

Groundwater Sample Results, Electronic Data Deliverable, Data Validation Report, and the Sample Location Report, SDG 1803078

Naval Weapons Industrial Reserve Plant Calverton Riverhead, New York

August 2019

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"FT-PZ463I-20180917", "Modified EPA 537", "Initial", "1803078-01", "Vista", "375-22-
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3","PFDS","5.53","ng/L","UU","3.03","LOD","","TRG","","","8.84","LOQ","YES","-99","","0.113","0.001","5.53",""
"FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "307-55-
1","PFDoA","5.53","ng/L","UU","3.03","LOD","","TRG","","","8.84","LOQ","YES","-99","","0.113","0.001","5.53","
 "FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "72629-94-
8","PFTrDA","5.53","ng/L","UU","3.03","LOD","","TRG","","","8.84","LOQ","YES","-99","","0.113","0.001","5.53",
 "FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "376-06-
7","PFTeDA","5.53","ng/L","UU","3.03","LOD","","TRG","","","8.84","LOQ","YES","-99","","0.113","0.001","5.53",
"FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "13C3-PFBA", "13C3-P
PFBA","95.0","%R","","-99","NA","","IS","95.0","","-99","NA","YES","100","","0.113","0.001","-99",""
"FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "13C3-PFPeA", "13C3-PFPE
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 "FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "13C2-PFHxA", "13C2-
PFHxA","93.9","%R","","-99","NA","","IS","93.9","","-99","NA","YES","100","","0.113","0.001","-99",""
"FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "13C4-PFHpA", "13C4-PFHP
PFHpA","96.8","%R","","-99","NA","","IS","96.8","","-99","NA","YES","100","","0.113","0.001","-99",""
PFHxS","96.3","%R","","-99","NA","","IS","96.3","","-99","NA","YES","100","","0.113","0.001","-99",""
"FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "13C2-PFOA", "13C2-P
PFOA","89.6","%R","","-99","NA","","IS","89.6","","-99","NA","YES","100","","0.113","0.001","-99",""
"FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "13C5-PFNA", "13C5-P
PFNA","79.2","%R","","-99","NA","","IS","79.2","","-99","NA","YES","100","","0.113","0.001","-99",""
"FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "13C8-PFOSA", "13C8-PFOS
PFOSA","52.5","%R","","-99","NA","","IS","52.5","","-99","NA","YES","100","","0.113","0.001","-99",""
"FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "13C8-PFOS", "13C8-P
PFOS","96.9","%R","","-99","NA","","IS","96.9","","-99","NA","YES","100","","0.113","0.001","-99",""
"FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "13C2-PFDA", "13C2-P
PFDA","71.7","%R","","-99","NA","","IS","71.7","","-99","NA","YES","100","","0.113","0.001","-99",""
"FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "d3-MeFOSAA", "d3-
MeFOSAA","77.2","%R","","-99","NA","","IS","77.2","","-99","NA","YES","100","","0.113","0.001","-99",""
 "FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "d5-EtFOSAA", "d5-
EtFOSAA","78.6","%R","","-99","NA","","IS","78.6","","-99","NA","YES","100","","0.113","0.001","-99",""
"FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "13C2-PFUnA", "13C2-PFUN
PFUnA","73.0","%R","","-99","NA","","IS","73.0","","-99","NA","YES","100","","0.113","0.001","-99",""
"FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "13C2-PFDoA", "13C2-PFDO
PFDoA","76.8","%R","","-99","NA","","IS","76.8","","-99","NA","YES","100","","0.113","0.001","-99",""
"FT-PZ464I-20180917", "Modified EPA 537", "Initial", "1803078-03", "Vista", "13C2-PFTeDA", "13C2
PFTeDA","84.7","%R","","-99","NA","","IS","84.7","","-99","NA","YES","100","","0.113","0.001","-99",""
"B8I0142-BLK1", "Modified EPA 537", "Initial", "B8I0142-BLK1", "Vista", "375-22-
4","PFBA","5.00","ng/L","UU","2.74","LOD","","TRG","","","8.00","LOQ","YES","-99","","0.125","0.001","5.00",""
"B8I0142-BLK1","Modified EPA 537","Initial","B8I0142-BLK1","Vista","2706-90-
3","PFPeA","5.00","ng/L","UU","2.74","LOD","","TRG","","","8.00","LOQ","YES","-99","","0.125","0.001","5.00",""
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5","PFBS","5.00","ng/L","UU","2.74","LOD","","TRG","","","8.00","LOQ","YES","-99","","0.125","0.001","5.00",""
 "B8I0142-BLK1", "Modified EPA 537", "Initial", "B8I0142-BLK1", "Vista", "307-24-
4","PFHxA","5.00","ng/L","UU","2.74","LOD","","TRG","","","8.00","LOQ","YES","-99","","0.125","0.001","5.00","
 "B8I0142-BLK1","Modified EPA 537","Initial","B8I0142-BLK1","Vista","375-85-
9","PFHpA","5.00","ng/L","UU","2.74","LOD","","TRG","","","8.00","LOQ","YES","-99","","0.125","0.001","5.00","
 "B8I0142-BLK1", "Modified EPA 537", "Initial", "B8I0142-BLK1", "Vista", "355-46-
4","PFHxS","5.00","ng/L","UU","2.74","LOD","","TRG","","","8.00","LOQ","YES","-99","","0.125","0.001","5.00",""
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FTS","5.00","ng/L","UU","2.74","LOD","","TRG","","","8.00","LOQ","YES","-99","","0.125","0.001","5.00",""
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1", "PFOA", "5.00", "ng/L", "UU", "2.74", "LOD", "", "TRG", "", "", "8.00", "LOQ", "YES", "-99", "", "0.125", "0.001", "5.00", "", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "1.00", "
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"B8I0142-BLK1","Modified EPA 537","Initial","B8I0142-BLK1","Vista","375-95-
1", "PFNA", "5.00", "ng/L", "UU", "2.74", "LOD", "", "TRG", "", "", "8.00", "LOQ", "YES", "-99", "", "0.125", "0.001", "5.00", ""10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.000", "10.00
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6","PFOSA","5.00","ng/L","UU","2.74","LOD","","TRG","","","8.00","LOQ","YES","-99","","0.125","0.001","5.00","
 "B8I0142-BLK1", "Modified EPA 537", "Initial", "B8I0142-BLK1", "Vista", "1763-23-
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1","PFOS","5.00","ng/L","UU","2.74","LOD","","TRG","","","8.00","LOQ","YES","-99","","0.125","0.001","5.00",""
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6","EtFOSAA","5.00","ng/L","UU","2.74","LOD","","TRG","","","8.00","LOQ","YES","-99","","0.125","0.001","5.00
 "B8I0142-BLK1", "Modified EPA 537", "Initial", "B8I0142-BLK1", "Vista", "2058-94-
8","PFUnA","5.00","ng/L","UU","2.74","LOD","","TRG","","","8.00","LOQ","YES","-99","","0.125","0.001","5.00","
"B8I0142-BLK1", "Modified EPA 537", "Initial", "B8I0142-BLK1", "Vista", "335-77-
3","PFDS","5.00","ng/L","UU","2.74","LOD","","TRG","","","8.00","LOQ","YES","-99","","0.125","0.001","5.00",""
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8","PFTrDA","5.00","ng/L","UU","2.74","LOD","","TRG","","","8.00","LOQ","YES","-99","","0.125","0.001","5.00",
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"B8I0142-BLK1", "Modified EPA 537", "Initial", "B8I0142-BLK1", "Vista", "13C3-PFPeA", "13C3-
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PFNA","77.9","%R","","-99","NA","","IS","77.9","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BLK1", "Modified EPA 537", "Initial", "B8I0142-BLK1", "Vista", "13C8-PFOSA", 
PFOSA","40.7","%R","H","-99","NA","","IS","40.7","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BLK1", "Modified EPA 537", "Initial", "B8I0142-BLK1", "Vista", "13C8-PFOS", "13C8-
PFOS","99.7","%R","","-99","NA","","IS","99.7","","-99","NA","YES","100","","0.125","0.001","-99",""
 "B8I0142-BLK1", "Modified EPA 537", "Initial", "B8I0142-BLK1", "Vista", "13C2-PFDA", "13C2-
PFDA","64.7","%R","","-99","NA","","IS","64.7","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BLK1", "Modified EPA 537", "Initial", "B8I0142-BLK1", "Vista", "d3-MeFOSAA", "d3-
MeFOSAA","68.4","%R","","-99","NA","","IS","68.4","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BLK1","Modified EPA 537","Initial","B8I0142-BLK1","Vista","d5-EtFOSAA","d5-
EtFOSAA","67.9","%R","","-99","NA","","IS","67.9","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BLK1", "Modified EPA 537", "Initial", "B8I0142-BLK1", "Vista", "13C2-PFUnA", 
PFUnA","62.4","%R","","-99","NA","","IS","62.4","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BLK1", "Modified EPA 537", "Initial", "B8I0142-BLK1", "Vista", "13C2-PFDoA", "13C2-PFDOA",
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PFDoA","59.4","%R","","-99","NA","","IS","59.4","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BLK1", "Modified EPA 537", "Initial", "B8I0142-BLK1", "Vista", "13C2-PFTeDA", "13C2-PFT
PFTeDA","72.2","%R","","-99","NA","","IS","72.2","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "375-22-
4","PFBA","75.2","ng/L","","2.74","LOD","","TRG","94.0","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00","
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "2706-90-
3","PFPeA","74.6","ng/L","","2.74","LOD","","TRG","93.3","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00",
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "375-73-
5","PFBS","79.3","ng/L","","2.74","LOD","","TRG","99.2","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00","
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "307-24-
4","PFHxA","77.5","ng/L","","2.74","LOD","","TRG","96.9","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00",
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "375-85-
9","PFHpA","74.4","ng/L","","2.74","LOD","","TRG","92.9","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00",
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "355-46-
4","PFHxS","81.0","ng/L","","2.74","LOD","","TRG","101","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00","
"B8I0142-BS1","Modified EPA 537","Initial","B8I0142-BS1","Vista","27619-97-2","6:2
FTS","82.3","ng/L","","2.74","LOD","","TRG","103","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00",""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "335-67-
1","PFOA","74.3","ng/L","","2.74","LOD","","TRG","92.9","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00","
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "375-92-
8","PFHpS","76.4","ng/L","","2.74","LOD","","TRG","95.5","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00",
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "375-95-
1","PFNA","73.4","ng/L","","2.74","LOD","","TRG","91.7","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00","
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "754-91-
6","PFOSA","77.5","ng/L","Q","2.74","LOD","","TRG","96.9","","8.00","LOQ","YES","80.0","","0.125","0.001","5.0
0" ""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "1763-23-
1","PFOS","75.9","ng/L","","2.74","LOD","","TRG","94.9","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00","
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "335-76-
2","PFDA","72.8","ng/L","","2.74","LOD","","TRG","91.0","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00","
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "39108-34-4", "8:2
FTS","71.8","ng/L","","2.74","LOD","","TRG","89.7","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00",""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "2355-31-
9","MeFOSAA","66.5","ng/L","","2.74","LOD","","TRG","83.1","","8.00","LOQ","YES","80.0","","0.125","0.001","5.
00".""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "2991-50-
6","EtFOSAA","75.4","ng/L","","2.74","LOD","","TRG","94.2","","8.00","LOQ","YES","80.0","","0.125","0.001","5.0
0".""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "2058-94-
8","PFUnA","80.2","ng/L","","2.74","LOD","","TRG","100","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00",
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "335-77-
3","PFDS","69.8","ng/L","","2.74","LOD","","TRG","87.2","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00","
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"B8I0142-BS1","Modified EPA 537","Initial","B8I0142-BS1","Vista","307-55-
1","PFDoA","75.7","ng/L","","2.74","LOD","","TRG","94.6","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00",
 "B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "72629-94-
8","PFTrDA","80.4","ng/L","","2.74","LOD","","TRG","100","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00"
 "B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "376-06-
7","PFTeDA","76.1","ng/L","","2.74","LOD","","TRG","95.1","","8.00","LOQ","YES","80.0","","0.125","0.001","5.00
"B8I0142-BS1","Modified EPA 537","Initial","B8I0142-BS1","Vista","13C3-PFBA","13C3-
PFBA","99.6","%R","","-99","NA","","IS","99.6","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "13C3-PFPeA", "1
PFPeA","97.9","%R","","-99","NA","","IS","97.9","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BS1","Modified EPA 537","Initial","B8I0142-BS1","Vista","13C3-PFBS","13C3-
PFBS","104","%R","","-99","NA","","IS","104","","-99","NA","YES","100","","0.125","0.001","-99",""
 "B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "13C2-PFHxA", "13C2-
PFHxA","93.3","%R","","-99","NA","","IS","93.3","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "13C4-PFHpA", "1
PFHpA","97.4","%R","","-99","NA","","IS","97.4","","-99","NA","YES","100","","0.125","0.001","-99",""
PFHxS","99.6","%R","","-99","NA","","IS","99.6","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "13C2-PFOA", 
PFOA","84.0","%R","","-99","NA","","IS","84.0","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "13C5-PFNA", "13C5-
PFNA","72.3","%R","","-99","NA","","IS","72.3","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "13C8-PFOSA", "1
PFOSA","46.0","%R","H","-99","NA","","IS","46.0","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "13C8-PFOS", 
PFOS","91.9","%R","","-99","NA","","IS","91.9","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "13C2-PFDA", 
PFDA","61.0","%R","","-99","NA","","IS","61.0","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "d3-MeFOSAA", "d3-MeFOSAAA", "d3-MeFOSAA", "
MeFOSAA","66.7","%R","","-99","NA","","IS","66.7","","-99","NA","YES","100","","0.125","0.001","-99",""
 "B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "d5-EtFOSAA", "d5-
EtFOSAA","64.3","%R","","-99","NA","","IS","64.3","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "13C2-PFUnA", "1
PFUnA","58.0","%R","","-99","NA","","IS","58.0","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "13C2-PFDoA", "13C2-
PFDoA","62.4","%R","","-99","NA","","IS","62.4","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BS1", "Modified EPA 537", "Initial", "B8I0142-BS1", "Vista", "13C2-PFTeDA", "13C2-PFTED
PFTeDA","76.8","%R","","-99","NA","","IS","76.8","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "375-22-
4","PFBA","79.2","ng/L","","2.74","LOD","","TRG","99.0","5.21","8.00","LOQ","YES","80.0","","0.125","0.001","5.
00",""
 "B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "2706-90-
3","PFPeA","77.3","ng/L","","2.74","LOD","","TRG","96.6","3.51","8.00","LOQ","YES","80.0","","0.125","0.001","5.
 "B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "375-73-
5","PFBS","81.8","ng/L","","2.74","LOD","","TRG","102","3.03","8.00","LOQ","YES","80.0","","0.125","0.001","5.0
"B8I0142-BSD1","Modified EPA 537","Initial","B8I0142-BSD1","Vista","307-24-
4","PFHxA","76.4","ng/L","","2.74","LOD","","TRG","95.5","1.48","8.00","LOQ","YES","80.0","","0.125","0.001","5
 .00",""
```

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9","PFHpA","79.1","ng/L","","2.74","LOD","","TRG","98.9","6.24","8.00","LOQ","YES","80.0","","0.125","0.001","5
.00".""
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "355-46-
4","PFHxS","77.6","ng/L","","2.74","LOD","","TRG","97.0","4.31","8.00","LOQ","YES","80.0","","0.125","0.001","5.
00",""
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "27619-97-2", "6:2
FTS","79.1","ng/L","","2.74","LOD","","TRG","98.9","3.90","8.00","LOQ","YES","80.0","","0.125","0.001","5.00",""
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "335-67-
1","PFOA","78.9","ng/L","","2.74","LOD","","TRG","98.6","5.99","8.00","LOQ","YES","80.0","","0.125","0.001","5.
00",""
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "375-92-
8","PFHpS","80.3","ng/L","","2.74","LOD","","TRG","100","5.03","8.00","LOQ","YES","80.0","","0.125","0.001","5.
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "375-95-
1","PFNA","76.3","ng/L","","2.74","LOD","","TRG","95.3","3.85","8.00","LOQ","YES","80.0","","0.125","0.001","5.
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "754-91-
6","PFOSA","76.5","ng/L","","2.74","LOD","","TRG","95.6","1.35","8.00","LOQ","YES","80.0","","0.125","0.001","5
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "1763-23-
1","PFOS","77.5","ng/L","","2.74","LOD","","TRG","96.9","2.06","8.00","LOQ","YES","80.0","","0.125","0.001","5.0
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "335-76-
2","PFDA","78.2","ng/L","","2.74","LOD","","TRG","97.7","7.14","8.00","LOQ","YES","80.0","","0.125","0.001","5.
00",""
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "39108-34-4", "8:2
FTS", "83.9", "ng/L", "", "2.74", "LOD", "", "TRG", "105", "15.6", "8.00", "LOQ", "YES", "80.0", "", "0.125", "0.001", "5.00", ""
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "2355-31-
9","MeFOSAA","79.2","ng/L","","2.74","LOD","","TRG","99.0","17.5","8.00","LOQ","YES","80.0","","0.125","0.001
","5.00",""
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "2991-50-
6","EtFOSAA","79.2","ng/L","","2.74","LOD","","TRG","99.0","4.98","8.00","LOQ","YES","80.0","","0.125","0.001"
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "2058-94-
8","PFUnA","78.7","ng/L","","2.74","LOD","","TRG","98.3","1.91","8.00","LOQ","YES","80.0","","0.125","0.001","5
.00".""
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "335-77-
3","PFDS","66.8","ng/L","","2.74","LOD","","TRG","83.5","4.40","8.00","LOQ","YES","80.0","","0.125","0.001","5.0
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"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "375-85-

"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "307-55-

"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "72629-94-

"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "376-06-

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"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "13C3-PFPeA", "13C3-

"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "13C3-PFBS", "13C3-

PFBA","96.0","%R","","-99","NA","","IS","96.0","","-99","NA","YES","100","","0.125","0.001","-99",""

PFPeA", "93.9", "%R", "", "-99", "NA", "", "IS", "93.9", "", "-99", "NA", "YES", "100", "", "0.125", "0.001", "-99", ""

00",""

5.00",""

5.00",""

1","PFDoA","83.9","ng/L","","2.74","LOD","","TRG","105","10.3","8.00","LOQ","YES","80.0","","0.125","0.001","5.

8","PFTrDA","84.0","ng/L","","2.74","LOD","","TRG","105","4.36","8.00","LOQ","YES","80.0","","0.125","0.001","

7","PFTeDA","78.9","ng/L","","2.74","LOD","","TRG","98.6","3.65","8.00","LOQ","YES","80.0","","0.125","0.001","

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PFBS","99.0","%R","","-99","NA","","IS","99.0","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "13C2-PFHxA", 
PFHxA","96.6","%R","","-99","NA","","IS","96.6","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "13C4-PFHpA", 
PFHpA","95.7","%R","","-99","NA","","IS","95.7","","-99","NA","YES","100","","0.125","0.001","-99",""
"B8I0142-BSD1", "Modified EPA 537", "Initial", "B8I0142-BSD1", "Vista", "18O2-PFHxS", "18O2-
PFHxS","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","","0.125","0.001","-99",""
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```



#### INTERNAL CORRESPONDENCE

TO: K. FRANCISCO DATE: OCTOBER 19, 2018

FROM: MICHELLE L. WOEBER COPIES: DV FILE

SUBJECT: ORGANIC DATA VALIDATION - POLYFLUOROALKYL SUBSTANCES (PFAS)

NAVAL WEAPONS INDUSTRIAL RESERVE PLANT (NWIRP), CALVERTON

FORMER FIRE TRAINING AREA

**SAMPLE DELIVERY GROUP (SDG) 1803078** 

**SAMPLES:** 3/Groundwater/PFAS

FT-PZ463I-20180917 FT-PZ463I-FRB-20180917 FT-PZ464I-20180917

#### Overview

The sample set for NWIRP Calverton, SDG 1803078 consisted of two (2) groundwater environmental samples and one (1) Field Reagent Blank (FRB). All three (3) samples were analyzed for polyfluoroalkyl substances (PFAS). No field duplicate sample pair was included in this SDG.

The samples were collected by Tetra Tech, Inc. on September 17, 2018 and analyzed by Vista Analytical Laboratory. All analyses were conducted in accordance with EPA 537 Modified analytical and reporting protocols. The data contained in this SDG was validated via EPA Stage 4 with regard to the following parameters:

- Data completeness
- Hold times/Sample Preservation
- LC/MS/MS System Tuning and Performance
- Ion Transition Check
  - Ion Ratio Recoveries
- Initial/Continuing Calibrations
- Laboratory Method Blank Results
- Field Reagent Blank Results
  - Extraction Internal Standard Recoveries
- Injection Internal Standard Recoveries
- Laboratory Control Sample Recoveries
- Ongoing Precision Recovery (OPR) Results
- Compound Identification
- Compound Quantitation
- Detection Limits

The symbol (\*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, and documentation supporting these findings is presented in Appendix C.

SDG: 1803078

#### **PFAS**

The Percent Recoveries (%Rs) for the extraction internal standard compound, 13C8-perfluorooctane sulfonamide (13C8-PFOSA) were below the 50% quality control limit in samples FT-PZ463I-20180917 and FT-PZ463I-FRB-20180917. The non-detected results reported for the associated PFAS compound (FOSA) in these samples were qualified as estimated, (UJ).

The ion ratio was outside the laboratory quality control limits (70% – 100%) for perfluoroundecanoic acid (PFUnA) in sample FT-PZ464I-20180917. The detected result reported for this compound in this sample was qualified as estimated, (J).

#### **Additional Comments**

The time of collection was missing from the sample Chain of Custody (COC). The laboratory used the time indicated on the sample containers.

The FRB was free of contamination.

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

A matrix spike was not included in this data group. No action was taken on this issue.

#### **Executive Summary**

**Laboratory Performance Issues:** Two samples had low %Rs for the extraction internal standards. The ion ratio for one PFUnA result was outside quality control criteria.

Other Factors Affecting Data Quality: Detected results below the LOQ were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017), EPA Method 537 Modified, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (2017). The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc. Michelle L. Woeber Chemist/Data Validator

Michell Fr. Walter

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.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
х	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

## 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

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 r < 0.995

W = EMPC result

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-WE05	NSAMPLE	FT-PZ463I-20	180917		FT-PZ463I-FR	B-2018	0917	FT-PZ464I-20	180917	
SDG: 1803078	LAB_ID	1803078-01			1803078-02			1803078-03		
FRACTION: PFAS	SAMP_DATE	9/17/2018			9/17/2018			9/17/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER	•	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
6:2 FLUOROTELOMER SU (6:2FTS)	LFONATE	5.39	U		5.3	U		5.53	U	
8:2 FLUOROTELOMER SU (8:2FTS)	LFONATE	5.39	U		5.3	U		5.53	U	
N-ETHYLPERFLUOROOCT SULFONAMIDOACETATE(	NEFOSA)	5.39			5.3			5.53		
N-METHYLPERFLUOROOG SULFONAMIDOACETATE(	NMFOSA)	5.39	U		5.3			5.53		
PENTADECAFLUOROOCT (PFOA)		28.5			5.3			34.3		
PERFLUOROBUTANESUL (PFBS)		5.39			5.3			5.53		
PERFLUOROBUTANOIC A	, ,	5.13		Р	5.3			5.34		Р
PERFLUORODECANESUL (PFDS)	FONIC ACID	5.39	U		5.3			5.53	U	
PERFLUORODECANOIC A	CID (PFDA)	5.39	U		5.3	U		5.53	U	
PERFLUORODODECANOI (PFDOA)		5.39			5.3			5.53		
PERFLUOROHEPTANESU (PFHPS)		5.39	U		5.3			5.53	U	
PERFLUOROHEPTANOIC	ACID (PFHPA)	9.53			5.3			11.1		
PERFLUOROHEXANESUL (PFHXS)		23.6			5.3			23.5		
PERFLUOROHEXANOIC A		10.8			5.3			13.3		
PERFLUORONONANOIC A	. ,	53.9			5.3			97.7		
PERFLUOROOCTANE SUI (FOSA)		5.39	UJ	N	5.3		N	5.53	U	
PERFLUOROOCTANESUL (PFOS)	FONIC ACID	13.3			5.3			15		
PERFLUOROPENTANOIC	· , , , , , , , , , , , , , , , , , , ,	9.79			5.3			12.6		
PERFLUOROTETRADECA (PFTEA)		5.39			5.3			5.53		
PERFLUOROTRIDECANOI (PFTRIA)	C ACID	5.39	U		5.3	U		5.53	U	
PERFLUOROUNDECANOI (PFUNA)	C ACID	4.65	J	Р	5.3	U		4.73	J	Р

1 of 1 10/19/2018

#### APPENDIX B

**RESULTS AS REPORTED BY THE LABORATORY** 



Sample ID: F	Г-РZ463І-2018091	7								PFAS Iso	tope Dilution 1	Method
Client Data Name: Project: SDG:	Tetra Tech NWIRP Calverton # WE05		Matrix: Date Coll		ndwater ep-18 13:00	Lab S	Sample: Received:	1803078-0 18-Sep-18		Column:	ВЕН С18	
Analyte		CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA		375-22-4	5.13	2.95	5.39	8.61	J	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	1
PFPeA		2706-90-3	9.79	2.95	5.39	8.61		B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	1
PFBS		375-73-5	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	1
PFHxA		307-24-4	10.8	2.95	5.39	8.61		B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	. 1
PFHpA		375-85-9	9.53	2.95	5.39	8.61		B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFHxS		355-46-4	23.6	2.95	5.39	8.61		B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
6:2 FTS		27619-97-2	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFOA		335-67-1	28.5	2.95	5.39	8.61		B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFHpS		375-92-8	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFNA		375-95-1	53.9	2.95	5.39	8.61	O	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFOSA		754-91-6	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52 22-Sep-18 01:52	
PFOS		1763-23-1	13.3	2.95	5.39	8.61	O	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52 22-Sep-18 01:52	
PFDA		335-76-2	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L 0.116 L	22-Sep-18 01:52 22-Sep-18 01:52	
						8.61			•		-	
8:2 FTS		39108-34-4	ND	2.95	5.39		U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
MeFOSAA		2355-31-9	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
EtFOSAA		2991-50-6	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFUnA		2058-94-8	4.65	2.95	5.39	8.61	J	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFDS		335-77-3	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFDoA		307-55-1	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	. 1
PFTrDA		72629-94-8	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	1
PFTeDA		376-06-7	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	1
Labeled Standar	ds	Туре	% Recovery		Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA		IS	98.4		50 - 150			B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
13C3-PFPeA		IS	94.8		50 - 150			B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
13C3-PFBS		IS	102		50 - 150			B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
13C2-PFHxA		IS	94.2		50 - 150			B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
13C4-PFHpA 18O2-PFHxS		IS IS	92.8 93.6		50 - 150 50 - 150				20-Sep-18		22-Sep-18 01:52	
13C2-PFOA		IS	84.8		50 - 150			B8I0142	20-Sep-18 20-Sep-18	0.116 L 0.116 L	22-Sep-18 01:52 22-Sep-18 01:52	
13C5-PFNA		IS	70.2		50 - 150			B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
13C8-PFOSA		IS	48.8		50 - 150		Н	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
13C8-PFOS		IS	93.3		50 - 150			B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
13C2-PFDA		IS	63.6		50 - 150			B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
d3-MeFOSAA		IS	69.6		50 - 150			B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	. 1

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BEH C18

#### Sample ID: FT-PZ463I-20180917 **PFAS Isotope Dilution Method**

**Client Data Laboratory Data** Matrix: Lab Sample: Name: Tetra Tech Groundwater 1803078-01

> Date Collected: NWIRP Calverton 17-Sep-18 13:00 Date Received: 18-Sep-18 09:55

Project: SDG: # WE05

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d5-EtFOSAA	IS	80.1	50 - 150		B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	1
13C2-PFUnA	IS	66.3	50 - 150		B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	. 1
13C2-PFDoA	IS	74.6	50 - 150		B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	. 1
13C2-PFTeDA	IS	81.3	50 - 150		B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	1

LOD - Limit of Detection Results reported to the DL. DL - Detection Limit

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Column:

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Sample ID: F	T-PZ463I-FRB-20	180917								PFAS Iso	tope Dilution <b>N</b>	Method
Client Data Name: Project: SDG:	Tetra Tech NWIRP Calverton # WE05		Matrix: Date Colle		undwater Sep-18 13:00	Lab S	oratory Data Sample: Received:	1803078-0 18-Sep-18		Column:	BEH C18	
Analyte		CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA		375-22-4	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1
PFPeA		2706-90-3	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1
PFBS		375-73-5	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1
PFHxA		307-24-4	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
PFHpA		375-85-9	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
PFHxS		355-46-4	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
6:2 FTS		27619-97-2	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
PFOA		335-67-1	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
PFHpS		375-92-8	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
PFNA		375-95-1	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03 22-Sep-18 02:03	
PFOSA		754-91-6							20-Sep-18	0.118 L	-	
			ND	2.91	5.30	8.49	U	B8I0142	•	0.118 L 0.118 L	22-Sep-18 02:03	
PFOS		1763-23-1	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18		22-Sep-18 02:03	
PFDA		335-76-2	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
8:2 FTS		39108-34-4	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
MeFOSAA		2355-31-9	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
EtFOSAA		2991-50-6	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1
PFUnA		2058-94-8	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
PFDS		335-77-3	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1
PFDoA		307-55-1	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1
PFTrDA		72629-94-8	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1
PFTeDA		376-06-7	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1
Labeled Standa	rds	Type	% Recovery		Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA		IS	101		50 - 150			B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1
13C3-PFPeA		IS	97.9		50 - 150			B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
13C3-PFBS		IS	109		50 - 150			B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
13C2-PFHxA		IS	94.0		50 - 150			B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
13C4-PFHpA		IS	96.4		50 - 150				20-Sep-18		22-Sep-18 02:03	
18O2-PFHxS		IS	104		50 - 150				20-Sep-18	0.118 L	22-Sep-18 02:03	
13C2-PFOA 13C5-PFNA		IS	90.8		50 - 150 50 - 150			B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
13CS-PFNA 13C8-PFOSA		IS IS	74.8 38.9		50 - 150 50 - 150		Н	B8I0142 B8I0142	20-Sep-18 20-Sep-18	0.118 L 0.118 L	22-Sep-18 02:03 22-Sep-18 02:03	
13C8-PFOSA		IS IS	94.9		50 - 150		П	B8I0142	20-Sep-18	0.118 L 0.118 L	22-Sep-18 02:03 22-Sep-18 02:03	
13C2-PFDA		IS	59.0		50 - 150			B8I0142	20-Sep-18	0.118 L 0.118 L	22-Sep-18 02:03 22-Sep-18 02:03	
d3-MeFOSAA		IS	67.8		50 - 150			B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
do-inici Obaa		10	07.0		30 - 130			D010172	20-5cp-16	0.110 L	22-50p-10 02.03	1

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#### Sample ID: FT-PZ463I-FRB-20180917 PFAS Isotope Dilution Method

Client Data

Laboratory Data

Name: Tetra Tech Matrix: Groundwater Lab Sample: 1803078-02 Column: BEH C18

Project: NWIRP Calverton Date Collected: 17-Sep-18 13:00 Date Received: 18-Sep-18 09:55 SDG: #WE05

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
d5-EtFOSAA	IS	66.7	50 - 150		B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1
13C2-PFUnA	IS	55.6	50 - 150		B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1
13C2-PFDoA	IS	59.8	50 - 150		B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1
13C2-PFTeDA	IS	78.7	50 - 150		B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1

DL - Detection Limit LOD - Limit of Detection Results reported to the DL. When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both LOQ - Limit of quantitation linear and branched isomers. Only the linear isomer is reported for all other

an

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Sample ID: F	T-PZ464I-2018091	7								PFAS Iso	tope Dilution <b>N</b>	Method
Client Data Name: Project: SDG:	Tetra Tech NWIRP Calverton # WE05		Matrix: Date Coll		ndwater ep-18 14:22	Lab S	ratory Data Sample: Received:	1803078-0 18-Sep-18		Column:	ВЕН С18	
Analyte		CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA		375-22-4	5.34	3.03	5.53	8.84	J	B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
PFPeA		2706-90-3	12.6	3.03	5.53	8.84		B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
PFBS		375-73-5	ND	3.03	5.53	8.84	U	B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
PFHxA		307-24-4	13.3	3.03	5.53	8.84		B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
PFHpA		375-85-9	11.1	3.03	5.53	8.84		B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
PFHxS		355-46-4	23.5	3.03	5.53	8.84		B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
6:2 FTS		27619-97-2	ND	3.03	5.53	8.84	U	B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
PFOA		335-67-1	34.3	3.03	5.53	8.84	<u> </u>	B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
PFHpS		375-92-8	ND	3.03	5.53	8.84	U	B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
PFNA		375-92-6	97.7	3.03	5.53	8.84	O	B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13 22-Sep-18 02:13	1
PFOSA		754-91-6	ND	3.03	5.53	8.84	U	B8I0142	20-Sep-18	0.113 L 0.113 L	22-Sep-18 02:13 22-Sep-18 02:13	1
PFOS		1763-23-1	15.0	3.03	5.53	8.84	U	B8I0142	20-Sep-18	0.113 L 0.113 L	22-Sep-18 02:13 22-Sep-18 02:13	1
		335-76-2					T T				•	1
PFDA			ND	3.03	5.53	8.84	U	B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
8:2 FTS		39108-34-4	ND	3.03	5.53	8.84	U	B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
MeFOSAA		2355-31-9	ND	3.03	5.53	8.84	U	B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
EtFOSAA		2991-50-6	ND	3.03	5.53	8.84	U	B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
PFUnA		2058-94-8	4.73	3.03	5.53	8.84	J, Q	B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
PFDS		335-77-3	ND	3.03	5.53	8.84	U	B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
PFDoA		307-55-1	ND	3.03	5.53	8.84	U	B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
PFTrDA		72629-94-8	ND	3.03	5.53	8.84	U	B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
PFTeDA		376-06-7	ND	3.03	5.53	8.84	U	B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
Labeled Standa	rds	Type	% Recovery		Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA		IS	95.0		50 - 150			B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
13C3-PFPeA		IS	94.4		50 - 150			B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
13C3-PFBS		IS	104		50 - 150			B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
13C2-PFHxA		IS	93.9		50 - 150			B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
13C4-PFHpA		IS	96.8		50 - 150				20-Sep-18		22-Sep-18 02:13	l 1
18O2-PFHxS 13C2-PFOA		IS	96.3		50 - 150 50 - 150			B8I0142 B8I0142	20-Sep-18 20-Sep-18	0.113 L	22-Sep-18 02:13	1 1
13C2-PFOA 13C5-PFNA		IS IS	89.6 79.2		50 - 150			B8I0142	20-Sep-18 20-Sep-18	0.113 L 0.113 L	22-Sep-18 02:13 22-Sep-18 02:13	1
13C8-PFOSA		IS	52.5		50 - 150			B8I0142	20-Sep-18	0.113 L 0.113 L	22-Sep-18 02:13 22-Sep-18 02:13	1
13C8-PFOS		IS	96.9		50 - 150			B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
13C2-PFDA		IS	71.7		50 - 150			B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1
d3-MeFOSAA		IS	77.2		50 - 150			B8I0142	20-Sep-18	0.113 L	22-Sep-18 02:13	1

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Sample ID: FT-PZ464I-20180917	PFAS Isotope Dilution Method
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Client DataName:Tetra TechMatrix:GroundwaterLab Sample:1803078-03Column:BEH C18

Project: NWIRP Calverton Date Collected: 17-Sep-18 14:22 Date Received: 18-Sep-18 09:55 SDG: #WE05

% Recovery Limits Samp Size Analyzed **Labeled Standards** Type Qualifiers **Batch** Extracted Dilution IS d5-EtFOSAA 78.6 50 - 150 B8I0142 20-Sep-18 0.113 L 22-Sep-18 02:13 13C2-PFUnA IS 73.0 50 - 150 B8I0142 20-Sep-18 0.113 L 22-Sep-18 02:13 13C2-PFDoA IS 76.8 50 - 150 B8I0142 20-Sep-18 0.113 L 22-Sep-18 02:13 13C2-PFTeDA IS 84.7 50 - 150 B8I0142 20-Sep-18 0.113 L 22-Sep-18 02:13

analytes.

