



## I. Background.

Plaintiffs are owners of property in and around McIntosh, Alabama, who allege that their homes have been contaminated by DDT and its metabolites (collectively, “DDTr”) emanating from a nearby chemical manufacturing facility owned and operated by defendants (collectively, “Ciba”). On that basis, plaintiffs have brought causes of action against Ciba sounding in trespass, negligence, and nuisance. Although they initially claimed damages in the form of diminution of their property’s value, plaintiffs have since abandoned that theory of recovery, and are now seeking an award of compensatory damages for restoration costs, that is, the cost of reducing DDTr concentrations in their dwellings to a level of 10 parts per billion.

Marco Kaltofen, P.E., is a civil engineer whom plaintiffs retained “to collect samples of contaminated media ... in the McIntosh community, and to evaluate the source of DDT contamination in the McIntosh community and the Plaintiffs’ properties.” (Doc. 321, at 34.) In his report dated March 2, 2009, Kaltofen set forth a wide-ranging discussion of underlying facts, a summary of his sampling procedures and results, and various conclusions drawn from that process. With regard to the sampling methodology, Kaltofen’s report explains that “[t]he majority of samples collected by BCD [Boston Chemical Data, which is Kaltofen’s company] and analyzed for DDTr were taken from residential dusts samples. These samples were collected from bulk dust sources such as vacuum cleaner bags, and from air handling equipment, air filters, and settled dust samples.” (Doc. 313, Exh. 2, at 2.) In addition to household dust samples, Kaltofen collected samples from many other media, including soils, sediments and fish tissue. According to Kaltofen, “[t]he offsite levels of DDTr detected exceed background concentrations, which are generally near 10 ppb in nonimpacted soils.” (*Id.* at 3.)<sup>2</sup> Further, Kaltofen’s report states that “[a] progression of generally increasing DDTr and dioxin levels can be found as one moves closer to chemical operations on the Ciba McIntosh facility.” (*Id.*)

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these reasons, defendants’ request for an evidentiary hearing as to the admissibility of Kaltofen’s opinions is **denied**.

<sup>2</sup> In his deposition, Kaltofen elaborated that, “if I took a large number of samples, using essentially the same methods from a location just like McIntosh, but that never had a Ciba-Geigy, I would expect to be centering around a ten-part per billion value in dust.” (Kaltofen Dep., at 217.)

Although this case is confined to DDT<sub>r</sub> contamination in plaintiffs' homes, Kaltofen devotes substantial portions of his report to contamination caused by various non-DDT chemicals (such as dioxins and furans) via surface water, groundwater, and fish. Furthermore, it appears that testimony concerning fate and transport issues (*i.e.*, whether the DDT<sub>r</sub> in plaintiffs' homes originated from the Ciba plant) is part and parcel of the opinions that plaintiffs intend to elicit from Kaltofen at trial.

Defendants have challenged the admissibility of Kaltofen's opinions on a host of grounds, including qualifications, relevance and reliability.<sup>3</sup>

## II. Legal Standard.

The Federal Rules of Evidence, as construed by the Supreme Court in the landmark case of *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993), "require[] expert scientific evidence to be both reliable and relevant pursuant to Rule 702," such that it "appropriately assists the trier of fact." *United States v. Henderson*, 409 F.3d 1293, 1302 (11<sup>th</sup> Cir. 2005).<sup>4</sup> In that regard, "[t]he court serves as a gatekeeper, charged with screening out experts whose methods are untrustworthy or whose expertise is irrelevant to the issue at hand." *Corwin v. Walt Disney Co.*, 475 F.3d 1239, 1250 (11<sup>th</sup> Cir. 2007). This gatekeeping function is guided by the well-established principle that "[t]he proponent of the expert testimony carries a substantial burden under Rule 702" to show admissibility of that

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<sup>3</sup> Many of defendants' objections to Kaltofen's methodology and opinions were addressed and rejected by this Court in the predecessor *Fisher* litigation. *See Fisher v. Ciba Specialty Chemicals Corp.*, 2007 WL 2302470, \*4-9 (S.D. Ala. Aug. 8, 2007). As they have repeatedly done when confronted with adverse rulings, defendants do not even acknowledge the *Fisher* decision on these issues, but instead trot out the same previously-rejected arguments, supplemented by a few new ones. The Court will not reproduce the *Fisher* order in its entirety, but adopts it as a further basis for rejecting defendants' *Daubert* arguments based on reliability of Kaltofen's fate and transport opinions and the "fit" of his opinions concerning other pathways, as discussed in §§ III.B. and III.D., *infra*, of this Order.

