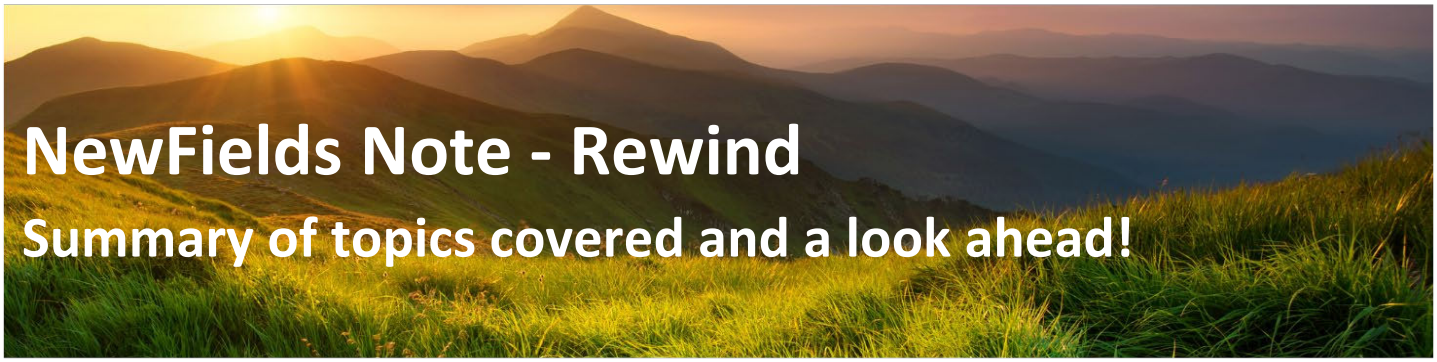
NewFields
Perspective. Vision. Solutions.

Providing access to a global network of recognized experts and professionals working together to resolve our clients' complex business needs



NewFields Note - Rewind

Summary of topics covered and a look ahead!

NewFields Note: Technical information in a condensed, easily digestible format that is intended to promote environmental science education, knowledge transfer, and empowerment … *one note at a time*.

As we approach the two-year anniversary of NewFields Notes, we're summarizing the Notes released to date while also providing a preview of what's in the pipeline. At the root of it all: ***the ability to influence the success of a project hinges on data: decisions are based on data collected, so the quality and quantity of that data are critical.*** Notes spanning a variety of forensic chemistry, geostatistics, and liability management topics are linked below, and available on our website.

Linked #	Topic	Subject Synapsis
1	PAHs	Ubiquitous in the environment; some form naturally but some are acutely toxic and have carcinogenic properties requiring regulation. Establishing source(s) of PAHs are central to an assessment.
2	Forensic Microscopy	Environmental assessment that characterizes forensic features of small particles; provides enhanced understanding of site deposits including distinction of natural vs. anthropogenic materials.
3	PFAS Forensics	Four-part series encompassing the assessment, sampling, and analysis of PFAS compounds to help support forensic investigations, diagnostic identification of sources, and potential liability.
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16		
6	Assessing - Allocating Liability	How chemical "fingerprints" are utilized across multiple materials and media, to identify and differentiate contaminants, and ascertain potential sources.
7	Chlorinated Solvents	Deploying forensic techniques to distinguish the most common groundwater contaminants found with degreasing, dry-cleaning, chemical manufacturing, and industrial, commercial and residential activities.
8	Geostatistics	Two-part series regarding utilizing statistical and geochemical techniques to differentiate soil background conditions in establishing cleanup targets, delineate impacts, and develop effective monitoring programs.
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10	Gasoline Fingerprinting	Utilizing various fingerprinting techniques such as PIANO, Lead, Oxygenates, Alcohol Speciation and Total Sulfur to measure and understand chemical changes in automative gasoline over time.
11	Diesel Fingerprinting	Distinguishing different sources of distillate fuels and their likely ages, by utilizing diagnostic features from parent crude oil feedstock and the effects of refining and blending and environmental weathering.
12	Environmental Baselining	The value to both buyers and sellers, of conducting chemical fingerprinting at the time of a property sale which provides a basis to distinguish "old" versus "new" post-sale contamination.
13	Celebrating 20 Years!	An invitation to spend an hour with NewFields exploring how our expertise in forensic chemistry is relevant to your projects, and how we can best support your environmental project objectives.
14	The Basics of Microplastics	On-going research by NewFields is intended to fingerprint plastics, by identifying compounds that provide the specificity to distinguish plastic sources, analogous to contaminants like PAHs, PCBs, and petroleum.
15	Ethylene Oxide in Air	The proportion of anthropogenic and naturally occurring EtO in air produces mixtures requiring distinction of back ground and point sources, as EtO is designated as a hazardous air pollutant regulated under the Clean Air Act.
17	Radiocarbon	Radiocarbon (14C) isotopes, present in soils, sediments and water can distinguish their "age" and are a useful forensic tool to distinguish between ancient and modern carbon sources in the environment.

In forthcoming Notes, we will review how historic data should be vetted for reliability and usability, and how laboratory methods can be deployed to provide additional critical lines of evidence to support a project outcome. We'll also be covering Compound-Specific Isotope Analysis, PCB Fingerprinting, and Advances and Applications of PFAS biomimetic chromatography. If there's a topic you'd like to learn more about, please let us know. For additional information, please contact your NewFields Technical Lead, or… send us a Note at: Science_Info@newfields.com!