DL - Detection Limit LOD - Limit of Detection Results reported to the DL. When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both LOQ - Limit of quantitation linear and branched isomers. Only the linear isomer is reported for all other

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# APPENDIX C SUPPORT DOCUMENTATION

#### **NWIRP CALVERTON**

SDG 1803078

## SAMPLE ID FT-PZ464I-20180917 (1803078-03) COMPOUND PFNA

INTERNAL STANDARD (IS) CONCENTRATION

AREA

IS AREA

WEIGHT/VOLUME (WT)

12.5

1.47E+04

1.54E+04

0.11306

y = AREA\*(IS CONC/IS AREA) y = 11.93181818

INITIAL CALIBRATION CURVE (y) = 2.43776E-005\*x^2+1.07358\*x+0.0200697

QUADRATIC EQUATION:  $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$  x= 11.09255849

2.43776E-05\*x^2 + 1.07358\*x + 0.0200697 = 11.93181818

 $2.43776E-05x^2 + 1.07358*x - 11.91174848 = 0$ 

Where:

a 2.44E-05 b 1.07358 c -11.91174848

b^2-4ac 1.153735536

SQRT(b^2-4ac) 1.07412082

CONCENTRATION (x/WT) 98.11213947 ng/L REPORTED CONCENTRATION 97.7 ng/L

Dataset:

F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered:

Saturday, September 22, 2018 10:44:17 Pacific Daylight Time

Printed:

Saturday, September 22, 2018 12:29:00 Pacific Daylight Time

#### Compound name: PFHpS

Coefficient of Determination: R^2 = 0.999917

Calibration curve: 5.68869e-005 \* x^2 + 0.840017 \* x + -0.00313784 Response type: Internal Std ( Ref 47 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	4.32	57.299	3497.765	0.205	0.2	-1.0	NO	1.000	NO	bb
2	2 180921M2_3	Standard	0.500	4.31	136.321	3608.782	0.472	0.6	13.2	NO	1.000	NO	bb
3	3 180921M2_4	Standard	1.000	4.32	207.275	3564.966	0.727	0.9	-13.1	NO	1.000	NO	bb
4	4 180921M2_5	Standard	2.000	4.32	433.868	3483.791	1.557	1.9	-7.2	NO	1.000	NO	bb
5	5 180921M2_6	Standard	5.000	4.32	1245.729	3555.873	4.379	5.2	4.3	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	4.32	2425.336	3483.118	8.704	10.4	3.6	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	4.32	12121.194	3548.718	42.696	50.7	1.3	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	4.32	24109.754	3602.021	83.667	98.9	-1.1	NO	1.000	NO	MM
9	9 180921M2_10	Standard	250.000	4.32	58130.211	3404.979	213.402	249.8	-0.1	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	4.32	108575.688	3124.142	434.422	500.2	0.0	NO	1.000	NO	bb

#### Compound name: PFNA

Coefficient of Determination: R^2 = 0.999973

Calibration curve: 2.43776e-005 \* x^2 + 1.07358 \* x + 0.0200697

Response type: Internal Std ( Ref 45 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	4.64	460.825	21498.279	0.268	0.2	-7.6	NO	1.000	NO	bb
2	2 180921M2_3	Standard	0.500	4.64	1012.488	21706.432	0.583	0.5	4.9	NO	1.000	NO	bb
3	3 180921M2_4	Standard	1,000	4.64	1917.944	21423.422	1.119	1.0	2.4	NO	1.000	NO	MM [
4	4 180921M2_5	Standard	2.000	4.64	3918.542	22835.432	2.145	2.0	-1.0	NO	1.000	NO	bb
5	5 180921M2_6	Standard	5.000	4.64	9434.757	22193.203	5.314	4.9	-1.4	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	4.64	19580.490	22227.143	11.012	10.2	2.4	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	4.64	95134.063	21836.336	54.459	50.6	1.3	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	4.64	182093.781	21310.850	106.808	99.2	-0.8	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	4.64	442064.469	20495.174	269.615	249.7	-0.1	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	4.64	837380.188	19271.295	543.153	500.2	0.0	NO	1.000	NO	bb

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MMM 9/24/2018

Monday, September 24, 2018 09:59:44 Pacific Daylight Time Monday, September 24, 2018 10:00:06 Pacific Daylight Time

Dataset:

Printed:

Last Altered:

### Name: 180921M2\_79, Date: 22-Sep-2018, Time: 02:13:45, ID: 1803078-03 FT-PZ464I-20180917 0.11306, Description: FT-PZ464I-20180917

	# Name	Trace	Area	IS Area	Wt/Vol	RRF	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	1 PFBA	213.0 > 16	4.17e2	8.24e3	0.113	0.000	1.24	0.633	5.3400			
2	2 PFPeA	263.1 > 21	1.18e3	1.05e4	0.113	0.000	2.24	1.42	12.6038			
3	3 PFBS	299.0 > 79.7	2.17e1	1.63e3	0.113	0.000	2.56	0.166	0.8241		2.38	NO
4	5 PFHxA	313 > 269	2.22e3	7.21e3	0.113	0.000	3.05	1.54	13.3326		14.8	NO
5	7 PFHpA	363.0 > 31	1.26e3	1.02e4	0.113	0.000	3.67	1.54	11.0813		13.0	NO
6	36 13C3-PFBA	216.1 > 17	8.24e3	1.15e4	0.113	0.715	1.24	8.94	105.0207	95.0		
7	37 13C3-PFPeA	266. > 221.8	1.05e4	2.04e4	0.113	0.514	2.25	6.42	104.3701	94.4		
8	38 13C3-PFBS	302. > 98.8	1.63e3	3.10e3	0.113	0.527	2.55	6.58	115.4168	104.4		
9	40 13C2-PFHxA	315 > 270	7.21e3	2.04e4	0.113	0.885	3.05	4.43	41.5081	93.9		
10	41 13C4-PFHpA	367.2 > 32	1.02e4	2.04e4	0.113	0.500	3.68	6.25	106.9876	96.8		
11	-1											
12	8 L-PFHxS	398.9 > 79.6	4.99e2	1.36e3	0.113	0.000	3.83	4.60	23.5488		1.65	NO
13	68 Total PFHxS	398.9 > 79.6	4.99e2	1.36e3	0.113			4.60	23.5488			
14	10 6:2 FTS	427.1 > 407		1.82e3	0.113							
15	11 L-PFOA	412.8 > 36	7.25e3	1.68e4	0.113	0.000	4.20	5.39	32.1995		3.38	NO
16	69 Total PFOA	412.8 > 36	7.89e3	1.68e4	0.113			5.86	34.2782			
17	42 18O2-PFHxS	403.0 > 10	1.36e3	3.10e3	0.113	0.437	3.83	5.46	106.4707	96.3		
18	42 18O2-PFHxS	403.0 > 10	1.36e3	3.10e3	0.113	0.437	3.83	5.46	106.4707	96.3		
19	43 13C2-6:2 FTS	429.1 > 40	1.82e3	3.21e3	0.113	0.567	4.14	7.09	86.9586	78.7		
20	44 13C2-PFOA	414.9 > 36	1.68e4	2.83e4	0.113	0.595	4.20	7.43	99.0251	89.6		
21	44 13C2-PFOA	414.9 > 36	1.68e4	2.83e4	0.113	0.595	4.20	7.43	99.0251	89.6		
22	-1											
23	13 PFHpS	449 > 80.0	9.18e0	3.35e3	0.113	0.000	4.34	0.0343	0.3941		6.84	YES
24	14 PFNA	463.0 > 41	1.47e4	1.54e4	0.113	0.000	4.64	11.9	97.6946		4.28	NO
25	15 PFOSA	497.9 > 77.9		1.96e3	0.113							
26	16 L-PFOS	498.9 > 79.9	4.57e2	3.35e3	0.113	0.000	4.73	1.71	14.9506		1.84	NO
27	70 Total PFOS	498.9 > 79.9	4.57e2	3.35e3	0.113			1.71	14.9506			
28	47 13C8-PFOS	507.0 > 79.9	3.35e3	3.21e3	0.113	1.04	4.73	13.0	107.1449	96.9		
29	45 13C5-PFNA	468.2 > 42	1.54e4	2.02e4	0.113	0.765	4.64	9.56	87.5738	79.2		
30	46 13C8-PFOSA	506.1 > 77.7	1.96e3	2.73e4	0.113	0.0719	4.70	0.899	58.0649	52.5		
31	47 13C8-PFOS	507.0 > 79.9	3.35e3	3.21e3	0.113	1.04	4.73	13.0	107.1449	96.9		
32	47 13C8-PFOS	507.0 > 79.9	3.35e3	3.21e3	0.113	1.04	4.73	13.0	107.1449	96.9		
33	-1											
34	18 PFDA	513 > 468.8	3.76e2	1.36e4	0.113	0.000	5.02	0.344	2.2482		6.32	NO
35	19 8:2 FTS	527 > 506.9		1.53e3	0.113							
36	21 L-MeFOSAA	570 > 419		4.25e3	0.113							
37	747-749-14-F8-9349-8	570. > 419	0.00e0_	4.25e3_	0.113			0.000			_	

HC 9/24/2018

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Dataset: Z:\Projects\PFAS.PRO\Results\180921M2\180921M2-79.qld MMM 9/24/2018

Last Altered: Monday, September 24, 2018 09:59:44 Pacific Daylight Time Printed: Monday, September 24, 2018 10:00:06 Pacific Daylight Time

### Name: 180921M2\_79, Date: 22-Sep-2018, Time: 02:13:45, ID: 1803078-03 FT-PZ464I-20180917 0.11306, Description: FT-PZ464I-20180917

	# Name	Trace	Area	IS Area	Wt/Vol	RRF	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
38	25 PFUdA	563.0 > 51	8.19e2	1.83e4	0.113	0.000	5.35	0.561	4.7340		11.1	YES
39	48 13C2-PFDA	515.1 > 46	1.36e4	2.04e4	0.113	0.669	5.02	8.36	79.3180	71.7		
40	49 13C2-8:2 FTS	529.1 > 50	1.53e3	3.21e3	0.113	0.477	4.99	5.96	92.9032	84.0		
41	50 d3-N-MeFOSAA	573.3 > 419	4.25e3	2.73e4	0.113	0.156	5.17	1.95	85.3949	77.2		
42	50 d3-N-MeFOSAA	573.3 > 419	4.25e3	2.73e4	0.113	0.156	5.17	1.95	85.3949	77.2		
43	51 13C2-PFUdA	565 > 519.8	1.83e4	2.73e4	0.113	0.670	5.35	8.37	80.6703	73.0		
44	-1											
45	23 L-EtFOSAA	584.1 > 419		4.86e3	0.113							
46	72 Total N-EtFOSAA	584.1 > 419	0.00e0	4.86e3	0.113			0.000				
47	26 PFDS	598.8 > 79.9		3.35e3	0.113							
48	27 PFDoA	612.9 > 56		1.71e4	0.113							
49	29 PFTrDA	662.9 > 61		1.71e4	0.113							
50	52 d5-N-EtFOSAA	589.3 > 419	4.86e3	2.73e4	0.113	0.178	5.33	2.23	86.8960	78.6		
51	52 d5-N-EtFOSAA	589.3 > 419	4.86e3	2.73e4	0.113	0.178	5.33	2.23	86.8960	78.6		
52	51 13C2-PFUdA	565 > 519.8	1.83e4	2.73e4	0.113	0.670	5.35	8.37	80.6703	73.0		
53	53 13C2-PFDoA	615.0 > 56	1.71e4	2.04e4	0.113	0.838	5.63	10.5	84.9411	76.8		
54	53 13C2-PFDoA	615.0 > 56	1.71e4	2.04e4	0.113	0.838	5.63	10.5	84.9411	76.8		
55	-1											
56	30 PFTeDA	712.8 > 66	3.71e1	1.36e4	0.113	0.000	6.10	0.0342			129	YES
57	73 TCDA	498.3>106.9			0.113							
58	60 13C4-PFBA	217. > 172	1.15e4	1.15e4	0.113	1.00	1.25	12.5	110.5608	100.0		
59	61 13C5-PFHxA	318 > 272.9	2.04e4	2.04e4	0.113	1.00	3.05	12.5	110.5608	100.0		
60	62 13C3-PFHxS	401.8 > 79.9	3.10e3	3.10e3	0.113	1.00	3.83	12.5	110.5608	100.0		
61	55 13C2-PFTeDA	714.8 > 66	1.36e4	2.73e4	0.113	0.497	6.10	6.21	93.6141	84.7		
62	47 13C8-PFOS	507.0 > 79.9	3.35e3	3.21e3	0.113	1.04	4.73	13.0	107.1449	96.9		
63	63 13C8-PFOA	420.9 > 376	2.83e4	2.83e4	0.113	1.00	4.20	12.5	110.5608	100.0		
64	64 13C9-PFNA	472.2 > 42	2.02e4	2.02e4	0.113	1.00	4.64	12.5	110.5608	100.0		
65	65 13C4-PFOS	503 > 79.9	3.21e3	3.21e3	0.113	1.00	4.73	12.5	110.5608	100.0		
66	-1											
67	66 13C6-PFDA	519.1 > 47	2.04e4	2.04e4	0.113	1.00	5.02	12.5	110.5608	100.0		
68	67 13C7-PFUdA	570.1 > 52	2.73e4	2.73e4	0.113	1.00	5.35	12.5	110.5608	100.0		



### **CHAIN OF CUSTODY**

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	For	Labo	rator	y Use O	nly				10	
	Work	Orde	r#:	180	130	18		Temp:	1.0	°C
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Project ID: NWIRP Co	alverton	PO#:	Sampl	er: Jacob Birkett	TAT (check one):	Standard: 21 days Rush (surcharge may apply) 14 days 7 days Specify:
Invoice to: Name	Compan	Nerrolm	Address Contrac	+	City	State Ph# Fax#
Relinquished by (printed name a		Date 7-17		eceived by (printed name and sig	nature)	Date Time
Relinquished by (printed name a	-	9/18/18	7 Time 0955	eleived by (printed name and signal of the service	Behedic	4 09/18/18 1029
SHIP TO: Vista Analytical Lat 1104 Windfield Wa El Dorado Hills, CA (916) 673-1520 * F	y . 95762 ax (916) 673-0106	Method of Shipment: FedEx Tracking No.:	Add Analysis(es) Request  Container(s)		3 / /9//	
Sample ID	Date Time	Location/Sample Description				Comments
FT-PZ463I-2686917	9-17-12	P2463I	2 P GW	X		
T-PZ463I-FRB-20180917	1	_	2 P GW	×	Fi	eld Reagent Blank
FT-PZ464I -20180917	V	P2464 I	2 P GW	入		3
			9-1	7-18		
Special Instructions/Comments:  Container Types: P= HDPE, PJ=	HDPE Jar	Bottle Preserva	tion Type: T = Thiosulfate,	SEND DOCUMENTATION AND RESULTS TO:  Matrix Types: AQ =	Phone: 757-46 Email: Ernie, W	ake Wright Dr. Suite 102 State: <u>VA</u> Zip: 23502
O = Other:		TZ = Trizma:			oil, WW = Wastewater, B = Blood	



### Sample Log in Checklist

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TAT	500

Section 1: Container Receipt								
Delivered By: ☐ FedEx □ UPS □ On Trac □ GSO □ DHL □ Hand Delivered □ Other:								
Number of Containers Arrival Date Arriv		Arrival tii	me		eived By/Date			
)	9/18/18	0955		BUB	9/18/18	3		
	Section 2: Sample Receipt Condition and Initial Storage							
Container C	Condition	Preservation			Storage Location	Initials/		
Shipping container intact  Shipping seals intact  Custody Seals present  Custody seals intact		Chain of Custody  COC present  Multiple COC's:  "Relinquished By" Section	Type    Ice   Blue Ice   Dry Ice   Other	Thermometer ID: I  ☐ Probe used  Temp (uncorrected):	e used		1/18/18	
wa watan		complete			-			
		S	ection 3: San	nple Log In				
Airbill/Trk #	813	1 5224	5632					
	ntainer 🗹 Vista	ı □Client 🗹 Re	tain □Retu	rn 🗆 Dispose		By/	date	
Log In Time						ke 9	18/18	
<ul> <li>Sample name</li> <li>Sample matrix</li> <li>Test method</li> <li>Sample collection date or time</li> <li>Collector's name</li> </ul>					Acceptable Not acceptanomaly form	table –		
	servation type present and ac	counted for on COC	<u> </u>			166	0 10	
200	All samples present and accounted for on COC  Sample IDs are legible						0110	
Samples conform to the description on the COC					Ve all	10 118		
	Samples are intact and suitable for testing					18/18		
Preservation	Preservation documented as required:   NA   Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Trizma   Other							
Samples sto	Samples stored WR2 Shelf:							
Comments:  H TIMES FOR CONSUMINAS NOT LISTED ON COC.  SAMPLE LABBLE WELE USED FOR INFORMATION. KE 9/19/18								

ID.: LR - SLC

Rev No.: 2

Rev Date: 08/29/18

Page: 1 of 1

### Chain of Custody Anomaly/Sample Acceptance Form



Client: Contact: Email: Phone:	Tetra Tech Ernie Wu Ernie.Wu@tetratech.com (757) 466-4901		1803078 18-Sep-18 09:55 K. Elric 09/24/18						
Please review the following information and complete the Client Authorization section. To comply with NELAC regulations, we must receive authorization before proceeding with sample analysis.									
Thank you	Thank you,								
mmaier@	Martha Maier mmaier@vista-analytical.com 916-673-1520								
The follow	ing information or item is needed to proceed with analysis:								
	Complete Chain-of-Custody Preservative		Collector's Name						
$\sqsubseteq$	Test Method Requested Sample Identification	L	Sample Type						
	Analyte List Requested X Sample Collection Tim  Other:	le	Sample Location						
	O SIGN.								
The follo	wing anomalies were noted. Authorization is needed to proceed	l with analysis.							
	Temperature outside < 6°C Range Samples Affects	ed:							
	Temperature°C	No Melted							
	Sample ID Discrepancy Insuf	ficient Sample Size							
	Sample Holding Time Missed Samp	ole Container(s) Broken							
	Custody Seals Broken Incom	rect Container Type							
COC does	COC does not have sample collection times. Container labels collection times were used for log in.								
Client A	authorization								
Proceed	Proceed with Analysis: (YES) NO Signature and Date walk 9/24/18  Client Comments/Instructions <u>Client notified via email on 9/20/18</u> .								
Client Co	Client Comments/Instructions <u>Client notified via email on 9/20/18</u> .								

Work Order 1803078 Page 23 of 306

SDG Number # WE05 Vista Work Order No. 1803078 Case Narrative

#### **Sample Condition on Receipt:**

Three groundwater samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The sample collection times were not listed on the CoC and were reported using information from the sample container labels.

#### **Analytical Notes:**

#### **PFAS Isotope Dilution Method**

The samples were extracted and analyzed for a selected list of PFAS using the PFAS Isotope Dilution Method (Modified EPA Method 537). The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

#### **Holding Times**

The samples were extracted and analyzed within the method hold times.

#### **Quality Control**

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 of the LOQ concentrations. The LCS/LCSD recoveries were within the acceptance criteria.

The labeled standard recoveries outside the acceptance criteria are listed in the table below.

#### QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
1803078-01	FT-PZ463I-20180917	PFAS Isotope Dilution Method	13C8-PFOSA	Н	48.8
1803078-02	FT-PZ463I-FRB-20180917	PFAS Isotope Dilution Method	13C8-PFOSA	Н	38.9
B8I0142-BLK1	B8I0142-BLK1	PFAS Isotope Dilution Method	13C8-PFOSA	Н	40.7
B8I0142-BS1	B8I0142-BS1	PFAS Isotope Dilution Method	13C8-PFOSA	Н	46.0
B8I0142-BSD1	B8I0142-BSD1	PFAS Isotope Dilution Method	13C8-PFOSA	Н	37.5

H = Recovery was outside laboratory acceptance criteria.

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displayed on the next page of this Attachment. Electronic deliverables are not considered to be complete without the accompanying Quality Assurance Review Form. Mariha Maies \_\_\_\_\_, as the designated Quality Assurance Officer, hereby attest that all electronic deliverables have been thoroughly reviewed and are in agreement with the associated hardcopy data. The enclosed electronic files have been reviewed for accuracy (including significant figures), completeness and format. The laboratory will be responsible for any labor time necessary to correct enclosed electronic deliverables that have been found to be in error. I can be reached at (916)673-1520 If there are any questions or problems with the enclosed electronic deliverables. Date: 9/25/18

In addition, the laboratory QC officer must read and sign a copy of the Quality Assurance Review Form

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Revision 9

ISG 08/18/16

#### **DATA QUALIFIERS & ABBREVIATIONS**

B This compound was also detected in the method blank

**Conc.** Concentration

D Dilution

DL Detection limit

E The associated compound concentration exceeded the calibration range of

the instrument

H Recovery and/or RPD was outside laboratory acceptance limits

I Chemical Interference

J The amount detected is below the Reporting Limit/LOQ

**LOD** Limits of Detection

**LOQ** Limits of Quantitation

M Estimated Maximum Possible Concentration (CA Region 2 projects only)

NA Not applicable

ND Not Detected

Q Ion ratio outside of 70-130% of Standard Ratio. (DOD PFAS projects only)

**TEQ** Toxic Equivalency

U Not Detected (specific projects only)

\* See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

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### **Sample Inventory Report**

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1803078-01	FT-PZ463I-20180917	17-Sep-18 13:00	18-Sep-18 09:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1803078-02	FT-PZ463I-FRB-20180917	17-Sep-18 13:00	18-Sep-18 09:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1803078-03	FT-PZ464I-20180917	17-Sep-18 14:22	18-Sep-18 09:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL

Vista Project: 1803078 Client Project: NWIRP Calverton

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Sample ID: F	T-PZ463I-2018091	7								PFAS Iso	tope Dilution I	Method
Client Data Name: Project: SDG:	Tetra Tech NWIRP Calverton # WE05		Matrix: Date Colle		ndwater ep-18 13:00	Lab S	ratory Data Sample: Received:	1803078-0 18-Sep-18		Column:	BEH C18	
Analyte		CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA		375-22-4	5.13	2.95	5.39	8.61	J	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	1
PFPeA		2706-90-3	9.79	2.95	5.39	8.61		B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	1
PFBS		375-73-5	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	1
PFHxA		307-24-4	10.8	2.95	5.39	8.61		B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFHpA		375-85-9	9.53	2.95	5.39	8.61		B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFHxS		355-46-4	23.6	2.95	5.39	8.61		B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
6:2 FTS		27619-97-2	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFOA		335-67-1	28.5	2.95	5.39	8.61	_	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFHpS		375-92-8	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFNA		375-95-1	53.9	2.95	5.39	8.61	C	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFOSA		754-91-6	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52 22-Sep-18 01:52	
PFOS		1763-23-1	13.3	2.95	5.39	8.61	O	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52 22-Sep-18 01:52	
PFDA			ND	2.95		8.61	<b>T</b> T	B8I0142	20-Sep-18		-	
		335-76-2			5.39		U		•	0.116 L	22-Sep-18 01:52	
8:2 FTS		39108-34-4	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
MeFOSAA		2355-31-9	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
EtFOSAA		2991-50-6	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFUnA		2058-94-8	4.65	2.95	5.39	8.61	J	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFDS		335-77-3	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
PFDoA		307-55-1	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	1
PFTrDA		72629-94-8	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	1
PFTeDA		376-06-7	ND	2.95	5.39	8.61	U	B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	1
Labeled Standa	rds	Type	% Recovery		Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA		IS	98.4		50 - 150			B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
13C3-PFPeA		IS	94.8		50 - 150			B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
13C3-PFBS		IS	102		50 - 150			B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
13C2-PFHxA		IS	94.2		50 - 150			B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
13C4-PFHpA		IS	92.8		50 - 150				20-Sep-18	0.116 L	22-Sep-18 01:52	
18O2-PFHxS 13C2-PFOA		IS IS	93.6 84.8		50 - 150 50 - 150			B8I0142 B8I0142	20-Sep-18 20-Sep-18	0.116 L 0.116 L	22-Sep-18 01:52 22-Sep-18 01:52	
13C5-PFNA		IS IS	70.2		50 - 150			B8I0142	20-Sep-18	0.116 L 0.116 L	22-Sep-18 01:52 22-Sep-18 01:52	
13C8-PFOSA		IS	48.8		50 - 150		Н	B8I0142	20-Sep-18	0.116 L 0.116 L	22-Sep-18 01:52 22-Sep-18 01:52	
13C8-PFOS		IS	93.3		50 - 150			B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
13C2-PFDA		IS	63.6		50 - 150			B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	
d3-MeFOSAA		IS	69.6		50 - 150			B8I0142	20-Sep-18	0.116 L	22-Sep-18 01:52	

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Sample ID: F	T-PZ463I-FRB-20	180917								PFAS Iso	tope Dilution 1	Method
Client Data Name: Project: SDG:	Tetra Tech NWIRP Calverton # WE05		Matrix: Date Coll		ndwater ep-18 13:00	Lab S	Sample: Received:	1803078-0 18-Sep-18		Column:	ВЕН С18	
Analyte		CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA		375-22-4	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1
PFPeA		2706-90-3	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1
PFBS		375-73-5	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1
PFHxA		307-24-4	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
PFHpA		375-85-9	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
PFHxS		355-46-4	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
6:2 FTS		27619-97-2	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
PFOA		335-67-1	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
PFHpS		375-92-8	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
PFNA		375-95-1	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
PFOSA		754-91-6	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03 22-Sep-18 02:03	
PFOS		1763-23-1	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03 22-Sep-18 02:03	
PFDA		335-76-2	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	-	
8:2 FTS		39108-34-4	ND			8.49		B8I0142	•	0.118 L	22-Sep-18 02:03	
				2.91	5.30		U		20-Sep-18		22-Sep-18 02:03	
MeFOSAA		2355-31-9	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
EtFOSAA		2991-50-6	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
PFUnA		2058-94-8	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
PFDS		335-77-3	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
PFDoA		307-55-1	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
PFTrDA		72629-94-8	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1
PFTeDA		376-06-7	ND	2.91	5.30	8.49	U	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
Labeled Standar	ds	Туре	% Recovery		Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA		IS	101		50 - 150			B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
13C3-PFPeA		IS	97.9		50 - 150			B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
13C3-PFBS		IS	109		50 - 150			B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
13C2-PFHxA 13C4-PFHpA		IS IS	94.0 96.4		50 - 150 50 - 150			B8I0142	20-Sep-18 20-Sep-18	0.118 L 0.118 L	22-Sep-18 02:03 22-Sep-18 02:03	
18O2-PFHxS		IS	104		50 - 150				20-Sep-18 20-Sep-18	0.118 L 0.118 L	22-Sep-18 02:03 22-Sep-18 02:03	
13C2-PFOA		IS	90.8		50 - 150			B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
13C5-PFNA		IS	74.8		50 - 150			B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
13C8-PFOSA		IS	38.9		50 - 150		Н	B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
13C8-PFOS		IS	94.9		50 - 150			B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
13C2-PFDA		IS	59.0		50 - 150			B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	
d3-MeFOSAA		IS	67.8		50 - 150			B8I0142	20-Sep-18	0.118 L	22-Sep-18 02:03	1

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#### **Process Sheet**

Workorder: 1803078

Prep Expiration: 2018-Oct-01

Client: Tetra Tech

Workorder Due: 25-Sep-18 00:00

TAT: 7

Method: 537M PFAS DOD (LOQ as mRL)

Matrix: Aqueous

Prep Batch:

Prep Data Entered:

Version: Bethpage (21 Analytes)

Prep Spike

DoD: DoD QSM 5.1

Initial Sequence:

S810065

LabSampID

Rec ClientSampleID FT-PZ463I-20180917

Comments

Location

Container WR-2 E-4 HDPE Bottle, 125 mL

WR-2 E-4 HDPE Bottle, 125 mL

1803078-01 1803078-02

1803078-03

FT-PZ463I-FRB-20180917 T-PZ464I-20180917

WR-2 E-4 HDPE Bottle, 125 mL

WO Comments: Provide all analytical runs.

MS/MSD per batch, if MS/MSD is not provided - LCS/LCSD.

Pre-Prep Check Out: \_\_\_\_\_\_\_

Pre-Prep Check In: \_

Prep Check Out: \_

Prep Check In:

Spike Reconciled Initals/Date

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Work Order 1803078

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PREPARATION BENCH SHEET Matrix: Aqueous Chemist: JR B8I0142 Method: 537M PFAS DOD (LOQ as mRL) Prep Date: **920/18**Prep Time: **1005** Prepared using: LCMS - SPE Extraction-LCMS

		Date/Inita	ls: 3/2	0/5 -	4	BalanceID: H2	ms 10				
Cen	VISTA Sample ID	pH Before	pH After	Chlorine (Cl)	Drops HCl Added	Bottle + Sample (g)	Bottle Only	Sample Amt. (L)	IS/NS CHEM/WIT DATE	SPE	RS CHEM/WIT DATE
	B8I0142-BLK1	5	2	Ø	2	NA	NA	ا اشرور ۸/۱	UR - 9bohs	JR 9/20/18	JR My Hedie
	B8I0142-BS1	Ŋ	1	8	2	7	1	(0.125)	//		4
	B8I0142-BSD1	8	2	Ø	2			(0.125)			
	1803078-01	7	2	Ø	دع	142.76	26.57	0./16/9 V			
	1803078-02	7	2	8	2	144.38	1 -	0.11772			
	1803078-03	1	2	Ø	2	139.76	26.70	0.11306		<b></b>	<b>↓</b>

15: 18H1301, 10pl (3)	SPE Chem: Strata X-AW33Lm 6 m Notes:
IS SUP: NA	Ele SOLV: MeOH/O.5% WHyOH in MeOH
NS: 18H1304, 10pl (2)	Final Volume(s)
RS: 18H1302, 10ML(V2)	
/ // (3	

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

Work Order 1803078

# Internal Chain of Custody 1803078

Sample

Initials Date/Time

**New Location** 



Client: Tetra Tech

Vista

Sample ID

1803078-01

1803078-02

1803078-03

**Bottle** 

Project Number: NWIRP Calverton

**Initials Date/Time** 

**New Location** 

JR 9/20/18 1000 JR 9/20/18 1500 Prep Labl B-7 Consumed Received: 18-Sep-18 09:55

**Initials Date/Time** 

**New Location** 

Received by. I	Settina Benedict
Ext	ract
Initials Date/Time	Initials Date/Time
New Location	New Location
JR 9/21/18 0700	2 9/1/18 0913 12-7 Nakd
JR 9/21/18 0200 Pacp Lab 2	R-7 Vialed
	T

**Initials Date/Time** 

New Location

Batch: B8I0142

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeigh	ıt Final	Extracted	Ext By	Spike S	pikeAmount	ClientMatrix	Analysis
1803078-01	0.11619 🗸	ΛſA	NA	1000	20-Sep-18 10:05	JMR			Groundwater	537M PFAS DOD (LOQ as
1803078-02	0.11772 🏑		7	1000	20-Sep-18 10:05	JMR			Groundwater	537M PFAS DOD (LOQ as
1803078-03	0.11306			1000	20-Sep-18 10:05	JMR			Groundwater	537M PFAS DOD (LOQ as
B8I0142-BLK1	0.125 🗸			1000	20-Sep-18 10:05	JMR				QC
B8I0142-BS1	0.125			1000	20-Sep-18 10:05	JMR	18H1304 🗸	10 🗸		QC
B8I0142-BSD1	0.125	1	<b>J</b>	1000	20-Sep-18 10:05	JMR	18H1304 🗸	10		QC

M 9/21/18



#### Sample ID: Method Blank **PFAS Isotope Dilution Method Client Data** Laboratory Data Name: Tetra Tech Matrix: Aqueous Lab Sample: B8I0142-BLK1 Column: BEH C18 Project: **NWIRP Calverton** Conc. (ng/L) DLLOD LOQ **Qualifiers** Batch Extracted Samp Size Dilution **CAS Number** Analyzed Analyte U **PFBA** 375-22-4 ND 2.74 5.00 8.00 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 **PFPeA** 2706-90-3 ND 2.74 5.00 8.00 U B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 **PFBS** 375-73-5 ND 2.74 5.00 8.00 U B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 **PFHxA** 307-24-4 U B8I0142 20-Sep-18 ND 2.74 5.00 8.00 0.125 L 22-Sep-18 01:20 1 375-85-9 2.74 U 20-Sep-18 **PFHpA** ND 5.00 8.00 B8I0142 0.125 L 22-Sep-18 01:20 **PFHxS** 355-46-4 U B8I0142 20-Sep-18 ND 2.74 5.00 8.00 0.125 L 22-Sep-18 01:20 1 6:2 FTS 27619-97-2 ND 2.74 5.00 8.00 U B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 **PFOA** 5.00 U B8I0142 20-Sep-18 335-67-1 ND 2.74 8.00 0.125 L 22-Sep-18 01:20 1 **PFHpS** 375-92-8 ND 2.74 5.00 8.00 U B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 375-95-1 ND 2.74 5.00 8.00 U B8I0142 20-Sep-18 0.125 L PFNA 22-Sep-18 01:20 1 **PFOSA** 754-91-6 U 2.74 5.00 8.00 B8I0142 20-Sep-18 22-Sep-18 01:20 ND 0.125 L PFOS 1763-23-1 5.00 U B8I0142 20-Sep-18 ND 2.74 8.00 0.125 L 22-Sep-18 01:20 1 U **PFDA** 335-76-2 ND 2.74 5.00 B8I0142 20-Sep-18 0.125 L 8.00 22-Sep-18 01:20 8:2 FTS 39108-34-4 ND 2.74 5.00 8.00 U B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 1 U MeFOSAA 2355-31-9 ND 2.74 5.00 8.00 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 **EtFOSAA** U 2991-50-6 ND 2.74 5.00 8.00 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 U **PFUnA** 2058-94-8 ND 2.74 5.00 8.00 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 **PFDS** U 335-77-3 ND 2.74 5.00 8.00 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 **PFDoA** 307-55-1 ND 2.74 5.00 8.00 U B8I0142 20-Sep-18 22-Sep-18 01:20 0.125 L U **PFTrDA** 72629-94-8 ND 2.74 5.00 8.00 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 1 U **PFTeDA** 376-06-7 ND 2.74 5.00 8.00 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 **Labeled Standards** Limits **Qualifiers** Type % Recovery **Batch Extracted** Samp Size Analyzed Dilution IS 99.1 50 - 150 13C3-PFBA B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 IS 50 - 150 B8I0142 13C3-PFPeA 97.3 20-Sep-18 0.125 L 22-Sep-18 01:20 1 13C3-PFBS IS 109 50 - 150 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 1 IS 94.1 50 - 150 B8I0142 20-Sep-18 13C2-PFHxA 0.125 L 22-Sep-18 01:20 13C4-PFHpA IS 94.4 50 - 150 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 1 IS 18O2-PFHxS 98.7 50 - 150 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 50 - 150 13C2-PFOA IS 90.1 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 IS 77.9 50 - 150 13C5-PFNA B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 13C8-PFOSA IS 40.7 50 - 150 Η B8I0142 20-Sep-18 22-Sep-18 01:20 0.125 L 1 IS 99.7 13C8-PFOS 50 - 150 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 13C2-PFDA IS 64.7 50 - 150 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 1 d3-MeFOSAA IS 68.4 50 - 150 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 1 d5-EtFOSAA IS 67.9 50 - 150 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20

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When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data Laboratory Data

Name: Tetra Tech Matrix: Aqueous Lab Sample: B8I0142-BLK1 Column: BEH C18
Project: NWIRP Calverton

Limits **Labeled Standards** Type % Recovery Qualifiers **Batch** Extracted Samp Size Analyzed Dilution 13C2-PFUnA IS 62.4 50 - 150 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 13C2-PFDoA IS 59.4 50 - 150 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20 13C2-PFTeDA IS 72.2 50 - 150 B8I0142 20-Sep-18 0.125 L 22-Sep-18 01:20

DL - Detection Limit LOD - Limit of Detection Results reported to the DL.

