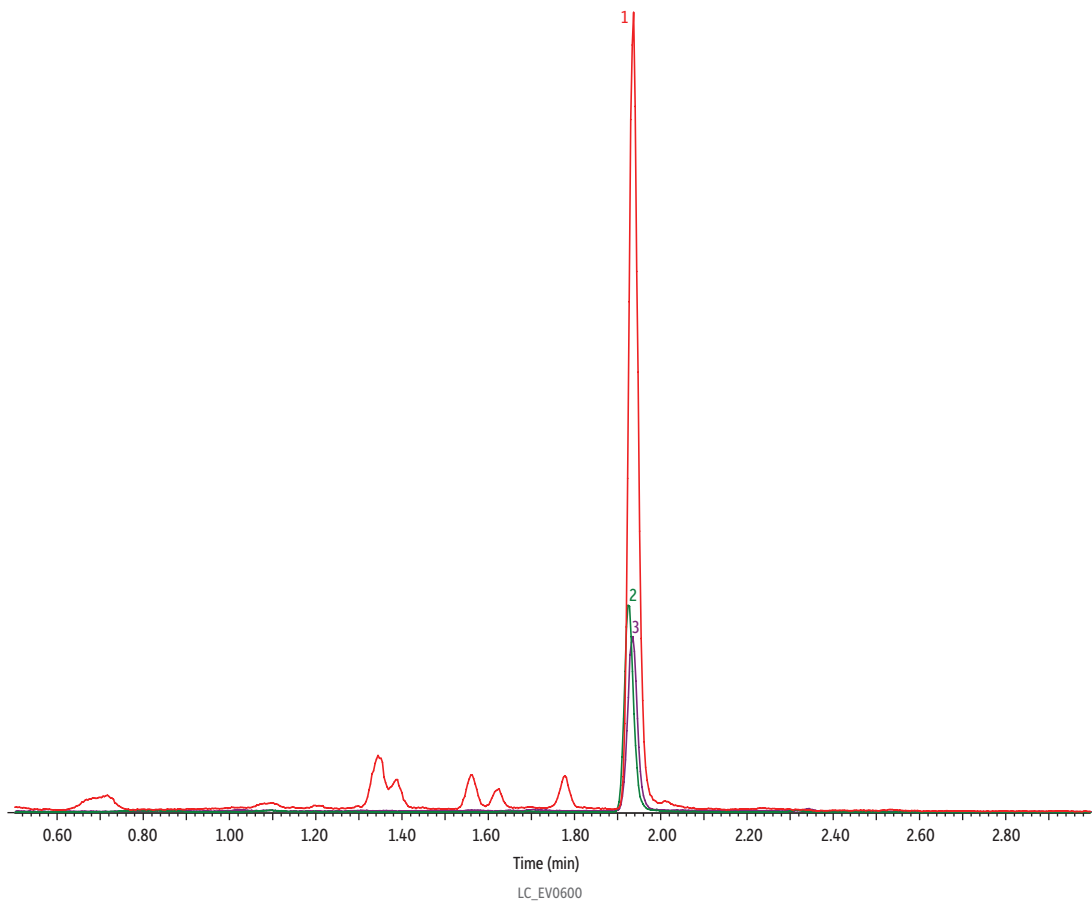


6PPD-Quinone in Runoff Water by Raptor C18 by LC-MS/MS



Peaks	tr (min)	Conc. (ng/mL)	Precursor Ion	Product Ion 1	Product Ion 2
1. 6PPD-Quinone (6PPD-Q)	1.93	2.8	299.22	215.07	241.08
2. 6PPD-Quinone-D5 (6PPD-Q-D5)	1.93	1	304.28	220.08	-
3. 6PPD-Quinone-13C6 (6PPD-Q-13C6)	1.93	1	305.28	221.19	-

Column Raptor C18 (cat.# 9304A52)
Dimensions: 50 mm x 2.1 mm ID
Particle Size: 2.7 µm
Pore Size: 90 Å
Guard Column: Raptor C18 EXP guard column cartridge 5 mm, 2.1 mm ID, 2.7 µm (cat.# 9304A0252)
Temp.: 40 °C
Standard/Sample Diluent: Acetonitrile
Inj. Vol.: 3 µL
Mobile Phase
A: 0.1% Formic acid, water
B: 0.1% Formic acid, acetonitrile

Max Pressure: 220 bar
Detector Waters Xevo TQ-S
Ion Mode: ESI+
Instrument Waters ACQUITY Premier
Sample Preparation Runoff water was collected from roadway 322-East, located in State College, PA, U.S. One-half milliliter of an extracted internal standard (EIS) solution (20 ng/mL of 6PPD-Q-13C6) was added to 250 mL of sample. Resprep Polymeric SPE cartridges, HLB (cat.# 28264), and a Thermo AutoTrace PFAS instrument were used for the following sample preparation procedure (steps 1-6 were diverted to waste):
1. Wash each cartridge with 5 mL of acetonitrile.
2. Wash each cartridge with 5 mL of reagent water.
3. Add 5 mL of reagent water to each cartridge.
4. Add the sample to the SPE column (250 mL) at a flow rate of 10-15 mL/min until the entire sample has been loaded onto the column.
5. Rinse the sample bottle with 5 mL of 50:50 methanol:reagent water (v/v) and then pour onto the column reservoir.
6. Once the rinse has completely passed through the cartridge, dry the cartridge under nitrogen for at least 5 minutes.
7. Rinse the sample bottles with 5 mL of acetonitrile and collect the SPE eluent using 15 mL polypropylene tubes. Samples should be pulled through using a low vacuum such that the solvent exits the cartridge in a dropwise fashion.
8. Repeat step 7 with a second 4-5 mL aliquot of acetonitrile. The total volume collected should be ~9-10 mL.
9. Add 0.5 mL of the non-extracted internal standard (NIS) solution (20 ng/mL of 6PPD-Q-D5) to the sample extract and vortex.
10. Transfer an aliquot of the sample to a screw-thread polypropylene autosampler vial (cat.# 23243) and cap with a polypropylene screw-thread cap (cat.# 24486).

Time (min)	Flow (mL/min)	%A	%B
0.00	0.5	70	30
3.00	0.5	0	100
4.00	0.5	0	100
4.01	0.5	70	30
5.50	0.5	70	30