA_1 | $513.0 / 469.0$ | 3.32 | 1070.247358 | 102.87 |  |
| PFDA_2 | $513.0 / 219.0$ | 3.32 | 1176.546172 | 1000.00 | 107.02 |
| PFUnA_1 | $563.0 / 519.0$ | 3.64 | 1084.794043 | 1000.00 | 117.65 |
| PFUnA_2 | $563.0 / 269.0$ | 3.64 | 990.010170 | 108.48 |  |
| PFDoA_1 | $613.0 / 569.0$ | 3.92 | 988.882050 | 99.00 |  |
| PFDoA_2 | $613.0 / 319.0$ | 3.92 | 986.558402 | 1000.00 | 98.89 |
| PFTrDA_1 | $663.0 / 619.0$ | 4.17 | 1107.836462 | 1000.00 | 98.66 |
| PFTrDA_2 | $663.0 / 169.0$ | 4.17 | 950.121640 | 1000.00 | 110.78 |
| PFTeDA_1 | $713.0 / 669.0$ | 4.38 | 1082.584322 | 1000.00 | 9 |
| PFTeDA_2 | $713.0 / 169.0$ | 4.38 | 1074.851784 | 1000.00 | 1000.00 |
| NMeFOSAA_1 | $570.0 / 419.0$ | 3.47 | 1042.316550 | 1000.00 | 100.01 |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.47 | 1067.380988 | 108.26 |  |
| NEtFOSAA_1 | $584.0 / 419.0$ | 3.63 | 1007.121977 | 107.49 | 104.23 |
| NEtFOSAA_2 | $584.0 / 483.0$ | 3.63 | 1009.031171 | 1000.00 | 106.74 |
| PFBA | $213.0 / 169.0$ | 1.05 | 1258.681915 | 10000000 | 100.71 |
|  | 1000.00 | 100.90 |  |  |  |


| Sample Name | KF37 CCV | Injection Vial | 3 |
| :--- | :--- | :--- | :--- |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T17:29:51 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369$. dam | Result Table | $18-0718$ |
| Sample Comment |  |  |  |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| PFBS_1 | $298.9 / 80.0$ | 1.47 | 1063.435575 | 1010.00 | Recovery (\%) |
| PFBS_2 | $298.9 / 99.0$ | 1.47 | 1033.627621 | 105.29 |  |
| PFHxA_1 | $313.0 / 269.0$ | 1.78 | 1010.899923 | 102.34 |  |
| PFHxA_2 | $313.0 / 119.0$ | 1.78 | 994.967962 | 1010.00 | 100.09 |
| PFHpA_1 | $363.0 / 319.0$ | 2.17 | 1026.212834 | 1010.00 | 98.51 |
| PFHpA_2 | $363.0 / 169.0$ | 2.17 | 1023.575660 | 1000.00 | 102.62 |
| PFHxS_1 | $399.0 / 80.0$ | 2.19 | 1142.294187 | 1000.00 | 102.36 |
| PFHxS_2 | $399.0 / 99.0$ | 2.19 | 1174.443664 | 1010.00 | 113.10 |
| PFOA_1 | $413.0 / 369.0$ | 2.57 | 979.108092 | 1010.00 | 116.28 |
| PFOA_2 | $413.0 / 169.0$ | 2.57 | 928.332640 | 1000.00 | 97.91 |
| PFNA_1 | $463.0 / 419.0$ | 2.95 | 1049.733243 | 1000.00 | 92.83 |
| PFNA_2 | $463.0 / 219.0$ | 2.95 | 1077.606956 | 1000.00 | 104.97 |
| PFOS_1 | $499.0 / 80.0$ | 2.94 | 1047.098478 | 1000.00 | 107.76 |
| PFOS_2 | $499.0 / 99.0$ | 2.94 | 1025.247143 | 1010.00 | 103.67 |
| PFDA_1 | $513.0 / 469.0$ | 3.31 | 1019.953570 | 101.51 |  |
| PFDA_2 | $513.0 / 219.0$ | 3.30 | 981.632532 | 1000.00 | 102.00 |
| PFUnA_1 | $563.0 / 519.0$ | 3.62 | 1165.406022 | 1000.00 | 98.16 |
| PFUnA_2 | $563.0 / 269.0$ | 3.62 | 1154.105964 | 1000.00 | 116.54 |
| PFDoA_1 | $613.0 / 569.0$ | 3.90 | 1050.570661 | 1000.00 | 115.41 |
| PFDoA_2 | $613.0 / 319.0$ | 3.90 | 1025.808094 | 1000.00 | 105.06 |
| PFTrDA_1 | $663.0 / 619.0$ | 4.15 | 1130.187925 | 1000.00 | 102.58 |
| PFTrDA_2 | $663.0 / 169.0$ | 4.15 | 1047.854261 | 1000.00 | 113.02 |
| PFTeDA_1 | $713.0 / 669.0$ | 4.36 | 1099.045865 | 1000.00 | 104.79 |
| PFTeDA_2 | $713.0 / 169.0$ | 4.35 | 1127.306852 | 1000.00 | 109.90 |
| NMeFOSAA_1 | $570.0 / 419.0$ | 3.45 | 1020.822650 | 1000.00 | 112.73 |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.46 | 980.324771 | 1000.00 | 108 |
| NEtFOSAA_1 | $584.0 / 419.0$ | 3.61 | 910.184807 | 1000.00 | 1000.00 |
| NEtFOSAA_2 | $584.0 / 483.0$ | 3.60 | 849.907779 | 1000.00 | 1000.00 |
| PFBA | $213.0 / 169.0$ | 1.04 | 1220.805586 | 98.03 |  |
|  |  |  | 84.99 |  |  |


| Sample Name | KF38 CCV | Injection Vial | 15 |
| :--- | :--- | :--- | :--- |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T19:40:19 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m$ | Result Table | $18-0718$ |
| Sample Comment |  |  |  |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.47 | 2541.327794 | 2525.00 | 100.65 |
| PFBS_2 | 298.9/99.0 | 1.47 | 2476.660210 | 2525.00 | 98.09 |
| PFHxA_1 | 313.0 / 269.0 | 1.78 | 2482.680312 | 2525.00 | 98.32 |
| PFHxA_2 | 313.0 / 119.0 | 1.78 | 2538.846981 | 2525.00 | 100.55 |
| PFHpA_1 | 363.0 / 319.0 | 2.17 | 2421.095783 | 2500.00 | 96.84 |
| PFHpA_2 | 363.0 / 169.0 | 2.16 | 2602.968480 | 2500.00 | 104.12 |
| PFHxS_1 | 399.0 / 80.0 | 2.19 | 2539.522975 | 2525.00 | 100.58 |
| PFHxS_2 | 399.0 / 99.0 | 2.19 | 2508.184364 | 2525.00 | 99.33 |
| PFOA_1 | 413.0 / 369.0 | 2.57 | 2334.066980 | 2500.00 | 93.36 |
| PFOA_2 | 413.0 / 169.0 | 2.56 | 2236.007642 | 2500.00 | 89.44 |
| PFNA_1 | 463.0 / 419.0 | 2.95 | 2407.774383 | 2500.00 | 96.31 |
| PFNA_2 | 463.0 / 219.0 | 2.95 | 2368.528701 | 2500.00 | 94.74 |
| PFOS_1 | 499.0 / 80.0 | 2.93 | 2369.528772 | 2525.00 | 93.84 |
| PFOS_2 | 499.0 / 99.0 | 2.94 | 2504.036912 | 2525.00 | 99.17 |
| PFDA_1 | 513.0 / 469.0 | 3.30 | 2388.072202 | 2500.00 | 95.52 |
| PFDA_2 | 513.0 / 219.0 | 3.30 | 2242.774236 | 2500.00 | 89.71 |
| PFUnA_1 | 563.0 / 519.0 | 3.61 | 2676.559749 | 2500.00 | 107.06 |
| PFUnA_2 | 563.0 / 269.0 | 3.61 | 2656.467073 | 2500.00 | 106.26 |
| PFDoA_1 | 613.0 / 569.0 | 3.89 | 2583.442396 | 2500.00 | 103.34 |
| PFDoA_2 | 613.0 / 319.0 | 3.89 | 2411.870003 | 2500.00 | 96.47 |
| PFTrDA_1 | 663.0 / 619.0 | 4.14 | 2771.386545 | 2500.00 | 110.86 |
| PFTrDA 2 | 663.0 / 169.0 | 4.13 | 2686.560624 | 2500.00 | 107.46 |
| PFTeDA_1 | 713.0 / 669.0 | 4.35 | 2686.051194 | 2500.00 | 107.44 |
| PFTeDA_2 | 713.0 / 169.0 | 4.35 | 2679.054571 | 2500.00 | 107.16 |
| NMeFOSAA 1 | 570.0/419.0 | 3.44 | 2434.700844 | 2500.00 | 97.39 |
| NMeFOSAA 2 | 570.0 / 512.0 | 3.44 | 2411.942323 | 2500.00 | 96.48 |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.60 | 2457.151942 | 2500.00 | 98.29 |
| NEtFOSAA 2 | 584.0 / 483.0 | 3.60 | 2581.159200 | 2500.00 | 103.25 |
| PFBA | 213.0 / 169.0 | 1.04 | 2808.729889 | 2500.00 | 112.35 |


| Sample Name | KF37 CCV | Injection Vial | 25 |
| :--- | :--- | :--- | :--- |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T21:29:02 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369$. dam | Result Table | $18-0718$ |
| Sample Comment |  |  |  |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| PFBS_1 | $298.9 / 80.0$ | 1.47 | 1045.976090 | 1010.00 | Recovery (\%) |
| PFBS_2 | $298.9 / 99.0$ | 1.47 | 1060.489994 | 103.56 |  |
| PFHxA_1 | $313.0 / 269.0$ | 1.78 | 939.422334 | 105.00 |  |
| PFHxA_2 | $313.0 / 119.0$ | 1.78 | 918.864985 | 1010.00 | 93.01 |
| PFHpA_1 | $363.0 / 319.0$ | 2.16 | 997.260524 | 1010.00 | 90.98 |
| PFHpA_2 | $363.0 / 169.0$ | 2.16 | 1016.469045 | 1000.00 | 99.73 |
| PFHxS_1 | $399.0 / 80.0$ | 2.18 | 1050.918613 | 1000.00 | 101.65 |
| PFHxS_2 | $399.0 / 99.0$ | 2.18 | 989.536825 | 1010.00 | 104.05 |
| PFOA_1 | $413.0 / 369.0$ | 2.56 | 995.416982 | 1010.00 | 97.97 |
| PFOA_2 | $413.0 / 169.0$ | 2.56 | 977.942067 | 1000.00 | 99.54 |
| PFNA_1 | $463.0 / 419.0$ | 2.94 | 953.316425 | 1000.00 | 97.79 |
| PFNA_2 | $463.0 / 219.0$ | 2.94 | 990.461654 | 1000.00 | 95.33 |
| PFOS_1 | $499.0 / 80.0$ | 2.93 | 1005.419678 | 1000.00 | 99.05 |
| PFOS_2 | $499.0 / 99.0$ | 2.93 | 1024.234015 | 1010.00 | 99.55 |
| PFDA_1 | $513.0 / 469.0$ | 3.29 | 1002.805832 | 1010.00 | 101.41 |
| PFDA_2 | $513.0 / 219.0$ | 3.29 | 1031.215991 | 1000.00 | 100.28 |
| PFUnA_1 | $563.0 / 519.0$ | 3.60 | 1142.899693 | 1000.00 | 103.12 |
| PFUnA_2 | $563.0 / 269.0$ | 3.60 | 1035.067314 | 114.29 |  |
| PFDoA_1 | $613.0 / 569.0$ | 3.88 | 1119.381277 | 1000.00 | 103.51 |
| PFDoA_2 | $613.0 / 319.0$ | 3.88 | 1020.757884 | 1000.00 | 111.94 |
| PFTrDA_1 | $663.0 / 619.0$ | 4.13 | 1133.433218 | 1000.00 | 102.08 |
| PFTrDA_2 | $663.0 / 169.0$ | 4.12 | 1111.592073 | 1000.00 | 13.34 |
| PFTeDA_1 | $713.0 / 669.0$ | 4.34 | 1080.887871 | 1000.00 | 111.16 |
| PFTeDA_2 | $713.0 / 169.0$ | 4.33 | 1112.303730 | 1000.00 | 1000.00 |
| NMeFOSAA_1 | $570.0 / 419.0$ | 3.44 | 1117.475651 | 1000.00 | 109 |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.44 | 1153.547441 | 1000.00 | 1.23 |
| NEtFOSAA_1 | $584.0 / 419.0$ | 3.59 | 931.928562 | 1000.00 | 11.75 |
| NEtFOSAA_2 | $584.0 / 483.0$ | 3.58 | 1018.910939 | 1000.00 | 1000.00 |
| PFBA | $213.0 / 169.0$ | 1.04 | 1297.832469 | 1000.00 | 93.19 |
|  |  |  | 101.89 |  |  |


| Sample Name | KF38 CCV | Injection Vial | 35 |
| :--- | :--- | :--- | :--- |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T23:17:39 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369$. dam | Result Table | $18-0718$ |
| Sample Comment |  |  |  |

Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.46 | 2683.433888 | 2525.00 | 106.27 |
| PFBS_2 | 298.9/99.0 | 1.46 | 2733.712902 | 2525.00 | 108.27 |
| PFHxA_1 | 313.0 / 269.0 | 1.76 | 2565.544890 | 2525.00 | 101.61 |
| PFHxA_2 | 313.0 / 119.0 | 1.76 | 2612.621513 | 2525.00 | 103.47 |
| PFHpA_1 | 363.0 / 319.0 | 2.15 | 2380.304849 | 2500.00 | 95.21 |
| PFHpA_2 | 363.0 / 169.0 | 2.16 | 2185.821886 | 2500.00 | 87.43 |
| PFHxS_1 | 399.0 / 80.0 | 2.17 | 2473.346869 | 2525.00 | 97.95 |
| PFHxS_2 | 399.0 / 99.0 | 2.17 | 2499.742234 | 2525.00 | 99.00 |
| PFOA_1 | 413.0 / 369.0 | 2.55 | 2286.160772 | 2500.00 | 91.45 |
| PFOA_2 | 413.0 / 169.0 | 2.55 | 2187.065647 | 2500.00 | 87.48 |
| PFNA_1 | 463.0 / 419.0 | 2.93 | 2629.184183 | 2500.00 | 105.17 |
| PFNA_2 | 463.0 / 219.0 | 2.93 | 2540.925983 | 2500.00 | 101.64 |
| PFOS_1 | 499.0 / 80.0 | 2.93 | 2291.594307 | 2525.00 | 90.76 |
| PFOS_2 | 499.0 / 99.0 | 2.93 | 2334.526557 | 2525.00 | 92.46 |
| PFDA_1 | 513.0 / 469.0 | 3.29 | 2304.164429 | 2500.00 | 92.17 |
| PFDA_2 | 513.0 / 219.0 | 3.28 | 2243.585706 | 2500.00 | 89.74 |
| PFUnA_1 | 563.0 / 519.0 | 3.60 | 2557.970478 | 2500.00 | 102.32 |
| PFUnA_2 | 563.0 / 269.0 | 3.60 | 2360.675801 | 2500.00 | 94.43 |
| PFDoA_1 | 613.0 / 569.0 | 3.88 | 2643.949732 | 2500.00 | 105.76 |
| PFDoA_2 | 613.0 / 319.0 | 3.88 | 2423.181178 | 2500.00 | 96.93 |
| PFTrDA_1 | 663.0 / 619.0 | 4.13 | 2759.028303 | 2500.00 | 110.36 |
| PFTrDA 2 | 663.0 / 169.0 | 4.12 | 2708.091796 | 2500.00 | 108.32 |
| PFTeDA_1 | 713.0 / 669.0 | 4.34 | 2682.406671 | 2500.00 | 107.30 |
| PFTeDA_2 | 713.0 / 169.0 | 4.33 | 2753.558838 | 2500.00 | 110.14 |
| NMeFOSAA 1 | 570.0/419.0 | 3.44 | 2245.444579 | 2500.00 | 89.82 |
| NMeFOSAA 2 | 570.0 / 512.0 | 3.44 | 2235.627161 | 2500.00 | 89.43 |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.59 | 2381.890445 | 2500.00 | 95.28 |
| NEtFOSAA 2 | 584.0 / 483.0 | 3.59 | 2439.859679 | 2500.00 | 97.59 |
| PFBA | 213.0 / 169.0 | 1.03 | 3046.166585 | 2500.00 | 121.85 |


| Sample Name | KF42 ICC | Injection Vial | 37 |
| :--- | :--- | :--- | :--- |
| Sample ID | ICC | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-14T23:13:07 | Data File | AC_12142018_5-0369.wiff |
| Acquisition Method | $5-0369 . d a m$ | Result Table | $18-0718 \_$SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (\%) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 13C4-PFBA | $217.0 / 172.0$ | 1.04 | 246.092274 | 98.44 |  |
| 13C2-PFDoA | $615.0 / 570.0$ | 3.98 | 231.927700 | 250.00 | 92.77 |
| d3-MeFOSAA | $573.0 / 419.0$ | 3.53 | 253.395182 | 250.00 | 101.36 |
| d5-EtFOSAA | $589.0 / 419.0$ | 3.69 | 245.492199 | 250.00 | 98.20 |
| 13C5-PFHxA | $318.0 / 273.0$ | 1.79 | 238.880278 | 250.00 | 95.55 |
| 13C4-PFHpA | $367.0 / 322.0$ | 2.21 | 258.382639 | 250.00 | 103.35 |
| 13C8-PFOA | $421.0 / 376.0$ | 2.62 | 242.671975 | 250.00 | 97.07 |
| 13C9-PFNA | $472.0 / 427.0$ | 3.01 | 254.901628 | 250.00 | 101.96 |
| 13C6-PFDA | $519.0 / 474.0$ | 3.37 | 245.599742 | 250.00 | 98.24 |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.69 | 237.665002 | 250.00 | 95.07 |
| 13C2-PFTeDA | $715.0 / 670.0$ | 4.44 | 229.366050 | 250.00 | 91.75 |
| 13C3-PFBS | $302.0 / 99.0$ | 1.49 | 235.640319 | 250.00 | 101.46 |
| 13C3-PFHxS | $402.0 / 99.0$ | 2.24 | 224.931447 | 232.25 | 95.11 |
| 13C8-PFOS | $507.0 / 99.0$ | 3.02 | 240.211309 | 236.50 | 100.40 |


| Sample Name | KF37 ISC | Injection Vial | 4 |
| :--- | :--- | :--- | :--- |
| Sample ID | Instrument Sensitivity Check | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |
| Acquisition Date | $2018-12-19 T 12: 42: 56$ | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m$ | Result Table | 18-0718_SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (\%) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 13C4-PFBA | $217.0 / 172.0$ | 1.05 | 283.236142 | 113.29 |  |
| 13C2-PFDoA | $615.0 / 570.0$ | 3.92 | 246.413486 | 250.00 | 98.57 |
| d3-MeFOSAA | $573.0 / 419.0$ | 3.47 | 245.528345 | 250.00 | 98.21 |
| d5-EtFOSAA | $589.0 / 419.0$ | 3.63 | 236.419141 | 250.00 | 94.57 |
| 13C5-PFHxA | $318.0 / 273.0$ | 1.78 | 241.295667 | 250.00 | 96.52 |
| 13C4-PFHpA | $367.0 / 322.0$ | 2.17 | 239.888769 | 250.00 | 95.96 |
| 13C8-PFOA | $421.0 / 376.0$ | 2.58 | 269.876256 | 250.00 | 107.95 |
| 13C9-PFNA | $472.0 / 427.0$ | 2.96 | 278.437648 | 250.00 | 111.38 |
| 13C6-PFDA | $519.0 / 474.0$ | 3.31 | 250.894788 | 250.00 | 100.36 |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.63 | 243.452496 | 250.00 | 97.38 |
| 13C2-PFTeDA | $715.0 / 670.0$ | 4.37 | 213.829826 | 85.53 |  |
| 13C3-PFBS | $302.0 / 99.0$ | 1.46 | 186.857644 | 250.00 | 80.46 |
| 13C3-PFHxS | $402.0 / 99.0$ | 2.20 | 196.290098 | 250.00 | 83.00 |
| 13C8-PFOS | $507.0 / 99.0$ | 2.96 | 222.962329 | 232.25 | 93.19 |