LOQ - Limit of quantitation linear and branched isomers. Only the linear isomer is reported for all other

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Sample ID: LCSD

PFAS Isotope Dilution Method

Name: Tetra Tech

Project: NWIRP Calverton

Matrix: Aqueous

Lab Sample: B8I0142-BS1/B8I0142-BSD1

QC Batch: B8I0142

Samp Size: 0.125/0.125 L

Date Extracted: Column: 20-Sep-18 BEH C18

		1.00	T 00	LCC	LCC	LCCD	LCCD	LCCD		T 005	A/D DDD	1.00	1.00	I CCD	LOGD
Analyte	CAS Number	LCS	LCS	LCS	LCS	LCSD (ng/L)	LCSD	LCSD	DDD	LCSD	%Rec RPD	LCS	LCS		LCSD
. , ,		(ng/L)	Spike Amt	% Rec	Quals	(ng/L)	Spike Amt		RPD	Quals	Limits Limits	•	Dil	Analyzed	Dil
PFBA	375-22-4	75.2	80.0	94.0		79.2	80.0	99.0	5.21		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
PFPeA	2706-90-3	74.6	80.0	93.3		77.3	80.0	96.6	3.51		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
PFBS	375-73-5	79.3	80.0	99.2		81.8	80.0	102	3.03		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
PFHxA	307-24-4	77.5	80.0	96.9		76.4	80.0	95.5	1.48		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
PFHpA	375-85-9	74.4	80.0	92.9		79.1	80.0	98.9	6.24		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
PFHxS	355-46-4	81.0	80.0	101		77.6	80.0	97.0	4.31		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
6:2 FTS	27619-97-2	82.3	80.0	103		79.1	80.0	98.9	3.90		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
PFOA	335-67-1	74.3	80.0	92.9		78.9	80.0	98.6	5.99		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
PFHpS	375-92-8	76.4	80.0	95.5		80.3	80.0	100	5.03		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
PFNA	375-95-1	73.4	80.0	91.7		76.3	80.0	95.3	3.85		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
PFOSA	754-91-6	77.5	80.0	96.9	Q	76.5	80.0	95.6	1.35		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
PFOS	1763-23-1	75.9	80.0	94.9		77.5	80.0	96.9	2.06		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
PFDA	335-76-2	72.8	80.0	91.0		78.2	80.0	97.7	7.14		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
8:2 FTS	39108-34-4	71.8	80.0	89.7		83.9	80.0	105	15.6		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
MeFOSAA	2355-31-9	66.5	80.0	83.1		79.2	80.0	99.0	17.5		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
EtFOSAA	2991-50-6	75.4	80.0	94.2		79.2	80.0	99.0	4.98		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
PFUnA	2058-94-8	80.2	80.0	100		78.7	80.0	98.3	1.91		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
PFDS	335-77-3	69.8	80.0	87.2		66.8	80.0	83.5	4.40		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
PFDoA	307-55-1	75.7	80.0	94.6		83.9	80.0	105	10.3		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
PFTrDA	72629-94-8	80.4	80.0	100		84.0	80.0	105	4.36		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
PFTeDA	376-06-7	76.1	80.0	95.1		78.9	80.0	98.6	3.65		70-130	22-Sep-18 01:31	1	22-Sep-18 01:4	
				LCS	LCS			LCSD		LCSD		LCS	LCS		LCSD
Labeled St	andards	Tyne		0/ Dog	Onals			0/ D		2001	Limite	Analyzad	D:I	Analyzad	D:I

		LCS	LCS	LCSD	LCSD		LCS	LCS	LCSD	LCSD
Labeled Standards	Type	% Rec	Quals	% Rec	Quals	Limits	Analyzed	Dil	Analyzed	Dil
13C3-PFBA	IS	99.6		96.0		50-150	22-Sep-18 01:31	1	22-Sep-18 01:41	1
13C3-PFPeA	IS	97.9		93.9		50-150	22-Sep-18 01:31	1	22-Sep-18 01:41	1
13C3-PFBS	IS	104		99.0		50-150	22-Sep-18 01:31	1	22-Sep-18 01:41	1
13C2-PFHxA	IS	93.3		96.6		50-150	22-Sep-18 01:31	1	22-Sep-18 01:41	1
13C4-PFHpA	IS	97.4		95.7		50-150	22-Sep-18 01:31	1	22-Sep-18 01:41	1
18O2-PFHxS	IS	99.6		101		50-150	22-Sep-18 01:31	1	22-Sep-18 01:41	1
13C2-PFOA	IS	84.0		86.8		50-150	22-Sep-18 01:31	1	22-Sep-18 01:41	1
13C5-PFNA	IS	72.3		70.5		50-150	22-Sep-18 01:31	1	22-Sep-18 01:41	1
13C8-PFOSA	IS	46.0	Н	37.5	Н	50-150	22-Sep-18 01:31	1	22-Sep-18 01:41	1
13C8-PFOS	IS	91.9		94.9		50-150	22-Sep-18 01:31	1	22-Sep-18 01:41	1
13C2-PFDA	IS	61.0		59.6		50-150	22-Sep-18 01:31	1	22-Sep-18 01:41	1
d3-MeFOSAA	IS	66.7		58.7		50-150	22-Sep-18 01:31	1	22-Sep-18 01:41	1

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Sample ID: L	CSD						PFAS	Isoto	pe Dilution M	ethod
Name: Project: Matrix:	Tetra Tech NWIRP Calverton Aqueous			Lab Sample: QC Batch: Samp Size:	B8I0142-BS1/B8I0142-BSD1 B8I0142 0.125/0.125 L		Date Extracted: Column:		20-Sep-18 BEH C18	
Labeled Standar	rds	Туре	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
d5-EtFOSAA		IS	64.3		62.3	50-150	22-Sep-18 01:31	1	22-Sep-18 01:4	1
13C2-PFUnA		IS	58.0		56.6	50-150	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
13C2-PFDoA		IS	62.4		60.2	50-150	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1
13C2-PFTeDA		IS	76.8		74.5	50-150	22-Sep-18 01:31	1	22-Sep-18 01:4	1 1

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Method: F:\Projects\PFAS.PRO\MethDB\PFAS\_FULL\_80C\_092118.mdb 22 Sep 2018 10:43:01 Calibration: F:\Projects\PFAS.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_09-21-18.cdb 22 Sep 2018 10:41:06

Compound name: PFBA

	# Name		Acq.Date	Acq.Time
1	1 180921M2_1	IPA	21-Sep-18	12:26:16
2	2 180921M2_2	ST180921M2-1 PFC CS-2 18I1701	21-Sep-18	12:36:52
3	3 180921M2_3	ST180921M2-2 PFC CS-1 18I1702	21-Sep-18	12:47:30
4	4 180921M2_4	ST180921M2-3 PFC CS0 18I1703	21-Sep-18	12:58:03
5	5 180921M2_5	ST180921M2-4 PFC CS1 18I1704	21-Sep-18	13:08:41
6	6 180921M2_6	ST180921M2-5 PFC CS2 1811705	21-Sep-18	13:19:15
7	7 180921M2_7	ST180921M2-6 PFC CS3 18I1706	21-Sep-18	13:29:54
8	8 180921M2_8	ST180921M2-7 PFC CS4 18I1707	21-Sep-18	13:40:32
9	9 180921M2_9	ST180921M2-8 PFC CS5 18I1708	21-Sep-18	13:51:05
10	10 180921M2_10	ST180921M2-9 PFC CS6 18I1709	21-Sep-18	14:01:44
17 - 44	11 180921M2_11	ST180921M2-10 PFC CS7 18I1710	21-Sep-18	14:12:16
12	12 180921M2_12	IPA	21-Sep-18	14:22:55
13	13 180921M2_13	ICV180921M2-1 PFC ICV 18I1711	21-Sep-18	14:33:28
14	14 180921M2_14	1802928-01 REEPDW1314 0.11375	21-Sep-18	14:44:09
15	15 180921M2_15	1802928-02 REEPDW1315 0.1105	21-Sep-18	14:54:45
16	16 180921M2_16	1802928-03 REEPDW1316 0.1167	21-Sep-18	15:05:23
17	17 180921M2_17	B8H0237-BLK1 Method Blank 1	21-Sep-18	15:16:38
18	18 180921M2_18	B8H0237-BS1 OPR 1	21-Sep-18	15:27:15
19	19 180921M2_19	B8H0237-MS1 Matrix Spike 1.35	21-Sep-18	15:37:48
20	20 180921M2_20	B8H0237-MSD1 Matrix Spike Dup 1.36	21-Sep-18	15:48:27
21	21 180921M2_21	1802726-01 DPT-10 (1.5-2.2) 1.09	21-Sep-18	15:59:00
22	22 180921M2_22	1802726-02 DPT-09 (0-1.2) 1.34	21-Sep-18	16:09:39
23	23 180921M2_23	1802726-03 DPT-09 (6.9-7.9) 1.13	21-Sep-18	16:20:12
24	24 180921M2_24	1802726-04 DPT-08 (1-2) 1.36	21-Sep-18	16:30:50
25	25 180921M2_25	1802726-05 DPT-08 (4.1-5.1) 1.24	21-Sep-18	16:41:24
26	26 180921M2_26	1802726-06 DPT-07 (0-1) 1.26	21-Sep-18	16:52:02
27	27 180921M2_27	1802726-07 DPT-08 (cover) 1.16	21-Sep-18	17:02:35
28	28 180921M2_28	IPA	21-Sep-18	17:13:14
29	29 180921M2_29	ST180921M2-11 PFC CS3 18i1716	21-Sep-18	17:23:52
30	30 180921M2_30	1802726-08 DPT-05 (5-6) 1.4	21-Sep-18	17:34:25
31	31 180921M2_31	1802726-09 DPT-05 (8-9) 1.23	21-Sep-18	17:45:04
32	32 180921M2_32	1802726-10 DPT-03 (0-1) 1.12	21-Sep-18	17:55:37

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**Quantify Compound Summary Report** 

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# Compound name: PFBA

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	# Name	ID:	Acq.Date	Acq.Time
33	33 180921M2_33	1802726-11 DPT-03 (3-4) 1.29	21-Sep-18	18:06:07
34	34 180921M2_34	1802726-12 DPT-01 (3-4) 1.35	21-Sep-18	18:16:46
35	35 180921M2_35	1802726-13 DPT-01 (7-8) 1.36	21-Sep-18	18:27:19
36	36 180921M2_36	1802726-14 DPT-02 (1-2) 1.19	21-Sep-18	18:37:57
37	37 180921M2_37	1802726-15 DPT-02 (9-10) 1.19	21-Sep-18	18:48:31
38	38 180921M2_38	1802726-16 DPT-02 (13-14) 1.16	21-Sep-18	18:59:09
39	39 180921M2_39	1802726-17 DPT-DUP 1 1.2	21-Sep-18	19:09:42
40	40 180921M2_40	IPA	21-Sep-18	19:20:20
41	41 180921M2_41	ST180921M2-12 PFC CS3 18I1716	21-Sep-18	19:30:59
42	42 180921M2_42	1802726-18 DPT-DUP 2 1.12	21-Sep-18	19:41:32
43	43 180921M2_43	B8I0048-BLK1 Method Blank 0.25	21-Sep-18	19:52:10
44	44 180921M2_44	B8I0048-BS1 OPR 0.25	21-Sep-18	20:02:49
45	45 180921M2_45	1802853-01 SW1808301025JTM 0.226	21-Sep-18	20:13:22
46	46 180921M2_46	1802853-02 SW1808301100JTM 0.23358	21-Sep-18	20:24:00
47	47 180921M2_47	B8I0137-BLK1 Method Blank 0.25	21-Sep-18	20:34:32
48	48 180921M2_48	B8I0137-BS1 OPR 0.25	21-Sep-18	20:45:11
49	49 180921M2_49	1803072-01 WMP1809170842JSJ 0.24	21-Sep-18	20:55:44
50	50 180921M2_50	1803072-02 WMP1809170850JSJ 0.24	21-Sep-18	21:06:22
51	51 180921M2_51	1803072-03 WMP1809170856JSJ 0.24	21-Sep-18	21:16:55
52	52 180921M2_52	B8I0136-BLK1 Method Blank 0.125	21-Sep-18	21:27:34
53	53 180921M2_53	B8I0136-BS1 OPR 0.125	21-Sep-18	21:38:04
54	54 180921M2_54	B8I0136-MS1 Matrix Spike 0.11106	21-Sep-18	21:48:42
55	55 180921M2_55	B8I0136-MSD1 Matrix Spike Dup 0.10851	21-Sep-18	21:59:16
56	56 180921M2_56	B8I0136-DUP1 Duplicate 0.11184	21-Sep-18	22:09:54
57	57 180921M2_57	B8I0136-DUP2 Duplicate 0.11581	21-Sep-18	22:20:27
58	58 180921M2_58	B8I0136-DUP3 Duplicate 0.11162	21-Sep-18	22:31:05
59	59 180921M2_59	B8I0136-DUP4 Duplicate 0.1073	21-Sep-18	22:41:38
60	60 180921M2_60	1803075-01 091718-GRW-EW1 0.11146	21-Sep-18	22:52:17
61	61 180921M2_61	1803075-02 091718-GRW-EW2 0.11093	21-Sep-18	23:02:55
62	62 180921M2_62	1803075-03 091718-GRW-EW3R 0.107	21-Sep-18	23:13:28
63	63 180921M2_63	1803075-04 091718-GRW-EW3R-D 0.1	21-Sep-18	23:24:07
64	64 180921M2_64	IPA	21-Sep-18	23:34:40
65	65 180921M2_65	ST180921M2-13 PFC CS3 18I1716	21-Sep-18	23:45:18
66	66 180921M2_66	ST180921M2-14 PFC CS0 18I1703	21-Sep-18	23:55:52
67	67 180921M2_67	1803075-05 091718-GRW-EW4 0.10986	22-Sep-18	00:06:30
68	68 180921M2_68	1803075-06 091718-GRW-EW5 0.10691	22-Sep-18	00:17:09

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# Compound name: PFBA

	# Name		Acq.Date	Acq.Time
39	69 180921M2_69	1803075-07 091718-GRW-ITI Sump 0.1	'	00:27:42
70	70 180921M2_70	1803075-08 091718-GRW-ITI Sump-2 0	'	00:38:20
71	71 180921M2_71	1803075-09 091718-QCW-442053-F 0	22-Sep-18	00:48:53
72	72 180921M2_72	1803075-10 091718-GRW-ITI Sump Dis	22-Sep-18	00:59:31
73	73 180921M2_73	1803075-11 091718-QCW-442054-F 0	22-Sep-18	01:10:09
74	74 180921M2_74	B8I0142-BLK1 Method Blank 0.125	22-Sep-18	01:20:43
75	75 180921M2_75	B8I0142-BS1 OPR 0.125	22-Sep-18	01:31:21
76	76 180921M2_76	B8I0142-BSD1 LCSD 0.125	22-Sep-18	01:41:55
77	77 180921M2_77	1803078-01 FT-PZ463I-20180917 0.116	22-Sep-18	01:52:33
78	78 180921M2_78	1803078-02 FT-PZ463I-FRB-20180917	22-Sep-18	02:03:06
79	79 180921M2_79	1803078-03 FT-PZ464I-20180917 0.113	22-Sep-18	02:13:45
80	80 180921M2_80	B8I0057-BLK1 Method Blank 1	22-Sep-18	02:24:23
81	81 180921M2_81	B8I0057-BS1 OPR 1	22-Sep-18	02:34:56
32	82 180921M2_82	IPA	22-Sep-18	02:45:34
33	83 180921M2_83	ST180921M2-15 PFC CS3 18I1716	22-Sep-18	02:56:08
34	84 180921M2_84	1802846-01 Covered Waste-Inner 1.66	22-Sep-18	03:06:46
<b>3</b> 5	85 180921M2_85	1802846-02 Covered Waste-Replicate 1	22-Sep-18	03:17:19
86	86 180921M2_86	1802846-03 SPF-Inner 1.47	22-Sep-18	03:27:58
37	87 180921M2_87	1802846-04 SPF-Replicate 1.66	22-Sep-18	03:38:31
38	88 180921M2_88	1802846-05 BM-Inner 1.19	22-Sep-18	03:49:10
89	89 180921M2_89	1802846-06 BM-Replicate 1.15	22-Sep-18	03:59:48
90	90 180921M2_90	1802846-10 CW-Outer 1.13	22-Sep-18	04:10:21
91	91 180921M2_91	1802846-11 BM-Outer 1.86	22-Sep-18	04:20:59
92	92 180921M2_92	1802846-12 SPF-Outer 2.05	22-Sep-18	04:31:32
93	93 180921M2_93	IPA	22-Sep-18	04:42:11
94	94 180921M2_94	ST180921M2-16 PFC CS3 18I1716	22-Sep-18	04:52:49
95	95 180921M2_95	CGH QC BLK1	22-Sep-18	05:03:22
96	96 180921M2_96	CGH QC BS1	22-Sep-18	05:14:01
97	97 180921M2_97	BLK	22-Sep-18	05:24:34
98	98 180921M2_98	BS1	22-Sep-18	05:35:12
99	99 180921M2_99	1486-8B	22-Sep-18	05:45:45
100	1 180921M2_100	1486-9B	22-Sep-18	05:56:24
101	1 180921M2_101	2094-8B	22-Sep-18	06:06:57
102	1 180921M2_102	2094-16B	22-Sep-18	06:17:35
103	1 180921M2_103	2490-4B	22-Sep-18	06:28:08
104	1 180921M2_104	2490-5B	22-Sep-18	06:38:46

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Dataset:

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# Compound name: PFBA

	# Name	ID CONTRACTOR	Acq.Date	Acq.Time
105	180921M2_105	2490-8B	22-Sep-18	06:49:25
106 1	180921M2_106	1802853-03@20X SD1808301130JTM	22-Sep-18	06:59:58
107	180921M2_107	IPA	22-Sep-18	07:10:36
108	180921M2_108	1802895-01@20X 93789.17 5.06	22-Sep-18	07:21:09
109	180921M2_109	IPA	22-Sep-18	07:31:47
110	180921M2_110	ST180921M2-17 PFC CS3 18I1716	22-Sep-18	07:42:21

Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-IIS AREAS\_2.qld

Last Altered: Saturday, September 22, 2018 12:50:49 Pacific Daylight Time Printed: Saturday, September 22, 2018 12:51:28 Pacific Daylight Time

Name: 180921M2\_75, Date: 22-Sep-2018, Time: 01:31:21, ID: B8I0142-BS1 OPR 0.125, Description: OPR

	# Name	ĪD	Area	%Rec	Area Out
1	1 13C4-PFBA	B8I0142-BS1 OPR 0.125	1.14e4	104.1	NO
2	2 13C5-PFHxA	B8I0142-BS1 OPR 0.125	2.05e4	85.3	NO
3	3 13C3-PFHxS	B8I0142-BS1 OPR 0.125	2.90e3	82.0	NO
4	4 13C8-PFOA	B8I0142-BS1 OPR 0.125	2.85e4	87.5	NO
5	5 13C9-PFNA	B8I0142-BS1 OPR 0.125	2.02e4	91.5	NO
6	6 13C4-PFOS	B8I0142-BS1 OPR 0.125	3.12e3	96.0	NO
7	7 13C6-PFDA	B8I0142-BS1 OPR 0.125	1.90e4	90.4	NO
8	8 13C7-PFUdA	B8I0142-BS1 OPR 0.125	2.54e4	87.1	NO

Name: 180921M2\_76, Date: 22-Sep-2018, Time: 01:41:55, ID: B8I0142-BSD1 LCSD 0.125, Description: LCSD

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	B8I0142-BSD1 LCSD 0.125	1.05e4	95.4	NO
2	2 13C5-PFHxA	B8I0142-BSD1 LCSD 0.125	1.95e4	81.2	NO
3	3 13C3-PFHxS	B8I0142-BSD1 LCSD 0.125	3.06e3	86.5	NO
4	4 13C8-PFOA	B8I0142-BSD1 LCSD 0.125	2.81e4	86.2	NO
5	5 13C9-PFNA	B8I0142-BSD1 LCSD 0.125	2.08e4	93.9	NO
6	6 13C4-PFOS	B8I0142-BSD1 LCSD 0.125	3.27e3	100.9	NO
7	7 13C6-PFDA	B8I0142-BSD1 LCSD 0.125	2.03e4	96.4	NO
8	8 13C7-PFUdA	B8I0142-BSD1 LCSD 0.125	2.65e4	91.0	NO

Name: 180921M2\_77, Date: 22-Sep-2018, Time: 01:52:33, ID: 1803078-01 FT-PZ463I-20180917 0.11619, Description: FT-PZ463I-20180917

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1803078-01 FT-PZ463I-20180917 0.116	1.21e4	110.4	NO
2	2 13C5-PFHxA	1803078-01 FT-PZ463I-20180917 0.116	2.17e4	90.5	NO
3	3 13C3-PFHxS	1803078-01 FT-PZ463I-20180917 0.116	3.12e3	88.4	NO
4	4 13C8-PFOA	1803078-01 FT-PZ463I-20180917 0.116	3.00e4	91.9	NO
5	5 13C9-PFNA	1803078-01 FT-PZ463I-20180917 0.116	2.10e4	94.9	NO
6	6 13C4-PFOS	1803078-01 FT-PZ463I-20180917 0.116	3.24e3	99.7	NO
7	7 13C6-PFDA	1803078-01 FT-PZ463I-20180917 0.116	1.98e4	93.9	NO
8	8 13C7-PFUdA	1803078-01 FT-PZ463I-20180917 0.116	2.60e4	89.4	NO

Name: 180921M2\_78, Date: 22-Sep-2018, Time: 02:03:06, ID: 1803078-02 FT-PZ463I-FRB-20180917 0.11772, Description: FT-PZ463I-FRB-20180917

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1803078-02 FT-PZ463I-FRB-20180917	1.10e4	99.8	NO
2	2 13C5-PFHxA	1803078-02 FT-PZ463I-FRB-20180917	2.00e4	83.5	NO
3	3 13C3-PFHxS	1803078-02 FT-PZ463I-FRB-20180917	2.96e3	83.7	NO
4	4 13C8-PFOA	1803078-02 FT-PZ463I-FRB-20180917	2.81e4	86.2	NO
5	5 13C9-PFNA	1803078-02 FT-PZ463I-FRB-20180917	1.99e4	90.2	NO
6	6 13C4-PFOS	1803078-02 FT-PZ463I-FRB-20180917	3.10e3	95.5	NO
7	7 13C6-PFDA	1803078-02 FT-PZ463I-FRB-20180917	1.99e4	94.6	NO
8	8 13C7-PFUdA	1803078-02 FT-PZ463I-FRB-20180917	2.61e4	89.7	NO

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Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-IIS AREAS\_2.qld

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Name: 180921M2\_79, Date: 22-Sep-2018, Time: 02:13:45, ID: 1803078-03 FT-PZ464I-20180917 0.11306,

Description: FT-PZ464I-20180917

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	1803078-03 FT-PZ464I-20180917 0.113	1.15e4	105.0	NO
2	2 13C5-PFHxA	1803078-03 FT-PZ464I-20180917 0.113	2.04e4	84.9	NO
3	3 13C3-PFHxS	1803078-03 FT-PZ464I-20180917 0.113	3.10e3	87.9	NO
4	4 13C8-PFOA	1803078-03 FT-PZ464I-20180917 0.113	2.83e4	86.7	NO
5	5 13C9-PFNA	1803078-03 FT-PZ464I-20180917 0.113	2.02e4	91.3	NO
6	6 13C4-PFOS	1803078-03 FT-PZ464I-20180917 0.113	3.21e3	98.9	NO
7	7 13C6-PFDA	1803078-03 FT-PZ464I-20180917 0.113	2.04e4	97.0	NO
8	8 13C7-PFUdA	1803078-03 FT-PZ464I-20180917 0.113	2.72e4	93.6	NO

Name: 180921M2\_80, Date: 22-Sep-2018, Time: 02:24:23, ID: B8I0057-BLK1 Method Blank 1, Description: Method Blank

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	B8I0057-BLK1 Method Blank 1	1.25e4	113.6	NO
2	2 13C5-PFHxA	B8I0057-BLK1 Method Blank 1	2.22e4	92.7	NO
3	3 13C3-PFHxS	B8I0057-BLK1 Method Blank 1	3.72e3	105.3	NO
4	4 13C8-PFOA	B8I0057-BLK1 Method Blank 1	3.18e4	97.5	NO
5	5 13C9-PFNA	B8I0057-BLK1 Method Blank 1	2.29e4	103.6	NO
6	6 13C4-PFOS	B8I0057-BLK1 Method Blank 1	3.66e3	112.7	NO
7	7 13C6-PFDA	B8I0057-BLK1 Method Blank 1	2.19e4	104.3	NO
8	8 13C7-PFUdA	B8I0057-BLK1 Method Blank 1	2.97e4	101.9	NO

Name: 180921M2\_81, Date: 22-Sep-2018, Time: 02:34:56, ID: B8I0057-BS1 OPR 1, Description: OPR

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	B8I0057-BS1 OPR 1	1.31e4	119.7	NO
2	2 13C5-PFHxA	B8I0057-BS1 OPR 1	2.33e4	97.2	NO
3	3 13C3-PFHxS	B8I0057-BS1 OPR 1	3.63e3	102.7	NO
4	4 13C8-PFOA	B8I0057-BS1 OPR 1	3.30e4	101.0	NO
5	5 13C9-PFNA	B8I0057-BS1 OPR 1	2.32e4	105.1	NO
6	6 13C4-PFOS	B8I0057-BS1 OPR 1	3.59e3	110.6	NO
7	7 13C6-PFDA	B8I0057-BS1 OPR 1	2.23e4	106.2	NO
8	8 13C7-PFUdA	B8I0057-BS1 OPR 1	2.90e4	99.6	NO

Name: 180921M2\_82, Date: 22-Sep-2018, Time: 02:45:34, ID: IPA, Description: IPA

	# Name	ID	Area	%Rec	Area Out
1	1 13C4-PFBA	IPA			NO
2	2 13C5-PFHxA	IPA			NO
3	3 13C3-PFHxS	IPA			NO
4	4 13C8-PFOA	IPA			NO
5	5 13C9-PFNA	IPA			NO
6	6 13C4-PFOS	IPA			NO
7	7 13C6-PFDA	IPA			NO
8	8 13C7-PFUdA	IPA			NO

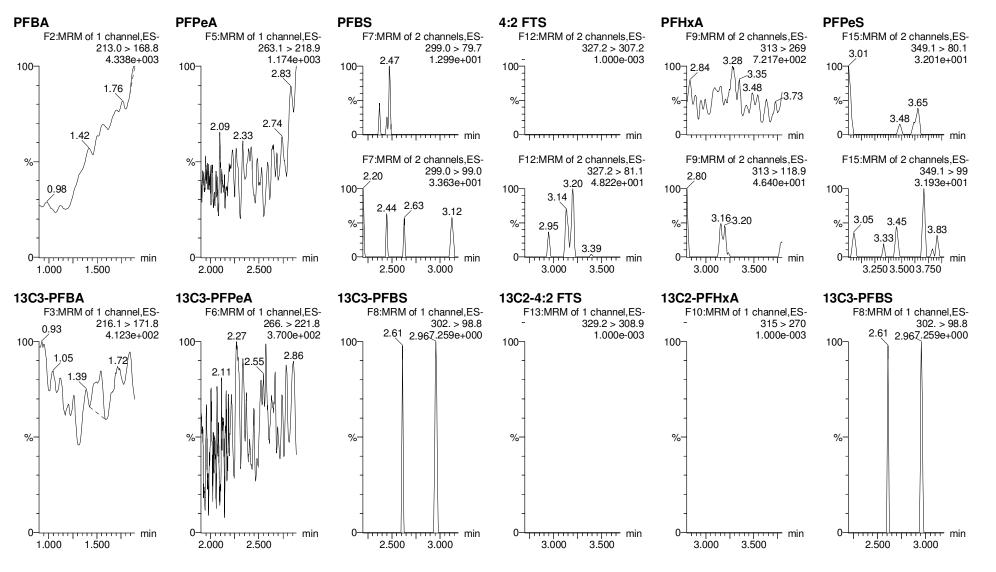
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Dataset: Untitled

Last Altered: Saturday, September 22, 2018 12:46:25 Pacific Daylight Time Printed: Saturday, September 22, 2018 12:46:49 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS\_FULL\_80C\_092118.mdb 22 Sep 2018 10:43:01 Calibration: F:\Projects\PFAS.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_09-21-18.cdb 22 Sep 2018 10:41:06

Name: 180921M2\_12, Date: 21-Sep-2018, Time: 14:22:55, ID: IPA, Description: IPA



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Quantify Compound Summary Report

MassLynx MassLynx V4.1 SCN945 SCN960

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F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Printed:

Dataset:

Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:29:00 Pacific Daylight Time no low pts Inopped tright
4:2 FTS =
6:2 FTS

Method: F:\Projects\PFAS.PRO\MethDB\PFAS FULL 80C 092118.mdb 22 Sep 2018 10:43:01

Calibration: F:\Projects\PFAS.PRO\CurveDB\C18 VAL-PFAS Q4 09-21-18.cdb 22 Sep 2018 10:44:17

Compound name: PFBA

Correlation coefficient: r = 0.999961,  $r^2 = 0.999922$ 

Calibration curve: 1.15065 \* x + -0.0615935

Response type: Internal Std (Ref 36), Area \* (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	1.25	173.413	8067.294	0.269	0.3	14.8	NO	1.000	NO	bb
2	2 180921M2_3	Standard	0.500	1.26	350.335	8039.033	0.545	0.5	5.4	NO	1.000	NO	bb
3	3 180921M2_4	Standard	1.000	1.26	655.776	8140.170	1.007	0.9	-7.1	NO	1.000	NO	bb
4	4 180921M2_5	Standard	2.000	1.26	1454.742	8322.573	2.185	2.0	-2.4	NO	1.000	NO	bb
5	5 180921M2_6	Standard	5.000	1.23	3441.255	7932.853	5.422	4.8	-4.7	NO	1.000	NO	bb
6.44	6 180921M2_7	Standard	10.000	1.25	7222.229	8234.953	10.963	9.6	-4.2	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	1.26	37834.711	8353.199	56.617	49.3	-1.5	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	1.26	75307.383	8267.485	113.861	99.0	-1.0	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	1.26	192651.719	8346.380	288.526	250.8	0.3	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	1.25	388226.656	8408.255	577.151	501.6	0.3	NO	1.000	NO	bb

Compound name: PFPeA

Coefficient of Determination: R^2 = 0.999945

Calibration curve:  $-2.44535e-005 * x^2 + 0.978238 * x + 0.0223519$ Response type: Internal Std (Ref 37), Area \* (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	2.25	276.665	12432.866	0.278	0.3	4.6	NO	1.000	NO	MM
2	2 180921M2_3	Standard	0.500	2.26	512.497	12720.479	0.504	0.5	-1.6	NO	1.000	NO	ММ
3	3 180921M2_4	Standard	1.000	2.25	1008.949	12842.422	0.982	1.0	-1.9	NO	1.000	NO	MM
4	4 180921M2_5	Standard	2.000	2.25	2078.557	12675.981	2.050	2.1	3.6	NO	1.000	NO	bb
5	5 180921M2_6	Standard	5.000	2.24	4764.563	12660.257	4.704	4.8	-4.3	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	2.25	9903.819	12516.354	9.891	10.1	0.9	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	2.25	48951.270	12759.445	47.956	49.1	-1.9	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	2.25	98482.758	12627.998	97.485	99.9	-0.1	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	2.25	236686.781	12074.863	245.020	252.0	0.8	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	2.25	451940.531	11716.563	482.160	499.1	-0.2	NO	1.000	NO	bb

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Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:29:00 Pacific Daylight Time

Compound name: PFBS

Coefficient of Determination: R^2 = 0.999849

Calibration curve: 0.000177835 \* x^2 + 1.77825 \* x + 0.000357402 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

art + 0° (art)	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
A control of the cont	1 180921M2_2	Standard	0.250	2.54	63.588	1683.727	0.472	0.3	6.1	NO	1.000	NO	bb
2	2 180921M2_3	Standard	0.500	2.56	114.899	1753.674	0.819	0.5	-7.9	NO	1.000	NO	ММ
3	3 180921M2_4	Standard	1.000	2.55	227.067	1726.117	1.644	0.9	-7.6	NO	1.000	NO	ММ
4	4 180921M2_5	Standard	2.000	2.55	502.051	1728.745	3.630	2.0	2.0	NO	1.000	NO	bb
5	5 180921M2_6	Standard	5.000	2.55	1243.976	1701.917	9.137	5.1	2.7	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	2.55	2481.192	1645.064	18.853	10.6	5.9	NO	1.000	NO	мм
7	7 180921M2_8	Standard	50.000	2.55	12511.335	1740.755	89.841	50.3	0.5	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	2.55	24431.580	1746.317	174.879	97.4	-2.6	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	2.55	58287.695	1583.779	460.037	252.3	0.9	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	2.55	108955.656	1460.880	932.278	499.3	-0.1	NO	1.000	NO	ММ

Compound name: 4:2 FTS

Coefficient of Determination: R^2 = 0.999258

Calibration curve: -0.00277709 \* x^2 + 1.17621 \* x + 0.0207206 Response type: Internal Std ( Ref 39 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

8714BH	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	2.96	50.332	2184.420	0.288	0.2	-9.1	NO	0.999	NO	bb
2	2 180921M2_3	Standard	0.500	2.96	97.556	2120.828	0.575	0.5	-5.6	NO	0.999	NO	bb
3	3 180921M2_4	Standard	1.000	2.96	224.458	2111.640	1.329	1.1	11.5	NO	0.999	NO	bb
4 1	4 180921M2_5	Standard	2.000	2.96	379.294	2042.779	2.321	2.0	-1.8	NO	0.999	NO	bb
5	5 180921M2_6	Standard	5.000	2.96	983.806	2083.145	5.903	5.1	1.2	NO	0.999	NO	bb
6	6 180921M2_7	Standard	10.000	2.96	2011.380	2066.814	12.165	10.6	5.9	NO	0.999	NO	bb
7	7 180921M2_8	Standard	50.000	2.96	9900.125	2450.548	50.500	48.5	-3.1	NO	0.999	NO	bb
8	8 180921M2_9	Standard	100.000	2.96	19445.363	2685.948	90.496	101.0	1.0	NO	0.999	NO	bb
9	9 180921M2_10	Standard	250.000	2.96	46291.066	3733.522	154.985			NO	0.999	NO	bbXl
10	10 180921M2_11	Standard	500.000	2.96	85784.758	5133.953	208.866			NO	0.999	NO	MMXI

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Dataset: F:

F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered:

Saturday, September 22, 2018 10:44:17 Pacific Daylight Time

Printed:

Saturday, September 22, 2018 12:29:00 Pacific Daylight Time

#### Compound name: PFHxA

Coefficient of Determination: R^2 = 0.999871

Calibration curve: -0.000184215 \* x^2 + 1.00554 \* x + 0.0254901 Response type: Internal Std ( Ref 40 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

Personal Company	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	3.05	507.796	8521.903	0.298	0.3	8.4	NO	1,000	NO	bb
2	2 180921M2_3	Standard	0.500	3.05	969.377	8909.802	0.544	0.5	3.1	NO	1.000	NO	bb
3	3 180921M2_4	Standard	1.000	3.05	1840.581	8771.475	1.049	1.0	1.8	NO	1.000	NO	bb
4	4 180921M2_5	Standard	2.000	3.05	3653.772	8921.619	2.048	2.0	0.6	NO	1.000	NO	bb
5	5 180921M2_6	Standard	5.000	3.05	8352.080	8373.234	4.987	4.9	-1.2	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	3.05	17650.340	8862.067	9.958	9.9	-1.0	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	3.05	87447.094	8875.391	49.264	49.4	-1.2	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	3.05	169673.031	8735.886	97.113	98.3	-1.7	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	3.05	408386.688	8377.983	243.726	254.2	1.7	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	3.05	760875.313	8357.418	455.210	498.1	-0.4	NO	1.000	NO	bb

# Compound name: PFPeS

Coefficient of Determination: R^2 = 0.999925

Calibration curve:  $9.58996e-005 * x^2 + 1.5156 * x + 0.0200581$ Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	3.26	54.704	1683.727	0.406	0.3	1.9	NO	1.000	NO	bb
2	2 180921M2_3	Standard	0.500	3.26	95.316	1753.674	0.679	0.4	-13.0	NO	1.000	NO	bb
3	3 180921M2_4	Standard	1.000	3.26	212.474	1726.117	1.539	1.0	0.2	NO	1.000	NO	bb
4	4 180921M2_5	Standard	2.000	3.26	444.474	1728.745	3.214	2.1	5.3	NO	1.000	NO	bb
5	5 180921M2_6	Standard	5.000	3.26	1026.756	1701.917	7.541	5.0	-0.8	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	3.26	2140.690	1645.064	16.266	10.7	7.1	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	3.26	10590.902	1740.755	76.051	50.0	0.0	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	3.26	21149.354	1746.317	151.385	99.2	-0.8	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	3.26	48728.949	1583.779	384.594	249.8	-0.1	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	3.26	91411.867	1460.880	782.164	500.2	0.0	NO	1.000	NO	bb

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F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered:

Saturday, September 22, 2018 10:44:17 Pacific Daylight Time

Printed:

Saturday, September 22, 2018 12:29:00 Pacific Daylight Time

#### Compound name: PFHpA

Correlation coefficient: r = 0.999856, r^2 = 0.999712

Calibration curve: 1.21703 \* x + 0.0200567

