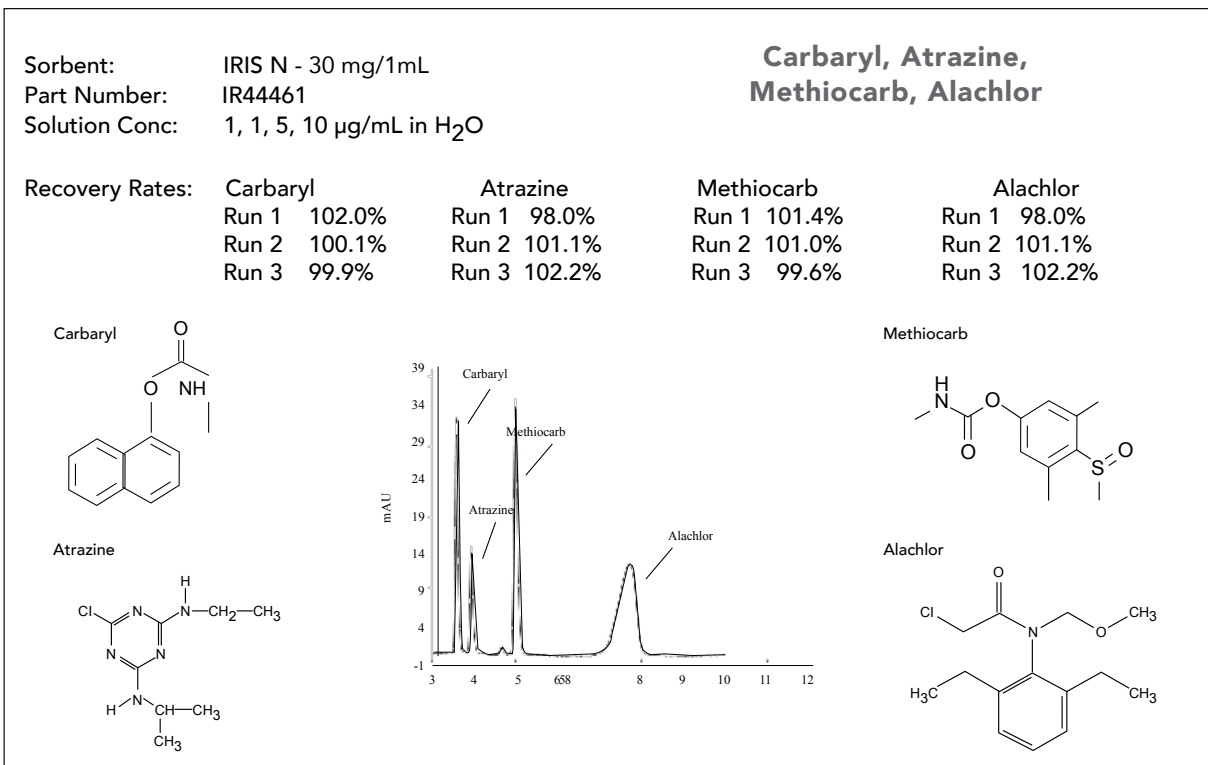
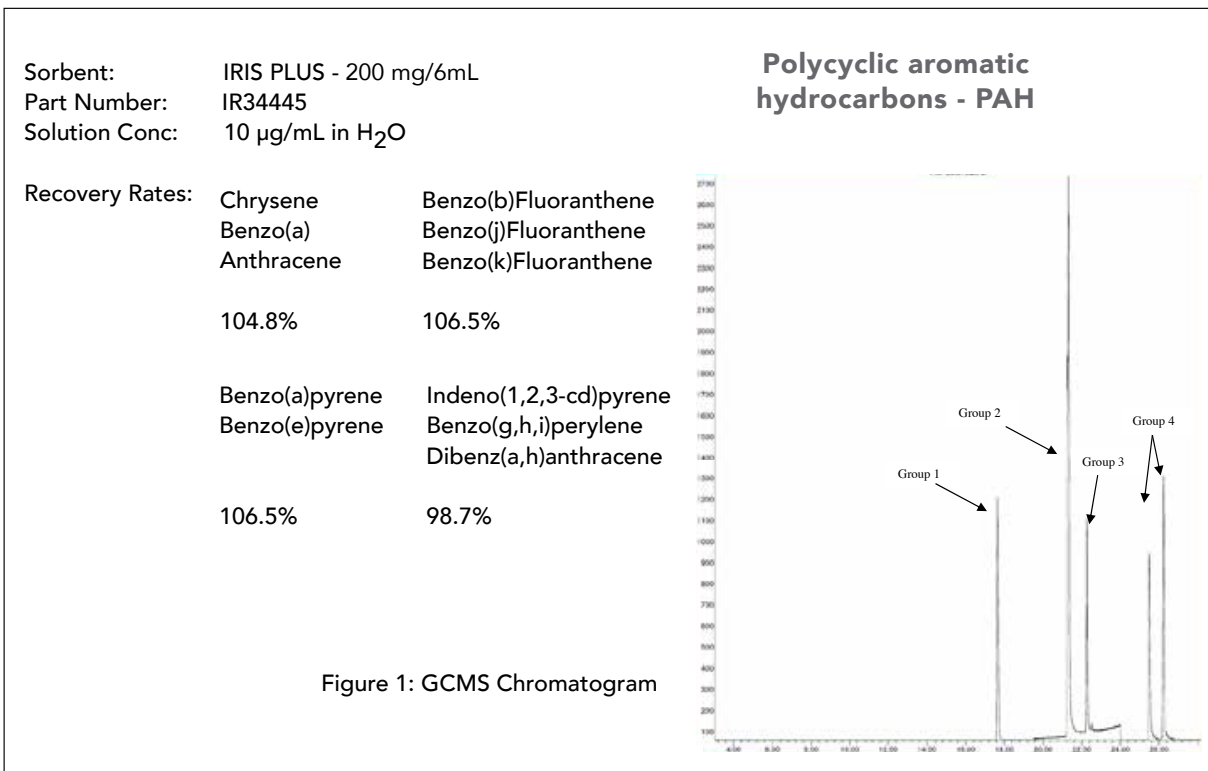