| Sample Name | KF37 CCV | Injection Vial | 3 |
| :--- | :--- | :--- | :--- |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T17:29:51 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369$. dam | Result Table | $18-0718 \_$SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (\%) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 13C4-PFBA | $217.0 / 172.0$ | 1.05 | 264.300447 | 105.72 |  |
| 13C2-PFDoA | $615.0 / 570.0$ | 3.90 | 224.794680 | 250.00 | 89.92 |
| d3-MeFOSAA | $573.0 / 419.0$ | 3.46 | 204.196101 | 250.00 | 81.68 |
| d5-EtFOSAA | $589.0 / 419.0$ | 3.61 | 245.409438 | 250.00 | 98.16 |
| 13C5-PFHxA | $318.0 / 273.0$ | 1.77 | 234.692206 | 250.00 | 93.88 |
| 13C4-PFHpA | $367.0 / 322.0$ | 2.16 | 239.056595 | 250.00 | 95.62 |
| 13C8-PFOA | $421.0 / 376.0$ | 2.56 | 268.188513 | 250.00 | 107.28 |
| 13C9-PFNA | $472.0 / 427.0$ | 2.95 | 271.353507 | 250.00 | 108.54 |
| 13C6-PFDA | $519.0 / 474.0$ | 3.29 | 244.023164 | 250.00 | 97.61 |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.61 | 220.085214 | 250.00 | 88.03 |
| 13C2-PFTeDA | $715.0 / 670.0$ | 4.35 | 196.467681 | 250.00 | 78.59 |
| 13C3-PFBS | $302.0 / 99.0$ | 1.45 | 187.211890 | 250.00 | 80.61 |
| 13C3-PFHxS | $402.0 / 99.0$ | 2.19 | 168.814927 | 232.25 | 71.38 |
| 13C8-PFOS | $507.0 / 99.0$ | 2.94 | 208.397266 | 236.50 | 87.10 |


| Sample Name | KF38 CCV | Injection Vial | 15 |
| :--- | :--- | :--- | :--- |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T19:40:19 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m$ | Result Table | $18-0718 \_$SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (\%) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 13C4-PFBA | $217.0 / 172.0$ | 1.05 | 254.666622 | 250.00 | 101.87 |
| 13C2-PFDoA | $615.0 / 570.0$ | 3.89 | 239.850814 | 95.94 |  |
| d3-MeFOSAA | $573.0 / 419.0$ | 3.45 | 225.842341 | 250.00 | 90.34 |
| d5-EtFOSAA | $589.0 / 419.0$ | 3.60 | 213.433422 | 250.00 | 85.37 |
| 13C5-PFHxA | $318.0 / 273.0$ | 1.76 | 233.793699 | 250.00 | 93.52 |
| 13C4-PFHpA | $367.0 / 322.0$ | 2.16 | 240.984694 | 250.00 | 96.39 |
| 13C8-PFOA | $421.0 / 376.0$ | 2.56 | 262.538103 | 250.00 | 105.02 |
| 13C9-PFNA | $472.0 / 427.0$ | 2.93 | 286.952054 | 250.00 | 114.78 |
| 13C6-PFDA | $519.0 / 474.0$ | 3.29 | 253.183915 | 250.00 | 101.27 |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.60 | 242.125338 | 250.00 | 96.85 |
| 13C2-PFTeDA | $715.0 / 670.0$ | 4.34 | 202.566822 | 250.00 | 81.03 |
| 13C3-PFBS | $302.0 / 99.0$ | 1.45 | 196.124049 | 250.00 | 84.45 |
| 13C3-PFHxS | $402.0 / 99.0$ | 2.18 | 184.976629 | 232.25 | 78.21 |
| 13C8-PFOS | $507.0 / 99.0$ | 2.93 | 219.671583 | 236.50 | 91.82 |


| Sample Name | KF37 CCV | Injection Vial | 25 |
| :--- | :--- | :--- | :--- |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T21:29:02 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m$ | Result Table | 18-0718_SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (\%) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 13C4-PFBA | $217.0 / 172.0$ | 1.05 | 272.528625 | 109.01 |  |
| 13C2-PFDoA | $615.0 / 570.0$ | 3.87 | 227.774690 | 250.00 | 91.11 |
| d3-MeFOSAA | $573.0 / 419.0$ | 3.44 | 201.162024 | 80.46 |  |
| d5-EtFOSAA | $589.0 / 419.0$ | 3.59 | 236.579524 | 250.00 | 94.63 |
| 13C5-PFHxA | $318.0 / 273.0$ | 1.76 | 261.959954 | 250.00 | 104.78 |
| 13C4-PFHpA | $367.0 / 322.0$ | 2.15 | 256.946148 | 250.00 | 102.78 |
| 13C8-PFOA | $421.0 / 376.0$ | 2.55 | 276.731846 | 250.00 | 110.69 |
| 13C9-PFNA | $472.0 / 427.0$ | 2.93 | 304.867054 | 250.00 | 121.95 |
| 13C6-PFDA | $519.0 / 474.0$ | 3.28 | 251.767968 | 250.00 | 100.71 |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.59 | 223.181497 | 250.00 | 89.27 |
| 13C2-PFTeDA | $715.0 / 670.0$ | 4.33 | 195.562129 | 250.00 | 78.22 |
| 13C3-PFBS | $302.0 / 99.0$ | 1.45 | 189.592918 | 250.00 | 81.63 |
| 13C3-PFHxS | $402.0 / 99.0$ | 2.18 | 195.883135 | 232.25 | 82.83 |
| 13C8-PFOS | $507.0 / 99.0$ | 2.93 | 224.529745 | 236.50 | 93.85 |


| Sample Name | KF38 CCV | Injection Vial | 35 |
| :--- | :--- | :--- | :--- |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |
| Acquisition Date | $2018-12-19 T 23: 17: 39$ | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369$. dam | Result Table | 18-0718_SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Conc. (ng/L) | Target Conc. (ng/L) | Recovery (\%) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 13C4-PFBA | $217.0 / 172.0$ | 1.03 | 252.419803 | 100.97 |  |
| 13C2-PFDoA | $615.0 / 570.0$ | 3.87 | 224.837662 | 250.00 | 89.94 |
| d3-MeFOSAA | $573.0 / 419.0$ | 3.43 | 244.382901 | 250.00 | 97.75 |
| d5-EtFOSAA | $589.0 / 419.0$ | 3.59 | 215.124789 | 250.00 | 86.05 |
| 13C5-PFHxA | $318.0 / 273.0$ | 1.75 | 199.799168 | 250.00 | 79.92 |
| 13C4-PFHpA | $367.0 / 322.0$ | 2.14 | 223.360049 | 250.00 | 89.34 |
| 13C8-PFOA | $421.0 / 376.0$ | 2.54 | 244.700110 | 97.88 |  |
| 13C9-PFNA | $472.0 / 427.0$ | 2.93 | 234.089183 | 250.00 | 93.64 |
| 13C6-PFDA | $519.0 / 474.0$ | 3.27 | 257.268553 | 250.00 | 102.91 |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.59 | 236.901327 | 250.00 | 94.76 |
| 13C2-PFTeDA | $715.0 / 670.0$ | 4.33 | 191.189397 | 250.00 | 76.48 |
| 13C3-PFBS | $302.0 / 99.0$ | 1.44 | 190.857801 | 250.00 | 82.18 |
| 13C3-PFHxS | $402.0 / 99.0$ | 2.17 | 195.040315 | 232.25 | 82.47 |
| 13C8-PFOS | $507.0 / 99.0$ | 2.93 | 245.177814 | 236.50 | 102.48 |


| Sample Name | KF42 ICC | Injection Vial | 37 |
| :--- | :--- | :--- | :--- |
| Sample ID | ICC | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-14T23:13:07 | Data File | AC_12142018_5-0369.wiff |
| Acquisition Method | 5-0369.dam | Result Table | 18 |
| Sample Comment |  |  | $18-0718$ |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM <br> Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| PFBS_1 | 298.9 / 80.0 | 1.50 | 379428.79 | 974.37 | 834.9 | false | 13C3-PFBS | 30902.52 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.50 | 117566.42 | 984.22 | 375.9 | false | 13C3-PFBS | 30902.52 | 232.25 | PFBS | 0.310 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.81 | 287321.43 | 970.71 | 56.3 | true | 13C5-PFHxA | 75863.44 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.80 | 20294.10 | 927.88 | 45.5 | false | 13C5-PFHxA | 75863.44 | 250.00 | PFHxA | 0.070 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.22 | 268284.13 | 874.59 | 82.6 | false | 13C4-PFHpA | 89208.12 | 250.00 | PFHpA |  |  |  |
| PFHpA 2 | 363.0 / 169.0 | 2.22 | 4658.81 | 723.66 | 47.5 | false | 13C4-PFHpA | 89208.12 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.24 | 410721.63 | 925.38 | 528.6 | false | 13C3-PFHxS | 28182.48 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.25 | 105096.50 | 831.64 | 264.4 | false | 13C3-PFHxS | 28182.48 | 236.50 | PFHxS | 0.260 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.63 | 356906.11 | 951.84 | 167.4 | false | 13C8-PFOA | 86996.82 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.63 | 23854.11 | 958.83 | 95.0 | false | 13C8-PFOA | 86996.82 | 250.00 | PFOA | 0.070 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 3.02 | 328299.56 | 906.26 | 209.6 | false | 13C9-PFNA | 85824.17 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 3.02 | 100959.48 | 865.31 | 223.7 | false | 13C9-PFNA | 85824.17 | 250.00 | PFNA | 0.310 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 3.02 | 535481.12 | 944.96 | 249.4 | false | 13C8-PFOS | 28598.35 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 3.02 | 100184.35 | 996.59 | 262.8 | false | 13C8-PFOS | 28598.35 | 239.25 | PFOS | 0.190 | 0.177 |  |
| PFDA_1 | 513.0/469.0 | 3.38 | 350410.70 | 930.88 | 274.0 | false | 13C6-PFDA | 81025.62 | 250.00 | PFDA |  |  |  |
| PFDA_2 | $513.0 / 219.0$ | 3.39 | 13744.12 | 900.41 | 186.2 | false | 13C6-PFDA | 81025.62 | 250.00 | PFDA | 0.040 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | 3.70 | 297811.33 | 930.69 | 184.4 | false | 13C7-PFUnA | 76089.82 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.71 | 18512.09 | 1149.68 | 156.9 | false | 13C7-PFUnA | 76089.82 | 250.00 | PFUnA | 0.060 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 3.98 | 296320.62 | 989.02 | 238.7 | false | 13C2-PFDoA | 80121.35 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.98 | 52179.88 | 975.94 | 193.4 | false | 13C2-PFDoA | 80121.35 | 250.00 | PFDoA | 0.180 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.23 | 290778.63 | 1041.50 | 266.4 | false | 13C2-PFTeDA | 81352.27 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | 4.23 | 19544.94 | 954.83 | 216.1 | false | 13C2-PFTeDA | 81352.27 | 250.00 | PFTrDA | 0.070 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.45 | 381750.40 | 1000.98 | 427.0 | false | 13C2-PFTeDA | 81352.27 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.44 | 17656.75 | 944.22 | 313.5 | false | 13C2-PFTeDA | 81352.27 | 250.00 | PFTeDA | 0.050 | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.53 | 87880.08 | 967.77 | $\begin{gathered} \hline 102990 . \\ 7 \\ \hline \end{gathered}$ | false | d3-MeFOSAA | 20247.04 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.53 | 44640.22 | 1000.21 | 395.2 | false | d3-MeFOSAA | 20247.04 | 250.00 | NMeFOSAA | 0.510 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.69 | 84391.76 | 985.68 | 840.5 | false | d5-EtFOSAA | 20238.44 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.70 | 4139.40 | 780.86 | 119.0 | false | d5-EtFOSAA | 20238.44 | 250.00 | NEtFOSAA | 0.050 | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.05 | 505928.46 | 1105.07 | 319.8 | true | 13C4-PFBA | 73781.22 | 250.00 |  |  |  |  |


| Sample Name | KF37 ISC | Injection Vial | 4 |
| :--- | :--- | :--- | :--- |
| Sample ID | Instrument Sensitivity Check | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T12:42:56 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table |  |
| Sample Comment |  |  | $18-0718$ |


| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.47 | 380990.66 | 1113.46 | 1368.8 | false | 13C3-PFBS | 27172.25 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.47 | 115535.99 | 1104.75 | 410.3 | false | 13C3-PFBS | 27172.25 | 232.25 | PFBS | 0.300 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.79 | 290326.90 | 1018.49 | 57.9 | true | 13C5-PFHxA | 73064.85 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.79 | 22700.79 | 1072.14 | 58.5 | false | 13C5-PFHxA | 73064.85 | 250.00 | PFHxA | 0.080 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.18 | 275940.71 | 1014.07 | 82.3 | false | 13C4-PFHpA | 78969.20 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.18 | 5987.27 | 1079.63 | 85.8 | false | 13C4-PFHpA | 78969.20 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.20 | 432503.78 | 991.23 | 364.8 | false | 13C3-PFHxS | 27674.42 | 236.50 | PFHxS |  |  |  |
| PFHxS 2 | 399.0 / 99.0 | 2.20 | 126693.40 | 1019.49 | 288.5 | false | 13C3-PFHxS | 27674.42 | 236.50 | PFHxS | 0.290 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.59 | 381673.48 | 959.77 | 94.5 | false | 13C8-PFOA | 92247.62 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.58 | 24717.00 | 937.53 | 80.6 | false | 13C8-PFOA | 92247.62 | 250.00 | PFOA | 0.060 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.97 | 372823.85 | 987.97 | 213.2 | false | 13C9-PFNA | 89386.46 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 2.97 | 127678.33 | 1051.23 | 178.9 | false | 13C9-PFNA | 89386.46 | 250.00 | PFNA | 0.340 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.96 | 600275.89 | 1027.05 | 188.5 | false | 13C8-PFOS | 29462.23 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.96 | 107660.67 | 1039.01 | 262.1 | false | 13C8-PFOS | 29462.23 | 239.25 | PFOS | 0.180 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.32 | 428092.58 | 1070.25 | 218.6 | false | 13C6-PFDA | 86042.97 | 250.00 | PFDA |  |  |  |
| PFDA_2 | 513.0 / 219.0 | 3.32 | 19053.73 | 1176.55 | 219.2 | false | 13C6-PFDA | 86042.97 | 250.00 | PFDA | 0.040 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | 3.64 | 369832.70 | 1084.79 | 216.7 | false | 13C7-PFUnA | 81022.35 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.64 | 16918.86 | 990.01 | 254.2 | false | 13C7-PFUnA | 81022.35 | 250.00 | PFUnA | 0.050 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 3.92 | 327221.98 | 988.88 | 262.5 | false | 13C2-PFDoA | 88489.03 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.92 | 58246.47 | 986.56 | 264.4 | false | 13C2-PFDoA | 88489.03 | 250.00 | PFDoA | 0.180 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.17 | 299475.36 | 1107.84 | 375.3 | false | 13C2-PFTeDA | 78838.46 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | 4.17 | 18852.94 | 950.12 | 293.7 | false | 13C2-PFTeDA | 78838.46 | 250.00 | PFTrDA | 0.060 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.38 | 399682.37 | 1082.58 | 630.8 | false | 13C2-PFTeDA | 78838.46 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.38 | 19454.09 | 1074.85 | 434.4 | false | 13C2-PFTeDA | 78838.46 | 250.00 | PFTeDA | 0.050 | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.47 | 101515.43 | 1042.32 | 356.0 | false | d3-MeFOSAA | 21720.61 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.47 | 51054.01 | 1067.38 | 345.7 | false | d3-MeFOSAA | 21720.61 | 250.00 | NMeFOSAA | 0.500 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.63 | 93069.43 | 1007.12 | 302.1 | false | d5-EtFOSAA | 21841.48 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.63 | 5770.00 | 1009.03 | 113.5 | false | d5-EtFOSAA | 21841.48 | 250.00 | NEtFOSAA | 0.060 | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.05 | 694352.92 | 1258.68 | 486.8 | true | 13C4-PFBA | 91395.88 | 250.00 |  |  |  |  |


| Sample Name | KF37 CCV | Injection Vial | 3 |
| :--- | :--- | :--- | :--- |
| Sample ID | CCV | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T17:29:51 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table |  |
| Sample Comment |  |  | $18-0718$ |


| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. <br> (ng/L) | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.47 | 339738.51 | 1063.44 | 1530.7 | false | 13C3-PFBS | 25364.26 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.47 | 101149.83 | 1033.63 | 532.1 | false | 13C3-PFBS | 25364.26 | 232.25 | PFBS | 0.300 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.78 | 259258.96 | 1010.90 | 69.1 | true | 13C5-PFHxA | 65735.43 | 250.00 | PFHxA |  |  |  |
| PFHxA_2 | 313.0 / 119.0 | 1.78 | 18904.94 | 994.97 | 49.7 | false | 13C5-PFHxA | 65735.43 | 250.00 | PFHxA | 0.070 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.17 | 257444.84 | 1026.21 | 97.0 | false | 13C4-PFHpA | 72793.14 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.17 | 5248.57 | 1023.58 | 78.6 | false | 13C4-PFHpA | 72793.14 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.19 | 398786.33 | 1142.29 | 306.4 | false | 13C3-PFHxS | 22096.49 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.19 | 116630.05 | 1174.44 | 330.3 | false | 13C3-PFHxS | 22096.49 | 236.50 | PFHxS | 0.290 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.57 | 358065.28 | 979.11 | 123.4 | false | 13C8-PFOA | 84795.45 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.57 | 22491.22 | 928.33 | 116.8 | false | 13C8-PFOA | 84795.45 | 250.00 | PFOA | 0.060 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.95 | 357138.57 | 1049.73 | 252.5 | false | 13C9-PFNA | 80578.85 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 2.95 | 117978.52 | 1077.61 | 250.8 | false | 13C9-PFNA | 80578.85 | 250.00 | PFNA | 0.330 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.94 | 528820.56 | 1047.10 | 178.6 | false | 13C8-PFOS | 25451.50 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.94 | 91757.51 | 1025.25 | 245.1 | false | 13C8-PFOS | 25451.50 | 239.25 | PFOS | 0.170 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.31 | 374744.91 | 1019.95 | 234.1 | false | 13C6-PFDA | 79051.10 | 250.00 | PFDA |  |  |  |
| PFDA_2 | $513.0 / 219.0$ | 3.30 | 14614.09 | 981.63 | 161.4 | false | 13C6-PFDA | 79051.10 | 250.00 | PFDA | 0.040 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | 3.62 | 339365.39 | 1165.41 | 267.4 | false | 13C7-PFUnA | 69188.60 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.62 | 16899.18 | 1154.11 | 245.0 | false | 13C7-PFUnA | 69188.60 | 250.00 | PFUnA | 0.050 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 3.90 | 299515.18 | 1050.57 | 250.4 | false | 13C2-PFDoA | 76254.25 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.90 | 52158.34 | 1025.81 | 267.9 | false | 13C2-PFDoA | 76254.25 | 250.00 | PFDoA | 0.170 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.15 | 265089.55 | 1130.19 | 362.0 | false | 13C2-PFTeDA | 68424.88 | 250.00 | PFTrDA |  |  |  |
| PFTrDA 2 | 663.0 / 169.0 | 4.15 | 17948.05 | 1047.85 | 280.3 | false | 13C2-PFTeDA | 68424.88 | 250.00 | PFTrDA | 0.070 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.36 | 352093.99 | 1099.05 | 504.2 | false | 13C2-PFTeDA | 68424.88 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.35 | 17701.00 | 1127.31 | 454.9 | false | 13C2-PFTeDA | 68424.88 | 250.00 | PFTeDA | 0.050 | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.45 | 80000.67 | 1020.82 | 340.9 | false | d3-MeFOSAA | 17476.58 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.46 | 37777.94 | 980.32 | 238.9 | false | d3-MeFOSAA | 17476.58 | 250.00 | NMeFOSAA | 0.470 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.61 | 82305.68 | 910.18 | 302.9 | false | d5-EtFOSAA | 21386.18 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA 2 | 584.0 / 483.0 | 3.60 | 4760.17 | 849.91 | 457278.1 | false | d5-EtFOSAA | 21386.18 | 250.00 | NEtFOSAA | 0.060 | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.04 | 610817.13 | 1220.81 | 477.5 | true | 13C4-PFBA | 82379.00 | 250.00 |  |  |  |  |


| Sample Name | KF38 CCV | Injection Vial | 15 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | CCV | Injection Volume | 10.00 |  |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |  |
| Acquisition Date | 2018-12-19T19:40:19 | Data File | AC_12192018_5-369.wiff |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |
| Sample Comment |  |  |  |  |


| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.47 | 871834.10 | 2541.33 | 2274.9 | false | 13C3-PFBS | 27317.64 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9 / 99.0 | 1.47 | 255318.57 | 2476.66 | 894.3 | false | 13C3-PFBS | 27317.64 | 232.25 | PFBS | 0.290 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.78 | 678128.83 | 2482.68 | 94.6 | false | 13C5-PFHxA | 70058.14 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.78 | 52526.53 | 2538.85 | 80.1 | false | 13C5-PFHxA | 70058.14 | 250.00 | PFHxA | 0.080 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.17 | 659913.29 | 2421.10 | 137.0 | false | 13C4-PFHpA | 78506.23 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.16 | 13878.72 | 2602.97 | 125.7 | false | 13C4-PFHpA | 78506.23 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.19 | 1009063.00 | 2539.52 | 324.8 | false | 13C3-PFHxS | 24962.30 | 236.50 | PFHxS |  |  |  |
| PFHxS 2 | 399.0 / 99.0 | 2.19 | 282200.89 | 2508.18 | 323.5 | false | 13C3-PFHxS | 24962.30 | 236.50 | PFHxS | 0.280 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.57 | 905234.15 | 2334.07 | 183.2 | false | 13C8-PFOA | 88807.51 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.56 | 57650.39 | 2236.01 | 168.8 | false | 13C8-PFOA | 88807.51 | 250.00 | PFOA | 0.060 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.95 | 927740.08 | 2407.77 | 274.6 | false | 13C9-PFNA | 91163.28 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 2.95 | 293007.70 | 2368.53 | 317.2 | false | 13C9-PFNA | 91163.28 | 250.00 | PFNA | 0.320 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.93 | 1296903.97 | 2369.53 | 259.2 | false | 13C8-PFOS | 27381.43 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.94 | 242902.14 | 2504.04 | 304.6 | false | 13C8-PFOS | 27381.43 | 239.25 | PFOS | 0.190 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.30 | 916302.71 | 2388.07 | 270.4 | false | 13C6-PFDA | 82345.41 | 250.00 | PFDA |  |  |  |
| PFDA_2 | 513.0 / 219.0 | 3.30 | 34710.36 | 2242.77 | 230.8 | false | 13C6-PFDA | 82345.41 | 250.00 | PFDA | 0.040 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | 3.61 | 862424.92 | 2676.56 | 284.2 | false | 13C7-PFUnA | 76420.59 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.61 | 43455.11 | 2656.47 | 253.0 | false | 13C7-PFUnA | 76420.59 | 250.00 | PFUnA | 0.050 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 3.89 | 787628.22 | 2583.44 | 291.0 | false | 13C2-PFDoA | 81685.63 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.89 | 130215.86 | 2411.87 | 270.9 | false | 13C2-PFDoA | 81685.63 | 250.00 | PFDoA | 0.170 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.14 | 667455.29 | 2771.39 | 333.1 | false | 13C2-PFTeDA | 70830.07 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | 4.13 | 46095.19 | 2686.56 | 300.0 | false | 13C2-PFTeDA | 70830.07 | 250.00 | PFTrDA | 0.070 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.35 | 883873.46 | 2686.05 | 514.8 | false | 13C2-PFTeDA | 70830.07 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.35 | 43327.80 | 2679.05 | 457.7 | false | 13C2-PFTeDA | 70830.07 | 250.00 | PFTeDA | 0.050 | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.44 | 213051.44 | 2434.70 | 372.9 | false | d3-MeFOSAA | 19547.85 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.44 | 102964.22 | 2411.94 | 387.0 | false | d3-MeFOSAA | 19547.85 | 250.00 | NMeFOSAA | 0.480 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.60 | 200449.10 | 2457.15 | 323.4 | false | d5-EtFOSAA | 19213.39 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.60 | 12971.49 | 2581.16 | 252.4 | true | d5-EtFOSAA | 19213.39 | 250.00 | NEtFOSAA | 0.060 | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.04 | 1306927.41 | 2808.73 | 546.9 | true | 13C4-PFBA | 86751.91 | 250.00 |  |  |  |  |


| Sample Name | KF37 CCV | Injection Vial | 25 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | CCV | Injection Volume | 10.00 |  |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |  |
| Acquisition Date | 2018-12-19T21:29:02 | Data File | AC_12192018_5-369.wiff |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |
| Sample Comment |  |  |  |  |


| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.47 | 320556.20 | 1045.98 | 1732.1 | false | 13C3-PFBS | 24329.56 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.47 | 99450.39 | 1060.49 | 585.1 | false | 13C3-PFBS | 24329.56 | 232.25 | PFBS | 0.310 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.78 | 248028.62 | 939.42 | 63.6 | true | 13C5-PFHxA | 67667.04 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.78 | 17918.89 | 918.86 | 59.7 | false | 13C5-PFHxA | 67667.04 | 250.00 | PFHxA | 0.070 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.16 | 247899.46 | 997.26 | 85.3 | false | 13C4-PFHpA | 72156.13 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.16 | 5168.66 | 1016.47 | 70.2 | false | 13C4-PFHpA | 72156.13 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.18 | 404769.82 | 1050.92 | 328.5 | false | 13C3-PFHxS | 24407.02 | 236.50 | PFHxS |  |  |  |
| PFHxS 2 | 399.0 / 99.0 | 2.18 | 108432.18 | 989.54 | 311.5 | false | 13C3-PFHxS | 24407.02 | 236.50 | PFHxS | 0.270 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.56 | 346538.47 | 995.42 | 130.7 | false | 13C8-PFOA | 80692.46 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.56 | 22578.21 | 977.94 | 104.0 | false | 13C8-PFOA | 80692.46 | 250.00 | PFOA | 0.070 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.94 | 335992.77 | 953.32 | 204.5 | false | 13C9-PFNA | 83490.60 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 2.94 | 112378.70 | 990.46 | 280.5 | false | 13C9-PFNA | 83490.60 | 250.00 | PFNA | 0.330 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.93 | 507198.50 | 1005.42 | 190.8 | false | 13C8-PFOS | 25436.68 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.93 | 91612.32 | 1024.23 | 225.1 | false | 13C8-PFOS | 25436.68 | 239.25 | PFOS | 0.180 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.29 | 364375.71 | 1002.81 | 186.2 | false | 13C6-PFDA | 78184.05 | 250.00 | PFDA |  |  |  |
| PFDA_2 | 513.0 / 219.0 | 3.29 | 15181.25 | 1031.22 | 163.7 | false | 13C6-PFDA | 78184.05 | 250.00 | PFDA | 0.040 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | 3.60 | 323503.79 | 1142.90 | 262.3 | false | 13C7-PFUnA | 67257.81 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.60 | 14698.90 | 1035.07 | 202.1 | false | 13C7-PFUnA | 67257.81 | 250.00 | PFUnA | 0.050 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 3.88 | 309923.09 | 1119.38 | 259.4 | false | 13C2-PFDoA | 74066.93 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.88 | 50416.58 | 1020.76 | 294.1 | false | 13C2-PFDoA | 74066.93 | 250.00 | PFDoA | 0.160 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.13 | 253661.98 | 1133.43 | 335.9 | false | 13C2-PFTeDA | 65290.28 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | 4.12 | 18112.38 | 1111.59 | 277.8 | false | 13C2-PFTeDA | 65290.28 | 250.00 | PFTrDA | 0.070 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.34 | 330486.22 | 1080.89 | 531.0 | false | 13C2-PFTeDA | 65290.28 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.33 | 16667.25 | 1112.30 | 488.2 | false | 13C2-PFTeDA | 65290.28 | 250.00 | PFTeDA | 0.050 | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.44 | 81237.00 | 1117.48 | 422.5 | false | d3-MeFOSAA | 16215.86 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.44 | 41146.30 | 1153.55 | 299.8 | false | d3-MeFOSAA | 16215.86 | 250.00 | NMeFOSAA | 0.510 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.59 | 76040.07 | 931.93 | 362.2 | false | d5-EtFOSAA | 19294.16 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.58 | 5146.89 | 1018.91 | 248.0 | false | d5-EtFOSAA | 19294.16 | 250.00 | NEtFOSAA | 0.070 | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.04 | 631819.46 | 1297.83 | 360.6 | true | 13C4-PFBA | 81149.99 | 250.00 |  |  |  |  |


| Sample Name | KF38 CCV | Injection Vial | 35 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | CCV | Injection Volume | 10.00 |  |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |  |
| Acquisition Date | 2018-12-19T23:17:39 | Data File | AC_12192018_5-369.wiff |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |
| Sample Comment |  |  |  |  |


| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.46 | 866841.08 | 2683.43 | 2220.6 | false | 13C3-PFBS | 25725.72 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9 / 99.0 | 1.46 | 264995.51 | 2733.71 | 936.5 | false | 13C3-PFBS | 25725.72 | 232.25 | PFBS | 0.310 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.76 | 668737.06 | 2565.54 | 104.1 | false | 13C5-PFHxA | 66857.40 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.76 | 51603.27 | 2612.62 | 103.1 | false | 13C5-PFHxA | 66857.40 | 250.00 | PFHxA | 0.080 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.15 | 671449.18 | 2380.30 | 165.3 | false | 13C4-PFHpA | 81255.01 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.16 | 12118.08 | 2185.82 | 83.1 | false | 13C4-PFHpA | 81255.01 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.17 | 1028416.35 | 2473.35 | 272.6 | false | 13C3-PFHxS | 26126.00 | 236.50 | PFHxS |  |  |  |
| PFHxS 2 | 399.0 / 99.0 | 2.17 | 294360.07 | 2499.74 | 328.6 | false | 13C3-PFHxS | 26126.00 | 236.50 | PFHxS | 0.290 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.55 | 922665.66 | 2286.16 | 233.8 | false | 13C8-PFOA | 92431.82 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.55 | 58675.01 | 2187.07 | 219.9 | false | 13C8-PFOA | 92431.82 | 250.00 | PFOA | 0.060 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.93 | 922917.92 | 2629.18 | 298.5 | false | 13C9-PFNA | 83046.62 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 2.93 | 286327.95 | 2540.93 | 276.0 | false | 13C9-PFNA | 83046.62 | 250.00 | PFNA | 0.310 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.93 | 1301915.81 | 2291.59 | 293.1 | false | 13C8-PFOS | 28427.64 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.93 | 235023.82 | 2334.53 | 320.4 | false | 13C8-PFOS | 28427.64 | 239.25 | PFOS | 0.180 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.29 | 938296.64 | 2304.16 | 245.0 | false | 13C6-PFDA | 87398.61 | 250.00 | PFDA |  |  |  |
| PFDA_2 | 513.0 / 219.0 | 3.28 | 36853.70 | 2243.59 | 246.4 | false | 13C6-PFDA | 87398.61 | 250.00 | PFDA | 0.040 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | 3.60 | 842274.92 | 2557.97 | 314.2 | false | 13C7-PFUnA | 78100.20 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.60 | 39422.25 | 2360.68 | 210.6 | false | 13C7-PFUnA | 78100.20 | 250.00 | PFUnA | 0.050 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 3.88 | 789234.87 | 2643.95 | 296.3 | false | 13C2-PFDoA | 79981.23 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.88 | 128092.88 | 2423.18 | 324.5 | false | 13C2-PFDoA | 79981.23 | 250.00 | PFDoA | 0.160 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.13 | 655091.80 | 2759.03 | 365.5 | false | 13C2-PFTeDA | 69827.70 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | 4.12 | 45799.29 | 2708.09 | 402.9 | false | 13C2-PFTeDA | 69827.70 | 250.00 | PFTrDA | 0.070 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.34 | 870189.09 | 2682.41 | 504.9 | false | 13C2-PFTeDA | 69827.70 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.33 | 43898.19 | 2753.56 | 541.6 | false | 13C2-PFTeDA | 69827.70 | 250.00 | PFTeDA | 0.050 | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.44 | 202912.56 | 2245.44 | 426.7 | false | d3-MeFOSAA | 20184.65 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.44 | 98598.07 | 2235.63 | 364.3 | false | d3-MeFOSAA | 20184.65 | 250.00 | NMeFOSAA | 0.490 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.59 | 185610.69 | 2381.89 | 416.4 | false | d5-EtFOSAA | 18354.67 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | 3.59 | 11713.80 | 2439.86 | 206.4 | false | d5-EtFOSAA | 18354.67 | 250.00 | NEtFOSAA | 0.060 | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.03 | 1327225.79 | 3046.17 | 488.8 | true | 13C4-PFBA | 81881.77 | 250.00 |  |  |  |  |


| Sample Name | KF42 ICC | Injection Vial | 37 |
| :--- | :--- | :--- | :--- |
| Sample ID | ICC | Injection Volume | 10.00 |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-14T23:13:07 | Data File | AC_12142018_5-0369.wiff |
| Acquisition Method | 5-0369.dam | Result Table |  |
| Sample Comment |  |  | 18-0718_SIS |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS <br> Conc. <br> (ng/L) | Ratio Group | $\begin{aligned} & \text { Ion } \\ & \text { Ratio } \end{aligned}$ | $\begin{gathered} \hline \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.04 | 73781.22 | 246.09 | 1002.7 | false | 13C3-PFBA | 49175.05 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.98 | 80121.35 | 231.93 | 712.9 | false | 13C2-PFDA | 85799.21 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.53 | 20359.06 | 253.40 | 214.9 | false | 13C4-PFOS | 28010.11 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.69 | 20402.91 | 245.49 | 306.3 | false | 13C4-PFOS | 28010.11 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.79 | 75863.44 | 238.88 | 669.7 | false | 13C2-PFOA | 89619.28 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.21 | 89208.12 | 258.38 | 557.0 | false | 13C2-PFOA | 89619.28 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.62 | 86996.82 | 242.67 | 665.2 | false | 13C2-PFOA | 89619.28 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 3.01 | 85824.17 | 254.90 | 890.8 | false | 13C2-PFOA | 89619.28 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.37 | 81025.62 | 245.60 | 1315.3 | false | 13C2-PFDA | 85799.21 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.69 | 76089.82 | 237.67 | 373.7 | false | 13C2-PFDA | 85799.21 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.44 | 81352.27 | 229.37 | 1274.7 | false | 13C2-PFDA | 85799.21 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.49 | 30902.52 | 235.64 | 291.9 | false | 13C4-PFOS | 28010.11 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.24 | 28652.76 | 224.93 | 308.1 | false | 13C4-PFOS | 28010.11 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 3.02 | 27932.26 | 240.21 | 194.2 | false | 13C4-PFOS | 28010.11 | 238.75 |  | N/A | N/A |  |


| Sample Name | KF37 ISC | Injection Vial | 4 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | Instrument Sensitivity Check | Injection Volume | 10.00 |  |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |  |
| Acquisition Date | 2018-12-19T12:42:56 | Data File | AC_12192018_5-369.wiff |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |
| Sample Comment |  |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area |  | Ratio Group | Ion Ratio | Expected Ion Ratio | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.05 | 91395.88 | 283.24 | 1992.5 | false | 13C3-PFBA | 52926.71 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.92 | 88489.03 | 246.41 | 375.4 | false | 13C2-PFDA | 89189.26 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.47 | 21874.16 | 245.53 | 340.6 | false | 13C4-PFOS | 31058.84 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.63 | 21787.50 | 236.42 | 245.5 | false | 13C4-PFOS | 31058.84 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.78 | 73064.85 | 241.30 | 424.0 | false | 13C2-PFOA | 85449.25 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.17 | 78969.20 | 239.89 | 384.8 | false | 13C2-PFOA | 85449.25 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.58 | 92247.62 | 269.88 | 480.8 | false | 13C2-PFOA | 85449.25 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.96 | 89386.46 | 278.44 | 462.5 | false | 13C2-PFOA | 85449.25 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.31 | 86042.97 | 250.89 | 354.0 | false | 13C2-PFDA | 89189.26 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.63 | 81022.35 | 243.45 | 308.1 | false | 13C2-PFDA | 89189.26 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.37 | 78838.46 | 213.83 | 543.0 | false | 13C2-PFDA | 89189.26 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.46 | 27172.25 | 186.86 | 221.5 | false | 13C4-PFOS | 31058.84 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.20 | 27725.86 | 196.29 | 319.8 | false | 13C4-PFOS | 31058.84 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.96 | 28748.46 | 222.96 | 292.7 | false | 13C4-PFOS | 31058.84 | 238.75 |  | N/A | N/A |  |


| Sample Name | KF37 CCV | Injection Vial | 3 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | CCV | Injection Volume | 10.00 |  |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |  |
| Acquisition Date | 2018-12-19T17:29:51 | Data File | AC_12192018_5-369.wiff |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |
| Sample Comment |  |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | Expected <br> Ion <br> Ratio | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.05 | 82379.00 | 264.30 | 2659.7 | false | 13C3-PFBA | 51122.91 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.90 | 76254.25 | 224.79 | 411.4 | false | 13C2-PFDA | 84249.18 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.46 | 16949.28 | 204.20 | 210.7 | false | 13C4-PFOS | 28937.39 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.61 | 21071.25 | 245.41 | 291.1 | false | 13C4-PFOS | 28937.39 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.77 | 65735.43 | 234.69 | 478.8 | false | 13C2-PFOA | 79040.58 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.16 | 72793.14 | 239.06 | 373.7 | false | 13C2-PFOA | 79040.58 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.56 | 84795.45 | 268.19 | 479.7 | false | 13C2-PFOA | 79040.58 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.95 | 80578.85 | 271.35 | 439.0 | false | 13C2-PFOA | 79040.58 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.29 | 79051.10 | 244.02 | 398.0 | false | 13C2-PFDA | 84249.18 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.61 | 69188.60 | 220.09 | 281.6 | false | 13C2-PFDA | 84249.18 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.35 | 68424.88 | 196.47 | 646.8 | false | 13C2-PFDA | 84249.18 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 25364.26 | 187.21 | 314.6 | false | 13C4-PFOS | 28937.39 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.19 | 22216.29 | 168.81 | 328.4 | false | 13C4-PFOS | 28937.39 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.94 | 25035.09 | 208.40 | 222.3 | false | 13C4-PFOS | 28937.39 | 238.75 |  | N/A | N/A |  |


| Sample Name | KF38 CCV | Injection Vial | 15 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | CCV | Injection Volume | 10.00 |  |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |  |
| Acquisition Date | 2018-12-19T19:40:19 | Data File | AC_12192018_5-369.wiff |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |
| Sample Comment |  |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | Expected <br> Ion <br> Ratio | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.05 | 86751.91 | 254.67 | 1657.8 | false | 13C3-PFBA | 55873.26 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.89 | 81685.63 | 239.85 | 300.5 | false | 13C2-PFDA | 84584.76 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.45 | 19272.27 | 225.84 | 242.3 | false | 13C4-PFOS | 29749.72 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.60 | 18840.18 | 213.43 | 290.5 | false | 13C4-PFOS | 29749.72 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.76 | 70058.14 | 233.79 | 344.8 | false | 13C2-PFOA | 84561.97 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.16 | 78506.23 | 240.98 | 320.6 | false | 13C2-PFOA | 84561.97 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.56 | 88807.51 | 262.54 | 397.9 | false | 13C2-PFOA | 84561.97 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.93 | 91163.28 | 286.95 | 372.9 | false | 13C2-PFOA | 84561.97 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.29 | 82345.41 | 253.18 | 317.1 | false | 13C2-PFDA | 84584.76 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.60 | 76420.59 | 242.13 | 268.5 | false | 13C2-PFDA | 84584.76 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.34 | 70830.07 | 202.57 | 644.7 | false | 13C2-PFDA | 84584.76 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 27317.64 | 196.12 | 282.1 | false | 13C4-PFOS | 29749.72 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.18 | 25026.56 | 184.98 | 280.0 | false | 13C4-PFOS | 29749.72 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.93 | 27130.30 | 219.67 | 298.2 | false | 13C4-PFOS | 29749.72 | 238.75 |  | N/A | N/A |  |


| Sample Name | KF37 CCV | Injection Vial | 25 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | CCV | Injection Volume | 10.00 |  |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |  |
| Acquisition Date | 2018-12-19T21:29:02 | Data File | AC_12192018_5-369.wiff |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |
| Sample Comment |  |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | Expected <br> Ion <br> Ratio | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.05 | 81149.99 | 272.53 | 1727.5 | false | 13C3-PFBA | 48839.73 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.87 | 74066.93 | 227.77 | 361.3 | false | 13C2-PFDA | 80761.89 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.44 | 15815.15 | 201.16 | 161.7 | false | 13C4-PFOS | 27408.34 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.59 | 19239.75 | 236.58 | 301.6 | false | 13C4-PFOS | 27408.34 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.76 | 67667.04 | 261.96 | 351.6 | false | 13C2-PFOA | 72893.96 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.15 | 72156.13 | 256.95 | 402.4 | false | 13C2-PFOA | 72893.96 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.55 | 80692.46 | 276.73 | 471.3 | false | 13C2-PFOA | 72893.96 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.93 | 83490.60 | 304.87 | 340.9 | false | 13C2-PFOA | 72893.96 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.28 | 78184.05 | 251.77 | 349.8 | false | 13C2-PFDA | 80761.89 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.59 | 67257.81 | 223.18 | 318.2 | false | 13C2-PFDA | 80761.89 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.33 | 65290.28 | 195.56 | 607.7 | false | 13C2-PFDA | 80761.89 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 24329.56 | 189.59 | 320.2 | false | 13C4-PFOS | 27408.34 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.18 | 24416.37 | 195.88 | 340.3 | false | 13C4-PFOS | 27408.34 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.93 | 25547.86 | 224.53 | 233.4 | false | 13C4-PFOS | 27408.34 | 238.75 |  | N/A | N/A |  |