Response type: Internal Std (Ref 41), Area \* (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std, Conc	BT	Area	IS Area	Response	Conc.	- %Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	3.67	308.103	12030.914	0.320	0.2	-1.4	NO	1.000	NO	bb .
2	2 180921M2_3	Standard	0.500	3.67	646.329	12552.714	0.644	0.5	2.5	NO	1.000	NO	ММ
3	3 180921M2_4	Standard	1.000	3.67	1192.427	12300.183	1.212	1.0	-2.1	NO	1.000	NO	ММ
4	4 180921M2_5	Standard	2.000	3.67	2404.271	12426.434	2.419	2.0	-1.5	NO	1.000	NO	ММ
5	5 180921M2_6	Standard	5.000	3.67	5959.690	11929.542	6.245	5.1	2.3	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	3.67	11944.882	11876.090	12.572	10.3	3.1	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	3.67	57567.977	12172.358	59.118	48.6	-2.9	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	3.67	112888.727	11818.814	119.395	98.1	-1.9	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	3.67	279611.750	11212.611	311.716	256.1	2.4	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	3.67	509284.031	10527.421	604.711	496.9	-0.6	NO	1.000	NO	bb

# Compound name: L-PFHxS

Coefficient of Determination: R^2 = 0.999543

Calibration curve: -0.000271292 \* x^2 + 1.73959 \* x + -0.0290897 Response type: Internal Std ( Ref 42 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT.	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	3.83	50.524	1465.521	0.431	0.3	5.8	NO	1.000	NO	MM
2 .	2 180921M2_3	Standard	0.500	3.83	120.181	1609.463	0.933	0.6	10.7	NO	1.000	NO	ММ
3	3 180921M2_4	Standard	1.000	3.83	193.743	1519.647	1.594	0.9	-6.7	NO	1.000	NO	ММ
4	4 180921M2_5	Standard	2.000	3.83	419.414	1514.919	3.461	2.0	0.3	NO	1.000	NO	мм ]
5	5 180921M2_6	Standard	5.000	3.83	943.529	1535.382	7.682	4.4	-11.3	NO	1.000	NO	ММ
6	6 180921M2_7	Standard	10.000	3.83	1923.581	1547.987	15.533	9.0	-10.4	NO	1.000	NO	MM
7. 111155	7 180921M2_8	Standard	50.000	3.83	10579.442	1445.871	91.463	53.0	6.1	NO	1.000	NO	MM
8	8 180921M2_9	Standard	100.000	3.83	20118.498	1479.926	169.928	99.2	-0.8	NO	1.000	NO	MM
9	9 180921M2_10	Standard	250.000	3.83	49333.914	1482.083	416.086	248.9	-0.5	NO	1.000	NO	MM
10	10 180921M2_11	Standard	500.000	3.83	93263.180	1452.448	802.638	500.5	0.1	NO	1.000	NO	MM

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Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Printed: Saturday, September 22, 2018 12:29:00 Pacific Daylight Time

Compound name: 6:2 FTS

Coefficient of Determination: R^2 = 0.999296

Calibration curve:  $-0.00411125 * x^2 + 1.41518 * x + -0.05757$ Response type: Internal Std ( Ref 43 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name -	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	4.16	36.549	2248.760	0.203	0.2	-26.3	NO	0.999	NO	bb
2	2 180921M2_3	Standard	0.500	4.15	101.267	2137.504	0.592	0.5	-8.0	NO	0.999	NO	bb
3	3 180921M2_4	Standard	1.000	4.14	286.083	2231.075	1.603	1.2	17.7	NO	0.999	NO	bb
4	4 180921M2_5	Standard	2.000	4.15	470.931	2168.384	2.715	2.0	-1.5	NO	0.999	NO	bb
5	5 180921M2_6	Standard	5.000	4.14	1190.693	2145.997	6.936	5.0	0.3	NO	0.999	NO	bb
6	6 180921M2_7	Standard	10.000	4.14	2521.335	2247.947	14.020	10.3	2.5	NO	0.999	NO	bb
7	7 180921M2_8	Standard	50.000	4.15	12700.177	2660.757	59.664	49.2	-1.5	NO	0.999	NO	bb
8	8 180921M2_9	Standard	100.000	4.14	24234.363	3008.499	100.691	100.6	0.6	NO	0.999	NO	bb
9	9 180921M2_10	Standard	250.000	4.14	57904.281	4252.966	170.188			NO	0.999	NO	bbXI
10	10 180921M2_11	Standard	500.000	4.15	110412.422	5912.697	233.422			NO	0.999	NO	bbXl

Compound name: L-PFOA

Coefficient of Determination: R^2 = 0.999857

Calibration curve: -7.11995e-005 \* x^2 + 1.44483 \* x + 0.128465 Response type: Internal Std ( Ref 44 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans; None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1.1000	1 180921M2_2	Standard	0.250	4.20	814.741	21564.316	0.472	0.2	-4.8	NO	1.000	NO	bb
2	2 180921M2_3	Standard	0.500	4.20	1465.065	21978.531	0.833	0.5	-2.4	NO	1.000	NO	bb
3	3 180921M2_4	Standard	1.000	4.20	2738.938	21840.289	1.568	1.0	-0.4	NO	1.000	NO	bb
4	4 180921M2_5	Standard	2.000	4.20	5235.939	21713.664	3.014	2.0	-0.1	NO	1.000	NO	bb
5	5 180921M2_6	Standard	5.000	4.20	12624.098	21022.453	7.506	5.1	2.2	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	4.20	26761.387	21585.824	15.497	10.6	6.4	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	4.20	126926.938	21723.725	73.035	50.6	1.2	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	4.20	241075.594	21486.072	140.251	97.4	-2.6	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	4.20	588062.063	20465.902	359.172	251.6	0.6	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	4.21	1112158.750	19740.711	704.229	499.6	-0.1	NO	1.000	NO	bb

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# Compound name: PFHpS

Coefficient of Determination: R^2 = 0.999917

Calibration curve: 5.68869e-005 \* x^2 + 0.840017 \* x + -0.00313784 Response type: Internal Std ( Ref 47 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	4.32	57.299	3497.765	0.205	0.2	-1.0	NO	1.000	NO	bb
2	2 180921M2_3	Standard	0.500	4.31	136.321	3608.782	0.472	0.6	13.2	NO	1.000	NO	bb
3	3 180921M2_4	Standard	1.000	4.32	207.275	3564.966	0.727	0.9	-13.1	NO	1.000	NO	bb
4	4 180921M2_5	Standard	2.000	4.32	433.868	3483.791	1.557	1.9	-7.2	NO	1.000	NO	bb
5	5 180921M2_6	Standard	5.000	4.32	1245.729	3555.873	4.379	5.2	4.3	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	4.32	2425.336	3483.118	8.704	10.4	3.6	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	4.32	12121.194	3548.718	42.696	50.7	1.3	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	4.32	24109.754	3602.021	83.667	98.9	-1.1	NO	1.000	NO	MM
9	9 180921M2_10	Standard	250.000	4.32	58130.211	3404.979	213.402	249.8	-0.1	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	4.32	108575.688	3124.142	434.422	500.2	0.0	NO	1.000	NO	bb

### Compound name: PFNA

Coefficient of Determination: R^2 = 0.999973

Calibration curve: 2.43776e-005 \* x^2 + 1.07358 \* x + 0.0200697

Response type: Internal Std (Ref 45), Area \* (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	4.64	460.825	21498.279	0.268	0.2	-7.6	NO	1.000	NO	bb
2	2 180921M2_3	Standard	0.500	4.64	1012.488	21706.432	0.583	0.5	4.9	NO	1.000	NO	bb
3	3 180921M2_4	Standard	1,000	4.64	1917.944	21423.422	1.119	1.0	2.4	NO	1.000	NO	MM [
4	4 180921M2_5	Standard	2.000	4.64	3918.542	22835.432	2.145	2.0	-1.0	NO	1.000	NO	bb
5	5 180921M2_6	Standard	5.000	4.64	9434.757	22193.203	5.314	4.9	-1.4	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	4.64	19580.490	22227.143	11.012	10.2	2.4	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	4.64	95134.063	21836.336	54.459	50.6	1.3	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	4.64	182093.781	21310.850	106.808	99.2	-0.8	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	4.64	442064.469	20495.174	269.615	249.7	-0.1	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	4.64	837380.188	19271.295	543.153	500.2	0.0	NO	1.000	NO	bb

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#### Compound name: PFOSA

Coefficient of Determination: R^2 = 0.999833

Calibration curve:  $-7.40103e-005 * x^2 + 1.07348 * x + -0.0171345$ Response type: Internal Std ( Ref 46 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

11,74 (40%) 11,1459 11,1459	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	4.70	78.392	3878.424	0.253	0.3	0.5	NO	1.000	NO	bb
2	2 180921M2_3	Standard	0.500	4.71	172.082	3881.821	0.554	0.5	6.4	NO	1.000	NO	bb
3	3 180921M2_4	Standard	1.000	4.71	347.317	4065.651	1.068	1.0	1.1	NO	1.000	NO	bb
4	4 180921M2_5	Standard	2.000	4.71	660.920	4096.554	2.017	1.9	-5.3	NO	1.000	NO	bb
5	5 180921M2_6	Standard	5.000	4.71	1560.457	3907.207	4.992	4.7	-6.6	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	4.71	3313.393	3806.161	10.882	10.2	1.6	NO	1.000	NO	MM
7	7 180921M2_8	Standard	50.000	4.71	15926.793	3577.696	55.646	52.0	4.1	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	4.71	31676.313	3778.762	104.784	98.3	-1.7	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	4.71	76238.156	3620.721	263.201	249.5	-0.2	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	4.71	138328.047	3334.010	518.625	500.4	0.1	NO	1.000	NO	bb

#### Compound name: L-PFOS

Coefficient of Determination: R^2 = 0.999727

Calibration curve:  $0.00012253 \times x^2 + 1.01722 \times x + -0.0126442$ Response type: Internal Std ( Ref 47 ), Area  $\times$  ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	4.74	80.425	3497.765	0.287	0.3	18.0	NO	1.000	NO	MM
2	2 180921M2_3	Standard	0.500	4.73	107.022	3608.782	0.371	0.4	-24.6	NO	1.000	NO	MM
3	3 180921M2_4	Standard	1.000	4.73	267.779	3564.966	0.939	0.9	-6.5	NO	1.000	NO	MM
4	4 180921M2_5	Standard	2.000	4.73	591.612	3483.791	2.123	2.1	4.9	NO	1.000	NO	MM
5	5 180921M2_6	Standard	5.000	4.73	1342.065	3555.873	4.718	4.6	-7.0	NO	1.000	NO	MM
6	6 180921M2_7	Standard	10.000	4.73	3120.566	3483.118	11.199	11.0	10.1	NO	1.000	NO	MM
7	7 180921M2_8	Standard	50.000	4.73	14871.297	3548.718	52.383	51.2	2.4	NO	1.000	NO	MM
8	8 180921M2_9	Standard	100.000	4.73	28918.961	3602.021	100.357	97.5	-2.5	NO	1.000	NO	MM
9	9 180921M2_10	Standard	250.000	4.73	71546.375	3404.979	262.654	250.7	0.3	NO	1.000	NO	MM
10	10 180921M2_11	Standard	500.000	4.73	134776.891	3124.142	539.256	500.0	0.0	NO	1.000	NO	MM

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## Compound name: PFDA

Coefficient of Determination: R^2 = 0.999853

Calibration curve: -0.000164539 \* x^2 + 1.30266 \* x + 0.0132556 Response type: Internal Std ( Ref 48 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
	1 180921M2_2	Standard	0.250	5.02	565.561	20100.664	0.352	0.3	3.9	NO	1.000	NO	ММ
2	2 180921M2_3	Standard	0.500	5.02	978.198	20024.717	0.611	0.5	-8.3	NO	1.000	NO	bb
3	3 180921M2_4	Standard	1.000	5.02	2121.592	19922.803	1.331	1.0	1.2	NO	1.000	NO	bb
4	4 180921M2_5	Standard	2.000	5.02	4492.276	20618.865	2.723	2.1	4.1	NO	1.000	NO	bb
5	5 180921M2_6	Standard	5.000	5.02	9782.878	19944.441	6.131	4.7	-6.0	NO	1.000	NO	bb
6 🔚 👚	6 180921M2_7	Standard	10.000	5.02	21325.609	19707.863	13.526	10.4	3.9	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	5.02	104015.570	19478.363	66.751	51.6	3.1	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	5.02	200496.672	19849.932	126.258	98.1	-1.9	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	5.02	483305.500	19166.721	315.198	249.8	-0.1	NO	1.000	NO	bb
10.2	10 180921M2_11	Standard	500.000	5.02	885955.375	18137.766	610.574	500.3	0.1	NO	1.000	NO	bb

#### Compound name: 8:2 FTS

Coefficient of Determination: R^2 = 0.998075

Calibration curve:  $-0.00512938 \times x^2 + 1.53318 \times x + -0.0610602$ Response type: Internal Std ( Ref 49 ), Area  $\times$  ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	4.99	46.860	1835.738	0.319	0.2	-0.7	NO	0.998	NO	bb
2	2 180921M2_3	Standard	0.500	4.99	67.099	1641.841	0.511	0.4	-25.3	NO	0.998	NO	bb
3 - 1	3 180921M2_4	Standard	1.000	4.99	242.794	1700.109	1.785	1.2	20.9	NO	0.998	NO	bb
4	4 180921M2_5	Standard	2.000	4.99	412.130	1692.512	3.044	2.0	2.0	NO	0.998	NO	bb
5	5 180921M2_6	Standard	5.000	4.99	1003.383	1711.605	7.328	4.9	-2.0	NO	0.998	NO	bb
6	6 180921M2_7	Standard	10.000	4.99	2176.883	1712.829	15.887	10.8	7.9	NO	0.998	NO	bb
7	7 180921M2_8	Standard	50.000	4.99	10472.277	2122.640	61.670	48.0	-4.1	NO	0.998	NO	bb
8	8 180921M2_9	Standard	100.000	4.99	19972.639	2426.075	102.906	101.9	1.9	NO	0.998	NO	bb
9	9 180921M2_10	Standard	250.000	4.99	48638.266	3371.629	180.322			NO	0.998	NO	bbXI
10	10 180921M2_11	Standard	500.000	4.99	86527.367	5072.870	213.211			NO	0.998	NO	bbXI

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Compound name: PFNS

Coefficient of Determination: R^2 = 0.999825

Calibration curve:  $4.85404e-005 * x^2 + 0.750619 * x + 0.00744545$ Response type: Internal Std ( Ref 47 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
	1 180921M2_2	Standard	0.250	5.09	65.918	3497.765	0.236	0.3	21.6	NO	1.000	NO	bb
2	2 180921M2_3	Standard	0.500	5.08	88.681	3608.782	0.307	0.4	-20.1	NO	1.000	NO	bb
3	3 180921M2_4	Standard	1.000	5.09	174.292	3564.966	0.611	8.0	-19.6	NO	1.000	NO	MM
4	4 180921M2_5	Standard	2.000	5.09	461.250	3483.791	1.655	2.2	9.7	NO	1.000	NO	bd
5	5 180921M2_6	Standard	5.000	5.09	1119.019	3555.873	3.934	5.2	4.6	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	5.09	2169.532	3483.118	7.786	10.4	3.6	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	5.09	10909.487	3548.718	38.428	51.0	2.0	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	5.09	21379.086	3602.021	74.191	98.2	-1.8	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	5.09	51947.293	3404.979	190.703	250.0	0.0	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	5.09	96882.641	3124.142	387.637	500.2	0.0	NO	1.000	NO	bb

Compound name: L-MeFOSAA

Coefficient of Determination: R^2 = 0.999730

Calibration curve:  $-0.000181893 * x^2 + 1.52342 * x + -0.0582803$ Response type: Internal Std ( Ref 50 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	5.18	144.525	5448.326	0.332	0.3	2.4	NO	1.000	NO	MM
2	2 180921M2_3	Standard	0.500	5.17	229.675	5752.328	0.499	0.4	-26.8	NO	1.000	NO	ММ
3	3 180921M2_4	Standard	1.000	5.18	763.350	5749.403	1.660	1.1	12.8	NO	1.000	NO	ММ
4	4 180921M2_5	Standard	2.000	5.18	1336.774	5773.740	2.894	1.9	-3.1	NO	1.000	NO	мм
5	5 180921M2_6	Standard	5.000	5.18	3360.167	5498.305	7.639	5.1	1.1	NO	1.000	NO	ММ
6	6 180921M2_7	Standard	10.000	5.18	6791.831	5525.338	15.365	10.1	1.4	NO	1.000	NO	ММ
7	7 180921M2_8	Standard	50.000	5.18	34000.945	5810.229	73.149	48.3	-3.3	NO	1.000	NO	ММ
8	8 180921M2_9	Standard	100.000	5.18	66582.633	5599.925	148.624	98.8	-1.2	NO	1.000	NO	ММ
9	9 180921M2_10	Standard	250.000	5.18	162430.844	5392.758	376.502	254.9	2.0	NO	1.000	NO	ММ
10	10 180921M2_11	Standard	500.000	5.18	302714.219	5305.163	713.254	497.8	-0.4	NO	1.000	NO	ММ

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Compound name: L-EtFOSAA

Coefficient of Determination: R^2 = 0.999766

Calibration curve:  $8.56086e-005 * x^2 + 1.07156 * x + -0.0471687$ Response type: Internal Std ( Ref 52 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	5.34	79.340	6568.083	0.151	0.2	-26.0	NO	1.000	NO	MM
2	2 180921M2_3	Standard	0.500	5.34	264.031	6386.052	0.517	0.5	5.3	NO	1.000	NO	ММ
3	3 180921M2_4	Standard	1.000	5.34	566.793	6446.870	1.099	1.1	7.0	NO	1.000	NO	ММ
4	4 180921M2_5	Standard	2.000	5.34	1178.187	6565.690	2.243	2.1	6.8	NO	1.000	NO	ММ
5	5 180921M2_6	Standard	5.000	5.34	2782.255	6326.742	5.497	5.2	3.4	NO	1.000	NO	MM
6	6 180921M2_7	Standard	10.000	5.33	5699.301	6552.883	10.872	10.2	1.8	NO	1.000	NO	ММ
7	7 180921M2_8	Standard	50.000	5.34	28078.664	6434.755	54.545	50.7	1.5	NO	1.000	NO	MM
8	8 180921M2_9	Standard	100.000	5.33	54688.383	6210.333	110.075	101.9	1.9	NO	1.000	NO	ММ
9	9 180921M2_10	Standard	250.000	5.34	127753.719	5974.953	267.269	244.7	-2.1	NO	1.000	NO	MM
10	10 180921M2_11	Standard	500.000	5.34	238258.266	5322.207	559.585	502.1	0.4	NO	1.000	NO	ММ

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Method: F:\Projects\PFAS.PRO\MethDB\PFAS\_FULL\_80C\_092118.mdb 22 Sep 2018 10:43:01

Calibration: F:\Projects\PFAS.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_09-21-18.cdb 22 Sep 2018 10:44:17

Compound name: PFUdA

Coefficient of Determination: R^2 = 0.999889

Calibration curve:  $-6.18798e-005 * x^2 + 0.939815 * x + 0.0575203$ Response type: Internal Std ( Ref 51 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	5.35	630.298	26203.057	0.301	0.3	3.5	NO	1,000	NO	bb
2	2 180921M2_3	Standard	0.500	5.35	1061.203	26141.354	0.507	0.5	-4.3	NO	1.000	NO	bb
3	3 180921M2_4	Standard	1.000	5.35	2080.356	26082.535	0.997	1.0	-0.0	NO	1.000	NO	bb
4	4 180921M2_5	Standard	2.000	5.35	3896.269	26408.814	1.844	1.9	-4.9	NO	1.000	NO	MM
5	5 180921M2_6	Standard	5.000	5.35	9720.513	24972.867	4.866	5.1	2.4	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	5.35	20198.021	25251.992	9.998	10.6	5.8	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	5.35	95417.188	26198.205	45.527	48.5	-2.9	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	5.35	195122.891	26124.520	93.362	99.9	-0.1	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	5.35	451538.375	24264.594	232.612	251.6	0.6	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	5.35	815603.375	22461.111	453.898	499.3	-0.1	NO	1.000	NO	bb

Compound name: PFDS

Coefficient of Determination: R^2 = 0.999890

Calibration curve: -3.7707e-006 \*  $x^2 + 1.04727 * x + -0.0962577$ Response type: Internal Std ( Ref 47 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	5.40	33.572	3497.765	0.120	0.2	-17.4	NO	1.000	NO	bb
2	2 180921M2_3	Standard	0.500	5.40	118.742	3608.782	0.411	0.5	-3.1	NO	1.000	NO	bb
3	3 180921M2_4	Standard	1.000	5.40	306.430	3564.966	1.074	1.1	11.8	NO	1.000	NO	bb
4	4 180921M2_5	Standard	2.000	5.40	586.474	3483.791	2.104	2.1	5.1	NO	1.000	NO	bb
5	5 180921M2_6	Standard	5.000	5.40	1413.091	3555.873	4.967	4.8	-3.3	NO	1.000	NO	MM
6	6 180921M2_7	Standard	10.000	5.39	3092.109	3483.118	11.097	10.7	6.9	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	5.40	15010.554	3548.718	52.873	50.6	1.2	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	5.39	29889.971	3602.021	103.726	99.2	-0.8	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	5.40	70921.047	3404.979	260.358	248.9	-0.4	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	5.40	130778.250	3124.142	523.257	500.6	0.1	NO	1.000	NO	bb

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#### Compound name: PFDoA

Coefficient of Determination: R^2 = 0.999856

Calibration curve: -4.05078e-005  $^*$  x^2 + 1.23992  $^*$  x + 0.0724267 Response type: Internal Std ( Ref 53 ), Area  $^*$  ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	5.64	647.680	23641.158	0.342	0.2	-12.9	NO	1.000	NO	MM
2	2 180921M2_3	Standard	0.500	5.63	1339.803	22557.570	0.742	0.5	8.1	NO	1.000	NO	ММ
3	3 180921M2_4	Standard	1.000	5.63	2380.976	23271.500	1.279	1.0	-2.7	NO	1.000	NO	MM
4	4 180921M2_5	Standard	2.000	5.63	4938.300	23600.363	2.616	2.1	2.6	NO	1.000	NO	мм
5	5 180921M2_6	Standard	5.000	5.63	11867.988	23406.586	6.338	5.1	1.1	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	5.64	23922.775	23423.684	12.766	10.2	2.4	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	5.64	119083.742	23726.387	62.738	50.6	1.2	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	5.63	230885.047	22976.594	125.609	101.6	1.6	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	5.63	546603.375	22608.289	302.214	245.7	-1.7	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	5.64	1036758.438	21172.760	612.083	501.8	0.4	NO	1.000	NO	bb

#### Compound name: N-MeFOSA

Coefficient of Determination: R^2 = 0.999164

Calibration curve: -6.40159e-005 \*  $x^2 + 0.994671 * x + -0.175063$ Response type: Internal Std ( Ref 54 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	1.250	5.77	123.518	14821.109	1.250	1.4	14.6	NO	0.999	NO	bb
2	2 180921M2_3	Standard	2.500	5.76	192.770	15091.529	1.916	2.1	-15.9	NO	0.999	NO	bb
3	3 180921M2_4	Standard	5.000	5.77	485.628	14706.486	4.953	5.2	3.1	NO	0.999	NO	ММ
4	4 180921M2_5	Standard	10.000	5.77	934.600	15201.056	9.222	9.5	-5.5	NO	0.999	NO	bb
5	5 180921M2_6	Standard	25.000	5.76	2338.685	14891.931	23.557	23.9	-4.4	NO	0.999	NO	bb
6	6 180921M2_7	Standard	50.000	5.77	4844.629	15090.841	48.155	48.7	-2.5	NO	0.999	NO	bb
7	7 180921M2_8	Standard	250,000	5.77	23877.723	15151.692	236.387	241.6	-3.4	NO	0.999	NO	bb
8	8 180921M2_9	Standard	500.000	5.77	46879.727	15138.574	464.506	482.1	-3.6	NO	0.999	NO	bb
9	9 180921M2_10	Standard	1250.000	5.76	112553.328	14185.364	1190.170	1306.6	4.5	NO	0.999	NO	bb
10	10 180921M2_11	Standard	2500.000	5.77	205587.859	14918.813	2067.067	2471.4	-1.1	NO	0.999	NO	bb

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Compound name: PFTrDA

Coefficient of Determination: R^2 = 0.999979

Calibration curve: -0.000173636 \* x^2 + 1.34621 \* x + 0.0372811 Response type: Internal Std ( Ref 53 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	5.88	672.119	23641.158	0.355	0.2	-5.5	NO	1.000	NO	MM
2	2 180921M2_3	Standard	0.500	5.88	1335.456	22557.570	0.740	0.5	4.4	NO	1.000	NO	bb
3	3 180921M2_4	Standard	1.000	5.88	2581.646	23271.500	1.387	1.0	0.3	NO	1.000	NO	bb
4	4 180921M2_5	Standard	2.000	5.88	5318.491	23600.363	2.817	2.1	3.3	NO	1.000	NO	bb
5	5 180921M2_6	Standard	5.000	5.88	12436.936	23406.586	6.642	4.9	-1.8	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	5.88	25295.789	23423.684	13.499	10.0	0.1	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	5.88	125961.078	23726.387	66.361	49.6	-0.8	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	5.88	243463.281	22976.594	132.452	99.6	-0.4	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	5.88	592316.000	22608.289	327.488	251.4	0.6	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	5.88	1065426.375	21172.760	629.008	499.4	-0.1	NO	1.000	NO	bb

Compound name: PFTeDA

Coefficient of Determination: R^2 = 0.999882

Calibration curve:  $-0.000534082 \times x^2 + 1.74261 \times x + 0.164696$ Response type: Internal Std ( Ref 55 ), Area  $\times$  ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
	1 180921M2_2	Standard	0.250	6.10	639.816	15238.077	0.525	0.2	-17.3	NO	1.000	NO	MM
	2 180921M2_3	Standard	0.500	6.10	1260.548	14145.991	1.114	0.5	9.0	NO	1.000	NO	bb
	3 180921M2_4	Standard	1.000	6.10	2371.430	15333.567	1.933	1.0	1.5	NO	1.000	NO	bb
	4 180921M2_5	Standard	2.000	6.10	4793.508	16476.105	3.637	2.0	-0.3	NO	1.000	NO	bb
<i>a</i> . , , ,	5 180921M2_6	Standard	5.000	6.10	11446.149	15939.713	8.976	5.1	1.3	NO	1.000	NO	MM
Transfer Superior	6 180921M2_7	Standard	10.000	6.10	23782.791	16151.589	18.406	10.5	5.0	NO	1.000	NO	bb
	7 180921M2_8	Standard	50.000	6.10	119040.211	16925.770	87.913	51.2	2.3	NO	1.000	NO	bb
	8 180921M2_9	Standard	100.000	6.10	228604.578	17035.602	167.740	99.2	-0.8	NO	1.000	NO	bb
	9 180921M2_10	Standard	250.000	6.10	540989.938	16943.498	399.113	247.7	-0.9	NO	1.000	NO	bb
0	10 180921M2_11	Standard	500.000	6.10	1028748.250	17385.340	739.666	501.4	0.3	NO	1.000	NO	bb

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# Compound name: N-EtFOSA

Coefficient of Determination: R^2 = 0.999977

Calibration curve: -2.15283e-005 \* x^2 + 0.87729 \* x + 0.120377 Response type: Internal Std ( Ref 56 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	1.250	6.19	131.061	16948.025	1.160	1.2	-5.2	NO	1.000	NO	bb
2	2 180921M2_3	Standard	2.500	6.19	278.732	17610.395	2.374	2.6	2.8	NO	1.000	NO	bb
3	3 180921M2_4	Standard	5.000	6.20	531.477	17299.277	4.608	5.1	2.3	NO	1.000	NO	bb
4	4 180921M2_5	Standard	10.000	6.19	1012.648	17760.760	8.552	9.6	-3.9	NO	1.000	NO	bb
5	5 180921M2_6	Standard	25.000	6.19	2521.792	16969.014	22.292	25.3	1.2	NO	1.000	NO	bb
6	6 180921M2_7	Standard	50.000	6.19	5100.286	16834.195	45.446	51.7	3.5	NO	1.000	NO	мм
7	7 180921M2_8	Standard	250.000	6.20	25187.096	17395.268	217.189	249.0	-0.4	NO	1.000	NO	bb
8	8 180921M2_9	Standard	500.000	6.19	49063.723	17030.574	432.138	498.5	-0.3	NO	1.000	NO	db
9	9 180921M2_10	Standard	1250.000	6.19	115814.641	16331.604	1063.716	1250.8	0.1	NO	1.000	NO	db
10	10 180921M2_11	Standard	2500.000	6.20	208530.906	15193.209	2058.791	2500.0	-0.0	NO	1.000	NO	db

#### Compound name: PFHxDA

Coefficient of Determination: R^2 = 0.999904

Calibration curve: -0.000307243 \* x^2 + 0.600161 \* x + 0.044965 Response type: Internal Std (Ref 57), Area \* (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	6.44	410.743	9611.572	0.214	0.3	12.5	NO	1.000	NO	bb
2	2 180921M2_3	Standard	0.500	6.44	594.448	9459.648	0.314	0.4	-10.3	NO	1.000	NO	bb
3	3 180921M2_4	Standard	1.000	6.45	1260.397	9737.623	0.647	1.0	0.4	NO	1.000	NO	bb
4 10 10 10 10	4 180921M2_5	Standard	2.000	6.45	2549.428	10150.446	1.256	2.0	1.0	NO	1.000	NO	bb
5	5 180921M2_6	Standard	5.000	6.45	5883.313	9814.616	2.997	4.9	-1.4	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	6.44	12010.327	10103.219	5.944	9.9	-1.2	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	6.44	60008.691	10340.183	29.017	49.5	-0.9	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	6.44	115764.445	10264.574	56.390	98.9	-1.1	NO	1.000	NO	bb
9 - 1	9 180921M2_10	Standard	250.000	6.45	266949.281	10070.517	132.540	253.7	1.5	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	6.45	492041.031	11050.419	222.635	497.7	-0.5	NO	1.000	NO	bb

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Compound name: PFODA

Coefficient of Determination: R^2 = 0.999863

Calibration curve:  $-0.000348368 * x^2 + 0.826485 * x + 0.00409336$ Response type: Internal Std ( Ref 57 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	0.250	6.68	412.073	9611.572	0.214	0.3	1.8	NO	1.000	NO	bb
2	2 180921M2_3	Standard	0.500	6.68	799.150	9459.648	0.422	0.5	1.2	NO	1.000	NO	ММ
3	3 180921M2_4	Standard	1.000	6.68	1630.193	9737.623	0.837	1.0	0.8	NO	1.000	NO	bb
4	4 180921M2_5	Standard	2.000	6.68	3354.332	10150.446	1.652	2.0	-0.2	NO	1.000	NO	bb
5	5 180921M2_6	Standard	5.000	6.68	8113.918	9814.616	4.134	5.0	0.1	NO	1.000	NO	bb
6	6 180921M2_7	Standard	10.000	6.68	16582.523	10103.219	8.207	10.0	-0.3	NO	1.000	NO	bb
7	7 180921M2_8	Standard	50.000	6.68	82904.961	10340.183	40.089	49.5	-0.9	NO	1.000	NO	bb
8	8 180921M2_9	Standard	100.000	6.68	159573.938	10264.574	77.730	98.1	-1.9	NO	1.000	NO	bb
9	9 180921M2_10	Standard	250.000	6.68	378320.031	10070.517	187.835	254.6	1.8	NO	1.000	NO	bb
10	10 180921M2_11	Standard	500.000	6.68	718250.750	11050.419	324.988	497.6	-0.5	NO	1.000	NO	bb

Compound name: N-MeFOSE

Coefficient of Determination: R^2 = 0.999962

Calibration curve: -1.24276e-006 \* x^2 + 0.915954 \* x + 0.18141 Response type: Internal Std ( Ref 58 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	1.250	6.38	97.628	10874.240	1.347	1.3	1.8	NO	1.000	NO	bb
2	2 180921M2_3	Standard	2.500	6.38	192.860	11386.687	2.541	2.6	3.0	NO	1.000	NO	bb
3	3 180921M2_4	Standard	5.000	6.38	365.889	11041.892	4.970	5.2	4.6	NO	1.000	NO	bb
4	4 180921M2_5	Standard	10.000	6.38	699.600	11649.089	9.008	9.6	-3.6	NO	1.000	NO	bb
5	5 180921M2_6	Standard	25.000	6.38	1678.279	11267.946	22.341	24.2	-3.2	NO	1.000	NO	bb
6	6 180921M2_7	Standard	50.000	6.38	3461.669	11608.692	44.729	48.6	-2.7	NO	1.000	NO	bb