Applications - Environmental



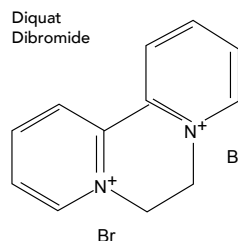
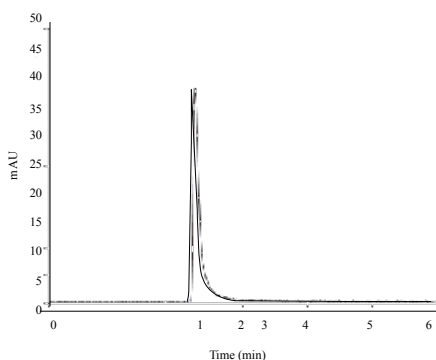
Applications - Environmental

Sorbent: IRIS WCX - 30 mg/1mL
 Part Number: IR84013
 Solution Conc: 10 µg/mL in H₂O

Diquat Dibromide

Recovery Rates: Run 1 92.4%
 Run 2 92.7%
 Run 3 85.8%

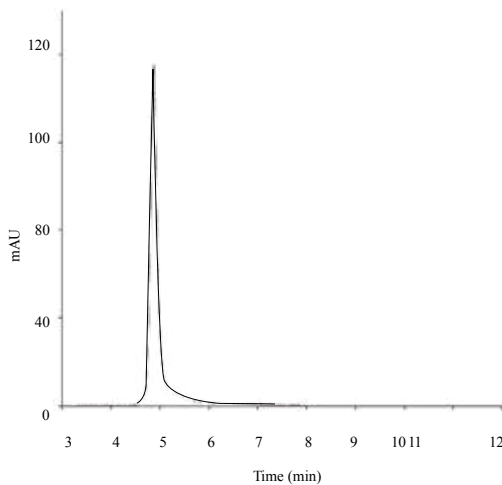
Note: The peak area values for Diquat were found to change over time. There was a relatively quick change to lower area values that then somewhat leveled off. The area values used for quantitation were for injections of the standards and the SPE solutions in this semi-stable time frame. This observed change in peak area over time is consistent with references that state the need to deactivate glassware prior to Diquat solution contact. In this analysis the SPE Diquat solution comes in contact with three different glass vessels. Diquat is not retained by the chromatographic column, eluting in the void volume. However, the strong absorbance at 310nm allows for quantitation without interference.