<sup>4</sup> Rule 702 reads as follows: "If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case." *Id.*

testimony by a preponderance of the evidence. *Cook ex rel. Estate of Tessier v. Sheriff of Monroe County, Fla.*, 402 F.3d 1092, 1107 (11<sup>th</sup> Cir. 2005); *see also Boca Raton Community Hosp., Inc. v. Tenet Health Care Corp.*, 582 F.3d 1227, 1232 (11<sup>th</sup> Cir. 2009) (“The offering party must show that the opinion meets the *Daubert* criteria, including reliable methodology and helpfulness to the factfinder ..., by a preponderance of the evidence.”).

As a general proposition, “[i]n determining the admissibility of expert testimony under Rule 702, a district court considers whether (1) the expert is qualified to testify competently regarding the matter he intends to address; (2) the methodology by which the expert reaches his conclusions is sufficiently reliable as determined by the sort of inquiry mandated in *Daubert*; and (3) the testimony assists the trier of fact, through the application of scientific, technical, or specialized expertise, to understand the evidence or to determine a fact in issue.” *United States v. Douglas*, 489 F.3d 1117, 1124-25 (11<sup>th</sup> Cir. 2007); *see also Maiz v. Virani*, 253 F.3d 641, 665 (11<sup>th</sup> Cir. 2001) (similar). That said, “[t]he rules relating to *Daubert* issues are not precisely calibrated and must be applied in case-specific evidentiary circumstances that often defy generalization.” *United States v. Brown*, 415 F.3d 1257, 1266 (11<sup>th</sup> Cir. 2005). For that reason, courts have stressed that the *Daubert* inquiry is “a flexible one,” that the *Daubert* factors are mere guidelines for applying Rule 702, and that “expert testimony that does not meet all or most of the *Daubert* factors may sometimes be admissible” based on the particular circumstances involved. *Brown*, 415 F.3d at 1267-68.<sup>5</sup> In performing a *Daubert* analysis, the Court’s focus must be “solely on principles and methodology, not on the conclusions that they generate”; thus, it matters not whether the proposed expert testimony is scientifically correct, so long as it is shown to be reliable. *Allison v. McGhan Medical Corp.*, 184 F.3d 1300, 1312 (11<sup>th</sup> Cir. 1999).

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<sup>5</sup> The Court also proceeds in recognition of appellate guidance that “a district court may not exclude an expert because it believes one expert is more persuasive than another expert” or “because it believes the expert lacks personal credibility because of prior bad acts or other prior instances of untruthfulness.” *Rink v. Cheminova, Inc.*, 400 F.3d 1286, 1293 n.7 (11<sup>th</sup> Cir. 2005); *see also Smith v. Ford Motor Co.*, 215 F.3d 713, 719 (7<sup>th</sup> Cir. 2000) (“It is not the trial court’s role to decide whether an expert’s opinion is correct.”). Such circumstances may provide fertile ground for cross-examination at trial, but they do not constitute a permissible basis for excluding testimony altogether under Rule 702 and *Daubert*.

### **III. Analysis.**

Defendants' principal brief sets forth myriad objections to Kaltofen's opinions, in a loosely organized, almost stream-of-consciousness fashion. For purposes of coherence and flow, defendants' objections will be analyzed in groups, as follows: (i) objections relating to Kaltofen's opinion that the background level of DDT in indoor dust in McIntosh is 10 ppb; (ii) objections relating to Kaltofen's discussion of pathways and sources of contamination in the McIntosh community; (iii) objections to Kaltofen's sampling process and results; and (iv) objections to the "fit" of Kaltofen's opinions to the claims joined in this litigation. Each will be addressed in turn.

#### ***A. Objections to Kaltofen's Opinion as to Background Level of DDT.***

Defendants devote considerable effort to attacking Kaltofen's opinion that the appropriate background concentration level for DDTr is 10 ppb. This background level is potentially significant in this case because it served as one of the inputs for the restoration cost estimates computed by plaintiffs' remediation expert, Randy D. Horsak, P.E. And it is those restoration cost estimates that plaintiffs are claiming as damages.