7	7 180921M2_8	Standard	250.000	6.38	17486.254	11546.062	227.172	247.9	-0.8	NO	1.000	NO	bb
8	8 180921M2_9	Standard	500.000	6.38	35717.664	11570.917	463.027	505.7	1.1	NO	1.000	NO	bb
9	9 180921M2_10	Standard	1250.000	6.38	88517.836	11623.414	1142.321	1249.1	-0.1	NO	1.000	NO	bb
10	10 180921M2_11	Standard	2500.000	6.38	173345.250	11394.705	2281.918	2499.6	-0.0	NO	1.000	NO	bb

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Compound name: N-EtFOSE

Coefficient of Determination: R^2 = 0.999585

Calibration curve:  $-9.51159e-006 * x^2 + 1.07192 * x + -0.158053$ Response type: Internal Std ( Ref 59 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	1.250	6.54	88.983	11651.105	1.146	1.2	-2.7	NO	1.000	NO	bb
2	2 180921M2_3	Standard	2.500	6.53	223.750	11972.194	2.803	2.8	10.5	NO	1.000	NO	bb
3	3 180921M2_4	Standard	5.000	6.53	407.834	11530.886	5.305	5.1	1.9	NO	1.000	NO	bb
4	4 180921M2_5	Standard	10.000	6.53	829.754	11885.136	10.472	9.9	-0.8	NO	1.000	NO	bb
5	5 180921M2_6	Standard	25.000	6.53	2016.109	12008.623	25.183	23.6	-5.4	NO	1.000	NO	bb
6	6 180921M2_7	Standard	50.000	6.53	4305.314	12064.907	53.527	50.1	0.2	NO	1.000	NO	bb
7	7 180921M2_8	Standard	250.000	6.53	21289.340	12452.470	256.447	239.9	-4.0	NO	1.000	NO	bb
8	8 180921M2_9	Standard	500.000	6.53	42107.328	12079.716	522.868	490.1	-2.0	NO	1.000	NO	bb
9	9 180921M2_10	Standard	1250.000	6.53	107092.539	11783.029	1363.307	1286.7	2.9	NO	1.000	NO	bb
10	10 180921M2_11	Standard	2500.000	6.53	211618.813	12189.148	2604.187	2484.4	-0.6	NO	1.000	NO	bb

Compound name: 13C3-PFBA

Response Factor: 0.753106

RRF SD: 0.00627001, Relative SD: 0.832553

Response type: Internal Std ( Ref 60 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x⇒excluded
1	1 180921M2_2	Standard	12.500	1.24	8067.294	10889.188	9.261	12.3	-1.6	NO	Parque and market 1945 to 1950 to 1965	NO	bb
2	2 180921M2_3	Standard	12.500	1.26	8039.033	10725.853	9.369	12.4	-0.5	NO		NO	bb
3	3 180921M2_4	Standard	12.500	1.26	8140.170	10805.495	9.417	12.5	0.0	NO		NO	bb
4	4 180921M2_5	Standard	12.500	1.26	8322.573	11144.171	9.335	12.4	-0.8	NO		NO	bb
<b>5</b>	5 180921M2_6	Standard	12.500	1.23	7932.853	10423.084	9.514	12.6	1.1	NO		NO	bb
6	6 180921M2_7	Standard	12.500	1.24	8234.953	10976.741	9.378	12.5	-0.4	NO		NO	bb
7	7 180921M2_8	Standard	12.500	1.25	8353.199	11001.029	9.491	12.6	8.0	NO		NO	bb
8	8 180921M2_9	Standard	12.500	1.25	8267.485	10928.560	9.456	12.6	0.5	NO		NO	bb
9	9 180921M2_10	Standard	12.500	1.25	8346.380	11012.447	9.474	12.6	0.6	NO		NO	bb
10	10 180921M2_11	Standard	12.500	1.25	8408.255	11128.76€	9.444	12.5	0.3	NO		NO	bb

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Dataset:

F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered:

Saturday, September 22, 2018 10:44:17 Pacific Daylight Time

Printed:

Saturday, September 22, 2018 12:29:58 Pacific Daylight Time

#### Compound name: 13C3-PFPeA

Response Factor: 0.54404

RRF SD: 0.0156485, Relative SD: 2.87636

Response type: Internal Std (Ref 61), Area \* (IS Conc. / IS Area)

Curve type: RF

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	2.25	12432.866	22723.090	6.839	12.6	0.6	NO		NO	bb
2	2 180921M2_3	Standard	12.500	2.25	12720.479	24225.912	6.563	12.1	-3.5	NO		NO	bb
3	3 180921M2_4	Standard	12.500	2.25	12842.422	23428.533	6.852	12.6	0.8	NO		NO	bb
4	4 180921M2_5	Standard	12.500	2.25	12675.981	24041.977	6.591	12.1	-3.1	NO		NO	bb
5	5 180921M2_6	Standard	12.500	2.25	12660.257	22975.465	6.888	12.7	1.3	NO		NO	bb
6	6 180921M2_7	Standard	12.500	2.25	12516.354	23979.750	6.524	12.0	-4.1	NO		NO	bb
7	7 180921M2_8	Standard	12.500	2.25	12759.445	23552.789	6.772	12.4	-0.4	NO		NO	bb
8	8 180921M2_9	Standard	12.500	2.25	12627.998	23022.504	6.856	12.6	0.8	NO		NO	bb
9.	9 180921M2_10	Standard	12.500	2.25	12074.863	21669.727	6.965	12.8	2.4	NO		NO	bb
10	10 180921M2_11	Standard	12.500	2.25	11716.563	20471.934	7.154	13.1	5.2	NO		NO	bb

# Compound name: 13C3-PFBS

Response Factor: 0.504553

RRF SD: 0.0199325, Relative SD: 3.95052

Response type: Internal Std ( Ref 62 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	2.55	1683.727	3447.718	6.104	12.1	-3.2	NO		NO	bb
2	2 180921M2_3	Standard	12.500	2.55	1753.674	3463.322	6.329	12.5	0.4	NO		NO	bb
3	3 180921M2_4	Standard	12.500	2.55	1726.117	3445.971	6.261	12.4	-0.7	NO		NO	bb
4	4 180921M2_5	Standard	12.500	2.55	1728.745	3225.777	6.699	13.3	6.2	NO		NO	MM
5	5 180921M2_6	Standard	12.500	2.55	1701.917	3382.214	6.290	12.5	-0.3	NO		NO	bb
6	6 180921M2_7	Standard	12.500	2.55	1645.064	3531.811	5.822	11.5	-7.7	NO		NO	ММ
7	7 180921M2_8	Standard	12.500	2.55	1740.755	3393.965	6.411	12.7	1.7	NO		NO	мм
8	8 180921M2_9	Standard	12.500	2.55	1746.317	3298.276	6.618	13.1	4.9	NO		NO	ММ
9	9 180921M2_10	Standard	12.500	2.55	1583.779	3115.813	6.354	12.6	0.7	NO		NO	bb
10	10 180921M2_11	Standard	12.500	2.55	1460.880	2955.213	6.179	12.2	-2.0	NO		NO	bb

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Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time

Printed: Saturday, September 22, 2018 12:29:58 Pacific Daylight Time

Compound name: 13C2-4:2 FTS

Response Factor: 0.653687

RRF SD: 0.076347, Relative SD: 11.6794

Response type: Internal Std (Ref 62), Area \* (IS Conc. / IS Area)

Curve type: RF

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD CoD Flag	x=excluded
1 300	1 180921M2_2	Standard	12.500	2.96	2184.420	3447.718	7.920	12,1	-3.1	NO	NO	bb
2	2 180921M2_3	Standard	12.500	2.96	2120.828	3463.322	7.655	11.7	-6.3	NO	NO	MM
3	3 180921M2_4	Standard	12.500	2.96	2111.640	3445.971	7.660	11.7	-6.3	NO	NO	bb
4	4 180921M2_5	Standard	12.500	2.96	2042.779	3225.777	7.916	12.1	-3.1	NO	NO	bb
5	5 180921M2_6	Standard	12.500	2.96	2083.145	3382.214	7.699	11.8	-5.8	NO	NO	bb
6	6 180921M2_7	Standard	12.500	2.96	2066.814	3531.811	7.315	11.2	-10.5	NO	NO	bb
7	7 180921M2_8	Standard	12.500	2.96	2450.548	3393.965	9.025	13.8	10.5	NO	NO	bb
8	8 180921M2_9	Standard	12.500	2.96	2685.948	3298.276	10.179	15.6	24.6	NO	NO	bb
9 11 11 11 11 11	9 180921M2_10	Standard	12.500	2.96	3733.522	3115.813	14.978	22.9	83.3	NO	NO	bbX
10	10 180921M2_11_	Standard	12.500	2.96	5133.953	2955.213	21.716	33.2	165.8	NO	NO	MMX

Compound name: 13C2-PFHxA

Response Factor: 0.943359

RRF SD: 0.0313678, Relative SD: 3.32511

Response type: Internal Std ( Ref 61 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	5.000	3.05	8521.903	22723.090	4.688	5.0	-0.6	NO	THE PERSON NAMED OF THE PERSON NAMED IN COLUMN CO.	NO	bb
2	2 180921M2_3	Standard	5.000	3.05	8909.802	24225.912	4.597	4.9	-2.5	NO		NO	bb
3	3 180921M2_4	Standard	5.000	3.05	8771.475	23428.533	4.680	5.0	-0.8	NO		NO	bb
4	4 180921M2_5	Standard	5.000	3.05	8921.619	24041.977	4.639	4.9	-1.7	NO		NO	bb
5	5 180921M2_6	Standard	5.000	3.05	8373.234	22975.465	4.556	4.8	-3.4	NO		NO	bb
6	6 180921M2_7	Standard	5.000	3.05	8862.067	23979.750	4.620	4.9	-2.1	NO		NO	bb
7 41	7 180921M2_8	Standard	5.000	3.05	8875.391	23552.789	4.710	5.0	-0.1	NO		NO	bb
8	8 180921M2_9	Standard	5.000	3.05	8735.886	23022.504	4.743	5.0	0.6	NO		NO	bb
9	9 180921M2_10	Standard	5.000	3.05	8377.983	21669.727	4.833	5.1	2.5	NO		NO	bb
10	10 180921M2_11	Standard	5.000	3.05	8357.418	20471.934	5.103	5.4	8.2	NO		NO	bb

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Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:29:58 Pacific Daylight Time

Compound name: 13C4-PFHpA

Response Factor: 0.516581

RRF SD: 0.00893092, Relative SD: 1.72885

Response type: Internal Std (Ref 61), Area \* (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	3.67	12030.914	22723.090	6.618	12.8	2.5	NO	NO	bb
2	2 180921M2_3	Standard	12.500	3.68	12552.714	24225.912	6.477	12.5	0.3	NO	NO	MM
3	3 180921M2_4	Standard	12.500	3.68	12300.183	23428.533	6.563	12.7	1.6	NO	NO	MM
4	4 180921M2_5	Standard	12.500	3.68	12426.434	24041.977	6.461	12.5	0.1	NO	NO	bb
5	5 180921M2_6	Standard	12.500	3.68	11929.542	22975.465	6.490	12.6	0.5	NO	NO	bb
6	6 180921M2_7	Standard	12.500	3.68	11876.090	23979.750	6.191	12.0	-4.1	NO	NO	bb
7	7 180921M2_8	Standard	12.500	3.68	12172.358	23552.789	6.460	12.5	0.0	NO	NO	bb
8	8 180921M2_9	Standard	12.500	3.68	11818.814	23022.504	6.417	12.4	-0.6	NO	NO	bb
9	9 180921M2_10	Standard	12.500	3.68	11212.611	21669.727	6.468	12.5	0.2	NO	NO	bb
10	10 180921M2_11	Standard	12.500	3.68	10527.421	20471.934	6.428	12.4	-0.5	NO	NO	bb

Compound name: 18O2-PFHxS

Response Factor: 0.453452

RRF SD: 0.0218451, Relative SD: 4.8175

Response type: Internal Std ( Ref 62 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	3.83	1465.521	3447.718	5.313	11.7	-6.3	NO		NO	bb
2	2 180921M2_3	Standard	12.500	3.83	1609.463	3463.322	5.809	12.8	2.5	NO		NO	bb
3	3 180921M2_4	Standard	12.500	3.83	1519.647	3445.971	5.512	12.2	-2.7	NO		NO	bb
4	4 180921M2_5	Standard	12.500	3.83	1514.919	3225.777	5.870	12.9	3.6	NO		NO	bb
5	5 180921M2_6	Standard	12.500	3.83	1535.382	3382.214	5.674	12.5	0.1	NO		NO	bb
6	6 180921M2_7	Standard	12.500	3.83	1547.987	3531.811	5.479	12.1	-3.3	NO		NO	bb
7	7 180921M2_8	Standard	12.500	3.83	1445.871	3393.965	5.325	11.7	-6.1	NO		NO	bb
8	8 180921M2_9	Standard	12.500	3.83	1479.926	3298.276	5.609	12.4	-1.0	NO		NO	bb
9	9 180921M2_10	Standard	12.500	3.83	1482.083	3115.813	5.946	13.1	4.9	NO		NO	bb
10	10 180921M2_11	Standard	12.500	3.83	1452.448	2955.213	6.144	13.5	8.4	NO		NO	bb

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Dataset:

F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered:

Saturday, September 22, 2018 10:44:17 Pacific Daylight Time

Printed:

Saturday, September 22, 2018 12:29:58 Pacific Daylight Time

## Compound name: 13C2-6:2 FTS

Response Factor: 0.720884

RRF SD: 0.101546, Relative SD: 14.0863

Response type: Internal Std (Ref 65), Area \* (IS Conc. / IS Area)

Curve type: RF

1,000	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x≕excluded
1	1 180921M2_2	Standard	12.500	4.14	2248.760	3108.617	9.042	12.5	0.3	NO	MAY - 3 - 1000 - 10 - 10 - 10 - 10 - 10 - 1	NO	bb
2	2 180921M2_3	Standard	12.500	4.14	2137.504	3262.280	8.190	11.4	-9.1	NO		NO	ММ
3	3 180921M2_4	Standard	12.500	4.14	2231.075	3249.910	8.581	11.9	-4.8	NO		NO	MM
4	4 180921M2_5	Standard	12.500	4.14	2168.384	3290.812	8.237	11.4	-8.6	NO		NO	bb
5	5 180921M2_6	Standard	12.500	4.14	2145.997	3410.561	7.865	10.9	-12.7	NO		NO	bb
6	6 180921M2_7	Standard	12.500	4.14	2247.947	3245.308	8.658	12.0	-3.9	NO		NO	bb
7	7 180921M2_8	Standard	12.500	4.15	2660.757	3432.925	9.688	13.4	7.5	NO		NO	bb
8	8 180921M2_9	Standard	12.500	4.14	3008.499	3180.009	11.826	16.4	31.2	NO		NO	bb
9	9 180921M2_10	Standard	12.500	4.14	4252.966	3224.505	16.487	22.9	83.0	NO		NO	bbX
10	10 180921M2_11	Standard	12.500	4.15	5912.697	3013.748	24.524	34.0	172.2	NO		NO	bbX

## Compound name: 13C2-PFOA

Response Factor: 0.663863

RRF SD: 0.0158868, Relative SD: 2.39308

Response type: Internal Std ( Ref 63 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	4.20	21564.316	31737.531	8.493	12.8	2.3	NO	NO	bb
2	2 180921M2_3	Standard	12.500	4.20	21978.531	33391.508	8.228	12.4	-0.9	NO	NO	bb
3	3 180921M2_4	Standard	12.500	4.20	21840.289	33064.531	8.257	12.4	-0.5	NO	NO	bb
4	4 180921M2_5	Standard	12.500	4.20	21713.664	33271.359	8.158	12.3	-1.7	NO	NO	bb
5	5 180921M2_6	Standard	12.500	4.20	21022.453	33130.305	7.932	11.9	-4.4	NO	NO	bb
6	6 180921M2_7	Standard	12.500	4.20	21585.824	32636.809	8.267	12.5	-0.4	NO	NO	bb
7 1.12	7 180921M2_8	Standard	12.500	4.20	21723.725	32797.859	8.279	12.5	-0.2	NO	NO	bb
8	8 180921M2_9	Standard	12.500	4.20	21486.072	32128.373	8.359	12.6	0.7	NO	NO	bb
9	9 180921M2_10	Standard	12.500	4.20	20465.902	30735.490	8.323	12.5	0.3	NO	NO	MM
10	10 180921M2_11	Standard	12.500	4.21	19740.711	28408.430	8.686	13.1	4.7	NO	NO	bb

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Compound name: 13C5-PFNA

Response Factor: 0.965786

RRF SD: 0.0261809, Relative SD: 2.71084

Response type: Internal Std ( Ref 64 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
	1 180921M2_2	Standard	12.500	4.64	21498.279	23644.119	11.366	11.8	-5.9	NO		NO	bb
2	2 180921M2_3	Standard	12.500	4.64	21706.432	22998.842	11.798	12.2	-2.3	NO		NO	bb
3	3 180921M2_4	Standard	12.500	4.64	21423.422	22278.621	12.020	12.4	-0.4	NO		NO	bb
4	4 180921M2_5	Standard	12.500	4.64	22835.432	23572.631	12.109	12.5	0.3	NO		NO	bb
5	5 180921M2_6	Standard	12.500	4.64	22193.203	22793.822	12.171	12.6	8.0	NO		NO	bb
6	6 180921M2_7	Standard	12.500	4.64	22227.143	22107.574	12.568	13.0	4.1	NO		NO	bb
7	7 180921M2_8	Standard	12.500	4.64	21836.336	22719.037	12.014	12.4	-0.5	NO		NO	bb
8	8 180921M2_9	Standard	12.500	4.64	21310.850	22033.166	12.090	12.5	0.1	NO		NO	bb
9	9 180921M2_10	Standard	12.500	4.64	20495.174	21040.479	12.176	12.6	0.9	NO		NO	bb
10	10 180921M2_11	Standard	12.500	4.64	19271.295	19407.861	12.412	12.9	2.8	NO		NO	bb

Compound name: 13C8-PFOSA

Response Factor: 0.136908

RRF SD: 0.00420142, Relative SD: 3.06879

Response type: Internal Std ( Ref 67 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Туре	Std. Conc	RT.	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x⇒excluded
1	1 180921M2_2	Standard	12.500	4.70	3878.424	28013.750	1.731	12.6	1.1	NO	Type ( W. of Care assessment of the floor Secretor between the control of	NO	bb
2	2 180921M2_3	Standard	12.500	4.70	3881.821	29356.715	1.653	12.1	-3.4	NO		NO	bb
3	3 180921M2_4	Standard	12.500	4.70	4065.651	29292.389	1.735	12.7	1.4	NO		NO	bb
4	4 180921M2_5	Standard	12.500	4.70	4096.554	29061.297	1.762	12.9	3.0	NO		NO	bb
5 -	5 180921M2_6	Standard	12.500	4.70	3907.207	28719.049	1.701	12.4	-0.6	NO		NO	bb
6	6 180921M2_7	Standard	12,500	4.71	3806.161	29116.813	1.634	11.9	-4.5	NO		NO	bb
7	7 180921M2_8	Standard	12.500	4.71	3577.696	27300.400	1.638	12.0	-4.3	NO		NO	bb
8	8 180921M2_9	Standard	12.500	4.70	3778.762	27053.967	1.746	12.8	2.0	NO		NO	MM
9	9 180921M2_10	Standard	12.500	4.70	3620.721	26096.305	1.734	12.7	1.3	NO		NO	bb
10-	10 180921M2_11	Standard	12.500	4.71	3334.010	23411.988	1.780	13.0	4.0	NO		NO	ММ

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Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:29:58 Pacific Daylight Time

Compound name: 13C8-PFOS

Response Factor: 1.07619

RRF SD: 0.036739, Relative SD: 3.4138

Response type: Internal Std ( Ref 65 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	4.73	3497.765	3108.617	14.065	13.1	4.6	NO		NO	bb
2	2 180921M2_3	Standard	12.500	4.73	3608.782	3262.280	13.828	12.8	2.8	NO		NO	bb
3	3 180921M2_4	Standard	12.500	4.73	3564.966	3249.910	13.712	12.7	1.9	NO		NO	bb
4	4 180921M2_5	Standard	12.500	4.73	3483.791	3290.812	13.233	12.3	-1.6	NO		NO	ММ
5	5 180921M2_6	Standard	12.500	4.73	3555.873	3410.561	13.033	12.1	-3.1	NO		NO	MM
6	6 180921M2_7	Standard	12.500	4.73	3483.118	3245.308	13.416	12.5	-0.3	NO		NO	bb
7	7 180921M2_8	Standard	12.500	4.73	3548.718	3432.925	12.922	12.0	-3.9	NO		NO	bb
8	8 180921M2_9	Standard	12.500	4.73	3602.021	3180.009	14.159	13.2	5.3	NO		NO	bb
9	9 180921M2_10	Standard	12.500	4.73	3404.979	3224.505	13.200	12.3	-1.9	NO		NO	bb
10	10 180921M2_11	Standard	12.500	4.73	3124.142	3013.748	12.958	12.0	-3.7	NO		NO	bb

Compound name: 13C2-PFDA

Response Factor: 0.932757

RRF SD: 0.0303066, Relative SD: 3.24915

Response type: Internal Std (Ref 66), Area \* (IS Conc. / IS Area)

Curve type: RF

108 (29)	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	5.02	20100.664	21594.553	11.635	12.5	-0.2	NO	NO	bb
2	2 180921M2_3	Standard	12.500	5.02	20024.717	21003.809	11.917	12.8	2.2	NO	NO	MM
3	3 180921M2_4	Standard	12.500	5.02	19922.803	21299.535	11.692	12.5	0.3	NO	NO	bb
4	4 180921M2_5	Standard	12.500	5.02	20618.865	22777.082	11.316	12.1	-2.9	NO	NO	bb
5	5 180921M2_6	Standard	12.500	5.02	19944.441	21772.309	11.451	12.3	-1.8	NO	NO	bb
6	6 180921M2_7	Standard	12.500	5.02	19707.863	21037.822	11.710	12.6	0.4	NO	NO	bb
7	7 180921M2_8	Standard	12.500	5.02	19478.363	22406.164	10.867	11.7	-6.8	NO	NO	bb
8	8 180921M2_9	Standard	12.500	5.02	19849.932	20903.607	11.870	12.7	1.8	NO	NO	bb
9	9 180921M2_10	Standard	12.500	5.02	19166.721	20118.260	11.909	12.8	2.1	NO	NO	bb
10	10 180921M2_11	Standard	12.500	5.02	18137.766	18540.150	12.229	13.1	4.9	NO	NO	bb

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Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:29:58 Pacific Daylight Time

Compound name: 13C2-8:2 FTS

Response Factor: 0.567766

RRF SD: 0.0895288, Relative SD: 15.7686

Response type: Internal Std ( Ref 65 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	4.99	1835.738	3108.617	7.382	13.0	4.0	NO		NO	bb
2	2 180921M2_3	Standard	12.500	4.99	1641.841	3262.280	6.291	11.1	-11.4	NO		NO	bb
3	3 180921M2_4	Standard	12.500	4.99	1700.109	3249.910	6.539	11.5	-7.9	NO		NO	ММ
4	4 180921M2_5	Standard	12.500	4.99	1692.512	3290.812	6.429	11.3	-9.4	NO		NO	ММ
5	5 180921M2_6	Standard	12.500	4.99	1711.605	3410.561	6.273	11.0	-11.6	NO		NO	MM
6	6 180921M2_7	Standard	12.500	4.99	1712.829	3245.308	6.597	11.6	-7.0	NO		NO	bb
7	7 180921M2_8	Standard	12.500	4.99	2122.640	3432.925	7.729	13.6	8.9	NO		NO	bb
8	8 180921M2_9	Standard	12.500	4.99	2426.075	3180.009	9.536	16.8	34.4	NO		NO	MM
9	9 180921M2_10	Standard	12.500	4.99	3371.629	3224.505	13.070	23.0	84.2	NO		NO	bbX
10	10 180921M2_11	Standard	12.500	4.99	5072.870	3013.748	21.041	37.1	196.5	NO		NO	bbX

Compound name: d3-N-MeFOSAA

Response Factor: 0.201967

RRF SD: 0.011386, Relative SD: 5.63755

Response type: Internal Std (Ref 67), Area \* (IS Conc. / IS Area)

Curve type: RF

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	5.17	5448.326	28013.750	2.431	12.0	-3.7	NO		NO	bb
2	2 180921M2_3	Standard	12.500	5.17	5752.328	29356.715	2.449	12.1	-3.0	NO		NO	bb
3	3 180921M2_4	Standard	12.500	5.17	5749.403	29292.389	2.453	12.1	-2.8	NO		NO	bb
4	4 180921M2_5	Standard	12.500	5.17	5773.740	29061.297	2.483	12.3	-1.6	NO		NO	bb
5	5 180921M2_6	Standard	12.500	5.17	5498.305	28719.049	2.393	11.8	-5.2	NO		NO	ММ
6	6 180921M2_7	Standard	12.500	5.17	5525.338	29116.813	2.372	11.7	-6.0	NO		NO	bb
7	7 180921M2_8	Standard	12.500	5.18	5810.229	27300.400	2.660	13.2	5.4	NO		NO	bb
8	8 180921M2_9	Standard	12.500	5.17	5599.925	27053.967	2.587	12.8	2.5	NO		NO	bb
9	9 180921M2_10	Standard	12.500	5.17	5392.758	26096.305	2.583	12.8	2.3	NO		NO	bb
10	10 180921M2_11	Standard	12.500	5.18	5305.163	23411.988	2.833	14.0	12.2	NO		NO	db

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Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:29:58 Pacific Daylight Time

Compound name: 13C2-PFUdA

Response Factor: 0.917627

RRF SD: 0.0375355, Relative SD: 4.0905

Response type: Internal Std (Ref 67), Area \* (IS Conc. / IS Area)

Curve type: RF

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD CoD Flag	x=excluded
	1 180921M2_2	Standard	12.500	5.35	26203.057	28013.750	11.692	12.7	1.9	NO	NO	bb ·
2	2 180921M2_3	Standard	12.500	5.35	26141.354	29356.715	11.131	12.1	-3.0	NO	NO	bb
3	3 180921M2_4	Standard	12.500	5.35	26082.535	29292.389	11.130	12.1	-3.0	NO	NO	bb
4	4 180921M2_5	Standard	12.500	5.35	26408.814	29061.297	11.359	12.4	-1.0	NO	NO	bb
5	5 180921M2_6	Standard	12.500	5.35	24972.867	28719.049	10.869	11.8	-5.2	NO	NO	bb
6	6 180921M2_7	Standard	12.500	5.35	25251.992	29116.813	10.841	11.8	-5.5	NO	NO	bb
7	7 180921M2_8	Standard	12.500	5.35	26198.205	27300.400	11.995	13.1	4.6	NO	NO	bb
8	8 180921M2_9	Standard	12.500	5.35	26124.520	27053.967	12.071	13.2	5.2	NO	NO	bb
9	9 180921M2_10	Standard	12.500	5.35	24264.594	26096.305	11.623	12.7	1.3	NO	NO	bb
10	10 180921M2_11	Standard	12.500	5.35	22461.111	23411.988	11.992	13.1	4.6	NO	NO_	bb

Compound name: d5-N-EtFOSAA

Response Factor: 0.22649

RRF SD: 0.00602307, Relative SD: 2.65931

Response type: Internal Std ( Ref 67 ), Area  $^\star$  ( IS Conc. / IS Area )

Curve type: RF

	# Name	Туре	Std. Conc	RT.	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	5.33	6568.083	28013.750	2.931	12.9	3.5	NO		NO	bb
2	2 180921M2_3	Standard	12.500	5.33	6386.052	29356.715	2.719	12.0	-4.0	NO		NO	bb
3	3 180921M2_4	Standard	12.500	5.33	6446.870	29292.389	2.751	12.1	-2.8	NO		NO	bb
4	4 180921M2_5	Standard	12.500	5.33	6565.690	29061.297	2.824	12.5	-0.2	NO		NO	bb
5	5 180921M2_6	Standard	12.500	5.33	6326.742	28719.049	2.754	12.2	-2.7	NO		NO	bb
6	6 180921M2_7	Standard	12.500	5.33	6552.883	29116.813	2.813	12.4	-0.6	NO		NO	MM
7	7 180921M2_8	Standard	12.500	5.33	6434.755	27300.400	2.946	13.0	4.1	NO		NO	bb
8	8 180921M2_9	Standard	12.500	5.33	6210.333	27053.967	2.869	12.7	1.4	NO		NO	bb
9	9 180921M2_10	Standard	12.500	5.33	5974.953	26096.305	2.862	12.6	1.1	NO		NO	bb
10	10 180921M2_11	Standard	12.500	5.33	5322.207	23411.988	2.842	12.5	0.4	NO		NO	bb

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Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Printed: Saturday, September 22, 2018 12:29:58 Pacific Daylight Time

Compound name: 13C2-PFDoA

Response Factor: 1.09098

RRF SD: 0.0313437, Relative SD: 2.87298

Response type: Internal Std ( Ref 66 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	5.63	23641.158	21594.553	13.685	12.5	0.3	NO	MAN ( 2	NO	MM
2	2 180921M2_3	Standard	12.500	5.63	22557.570	21003.809	13.425	12.3	-1.6	NO		NO	bb
3	3 180921M2_4	Standard	12.500	5.63	23271.500	21299.535	13.657	12.5	0.1	NO		NO	bb
4	4 180921M2_5	Standard	12.500	5.63	23600.363	22777.082	12.952	11.9	-5.0	NO		NO	bb
5	5 180921M2_6	Standard	12.500	5.63	23406.586	21772.309	13.438	12.3	-1.5	NO		NO	bb
6	6 180921M2_7	Standard	12.500	5.63	23423.684	21037.822	13.918	12.8	2.1	NO		NO	bb
7	7 180921M2_8	Standard	12.500	5.64	23726.387	22406.164	13.237	12.1	-2.9	NO		NO	bb
8	8 180921M2_9	Standard	12.500	5.63	22976.594	20903.607	13.740	12.6	8.0	NO		NO	bb
9	9 180921M2_10	Standard	12.500	5.63	22608.289	20118.260	14.047	12.9	3.0	NO		NO	bb
10	10 180921M2_11	Standard	12.500	5.63	21172.760	18540.150	14.275	13.1	4.7	NO		NO	bb

Compound name: d3-N-MeFOSA

Response Factor: 0.0450039

RRF SD: 0.0032304, Relative SD: 7.17804

Response type: Internal Std ( Ref 67 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Туре	Std. Conc	RT.	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	150.000	5.79	14821.109	28013.750	6.613	146.9	-2.0	NO		NO	bb
2	2 180921M2_3	Standard	150.000	5.79	15091.529	29356.715	6.426	142.8	-4.8	NO		NO	bb
3	3 180921M2_4	Standard	150.000	5.79	14706.486	29292.389	6.276	139.4	-7.0	NO		NO	bb
4	4 180921M2_5	Standard	150.000	5.79	15201.056	29061.297	6.538	145.3	-3.1	NO		NO	bb
5	5 180921M2_6	Standard	150.000	5.79	14891.931	28719.049	6.482	144.0	-4.0	NO		NO	bb
6	6 180921M2_7	Standard	150.000	5.80	15090.841	29116.813	6.479	144.0	-4.0	NO		NO	bb
7	7 180921M2_8	Standard	150.000	5.80	15151.692	27300.400	6.937	154.2	2.8	NO		NO	bb
8	8 180921M2_9	Standard	150.000	5.79	15138.574	27053.967	6.995	155.4	3.6	NO		NO	bb
9	9 180921M2_10	Standard	150.000	5.79	14185.364	26096.305	6.795	151.0	0.7	NO		NO	bb
10	10 180921M2_11	Standard	150.000	5.80	14918.813	23411.988	7.965	177.0	18.0	NO		NO	bb

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Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:29:58 Pacific Daylight Time

Compound name: 13C2-PFTeDA

Response Factor: 0.586749

RRF SD: 0.0748355, Relative SD: 12.7543

Response type: Internal Std (Ref 67), Area \* (IS Conc. / IS Area)

Curve type: RF

11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	6.10	15238.077	28013.750	6.799	11.6	-7.3	NO	NO	bb
2	2 180921M2_3	Standard	12.500	6.10	14145.991	29356.715	6.023	10.3	-17.9	NO	NO	bb
3	3 180921M2_4	Standard	12.500	6.10	15333.567	29292.389	6.543	11.2	-10.8	NO	NO	bb
4	4 180921M2_5	Standard	12.500	6.10	16476.105	29061.297	7.087	12.1	-3.4	NO	NO	bb
5	5 180921M2_6	Standard	12.500	6.10	15939.713	28719.049	6.938	11.8	-5.4	NO	NO	bb
6	6 180921M2_7	Standard	12.500	6.11	16151.589	29116.813	6.934	11.8	-5.5	NO	NO	bb
7	7 180921M2_8	Standard	12.500	6.10	16925.770	27300.400	7.750	13.2	5.7	NO	NO	bb
8	8 180921M2_9	Standard	12.500	6.10	17035.602	27053.967	7.871	13.4	7.3	NO	NO	bb
9	9 180921M2_10	Standard	12.500	6.10	16943.498	26096.305	8.116	13.8	10.7	NO	NO	MM
10	10 180921M2_11	Standard	12.500	6.10	17385.340	23411.988	9.282	15.8	26.6	NO	NO	bb

Compound name: d5-N-ETFOSA

Response Factor: 0.0509755

RRF SD: 0.00191319, Relative SD: 3.75316

Response type: Internal Std (Ref 67), Area \* (IS Conc. / IS Area)

Curve type: RF

	# Name	Туре	Std. Conc	:::RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	150.000	6.21	16948.025	28013.750	7.562	148.4	-1.1	NO	RESERVED HERE SHALL STATE	NO	bb
2	2 180921M2_3	Standard	150.000	6.21	17610.395	29356.715	7.498	147.1	-1.9	NO		NO	bb
3	3 180921M2_4	Standard	150.000	6.21	17299.277	29292.389	7.382	144.8	-3.5	NO		NO	bb
4	4 180921M2_5	Standard	150.000	6.21	17760.760	29061.297	7.639	149.9	-0.1	NO		NO	bb
5	5 180921M2_6	Standard	150.000	6.21	16969.014	28719.049	7.386	144.9	-3.4	NO		NO	bb
6	6 180921M2_7	Standard	150.000	6.21	16834.195	29116.813	7.227	141.8	-5.5	NO		NO	bb
7	7 180921M2_8	Standard	150.000	6.21	17395.268	27300.400	7.965	156.2	4.2	NO		NO	bb
8	8 180921M2_9	Standard	150.000	6.21	17030.574	27053.967	7.869	154.4	2.9	NO		NO	bb
9	9 180921M2_10	Standard	150.000	6.21	16331.604	26096.305	7.823	153.5	2.3	NO		NO	bb
10	10 180921M2_11	Standard	150.000	6.22	15193.209	23411.988	8.112	159.1	6.1	NO		NO	bb

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Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Printed: Saturday, September 22, 2018 12:29:58 Pacific Daylight Time

Compound name: 13C2-PFHxDA

Response Factor: 0.912959

RRF SD: 0.107896, Relative SD: 11.8183

Response type: Internal Std (Ref 67), Area \* (IS Conc. / IS Area)

Curve type: RF

ir talling tall	# Name	Туре	Std, Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	5.000	6.44	9611.572	28013.750	4.289	4.7	-6.0	NO		NO	bb
2	2 180921M2_3	Standard	5.000	6.45	9459.648	29356.715	4.028	4.4	-11.8	NO		NO	bb
3	3 180921M2_4	Standard	5.000	6.45	9737.623	29292.389	4.155	4.6	-9.0	NO		NO	ММ
4	4 180921M2_5	Standard	5.000	6.45	10150.446	29061.297	4.366	4.8	-4.4	NO		NO	bb
5	5 180921M2_6	Standard	5.000	6.45	9814.616	28719.049	4.272	4.7	-6.4	NO		NO	bb
6	6 180921M2_7	Standard	5.000	6.44	10103.219	29116.813	4.337	4.8	-5.0	NO		NO	bb
7	7 180921M2_8	Standard	5.000	6.44	10340.183	27300.400	4.734	5.2	3.7	NO		NO	bb
8.	8 180921M2_9	Standard	5.000	6.44	10264.574	27053.967	4.743	5.2	3.9	NO		NO	bb
9	9 180921M2_10	Standard	5.000	6.45	10070.517	26096.305	4.824	5.3	5.7	NO		NO	bb
10	10 180921M2_11	Standard	5.000	6.45	11050.419	23411.988	5.900	6.5	29.2	NO		NO	bb