| Sample Name | KF38 CCV | Injection Vial | 35 |  |
| :--- | :--- | :--- | :--- | :---: |
| Sample ID | CCV | Injection Volume | 10.00 |  |
| Sample Type | Quality Control | Instrument Name | QTRAP 5500 |  |
| Acquisition Date | 2018-12-19T23:17:39 | Data File | AC_12192018_5-369.wiff |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |
| Sample Comment |  |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | Expected Ion Ratio | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.03 | 81881.77 | 252.42 | 844.8 | false | 13C3-PFBA | 53206.02 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.87 | 79981.23 | 224.84 | 371.6 | false | 13C2-PFDA | 88350.02 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.43 | 20181.04 | 244.38 | 203.0 | false | 13C4-PFOS | 28789.10 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.59 | 18376.31 | 215.12 | 239.9 | false | 13C4-PFOS | 28789.10 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.75 | 66857.40 | 199.80 | 391.7 | false | 13C2-PFOA | 94428.93 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.14 | 81255.01 | 223.36 | 546.7 | false | 13C2-PFOA | 94428.93 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.54 | 92431.82 | 244.70 | 502.8 | false | 13C2-PFOA | 94428.93 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.93 | 83046.62 | 234.09 | 420.6 | false | 13C2-PFOA | 94428.93 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.27 | 87398.61 | 257.27 | 325.1 | false | 13C2-PFDA | 88350.02 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.59 | 78100.20 | 236.90 | 442.2 | false | 13C2-PFDA | 88350.02 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.33 | 69827.70 | 191.19 | 593.5 | false | 13C2-PFDA | 88350.02 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.44 | 25725.72 | 190.86 | 284.5 | false | 13C4-PFOS | 28789.10 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.17 | 25536.06 | 195.04 | 302.0 | false | 13C4-PFOS | 28789.10 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.93 | 29302.67 | 245.18 | 348.6 | false | 13C4-PFOS | 28789.10 | 238.75 |  | N/A | N/A |  |


| Sample Name | KF41 IB | Injection Vial | 36 |
| :--- | :--- | :--- | :--- |
| Sample ID | Instrument Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-14T23:02:16 | Data File | AC_12142018_5-0369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table | 18-0718 |
| Sample Comment |  |  |  |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area |  | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| PFBS_1 | 298.9 / 80.0 | 1.53 | 6578.48 | 13.20 | 98.5 | true | 13C3-PFBS | 28201.38 | 232.25 | PFBS |  |  |  |
| PFBS_2 | 298.9/99.0 | 1.48 | 5054.08 | 7.94 | 63.3 | false | 13C3-PFBS | 28201.38 | 232.25 | PFBS | 0.770 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C5-PFHxA | 75172.70 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | true | 13C5-PFHxA | 75172.70 | 250.00 | PFHxA | N/A | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C4-PFHpA | 83897.25 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C4-PFHpA | 83897.25 | 250.00 | PFHpA | N/A | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.26 | 7563.19 | 35.47 | 36.1 | true | 13C3-PFHxS | 23477.13 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.31 | 2762.72 | 32.42 | 18.7 | true | 13C3-PFHxS | 23477.13 | 236.50 | PFHxS | 0.370 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | N/A | N/A | N/A | N/A | true | 13C8-PFOA | 88481.27 | 250.00 | PFOA |  |  |  |
| PFOA 2 | 413.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C8-PFOA | 88481.27 | 250.00 | PFOA | N/A | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | true | 13C9-PFNA | 87284.73 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | true | 13C9-PFNA | 87284.73 | 250.00 | PFNA | N/A | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | N/A | N/A | N/A | N/A | true | 13C8-PFOS | 23553.26 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | N/A | N/A | N/A | N/A | true | 13C8-PFOS | 23553.26 | 239.25 | PFOS | N/A | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 81972.81 | 250.00 | PFDA |  |  |  |
| PFDA_2 | $513.0 / 219.0$ | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 81972.81 | 250.00 | PFDA | N/A | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 75436.63 | 250.00 | PFUnA |  |  |  |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 75436.63 | 250.00 | PFUnA | N/A | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 72469.08 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 72469.08 | 250.00 | PFDoA | N/A | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.24 | 4357.56 | 0.57 | 34.7 | true | 13C2-PFTeDA | 79620.72 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | 4.20 | 438.11 | $<0$ | 13.8 | true | 13C2-PFTeDA | 79620.72 | 250.00 | PFTrDA | 0.100 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.45 | 6711.12 | 3.67 | 73.8 | true | 13C2-PFTeDA | 79620.72 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.46 | 322.47 | 8.00 | 15.8 | true | 13C2-PFTeDA | 79620.72 | 250.00 | PFTeDA | 0.050 | 0.049 |  |
| NMeFOSAA_1 | $570.0 / 419.0$ | 3.52 | 2088.71 | 22.16 | 134.5 | false | d3-MeFOSAA | 18549.02 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.60 | 982.52 | 8.29 | 26.9 | false | d3-MeFOSAA | 18549.02 | 250.00 | NMeFOSAA | 0.470 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.70 | 2617.12 | 38.34 | 137.9 | false | d5-EtFOSAA | 18992.82 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 18992.82 | 250.00 | NEtFOSAA | N/A | 0.063 |  |
| PFBA | 213.0 / 169.0 | 0.98 | 65445.91 | <0 | 66.9 | true | 13C4-PFBA | 68596.10 | 250.00 |  |  |  |  |


| Sample Name | KF41 IB | Injection Vial | 5 |
| :--- | :--- | :--- | :--- |
| Sample ID | Instrument Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T12:53:47 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table | 18-0718 |
| Sample Comment |  |  |  |



| Sample Name | CS469PB-FS(0) | Injection Vial | 5 |
| :--- | :--- | :--- | :--- |
| Sample ID | Procedural Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | $2018-12-19 T 17: 51: 36$ | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table |  |
| Sample Comment |  |  | 18-0718 |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM <br> Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. <br> (ng/L) | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Ratio } \\ \text { OK } \\ \hline \end{gathered}$ |
| PFBS_1 | 298.9 / 80.0 | 1.46 | 6417.19 | 14.52 | 186.3 | true | 13C3-PFBS | 25690.31 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.45 | 2789.17 | < 0 | 41.3 | true | 13C3-PFBS | 25690.31 | 232.25 | PFBS | 0.430 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C5-PFHxA | 72435.23 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | true | 13C5-PFHxA | 72435.23 | 250.00 | PFHxA | N/A | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C4-PFHpA | 79046.71 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C4-PFHpA | 79046.71 | 250.00 | PFHpA | N/A | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | N/A | N/A | N/A | N/A | true | 13C3-PFHxS | 27164.12 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | N/A | N/A | N/A | N/A | true | $13 \mathrm{C} 3-\mathrm{PFHxS}$ | 27164.12 | 236.50 | PFHxS | N/A | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.56 | 140166.19 | 392.00 | 71.1 | true | 13C8-PFOA | 85693.51 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.57 | 9745.90 | 412.27 | 61.9 | false | 13C8-PFOA | 85693.51 | 250.00 | PFOA | 0.070 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | true | 13C9-PFNA | 93202.93 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | true | 13C9-PFNA | 93202.93 | 250.00 | PFNA | N/A | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | N/A | N/A | N/A | N/A | true | 13C8-PFOS | 28791.00 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | N/A | N/A | N/A | N/A | true | 13C8-PFOS | 28791.00 | 239.25 | PFOS | N/A | 0.177 |  |
| PFDA_1 | 513.0/469.0 | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 85772.45 | 250.00 | PFDA |  |  |  |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 85772.45 | 250.00 | PFDA | N/A | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 79001.35 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 79001.35 | 250.00 | PFUnA | N/A | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 77923.16 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 77923.16 | 250.00 | PFDoA | N/A | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 74921.70 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 74921.70 | 250.00 | PFTrDA | N/A | 0.071 |  |
| PFTeDA_1 | 713.0 /669.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 74921.70 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0/169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 74921.70 | 250.00 | PFTeDA | N/A | 0.049 |  |
| NMeFOSAA_1 | 570.0/419.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 19558.38 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 19558.38 | 250.00 | NMeFOSAA | N/A | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 19002.67 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 19002.67 | 250.00 | NEtFOSAA | N/A | 0.063 |  |
| PFBA | 213.0 / 169.0 | 0.99 | 105765.50 | $<0$ | 144.9 | true | 13C4-PFBA | 84304.35 | 250.00 |  |  |  |  |


| Sample Name | CS470LCS-FS(0) | Injection Vial | 6 |
| :--- | :--- | :--- | :--- |
| Sample ID | Laboratory Control Sample | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | $2018-12-19 T 18: 02: 28$ | Data File | Result Table |
| Acquisition Method | $5-0369 . d a m$ |  | AC_12192018_5-369.wiff |
| Sample Comment |  |  |  |


| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. | Ratio Group | Ion Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.46 | 741878.47 | 2460.22 | 2308.6 | false | 13C3-PFBS | 24010.37 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9 / 99.0 | 1.46 | 225241.20 | 2486.01 | 549.9 | false | 13C3-PFBS | 24010.37 | 232.25 | PFBS | 0.300 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.77 | 628695.04 | 2643.86 | 101.5 | false | 13C5-PFHxA | 60993.14 | 250.00 | PFHxA |  |  |  |
| PFHxA_2 | 313.0 / 119.0 | 1.77 | 51352.66 | 2846.80 | 95.3 | false | 13C5-PFHxA | 60993.14 | 250.00 | PFHxA | 0.080 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.17 | 554330.60 | 2490.37 | 144.8 | false | 13C4-PFHpA | 64101.48 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.16 | 10687.17 | 2451.15 | 118.6 | false | 13C4-PFHpA | 64101.48 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.18 | 820846.38 | 2248.01 | 367.5 | false | 13C3-PFHxS | 22957.47 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.18 | 228476.36 | 2208.78 | 334.3 | false | 13C3-PFHxS | 22957.47 | 236.50 | PFHxS | 0.280 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.56 | 841607.59 | 2623.23 | 203.3 | false | 13C8-PFOA | 73391.33 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.56 | 57316.86 | 2684.98 | 186.1 | false | 13C8-PFOA | 73391.33 | 250.00 | PFOA | 0.070 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.94 | 704765.35 | 2220.96 | 331.5 | false | 13C9-PFNA | 75083.34 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 2.94 | 233765.28 | 2294.25 | 322.8 | false | 13C9-PFNA | 75083.34 | 250.00 | PFNA | 0.330 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.94 | 1140457.20 | 2449.64 | 220.1 | false | 13C8-PFOS | 23286.59 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.94 | 204591.37 | 2480.10 | 328.2 | false | 13C8-PFOS | 23286.59 | 239.25 | PFOS | 0.180 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.30 | 771600.64 | 2343.02 | 288.3 | false | 13C6-PFDA | 70677.36 | 250.00 | PFDA |  |  |  |
| PFDA_2 | 513.0 / 219.0 | 3.30 | 26306.20 | 1979.94 | 217.1 | false | 13C6-PFDA | 70677.36 | 250.00 | PFDA | 0.030 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | 3.61 | 697671.07 | 2668.74 | 330.4 | false | 13C7-PFUnA | 62003.00 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.61 | 34795.41 | 2622.00 | 240.4 | false | 13C7-PFUnA | 62003.00 | 250.00 | PFUnA | 0.050 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 3.89 | 647585.62 | 2615.67 | 324.0 | false | 13C2-PFDoA | 66335.09 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.89 | 112695.67 | 2571.44 | 354.1 | false | 13C2-PFDoA | 66335.09 | 250.00 | PFDoA | 0.170 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.13 | 560732.30 | 2501.96 | 359.0 | false | 13C2-PFTeDA | 65872.76 | 250.00 | PFTrDA |  |  |  |
| PFTrDA 2 | 663.0 / 169.0 | 4.13 | 37311.20 | 2330.66 | 334.0 | false | 13C2-PFTeDA | 65872.76 | 250.00 | PFTrDA | 0.070 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.34 | 778345.70 | 2542.59 | 572.4 | false | 13C2-PFTeDA | 65872.76 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.34 | 38204.29 | 2539.52 | 533.8 | false | 13C2-PFTeDA | 65872.76 | 250.00 | PFTeDA | 0.050 | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.44 | 178152.94 | 2424.55 | 374.8 | false | d3-MeFOSAA | 16414.17 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.44 | 86795.95 | 2421.43 | 340.7 | false | d3-MeFOSAA | 16414.17 | 250.00 | NMeFOSAA | 0.490 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.60 | 159978.86 | 2349.94 | 334.7 | false | d5-EtFOSAA | 16035.65 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA 2 | 584.0 / 483.0 | 3.60 | 9942.82 | 2370.44 | 1577.7 | false | d5-EtFOSAA | 16035.65 | 250.00 | NEtFOSAA | 0.060 | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.03 | 1019330.86 | 2781.60 | 647.9 | true | 13C4-PFBA | 68253.89 | 250.00 |  |  |  |  |


| Sample Name | J9989-FS(0) | Injection Vial | 7 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW-FB01-120618 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T18:13:20 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table | 18-0718 |
| Sample Comment |  |  |  |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM <br> Transition | RT | Area | Conc. <br> (ng/L) | $\begin{aligned} & \mathrm{S} / \mathrm{N} \\ & \text { Ratio } \end{aligned}$ | Modified | IS | IS Area | IS Conc. | Ratio Group | Ion Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| PFBS_1 | 298.9 / 80.0 | 1.48 | 2133.53 | 1.57 | 59.6 | true | 13C3-PFBS | 24370.94 | 232.25 | PFBS |  |  |  |
| PFBS_2 | 298.9/99.0 | 1.44 | 2332.69 | < 0 | 38.7 | true | 13C3-PFBS | 24370.94 | 232.25 | PFBS | 1.090 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C5-PFHxA | 58361.65 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | true | 13C5-PFHxA | 58361.65 | 250.00 | PFHxA | N/A | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C4-PFHpA | 69618.55 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C4-PFHpA | 69618.55 | 250.00 | PFHpA | N/A | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | N/A | N/A | N/A | N/A | true | 13C3-PFHxS | 23905.32 | 236.50 | PFHxS |  |  |  |
| PFHxS 2 | 399.0 / 99.0 | N/A | N/A | N/A | N/A | true | 13C3-PFHxS | 23905.32 | 236.50 | PFHxS | N/A | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.57 | 107969.43 | 328.64 | 55.3 | true | 13C8-PFOA | 79597.48 | 250.00 | PFOA |  |  |  |
| PFOA 2 | 413.0 / 169.0 | 2.56 | 8013.27 | 367.79 | 46.7 | true | 13C8-PFOA | 79597.48 | 250.00 | PFOA | 0.070 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | true | 13C9-PFNA | 80193.98 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | true | 13C9-PFNA | 80193.98 | 250.00 | PFNA | N/A | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.96 | 6222.08 | 25.46 | 20.9 | true | 13C8-PFOS | 26141.19 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | N/A | N/A | N/A | N/A | true | 13C8-PFOS | 26141.19 | 239.25 | PFOS | N/A | 0.177 |  |
| PFDA_1 | 513.0/469.0 | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 79873.75 | 250.00 | PFDA |  |  |  |
| PFDA_2 | $513.0 / 219.0$ | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 79873.75 | 250.00 | PFDA | N/A | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 66437.65 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 66437.65 | 250.00 | PFUnA | N/A | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 72580.64 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 72580.64 | 250.00 | PFDoA | N/A | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 63821.12 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 63821.12 | 250.00 | PFTrDA | N/A | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.33 | 1453.30 | $<0$ | 32.3 | false | 13C2-PFTeDA | 63821.12 | 250.00 | PFTeDA |  |  |  |
| PFTeDA 2 | 713.0 / 169.0 | 4.35 | 81.29 | < 0 | 9.9 | false | 13C2-PFTeDA | 63821.12 | 250.00 | PFTeDA | 0.060 | 0.049 |  |
| NMeFOSAA_1 | $570.0 / 419.0$ | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 18815.39 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 18815.39 | 250.00 | NMeFOSAA | N/A | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 17582.29 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0/483.0 | N/A | N/A | N/A | N/A | false | d5-EtFOSAA | 17582.29 | 250.00 | NEtFOSAA | N/A | 0.063 |  |
| PFBA | 213.0 / 169.0 | 0.98 | 102395.62 | <0 | 119.6 | true | 13C4-PFBA | 75329.56 | 250.00 |  |  |  |  |


| Sample Name | J9999-FS(0) | Injection Vial | 8 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-09-GW-FB01-120618 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T18:24:12 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table | 18-0718 |
| Sample Comment |  |  |  |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM <br> Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. <br> (ng/L) | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Ratio } \\ \text { OK } \\ \hline \end{gathered}$ |
| PFBS_1 | 298.9 / 80.0 | 1.48 | 1989.56 | 1.04 | 49.9 | true | 13C3-PFBS | 24603.71 | 232.25 | PFBS |  |  |  |
| PFBS_2 | 298.9/99.0 | 1.46 | 1264.09 | < 0 | 26.4 | true | 13C3-PFBS | 24603.71 | 232.25 | PFBS | 0.640 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C5-PFHxA | 64148.39 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | true | 13C5-PFHxA | 64148.39 | 250.00 | PFHxA | N/A | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C4-PFHpA | 75665.93 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C4-PFHpA | 75665.93 | 250.00 | PFHpA | N/A | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | N/A | N/A | N/A | N/A | true | 13C3-PFHxS | 23952.61 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | N/A | N/A | N/A | N/A | true | 13C3-PFHxS | 23952.61 | 236.50 | PFHxS | N/A | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.56 | 119302.36 | 358.77 | 70.8 | true | 13C8-PFOA | 80110.13 | 250.00 | PFOA |  |  |  |
| PFOA 2 | 413.0 / 169.0 | 2.57 | 6293.44 | 292.48 | 46.4 | true | 13C8-PFOA | 80110.13 | 250.00 | PFOA | 0.050 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | true | 13C9-PFNA | 86486.40 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | true | 13C9-PFNA | 86486.40 | 250.00 | PFNA | N/A | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | N/A | N/A | N/A | N/A | true | 13C8-PFOS | 24124.04 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | N/A | N/A | N/A | N/A | true | 13C8-PFOS | 24124.04 | 239.25 | PFOS | N/A | 0.177 |  |
| PFDA_1 | 513.0/469.0 | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 83908.62 | 250.00 | PFDA |  |  |  |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 83908.62 | 250.00 | PFDA | N/A | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 70195.47 | 250.00 | PFUnA |  |  |  |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 70195.47 | 250.00 | PFUnA | N/A | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 75943.82 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 75943.82 | 250.00 | PFDoA | N/A | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 71860.09 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 71860.09 | 250.00 | PFTrDA | N/A | 0.071 |  |
| PFTeDA_1 | 713.0/669.0 | 4.33 | 1477.85 | < 0 | 31.6 | false | 13C2-PFTeDA | 71860.09 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.33 | 49.02 | $<0$ | 8.1 | true | 13C2-PFTeDA | 71860.09 | 250.00 | PFTeDA | 0.030 | 0.049 |  |
| NMeFOSAA_1 | 570.0/419.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 17996.29 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 17996.29 | 250.00 | NMeFOSAA | N/A | 0.505 |  |
| NEtFOSAA_1 | 584.0/419.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 17385.14 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 17385.14 | 250.00 | NEtFOSAA | N/A | 0.063 |  |
| PFBA | 213.0 / 169.0 | 0.98 | 115693.76 | $<0$ | 118.7 | true | 13C4-PFBA | 77807.91 | 250.00 |  |  |  |  |


| Sample Name | J9992-FS(0) | Injection Vial | 9 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW01D-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T18:35:04 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table | 18-0718 |
| Sample Comment |  |  |  |



| Sample Name | J9992MS-FS(0) | Injection Vial | 10 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW01D-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name |  |
| Acquisition Date | 2018-12-19T18:45:55 | Data File | QTRAP 5500 |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table | AC_12192018_5-369.wiff |
| Sample Comment |  |  | 18-0718 |