The initial premise of Ciba's objection is that Horsak and Kaltofen have each "point[ed] to the other for support for their opinions, with both conceding that they lack the appropriate expertise to evaluate the appropriate target for clean-up." (Doc. 313, at 1, 4.) In so arguing, defendants garble both the nature of Kaltofen's opinions and the clearly established interplay between these two experts, which this Court has previously described as follows:

"[Kaltofen opined] that the appropriate 'background concentration' levels of DDTr in household dust are approximately 10 ppb. ... This 10 ppb figure represents the concentration of DDTr that one might reasonably expect to find in household dust samples taken from plaintiffs' property in the absence of environmental contamination from the nearby Ciba facility. ... Kaltofen's opinion concerning background DDTr concentrations in dust was relayed to plaintiffs' remediation expert, Horsak, as a remediation target value. Horsak then performed property-specific analyses to estimate the cost of cleaning up the DDT contamination on each test plaintiff's property to restore said property to the background 10 ppb concentration of DDTr."

(Doc. 284, at 8 (record citations and footnotes omitted). Thus, it is simply incorrect to suggest (as defendants do) that Horsak and Kaltofen were mindlessly citing each other in a circular manner. Conceptually, plaintiffs claim they have been harmed by Ciba contamination of their

properties. To be made whole, they are asking to be awarded the cost of removing Ciba contamination (but only the Ciba contamination) from their homes. Because DDT<sub>r</sub> is a man-made, persistent compound that has spread worldwide, some “background level” of it would likely exist in plaintiffs’ homes even in the absence of Ciba’s allegedly tortious conduct. Accordingly, what plaintiffs seek to recover in this lawsuit is the cost of restoring their properties to that background level of DDT<sub>r</sub>.<sup>6</sup> Kaltofen supplied that background level by offering his expert opinion that it is 10 parts per billion. Under plaintiffs’ legal theory, that 10 ppb figure represents the degree of clean-up to which they are entitled for Ciba’s wrongdoing, because it would restore them to the same position they would have been in had there been no Ciba contamination. So plaintiffs furnished that number to Horsak as his remediation target to compute clean-up cost estimates that would make plaintiffs whole for Ciba-caused property damage, without compensating them for remediation of background levels of DDT that would be expected in the absence of Ciba torts. There is nothing inappropriate or unreliable about the interaction of Horsak’s and Kaltofen’s opinions on this point.

Ciba’s challenge to Kaltofen’s qualifications similarly misapprehends the nature of Kaltofen’s opinions and their interplay with Horsak’s calculations. Defendants argue at some length that Kaltofen is unqualified to opine “on the highly scientific and technical issues of risk assessment and toxicology.” (Doc. 313, at 7.) As defendants well know, however, Kaltofen never, ever purported to offer any expert opinions in this case in the field of risk assessment or toxicology. He has not been proffered as an expert in the area of risk assessment or toxicology. This objection approaches frivolity.<sup>7</sup> Whether Kaltofen is an expert in risk assessment has no

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<sup>6</sup> This is a legal theory, not a scientific theory, so it is of no consequence that neither Horsak nor Kaltofen formulated a specific conceptual determination that the remediation target should be tied to the background level in this case.

<sup>7</sup> In lodging this objection, defendants improperly conflate the distinct concepts of a background level and a risk-based remediation target. Kaltofen offered an opinion only as to the former, not the latter. He is unquestionably qualified to offer an opinion as to the background concentration of DDT<sub>r</sub> in McIntosh, Alabama, and defendants do not maintain otherwise. Defendants’ point appears to be that the only viable kind of remediation target is one grounded in toxicology or risk assessment. As stated in this Court’s contemporaneous order denying defendants’ *Daubert* motion pertaining to Horsak, however, defendants have presented

more bearing on this case than whether he is an expert in police procedures or sports psychology. He has not offered opinions implicating any of these disciplines.

Defendants also contest the reliability of Kaltofen's opinion that the relevant background concentration level of DDT is 10 ppb; indeed, defendants go so far as to characterize this figure as "completely manufactured" by Kaltofen, and to contend that "[h]e has simply selected 10 parts per billion as the number without support." (Doc. 313, at 9-10.) This argument is well wide of the mark. Kaltofen's initial report cites multiple sources for the proposition that "the scientific literature values of typical soil DDT levels ... are more likely to be below 0.01 mg/Kg, (equal to 10 ppb, ref. 12, 20)." (Doc. 313, Exh. 2, at 14.) Moreover, Kaltofen relied on a variety of data to reach this figure, including test results in McIntosh itself, his own experience in analyzing chemical quality data from tens of thousands of homes in his engineering career, and the scientific literature. (Doc. 337, Exh. A, at 3-4.)<sup>8</sup> For instance, Kaltofen notes that 16% (52