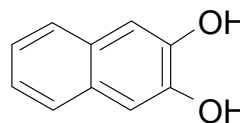
Sorbent: IRIS MCX - 30 mg/1mL
 Part Number: IR54461
 Solution Conc: 10 µg/mL in H₂O

2,3 Dihydroxynaphthalene

Recovery Rates: Run 1 109.5%
 Run 2 103.0%
 Run 3 101.6%



2,3 Dihydroxynaphthalene



Applications - Food & Agriculture

Sorbent: IRIS MCX - 200 mg/6mL
 Part Number: IR54445
 Solution Conc: 1 mg/mL in H₂O

Recovery Rates: Melamine
 97%

Nc1nc(N)c(N)n1

Melamine

Melamine

Internal Standard

Sorbent: IRIS N - 30 mg/1mL
 Part Number: IR44461
 Solution Conc: 5 µg/mL in H₂O

Recovery Rates:	Thiamphenicol	Florfenicol	Chloramphenicol
Run 1	98.4%	99.1%	99.3%
Run 2	99.7%	101.1%	100.3%
Run 3	99.2%	100.4%	99.8%

Note 1: Elution from the IRIS N SPE cartridge was performed with 70% CH₃CN. While 100% CH₃CN appeared to fully elute the compounds, the chromatographic peak shape was significantly better when the SPE elution solvent was less than 100% CH₃CN. 70% was used because it was already prepared, lower CH₃CN may lead to more improvement in chromatographic peak shape.

Thiamphenicol

CC1=CC=C(S(=O)(=O)C1)C(O)C(O)CNC(=O)C(Cl)Cl

Thiamphenicol

Florfenicol

Chloramphenicol

mAU

Time (min)