| Analyte | MRM Transition | RT | Area | $\begin{aligned} & \text { Conc. } \\ & \text { (ng/L) } \\ & \hline \end{aligned}$ | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { lon } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.46 | 2606778.05 | 6964.36 | 589.4 | false | 13C3-PFBS | 29845.54 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.46 | 806598.05 | 7237.79 | 428.5 | false | 13C3-PFBS | 29845.54 | 232.25 | PFBS | 0.310 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.78 | 1901368.32 | 7876.09 | 129.3 | false | 13C5-PFHxA | 61938.53 | 250.00 | PFHxA |  |  |  |
| PFHxA_2 | 313.0 / 119.0 | 1.77 | 147743.40 | 8002.52 | 159.9 | false | 13C5-PFHxA | 61938.53 | 250.00 | PFHxA | 0.080 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.17 | 1766144.22 | 7213.77 | 256.4 | false | 13C4-PFHpA | 70263.58 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.17 | 32958.01 | 7012.70 | 178.8 | false | 13C4-PFHpA | 70263.58 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.18 | 2755415.76 | 7203.41 | 348.9 | true | 13C3-PFHxS | 23936.51 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.18 | 779101.43 | 7209.37 | 340.8 | false | 13C3-PFHxS | 23936.51 | 236.50 | PFHxS | 0.280 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.57 | 2252417.00 | 7597.50 | 249.3 | false | 13C8-PFOA | 67465.65 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.56 | 143692.88 | 7279.46 | 252.9 | false | 13C8-PFOA | 67465.65 | 250.00 | PFOA | 0.060 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.95 | 1976984.38 | 7268.09 | 284.4 | false | 13C9-PFNA | 64321.74 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 2.95 | 643436.79 | 7376.91 | 299.2 | false | 13C9-PFNA | 64321.74 | 250.00 | PFNA | 0.330 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.94 | 3327396.40 | 7550.75 | 221.2 | false | 13C8-PFOS | 21958.64 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.94 | 595791.05 | 7632.30 | 285.9 | false | 13C8-PFOS | 21958.64 | 239.25 | PFOS | 0.180 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.30 | 2250178.63 | 7583.21 | 318.0 | false | 13C6-PFDA | 63598.74 | 250.00 | PFDA |  |  |  |
| PFDA_2 | 513.0 / 219.0 | 3.30 | 89672.91 | 7510.35 | 314.8 | false | 13C6-PFDA | 63598.74 | 250.00 | PFDA | 0.040 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | 3.61 | 1993528.21 | 7756.78 | 337.0 | false | 13C7-PFUnA | 60899.59 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.62 | 97085.54 | 7406.29 | 322.5 | false | 13C7-PFUnA | 60899.59 | 250.00 | PFUnA | 0.050 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 3.89 | 1939675.67 | 7737.63 | 353.8 | false | 13C2-PFDoA | 67218.48 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.90 | 320966.83 | 7256.24 | 313.0 | false | 13C2-PFDoA | 67218.48 | 250.00 | PFDoA | 0.170 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.14 | 1784823.93 | 7830.97 | 345.7 | false | 13C2-PFTeDA | 67274.15 | 250.00 | PFTrDA |  |  |  |
| PFTrDA 2 | 663.0 / 169.0 | 4.14 | 122088.08 | 7596.57 | 327.6 | false | 13C2-PFTeDA | 67274.15 | 250.00 | PFTrDA | 0.070 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.35 | 2451450.70 | 7871.61 | 564.8 | false | 13C2-PFTeDA | 67274.15 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.34 | 119494.68 | 7797.83 | 567.9 | false | 13C2-PFTeDA | 67274.15 | 250.00 | PFTeDA | 0.050 | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.45 | 462976.04 | 6562.05 | 313.0 | false | d3-MeFOSAA | 15773.16 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | 3.44 | 239244.69 | 6975.80 | 274.1 | false | d3-MeFOSAA | 15773.16 | 250.00 | NMeFOSAA | 0.520 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.60 | 442741.14 | 7644.63 | 287.0 | false | d5-EtFOSAA | 13617.84 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA 2 | 584.0 / 483.0 | 3.61 | 30989.56 | 8704.13 | 322.2 | false | d5-EtFOSAA | 13617.84 | 250.00 | NEtFOSAA | 0.070 | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.04 | 1908051.98 | 7828.83 | 655.4 | true | 13C4-PFBA | 48611.25 | 250.00 |  |  |  |  |


| Sample Name | J9992MSD-FS(0) | Injection Vial | 11 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW01D-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name |  |
| Acquisition Date | 2018-12-19T18:56:47 | Data File | QTRAP 5500 |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table | AC_12192018_5-369.wiff |
| Sample Comment |  |  | 18-0718 |


| Analyte | MRM Transition | RT | Area | $\begin{aligned} & \text { Conc. } \\ & \text { (ng/L) } \\ & \hline \end{aligned}$ | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \\ \hline \end{gathered}$ | Modified | IS | IS Area | $\square$ | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { lon } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.47 | 2713183.57 | 7166.67 | 604.1 | false | 13C3-PFBS | 30187.58 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.47 | 822601.69 | 7298.09 | 427.3 | false | 13C3-PFBS | 30187.58 | 232.25 | PFBS | 0.300 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.78 | 1881175.91 | 7890.77 | 142.2 | true | 13C5-PFHxA | 61166.73 | 250.00 | PFHxA |  |  |  |
| PFHxA_2 | 313.0 / 119.0 | 1.78 | 152143.10 | 8343.35 | 165.3 | false | 13C5-PFHxA | 61166.73 | 250.00 | PFHxA | 0.080 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.18 | 1800750.86 | 7113.31 | 234.8 | false | 13C4-PFHpA | 72654.07 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.17 | 34255.62 | 7049.31 | 218.4 | false | 13C4-PFHpA | 72654.07 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.19 | 2792427.37 | 8386.96 | 335.1 | false | 13C3-PFHxS | 20828.50 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.19 | 793356.79 | 8435.65 | 347.5 | false | 13C3-PFHxS | 20828.50 | 236.50 | PFHxS | 0.280 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.57 | 2234421.80 | 7537.90 | 248.5 | false | 13C8-PFOA | 67457.27 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.57 | 138003.67 | 6993.09 | 227.9 | false | 13C8-PFOA | 67457.27 | 250.00 | PFOA | 0.060 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.95 | 1947323.58 | 6644.78 | 309.8 | false | 13C9-PFNA | 69301.61 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 2.95 | 637765.13 | 6786.27 | 299.7 | false | 13C9-PFNA | 69301.61 | 250.00 | PFNA | 0.330 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.94 | 3399150.96 | 8257.30 | 255.4 | false | 13C8-PFOS | 20509.56 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.94 | 600562.03 | 8235.97 | 290.4 | false | 13C8-PFOS | 20509.56 | 239.25 | PFOS | 0.180 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.30 | 2231980.73 | 7289.17 | 272.7 | false | 13C6-PFDA | 65630.76 | 250.00 | PFDA |  |  |  |
| PFDA_2 | $513.0 / 219.0$ | 3.30 | 86087.76 | 6986.60 | 266.5 | false | 13C6-PFDA | 65630.76 | 250.00 | PFDA | 0.040 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | 3.62 | 1968022.59 | 7888.53 | 336.4 | false | 13C7-PFUnA | 59115.87 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.62 | 96976.58 | 7620.53 | 374.9 | false | 13C7-PFUnA | 59115.87 | 250.00 | PFUnA | 0.050 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 3.90 | 1906780.60 | 7734.91 | 341.5 | false | 13C2-PFDoA | 66101.70 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.90 | 320043.37 | 7357.83 | 342.6 | false | 13C2-PFDoA | 66101.70 | 250.00 | PFDoA | 0.170 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.14 | 1712016.72 | 7658.40 | 344.9 | false | 13C2-PFTeDA | 65981.00 | 250.00 | PFTrDA |  |  |  |
| PFTrDA 2 | 663.0 / 169.0 | 4.14 | 117568.78 | 7457.68 | 300.9 | false | 13C2-PFTeDA | 65981.00 | 250.00 | PFTrDA | 0.070 | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.35 | 2360203.46 | 7726.87 | 653.8 | false | 13C2-PFTeDA | 65981.00 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.35 | 114339.91 | 7607.44 | 525.9 | false | 13C2-PFTeDA | 65981.00 | 250.00 | PFTeDA | 0.050 | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | 3.45 | 457375.42 | 7455.61 | 256.7 | false | d3-MeFOSAA | 13715.56 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | 570.0 / 512.0 | 3.45 | 218914.59 | 7341.45 | 272.4 | false | d3-MeFOSAA | 13715.56 | 250.00 | NMeFOSAA | 0.480 | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | 3.60 | 415431.92 | 7314.38 | 334.9 | false | d5-EtFOSAA | 13355.28 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA 2 | 584.0 / 483.0 | 3.60 | 24793.82 | 7100.53 | 217.5 | false | d5-EtFOSAA | 13355.28 | 250.00 | NEtFOSAA | 0.060 | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.05 | 1937711.99 | 7778.69 | 688.1 | true | 13C4-PFBA | 49672.57 | 250.00 |  |  |  |  |


| Sample Name | J9993-FS(0) | Injection Vial | 12 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW02-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T19:07:41 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table | 18-0718 |
| Sample Comment |  |  |  |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM <br> Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. <br> (ng/L) | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { lon } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| PFBS_1 | 298.9 / 80.0 | 1.47 | 12468.03 | 31.24 | 54.1 | true | 13C3-PFBS | 27139.87 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.47 | 5734.19 | 16.58 | 43.0 | false | 13C3-PFBS | 27139.87 | 232.25 | PFBS | 0.460 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.78 | 64442.43 | 274.04 | 16.6 | true | 13C5-PFHxA | 60091.19 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.78 | 4936.72 | 308.70 | 17.7 | false | 13C5-PFHxA | 60091.19 | 250.00 | PFHxA | 0.080 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.18 | 19116.70 | 103.28 | 11.4 | true | 13C4-PFHpA | 60701.21 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.16 | 608.82 | 87.05 | 19.9 | true | 13C4-PFHpA | 60701.21 | 250.00 | PFHpA | 0.030 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.19 | 27725.93 | 103.14 | 62.4 | false | 13C3-PFHxS | 19721.66 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.18 | 7647.09 | 92.19 | 43.8 | false | 13C3-PFHxS | 19721.66 | 236.50 | PFHxS | 0.280 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.57 | 178972.47 | 664.80 | 66.4 | false | 13C8-PFOA | 63069.17 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.57 | 13039.33 | 729.09 | 56.9 | false | 13C8-PFOA | 63069.17 | 250.00 | PFOA | 0.070 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.95 | 17132.92 | 62.92 | 34.2 | true | 13C9-PFNA | 66427.10 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 2.93 | 3735.59 | 39.02 | 31.7 | true | 13C9-PFNA | 66427.10 | 250.00 | PFNA | 0.220 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.93 | 63686.06 | 171.62 | 65.2 | false | 13C8-PFOS | 20048.42 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.94 | 12376.82 | 186.18 | 70.1 | false | 13C8-PFOS | 20048.42 | 239.25 | PFOS | 0.190 | 0.177 |  |
| PFDA_1 | 513.0/469.0 | 3.29 | 7200.11 | 28.59 | 19.3 | true | 13C6-PFDA | 64052.24 | 250.00 | PFDA |  |  |  |
| PFDA_2 | $513.0 / 219.0$ | 3.26 | 222.72 | 14.98 | 11.5 | true | 13C6-PFDA | 64052.24 | 250.00 | PFDA | 0.030 | 0.041 |  |
| PFUnA_1 | $563.0 / 519.0$ | 3.63 | 5524.78 | 24.56 | 22.9 | true | 13C7-PFUnA | 62686.25 | 250.00 | PFUnA |  |  |  |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 62686.25 | 250.00 | PFUnA | N/A | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 3.90 | 5797.69 | 18.31 | 33.5 | true | 13C2-PFDoA | 72726.81 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.88 | 1478.72 | 15.05 | 31.7 | false | 13C2-PFDoA | 72726.81 | 250.00 | PFDoA | 0.260 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.14 | 5491.20 | 15.55 | 67.6 | false | 13C2-PFTeDA | 52102.97 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 52102.97 | 250.00 | PFTrDA | N/A | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.34 | 9254.72 | 23.87 | 113.6 | false | 13C2-PFTeDA | 52102.97 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.34 | 277.35 | 13.59 | 30.2 | false | 13C2-PFTeDA | 52102.97 | 250.00 | PFTeDA | 0.030 | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 15858.34 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 15858.34 | 250.00 | NMeFOSAA | N/A | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 17461.97 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 17461.97 | 250.00 | NEtFOSAA | N/A | 0.063 |  |
| PFBA | 213.0 / 169.0 | 0.97 | 190577.60 | 381.71 | 111.4 | true | 13C4-PFBA | 56516.12 | 250.00 |  |  |  |  |


| Sample Name | J9994-FS(0) | Injection Vial | 13 |
| :--- | :--- | :--- | :--- |
| Sample ID | MW-09-204-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name |  |
| Acquisition Date | $2018-12-19 T 19: 18: 33$ | Data File | QTRAP 5500 |
| Acquisition Method | $5-0369 . d a m$ | Result Table | AC_12192018_5-369.wiff |
| Sample Comment |  |  | 18 |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| PFBS_1 | 298.9 / 80.0 | 1.47 | 62958.32 | 198.40 | 123.9 | false | 13C3-PFBS | 24650.25 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.47 | 17668.44 | 152.71 | 100.7 | false | 13C3-PFBS | 24650.25 | 232.25 | PFBS | 0.280 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C5-PFHxA | 50819.15 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | true | 13C5-PFHxA | 50819.15 | 250.00 | PFHxA | N/A | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C4-PFHpA | 59205.56 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C4-PFHpA | 59205.56 | 250.00 | PFHpA | N/A | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.18 | 466438.41 | 1359.01 | 298.8 | false | 13C3-PFHxS | 21676.55 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.18 | 132994.10 | 1364.14 | 292.7 | false | $13 \mathrm{C} 3-\mathrm{PFHxS}$ | 21676.55 | 236.50 | PFHxS | 0.290 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.56 | 138537.49 | 514.35 | 57.8 | false | 13C8-PFOA | 63702.39 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.57 | 11697.53 | 650.35 | 47.8 | false | 13C8-PFOA | 63702.39 | 250.00 | PFOA | 0.080 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | true | 13C9-PFNA | 67649.98 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | true | 13C9-PFNA | 67649.98 | 250.00 | PFNA | N/A | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.80 | 98112.15 | 236.49 | 132.5 | true | 13C8-PFOS | 21896.83 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.80 | 6534.07 | 96.62 | 32.6 | false | 13C8-PFOS | 21896.83 | 239.25 | PFOS | 0.070 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 59349.72 | 250.00 | PFDA |  |  |  |
| PFDA_2 | 513.0 / 219.0 | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 59349.72 | 250.00 | PFDA | N/A | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | 3.61 | 4812.11 | 24.77 | 27.3 | true | 13C7-PFUnA | 54074.75 | 250.00 | PFUnA |  |  |  |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 54074.75 | 250.00 | PFUnA | N/A | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 3.90 | 7162.14 | 28.31 | 60.8 | false | 13C2-PFDoA | 61213.44 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.90 | 1276.59 | 15.85 | 34.8 | false | 13C2-PFDoA | 61213.44 | 250.00 | PFDoA | 0.180 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.13 | 7078.98 | 19.02 | 69.1 | false | 13C2-PFTeDA | 60445.25 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 60445.25 | 250.00 | PFTrDA | N/A | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.34 | 9945.78 | 21.04 | 132.6 | false | 13C2-PFTeDA | 60445.25 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.33 | 260.28 | 9.12 | 25.4 | false | 13C2-PFTeDA | 60445.25 | 250.00 | PFTeDA | 0.030 | 0.049 |  |
| NMeFOSAA_1 | 570.0/419.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 12505.27 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA 2 | $570.0 / 512.0$ | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 12505.27 | 250.00 | NMeFOSAA | N/A | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 11101.17 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0/483.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 11101.17 | 250.00 | NEtFOSAA | N/A | 0.063 |  |
| PFBA | 213.0 / 169.0 | 0.97 | 88478.06 | 118.29 | 91.3 | true | 13C4-PFBA | 42073.38 | 250.00 |  |  |  |  |


| Sample Name | J9996-FS(0) | Injection Vial | 14 |
| :--- | :--- | :--- | :--- |
| Sample ID | MW-09-22-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T19:29:26 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table | 18-0718 |
| Sample Comment |  |  |  |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM <br> Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| PFBS_1 | 298.9 / 80.0 | 1.46 | 223951.46 | 564.34 | 193.6 | false | 13C3-PFBS | 31366.07 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.46 | 58969.00 | 465.97 | 183.7 | false | 13C3-PFBS | 31366.07 | 232.25 | PFBS | 0.260 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.77 | 171462.96 | 801.66 | 29.5 | true | 13C5-PFHxA | 54805.93 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.77 | 15334.76 | 968.94 | 38.3 | false | 13C5-PFHxA | 54805.93 | 250.00 | PFHxA | 0.090 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.16 | 161604.03 | 727.61 | 63.2 | true | 13C4-PFHpA | 64789.07 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.17 | 3592.83 | 772.40 | 52.4 | false | 13C4-PFHpA | 64789.07 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.18 | 702307.54 | 1614.44 | 324.5 | false | 13C3-PFHxS | 27424.53 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.18 | 198809.13 | 1610.65 | 297.7 | false | $13 \mathrm{C} 3-\mathrm{PFHxS}$ | 27424.53 | 236.50 | PFHxS | 0.280 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.56 | 994191.44 | 3184.89 | 164.6 | true | 13C8-PFOA | 71307.49 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.55 | 75449.78 | 3628.87 | 151.5 | false | 13C8-PFOA | 71307.49 | 250.00 | PFOA | 0.080 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.94 | 23047.51 | 80.43 | 43.5 | true | 13C9-PFNA | 69418.05 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 2.93 | 7866.91 | 81.13 | 53.2 | true | 13C9-PFNA | 69418.05 | 250.00 | PFNA | 0.340 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.86 | 245883.20 | 486.66 | 115.0 | true | 13C8-PFOS | 25854.29 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.92 | 29588.29 | 334.20 | 100.4 | false | 13C8-PFOS | 25854.29 | 239.25 | PFOS | 0.120 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.30 | 7128.24 | 26.78 | 18.1 | true | 13C6-PFDA | 68564.71 | 250.00 | PFDA |  |  |  |
| PFDA_2 | $513.0 / 219.0$ | 3.26 | 315.42 | 20.97 | 14.9 | true | 13C6-PFDA | 68564.71 | 250.00 | PFDA | 0.040 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | 3.62 | 4120.04 | 20.71 | 36.4 | true | 13C7-PFUnA | 57335.90 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | 3.68 | 226.27 | 41.16 | 10.0 | true | 13C7-PFUnA | 57335.90 | 250.00 | PFUnA | 0.050 | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | 3.90 | 2684.35 | 10.87 | 21.2 | true | 13C2-PFDoA | 51624.97 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | 3.89 | 404.97 | $<0$ | 14.7 | true | 13C2-PFDoA | 51624.97 | 250.00 | PFDoA | 0.150 | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | 4.14 | 2232.67 | < 0 | 37.0 | false | 13C2-PFTeDA | 51286.16 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 51286.16 | 250.00 | PFTrDA | N/A | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.33 | 3537.72 | 0.36 | 70.7 | false | 13C2-PFTeDA | 51286.16 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | 4.35 | 143.62 | 2.51 | 23.7 | false | 13C2-PFTeDA | 51286.16 | 250.00 | PFTeDA | 0.040 | 0.049 |  |
| NMeFOSAA_1 | 570.0/419.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 13922.79 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 13922.79 | 250.00 | NMeFOSAA | N/A | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 13512.35 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 13512.35 | 250.00 | NEtFOSAA | N/A | 0.063 | , |
| PFBA | 213.0 / 169.0 | 0.98 | 139454.34 | 134.07 | 121.8 | true | 13C4-PFBA | 63999.60 | 250.00 |  |  |  |  |


| Sample Name | J9987-FS(0) | Injection Vial | 17 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW04-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T20:02:03 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table | 18-0718 |
| Sample Comment |  |  |  |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM <br> Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| PFBS_1 | 298.9 / 80.0 | 1.47 | 38804.29 | 95.91 | 52.0 | false | 13C3-PFBS | 30560.98 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.46 | 10687.85 | 53.86 | 72.9 | false | 13C3-PFBS | 30560.98 | 232.25 | PFBS | 0.280 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.77 | 52340.51 | 212.95 | 14.2 | true | 13C5-PFHxA | 62732.84 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.77 | 3139.48 | 201.44 | 15.0 | false | 13C5-PFHxA | 62732.84 | 250.00 | PFHxA | 0.060 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.16 | 28899.11 | 117.30 | 16.8 | true | 13C4-PFHpA | 79424.60 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.17 | 438.13 | 18.96 | 10.4 | true | 13C4-PFHpA | 79424.60 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.18 | 119473.68 | 301.16 | 155.7 | false | 13C3-PFHxS | 26102.68 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.18 | 32755.47 | 284.08 | 169.4 | false | $13 \mathrm{C} 3-\mathrm{PFHxS}$ | 26102.68 | 236.50 | PFHxS | 0.270 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.56 | 229004.26 | 682.28 | 76.9 | false | 13C8-PFOA | 78567.60 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.54 | 20894.77 | 930.74 | 62.8 | false | 13C8-PFOA | 78567.60 | 250.00 | PFOA | 0.090 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.94 | 6793.78 | 23.69 | 21.7 | true | 13C9-PFNA | 73857.41 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 2.92 | 1726.76 | 14.78 | 26.5 | true | 13C9-PFNA | 73857.41 | 250.00 | PFNA | 0.250 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.85 | 33997.74 | 80.01 | 30.6 | false | 13C8-PFOS | 25470.77 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.95 | 3774.67 | 54.43 | 23.5 | false | 13C8-PFOS | 25470.77 | 239.25 | PFOS | 0.110 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.27 | 4019.30 | 15.73 | 14.0 | true | 13C6-PFDA | 76732.21 | 250.00 | PFDA |  |  |  |
| PFDA_2 | 513.0/219.0 | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 76732.21 | 250.00 | PFDA | N/A | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 69959.69 | 250.00 | PFUnA |  |  |  |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 69959.69 | 250.00 | PFUnA | N/A | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 72245.70 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 72245.70 | 250.00 | PFDoA | N/A | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 65868.47 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 65868.47 | 250.00 | PFTrDA | N/A | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.33 | 1916.87 | $<0$ | 41.4 | false | 13C2-PFTeDA | 65868.47 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 65868.47 | 250.00 | PFTeDA | N/A | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 15501.70 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 15501.70 | 250.00 | NMeFOSAA | N/A | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 16737.19 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 16737.19 | 250.00 | NEtFOSAA | N/A | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.04 | 1331779.55 | 4872.09 | 432.5 | true | 13C4-PFBA | 53258.24 | 250.00 |  |  |  |  |