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neither legal argument nor scientific evidence that a remediation target must necessarily be health-based to be valid. As discussed in that same ruling, defendants' underlying view that an award of restoration costs is permissible only if the DDT on plaintiffs' property poses a health hazard is incorrect as a matter of Alabama law, as well. Here, plaintiffs do not want DDT on their property, irrespective of its human health effects. If they can prove that Ciba is legally responsible for causing DDT to be on their property, then plaintiffs are entitled to ask the jury to award them damages for the cost of removing the Ciba DDT, and to put on evidence as to what those restoration costs would be. It was in the context of that entirely reasonable legal position that plaintiffs provided Kaltofen's background concentration figure to Horsak for use as a clean-up target. Defendants' construction of this enterprise as Kaltofen opining about risk-based remediation goals is therefore manifestly incorrect.

<sup>8</sup> This Declaration of Marco Kaltofen was included in plaintiffs' submission in opposition to the *Daubert* Motion. Plaintiffs' filing includes more than 300 pages of exhibits. The Court's review of these voluminous materials has been hampered by plaintiffs' chronic failure either to provide pinpoint cites to these exhibits, or to append only the relevant portions. Without more specific citations, this Court will not sift through lengthy and technical academic articles that plaintiffs have cited with nothing more than a broad sweep of the hand. Also impeding this Court's disposition of this motion is plaintiffs' noncompliance with Paragraph 13(c) of the Rule 16(b) Scheduling Order (doc. 67), which provides that if a party's exhibits in support of or in opposition to a motion exceed 50 pages, courtesy hard copies of those exhibits must be supplied to chambers. Efficient review of these exhibits has further been impaired by the following facts: (a) plaintiffs have provided neither a notice of filing nor an index to identify the exhibits, (b) most of these exhibits are not referenced in plaintiffs' memorandum, and (c) plaintiffs erred in the electronic filing of their brief, in that certain exhibits are filed twice and

of 319) of the homes tested in McIntosh had a dust level of 10 ppb or lower, “demonstrating that DDT is not naturally ubiquitous in house dust.” (*Id.* at 3.) Because one-sixth of the hundreds of sampled homes in McIntosh had DDT concentrations at or below 10 ppb (such that this figure was not an outlier in the McIntosh data), and because DDT concentrations are not expected to be uniform even in contaminated areas, Kaltofen (relying on his experience) concluded that those homes were uncontaminated by Ciba, such that 10 ppb was a reasonable expected benchmark level for an uncontaminated home. That opinion was bolstered by multiple sources in the literature showing DDT concentrations in dust in uncontaminated homes to be 10 ppb or below. (Doc. 337, at 4.)<sup>9</sup>

In short, what Kaltofen has done is to estimate a background concentration figure of DDT that is specific to his McIntosh data set, but that also draws support from literature sources concerning background levels in other locations. Kaltofen’s approach bears sufficient hallmarks of reliability to justify admissibility under Rule 702 and *Daubert*.<sup>10</sup>

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bear two different exhibit numbers, while one (Exhibit 6) is omitted entirely. (*See* doc. 337-6 through doc. 337-10.) The Clerk’s Office was unable to correct the filing because it could not ascertain plaintiffs’ intent; moreover, the Court was not interested in opening the floodgates for further objections, supplemental briefing, etc. by instructing plaintiffs to refile those exhibits before the *Daubert* Motion was taken under submission. That said, the Court has reviewed those exhibits as submitted, and has made sense of them to the best of its ability. To the extent that plaintiffs’ arguments are blunted by these mistakes, they have only themselves to blame.

<sup>9</sup> To the extent that literature studies are directed at DDT in soil, rather than in dust, Kaltofen opines that such a distinction does not preclude use of soil background data, because it is accepted in the literature that “70 percent of the mass of indoor dust is made up of material from the surrounding soils.” (Doc. 337, Exh. A, at 4.) Kaltofen buttresses this opinion by pointing to EPA data showing that house dust and soil may show similar magnitudes of contamination at the same contaminated site. (*Id.*)

<sup>10</sup> Defendants’ many objections to Kaltofen’s methods are noted, but they are either obviously meritless or properly viewed as lines of inquiry on cross-examination, not as *Daubert* challenges. For starters, defendants couch Kaltofen’s opinion as “a notion of ‘no background’ - that any detectable amount of a non-naturally occurring chemical is above background.” (Doc. 313, at 9.) This statement distorts Kaltofen’s testimony and, indeed, turns it on its head. He specifically recognized a detectable background level for non-naturally occurring compounds such as DDT; therefore, this objection is baseless. Next, defendants criticize Kaltofen’s literature citations on the ground that the cited studies lack specific statements concerning DDT background values in dust or soils. Inspection of these studies