Compound name: d7-N-MeFOSE

Response Factor: 0.0343969

RRF SD: 0.00279467, Relative SD: 8.12478

Response type: internal Std ( Ref 67 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Туре	Std. Conc	BT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD CoD Flag	x=excluded
1	1 180921M2_2	Standard	150.000	6.37	10874.240	28013.750	4.852	141.1	-6.0	NO	NO	bb
2	2 180921M2_3	Standard	150.000	6.37	11386.687	29356.715	4.848	141.0	-6.0	NO	NO	bb
3	3 180921M2_4	Standard	150.000	6.37	11041.892	29292.389	4.712	137.0	-8.7	NO	NO	bb
4	4 180921M2_5	Standard	150.000	6.37	11649.089	29061.297	5.011	145.7	-2.9	NO	NO	bb
5	5 180921M2_6	Standard	150.000	6.37	11267.946	28719.049	4.904	142.6	-4.9	NO	NO	bb
6	6 180921M2_7	Standard	150.000	6.37	11608.692	29116.813	4.984	144.9	-3.4	NO	NO	bb
7	7 180921M2_8	Standard	150.000	6.38	11546.062	27300.400	5.287	153.7	2.5	NO	NO	bb
8	8 180921M2_9	Standard	150.000	6.37	11570.917	27053.967	5.346	155.4	3.6	NO	NO	bb
9	9 180921M2_10	Standard	150.000	6.37	11623.414	26096.305	5.568	161.9	7.9	NO	NO	bb
10	10 180921M2_11	Standard	150.000	6.38	11394.705	23411.988	6.084	176.9	17.9	NO	NO	bb

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Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:29:58 Pacific Daylight Time

Compound name: d9-N-EtFOSE

Response Factor: 0.0361136

RRF SD: 0.00308819, Relative SD: 8.55131

Response type: Internal Std ( Ref 67 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD CoD Flag	x=excluded
1	1 180921M2_2	Standard	150.000	6.52	11651.105	28013.750	5.199	144.0	-4.0	NO	NO	bb
2	2 180921M2_3	Standard	150.000	6.52	11972.194	29356.715	5.098	141.2	-5.9	NO	NO	bb
3	3 180921M2_4	Standard	150.000	6.52	11530.886	29292.389	4.921	136.3	-9.2	NO	NO	bb
4	4 180921M2_5	Standard	150.000	6.52	11885.136	29061.297	5.112	141.6	-5.6	NO	NO	bb
5	5 180921M2_6	Standard	150.000	6.52	12008.623	28719.049	5.227	144.7	-3.5	NO	NO	bb
6	6 180921M2_7	Standard	150.000	6.52	12064.907	29116.813	5.180	143.4	-4.4	NO	NO	bb
7	7 180921M2_8	Standard	150.000	6.52	12452.470	27300.400	5.702	157.9	5.3	NO	NO	bb
8	8 180921M2_9	Standard	150.000	6.52	12079.716	27053.967	5.581	154.5	3.0	NO	NO	bb
9	9 180921M2_10	Standard	150.000	6.52	11783.029	26096.305	5.644	156.3	4.2	NO	NO	bb
10	10 180921M2_11	Standard	150.000	6.52	12189.148	23411.988	6.508	180.2	20.1	NO	NO	bb

Compound name: 13C4-PFBA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 60 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Туре	Std. Conc	BT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	1.25	10889.188	10889.188	12.500	12.5	0.0	NO	***************************************	NO	bb
2	2 180921M2_3	Standard	12.500	1.25	10725.853	10725.853	12.500	12.5	0.0	NO		NO	bb
3 1	3 180921M2_4	Standard	12.500	1.26	10805.495	10805.495	12.500	12.5	0.0	NO		NO	bb
4	4 180921M2_5	Standard	12.500	1.26	11144.171	11144.171	12.500	12.5	0.0	NO		NO	bb
5	5 180921M2_6	Standard	12.500	1.23	10423.084	10423.084	12.500	12.5	0.0	NO		NO	bb
6	6 180921M2_7	Standard	12.500	1.25	10976.741	10976.741	12.500	12.5	0.0	NO		NO	bb
7	7 180921M2_8	Standard	12.500	1.25	11001.029	11001.029	12.500	12.5	0.0	NO		NO	bb
8	8 180921M2_9	Standard	12.500	1.25	10928.560	10928.560	12.500	12.5	0.0	NO		NO	bb
9	9 180921M2_10	Standard	12.500	1.25	11012.447	11012.447	12.500	12.5	0.0	NO		NO	bb
10	10 180921M2_11	Standard	12.500	1.25	11128.76€	11128.76€	12.500	12.5	0.0	NO		NO	bb

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Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:29:58 Pacific Daylight Time

Compound name: 13C5-PFHxA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 61), Area \* (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD CoD Flag	x=excluded
annual plants	1 180921M2_2	Standard	12.500	3.05	22723.090	22723.090	12.500	12.5	0.0	NO	NO	bb
2	2 180921M2_3	Standard	12.500	3.05	24225.912	24225.912	12.500	12.5	0.0	NO	NO	bb
3	3 180921M2_4	Standard	12.500	3.05	23428.533	23428.533	12.500	12.5	0.0	NO	NO	bb
4	4 180921M2_5	Standard	12.500	3.05	24041.977	24041.977	12.500	12.5	0.0	NO	NO	bb
5	5 180921M2_6	Standard	12.500	3.05	22975.465	22975.465	12.500	12.5	0.0	NO	NO	bb
6	6 180921M2_7	Standard	12.500	3.05	23979.750	23979.750	12.500	12.5	0.0	NO	NO	bb
7	7 180921M2_8	Standard	12.500	3.05	23552.789	23552.789	12.500	12.5	0.0	NO	NO	bb
8	8 180921M2_9	Standard	12.500	3.05	23022.504	23022.504	12.500	12.5	0.0	NO	NO	bb
9	9 180921M2_10	Standard	12.500	3.05	21669.727	21669.727	12.500	12.5	0.0	NO	NO	bb
10	10 180921M2_11	Standard	12.500	3.05	20471.934	20471.934	12.500	12.5	0.0	NO	NO	bb

Compound name: 13C3-PFHxS

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 62 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	3.83	3447.718	3447.718	12.500	12.5	0.0	NO	NO	MM
2	2 180921M2_3	Standard	12.500	3.83	3463.322	3463.322	12.500	12.5	0.0	NO	NO	bb
3	3 180921M2_4	Standard	12.500	3.83	3445.971	3445.971	12.500	12.5	0.0	NO	NO	bb
4	4 180921M2_5	Standard	12.500	3.83	3225,777	3225.777	12.500	12.5	0.0	NO	NO	bb
5	5 180921M2_6	Standard	12.500	3.83	3382.214	3382.214	12.500	12.5	0.0	NO	NO	bb
6	6 180921M2_7	Standard	12.500	3.83	3531.811	3531.811	12.500	12.5	0.0	NO	NO	bb
7	7 180921M2_8	Standard	12.500	3.83	3393.965	3393.965	12.500	12.5	0.0	NO	NO	bb
8	8 180921M2_9	Standard	12.500	3.83	3298.276	3298.276	12.500	12.5	0.0	NO	NO	bb
9	9 180921M2_10	Standard	12.500	3.83	3115.813	3115.813	12.500	12.5	0.0	NO	NO	bb
10	10 180921M2_11	Standard	12.500	3.83	2955.213	2955.213	12.500	12.5	0.0	NO	NO	bb

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Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

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Compound name: 13C8-PFOA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 63), Area \* (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	4.20	31737.531	31737.531	12.500	12.5	0.0	NO		NO	bb
2	2 180921M2_3	Standard	12.500	4.20	33391.508	33391.508	12.500	12.5	0.0	NO		NO	bb
3	3 180921M2_4	Standard	12.500	4.20	33064.531	33064.531	12.500	12.5	0.0	NO		NO	bb
4	4 180921M2_5	Standard	12.500	4.20	33271.359	33271.359	12.500	12.5	0.0	NO		NO	bb
5	5 180921M2_6	Standard	12.500	4.20	33130.305	33130.305	12.500	12.5	0.0	NO		NO	bb
6	6 180921M2_7	Standard	12.500	4.20	32636.809	32636.809	12.500	12.5	0.0	NO		NO	bb
7	7 180921M2_8	Standard	12.500	4.20	32797.859	32797.859	12.500	12.5	0.0	NO		NO	bb
8	8 180921M2_9	Standard	12.500	4.20	32128.373	32128.373	12.500	12.5	0.0	NO		NO	bb
9	9 180921M2_10	Standard	12.500	4.20	30735.490	30735.490	12.500	12.5	0.0	NO		NO	bb
10	10 180921M2_11	Standard	12.500	4.20	28408.430	28408.430	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C9-PFNA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 64 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	4.64	23644.119	23644.119	12.500	12.5	0.0	NO	#E3 \   #	NO	bb
2	2 180921M2_3	Standard	12.500	4.64	22998.842	22998.842	12.500	12.5	0.0	NO		NO	bb
3	3 180921M2_4	Standard	12.500	4.64	22278.621	22278.621	12.500	12.5	0.0	NO		NO	bb
4	4 180921M2_5	Standard	12.500	4.64	23572.631	23572.631	12.500	12.5	0.0	NO		NO	bb
5	5 180921M2_6	Standard	12.500	4.64	22793.822	22793.822	12.500	12.5	0.0	NO		NO	ММ
6	6 180921M2_7	Standard	12.500	4.64	22107.574	22107.574	12.500	12.5	0.0	NO		NO	bb
7	7 180921M2_8	Standard	12.500	4.64	22719.037	22719.037	12.500	12.5	0.0	NO		NO	bb
8	8 180921M2_9	Standard	12.500	4.64	22033.166	22033.166	12.500	12.5	0.0	NO		NO	bb
9	9 180921M2_10	Standard	12.500	4.64	21040.479	21040.479	12.500	12.5	0.0	NO		NO	bb
10	10 180921M2_11	Standard	12.500	4.64	19407.861	19407.861	12.500	12.5	0.0	NO		NO	bb

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Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:29:58 Pacific Daylight Time

Compound name: 13C4-PFOS

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 65), Area \* (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	- IS Area	Response	Conc.	%Dev	Conc. Flag	CoD CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	4.72	3108.617	3108.617	12.500	12.5	0.0	NO	NO	MM
2	2 180921M2_3	Standard	12.500	4.73	3262.280	3262.280	12.500	12.5	0.0	NO	NO	bb
3	3 180921M2_4	Standard	12.500	4.73	3249.910	3249.910	12.500	12.5	0.0	NO	NO	bb
4	4 180921M2_5	Standard	12.500	4.73	3290.812	3290.812	12.500	12.5	0.0	NO	NO	MM
5.	5 180921M2_6	Standard	12.500	4.73	3410.561	3410.561	12.500	12.5	0.0	NO	NO	bb
6	6 180921M2_7	Standard	12.500	4.73	3245.308	3245.308	12.500	12.5	0.0	NO	NO	bb
7	7 180921M2_8	Standard	12.500	4.73	3432.925	3432.925	12.500	12.5	0.0	NO	NO	bb
8	8 180921M2_9	Standard	12.500	4.73	3180.009	3180.009	12.500	12.5	0.0	NO	NO	bb
9	9 180921M2_10	Standard	12.500	4.73	3224.505	3224.505	12.500	12.5	0.0	NO	NO	bb
10	10 180921M2_11	Standard	12.500	4.73	3013.748	3013.748	12.500	12.5	0.0	NO	NO NO	bb

Compound name: 13C6-PFDA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 66 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	# Name	Туре	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	5.02	21594.553	21594.553	12.500	12.5	0.0	NO		NO	bb
2	2 180921M2_3	Standard	12.500	5.02	21003.809	21003.809	12.500	12.5	0.0	NO		NO	bb
3	3 180921M2_4	Standard	12.500	5.02	21299.535	21299.535	12.500	12.5	0.0	NO		NO	bb
4	4 180921M2_5	Standard	12.500	5.02	22777.082	22777.082	12.500	12.5	0.0	NO		NO	bb
5	5 180921M2_6	Standard	12.500	5.02	21772.309	21772.309	12.500	12.5	0.0	NO		NO	bb
6	6 180921M2_7	Standard	12.500	5.02	21037.822	21037.822	12.500	12.5	0.0	NO		NO	bb
7	7 180921M2_8	Standard	12.500	5.02	22406.164	22406.164	12.500	12.5	0.0	NO		NO	bb
8	8 180921M2_9	Standard	12.500	5.02	20903.607	20903.607	12.500	12.5	0.0	NO		NO	bb
9	9 180921M2_10	Standard	12.500	5.02	20118.260	20118.260	12.500	12.5	0.0	NO		NO	bb
10	10 180921M2_11	Standard	12.500	5.02	18540.150	18540.150	12.500	12.5	0.0	NO		NO	bb

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Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:29:58 Pacific Daylight Time Printed:

Compound name: 13C7-PFUdA Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 67 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Туре	Std. Conc	ВT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180921M2_2	Standard	12.500	5.35	28013.750	28013.750	12.500	12.5	0.0	NO		NO	bb
2	2 180921M2_3	Standard	12.500	5.35	29356.715	29356.715	12.500	12.5	0.0	NO		NO	bb
3	3 180921M2_4	Standard	12.500	5.35	29292.389	29292.389	12.500	12.5	0.0	NO		NO	bb
4	4 180921M2_5	Standard	12.500	5.35	29061.297	29061.297	12.500	12.5	0.0	NO		NO	bb
5	5 180921M2_6	Standard	12.500	5.35	28719.049	28719.049	12.500	12.5	0.0	NO		NO	bb
6	6 180921M2_7	Standard	12.500	5.35	29116.813	29116.813	12.500	12.5	0.0	NO		NO	bb
7	7 180921M2_8	Standard	12.500	5.35	27300.400	27300.400	12.500	12.5	0.0	NO		NO	bb
8	8 180921M2_9	Standard	12.500	5.35	27053.967	27053.967	12.500	12.5	0.0	NO		NO	bb
9	9 180921M2_10	Standard	12.500	5.35	26096.305	26096.305	12.500	12.5	0.0	NO		NO	MM
10	10 180921M2_11	Standard	12.500	5.35	23411.988	23411.988	12.500	12.5	0.0	NO		NO	bb

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Dataset:

F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

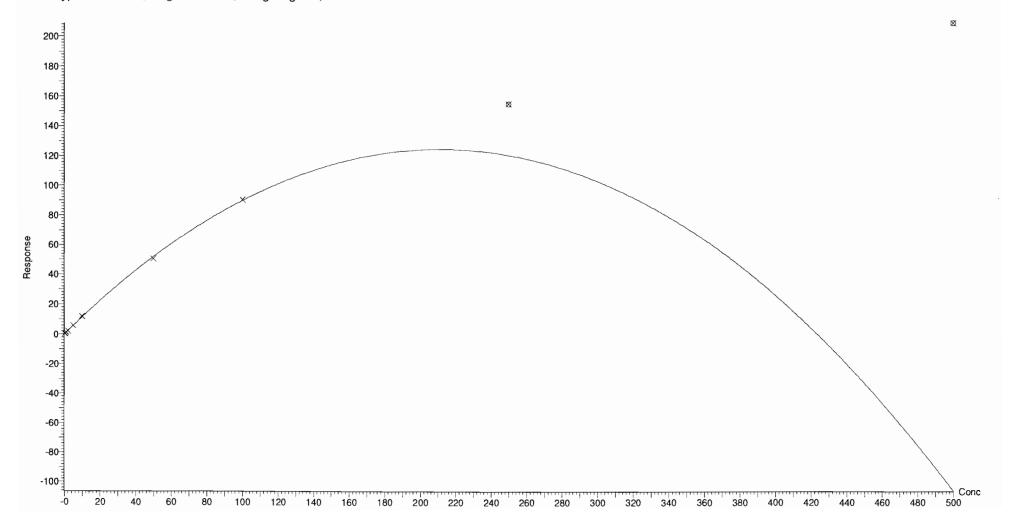
Last Altered: Printed:

Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:33:53 Pacific Daylight Time

Compound name: 4:2 FTS

Coefficient of Determination: R^2 = 0.999258

Calibration curve: -0.00277709 \* x^2 + 1.17621 \* x + 0.0207206 Response type: Internal Std ( Ref 39 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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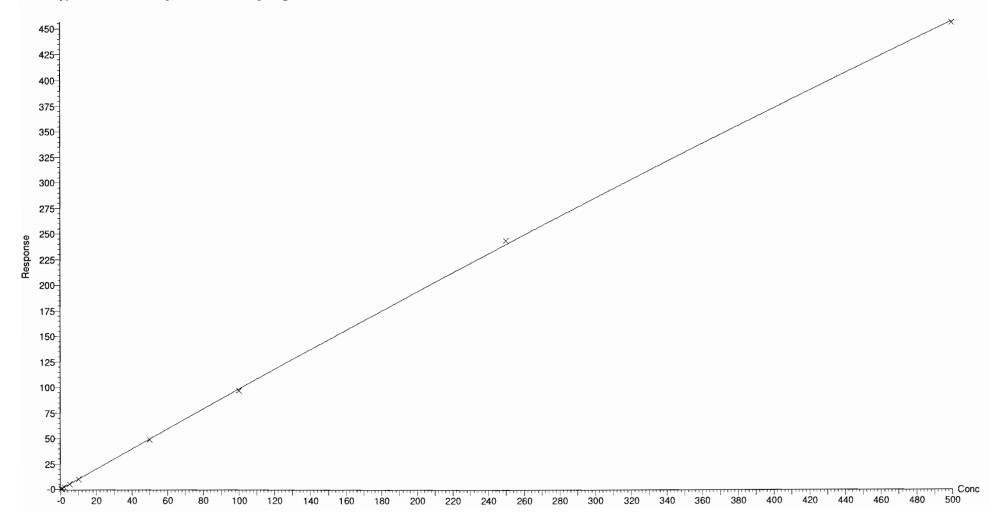
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Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Printed: Saturday, September 22, 2018 12:33:53 Pacific Daylight Time

Compound name: PFHxA

Coefficient of Determination: R^2 = 0.999871

Calibration curve:  $-0.000184215 \times x^2 + 1.00554 \times x + 0.0254901$ Response type: Internal Std ( Ref 40 ), Area  $\times$  ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



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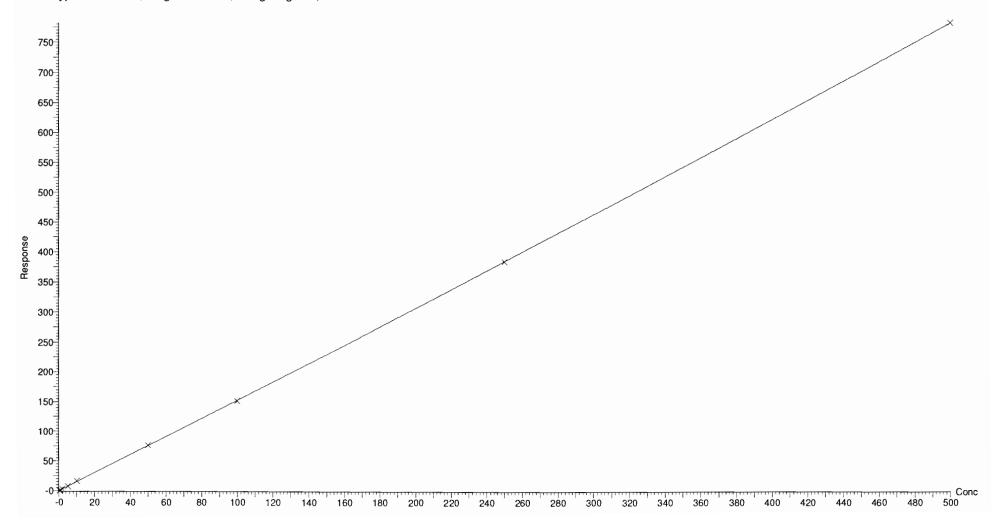
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Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:33:53 Pacific Daylight Time

Compound name: PFPeS

Coefficient of Determination: R^2 = 0.999925

Calibration curve:  $9.58996e-005 * x^2 + 1.5156 * x + 0.0200581$ Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

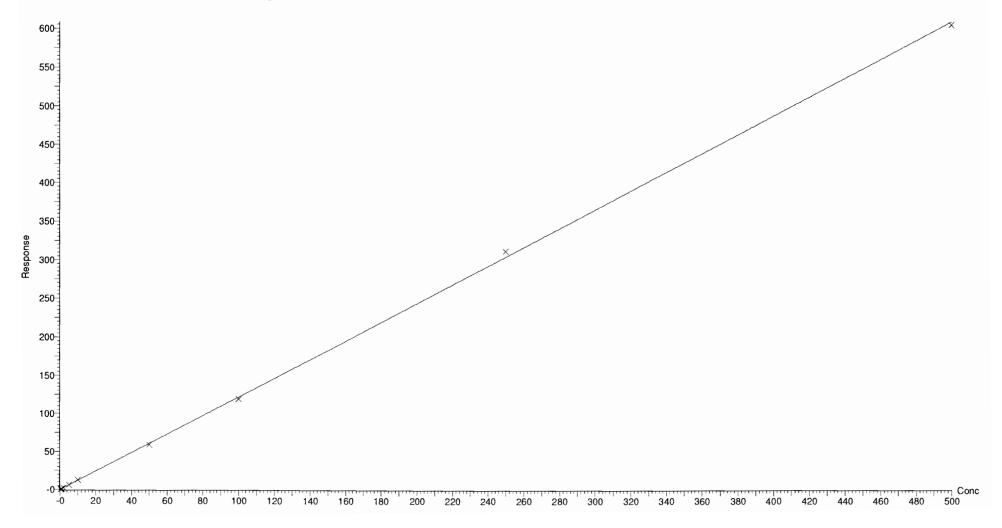
Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:33:53 Pacific Daylight Time

Compound name: PFHpA

Correlation coefficient: r = 0.999856,  $r^2 = 0.999712$ 

Calibration curve: 1.21703 \* x + 0.0200567

Response type: Internal Std ( Ref 41 ), Area \* ( IS Conc. / IS Area ) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset:

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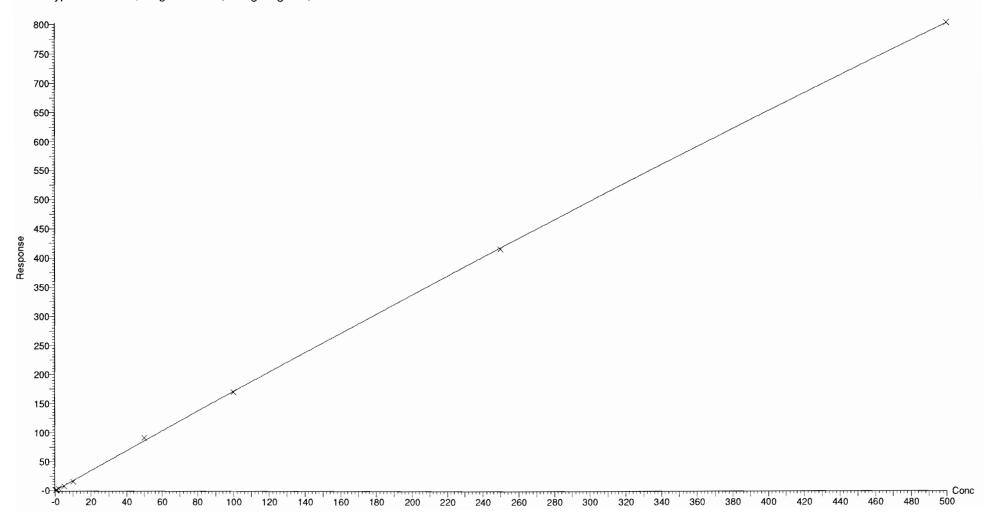
Last Altered: Printed:

Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:33:53 Pacific Daylight Time

Compound name: L-PFHxS

Coefficient of Determination: R<sup>2</sup> = 0.999543

Calibration curve: -0.000271292 \* x^2 + 1.73959 \* x + -0.0290897 Response type: Internal Std ( Ref 42 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



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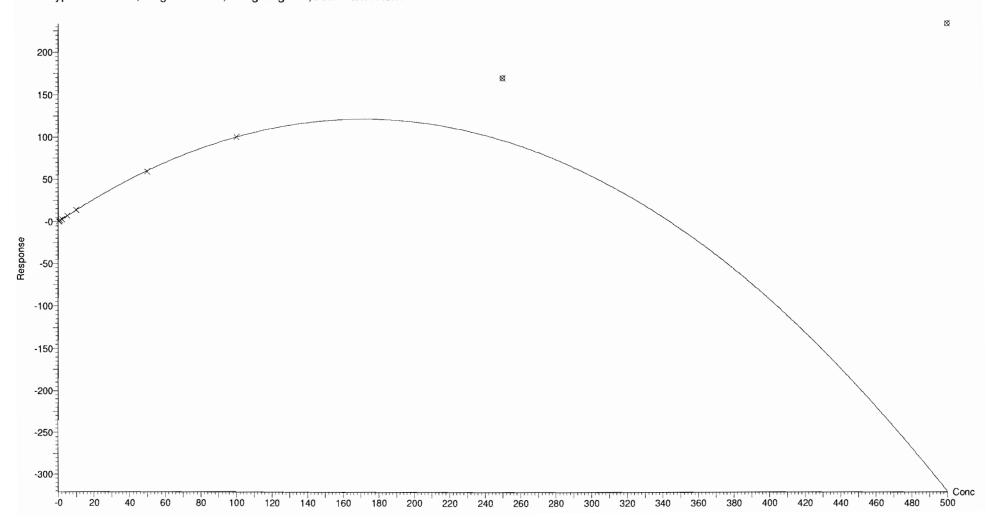
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Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Printed: Saturday, September 22, 2018 12:33:53 Pacific Daylight Time

Compound name: 6:2 FTS

Coefficient of Determination: R<sup>2</sup> = 0.999296

Calibration curve:  $-0.00411125 * x^2 + 1.41518 * x + -0.05757$ Response type: Internal Std ( Ref 43 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



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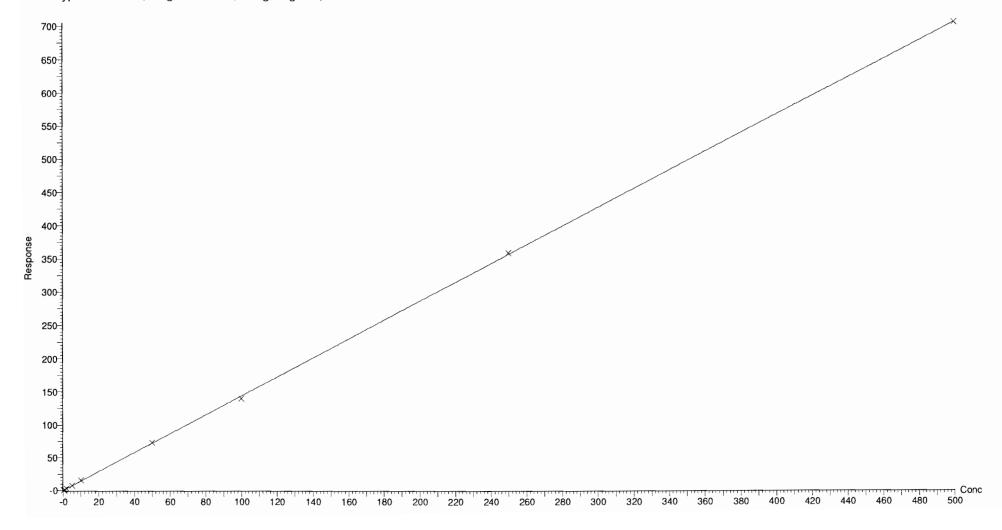
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Compound name: L-PFOA

Coefficient of Determination: R^2 = 0.999857

Calibration curve:  $-7.11995e-005 * x^2 + 1.44483 * x + 0.128465$ Response type: Internal Std ( Ref 44 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset:

F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.gld

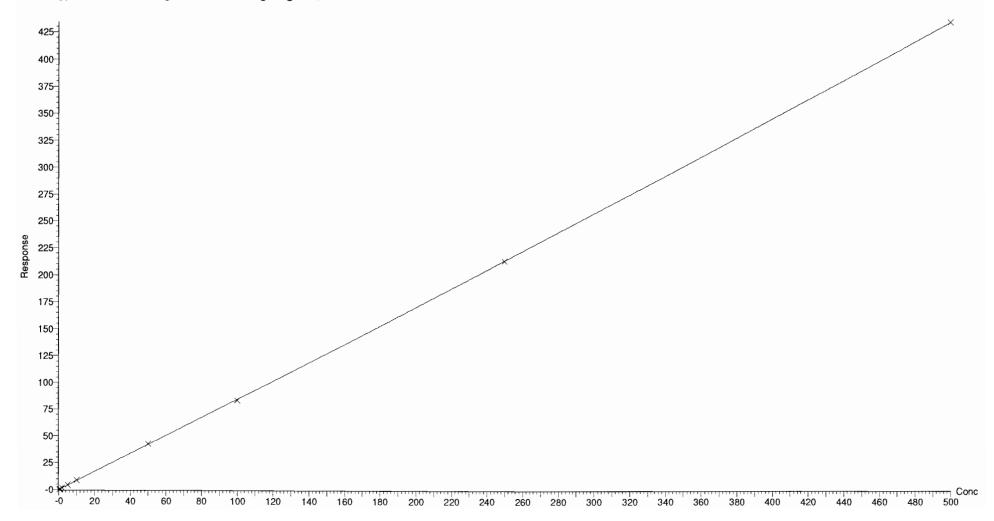
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Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:33:53 Pacific Daylight Time

Compound name: PFHpS

Coefficient of Determination: R^2 = 0.999917

Calibration curve:  $5.68869e-005 * x^2 + 0.840017 * x + -0.00313784$ Response type: Internal Std ( Ref 47 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



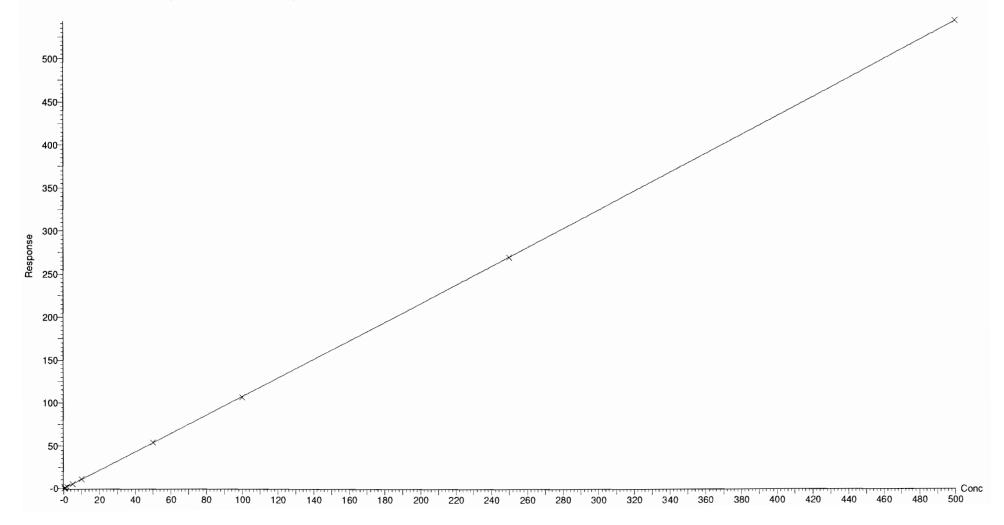
Compound name: PFNA

Printed:

Coefficient of Determination:  $R^2 = 0.999973$ 

Calibration curve:  $2.43776e-005 * x^2 + 1.07358 * x + 0.0200697$ Response type: Internal Std ( Ref 45 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

Saturday, September 22, 2018 12:33:53 Pacific Daylight Time



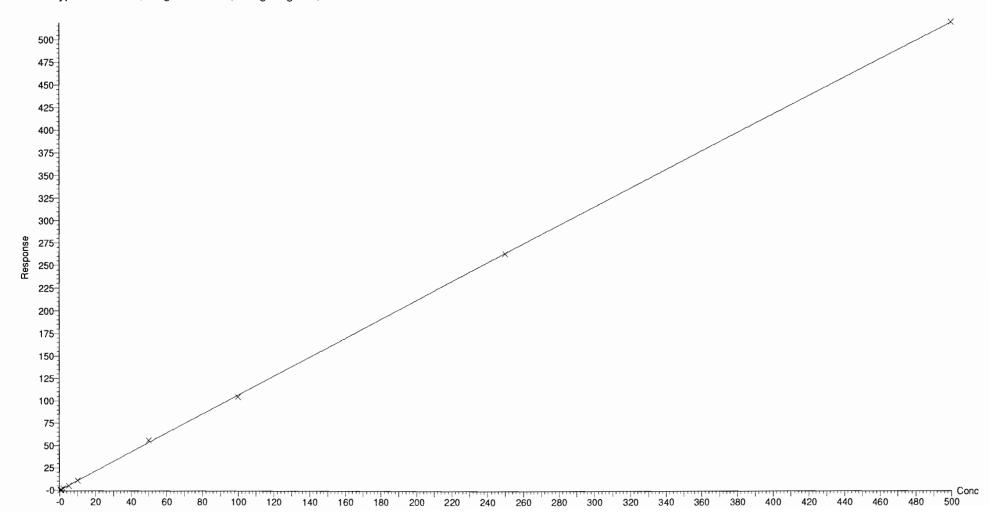
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Compound name: PFOSA

Coefficient of Determination: R^2 = 0.999833

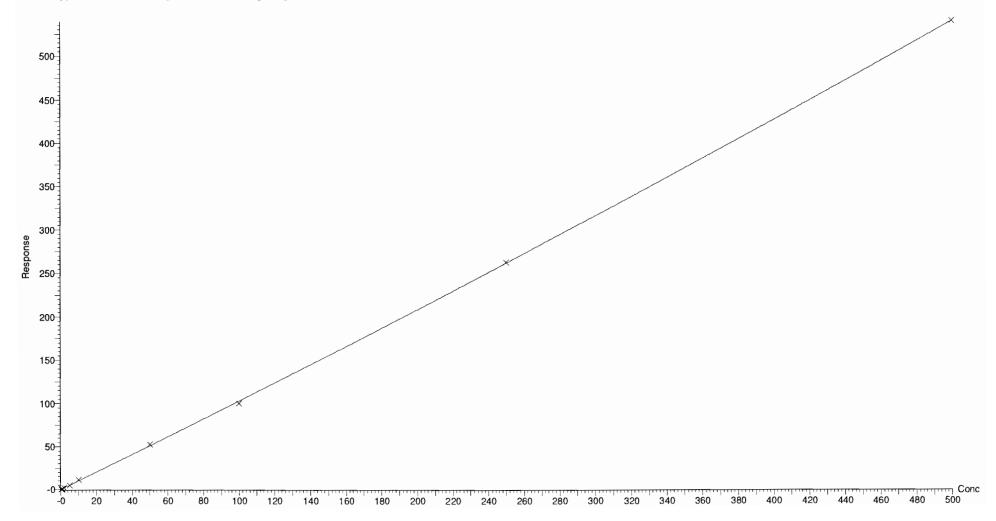
Calibration curve:  $-7.40103e-005 * x^2 + 1.07348 * x + -0.0171345$ Response type: Internal Std ( Ref 46 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: L-PFOS

Coefficient of Determination: R^2 = 0.999727

Calibration curve:  $0.00012253 * x^2 + 1.01722 * x + -0.0126442$ Response type: Internal Std ( Ref 47 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



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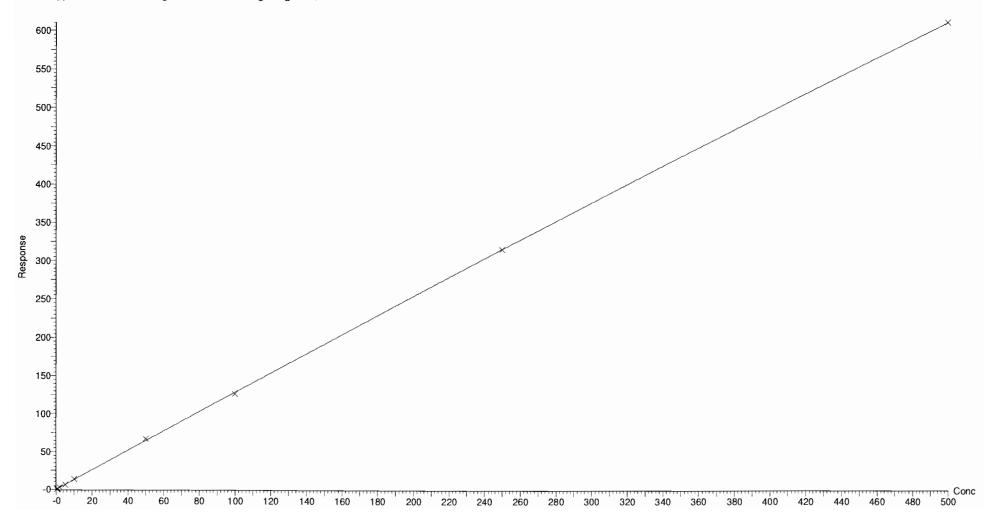
Last Altered: Printed:

Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:33:53 Pacific Daylight Time

Compound name: PFDA

Coefficient of Determination: R^2 = 0.999853

Calibration curve: -0.000164539 \* x^2 + 1.30266 \* x + 0.0132556 Response type: Internal Std ( Ref 48 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

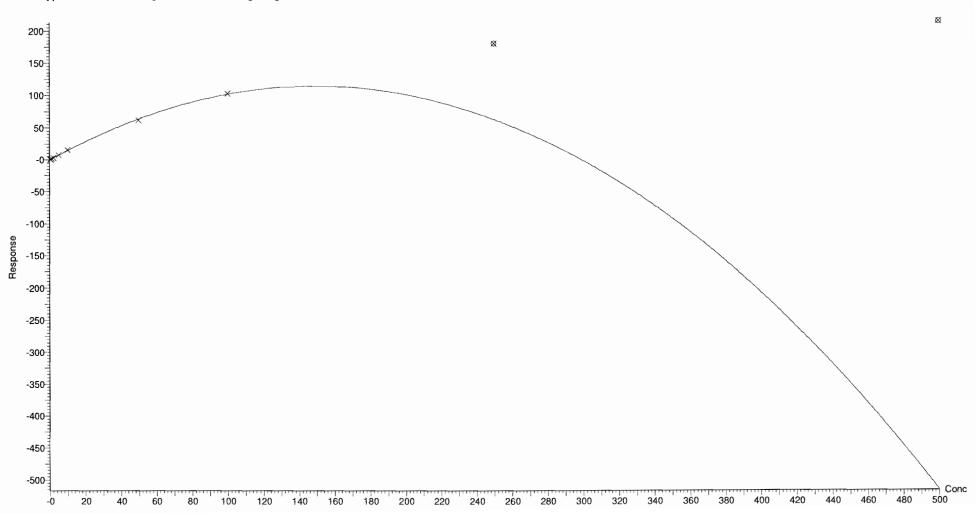
Last Altered: Printed:

Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:33:53 Pacific Daylight Time

Compound name: 8:2 FTS

Coefficient of Determination: R^2 = 0.998075

Calibration curve:  $-0.00512938 \times x^2 + 1.53318 \times x + -0.0610602$ Response type: Internal Std ( Ref 49 ), Area  $\times$  ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



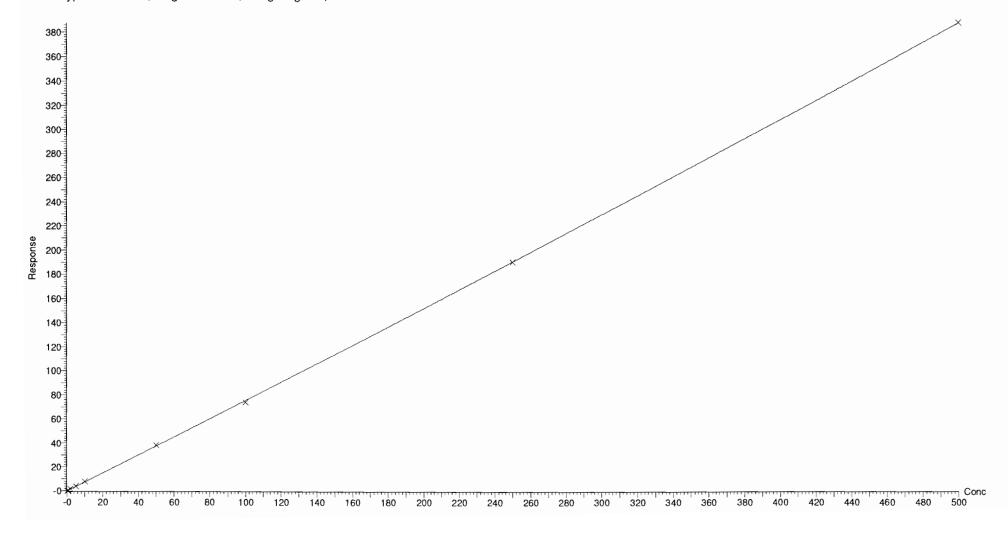
Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Printed: Saturday, September 22, 2018 12:33:53 Pacific Daylight Time

Compound name: PFNS

Coefficient of Determination: R^2 = 0.999825

Calibration curve:  $4.85404e-005 * x^2 + 0.750619 * x + 0.00744545$ Response type: Internal Std ( Ref 47 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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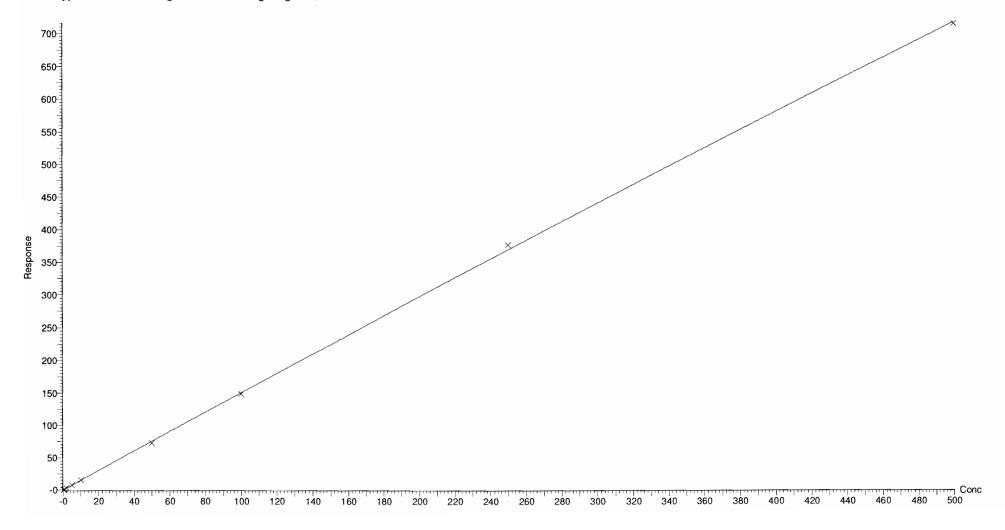
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Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:33:53 Pacific Daylight Time

Compound name: L-MeFOSAA

Coefficient of Determination: R^2 = 0.999730

Calibration curve: -0.000181893 \* x^2 + 1.52342 \* x + -0.0582803 Response type: Internal Std ( Ref 50 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



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Dataset:

F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered:

Saturday, September 22, 2018 10:44:17 Pacific Daylight Time

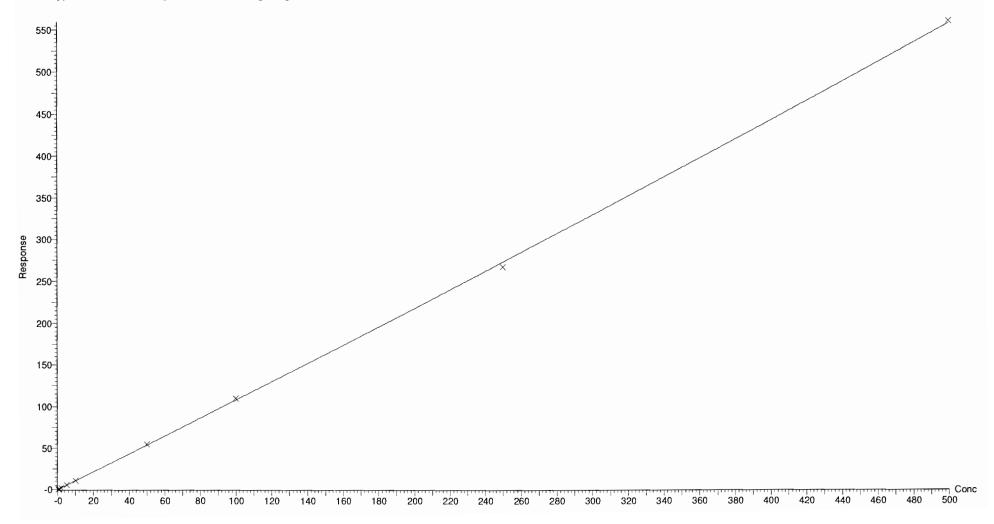
Printed:

Saturday, September 22, 2018 12:33:53 Pacific Daylight Time

Compound name: L-EtFOSAA

Coefficient of Determination: R^2 = 0.999766

Calibration curve:  $8.56086e-005 * x^2 + 1.07156 * x + -0.0471687$ Response type: Internal Std ( Ref 52 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld Dataset:

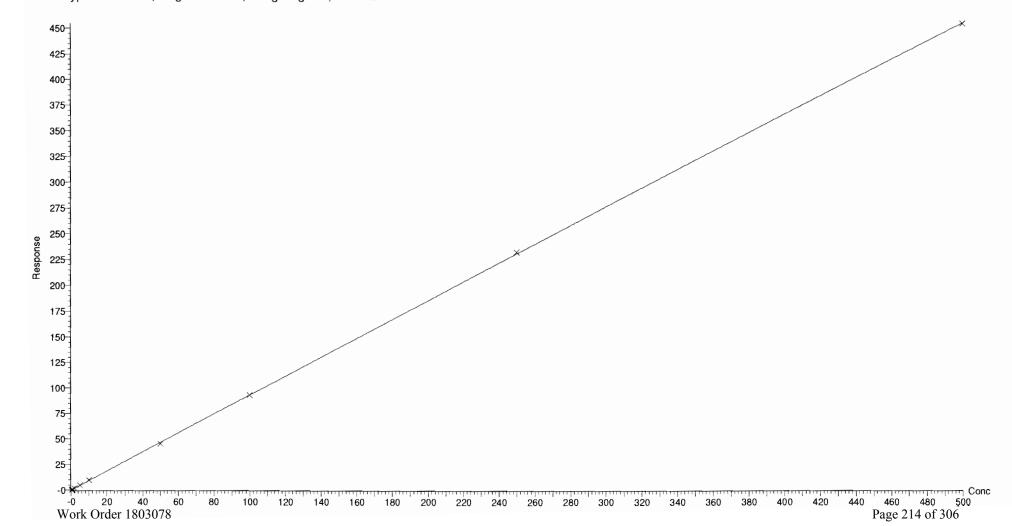
Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Printed: Saturday, September 22, 2018 12:34:05 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS\_FULL\_80C\_092118.mdb 22 Sep 2018 10:43:01 Calibration: F:\Projects\PFAS.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_09-21-18.cdb 22 Sep 2018 10:44:17

Compound name: PFUdA

Coefficient of Determination: R^2 = 0.999889

Calibration curve: -6.18798e-005 \* x^2 + 0.939815 \* x + 0.0575203 Response type: Internal Std (Ref 51), Area \* (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



515 1 115546 55615

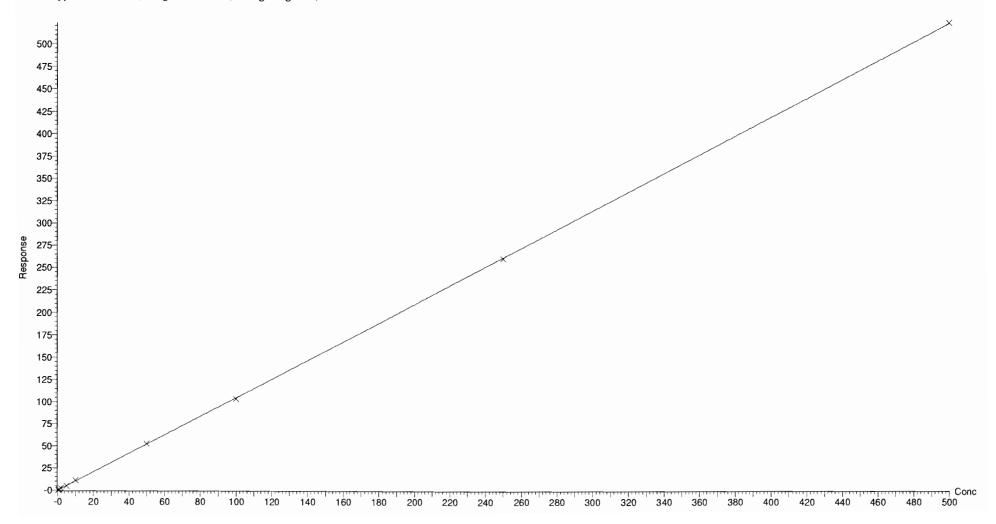
Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:34:05 Pacific Daylight Time

Compound name: PFDS

Coefficient of Determination: R^2 = 0.999890

Calibration curve: -3.7707e-006 \* x^2 + 1.04727 \* x + -0.0962577 Response type: Internal Std ( Ref 47 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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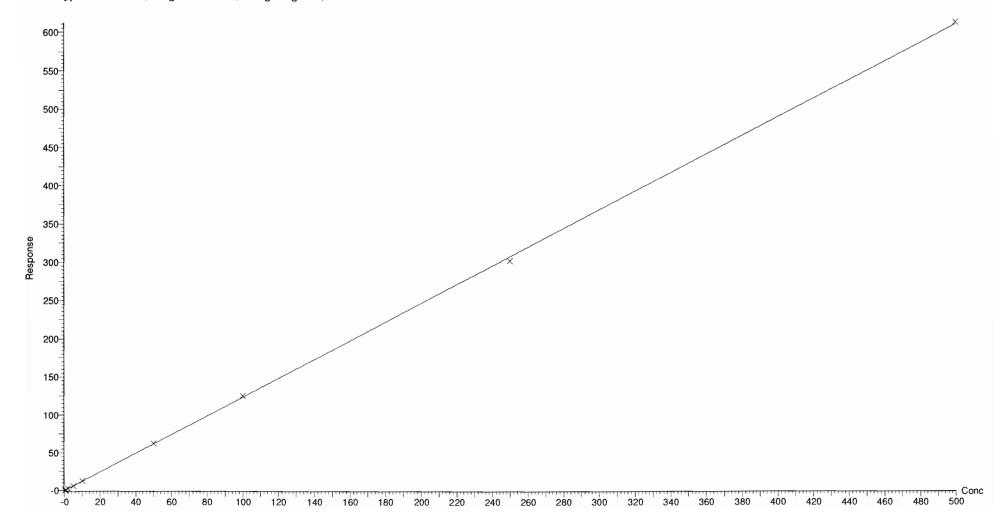
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Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Printed: Saturday, September 22, 2018 12:34:05 Pacific Daylight Time

Compound name: PFDoA

Coefficient of Determination: R^2 = 0.999856

Calibration curve:  $-4.05078e-005 \times x^2 + 1.23992 \times x + 0.0724267$ Response type: Internal Std ( Ref 53 ), Area  $\times$  ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



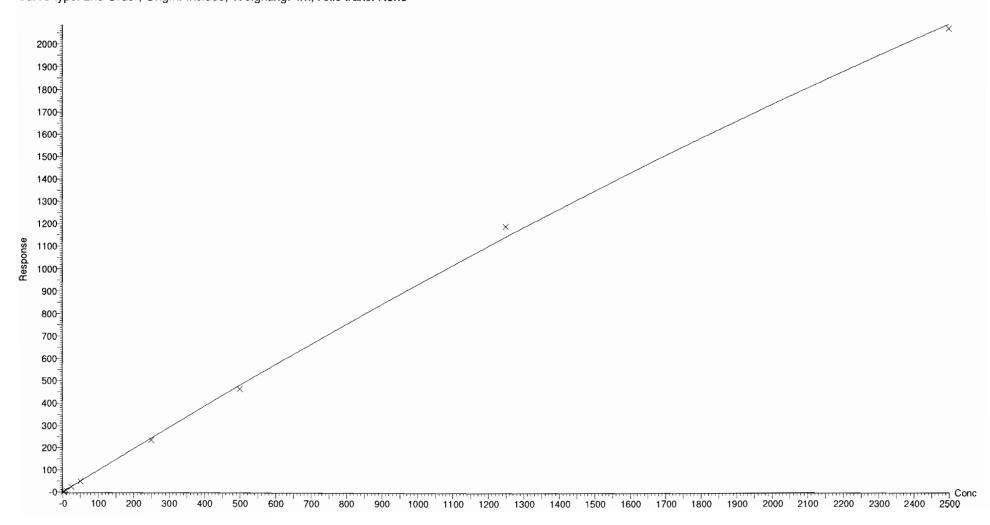
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Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:34:05 Pacific Daylight Time

Compound name: N-MeFOSA

Coefficient of Determination: R^2 = 0.999164

Calibration curve:  $-6.40159e-005 \times x^2 + 0.994671 \times x + -0.175063$ Response type: Internal Std ( Ref 54 ), Area  $\times$  ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



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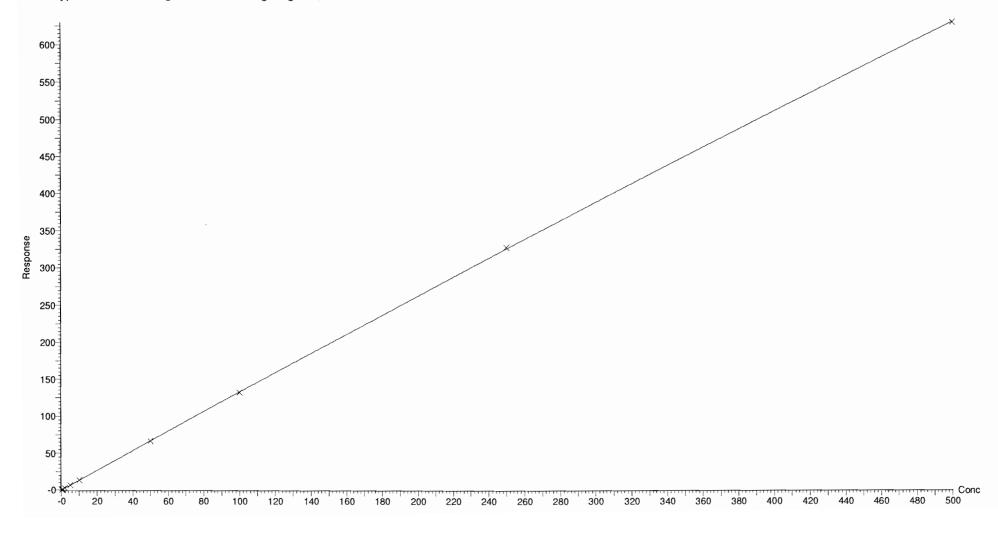
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Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:34:05 Pacific Daylight Time

Compound name: PFTrDA

Coefficient of Determination: R^2 = 0.999979

Calibration curve: -0.000173636 \* x^2 + 1.34621 \* x + 0.0372811 Response type: Internal Std ( Ref 53 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset:

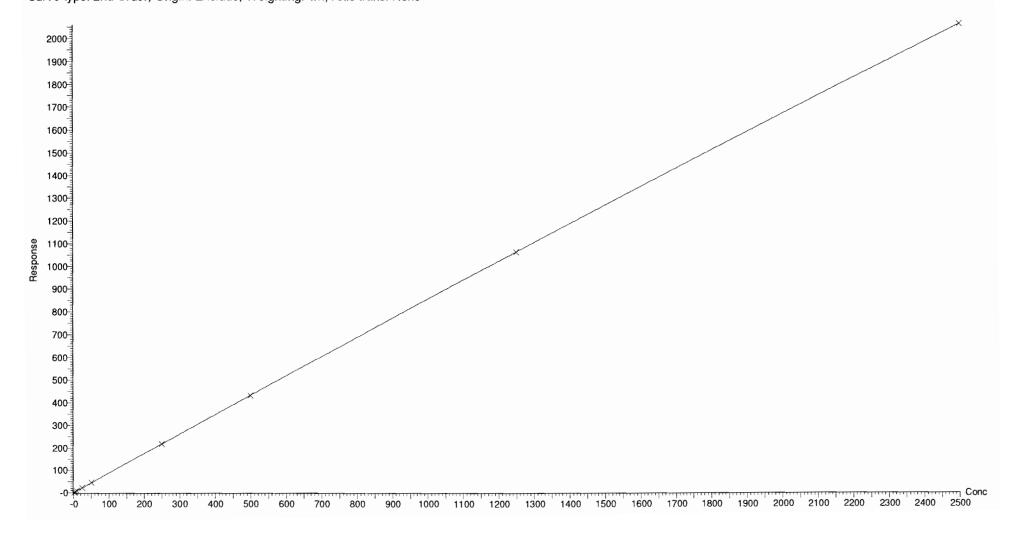
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Last Altered: Printed: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:34:05 Pacific Daylight Time

Compound name: N-EtFOSA

Coefficient of Determination: R^2 = 0.999977

Calibration curve: -2.15283e-005 \* x^2 + 0.87729 \* x + 0.120377 Response type: Internal Std ( Ref 56 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Vista Analytical Laboratory Q1

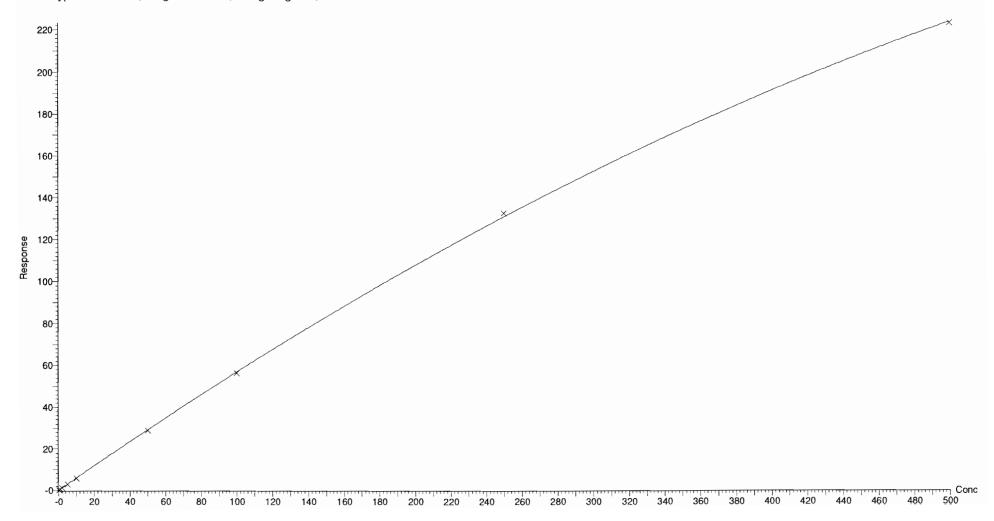
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Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Printed: Saturday, September 22, 2018 12:34:05 Pacific Daylight Time

Compound name: PFHxDA

Coefficient of Determination: R^2 = 0.999904

Calibration curve:  $-0.000307243 * x^2 + 0.600161 * x + 0.044965$ Response type: Internal Std ( Ref 57 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Vista Analytical Laboratory Q1

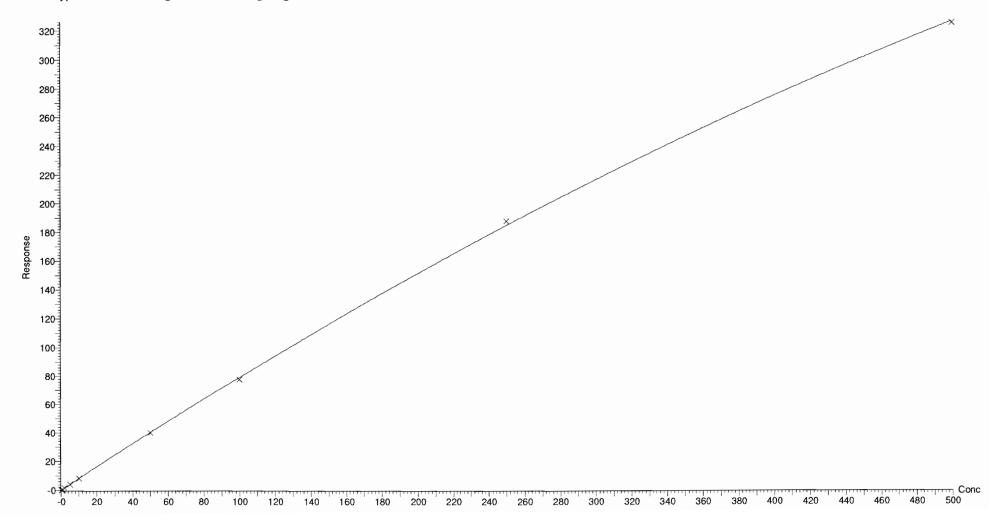
Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Printed: Saturday, September 22, 2018 12:34:05 Pacific Daylight Time

Compound name: PFODA

Coefficient of Determination: R^2 = 0.999863

Calibration curve:  $-0.000348368 * x^2 + 0.826485 * x + 0.00409336$ Response type: Internal Std ( Ref 57 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Vista Analytical Laboratory Q1

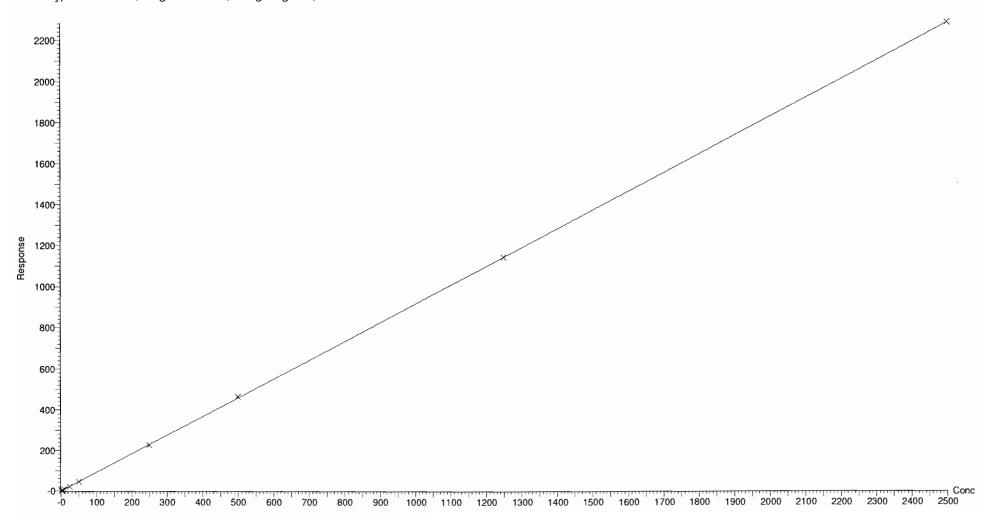
Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

Last Altered: Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:34:05 Pacific Daylight Time

Compound name: N-MeFOSE

Coefficient of Determination: R^2 = 0.999962

Calibration curve: -1.24276e-006 \*  $x^2 + 0.915954 * x + 0.18141$ Response type: Internal Std ( Ref 58 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset:

F:\Projects\PFAS.PRO\Results\180921M2\180921M2-CRV.qld

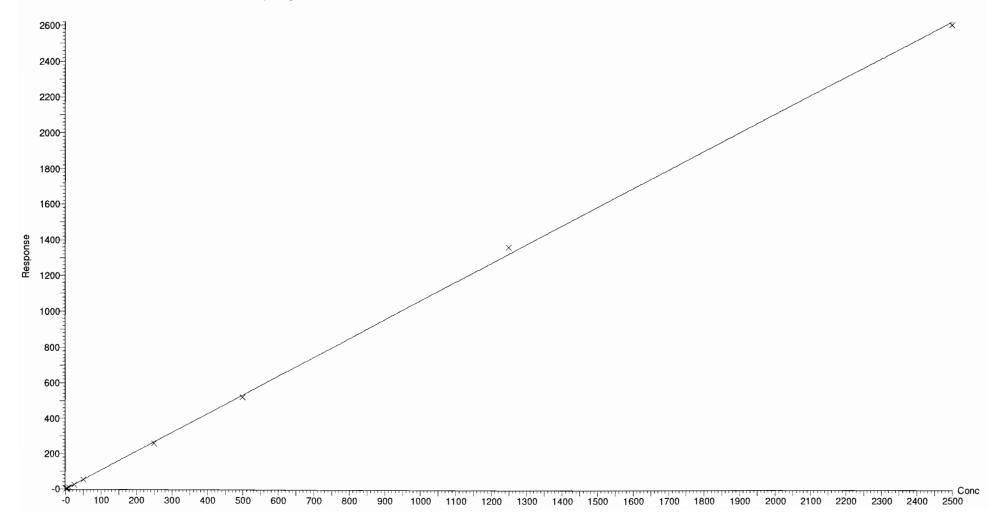
Last Altered: Printed:

Saturday, September 22, 2018 10:44:17 Pacific Daylight Time Saturday, September 22, 2018 12:34:05 Pacific Daylight Time

Compound name: N-EtFOSE

Coefficient of Determination: R^2 = 0.999585

Calibration curve:  $-9.51159e-006 * x^2 + 1.07192 * x + -0.158053$ Response type: Internal Std ( Ref 59 ), Area \* ( IS Conc. / IS Area ) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset:

F:\Projects\PFAS.PRO\Results\180921M2\180921M2-ICV.qld

Last Altered: Printed:

Saturday, September 22, 2018 10:52:22 Pacific Daylight Time Saturday, September 22, 2018 10:52:29 Pacific Daylight Time

Name: 180921M2 13, Date: 21-Sep-2018, Time: 14:33:28, ID: ICV180921M2-1 PFC ICV 18I1711, Description: PFC ICV 18I1711

	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery	Ion Ratio	Ratio Out?
1	1 PFBA	213.0 > 168.8	7310.010	8494.367	1.00	1.26	10.757	9.4	94.0	NO		And an additional and the state of the state
2	2 PFPeA	263.1 > 218.9	9751.603	13000.554	1.00	2.25	9.376	9.6	95.6	NO		
3	3 PFBS	299.0 > 79.7	2203.760	1717.677	1.00	2.55	16.037	9.0	90.1	NO	2.783	NO
4	4 4:2 FTS	327.2>307.2	1840.805	2158.699	1.00	2.96	10.659	9.2	92.5	NO	1.807	NO
5	5 PFHxA	313 > 269	17962.973	8885.156	1.00	3.05	10.108	10.0	100.5	NO	14.620	NO
6	6 PFPeS	349.1>80.1	1937.097	1717.677	1.00	3.26	14.097	9.3	92.8	NO	1.432	NO
7	36 13C3-PFBA	216.1 > 171.8	8494.367	11195.323	1.00	1.25	9.484	12.6	100.7	NO		
8	37 13C3-PFPeA	266. > 221.8	13000.554	24743.027	1.00	2.25	6.568	12.1	96.6	NO		
9	38 13C3-PFBS	302. > 98.8	1717.677	3405.422	1.00	2.55	6.305	12.5	100.0	NO		
10	39 13C2-4:2 FTS	329.2>308.9	2158.699	3405.422	1.00	2.96	7.924	10.2	81.9	NO		
11 0000	40 13C2-PFHxA	315 > 270	8885.156	24743.027	1.00	3.05	4.489	4.8	95.2	NO		
12	38 13C3-PFBS	302. > 98.8	1717.677	3405.422	1.00	2.55	6.305	12.5	100.0	NO		
13	-1											
14	10 6:2 FTS	427.1 > 407	2290.773	2131.096	1.00	4.15	13.437	9.8	98.2	NO	2.919	NO
15	7 PFHpA	363.0 > 318.9	11468.612	12484.153	1.00	3.67	11.483	9.4	94.2	NO	10.562	NO
16	8 L-PFHxS	398.9 > 79.6	1826.182	1534.613	1.00	3.83	14.875	8.6	85.8	NO	1.509	NO
17	11 L-PFOA	412.8 > 368.9	25311.488	22537.566	1.00	4.20	14.038	9.6	96.3	NO	3.467	NO
18	13 PFHpS	449 > 80.0	2274.851	3732.632	1.00	4.32	7.618	9.1	90.7	NO	1.854	NO
19	14 PFNA	463.0 > 418.8	18878.504	22408.854	1.00	4.64	10.531	9.8	97.9	NO	4.035	NO
20	43 13C2-6:2 FTS	429.1 > 408.9	2131.096	3258.284	1.00	4.15	8.176	11.3	90.7	NO		
21	41 13C4-PFHpA	367.2 > 321.8	12484.153	24743.027	1.00	3.68	6.307	12.2	97.7	NO		
22	42 1802-PFHxS	403.0 > 102.6	1534.613	3405.422	1.00	3.83	5.633	12.4	99.4	NO		
23	44 13C2-PFOA	414.9 > 369.7	22537.566	34728.496	1.00	4.20	8.112	12.2	97.8	NO		
24	47 13C8-PFOS	507.0 > 79.9	3732.632	3258.284	1.00	4.73	14.320	13.3	106.4	NO		
25	45 13C5-PFNA	468.2 > 422.9	22408.854	23247.029	1.00	4.64	12.049	12.5	99.8	NO		
26	-1											
27	15 PFOSA	497.9 > 77.9	3138.838	4002.896	1.00	4.71	9.802	9.2	91.5	NO	39.494	YES
28	16 L-PFOS	498.9 > 79.9	2682.184	3732.632	1.00	4.73	8.982	8.8	88.3	NO	2.021	NO
29	18 PFDA	513 > 468.8	21008.027	20099.027	1.00	5.02	13.065	10.0	100.3	NO	4.973	NO
30.	19 8:2 FTS	527 > 506.9	2014.854	1805.642	1.00	4.99	13.948	9.4	94.4	NO	2.790	NO
31	20 PFNS	549.1 > 80.1	2053.482	3732.632	1.00	5.09	6.877	9.1	91.5	NO	1.792	NO
32	21 L-MeFOSAA	570 > 419	7624.155	5797.488	1.00	5.18	16.438	10.8	108.4	NO	2.704	NO
33	46 13C8-PFOSA	506.1 > 77.7	4002.896	29561.982	1.00	4.71	1.693	12.4	98.9	NO		
34	47 13C8-PFOS	507.0 > 79.9	3732.632	3258.284	1.00	4.73	14.320	13.3	106.4	NO		
35	48 13C2-PFDA	515.1 > 469.9	20099.027	21715.471	1.00	5.02	11.570	12.4	99.2	NO		
36	49 13C2-8:2 FTS	529.1 > 508.7	1805.642	3258.284	1.00	4.99	6.927	12.2	97.6	NO		

16 9/24/18

Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180921M2\180921M2-ICV.qld

Last Altered: Saturday, September 22, 2018 10:52:22 Pacific Daylight Time

Printed: Saturday, September 22, 2018 10:52:29 Pacific Daylight Time

@ Compounds not present in ICV

### Name: 180921M2\_13, Date: 21-Sep-2018, Time: 14:33:28, ID: ICV180921M2-1 PFC ICV 18I1711, Description: PFC ICV 18I1711

	# Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery	Ion Ratio	Ratio Out?