| Sample Name | J9988-FS(0) | Injection Vial | 19 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-DUP-120618 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T20:23:47 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table | 18-0718 |
| Sample Comment |  |  |  |


| Analyte | MRM <br> Transition | RT | Area | $\begin{aligned} & \text { Conc. } \\ & \text { (ng/L) } \\ & \hline \end{aligned}$ | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. (ng | Ratio Group | Ion Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PFBS_1 | 298.9 / 80.0 | 1.48 | 36547.96 | 100.58 | 44.9 | false | 13C3-PFBS | 27515.57 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.46 | 8530.99 | 43.17 | 74.9 | true | 13C3-PFBS | 27515.57 | 232.25 | PFBS | 0.230 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.77 | 50903.41 | 238.52 | 13.5 | true | 13C5-PFHxA | 54500.85 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.77 | 2646.35 | 196.46 | 14.4 | false | 13C5-PFHxA | 54500.85 | 250.00 | PFHxA | 0.050 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.16 | 28711.78 | 143.41 | 16.0 | true | 13C4-PFHpA | 63099.77 | 250.00 | PFHpA |  |  |  |
| PFHpA 2 | 363.0 / 169.0 | 2.15 | 305.00 | 8.66 | 7.4 | true | 13C4-PFHpA | 63099.77 | 250.00 | PFHpA | 0.010 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.19 | 113028.27 | 318.55 | 143.2 | false | 13C3-PFHxS | 23278.03 | 236.50 | PFHxS |  |  |  |
| PFHxS 2 | 399.0 / 99.0 | 2.18 | 33411.54 | 324.02 | 144.0 | false | 13C3-PFHxS | 23278.03 | 236.50 | PFHxS | 0.300 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.56 | 177696.89 | 680.48 | 63.0 | false | 13C8-PFOA | 61130.78 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.55 | 17687.10 | 1010.39 | 62.5 | false | 13C8-PFOA | 61130.78 | 250.00 | PFOA | 0.100 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.94 | 7163.44 | 29.97 | 19.4 | true | 13C9-PFNA | 60427.65 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 2.92 | 1030.46 | 10.11 | 10.3 | true | 13C9-PFNA | 60427.65 | 250.00 | PFNA | 0.140 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.88 | 36474.73 | 118.48 | 44.3 | false | 13C8-PFOS | 17302.29 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.94 | 3856.44 | 75.41 | 21.3 | true | 13C8-PFOS | 17302.29 | 239.25 | PFOS | 0.110 | 0.177 |  |
| PFDA_1 | 513.0/469.0 | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 60829.76 | 250.00 | PFDA |  |  |  |
| PFDA 2 | $513.0 / 219.0$ | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 60829.76 | 250.00 | PFDA | N/A | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 60505.55 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 60505.55 | 250.00 | PFUnA | N/A | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 64176.91 | 250.00 | PFDoA |  |  |  |
| PFDoA 2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 64176.91 | 250.00 | PFDoA | N/A | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 66300.10 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 66300.10 | 250.00 | PFTrDA | N/A | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.34 | 1882.18 | < 0 | 46.1 | false | 13C2-PFTeDA | 66300.10 | 250.00 | PFTeDA |  |  |  |
| PFTeDA 2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 66300.10 | 250.00 | PFTeDA | N/A | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 12811.95 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA 2 | $570.0 / 512.0$ | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 12811.95 | 250.00 | NMeFOSAA | N/A | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 14279.54 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA 2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 14279.54 | 250.00 | NEtFOSAA | N/A | 0.063 |  |
| PFBA | 213.0 / 169.0 | 0.98 | 182201.29 | 433.03 | 118.1 | true | 13C4-PFBA | 50341.28 | 250.00 |  |  |  |  |


| Sample Name | J9990-FS(0) | Injection Vial | 21 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW-RB01-120618 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T20:45:32 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table | 18-0718 |
| Sample Comment |  |  |  |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area |  | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| PFBS_1 | 298.9 / 80.0 | 1.45 | 1783.89 | < 0 | 47.1 | true | 13C3-PFBS | 28608.40 | 232.25 | PFBS |  |  |  |
| PFBS_2 | 298.9/99.0 | 1.48 | 1692.94 | < 0 | 32.9 | true | 13C3-PFBS | 28608.40 | 232.25 | PFBS | 0.950 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.77 | 17010.84 | 97.17 | 9.1 | true | 13C5-PFHxA | 44395.49 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.77 | 1099.73 | 117.01 | 10.9 | false | 13C5-PFHxA | 44395.49 | 250.00 | PFHxA | 0.060 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C4-PFHpA | 52977.63 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C4-PFHpA | 52977.63 | 250.00 | PFHpA | N/A | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | N/A | N/A | N/A | N/A | true | 13C3-PFHxS | 23848.83 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | N/A | N/A | N/A | N/A | true | 13C3-PFHxS | 23848.83 | 236.50 | PFHxS | N/A | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.56 | 94035.99 | 334.07 | 53.0 | true | 13C8-PFOA | 68122.56 | 250.00 | PFOA |  |  |  |
| PFOA 2 | 413.0 / 169.0 | 2.57 | 6697.03 | 359.74 | 37.7 | true | 13C8-PFOA | 68122.56 | 250.00 | PFOA | 0.070 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | true | 13C9-PFNA | 77510.83 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | true | 13C9-PFNA | 77510.83 | 250.00 | PFNA | N/A | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.91 | 11567.73 | 34.93 | 31.6 | true | 13C8-PFOS | 26996.76 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.90 | 1719.64 | 30.70 | 15.6 | true | 13C8-PFOS | 26996.76 | 239.25 | PFOS | 0.150 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 72763.48 | 250.00 | PFDA |  |  |  |
| PFDA_2 | $513.0 / 219.0$ | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 72763.48 | 250.00 | PFDA | N/A | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 71212.56 | 250.00 | PFUnA |  |  |  |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 71212.56 | 250.00 | PFUnA | N/A | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 74675.49 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 74675.49 | 250.00 | PFDoA | N/A | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 74046.27 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 74046.27 | 250.00 | PFTrDA | N/A | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.34 | 1999.29 | $<0$ | 56.1 | false | 13C2-PFTeDA | 74046.27 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 74046.27 | 250.00 | PFTeDA | N/A | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 17629.39 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 17629.39 | 250.00 | NMeFOSAA | N/A | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 17174.02 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 17174.02 | 250.00 | NEtFOSAA | N/A | 0.063 |  |
| PFBA | 213.0 / 169.0 | 0.98 | 125115.06 | 239.87 | 120.4 | true | 13C4-PFBA | 46533.32 | 250.00 |  |  |  |  |


| Sample Name | J9991-FS(0) | Injection Vial | 23 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW01S-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T21:07:18 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table |  |
| Sample Comment |  |  | 18-0718 |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area |  | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| PFBS_1 | 298.9 / 80.0 | 1.45 | 2028.51 | 0.18 | 20.2 | true | 13C3-PFBS | 28919.64 | 232.25 | PFBS |  |  |  |
| PFBS_2 | 298.9/99.0 | 1.45 | 3752.81 | < 0 | 42.6 | true | 13C3-PFBS | 28919.64 | 232.25 | PFBS | 1.850 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C5-PFHxA | 60160.45 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | N/A | N/A | N/A | N/A | true | 13C5-PFHxA | 60160.45 | 250.00 | PFHxA | N/A | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C4-PFHpA | 64603.46 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C4-PFHpA | 64603.46 | 250.00 | PFHpA | N/A | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | N/A | N/A | N/A | N/A | true | 13C3-PFHxS | 24539.94 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | N/A | N/A | N/A | N/A | true | 13C3-PFHxS | 24539.94 | 236.50 | PFHxS | N/A | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.57 | 108219.94 | 378.03 | 56.1 | true | 13C8-PFOA | 68751.38 | 250.00 | PFOA |  |  |  |
| PFOA 2 | 413.0 / 169.0 | 2.57 | 7155.92 | 379.41 | 48.3 | true | 13C8-PFOA | 68751.38 | 250.00 | PFOA | 0.070 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | N/A | N/A | N/A | N/A | true | 13C9-PFNA | 72249.73 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | N/A | N/A | N/A | N/A | true | 13C9-PFNA | 72249.73 | 250.00 | PFNA | N/A | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | N/A | N/A | N/A | N/A | true | 13C8-PFOS | 27162.61 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | N/A | N/A | N/A | N/A | true | 13C8-PFOS | 27162.61 | 239.25 | PFOS | N/A | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 73435.51 | 250.00 | PFDA |  |  |  |
| PFDA_2 | $513.0 / 219.0$ | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 73435.51 | 250.00 | PFDA | N/A | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 70939.42 | 250.00 | PFUnA |  |  |  |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 70939.42 | 250.00 | PFUnA | N/A | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 75395.90 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 75395.90 | 250.00 | PFDoA | N/A | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 70585.17 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 70585.17 | 250.00 | PFTrDA | N/A | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.34 | 1281.29 | < 0 | 34.8 | false | 13C2-PFTeDA | 70585.17 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 70585.17 | 250.00 | PFTeDA | N/A | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 12577.61 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 12577.61 | 250.00 | NMeFOSAA | N/A | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 15578.09 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 15578.09 | 250.00 | NEtFOSAA | N/A | 0.063 |  |
| PFBA | 213.0 / 169.0 | 0.96 | 131319.98 | 109.33 | 109.8 | true | 13C4-PFBA | 63753.76 | 250.00 |  |  |  |  |


| Sample Name | J9995-FS(0) | Injection Vial | 27 |
| :--- | :--- | :--- | :--- |
| Sample ID | MW-B250-07-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T21:50:45 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table |  |
| Sample Comment |  |  | 18-0718 |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM <br> Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| PFBS_1 | 298.9 / 80.0 | 1.46 | 278780.77 | 736.38 | 187.4 | true | 13C3-PFBS | 29989.60 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.46 | 85166.28 | 724.46 | 190.9 | true | 13C3-PFBS | 29989.60 | 232.25 | PFBS | 0.310 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.77 | 382060.48 | 1471.06 | 48.3 | true | 13C5-PFHxA | 66593.39 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.77 | 26940.89 | 1385.70 | 57.1 | false | 13C5-PFHxA | 66593.39 | 250.00 | PFHxA | 0.070 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.16 | 163632.79 | 622.35 | 61.3 | true | 13C4-PFHpA | 76935.85 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.13 | 4602.06 | 838.21 | 45.7 | true | 13C4-PFHpA | 76935.85 | 250.00 | PFHpA | 0.030 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.18 | 2211562.51 | 5144.65 | 360.2 | false | 13C3-PFHxS | 26923.21 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.18 | 601326.44 | 4949.07 | 329.1 | false | $13 \mathrm{C} 3-\mathrm{PFHxS}$ | 26923.21 | 236.50 | PFHxS | 0.270 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.56 | 2804666.61 | 8757.21 | 249.4 | false | 13C8-PFOA | 72855.51 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.52 | 274187.86 | 12843.61 | 198.5 | false | 13C8-PFOA | 72855.51 | 250.00 | PFOA | 0.100 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.93 | 11763.56 | 37.97 | 32.2 | true | 13C9-PFNA | 77180.40 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 2.93 | 4781.14 | 43.23 | 31.9 | true | 13C9-PFNA | 77180.40 | 250.00 | PFNA | 0.410 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.89 | 2572057.05 | 4647.00 | 253.9 | false | 13C8-PFOS | 27611.47 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.93 | 399117.94 | 4072.09 | 272.1 | false | 13C8-PFOS | 27611.47 | 239.25 | PFOS | 0.160 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 75506.33 | 250.00 | PFDA |  |  |  |
| PFDA_2 | $513.0 / 219.0$ | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 75506.33 | 250.00 | PFDA | N/A | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 66033.25 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 66033.25 | 250.00 | PFUnA | N/A | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 66926.66 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 66926.66 | 250.00 | PFDoA | N/A | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 68947.84 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 68947.84 | 250.00 | PFTrDA | N/A | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.33 | 1394.61 | $<0$ | 36.0 | false | 13C2-PFTeDA | 68947.84 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 68947.84 | 250.00 | PFTeDA | N/A | 0.049 |  |
| NMeFOSAA_1 | 570.0/419.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 13872.95 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 13872.95 | 250.00 | NMeFOSAA | N/A | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 14223.64 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 14223.64 | 250.00 | NEtFOSAA | N/A | 0.063 | , |
| PFBA | 213.0 / 169.0 | 1.03 | 274652.95 | 504.11 | 324.8 | true | 13C4-PFBA | 69326.04 | 250.00 |  |  |  |  |


| Sample Name | J9997-FS(0) | Injection Vial | 29 |
| :--- | :--- | :--- | :--- |
| Sample ID | MW-09-004-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T22:12:29 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table | 18-0718 |
| Sample Comment |  |  |  |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM <br> Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| PFBS_1 | 298.9 / 80.0 | 1.46 | 1746870.78 | 5143.63 | 323.7 | false | 13C3-PFBS | 27072.49 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.46 | 502534.86 | 4958.63 | 331.5 | false | 13C3-PFBS | 27072.49 | 232.25 | PFBS | 0.290 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.77 | 556968.32 | 2367.52 | 42.9 | false | 13C5-PFHxA | 60338.46 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.77 | 49605.35 | 2780.57 | 72.7 | false | 13C5-PFHxA | 60338.46 | 250.00 | PFHxA | 0.090 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.16 | 358710.62 | 1417.90 | 74.0 | false | 13C4-PFHpA | 73147.33 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.16 | 8546.05 | 1698.45 | 60.8 | false | 13C4-PFHpA | 73147.33 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.18 | 3969849.15 | 10280.80 | 341.5 | false | 13C3-PFHxS | 24148.00 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.18 | 1103229.02 | 10116.68 | 354.6 | false | $13 \mathrm{C} 3-\mathrm{PFHxS}$ | 24148.00 | 236.50 | PFHxS | 0.280 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.55 | 1503056.85 | 4938.11 | 197.1 | false | 13C8-PFOA | 69368.46 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.54 | 133079.73 | 6559.33 | 192.3 | false | 13C8-PFOA | 69368.46 | 250.00 | PFOA | 0.090 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.93 | 35568.37 | 118.32 | 53.5 | false | 13C9-PFNA | 72250.09 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 2.93 | 12766.47 | 127.88 | 46.7 | false | 13C9-PFNA | 72250.09 | 250.00 | PFNA | 0.360 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.93 | 4030451.58 | 10309.19 | 264.3 | false | 13C8-PFOS | 19471.98 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.93 | 679433.40 | 9811.63 | 298.5 | false | 13C8-PFOS | 19471.98 | 239.25 | PFOS | 0.170 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.29 | 10203.48 | 36.58 | 24.0 | true | 13C6-PFDA | 68155.25 | 250.00 | PFDA |  |  |  |
| PFDA_2 | $513.0 / 219.0$ | 3.28 | 750.85 | 55.16 | 27.3 | true | 13C6-PFDA | 68155.25 | 250.00 | PFDA | 0.070 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 59657.51 | 250.00 | PFUnA |  |  |  |
| PFUnA_2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 59657.51 | 250.00 | PFUnA | N/A | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 59028.13 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 59028.13 | 250.00 | PFDoA | N/A | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 54956.70 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 54956.70 | 250.00 | PFTrDA | N/A | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.32 | 1573.94 | $<0$ | 34.8 | false | 13C2-PFTeDA | 54956.70 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 54956.70 | 250.00 | PFTeDA | N/A | 0.049 |  |
| NMeFOSAA_1 | $570.0 / 419.0$ | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 14007.86 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 14007.86 | 250.00 | NMeFOSAA | N/A | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 12880.20 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 12880.20 | 250.00 | NEtFOSAA | N/A | 0.063 |  |
| PFBA | 213.0 / 169.0 | 1.05 | 318374.50 | 1421.49 | 254.6 | true | 13C4-PFBA | 37984.95 | 250.00 |  |  |  |  |


| Sample Name | J9998-FS(0) | Injection Vial | 31 |
| :--- | :--- | :--- | :--- |
| Sample ID | MW-NASB-072-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T22:34:13 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table |  |
| Sample Comment |  |  | 18-0718 |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM <br> Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| PFBS_1 | 298.9 / 80.0 | 1.46 | 3284771.00 | 7536.90 | 547.5 | false | 13C3-PFBS | 34753.22 | 232.25 | PFBS |  |  |  |
| PFBS 2 | 298.9/99.0 | 1.46 | 964401.80 | 7432.83 | 409.9 | false | 13C3-PFBS | 34753.22 | 232.25 | PFBS | 0.290 | 0.322 |  |
| PFHxA_1 | 313.0 / 269.0 | 1.77 | 1462737.84 | 6490.94 | 121.1 | false | 13C5-PFHxA | 57816.30 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.77 | 98501.10 | 5725.50 | 125.7 | false | 13C5-PFHxA | 57816.30 | 250.00 | PFHxA | 0.070 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.17 | 767242.67 | 3381.96 | 164.2 | false | 13C4-PFHpA | 65241.55 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.18 | 14733.13 | 3342.85 | 107.6 | false | 13C4-PFHpA | 65241.55 | 250.00 | PFHpA | 0.020 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | 2.18 | 5379038.34 | 12624.09 | 372.1 | false | 13C3-PFHxS | 26639.03 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | 2.18 | 1561781.56 | 12980.61 | 358.6 | false | $13 \mathrm{C} 3-\mathrm{PFHxS}$ | 26639.03 | 236.50 | PFHxS | 0.290 | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.56 | 4380882.28 | 15461.84 | 295.0 | false | 13C8-PFOA | 64387.12 | 250.00 | PFOA |  |  |  |
| PFOA_2 | 413.0 / 169.0 | 2.55 | 353743.80 | 18738.11 | 294.0 | false | 13C8-PFOA | 64387.12 | 250.00 | PFOA | 0.080 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.94 | 38998.27 | 146.31 | 65.9 | true | 13C9-PFNA | 63859.59 | 250.00 | PFNA |  |  |  |
| PFNA_2 | 463.0 / 219.0 | 2.94 | 14249.49 | 162.14 | 61.0 | false | 13C9-PFNA | 63859.59 | 250.00 | PFNA | 0.370 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.88 | 6032472.83 | 13523.29 | 228.7 | false | 13C8-PFOS | 22210.46 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.93 | 944373.67 | 11953.34 | 268.5 | false | 13C8-PFOS | 22210.46 | 239.25 | PFOS | 0.160 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 63905.04 | 250.00 | PFDA |  |  |  |
| PFDA_2 | $513.0 / 219.0$ | N/A | N/A | N/A | N/A | true | 13C6-PFDA | 63905.04 | 250.00 | PFDA | N/A | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 63050.36 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 63050.36 | 250.00 | PFUnA | N/A | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 62932.08 | 250.00 | PFDoA |  |  |  |
| PFDoA_2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 62932.08 | 250.00 | PFDoA | N/A | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 70877.41 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 70877.41 | 250.00 | PFTrDA | N/A | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.33 | 1790.13 | $<0$ | 37.6 | false | 13C2-PFTeDA | 70877.41 | 250.00 | PFTeDA |  |  |  |
| PFTeDA_2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 70877.41 | 250.00 | PFTeDA | N/A | 0.049 |  |
| NMeFOSAA_1 | 570.0/419.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 12853.22 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | 570.0 / 512.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 12853.22 | 250.00 | NMeFOSAA | N/A | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 13788.70 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA_2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 13788.70 | 250.00 | NEtFOSAA | N/A | 0.063 | , |
| PFBA | 213.0 / 169.0 | 1.04 | 707358.06 | 2057.61 | 467.2 | true | 13C4-PFBA | 61797.84 | 250.00 |  |  |  |  |


| Sample Name | I0064-FS(0) | Injection Vial | 33 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW03-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | $2018-12-19 T 22: 55: 55$ | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m$ | Result Table | 18-0718 |
| Sample Comment |  |  |  |