**B. *Objections to Kaltofen’s Opinions Concerning Pathways and Sources of Contamination.***

Defendants’ next category of objections relates to Kaltofen’s opinions as to pathways and sources of DDT contamination in McIntosh. Although his report is not a model of clarity or organization,<sup>11</sup> it does state opinions that the Ciba plant is the source of plaintiffs’ DDT

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reveals, however, that they do support Kaltofen’s figure, even if they do not embrace it explicitly. The Schenker study, for instance, includes Figure 2, which shows measured and modeled DDT concentrations in soils in temperate climates ranging from approximately 4 ppb to approximately 10 ppb between 1985 and 2005. (Doc. 337-7 at 7.) Although DDT’s degradation products are excluded from that estimate, the Schenker study also observes that “DDT is found in the highest concentrations as compared to its degradation products in all media of the model” (*id.* at 6), such that the omission may not be significant. Defendants are certainly free to cross-examine Kaltofen about his interpretation of these studies, but Ciba’s disagreement with that interpretation does not render his opinions unreliable or inadmissible as a matter of law. The Court cannot adopt defendants’ position that a “true scientist” would explain in painstaking detail in a declaration how the specific studies support his opinions, rather than simply stating that they do. (Doc. 352, at 5.) The law does not require an expert to pen a dissertation that anticipates all challenges to his testimony and pre-emptively responds to same as a precondition to the admissibility of his testimony. Based on the Court’s review of the cited studies, all of them plainly bolster Kaltofen’s 10 ppb background concentration estimate to a greater or lesser degree. Contrary to defendants’ objection, there is nothing “unscientific” about extrapolating from the literature to reach one’s own conclusions in setting a background level for a particular geographic location, especially where that figure is also predicated on other considerations, such as sampling results from that area. Finally, the Court rejects defendants’ hyperbole that “it is shocking” that Kaltofen did not utilize EPA health screening values for DDT in soils in his determination of background levels. (Doc. 352, at 6.) Defendants mix apples and oranges in an argument that obfuscates rather than illuminates. Kaltofen did not look at EPA health screening values for the simple and obvious reason that he was estimating a background concentration value, not performing a risk assessment or setting health-based screening values for DDT in McIntosh. Health-based screening values and background levels are entirely distinct concepts, and defendants’ repeated blurring of these concepts is highly misleading.

<sup>11</sup> Defendants criticize the format of Kaltofen’s report by asserting that it is difficult to distinguish between his statements of fact and his statements of opinion, that the report is unfocused and difficult to follow, and that it contains “factoids” and lacks “cohesion.” (Doc. 313, at 5, 9, 14.) These observations are not unfounded. Certainly, this expert report is not a paragon of lucidity. But *Daubert* is not a mechanism for grading expert reports (or lawyers’ briefs, for that matter), and the Court cannot follow defendants’ leap of logic that a disheveled report signals a dearth of scientific methodology. Besides, defendants surely had a full opportunity to explore any infirmities in the clarity or organization of Kaltofen’s report during his deposition. As such, these format objections are not pertinent to the admissibility issues

contamination based on such factors as the high levels of DDT on site, the presence of multiple pathways through which DDT and other contaminants have been transported offsite, and the diminishing gradient of values as one moves away from the plant. (Doc. 313, Exh. 2, at 2-3.) The record also shows that Kaltofen reviewed sampling data from the MOWA incinerator in Mount Vernon, Alabama (which defendants have touted as an alternate source of plaintiffs' injuries), and has rejected that site as a source. (Doc. 337, Exh. A, at 3.)

Before addressing defendants' specific objections to these opinions, the Court interjects a concern of its own. Not mentioned by defendants' briefs, but troubling nonetheless, is the likelihood that plaintiffs may call Kaltofen, in part, to echo the same fate and transport opinions offered by another plaintiffs' engineering expert, Dr. Robert Scates.<sup>12</sup> To the extent that plaintiffs seek to have Kaltofen offer identical opinions as Dr. Scates regarding the sources of DDT on plaintiffs' property, based on the same underlying evidence, such testimony is cumulative and subject to exclusion.<sup>13</sup> Of course, to the extent that these two experts are relying on differing lines of evidence to reach their conclusions (*i.e.*, Dr. Scates' materials balance analysis of DDT emissions or his plotting of age of home versus DDT concentrations, neither of which Kaltofen examined), such that their testimony is complementary rather than redundant, it will be allowed. But plaintiffs cannot call two different fate and transport experts to analyze, for

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posed by the *Daubert* Motion.