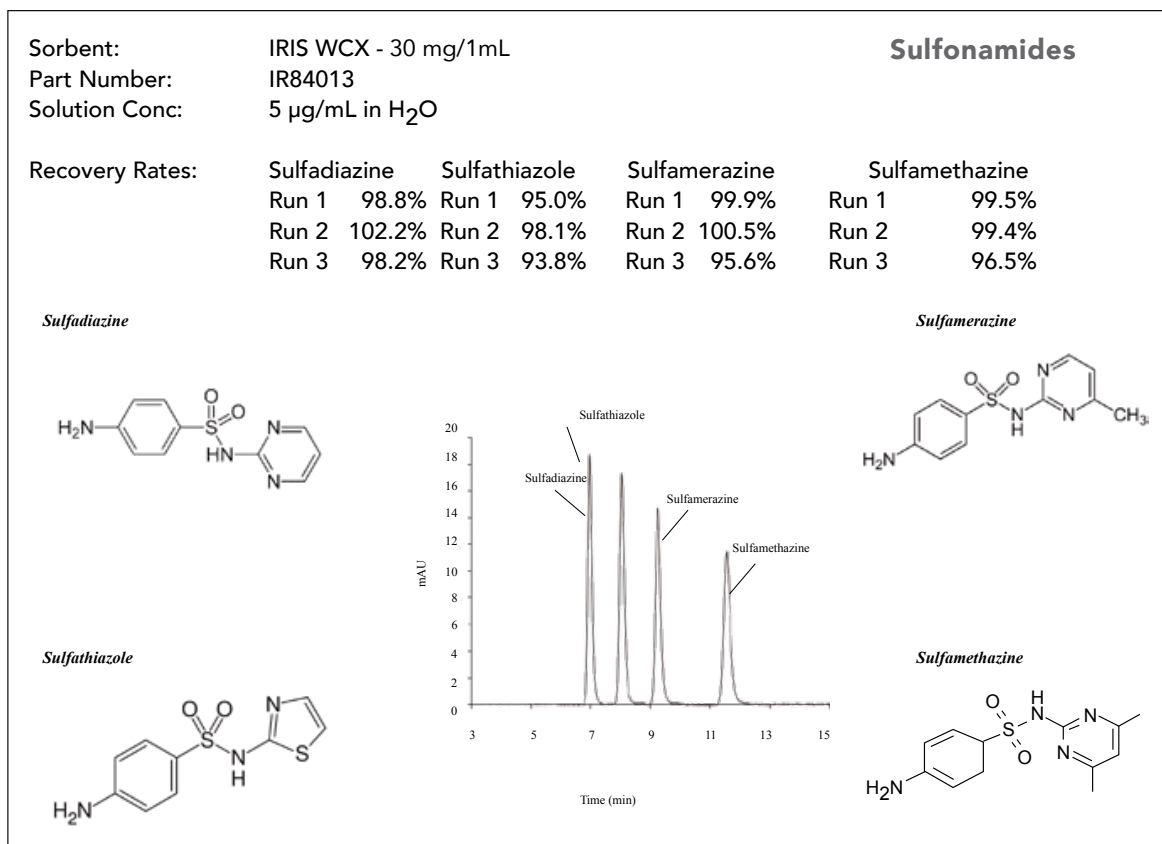
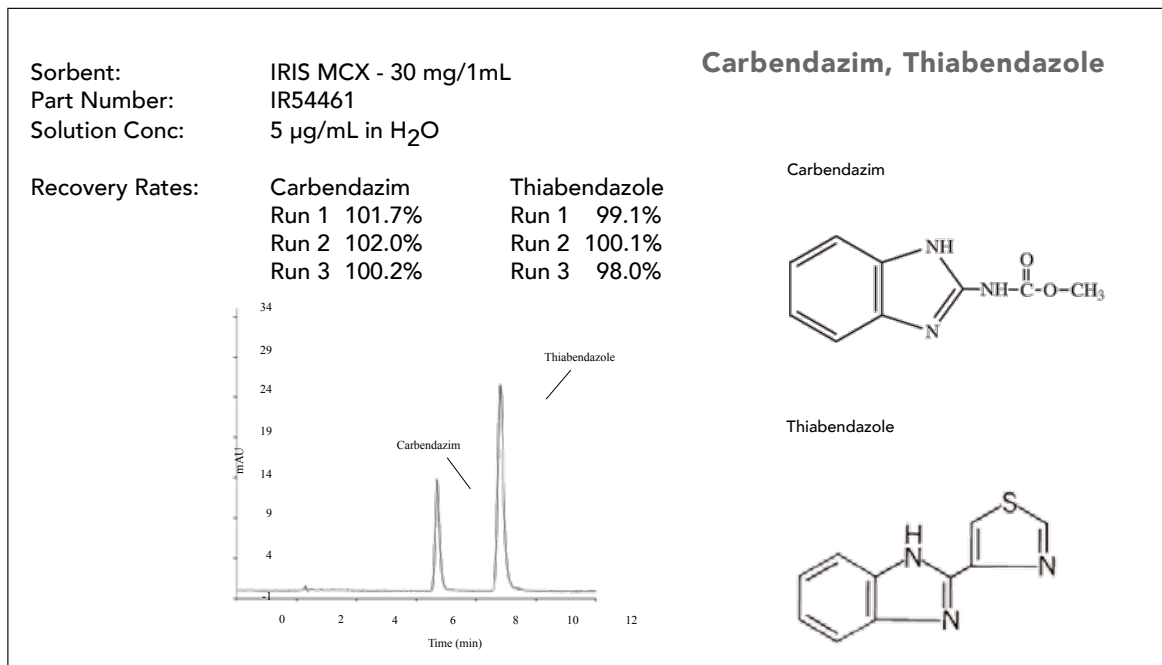
Florfenicol

CC1=CC=C(S(=O)(=O)C1)C(O)C(F)CNC(=O)C(Cl)Cl

Chloramphenicol

CC1=CC=C(S(=O)(=O)C1)C(O)C(O)CNC(=O)C(Cl)Cl

Applications - Food & Agriculture



Applications - Clinical & Bioanalysis

Sorbent: IRIS MCX 200 mg/6mL
Part Number: IR54445
Solution Conc: 5 µg/mL in H₂O

Recovery Rates:

Hydrocodone	95%
Dihydrocodeine	91%
Methylmorphine (Codeine)	94%
Oxycodone	104%
Hydromorphone	93%
Morphine	87%
Oxymorphone	94%

Opiates

Methylmorphine (Codeine)

Hydrocodone

Dihydrocodeine

Morphine

Oxymorphone

6-acetylmorphine

Sorbent: IRIS N - 30 mg/1mL
Part Number: IR44461
Solution Conc: 25 µg/mL in H₂O

Recovery Rates:

Risperidone	100%
Quetiapine Fumarate	103%
Domperidone	103%

Antipsychotic Drugs

Domperidone

Quetiapine Fumarate

Risperidone

Applications - Clinical & Bioanalysis

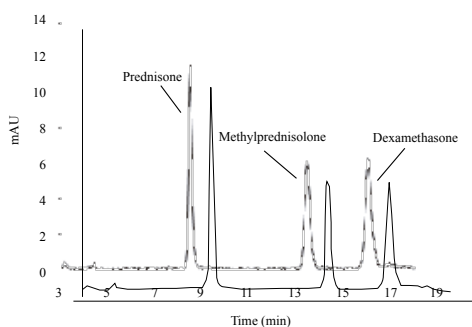
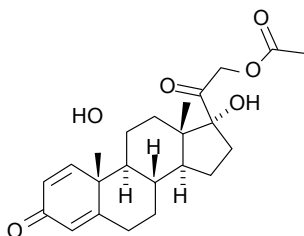
Sorbent: IRIS N - 30 mg/1mL
 Part Number: IR44461
 Solution Conc: 6 µg/mL in H₂O

Prednisone, Methylprednisolone, Dexamethasone

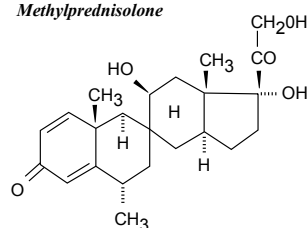
Recovery Rates:	Prednisone	Methylprednisolone	Dexamethasone
Run 1	100.7%	97.7%	100.0%
Run 2	99.5%	98.3%	98.0%
Run 3	99.8%	99.9%	99.3%

Note: Elution of the hormones from the IRIS N SPE cartridge was performed with 60% CH₂CN. It was found that lower recoveries were obtained when using 100% CH₂CN.

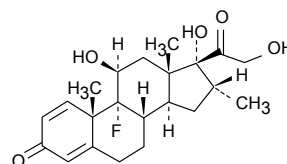
Prednisone



Methylprednisolone



Dexamethasone

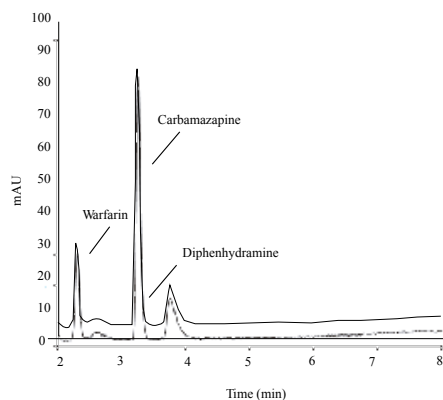
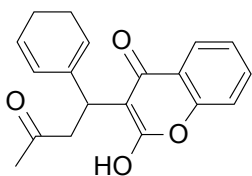


Sorbent: IRIS N - 30 mg/1mL
 Part Number: IR44461
 Solution Conc: Warfarin (2 µg/mL), Carbamazepine (1 µg/mL), Diphenhydramine (5 µg/mL) in H₂O

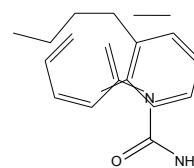
Warfarin, Carbamazepine, Diphenhydramine

Recovery Rates:	Warfarin	Carbamazepine	Diphenhydramine
Run 1	93.8%	97.5%	100.4%
Run 2	95.8%	98.0%	104.1%
Run 3	94.2%	99.2%	106.1%

Warfarin



Carbamazepine



Diphenhydramine