| Results Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | $\begin{aligned} & \text { IS } \\ & \text { Conc. } \end{aligned}$ $(\mathrm{ng} / \mathrm{L})$ | Ratio Group | $\begin{gathered} \text { Ion } \\ \text { Ratio } \end{gathered}$ | $\begin{gathered} \hline \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| PFBS_1 | 298.9 / 80.0 | 1.54 | 291118.09 | 788.59 | 31.3 | true | 13C3-PFBS | 29257.84 | 232.25 | PFBS |  |  |  |
| PFBS_2 | 298.9 / 99.0 | 1.45 | 10165.72 | 53.25 | 34.6 | true | 13C3-PFBS | 29257.84 | 232.25 | PFBS | 0.030 | 0.322 |  |
| PFHxA 1 | $313.0 / 269.0$ | 1.76 | 114561.37 | 506.15 | 16.5 | true | 13C5-PFHxA | 57948.76 | 250.00 | PFHxA |  |  |  |
| PFHxA 2 | 313.0 / 119.0 | 1.75 | 8755.17 | 538.96 | 25.2 | false | 13C5-PFHxA | 57948.76 | 250.00 | PFHxA | 0.080 | 0.070 |  |
| PFHpA_1 | 363.0 / 319.0 | 2.17 | 40773.55 | 190.19 | 16.6 | true | 13C4-PFHpA | 65943.72 | 250.00 | PFHpA |  |  |  |
| PFHpA_2 | 363.0 / 169.0 | 2.17 | 292.07 | 2.55 | 4.2 | true | 13C4-PFHpA | 65943.72 | 250.00 | PFHpA | 0.010 | 0.021 |  |
| PFHxS_1 | 399.0 / 80.0 | N/A | N/A | N/A | N/A | true | 13C3-PFHxS | 22763.64 | 236.50 | PFHxS |  |  |  |
| PFHxS_2 | 399.0 / 99.0 | N/A | N/A | N/A | N/A | true | 13C3-PFHxS | 22763.64 | 236.50 | PFHxS | N/A | 0.289 |  |
| PFOA_1 | 413.0 / 369.0 | 2.56 | 272110.32 | 929.59 | 75.9 | false | 13C8-PFOA | 67950.88 | 250.00 | PFOA |  |  |  |
| PFOA 2 | 413.0 / 169.0 | 2.55 | 21590.29 | 1107.13 | 63.2 | false | 13C8-PFOA | 67950.88 | 250.00 | PFOA | 0.080 | 0.066 |  |
| PFNA_1 | 463.0 / 419.0 | 2.94 | 39526.28 | 147.34 | 56.1 | true | 13C9-PFNA | 64268.78 | 250.00 | PFNA |  |  |  |
| PFNA 2 | 463.0 / 219.0 | 2.93 | 10426.54 | 117.21 | 50.6 | true | 13C9-PFNA | 64268.78 | 250.00 | PFNA | 0.260 | 0.325 |  |
| PFOS_1 | 499.0 / 80.0 | 2.93 | 162502.64 | 406.87 | 71.8 | false | 13C8-PFOS | 20554.19 | 239.25 | PFOS |  |  |  |
| PFOS_2 | 499.0 / 99.0 | 2.93 | 16383.79 | 236.66 | 61.0 | false | 13C8-PFOS | 20554.19 | 239.25 | PFOS | 0.100 | 0.177 |  |
| PFDA_1 | 513.0 / 469.0 | 3.28 | 12040.95 | 42.77 | 31.3 | true | 13C6-PFDA | 67424.85 | 250.00 | PFDA |  |  |  |
| PFDA_2 | $513.0 / 219.0$ | 3.25 | 876.39 | 65.72 | 19.9 | true | 13C6-PFDA | 67424.85 | 250.00 | PFDA | 0.070 | 0.041 |  |
| PFUnA_1 | 563.0 / 519.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 65419.01 | 250.00 | PFUnA |  |  |  |
| PFUnA 2 | 563.0 / 269.0 | N/A | N/A | N/A | N/A | true | 13C7-PFUnA | 65419.01 | 250.00 | PFUnA | N/A | 0.048 |  |
| PFDoA_1 | 613.0 / 569.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 58095.97 | 250.00 | PFDoA |  |  |  |
| PFDoA 2 | 613.0 / 319.0 | N/A | N/A | N/A | N/A | true | 13C2-PFDoA | 58095.97 | 250.00 | PFDoA | N/A | 0.182 |  |
| PFTrDA_1 | 663.0 / 619.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 58910.23 | 250.00 | PFTrDA |  |  |  |
| PFTrDA_2 | 663.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 58910.23 | 250.00 | PFTrDA | N/A | 0.071 |  |
| PFTeDA_1 | 713.0 / 669.0 | 4.33 | 2239.63 | < 0 | 43.5 | false | 13C2-PFTeDA | 58910.23 | 250.00 | PFTeDA |  |  |  |
| PFTeDA 2 | 713.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C2-PFTeDA | 58910.23 | 250.00 | PFTeDA | N/A | 0.049 |  |
| NMeFOSAA_1 | 570.0 / 419.0 | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 11954.55 | 250.00 | NMeFOSAA |  |  |  |
| NMeFOSAA_2 | $570.0 / 512.0$ | N/A | N/A | N/A | N/A | true | d3-MeFOSAA | 11954.55 | 250.00 | NMeFOSAA | N/A | 0.505 |  |
| NEtFOSAA_1 | 584.0 / 419.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 12272.06 | 250.00 | NEtFOSAA |  |  |  |
| NEtFOSAA 2 | 584.0 / 483.0 | N/A | N/A | N/A | N/A | true | d5-EtFOSAA | 12272.06 | 250.00 | NEtFOSAA | N/A | 0.063 |  |
| PFBA | 213.0 / 169.0 | N/A | N/A | N/A | N/A | true | 13C4-PFBA | 40910.96 | 250.00 |  |  |  |  |


| Sample Name | KF41 IB | Injection Vial | 36 |
| :--- | :--- | :--- | :--- |
| Sample ID | Instrument Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-14T23:02:16 | Data File | AC_12142018_5-0369.wiff |
| Acquisition Method | 5-0369.dam | Result Table |  |
| Sample Comment |  |  | 18-0718_SIS |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.05 | 68596.10 | 232.85 | 940.0 | false | 13C3-PFBA | 48319.56 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.99 | 72469.08 | 214.15 | 754.0 | false | 13C2-PFDA | 84046.94 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.54 | 18070.25 | 236.72 | 248.7 | false | 13C4-PFOS | 26611.96 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.69 | 19391.08 | 245.58 | 364.9 | false | 13C4-PFOS | 26611.96 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.80 | 75172.70 | 234.42 | 871.2 | false | 13C2-PFOA | 90491.57 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.21 | 83897.25 | 240.66 | 366.6 | false | 13C2-PFOA | 90491.57 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.63 | 88481.27 | 244.43 | 581.1 | false | 13C2-PFOA | 90491.57 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 3.02 | 87284.73 | 256.74 | 481.1 | false | 13C2-PFOA | 90491.57 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.38 | 81972.81 | 253.65 | 803.0 | false | 13C2-PFDA | 84046.94 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.69 | 75436.63 | 240.54 | 585.5 | false | 13C2-PFDA | 84046.94 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.45 | 79620.72 | 229.16 | 1263.7 | false | 13C2-PFDA | 84046.94 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.49 | 28201.38 | 226.34 | 248.1 | false | 13C4-PFOS | 26611.96 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.26 | 25716.40 | 212.49 | 225.0 | false | 13C4-PFOS | 26611.96 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 3.03 | 24526.99 | 222.01 | 172.7 | false | 13C4-PFOS | 26611.96 | 238.75 |  | N/A | N/A |  |


| Sample Name | KF41 IB | Injection Vial | 5 |
| :--- | :--- | :--- | :--- |
| Sample ID | Instrument Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T12:53:47 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table | 18-0718_SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.05 | 87329.84 | 268.83 | 1798.9 | false | 13C3-PFBA | 53282.19 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.91 | 80608.49 | 213.08 | 379.7 | false | 13C2-PFDA | 93957.44 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.48 | 21088.41 | 246.04 | 369.9 | false | 13C4-PFOS | 29880.82 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.63 | 20350.36 | 229.53 | 199.1 | false | 13C4-PFOS | 29880.82 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.78 | 70330.79 | 233.38 | 328.1 | false | 13C2-PFOA | 85039.73 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.18 | 81973.35 | 250.21 | 337.7 | false | 13C2-PFOA | 85039.73 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.58 | 90416.91 | 265.79 | 442.1 | false | 13C2-PFOA | 85039.73 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.95 | 92132.73 | 288.37 | 419.2 | false | 13C2-PFOA | 85039.73 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.31 | 89164.97 | 246.80 | 419.4 | false | 13C2-PFDA | 93957.44 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.63 | 78295.31 | 223.32 | 316.1 | false | 13C2-PFDA | 93957.44 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.37 | 71199.16 | 183.31 | 648.2 | false | 13C2-PFDA | 93957.44 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.46 | 27181.22 | 194.29 | 280.8 | false | 13C4-PFOS | 29880.82 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.20 | 25458.85 | 187.35 | 280.6 | false | 13C4-PFOS | 29880.82 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.96 | 28209.10 | 227.40 | 245.5 | false | 13C4-PFOS | 29880.82 | 238.75 |  | N/A | N/A |  |


| Sample Name | CS469PB-FS(0) | Injection Vial | 5 |
| :--- | :--- | :--- | :--- |
| Sample ID | Procedural Blank | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | $2018-12-19 T 17: 51: 36$ | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | $5-0369 . d a m ~$ | Result Table | 18-0718_SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.04 | 84304.35 | 255.54 | 1770.4 | false | 13C3-PFBA | 54111.12 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.88 | 77923.16 | 273.90 | 292.2 | false | 13C2-PFDA | 70658.54 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.44 | 19839.54 | 276.29 | 285.6 | false | 13C4-PFOS | 25033.83 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.60 | 20771.02 | 279.63 | 208.8 | false | 13C4-PFOS | 25033.83 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.76 | 72435.23 | 318.44 | 335.4 | false | 13C2-PFOA | 64191.17 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.16 | 79046.71 | 319.65 | 408.8 | false | 13C2-PFOA | 64191.17 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.55 | 83486.85 | 325.13 | 540.4 | true | 13C2-PFOA | 64191.17 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.93 | 89586.71 | 371.48 | 418.4 | true | 13C2-PFOA | 64191.17 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.28 | 85772.45 | 315.70 | 394.7 | false | 13C2-PFDA | 70658.54 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.60 | 79001.35 | 299.63 | 317.1 | false | 13C2-PFDA | 70658.54 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.34 | 74921.70 | 256.50 | 601.1 | false | 13C2-PFDA | 70658.54 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 25690.31 | 219.19 | 301.0 | false | 13C4-PFOS | 25033.83 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.18 | 27280.17 | 239.62 | 257.7 | false | 13C4-PFOS | 25033.83 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.93 | 28050.66 | 269.91 | 215.6 | false | 13C4-PFOS | 25033.83 | 238.75 |  | N/A | N/A |  |


| Sample Name | CS470LCS-FS(0) | Injection Vial | 6 |
| :--- | :--- | :--- | :--- |
| Sample ID | Laboratory Control Sample | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T18:02:28 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table | 18-0718_SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.04 | 68253.89 | 222.08 | 2267.2 | false | 13C3-PFBA | 50408.95 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.88 | 66335.09 | 249.22 | 357.0 | false | 13C2-PFDA | 66108.37 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.44 | 15846.29 | 251.64 | 215.7 | false | 13C4-PFOS | 21953.34 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.60 | 15686.02 | 240.81 | 224.8 | false | 13C4-PFOS | 21953.34 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.76 | 60993.14 | 243.78 | 331.5 | false | 13C2-PFOA | 70603.85 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.16 | 64101.48 | 235.67 | 339.8 | false | 13C2-PFOA | 70603.85 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.55 | 73391.33 | 259.86 | 477.2 | false | 13C2-PFOA | 70603.85 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.93 | 75083.34 | 283.06 | 358.6 | false | 13C2-PFOA | 70603.85 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.28 | 70677.36 | 278.04 | 367.7 | false | 13C2-PFDA | 66108.37 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.60 | 62003.00 | 251.35 | 323.7 | false | 13C2-PFDA | 66108.37 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.34 | 65872.76 | 241.04 | 516.8 | false | 13C2-PFDA | 66108.37 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 24010.37 | 233.60 | 298.6 | false | 13C4-PFOS | 21953.34 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.18 | 22571.71 | 226.08 | 309.3 | false | 13C4-PFOS | 21953.34 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.93 | 23347.08 | 256.17 | 250.6 | false | 13C4-PFOS | 21953.34 | 238.75 |  | N/A | N/A |  |


| Sample Name | J9989-FS(0) | Injection Vial | 7 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW-FB01-120618 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T18:13:20 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table | 18-0718_SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.04 | 75329.56 | 227.41 | 2054.1 | false | 13C3-PFBA | 54331.74 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.89 | 72580.64 | 220.58 | 323.9 | false | 13C2-PFDA | 81723.01 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.45 | 19113.90 | 268.03 | 265.6 | false | 13C4-PFOS | 24860.73 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.60 | 17844.39 | 241.91 | 234.0 | false | 13C4-PFOS | 24860.73 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.77 | 58361.65 | 223.18 | 422.6 | false | 13C2-PFOA | 73795.02 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.17 | 69618.55 | 244.88 | 360.6 | false | 13C2-PFOA | 73795.02 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.56 | 79597.48 | 269.64 | 396.2 | false | 13C2-PFOA | 73795.02 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.94 | 80193.98 | 289.25 | 352.2 | false | 13C2-PFOA | 73795.02 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.29 | 79873.75 | 254.18 | 331.1 | false | 13C2-PFDA | 81723.01 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.61 | 66437.65 | 217.87 | 278.4 | false | 13C2-PFDA | 81723.01 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.35 | 63821.12 | 188.91 | 558.9 | false | 13C2-PFDA | 81723.01 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 24370.94 | 209.38 | 266.9 | false | 13C4-PFOS | 24860.73 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.19 | 24124.97 | 213.38 | 252.6 | false | 13C4-PFOS | 24860.73 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.94 | 25835.54 | 250.33 | 242.0 | false | 13C4-PFOS | 24860.73 | 238.75 |  | N/A | N/A |  |


| Sample Name | J9999-FS(0) | Injection Vial | 8 |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: |
| Sample ID | NASB-09-GW-FB01-120618 | Injection Volume | 10.00 |  |  |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |  |  |
| Acquisition Date | 2018-12-19T18:24:12 | Data File | AC_12192018_5-369.wiff |  |  |
| Acquisition Method | 5-0369.dam | Result Table |  |  |  |
| Sample Comment |  |  |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | Expected <br> Ion <br> Ratio | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.04 | 77807.91 | 227.86 | 1797.8 | false | 13C3-PFBA | 56009.33 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.88 | 75943.82 | 244.34 | 330.6 | false | 13C2-PFDA | 77193.46 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.45 | 17725.00 | 220.73 | 382.3 | false | 13C4-PFOS | 27995.14 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.60 | 17497.35 | 210.64 | 278.7 | false | 13C4-PFOS | 27995.14 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.76 | 64148.39 | 224.98 | 337.5 | false | 13C2-PFOA | 80461.89 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.16 | 75665.93 | 244.10 | 419.7 | false | 13C2-PFOA | 80461.89 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.56 | 80110.13 | 248.89 | 439.9 | false | 13C2-PFOA | 80461.89 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.93 | 86486.40 | 286.10 | 494.3 | false | 13C2-PFOA | 80461.89 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.28 | 83908.62 | 282.69 | 307.2 | false | 13C2-PFDA | 77193.46 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.59 | 70195.47 | 243.70 | 314.9 | false | 13C2-PFDA | 77193.46 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.33 | 71860.09 | 225.19 | 542.1 | false | 13C2-PFDA | 77193.46 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 24603.71 | 187.71 | 342.8 | false | 13C4-PFOS | 27995.14 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.18 | 24112.83 | 189.39 | 316.0 | false | 13C4-PFOS | 27995.14 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.94 | 23281.87 | 200.33 | 239.1 | false | 13C4-PFOS | 27995.14 | 238.75 |  | N/A | N/A |  |


| Sample Name | J9992-FS(0) | Injection Vial | 9 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW01D-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T18:35:04 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table |  |
| Sample Comment |  |  | 18-0718_SIS |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.05 | 47923.27 | 190.38 | 987.2 | false | 13C3-PFBA | 41286.94 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.89 | 68824.00 | 228.62 | 292.0 | false | 13C2-PFDA | 74768.84 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.45 | 12053.05 | 164.63 | 232.4 | false | 13C4-PFOS | 25523.27 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.61 | 14901.98 | 196.77 | 272.3 | false | 13C4-PFOS | 25523.27 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.76 | 55950.10 | 223.92 | 237.3 | false | 13C2-PFOA | 70509.53 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.16 | 72330.00 | 266.28 | 375.3 | false | 13C2-PFOA | 70509.53 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.56 | 66245.72 | 234.87 | 346.0 | false | 13C2-PFOA | 70509.53 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.94 | 70805.98 | 267.29 | 482.4 | false | 13C2-PFOA | 70509.53 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.29 | 65043.54 | 226.24 | 323.8 | false | 13C2-PFDA | 74768.84 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.60 | 64129.99 | 229.86 | 375.9 | false | 13C2-PFDA | 74768.84 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.34 | 67978.87 | 219.94 | 563.0 | false | 13C2-PFDA | 74768.84 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 30217.88 | 252.87 | 282.5 | false | 13C4-PFOS | 25523.27 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.19 | 19511.28 | 168.09 | 255.4 | false | 13C4-PFOS | 25523.27 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.95 | 24748.94 | 233.57 | 190.2 | false | 13C4-PFOS | 25523.27 | 238.75 |  | N/A | N/A |  |


| Sample Name | J9992MS-FS(0) | Injection Vial | 10 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW01D-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T18:45:55 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table | 18-0718_SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.04 | 48611.25 | 203.88 | 1002.2 | false | 13C3-PFBA | 39107.47 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.89 | 67218.48 | 219.44 | 295.8 | false | 13C2-PFDA | 76079.60 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.46 | 15798.14 | 223.42 | 147.1 | false | 13C4-PFOS | 24651.48 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.60 | 13673.60 | 186.94 | 202.5 | false | 13C4-PFOS | 24651.48 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.76 | 61938.53 | 247.79 | 239.7 | false | 13C2-PFOA | 70538.58 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.16 | 70263.58 | 258.56 | 302.1 | false | 13C2-PFOA | 70538.58 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.56 | 67465.65 | 239.10 | 429.5 | false | 13C2-PFOA | 70538.58 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.94 | 64321.74 | 242.71 | 390.1 | false | 13C2-PFOA | 70538.58 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.29 | 63598.74 | 217.40 | 389.2 | false | 13C2-PFDA | 76079.60 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.60 | 60899.59 | 214.52 | 346.3 | false | 13C2-PFDA | 76079.60 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.34 | 67274.15 | 213.91 | 536.0 | false | 13C2-PFDA | 76079.60 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 29845.54 | 258.59 | 324.9 | false | 13C4-PFOS | 24651.48 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.19 | 23892.92 | 213.12 | 240.6 | false | 13C4-PFOS | 24651.48 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.94 | 21468.26 | 209.78 | 170.5 | false | 13C4-PFOS | 24651.48 | 238.75 |  | N/A | N/A |  |


| Sample Name | J9992MSD-FS(0) | Injection Vial | 11 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW01D-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T18:56:47 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table | 18-0718_SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.05 | 49672.57 | 201.89 | 1480.3 | false | 13C3-PFBA | 40355.75 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.89 | 66101.70 | 204.77 | 315.9 | false | 13C2-PFDA | 80172.80 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.45 | 13204.92 | 209.27 | 125.8 | false | 13C4-PFOS | 21998.35 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.61 | 13007.64 | 199.28 | 258.8 | false | 13C4-PFOS | 21998.35 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.77 | 61166.73 | 240.96 | 294.5 | false | 13C2-PFOA | 71634.79 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.17 | 72654.07 | 263.27 | 436.0 | false | 13C2-PFOA | 71634.79 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.56 | 67457.27 | 235.41 | 406.2 | false | 13C2-PFOA | 71634.79 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.94 | 69301.61 | 257.50 | 342.9 | false | 13C2-PFOA | 71634.79 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.29 | 65630.76 | 212.90 | 287.7 | false | 13C2-PFDA | 80172.80 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.60 | 59115.87 | 197.61 | 265.6 | false | 13C2-PFDA | 80172.80 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.34 | 65981.00 | 199.08 | 462.3 | false | 13C2-PFDA | 80172.80 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.46 | 30187.58 | 293.10 | 279.3 | false | 13C4-PFOS | 21998.35 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.20 | 21122.38 | 211.13 | 223.3 | false | 13C4-PFOS | 21998.35 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.94 | 21251.53 | 232.70 | 168.8 | false | 13C4-PFOS | 21998.35 | 238.75 |  | N/A | N/A |  |


| Sample Name | J9993-FS(0) | Injection Vial | 12 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW02-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T19:07:41 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table | 18-0718_SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.05 | 56516.12 | 174.19 | 1173.0 | false | 13C3-PFBA | 53215.35 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.88 | 72726.81 | 241.15 | 353.8 | false | 13C2-PFDA | 74902.32 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.45 | 15758.79 | 219.39 | 225.8 | false | 13C4-PFOS | 25041.98 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.60 | 16868.26 | 227.02 | 201.6 | false | 13C4-PFOS | 25041.98 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.76 | 60091.19 | 238.31 | 275.6 | false | 13C2-PFOA | 71156.17 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.16 | 60701.21 | 221.43 | 351.8 | false | 13C2-PFOA | 71156.17 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.56 | 63069.17 | 221.58 | 327.4 | false | 13C2-PFOA | 71156.17 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.94 | 66427.10 | 248.48 | 319.3 | false | 13C2-PFOA | 71156.17 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.28 | 64052.24 | 222.40 | 531.8 | false | 13C2-PFDA | 74902.32 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.60 | 62686.25 | 224.28 | 338.2 | false | 13C2-PFDA | 74902.32 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.34 | 52102.97 | 168.27 | 529.3 | false | 13C2-PFDA | 74902.32 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 27139.87 | 231.48 | 262.0 | false | 13C4-PFOS | 25041.98 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.19 | 19703.27 | 173.01 | 213.6 | false | 13C4-PFOS | 25041.98 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.94 | 20821.51 | 200.28 | 191.7 | false | 13C4-PFOS | 25041.98 | 238.75 |  | N/A | N/A |  |