<sup>12</sup> This intention is reflected in the Joint Pretrial Document, wherein plaintiffs stated that they will call Kaltofen to offer opinions concerning, *inter alia*, "the source of DDT contamination in the McIntosh community and the Plaintiffs' properties." (Doc. 321, at 34.) In the next paragraph, plaintiffs indicated that they will call Dr. Scates to testify concerning, *inter alia*, "the fate and transport of DDT from Defendants' McIntosh plant site onto Plaintiffs' properties." (*Id.*) The overlap of the proposed testimony by these experts (who share the same or similar fields of expertise) as to fate and transport issues appears non-trivial.

<sup>13</sup> See *Tran v. Toyota Motor Corp.*, 420 F.3d 1310, 1315 (11<sup>th</sup> Cir. 2005) (affirming district court's exclusion of cumulative expert testimony at trial, where excluded expert relied on same evidence that testifying expert did, would have testified on same issues, had similar qualifications, and would not have added different information); *Frazier*, 387 F.3d at 1263 ("Exclusion under Rule 403 is appropriate ... if the expert testimony is cumulative or needlessly time consuming") (citations omitted); *First Nat'l Bank of Louisville v. Lustig*, 96 F.3d 1554, 1574-75 (5<sup>th</sup> Cir. 1996) (district court did not abuse discretion in excluding as cumulative expert's testimony that would have covered the same ground as that of testifying witness).

example, the same gradient pattern and state the same opinion based on that pattern. For that reason, plaintiffs must coordinate the testimony of Kaltofen and Dr. Scates on direct examination to avoid unnecessary duplication and cumulative evidence, pursuant to Rule 403, Fed.R.Evid.

Defendants' first objection to Kaltofen's opinions as to sources and pathways is that he "fails to demonstrate *any* connection between the alleged presence of chemicals at the Ciba plant and the presence of the same chemicals on the property of Plaintiffs." (Doc. 313, at 9.) This statement is incorrect. At a minimum, Kaltofen relied on gradient studies (a normal method for fate and transport analyses, and one that defendants' expert, Dr. Langseth, likewise employed) and his own considerable sampling data that pointed to the Ciba plant as the source and that ruled out alternative sources such as the MOWA incinerator. (Doc. 337, Exh. A, at 2-3.)

Ciba also takes issue with Kaltofen's description of possible pathways without specific quantification of same. According to defendants, Kaltofen's opinions are flawed because he did not perform an air model and did not consider the topography, rainfall, soil moisture, vegetation, and grain size distribution of the floodplain on the Ciba site to determine whether it might be the source. But defendants have not explained why these sorts of endeavors are a necessary prerequisite to any scientific analysis of fate and transport. They have not explained why it is unreliable for Kaltofen to offer opinions about sources of DDT based on his analysis of the field data, including the aforementioned gradient studies (which engineers on both sides of this dispute have utilized in their fate and transport analyses) and data showing that DDT concentrations at the Ciba site are more than 10,000 times those at the MOWA incinerator site that defendants have identified as an alternative source (doc. 337, Exh. A, at 3). The law is otherwise. *See generally Maiz*, 253 F.3d at 669 ("there is no question that an expert may still properly base his testimony on professional study or personal experience") (citations and internal quotation marks omitted). The Court therefore does not credit this objection.<sup>14</sup>

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<sup>14</sup> Defendants have hamstrung themselves by failing to identify with precision the opinions with which they are taking issue. In various places in their filings (including Dr. Langseth's Affidavit), they make vague references to Kaltofen's deposition testimony, but the relevant transcript portions have not been appended and the specifics of that testimony have not been provided. The Court is left to evaluate defendants' motion by reference to the arguments they have actually made and the opinions they have actually cited. Those opinions include such matters as Kaltofen's conclusion "that an airborne pathway from the Ciba plant was another

**C. Objections to Kaltofen’s Sampling Process and Results.**

Defendants’ third category of objections to Kaltofen’s opinions takes aim at his sampling protocols, his analysis of the sampling results, and the admissibility of the sampling results.