37	47 13C8-PFOS	507.0 > 79.9	3732.632	3258.284	1.00	4.73	14.320	13.3	106.4	NO	a region (III). I sa il sa su a	COMPANY OF THE PARTY OF THE PAR
38	50 d3-N-MeFOSAA	573.3 > 419	5797.488	29561.982	1.00	5.17	2.451	12.1	97.1	NO		
39	-1											
40	23 L-EtFOSAA	584.1 > 419	6296.868	6529.733	1.00	5.34	12.054	11.3	112.8	NO	1.481	NO
41	27 PFDoA	612.9 > 569.0	23750.889	24281.938	1.00	5.63	12.227	9.8	98.1	NO	8.593	NO
42	26 PFDS	598.8 > 79.9	2789.907	3732.632	1.00	5.40	9.343	9.0	90.1	NO	1.601	NO
43	25 PFUdA	563.0 > 518.9	20726.020	26762.334	1.00	5.35	9.681	10.2	102.5	NO	9.636	NO
44	28 N-MeFOSA	512.1 > 168.9		15443.573	1.00				(A)	NO		
45	29 PFTrDA	662.9 > 618.9	25268.254	24281.938	1.00	5.88	13.008	9.6	96.5	NO	24.913	NO
46	52 d5-N-EtFOSAA	589.3 > 419	6529.733	29561.982	1.00	5.33	2.761	12.2	97.5	NO		
47	53 13C2-PFDoA	615.0 > 569.7	24281.938	21715.471	1.00	5.63	13.977	12.8	102.5	NO		
48	47 13C8-PFOS	507.0 > 79.9	3732.632	3258.284	1.00	4.73	14.320	13.3	106.4	NO		
49	51 13C2-PFUdA	565 > 519.8	26762.334	29561.982	1.00	5.35	11.316	12.3	98.7	NO		
50	54 d3-N-MeFOSA	515.2 > 168.9	15443.573	29561.982	1.00	5.79	6.530	145.1	96.7	NO		
51	53 13C2-PFDoA	615.0 > 569.7	24281.938	21715.471	1.00	5.63	13.977	12.8	102.5	NO		}
52	-1											
53	30 PFTeDA	712.8 > 669.0	23840.189	17299.611	1.00	6.10	17.226	9.8	98.2	NO	14.304	NO
54	31 N-EtFOSA	526.1 > 168.9		17974.150	1.00				<b>(</b>	NO		
55	32 PFHxDA	813.1 > 768.6		10222.154	1.00				7	NO		
56	33 PFODA	913.1 > 868.8		10222.154	1.00					NO		
57	34 N-MeFOSE	616.1 > 58.9		11477.148	1.00				_ ,	NO		
58	35 N-EtFOSE	630.1 > 58.9		12196.354	1.00				<b>A</b>	NO		
59	55 13C2-PFTeDA	714.8 > 669.6	17299.611	29561.982	1.00	6.10	7.315	12.5	99.7	NO NO		
60	56 d5-N-ETFOSA	531.1 > 168.9	17974.150	29561.982	1.00	6.21	7.600	149.1	99.4	NO		
61	57 13C2-PFHxDA	815 > 769.7	10222.154	29561.982	1.00	6.45	4.322	4.7	94.7	NO		
62	57 13C2-PFHxDA	815 > 769.7	10222.154	29561.982	1.00	6.45	4.322	4.7	94.7	NO		
63	58 d7-N-MeFOSE	623.1 > 58.9	11477.148	29561.982	1.00	6.37	4.853	141.1	94.1	NO		
64	59 d9-N-EtFOSE	639.2 > 58.8	12196.354	29561.982	1.00	6.52	5.157	142.8	95.2	NO		
65	-1											
66	60 13C4-PFBA	217. > 172	11195.323	11195.323	1.00	1.25	12.500	12.5	100.0	NO		
67	61 13C5-PFHxA	318 > 272.9	24743.027	24743.027	1.00	3.05	12.500	12.5	100.0	NO		
68	62 13C3-PFHxS	401.8 > 79.9	3405.422	3405.422	1.00	3.83	12.500	12.5	100.0	NO		
69	63 13C8-PFOA	420.9 > 376	34728.496	34728.496	1.00	4.20	12.500	12.5	100.0	NO		
70	64 13C9-PFNA	472.2 > 426.9	23247.029	23247.029	1.00	4.64	12.500	12.5	100.0	NO		
71	65 13C4-PFOS	503 > 79.9	3258.284	3258.284	1.00	4.73	12.500	12.5	100.0	NO		
72	66 13C6-PFDA	519.1 > 473.7	21715.471	21715.471	1.00	5.02	12.500	12.5	100.0	NO		

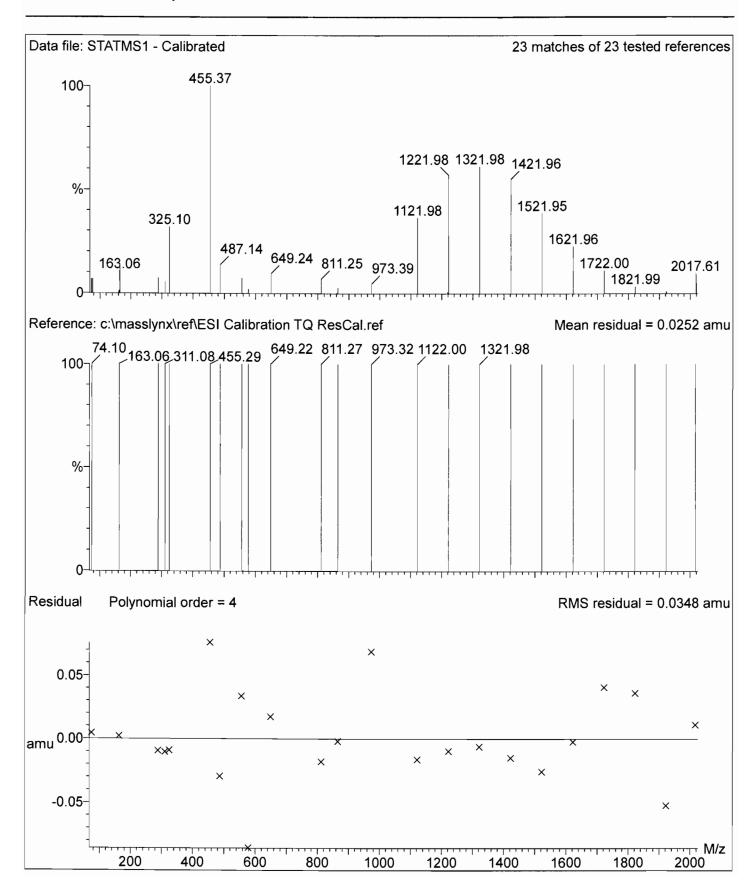
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Calibration Report - MS1 Static

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Printed:

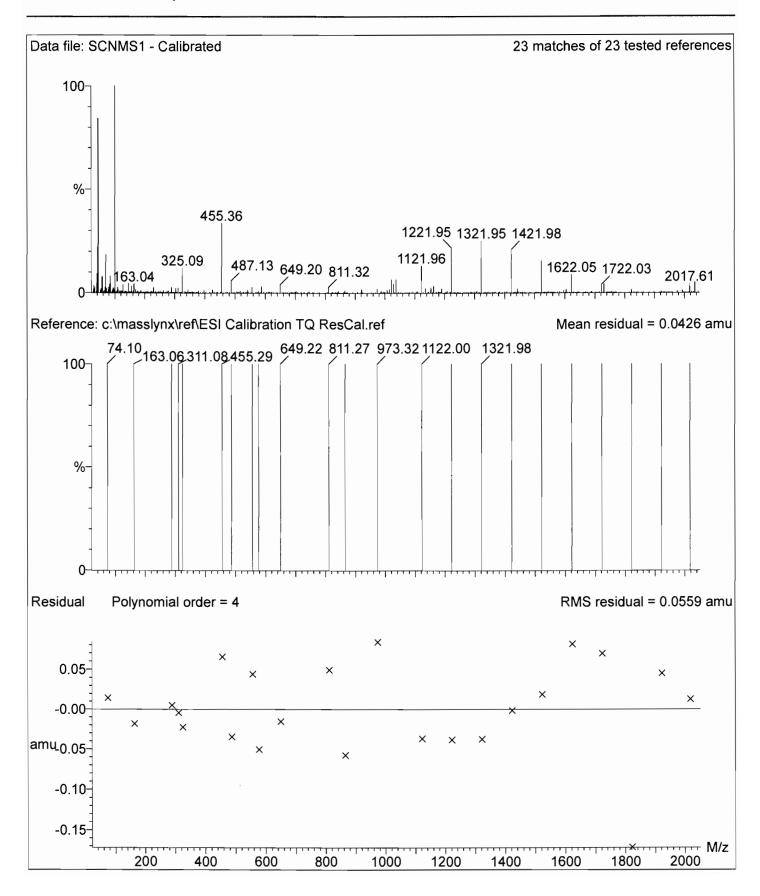
Fri Sep 21 09:30:14 2018



Work Order 1803078

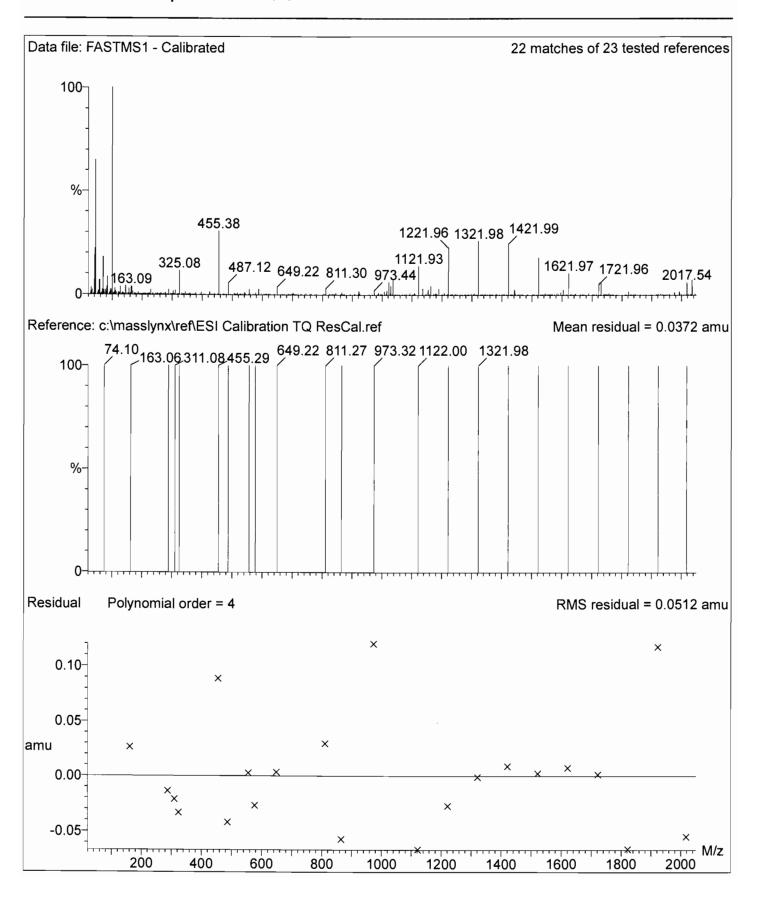
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Fri Sep 21 09:31:23 2018



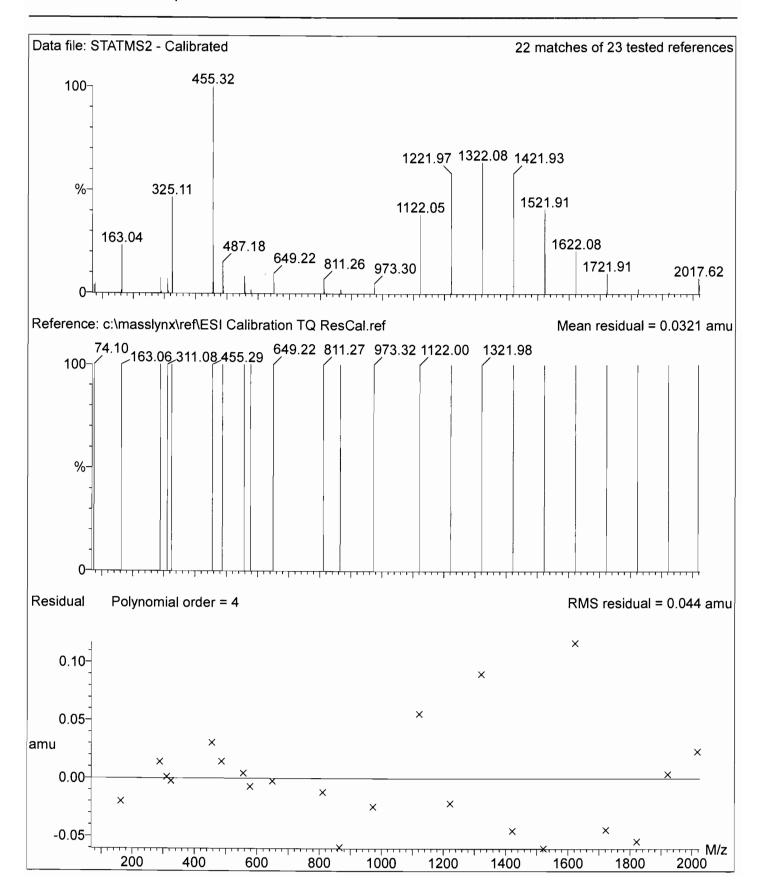
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Fri Sep 21 09:32:34 2018



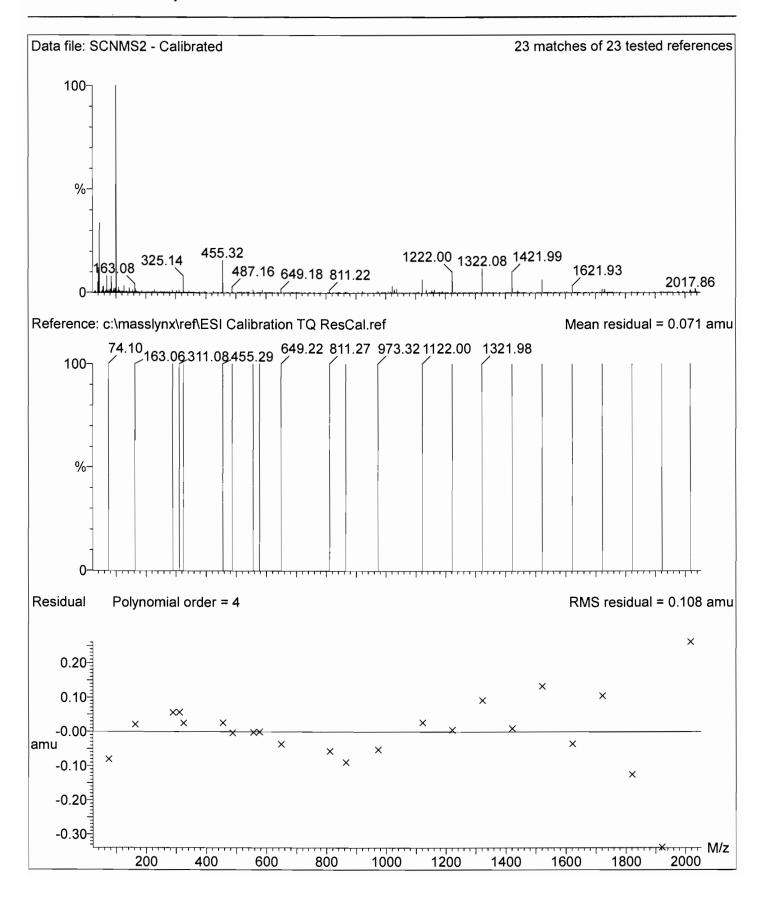
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Fri Sep 21 09:33:43 2018



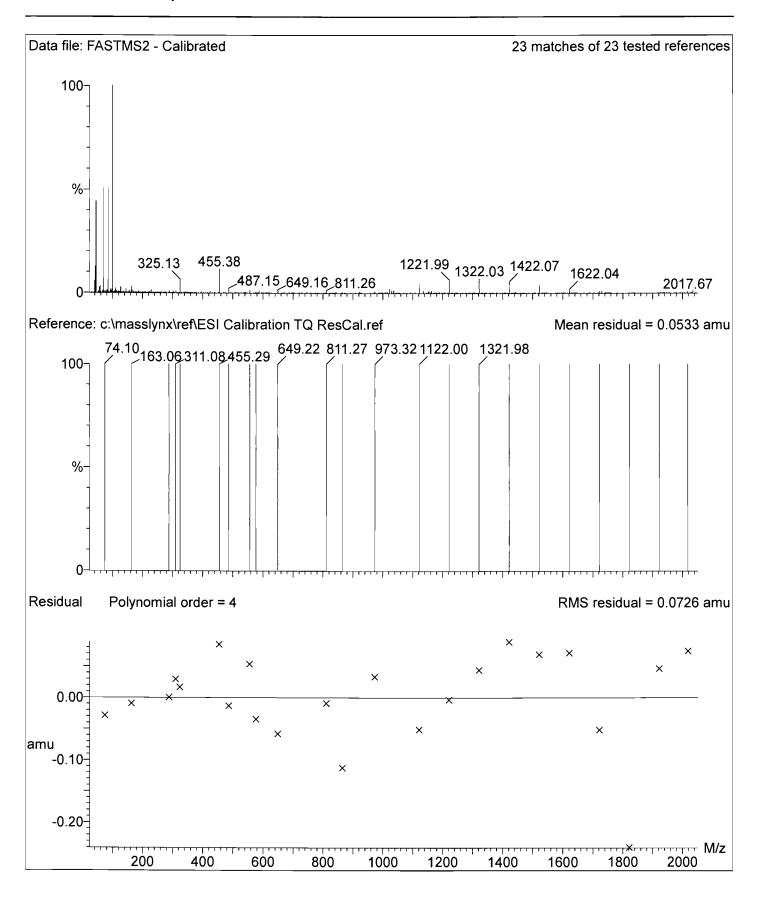
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Fri Sep 21 09:34:51 2018



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Fri Sep 21 09:36:17 2018



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HC 9/24/2018

Last Altered: Monday, September 24, 2018 09:55:18 Pacific Daylight Time Monday, September 24, 2018 09:57:00 Pacific Daylight Time

Dataset:

Printed:

# Name: 180921M2\_77, Date: 22-Sep-2018, Time: 01:52:33, ID: 1803078-01 FT-PZ463I-20180917 0.11619, Description: FT-PZ463I-20180917

	# Name	Trace	Area	IS Area	Wt/Vol	RRF	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?	
1	1 PFBA	213.0 > 16	4.48e2	8.97e3	0.116	0.000	1.25	0.624	5.1277				
2	2 PFPeA	263.1 > 21	1.02e3	1.12e4	0.116	0.000	2.25	1.13	9.7863				
3	3 PFBS	299.0 > 79.7		1.61e3	0.116								
4	5 PFHxA	313 > 269	1.98e3	7.71e3	0.116	0.000	3.05	1.28	10.7538		13.8	NO	
5	7 PFHpA	363.0 > 31	1.14e3	1.04e4	0.116	0.000	3.67	1.37	9.5329		11.4	NO	
6	36 13C3-PFBA	216.1 > 17	8.97e3	1.21e4	0.116	0.741	1.25	9.26	105.8208	98.4			
7	37 13C3-PFPeA	266. > 221.8	1.12e4	2.17e4	0.116	0.516	2.25	6.45	101.9860	94.8			
8	38 13C3-PFBS	302. > 98.8	1.61e3	3.12e3	0.116	0.516	2.55	6.45	110.0115	102.3			
9	40 13C2-PFHxA	315 > 270	7.71e3	2.17e4	0.116	0.888	3.05	4.44	40.5296	94.2			
10	41 13C4-PFHpA	367.2 > 32	1.04e4	2.17e4	0.116	0.479	3.68	5.99	99.8333	92.8			
11	-1												
12	8 L-PFHxS	398.9 > 79.6	5.01e2	1.33e3	0.116	0.000	3.83	4.73	23.5512		1.85	NO	
13	68 Total PFHxS	398.9 > 79.6	5.01e2	1.33e3	0.116			4.73	23.5512				
14	10 6:2 FTS	427.1 > 407		1.99e3	0.116								
15	11 L-PFOA	412.8 > 36	6.23e3	1.69e4	0.116	0.000	4.20	4.62	26.7437		3.36	NO	
16	69 Total PFOA	412.8 > 36	6.81e3	1.69e4	0.116			5.04	28.5252				
17	42 18O2-PFHxS	403.0 > 10	1.33e3	3.12e3	0.116	0.425	3.83	5.31	100.7221	93.6			
18	42 18O2-PFHxS	403.0 > 10	1.33e3	3.12e3	0.116	0.425	3.83	5.31	100.7221	93.6			
19	43 13C2-6:2 FTS	429.1 > 40	1.99e3	3.24e3	0.116	0.615	4.14	7.68	91.7103	85.2			
20	44 13C2-PFOA	414.9 > 36	1.69e4	3.00e4	0.116	0.563	4.20	7.03	91.1809	84.8			
21	44 13C2-PFOA	414.9 > 36	1.69e4	3.00e4	0.116	0.563	4.20	7.03	91.1809	84.8			
22	-1												
23	13 PFHpS	449 > 80.0		3.25e3	0.116								
24	14 PFNA	463.0 > 41	7.69e3	1.42e4	0.116	0.000	4.64	6.75	53.9500		3.86	NO	
25	15 PFOSA	497.9 > 77.9		1.74e3	0.116								
26	16 L-PFOS	498.9 > 79.9	4.07e2	3.25e3	0.116	0.000	4.73	1.56	13.3356		2.15	NO	
27	70 Total PFOS	498.9 > 79.9	4.07e2	3.25e3	0.116			1.56	13.3356				
28	47 13C8-PFOS	507.0 > 79.9	3.25e3	3.24e3	0.116	1.00	4.73	12.6	100.4178	93.3			
29	45 13C5-PFNA	468.2 > 42	1.42e4	2.10e4	0.116	0.678	4.64	8.48	75.5741	70.2			
30	46 13C8-PFOSA	506.1 > 77.7	1.74e3	2.60e4	0.116	0.0668	4.70	0.835	52.4827	48.8			Н
31	47 13C8-PFOS	507.0 > 79.9	3.25e3	3.24e3	0.116	1.00	4.73	12.6	100.4178	93.3			
32	47 13C8-PFOS	507.0 > 79.9	3.25e3	3.24e3	0.116	1.00	4.73	12.6	100.4178	93.3			
33	-1												
34	18 PFDA	513 > 468.8	3.09e2	1.17e4	0.116	0.000	5.02	0.330	2.0917		6.71	NO	
35	19 8:2 FTS	527 > 506.9		1.54e3	0.116								:- :
36	21 L-MeFOSAA	570 > 419		3.66e3	0.116								HC 9/24/
37	TV JOTAL HAME FOR SALANS	570. > 419	0.00e0	3.66e3	0.116			0.000					Page 57 of 306

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Last Altered: Monday, September 24, 2018 09:55:18 Pacific Daylight Time Printed: Monday, September 24, 2018 09:57:00 Pacific Daylight Time

Dataset:

## Name: 180921M2\_77, Date: 22-Sep-2018, Time: 01:52:33, ID: 1803078-01 FT-PZ463I-20180917 0.11619, Description: FT-PZ463I-20180917

	# Name	Trace	Area	IS Area	Wt/Vol	RRF	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
38	25 PFUdA	563.0 > 51	7.16e2	1.58e4	0.116	0.000	5.35	0.565	4.6461		10.4	NO
39	48 13C2-PFDA	515.1 > 46	1.17e4	1.98e4	0.116	0.594	5.02	7.42	68.4600	63.6		
40	49 13C2-8:2 FTS	529.1 > 50	1.54e3	3.24e3	0.116	0.475	4.99	5.94	90.0490	83.7		
41	50 d3-N-MeFOSAA	573.3 > 419	3.66e3	2.60e4	0.116	0.141	5.17	1.76	74.9048	69.6		
42	50 d3-N-MeFOSAA	573.3 > 419	3.66e3	2.60e4	0.116	0.141	5.17	1.76	74.9048	69.6		
43	51 13C2-PFUdA	565 > 519.8	1.58e4	2.60e4	0.116	0.609	5.35	7.61	71.3462	66.3		
44	-1											
45	23 L-EtFOSAA	584.1 > 419		4.72e3	0.116							
46	72 Total N-EtFOSAA	584.1 > 419	0.00e0	4.72e3	0.116			0.000				
47	26 PFDS	598.8 > 79.9		3.25e3	0.116							
48	27 PFDoA	612.9 > 56	5.21e1	1.61e4	0.116	0.000	5.64	0.0405			49.5	YES
49	29 PFTrDA	662.9 > 61		1.61e4	0.116							
50	52 d5-N-EtFOSAA	589.3 > 419	4.72e3	2.60e4	0.116	0.181	5.33	2.27	86.1237	80.1		
51	52 d5-N-EtFOSAA	589.3 > 419	4.72e3	2.60e4	0.116	0.181	5.33	2.27	86.1237	80.1		
52	51 13C2-PFUdA	565 > 519.8	1.58e4	2.60e4	0.116	0.609	5.35	7.61	71.3462	66.3		
53	53 13C2-PFDoA	615.0 > 56	1.61e4	1.98e4	0.116	0.814	5.63	10.2	80.2641	74.6		
54	53 13C2-PFDoA	615.0 > 56	1.61e4	1.98e4	0.116	0.814	5.63	10.2	80.2641	74.6		
55	-1											
56	30 PFTeDA	712.8 > 66		1.24e4	0.116							
57	73 TCDA	498.3>106.9			0.116							
58	60 13C4-PFBA	217. > 172	1.21e4	1.21e4	0.116	1.00	1.25	12.5	107.5824	100.0		
59	61 13C5-PFHxA	318 > 272.9	2.17e4	2.17e4	0.116	1.00	3.05	12.5	107.5824	100.0		
60	62 13C3-PFHxS	401.8 > 79.9	3.12e3	3.12e3	0.116	1.00	3.83	12.5	107.5824	100.0		
61	55 13C2-PFTeDA	714.8 > 66	1.24e4	2.60e4	0.116	0.477	6.10	5.96	87.4517	81.3		
62	47 13C8-PFOS	507.0 > 79.9	3.25e3	3.24e3	0.116	1.00	4.73	12.6	100.4178	93.3		
63	63 13C8-PFOA	420.9 > 376	3.00e4	3.00e4	0.116	1.00	4.20	12.5	107.5824	100.0		
64	64 13C9-PFNA	472.2 > 42	2.10e4	2.10e4	0.116	1.00	4.64	12.5	107.5824	100.0		
65	65 13C4-PFOS	503 > 79.9	3.24e3	3.24e3	0.116	1.00	4.73	12.5	107.5824	100.0		
66	-1											
67	66 13C6-PFDA	519.1 > 47	1.98e4	1.98e4	0.116	1.00	5.02	12.5	107.5824	100.0		
68	67 13C7-PFUdA	570.1 > 52	2.60e4	2.60e4	0.116	1.00	5.35	12.5	107.5824	100.0		

MMM 9/24/2018

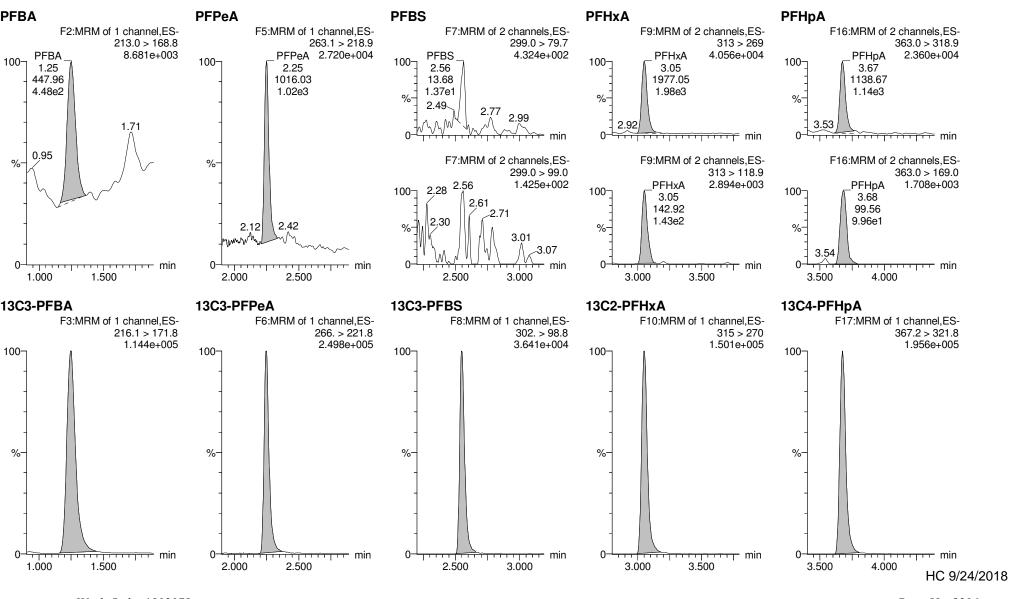
Z:\Projects\PFAS.PRO\Results\180921M2\180921M2-77.qld

Last Altered: Monday, September 24, 2018 09:55:18 Pacific Daylight Time Printed: Monday, September 24, 2018 09:57:00 Pacific Daylight Time

Dataset:

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS\_FULL\_80C\_092118.mdb 22 Sep 2018 10:43:01 Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_09-21-18.cdb 22 Sep 2018 10:41:06

Name: 180921M2\_77, Date: 22-Sep-2018, Time: 01:52:33, ID: 1803078-01 FT-PZ463I-20180917 0.11619, Description: FT-PZ463I-20180917



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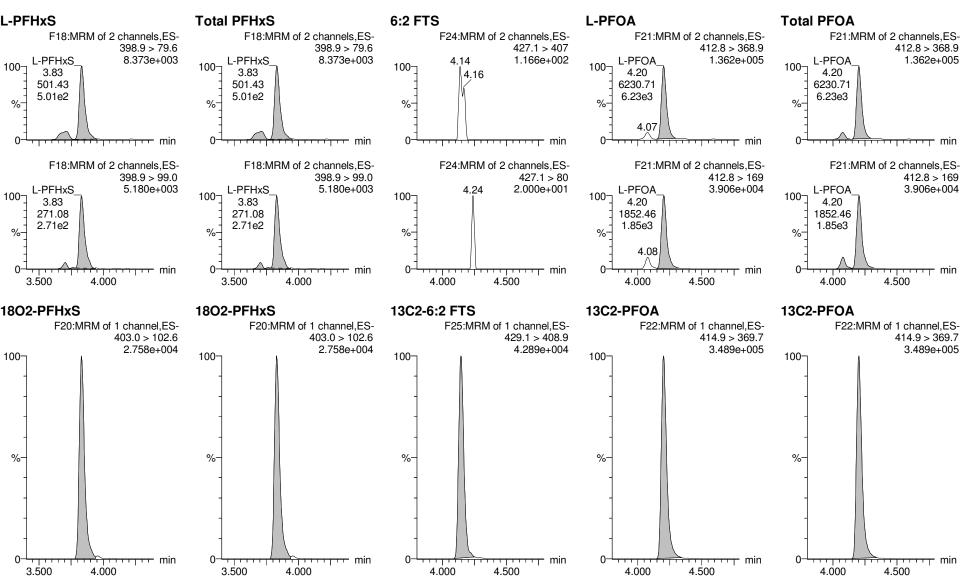
MMM 9/24/2018

Z:\Projects\PFAS.PRO\Results\180921M2\180921M2-77.qld

Last Altered: Monday, September 24, 2018 09:55:18 Pacific Daylight Time Printed: Monday, September 24, 2018 09:57:00 Pacific Daylight Time

Dataset:

Name: 180921M2\_77, Date: 22-Sep-2018, Time: 01:52:33, ID: 1803078-01 FT-PZ463I-20180917 0.11619, Description: FT-PZ463I-20180917



HC 9/24/2018

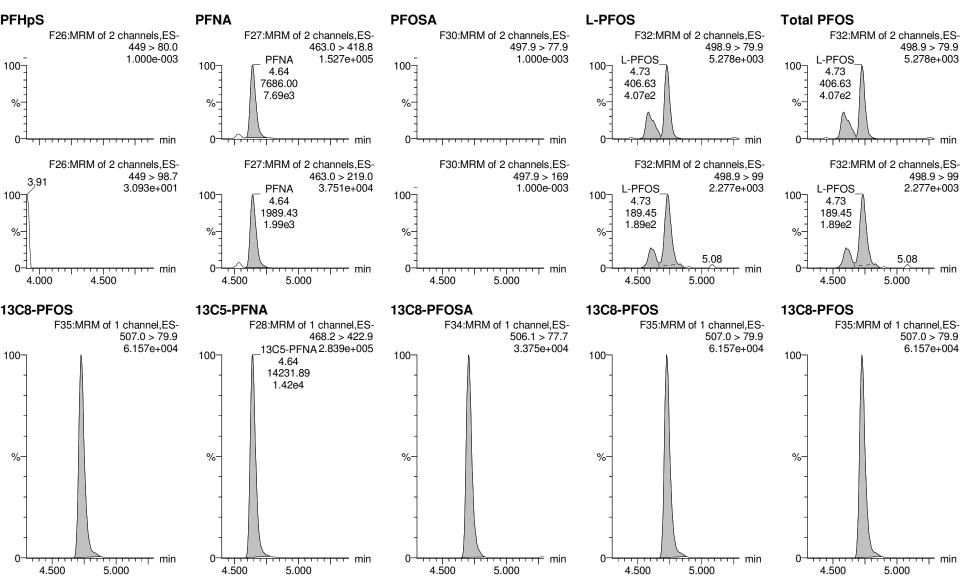
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Z:\Projects\PFAS.PRO\Results\180921M2\180921M2-77.qld MMM 9/24/2018

Last Altered: Monday, September 24, 2018 09:55:18 Pacific Daylight Time Printed: Monday, September 24, 2018 09:57:00 Pacific Daylight Time

Dataset:

Name: 180921M2\_77, Date: 22-Sep-2018, Time: 01:52:33, ID: 1803078-01 FT-PZ463I-20180917 0.11619, Description: FT-PZ463I-20180917



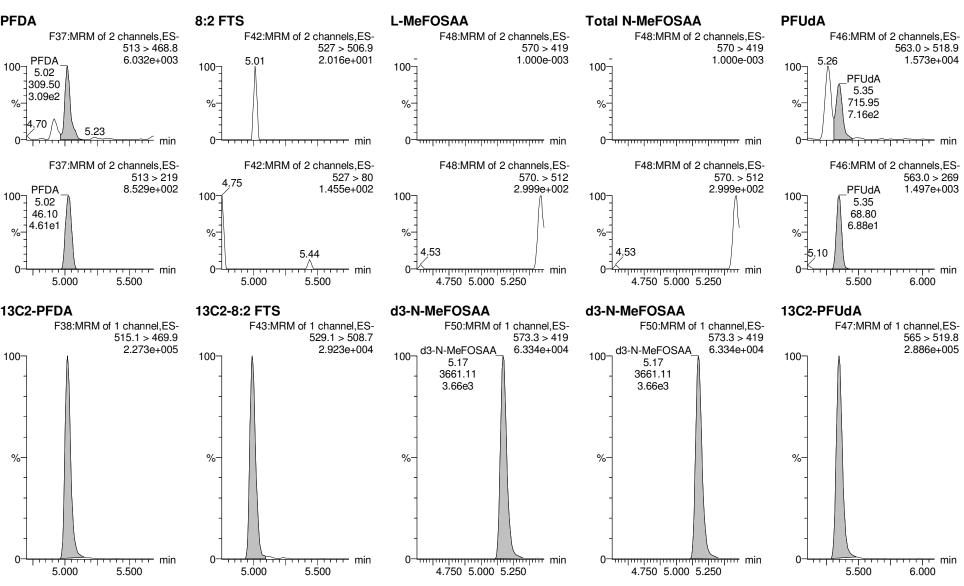
HC 9/24/2018

Z:\Projects\PFAS.PRO\Results\180921M2\180921M2-77.qld MMM 9/24/2018

Last Altered: Monday, September 24, 2018 09:55:18 Pacific Daylight Time Printed: Monday, September 24, 2018 09:57:00 Pacific Daylight Time

Dataset:

Name: 180921M2\_77, Date: 22-Sep-2018, Time: 01:52:33, ID: 1803078-01 FT-PZ463I-20180917 0.11619, Description: FT-PZ463I-20180917

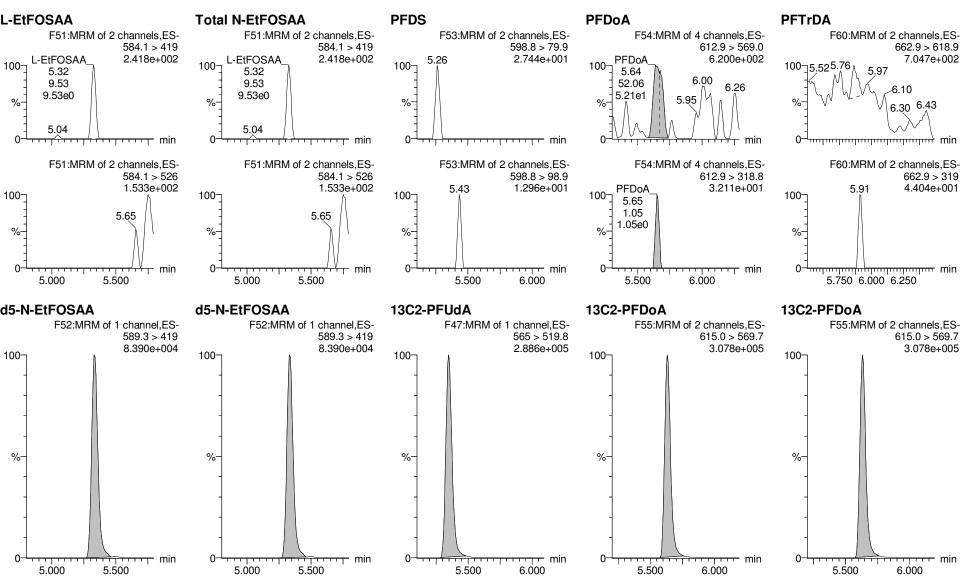


HC 9/24/2018

Last Altered: Monday, September 24, 2018 09:55:18 Pacific Daylight Time Printed: Monday, September 24, 2018 09:57:00 Pacific Daylight Time

Dataset:

Name: 180921M2\_77, Date: 22-Sep-2018, Time: 01:52:33, ID: 1803078-01 FT-PZ463I-20180917 0.11619, Description: FT-PZ463I-20180917



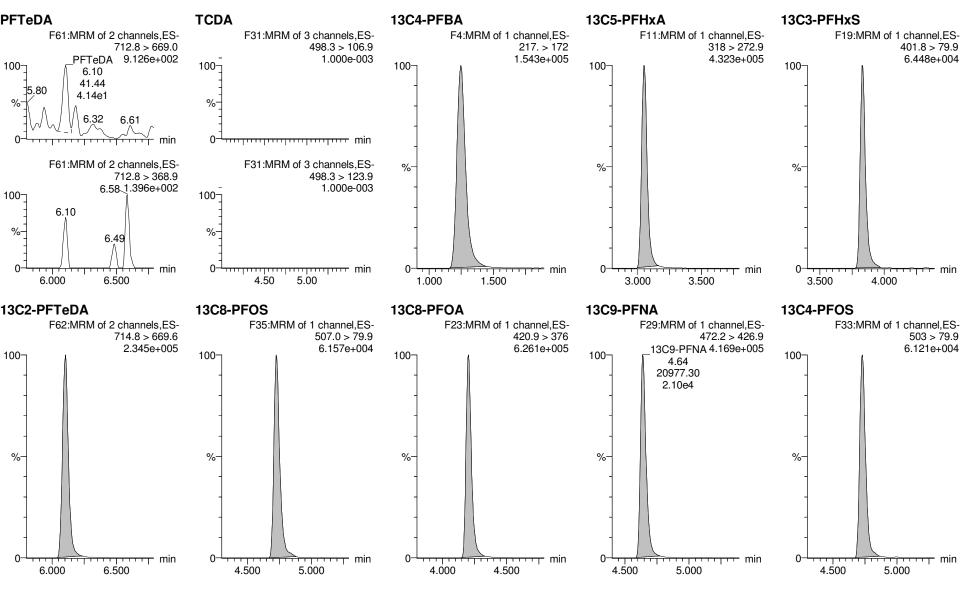
HC 9/24/2018

Z:\Projects\PFAS.PRO\Results\180921M2\180921M2-77.qld MMM 9/24/2018

Last Altered: Monday, September 24, 2018 09:55:18 Pacific Daylight Time Printed: Monday, September 24, 2018 09:57:00 Pacific Daylight Time

Dataset:

Name: 180921M2\_77, Date: 22-Sep-2018, Time: 01:52:33, ID: 1803078-01 FT-PZ463I-20180917 0.11619, Description: FT-PZ463I-20180917



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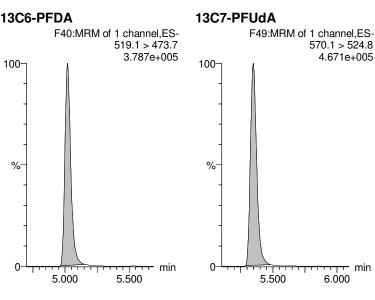
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Last Altered: Monday, September 24, 2018 09:55:18 Pacific Daylight Time Printed: Monday, September 24, 2018 09:57:00 Pacific Daylight Time

Dataset:

Name: 180921M2\_77, Date: 22-Sep-2018, Time: 01:52:33, ID: 1803078-01 FT-PZ463I-20180917 0.11619, Description: FT-PZ463I-20180917



MassLynx WassLynx V4.1 SCN945 SCN960

**Quantify Sample Report** 

# Name

Dataset:

Printed:

Last Altered:

Saturday, September 22, 2018 15:40:40 Pacific Daylight Time Monday, September 24, 2018 11:11:31 Pacific Daylight Time

Trace

Name: 180921M2\_78, Date: 22-Sep-2018, Time: 02:03:06, ID: 1803078-02 FT-PZ463I-FRB-20180917 0.11772, Description: FT-PZ463I-FRB-20180917 Wt/Vol

RRF

Response

Conc.

%Rec Ion Ratio

Ratio Out?