| Sample Name | J9994-FS(0) | Injection Vial | 13 |
| :--- | :--- | :--- | :--- |
| Sample ID | MW-09-204-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T19:18:33 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table |  |
| Sample Comment |  |  | 18-0718_SIS |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.05 | 42073.38 | 172.04 | 881.6 | false | 13C3-PFBA | 40111.93 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.88 | 61213.44 | 210.35 | 280.4 | false | 13C2-PFDA | 72276.74 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.44 | 12198.12 | 203.07 | 228.2 | false | 13C4-PFOS | 20941.30 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.59 | 11315.58 | 182.11 | 255.3 | false | 13C4-PFOS | 20941.30 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.77 | 50819.15 | 200.53 | 312.4 | false | 13C2-PFOA | 71515.61 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.16 | 59205.56 | 214.89 | 349.3 | false | 13C2-PFOA | 71515.61 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.56 | 63702.39 | 222.68 | 482.6 | false | 13C2-PFOA | 71515.61 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.93 | 67649.98 | 251.79 | 357.0 | false | 13C2-PFOA | 71515.61 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.29 | 59349.72 | 213.55 | 345.0 | false | 13C2-PFDA | 72276.74 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.60 | 54074.75 | 200.50 | 273.2 | false | 13C2-PFDA | 72276.74 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.33 | 60445.25 | 202.30 | 658.0 | false | 13C2-PFDA | 72276.74 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.46 | 24650.25 | 251.41 | 209.0 | false | 13C4-PFOS | 20941.30 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.19 | 22134.07 | 232.41 | 289.4 | false | 13C4-PFOS | 20941.30 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.93 | 22253.58 | 255.98 | 213.2 | false | 13C4-PFOS | 20941.30 | 238.75 |  | N/A | N/A |  |


| Sample Name | J9996-FS(0) | Injection Vial | 14 |
| :--- | :--- | :--- | :--- |
| Sample ID | MW-09-22-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T19:29:26 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table |  |
| Sample Comment |  |  | 18-0718_SIS |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.04 | 63999.60 | 158.07 | 1053.0 | false | 13C3-PFBA | 66407.35 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.88 | 51624.97 | 154.31 | 293.6 | false | 13C2-PFDA | 83090.29 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.45 | 13759.64 | 183.68 | 288.9 | false | 13C4-PFOS | 26115.85 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.60 | 13649.43 | 176.15 | 168.9 | false | 13C4-PFOS | 26115.85 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.76 | 54805.93 | 194.34 | 280.2 | false | 13C2-PFOA | 79582.45 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.16 | 64789.07 | 211.32 | 450.4 | false | 13C2-PFOA | 79582.45 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.56 | 71307.49 | 223.99 | 470.4 | false | 13C2-PFOA | 79582.45 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.93 | 69418.05 | 232.18 | 420.4 | false | 13C2-PFOA | 79582.45 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.28 | 68564.71 | 214.60 | 323.6 | false | 13C2-PFDA | 83090.29 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.60 | 57335.90 | 184.93 | 261.5 | false | 13C2-PFDA | 83090.29 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.34 | 51286.16 | 149.31 | 499.3 | false | 13C2-PFDA | 83090.29 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 31366.07 | 256.52 | 266.6 | false | 13C4-PFOS | 26115.85 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.18 | 26948.54 | 226.90 | 306.5 | false | 13C4-PFOS | 26115.85 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.94 | 25465.79 | 234.88 | 195.0 | false | 13C4-PFOS | 26115.85 | 238.75 |  | N/A | N/A |  |


| Sample Name | J9987-FS(0) | Injection Vial | 17 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW04-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T20:02:03 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table | 18-0718_SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. ( $\mathrm{ng} / \mathrm{L}$ ) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.04 | 53258.24 | 197.67 | 693.6 | false | 13C3-PFBA | 44192.96 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.88 | 72245.70 | 236.27 | 301.6 | false | 13C2-PFDA | 75942.41 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.44 | 15762.61 | 213.14 | 301.3 | false | 13C4-PFOS | 25782.56 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.60 | 16518.00 | 215.92 | 264.4 | false | 13C4-PFOS | 25782.56 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.76 | 62732.84 | 243.64 | 237.6 | false | 13C2-PFOA | 72659.87 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.16 | 79424.60 | 283.74 | 393.0 | false | 13C2-PFOA | 72659.87 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.55 | 78567.60 | 270.31 | 441.8 | false | 13C2-PFOA | 72659.87 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.93 | 73857.41 | 270.56 | 298.4 | false | 13C2-PFOA | 72659.87 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0/474.0 | 3.28 | 76732.21 | 262.77 | 406.3 | false | 13C2-PFDA | 75942.41 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.60 | 69959.69 | 246.88 | 289.0 | false | 13C2-PFDA | 75942.41 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.33 | 65868.47 | 209.81 | 648.3 | false | 13C2-PFDA | 75942.41 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 30560.98 | 253.17 | 391.2 | false | 13C4-PFOS | 25782.56 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.19 | 26460.61 | 225.67 | 262.2 | false | 13C4-PFOS | 25782.56 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.93 | 24903.53 | 232.67 | 181.2 | false | 13C4-PFOS | 25782.56 | 238.75 |  | N/A | N/A |  |


| Sample Name | J9988-FS(0) | Injection Vial | 19 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-DUP-120618 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T20:23:47 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table |  |
| Sample Comment |  |  | 18-0718_SIS |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.04 | 50341.28 | 196.30 | 661.4 | false | 13C3-PFBA | 42062.27 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.88 | 64176.91 | 209.42 | 313.5 | false | 13C2-PFDA | 76110.82 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.46 | 12868.91 | 174.33 | 209.1 | false | 13C4-PFOS | 25734.34 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.60 | 13749.59 | 180.07 | 228.5 | false | 13C4-PFOS | 25734.34 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.76 | 54500.85 | 216.26 | 235.9 | false | 13C2-PFOA | 71118.18 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.15 | 63099.77 | 230.31 | 380.6 | false | 13C2-PFOA | 71118.18 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.55 | 61130.78 | 214.88 | 375.5 | false | 13C2-PFOA | 71118.18 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.94 | 60427.65 | 226.16 | 345.2 | false | 13C2-PFOA | 71118.18 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.29 | 60829.76 | 207.85 | 334.2 | false | 13C2-PFDA | 76110.82 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.60 | 60505.55 | 213.04 | 315.4 | false | 13C2-PFDA | 76110.82 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.34 | 66300.10 | 210.72 | 578.2 | false | 13C2-PFDA | 76110.82 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 27515.57 | 228.37 | 280.4 | false | 13C4-PFOS | 25734.34 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.19 | 23229.05 | 198.48 | 283.2 | false | 13C4-PFOS | 25734.34 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.93 | 23628.09 | 221.17 | 173.8 | false | 13C4-PFOS | 25734.34 | 238.75 |  | N/A | N/A |  |


| Sample Name | J9990-FS(0) | Injection Vial | 21 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW-RB01-120618 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T20:45:32 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table | 18-0718_SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.05 | 46900.06 | 130.15 | 1176.2 | true | 13C3-PFBA | 59106.56 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.88 | 74675.49 | 210.19 | 282.6 | false | 13C2-PFDA | 88238.01 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.44 | 17288.05 | 210.84 | 300.4 | false | 13C4-PFOS | 28586.12 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.60 | 16503.34 | 194.57 | 197.7 | false | 13C4-PFOS | 28586.12 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.76 | 44395.49 | 158.74 | 277.7 | false | 13C2-PFOA | 78923.29 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.15 | 52977.63 | 174.24 | 388.7 | false | 13C2-PFOA | 78923.29 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.55 | 68122.56 | 215.78 | 403.8 | false | 13C2-PFOA | 78923.29 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.93 | 77510.83 | 261.41 | 366.8 | false | 13C2-PFOA | 78923.29 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.28 | 72763.48 | 214.46 | 302.4 | false | 13C2-PFDA | 88238.01 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.59 | 71212.56 | 216.28 | 336.3 | false | 13C2-PFDA | 88238.01 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.34 | 74046.27 | 203.00 | 632.3 | false | 13C2-PFDA | 88238.01 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.46 | 28608.40 | 213.75 | 294.8 | false | 13C4-PFOS | 28586.12 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.18 | 23623.81 | 181.72 | 320.4 | false | 13C4-PFOS | 28586.12 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.93 | 26819.75 | 226.00 | 322.3 | false | 13C4-PFOS | 28586.12 | 238.75 |  | N/A | N/A |  |


| Sample Name | J9991-FS(0) | Injection Vial | 23 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW01S-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T21:07:18 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table | 18-0718_SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.04 | 63753.76 | 171.63 | 1318.7 | false | 13C3-PFBA | 60926.96 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.88 | 75395.90 | 236.62 | 257.5 | false | 13C2-PFDA | 79138.50 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.45 | 12403.05 | 158.53 | 202.1 | false | 13C4-PFOS | 27274.94 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.61 | 15096.59 | 186.54 | 209.4 | false | 13C4-PFOS | 27274.94 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.76 | 60160.45 | 216.42 | 359.4 | false | 13C2-PFOA | 78444.65 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.16 | 64603.46 | 213.77 | 438.1 | false | 13C2-PFOA | 78444.65 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.56 | 68751.38 | 219.10 | 470.9 | false | 13C2-PFOA | 78444.65 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.93 | 72249.73 | 245.15 | 330.9 | false | 13C2-PFOA | 78444.65 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.28 | 73435.51 | 241.33 | 370.6 | false | 13C2-PFDA | 79138.50 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.60 | 70939.42 | 240.23 | 320.8 | false | 13C2-PFDA | 79138.50 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.34 | 70585.17 | 215.76 | 680.3 | false | 13C2-PFDA | 79138.50 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 28919.64 | 226.46 | 325.7 | false | 13C4-PFOS | 27274.94 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.18 | 24563.17 | 198.02 | 260.4 | false | 13C4-PFOS | 27274.94 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.93 | 27298.11 | 241.09 | 292.2 | false | 13C4-PFOS | 27274.94 | 238.75 |  | N/A | N/A |  |


| Sample Name | J9995-FS(0) | Injection Vial | 27 |
| :--- | :--- | :--- | :--- |
| Sample ID | MW-B250-07-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T21:50:45 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table | 18-0718_SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.04 | 69326.04 | 185.06 | 1258.1 | false | 13C3-PFBA | 61442.57 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.87 | 66926.66 | 202.09 | 325.0 | false | 13C2-PFDA | 82252.10 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.44 | 13748.32 | 176.71 | 257.0 | false | 13C4-PFOS | 27123.45 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.59 | 13932.14 | 173.11 | 196.6 | false | 13C4-PFOS | 27123.45 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.77 | 66593.39 | 219.67 | 293.5 | false | 13C2-PFOA | 85546.11 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.16 | 76935.85 | 233.45 | 374.0 | false | 13C2-PFOA | 85546.11 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.55 | 72855.51 | 212.90 | 382.7 | false | 13C2-PFOA | 85546.11 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.93 | 77180.40 | 240.14 | 438.9 | false | 13C2-PFOA | 85546.11 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.28 | 75506.33 | 238.74 | 484.1 | false | 13C2-PFDA | 82252.10 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.59 | 66033.25 | 215.15 | 393.2 | false | 13C2-PFDA | 82252.10 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.33 | 68947.84 | 202.78 | 601.4 | false | 13C2-PFDA | 82252.10 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 29989.60 | 236.15 | 260.2 | false | 13C4-PFOS | 27123.45 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.19 | 27156.98 | 220.16 | 318.7 | false | 13C4-PFOS | 27123.45 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.93 | 27436.33 | 243.66 | 238.6 | false | 13C4-PFOS | 27123.45 | 238.75 |  | N/A | N/A |  |


| Sample Name | J9997-FS(0) | Injection Vial | 29 |
| :--- | :--- | :--- | :--- |
| Sample ID | MW-09-004-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T22:12:29 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table |  |
| Sample Comment |  |  | 18-0718_SIS |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.04 | 37984.95 | 132.30 | 835.4 | false | 13C3-PFBA | 47092.96 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.87 | 59028.13 | 190.52 | 344.9 | false | 13C2-PFDA | 76949.05 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.45 | 14097.44 | 194.91 | 262.9 | false | 13C4-PFOS | 25214.85 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.59 | 12673.31 | 169.39 | 172.1 | false | 13C4-PFOS | 25214.85 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.76 | 60338.46 | 218.15 | 169.7 | false | 13C2-PFOA | 78051.15 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.16 | 73147.33 | 243.26 | 451.0 | false | 13C2-PFOA | 78051.15 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.55 | 69368.46 | 222.18 | 561.8 | false | 13C2-PFOA | 78051.15 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.93 | 72250.09 | 246.39 | 420.1 | false | 13C2-PFOA | 78051.15 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.28 | 68155.25 | 230.35 | 422.0 | false | 13C2-PFDA | 76949.05 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.59 | 59657.51 | 207.77 | 336.2 | false | 13C2-PFDA | 76949.05 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.32 | 54956.70 | 172.77 | 545.7 | false | 13C2-PFDA | 76949.05 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 27072.49 | 229.32 | 253.1 | false | 13C4-PFOS | 25214.85 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.18 | 23558.77 | 205.44 | 272.0 | false | 13C4-PFOS | 25214.85 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.93 | 19978.70 | 190.86 | 180.3 | false | 13C4-PFOS | 25214.85 | 238.75 |  | N/A | N/A |  |


| Sample Name | J9998-FS(0) | Injection Vial | 31 |
| :--- | :--- | :--- | :--- |
| Sample ID | MW-NASB-072-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T22:34:13 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table | 18-0718_SIS |
| Sample Comment |  |  |  |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | S/N <br> Ratio | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.05 | 61797.84 | 177.75 | 1157.3 | false | 13C3-PFBA | 57023.90 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.88 | 62932.08 | 188.45 | 329.6 | false | 13C2-PFDA | 82941.89 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.45 | 12660.03 | 168.11 | 318.1 | false | 13C4-PFOS | 26254.21 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.59 | 13374.97 | 171.69 | 189.4 | false | 13C4-PFOS | 26254.21 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.76 | 57816.30 | 204.21 | 283.1 | false | 13C2-PFOA | 79894.03 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.16 | 65241.55 | 211.97 | 353.4 | false | 13C2-PFOA | 79894.03 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.55 | 64387.12 | 201.47 | 406.9 | false | 13C2-PFOA | 79894.03 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.93 | 63859.59 | 212.75 | 535.7 | false | 13C2-PFOA | 79894.03 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.28 | 63905.04 | 200.38 | 397.7 | false | 13C2-PFDA | 82941.89 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | $570.0 / 525.0$ | 3.60 | 63050.36 | 203.72 | 336.3 | false | 13C2-PFDA | 82941.89 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.33 | 70877.41 | 206.72 | 663.3 | false | 13C2-PFDA | 82941.89 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.45 | 34753.22 | 282.73 | 347.9 | false | 13C4-PFOS | 26254.21 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.18 | 26350.99 | 220.70 | 307.3 | false | 13C4-PFOS | 26254.21 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.92 | 21713.94 | 199.22 | 181.7 | false | 13C4-PFOS | 26254.21 | 238.75 |  | N/A | N/A |  |


| Sample Name | IO064-FS(0) | Injection Vial | 33 |
| :--- | :--- | :--- | :--- |
| Sample ID | NASB-CW-GW03-1218 | Injection Volume | 10.00 |
| Sample Type | Unknown | Instrument Name | QTRAP 5500 |
| Acquisition Date | 2018-12-19T22:55:55 | Data File | AC_12192018_5-369.wiff |
| Acquisition Method | 5-0369.dam | Result Table |  |
| Sample Comment |  |  | 18-0718_SIS |

## Results Summary

| Analyte | MRM Transition | RT | Area | Conc. (ng/L) | $\begin{gathered} \mathrm{S} / \mathrm{N} \\ \text { Ratio } \end{gathered}$ | Modified | IS | IS Area | IS Conc. (ng/L) | Ratio Group | Ion <br> Ratio | $\begin{gathered} \text { Expected } \\ \text { Ion } \\ \text { Ratio } \\ \hline \end{gathered}$ | Ratio OK |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13C4-PFBA | 217.0 / 172.0 | 1.04 | 40910.96 | 172.49 | 421.1 | false | 13C3-PFBA | 38901.08 | 250.00 |  |  |  |  |
| 13C2-PFDoA | 615.0 / 570.0 | 3.87 | 58095.97 | 184.30 | 277.6 | false | 13C2-PFDA | 78290.02 | 250.00 |  | N/A | N/A |  |
| d3-MeFOSAA | 573.0 / 419.0 | 3.43 | 11771.40 | 178.57 | 200.2 | false | 13C4-PFOS | 22981.24 | 238.75 |  | N/A | N/A |  |
| d5-EtFOSAA | 589.0 / 419.0 | 3.58 | 12408.10 | 181.97 | 217.9 | false | 13C4-PFOS | 22981.24 | 238.75 |  | N/A | N/A |  |
| 13C5-PFHxA | 318.0 / 273.0 | 1.75 | 57948.76 | 226.44 | 188.6 | false | 13C2-PFOA | 72216.82 | 250.00 |  | N/A | N/A |  |
| 13C4-PFHpA | 367.0 / 322.0 | 2.16 | 65943.72 | 237.03 | 384.4 | false | 13C2-PFOA | 72216.82 | 250.00 |  | N/A | N/A |  |
| 13C8-PFOA | 421.0 / 376.0 | 2.55 | 67950.88 | 235.22 | 286.7 | false | 13C2-PFOA | 72216.82 | 250.00 |  | N/A | N/A |  |
| 13C9-PFNA | 472.0 / 427.0 | 2.93 | 64268.78 | 236.88 | 492.3 | false | 13C2-PFOA | 72216.82 | 250.00 |  | N/A | N/A |  |
| 13C6-PFDA | 519.0 / 474.0 | 3.27 | 67424.85 | 223.98 | 345.4 | false | 13C2-PFDA | 78290.02 | 250.00 |  | N/A | N/A |  |
| 13C7-PFUnA | 570.0 / 525.0 | 3.58 | 65419.01 | 223.93 | 297.5 | false | 13C2-PFDA | 78290.02 | 250.00 |  | N/A | N/A |  |
| 13C2-PFTeDA | 715.0 / 670.0 | 4.33 | 58910.23 | 182.02 | 593.3 | false | 13C2-PFDA | 78290.02 | 250.00 |  | N/A | N/A |  |
| 13C3-PFBS | 302.0 / 99.0 | 1.44 | 29257.84 | 271.92 | 172.6 | false | 13C4-PFOS | 22981.24 | 238.75 |  | N/A | N/A |  |
| 13C3-PFHxS | 402.0 / 99.0 | 2.19 | 24336.07 | 232.85 | 141.3 | false | 13C4-PFOS | 22981.24 | 238.75 |  | N/A | N/A |  |
| 13C8-PFOS | 507.0 / 99.0 | 2.93 | 19102.78 | 200.23 | 136.2 | false | 13C4-PFOS | 22981.24 | 238.75 |  | N/A | N/A |  |

##   MID_ATLANTIC BRUNSWLCK_NAS 18 -0718 MID_ATLANTIC BRUNSWICK_NAS 18.0718 $\begin{array}{lll}\text { MiD_ATLANTIC BRUNSWICK_NAS } & 18-0718 \text { RCRA ClosURE SITE } 00011\end{array}$  <br> MW-NASB-O72 MW--99-204 MW-09-004 <br> Mw-09.22 <br> Monitoring well Monitoring well Monitoring well Monitoring well Monitoring well Monitoring well

 3015756.065386111 .569 N624701609008 WE21 $\begin{array}{llll}\text { 3015133.3 } & \text { 386244.48 } & \text { N624701609008 WE2 }\end{array}$ $\begin{array}{llll}\text { 3015273.02 } & \text { 386195.43 } & \text { N6624701690008 WE2 } \\ \text { N62770169008 } & \text { WE2 }\end{array}$

TETRA TECH, INC. NASB-O9-GW-FBO1-12
TETRA TECH ILC. MW- MASB-O72-121
TETRA TECH, INC. MW-09-204-1218
TETRA TECH, INC. MWC. NASB-CO-CW-WW-RBO1-1200618 TETRA TECH, INC. MW-B250-07-1218 TETRA TECH, INC. NASB-CW-GW--bo
TETRA TECH, INC. MW-09-22-1218

Water for aC
Ground water
Ground water
Ground water
Ground water
d blank
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Normal (Regula
Normal (Regular)
Normal (Regular) Normal (Regular)
Normal (Regular) Normal (Rezular)
Equipment blank Equipment blank
Normal (Regular) Normal (Regula
Field blank
Normal (Reewula) Normal (Regula)


[^0]:    Total Samples: 1

[^1]:    Total Oil $=[$ Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]
    Dilution Factor $=[$ Sample Volume $(\mathrm{uL}) /$ Aliqot Volume $(\mathrm{uL}))] *$ Prior Dilution Factor