In a skimpy afterthought argument to which defendants have devoted a single paragraph of their 22 pages of briefing, Ciba contends that Kaltofen cannot testify about the lab test results for the hundreds of samples he collected because he “did not personally analyze the samples in this case.” (Doc. 313, at 11.) Defendants extrapolate from that point to a conclusory statement that “since Plaintiffs have not offered any witness to affirmatively introduce the sampling results and establish chain of custody, Plaintiffs’ claims should be dismissed.” (*Id.* at 12.) In response, plaintiffs persuasively assert that Kaltofen should be allowed to testify about those lab results because they constitute facts and data within the purview of Rule 703. Defendants having elected neither to amplify their one-sentence request for dismissal nor to address the Rule 703 argument in their reply brief, and it appearing that lab results from samples that Kaltofen collected are exactly the sort of evidence contemplated by Rule 703, the Court overrules this cursory, off-the-cuff objection.<sup>15</sup>

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possible pathway responsible for chemicals on the named Plaintiffs’ and McIntosh community properties.” (Doc. 313, at 10.) But the proposition that an air path is a “possible” pathway of contamination in this case is wholly uncontroversial. Defendants do not argue that Kaltofen ever specifically identified air as the pathway by which plaintiffs’ homes were contaminated, only that it was a possibility. The mere statement that a particular pathway is possible does not appear to run afoul of the *Daubert* principles; after all, it seems highly unlikely that any reasonable scientist would disagree (and not even Dr. Langseth has disagreed) that DDT particles can be carried by air from one location to another nearby location, so air is clearly a “possible” pathway. Similarly, defendants protest Kaltofen’s “suggestion that high detections of DDT in the floodplain (on the Ciba site) are the obvious source of the DDT found in dust in Plaintiffs’ homes.” (Doc. 313, at 10.) But defendants do not identify where in the record Kaltofen made such a suggestion, and the Court’s review of defendants’ exhibits reveals that Kaltofen has identified many aspects of the Ciba site (not just the floodplain) as possible sources of DDT. The net result is that defendants have failed to show with clarity which opinions they are attacking, or whether Kaltofen ever expressed those opinions. This defect cripples their objections by creating the appearance that they are assailing phantom opinions that were never stated and by depriving the Court of the necessary context to evaluate those objections.

<sup>15</sup> Defendants ask this Court to “admonish” plaintiffs that Kaltofen must state that he did not perform the lab testing himself. (Doc. 313, at 11-12.) The Court is confident that

Next, defendants contend that Kaltofen's opinions should be excluded because his sampling procedure was not random, but was instead a biased protocol pursuant to which he only took samples in places where he expected to find contamination. However, defendants offer neither evidence nor argument that a so-called "biased sampling" approach is *per se* inadmissible; rather, they appear to operate under the premise that tarring Kaltofen with a "bias" label should trigger his disqualification. Defendants are incorrect.<sup>16</sup> Kaltofen has stated, without rebuttal of any kind, that his sampling methodology was "performed in accordance with specific standard US Environmental Protection Agency methods." (Doc. 337, Exh. A, at 4.)<sup>17</sup> Defendants have neither argued nor shown that biased sampling is inconsistent with accepted scientific methodology; therefore, Kaltofen's testimony will not be excluded merely because his sampling procedure was "biased," a term used in the scientific sense to mean non-random.<sup>18</sup>

Defendants also insist that Kaltofen "provides no plausible analysis of the sampling data" because he does not agree with defendants that there is "no predictable pattern" in the samples

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defendants will bring out this point on cross-examination of Kaltofen if they deem it appropriate; therefore, no admonition is required.

<sup>16</sup> See generally *Emhart Industries, Inc. v. Duracell Int'l Inc.*, 665 F. Supp. 549, 559-60 (M.D. Tenn. 1987) (finding that "importation of the pejorative connotation of bias in lay terms to statistical applications is inappropriate" and that "random sampling is not appropriate for the objectives of determining the source and extent of contamination").

<sup>17</sup> As evidence of the commonly accepted nature of his protocols, Kaltofen points to a document prepared by the EPA and styled "Emergency Response Quality Assurance Sampling Plan" for New Orleans following Hurricane Katrina. That EPA plan specifically identifies a sampling protocol that is "biased" because the EPA was looking for elevated levels of contamination. (Doc. 337-9, at § 3.2.1.) Defendants offer no rejoinder to this evidence.

