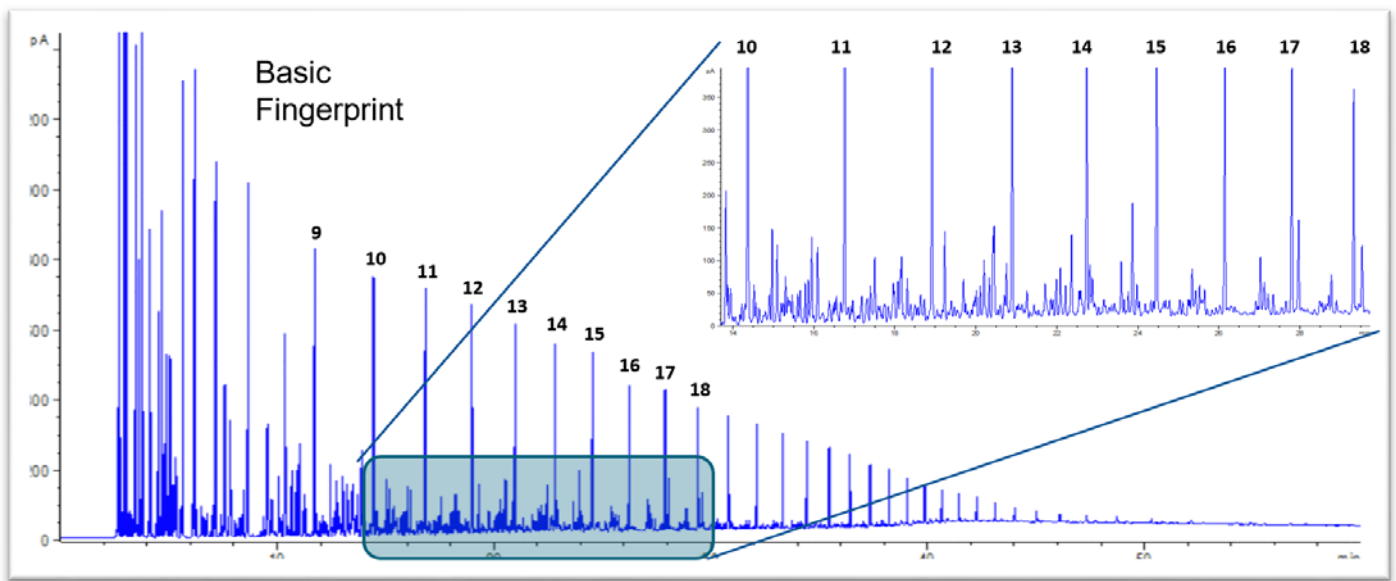




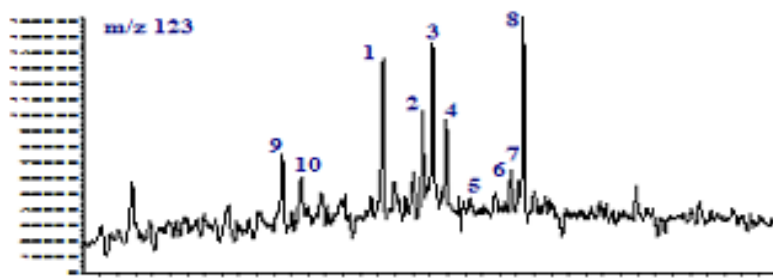
Environmental Forensics

- Similar to criminal forensics - Who did it and when? What's the proof?
- All about evidence and detail - The more the better
- Usually starts with a basic whole oil/EPH - A fingerprint
- Information is within the fingerprints



Often more analysis is required to obtain more detail:

Biomarkers (like very small fossils) resist weathering and biodegradation analysed by GC-MS. Different biomarkers are found in different products, for example m/z 191 is found in coal tar. Most commonly used are steranes (m/z 218); hopanes (m/z 191); and sesquiterpanes (m/z 123). Ratios of biomarkers give a lot of information. Oil refineries use different additives.



Sesquiterpane m/z 123

Forensics studies are generally used to correlate spills or samples. No two projects are the same, so it is always advisable to contact the laboratory to discuss the site in question so we fully understand the nature of the enquiry. We cannot provide an answer if we do not fully understand the question.