IS Area

	πιναιτιο	11400	Aica	IO AICa	VV U V OI	11111	111	ricaporiac	Ooric.	/01 100	ion natio	Tiallo Out:
1	1 PFBA	213.0 > 16		8.29e3	0.118							
2	2 PFPeA	263.1 > 21		1.07e4	0.118							
3	3 PFBS	299.0 > 79.7		1.62e3	0.118							
4	5 PFHxA	313 > 269		7.10e3	0.118							
5	7 PFHpA	363.0 > 31		9.97e3	0.118							
6	36 13C3-PFBA	216.1 > 17	8.29e3	1.10e4	0.118	0.757	1.23	9.46	106.6794	100.5		
7	37 13C3-PFPeA	266. > 221.8	1.07e4	2.00e4	0.118	0.533	2.24	6.66	103.9708	97.9		
8	38 13C3-PFBS	302. > 98.8	1.62e3	2.96e3	0.118	0.548	2.55	6.85	115.3622	108.6		
9	40 13C2-PFHxA	315 > 270	7.10e3	2.00e4	0.118	0.887	3.05	4.43	39.9240	94.0		
10	41 13C4-PFHpA	367.2 > 32	9.97e3	2.00e4	0.118	0.498	3.68	6.23	102.3745	96.4		
11	-1											
12	8 L-PFHxS	398.9 > 79.6	7.96e0	1.40e3	0.118	0.000	3.83	0.0713	0.4901		2.33	YES
13	68 Total PFHxS	398.9 > 79.6	7.96e0	1.40e3	0.118			0.0713	0.4901			
14	10 6:2 FTS	427.1 > 407		1.92e3	0.118							
15	11 L-PFOA	412.8 > 36	1.36e2	1.70e4	0.118	0.000	4.20	0.100			7.89	YES
16	69 Total PFOA	412.8 > 36	1.36e2	1.70e4	0.118			0.000				
17	42 18O2-PFHxS	403.0 > 10	1.40e3	2.96e3	0.118	0.472	3.83	5.90	110.5274	104.1		
18	42 18O2-PFHxS	403.0 > 10	1.40e3	2.96e3	0.118	0.472	3.83	5.90	110.5274	104.1		
19	43 13C2-6:2 FTS	429.1 > 40	1.92e3	3.10e3	0.118	0.620	4.14	7.76	91.3947	86.1		
20	44 13C2-PFOA	414.9 > 36	1.70e4	2.81e4	0.118	0.603	4.20	7.53	96.4136	90.8		
21	44 13C2-PFOA	414.9 > 36	1.70e4	2.81e4	0.118	0.603	4.20	7.53	96.4136	90.8		
22	-1											
23	13 PFHpS	449 > 80.0		3.16e3	0.118							
24	14 PFNA	463.0 > 41		1.44e4	0.118							
25	15 PFOSA	497.9 > 77.9		1.38e3	0.118							
26	16 L-PFOS	498.9 > 79.9		3.16e3	0.118							
27	70 Total PFOS	498.9 > 79.9	0.00e0	3.16e3	0.118			0.000				
28	47 13C8-PFOS	507.0 > 79.9	3.16e3	3.10e3	0.118	1.02	4.73	12.8	100.7203	94.9		
29	45 13C5-PFNA	468.2 > 42	1.44e4	1.99e4	0.118	0.722	4.64	9.03	79.4123	74.8		
30	46 13C8-PFOSA	506.1 > 77.7	1.38e3	2.60e4	0.118	0.0533	4.70	0.666	41.3182	38.9		
31	47 13C8-PFOS	507.0 > 79.9	3.16e3	3.10e3	0.118	1.02	4.73	12.8	100.7203	94.9		
32	47 13C8-PFOS	507.0 > 79.9	3.16e3	3.10e3	0.118	1.02	4.73	12.8	100.7203	94.9		
33	-1											
34	18 PFDA	513 > 468.8		1.10e4	0.118							
35	19 8:2 FTS	527 > 506.9		1.42e3	0.118							l (
36	21 L-MeFOSAA	570 > 419		3.55e3	0.118							Ì
37	WJRtabNaMeF889498	570. > 419	0.00e0_	3.55e3_	0.118			0.000		_		

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Last Altered: Saturday, September 22, 2018 15:40:40 Pacific Daylight Time Printed: Monday, September 24, 2018 11:11:31 Pacific Daylight Time

Dataset:

Name: 180921M2\_78, Date: 22-Sep-2018, Time: 02:03:06, ID: 1803078-02 FT-PZ463I-FRB-20180917 0.11772, Description: FT-PZ463I-FRB-20180917

	# Name	Trace	Area	IS Area	Wt/Vol	RRF	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
38	25 PFUdA	563.0 > 51		1.32e4	0.118							
39	48 13C2-PFDA	515.1 > 46	1.10e4	1.99e4	0.118	0.551	5.02	6.88	62.7016	59.0		
40	49 13C2-8:2 FTS	529.1 > 50	1.42e3	3.10e3	0.118	0.458	4.99	5.73	85.6559	80.7		
41	50 d3-N-MeFOSAA	573.3 > 419	3.55e3	2.60e4	0.118	0.137	5.17	1.71	71.9426	67.8		
42	50 d3-N-MeFOSAA	573.3 > 419	3.55e3	2.60e4	0.118	0.137	5.17	1.71	71.9426	67.8		
43	51 13C2-PFUdA	565 > 519.8	1.32e4	2.60e4	0.118	0.510	5.35	6.38	59.0409	55.6		
44	-1											
45	23 L-EtFOSAA	584.1 > 419		3.92e3	0.118							
46	72 Total N-EtFOSAA	584.1 > 419	0.00e0	3.92e3	0.118			0.000				
47	26 PFDS	598.8 > 79.9		3.16e3	0.118							
48	27 PFDoA	612.9 > 56		1.30e4	0.118							
49	29 PFTrDA	662.9 > 61		1.30e4	0.118							
50	52 d5-N-EtFOSAA	589.3 > 419	3.92e3	2.60e4	0.118	0.151	5.33	1.89	70.8205	66.7		
51	52 d5-N-EtFOSAA	589.3 > 419	3.92e3	2.60e4	0.118	0.151	5.33	1.89	70.8205	66.7		
52	51 13C2-PFUdA	565 > 519.8	1.32e4	2.60e4	0.118	0.510	5.35	6.38	59.0409	55.6		
53	53 13C2-PFDoA	615.0 > 56	1.30e4	1.99e4	0.118	0.653	5.63	8.16	63.5439	59.8		
54	53 13C2-PFDoA	615.0 > 56	1.30e4	1.99e4	0.118	0.653	5.63	8.16	63.5439	59.8		
55	-1											
56	30 PFTeDA	712.8 > 66		1.20e4	0.118							
57	73 TCDA	498.3>106.9			0.118							
58	60 13C4-PFBA	217. > 172	1.10e4	1.10e4	0.118	1.00	1.23	12.5	106.1842	100.0		
59	61 13C5-PFHxA	318 > 272.9	2.00e4	2.00e4	0.118	1.00	3.05	12.5	106.1842	100.0		
60	62 13C3-PFHxS	401.8 > 79.9	2.96e3	2.96e3	0.118	1.00	3.83	12.5	106.1842	100.0		
61	55 13C2-PFTeDA	714.8 > 66	1.20e4	2.60e4	0.118	0.462	6.10	5.77	83.6069	78.7		
62	47 13C8-PFOS	507.0 > 79.9	3.16e3	3.10e3	0.118	1.02	4.73	12.8	100.7203	94.9		
63	63 13C8-PFOA	420.9 > 376	2.81e4	2.81e4	0.118	1.00	4.20	12.5	106.1842	100.0		
64	64 13C9-PFNA	472.2 > 42	1.99e4	1.99e4	0.118	1.00	4.64	12.5	106.1842	100.0		
65	65 13C4-PFOS	503 > 79.9	3.10e3	3.10e3	0.118	1.00	4.73	12.5	106.1842	100.0		
66	-1											
67	66 13C6-PFDA	519.1 > 47	1.99e4	1.99e4	0.118	1.00	5.02	12.5	106.1842	100.0		
68	67 13C7-PFUdA	570.1 > 52	2.60e4	2.60e4	0.118	1.00	5.35	12.5	106.1842	100.0		

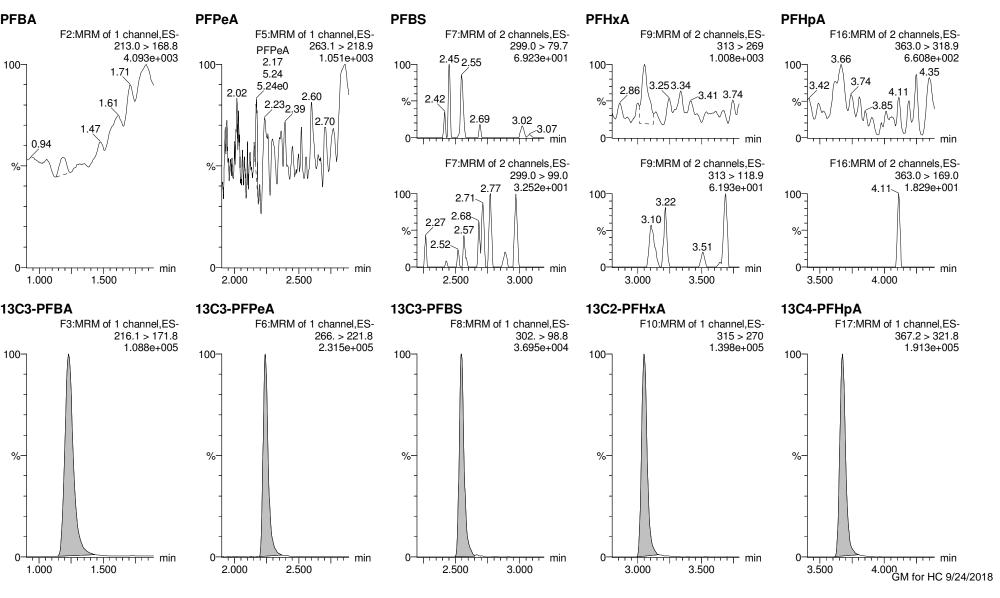
Dataset:

Printed:

Last Altered: Saturday, September 22, 2018 15:40:40 Pacific Daylight Time Monday, September 24, 2018 11:11:31 Pacific Daylight Time

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Name: 180921M2\_78, Date: 22-Sep-2018, Time: 02:03:06, ID: 1803078-02 FT-PZ463I-FRB-20180917 0.11772, Description: FT-PZ463I-FRB-20180917

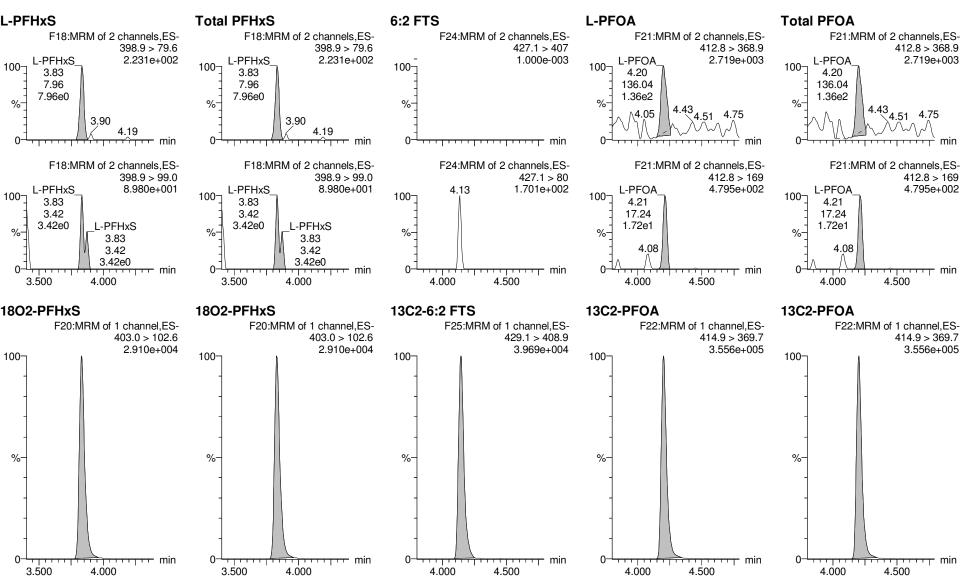


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Last Altered: Saturday, September 22, 2018 15:40:40 Pacific Daylight Time Printed: Monday, September 24, 2018 11:11:31 Pacific Daylight Time

Dataset:

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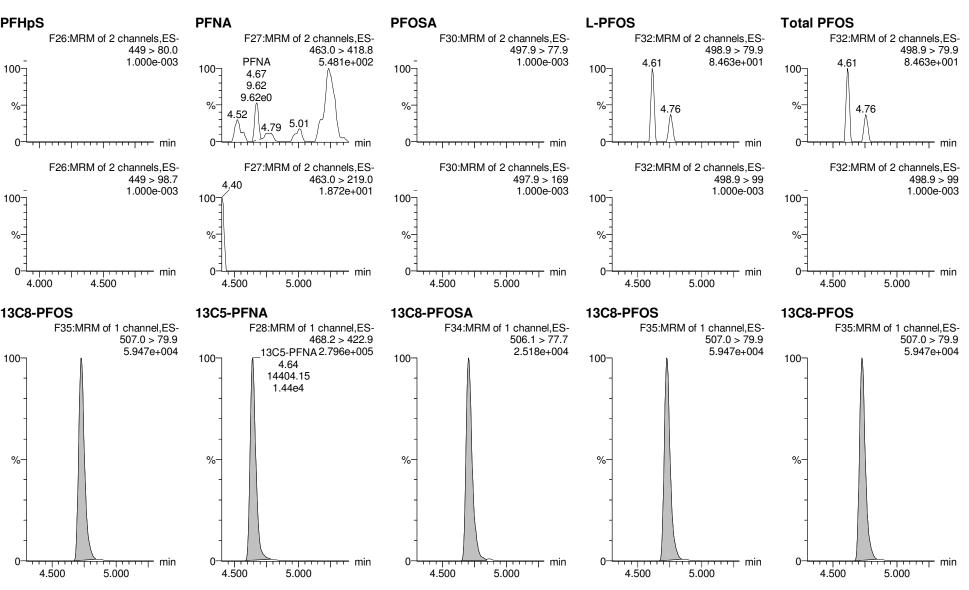


GM for HC 9/24/2018

Last Altered: Saturday, September 22, 2018 15:40:40 Pacific Daylight Time Printed: Monday, September 24, 2018 11:11:31 Pacific Daylight Time

Dataset:

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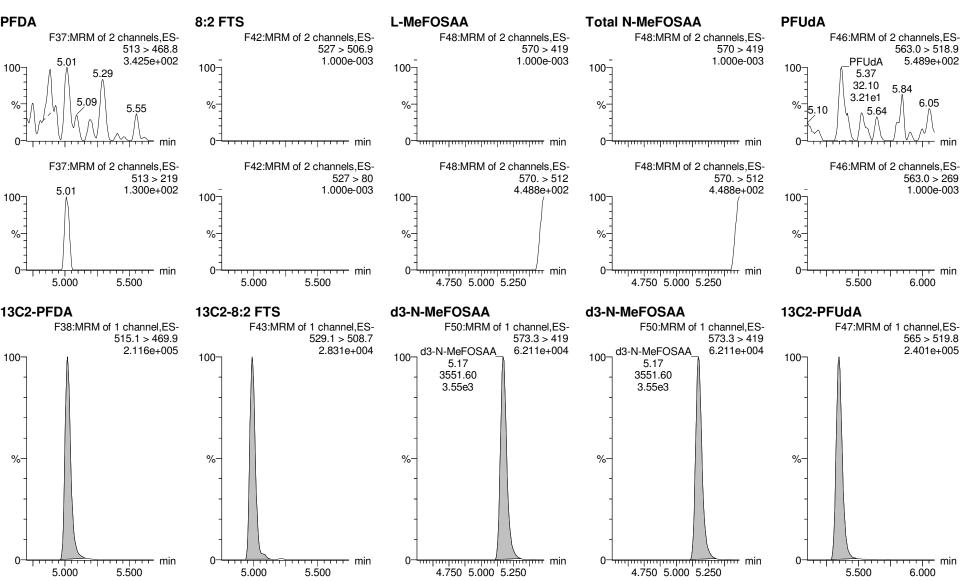


GM for HC 9/24/2018

Last Altered: Saturday, September 22, 2018 15:40:40 Pacific Daylight Time Printed: Monday, September 24, 2018 11:11:31 Pacific Daylight Time

Dataset:

Name: 180921M2\_78, Date: 22-Sep-2018, Time: 02:03:06, ID: 1803078-02 FT-PZ463I-FRB-20180917 0.11772, Description: FT-PZ463I-FRB-20180917



GM for HC 9/24/2018

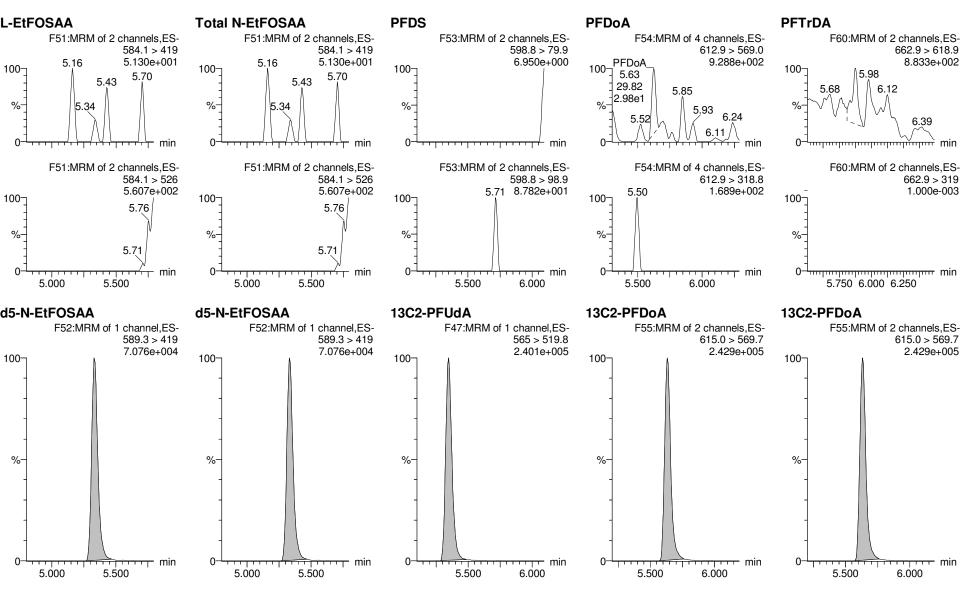
Work Order 1803078

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Last Altered: Saturday, September 22, 2018 15:40:40 Pacific Daylight Time Printed: Monday, September 24, 2018 11:11:31 Pacific Daylight Time

Dataset:

Name: 180921M2\_78, Date: 22-Sep-2018, Time: 02:03:06, ID: 1803078-02 FT-PZ463I-FRB-20180917 0.11772, Description: FT-PZ463I-FRB-20180917



GM for HC 9/24/2018

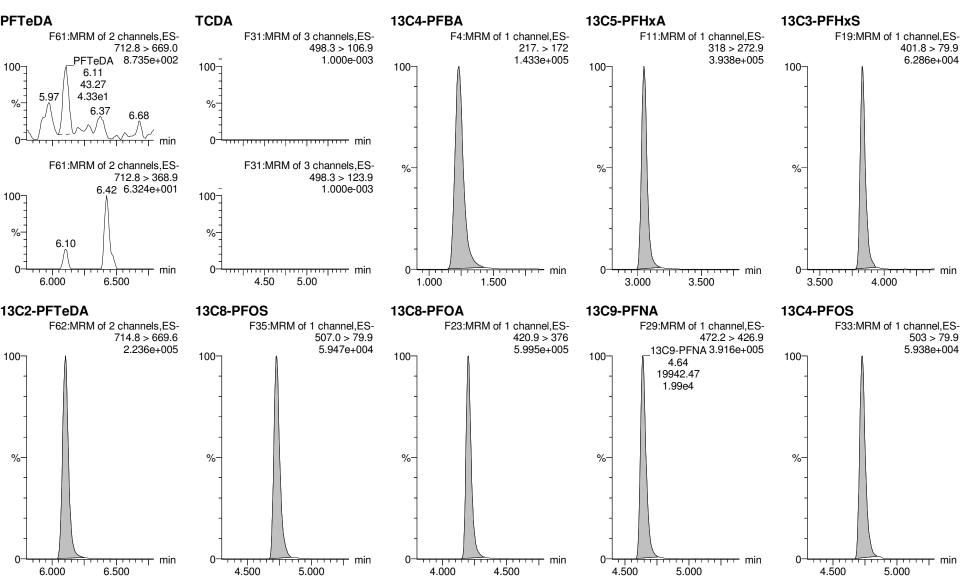
Work Order 1803078

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Last Altered: Saturday, September 22, 2018 15:40:40 Pacific Daylight Time Printed: Monday, September 24, 2018 11:11:31 Pacific Daylight Time

Dataset:

Name: 180921M2\_78, Date: 22-Sep-2018, Time: 02:03:06, ID: 1803078-02 FT-PZ463I-FRB-20180917 0.11772, Description: FT-PZ463I-FRB-20180917



GM for HC 9/24/2018

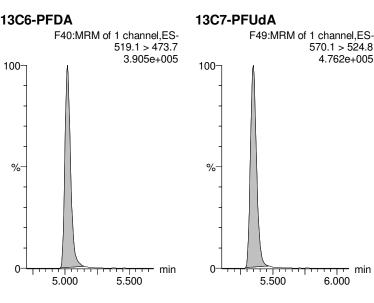
Work Order 1803078

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Last Altered: Saturday, September 22, 2018 15:40:40 Pacific Daylight Time Printed: Monday, September 24, 2018 11:11:31 Pacific Daylight Time

Dataset:

Name: 180921M2\_78, Date: 22-Sep-2018, Time: 02:03:06, ID: 1803078-02 FT-PZ463I-FRB-20180917 0.11772, Description: FT-PZ463I-FRB-20180917



MMM 9/24/2018

Monday, September 24, 2018 09:59:44 Pacific Daylight Time Monday, September 24, 2018 10:00:06 Pacific Daylight Time

Dataset:

Printed:

Last Altered:

# Name: 180921M2\_79, Date: 22-Sep-2018, Time: 02:13:45, ID: 1803078-03 FT-PZ464I-20180917 0.11306, Description: FT-PZ464I-20180917

	# Name	Trace	Area	IS Area	Wt/Vol	RRF	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	1 PFBA	213.0 > 16	4.17e2	8.24e3	0.113	0.000	1.24	0.633	5.3400			
2	2 PFPeA	263.1 > 21	1.18e3	1.05e4	0.113	0.000	2.24	1.42	12.6038			
3	3 PFBS	299.0 > 79.7	2.17e1	1.63e3	0.113	0.000	2.56	0.166	0.8241		2.38	NO
4	5 PFHxA	313 > 269	2.22e3	7.21e3	0.113	0.000	3.05	1.54	13.3326		14.8	NO
5	7 PFHpA	363.0 > 31	1.26e3	1.02e4	0.113	0.000	3.67	1.54	11.0813		13.0	NO
6	36 13C3-PFBA	216.1 > 17	8.24e3	1.15e4	0.113	0.715	1.24	8.94	105.0207	95.0		
7	37 13C3-PFPeA	266. > 221.8	1.05e4	2.04e4	0.113	0.514	2.25	6.42	104.3701	94.4		
8	38 13C3-PFBS	302. > 98.8	1.63e3	3.10e3	0.113	0.527	2.55	6.58	115.4168	104.4		
9	40 13C2-PFHxA	315 > 270	7.21e3	2.04e4	0.113	0.885	3.05	4.43	41.5081	93.9		
10	41 13C4-PFHpA	367.2 > 32	1.02e4	2.04e4	0.113	0.500	3.68	6.25	106.9876	96.8		
11	-1											
12	8 L-PFHxS	398.9 > 79.6	4.99e2	1.36e3	0.113	0.000	3.83	4.60	23.5488		1.65	NO
13	68 Total PFHxS	398.9 > 79.6	4.99e2	1.36e3	0.113			4.60	23.5488			
14	10 6:2 FTS	427.1 > 407		1.82e3	0.113							
15	11 L-PFOA	412.8 > 36	7.25e3	1.68e4	0.113	0.000	4.20	5.39	32.1995		3.38	NO
16	69 Total PFOA	412.8 > 36	7.89e3	1.68e4	0.113			5.86	34.2782			
17	42 18O2-PFHxS	403.0 > 10	1.36e3	3.10e3	0.113	0.437	3.83	5.46	106.4707	96.3		
18	42 18O2-PFHxS	403.0 > 10	1.36e3	3.10e3	0.113	0.437	3.83	5.46	106.4707	96.3		
19	43 13C2-6:2 FTS	429.1 > 40	1.82e3	3.21e3	0.113	0.567	4.14	7.09	86.9586	78.7		
20	44 13C2-PFOA	414.9 > 36	1.68e4	2.83e4	0.113	0.595	4.20	7.43	99.0251	89.6		
21	44 13C2-PFOA	414.9 > 36	1.68e4	2.83e4	0.113	0.595	4.20	7.43	99.0251	89.6		
22	-1											
23	13 PFHpS	449 > 80.0	9.18e0	3.35e3	0.113	0.000	4.34	0.0343	0.3941		6.84	YES
24	14 PFNA	463.0 > 41	1.47e4	1.54e4	0.113	0.000	4.64	11.9	97.6946		4.28	NO
25	15 PFOSA	497.9 > 77.9		1.96e3	0.113							
26	16 L-PFOS	498.9 > 79.9	4.57e2	3.35e3	0.113	0.000	4.73	1.71	14.9506		1.84	NO
27	70 Total PFOS	498.9 > 79.9	4.57e2	3.35e3	0.113			1.71	14.9506			
28	47 13C8-PFOS	507.0 > 79.9	3.35e3	3.21e3	0.113	1.04	4.73	13.0	107.1449	96.9		
29	45 13C5-PFNA	468.2 > 42	1.54e4	2.02e4	0.113	0.765	4.64	9.56	87.5738	79.2		
30	46 13C8-PFOSA	506.1 > 77.7	1.96e3	2.73e4	0.113	0.0719	4.70	0.899	58.0649	52.5		
31	47 13C8-PFOS	507.0 > 79.9	3.35e3	3.21e3	0.113	1.04	4.73	13.0	107.1449	96.9		
32	47 13C8-PFOS	507.0 > 79.9	3.35e3	3.21e3	0.113	1.04	4.73	13.0	107.1449	96.9		
33	-1											
34	18 PFDA	513 > 468.8	3.76e2	1.36e4	0.113	0.000	5.02	0.344	2.2482		6.32	NO
35	19 8:2 FTS	527 > 506.9		1.53e3	0.113							
36	21 L-MeFOSAA	570 > 419		4.25e3	0.113							
37	₩.J.qtab.N1MeF.963A4y8	570. > 419	0.00e0_	4.25e3_	0.113			0.000	_			

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Last Altered: Monday, September 24, 2018 09:59:44 Pacific Daylight Time Printed: Monday, September 24, 2018 10:00:06 Pacific Daylight Time

Dataset:

## Name: 180921M2\_79, Date: 22-Sep-2018, Time: 02:13:45, ID: 1803078-03 FT-PZ464I-20180917 0.11306, Description: FT-PZ464I-20180917

	# Name	Trace	Area	IS Area	Wt/Vol	RRF	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
38	25 PFUdA	563.0 > 51	8.19e2	1.83e4	0.113	0.000	5.35	0.561	4.7340		11.1	YES
39	48 13C2-PFDA	515.1 > 46	1.36e4	2.04e4	0.113	0.669	5.02	8.36	79.3180	71.7		
40	49 13C2-8:2 FTS	529.1 > 50	1.53e3	3.21e3	0.113	0.477	4.99	5.96	92.9032	84.0		
41	50 d3-N-MeFOSAA	573.3 > 419	4.25e3	2.73e4	0.113	0.156	5.17	1.95	85.3949	77.2		
42	50 d3-N-MeFOSAA	573.3 > 419	4.25e3	2.73e4	0.113	0.156	5.17	1.95	85.3949	77.2		
43	51 13C2-PFUdA	565 > 519.8	1.83e4	2.73e4	0.113	0.670	5.35	8.37	80.6703	73.0		
44	-1											
45	23 L-EtFOSAA	584.1 > 419		4.86e3	0.113							
46	72 Total N-EtFOSAA	584.1 > 419	0.00e0	4.86e3	0.113			0.000				
47	26 PFDS	598.8 > 79.9		3.35e3	0.113							
48	27 PFDoA	612.9 > 56		1.71e4	0.113							
49	29 PFTrDA	662.9 > 61		1.71e4	0.113							
50	52 d5-N-EtFOSAA	589.3 > 419	4.86e3	2.73e4	0.113	0.178	5.33	2.23	86.8960	78.6		
51	52 d5-N-EtFOSAA	589.3 > 419	4.86e3	2.73e4	0.113	0.178	5.33	2.23	86.8960	78.6		
52	51 13C2-PFUdA	565 > 519.8	1.83e4	2.73e4	0.113	0.670	5.35	8.37	80.6703	73.0		
53	53 13C2-PFDoA	615.0 > 56	1.71e4	2.04e4	0.113	0.838	5.63	10.5	84.9411	76.8		
54	53 13C2-PFDoA	615.0 > 56	1.71e4	2.04e4	0.113	0.838	5.63	10.5	84.9411	76.8		
55	-1											
56	30 PFTeDA	712.8 > 66	3.71e1	1.36e4	0.113	0.000	6.10	0.0342			129	YES
57	73 TCDA	498.3>106.9			0.113							
58	60 13C4-PFBA	217. > 172	1.15e4	1.15e4	0.113	1.00	1.25	12.5	110.5608	100.0		
59	61 13C5-PFHxA	318 > 272.9	2.04e4	2.04e4	0.113	1.00	3.05	12.5	110.5608	100.0		
60	62 13C3-PFHxS	401.8 > 79.9	3.10e3	3.10e3	0.113	1.00	3.83	12.5	110.5608	100.0		
61	55 13C2-PFTeDA	714.8 > 66	1.36e4	2.73e4	0.113	0.497	6.10	6.21	93.6141	84.7		
62	47 13C8-PFOS	507.0 > 79.9	3.35e3	3.21e3	0.113	1.04	4.73	13.0	107.1449	96.9		
63	63 13C8-PFOA	420.9 > 376	2.83e4	2.83e4	0.113	1.00	4.20	12.5	110.5608	100.0		
64	64 13C9-PFNA	472.2 > 42	2.02e4	2.02e4	0.113	1.00	4.64	12.5	110.5608	100.0		
65	65 13C4-PFOS	503 > 79.9	3.21e3	3.21e3	0.113	1.00	4.73	12.5	110.5608	100.0		
66	-1											
67	66 13C6-PFDA	519.1 > 47	2.04e4	2.04e4	0.113	1.00	5.02	12.5	110.5608	100.0		
68	67 13C7-PFUdA	570.1 > 52	2.73e4	2.73e4	0.113	1.00	5.35	12.5	110.5608	100.0		

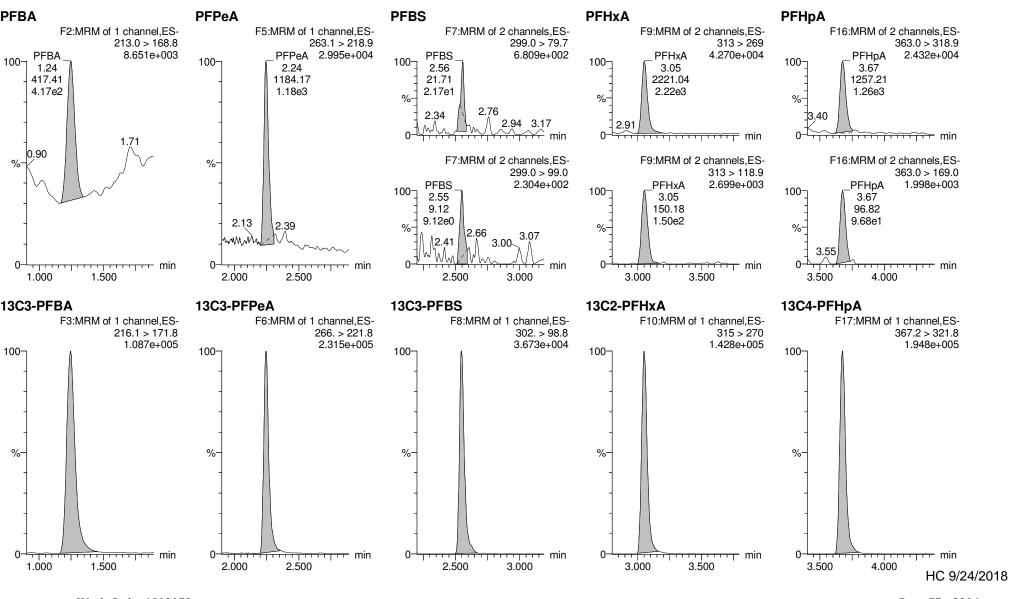
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Last Altered: Monday, September 24, 2018 09:59:44 Pacific Daylight Time Printed: Monday, September 24, 2018 10:00:06 Pacific Daylight Time

Dataset:

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Name: 180921M2\_79, Date: 22-Sep-2018, Time: 02:13:45, ID: 1803078-03 FT-PZ464I-20180917 0.11306, Description: FT-PZ464I-20180917



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Dataset:

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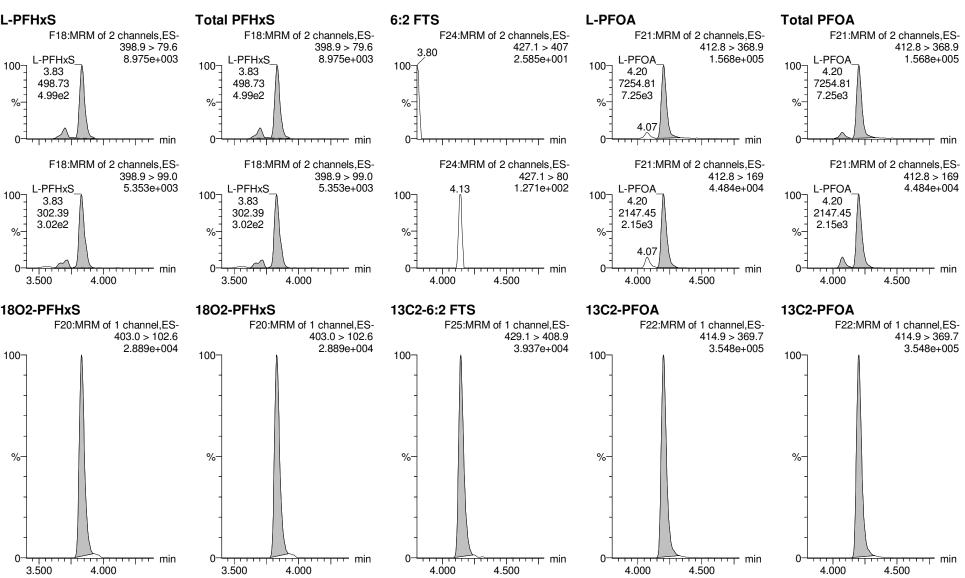
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MMM 9/24/2018

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Monday, September 24, 2018 09:59:44 Pacific Daylight Time Monday, September 24, 2018 10:00:06 Pacific Daylight Time

Name: 180921M2\_79, Date: 22-Sep-2018, Time: 02:13:45, ID: 1803078-03 FT-PZ464I-20180917 0.11306, Description: FT-PZ464I-20180917



HC 9/24/2018

Dataset:

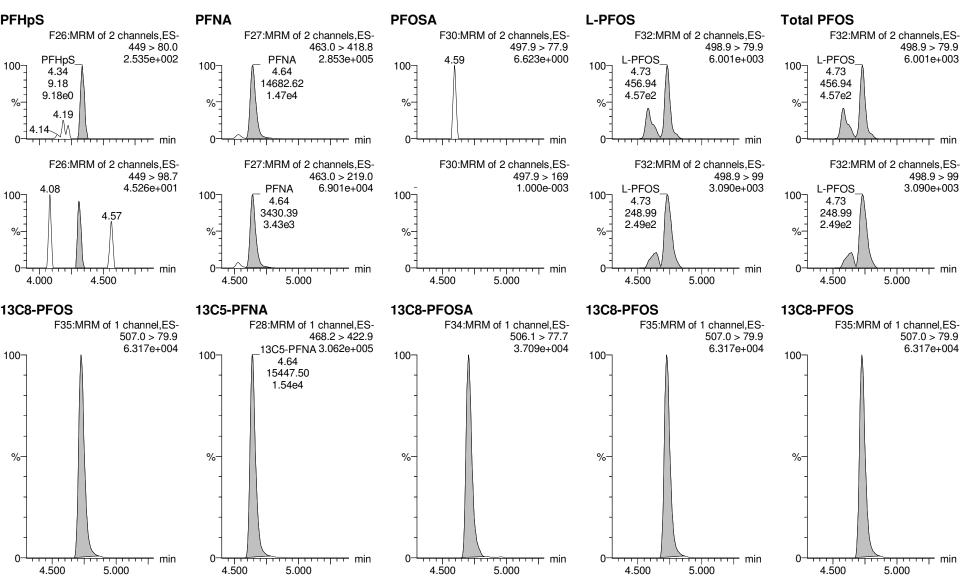
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Monday, September 24, 2018 09:59:44 Pacific Daylight Time

Last Altered: Monday, September 24, 2018 10:00:06 Pacific Daylight Time

Name: 180921M2 79, Date: 22-Sep-2018, Time: 02:13:45, ID: 1803078-03 FT-PZ464I-20180917 0.11306, Description: FT-PZ464I-20180917



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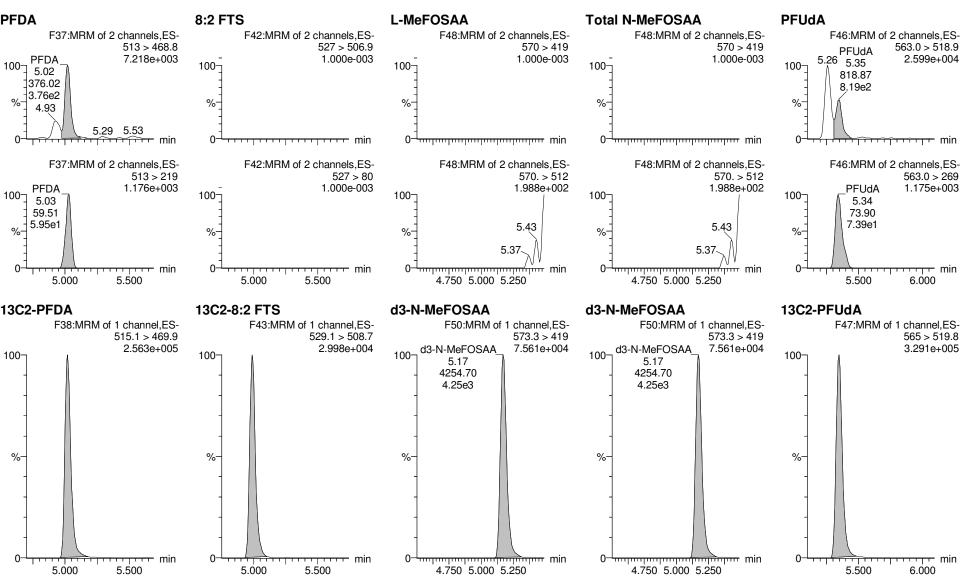
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Printed:

Last Altered:

Monday, September 24, 2018 09:59:44 Pacific Daylight Time Monday, September 24, 2018 10:00:06 Pacific Daylight Time

Name: 180921M2\_79, Date: 22-Sep-2018, Time: 02:13:45, ID: 1803078-03 FT-PZ464I-20180917 0.11306, Description: FT-PZ464I-20180917



HC 9/24/2018

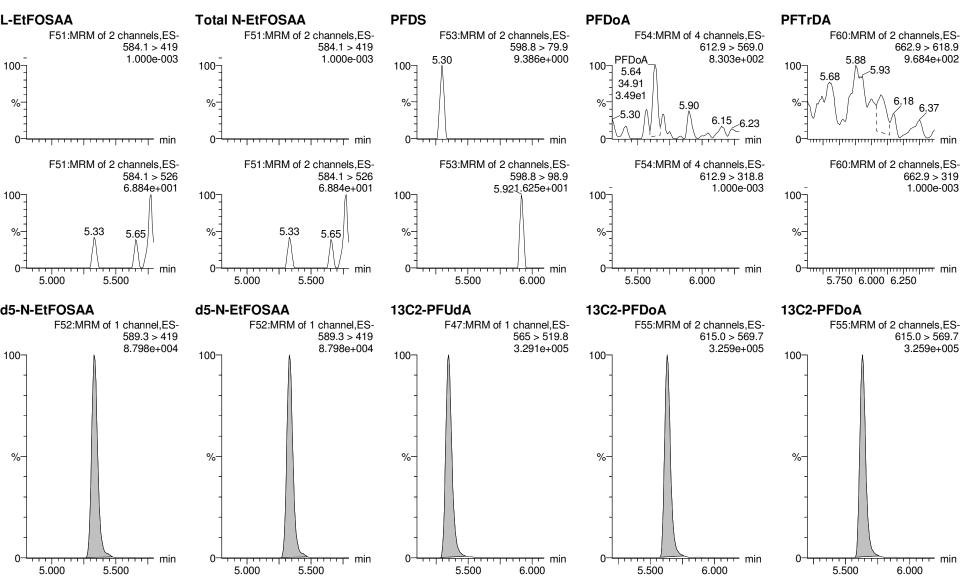
MMM 9/24/2018

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Dataset:

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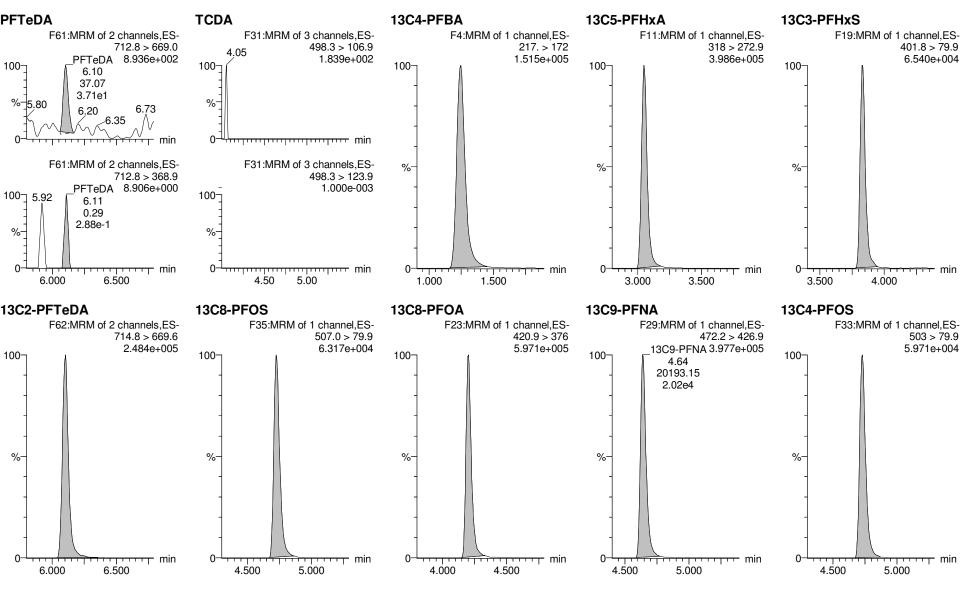
HC 9/24/2018

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Last Altered: Monday, September 24, 2018 09:59:44 Pacific Daylight Time Printed: Monday, September 24, 2018 10:00:06 Pacific Daylight Time

Dataset:

Name: 180921M2\_79, Date: 22-Sep-2018, Time: 02:13:45, ID: 1803078-03 FT-PZ464I-20180917 0.11306, Description: FT-PZ464I-20180917



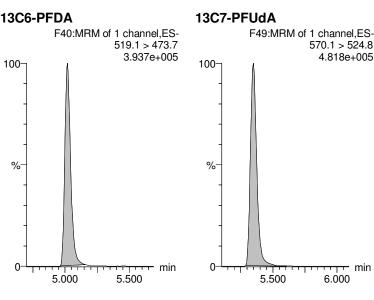
HC 9/24/2018

Z:\Projects\PFAS.PRO\Results\180921M2\180921M2-79.qld MMM 9/24/2018

Last Altered: Monday, September 24, 2018 09:59:44 Pacific Daylight Time Printed: Monday, September 24, 2018 10:00:06 Pacific Daylight Time

Dataset:

Name: 180921M2\_79, Date: 22-Sep-2018, Time: 02:13:45, ID: 1803078-03 FT-PZ464I-20180917 0.11306, Description: FT-PZ464I-20180917



DODCMD_ID	INSTALLATION_ID	SDG	SITE_NAME	NORM_SITE_NAME	LOCATION_NAME	E LOCATION_TYPE_DESC	COORD_X	COORD_Y	CONTRACT_ID	DO_CTO_NUMBER	CONTR_NAME	SAMPLE_NAME	SAMPLE_MATRIX_DESC	SAMPLE_TYPE_DESC	COLLECT_DATE	ANALYTICAL_METHOD	ANALYTICAL_METHOD_GRP_DESC
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MID_ATLANTIC	CALVERTON_NWIRP	1803078	SITE 00002	SITE 00002	FTPZ463I	Piezometer	1319002.52	268417.5383	N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ463I-20180917	Ground water	Normal (Regular)	17-Sep-18	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1803078							N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ463I-FRB-20180917	Water for QC samples	Field Reagent Blank	17-Sep-18	537	Perfluoroalkyl Compounds