<sup>18</sup> Equally flawed is defendants' attempt to exclude Kaltofen's opinions by imputing a nefarious motivation to the testing approach he ordered for the McIntosh samples. In his deposition, Kaltofen acknowledged that at some point, he instructed the lab to stop testing for pesticides other than DDT, and to lower the detection limit (which would have the effect of more sample results testing positive for DDT). (Doc. 313, Exh. 1, at 144-47.) The Court perceives nothing inherently unscientific or unreliable about focusing the testing on a specific chemical or modifying testing parameters to obtain more detailed information about the samples. Defendants contend that this approach was not "objective"; however, this strained argument plainly goes to the weight of Kaltofen's testimony and not its admissibility.

and because plaintiffs have other contaminants on their properties. (Doc. 313, at 12.) The record makes clear, however, that Kaltofen performed a gradient study that, in his view, established a general decline in DDT concentrations from his identified source (the Ciba plant) with increasing distance from that source. (Doc. 337, Exh. A, at 3.) This is clearly a scientific method, and defendants' dispute with his conclusions is not a valid basis for jettisoning his testimony under *Daubert* principles. Moreover, Kaltofen has responded to the "no predictable pattern" assertion by stating his opinion that the lack of uniform, lockstep contamination results does not imply that there is no pattern at all or that no source can be identified. (*Id.*) The Court will allow Kaltofen to testify on these points, and defendants' objections are properly in the nature of cross-examination rather than *bona fide* Rule 702 challenges.<sup>19</sup>

***D. Objections to "Fit" of Kaltofen's Opinions.***

Defendants' final category of objections is that many of Kaltofen's opinions set forth in his report relate to far-flung and irrelevant matters, such that they do not "fit" the facts of the case. It is well established that "[t]he party offering the expert testimony has the burden of demonstrating that the testimony is relevant to the task at hand and logically advances a material aspect of its case." *Boca Raton*, 582 F.3d at 1232 (citations and internal quotation marks omitted). Although the relevance standard is "liberal," an expert opinion should be excluded for lack of "fit" if it "does not have a valid scientific connection to the pertinent inquiry." *Id.* (citations and internal quotation marks omitted).

Kaltofen's opinion is riddled with references to chemicals and pathways that do not appear directly linked to the claims joined for trial in this case. Recall that plaintiffs have sued Ciba for alleged property damage resulting from DDT contamination in their homes. Yet Kaltofen's report discusses at length test results for chemicals such as dioxins and furans. As one of many examples, Kaltofen opines that "Ciba is a major source of PCDDs and PCDFs (Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans) based upon its thermal

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<sup>19</sup> As for the "other contaminants" issue, defendants cannot have it both ways. In one breath, they blast Kaltofen's report for discussing chemicals other than DDT. In the next, they criticize him for not accounting for other contaminants in plaintiffs' homes. If Kaltofen's testimony is to be confined to DDT (as defendants have asked in their Motion), then defendants cannot turn around and attack him for not addressing those other chemicals.

treatment and open burning of wastes.” (Doc. 313, Exh. 2, at 3.) The Court is at a loss to understand how expert testimony concerning sources and concentrations of these chemicals is relevant to the task at hand, which is whether plaintiffs’ homes are contaminated with DDT and its metabolites and whether Ciba tortiously caused those substances to be there. Plaintiffs have not responded to this objection and have not provided any explanation for how expert testimony about Ciba contaminants other than DDT<sub>r</sub> would logically advance a material aspect of this case. Moreover, even if it were relevant, the Court perceives an unacceptably high risk of jury confusion, unfair prejudice and wasted time if Kaltofen is permitted to testify about chemicals other than DDT<sub>r</sub>. Accordingly, Kaltofen’s opinions concerning contaminants other than DDT<sub>r</sub> will be excluded pursuant to Rules 402, 403 and 702 of the Federal Rules of Evidence.

Defendants’ objections concerning pathways stand on a different footing. It is true that Kaltofen’s report describes a variety of pathways of contamination from Ciba into the community that do not appear to have caused plaintiffs’ injuries, such as surface water runoff or discharge, migration of contaminated groundwater to offsite receptors, and bioaccumulation in fish and other aquatic and nonaquatic biota. (Doc. 313, Exh. 2, at 4.) To the best of the Court’s knowledge and understanding, plaintiffs in this case are not suggesting that the DDT<sub>r</sub> in their homes arrived there through surface water runoff, contaminated groundwater, or via the three-eyed fish of *The Simpsons* infamy. Nonetheless, plaintiffs argue that this evidence is relevant because it is indicative of Ciba’s poor management of on-site DDT wastes. This relevance argument is not without appeal. After all, if Ciba was lax in allowing DDT wastes to infiltrate the McIntosh community through pathways that did not affect plaintiffs’ homes, that fact would lend credence to plaintiffs’ theory that Ciba allowed DDT wastes to travel offsite through other pathways that did affect plaintiffs’ homes. That said, the relevance of this evidence is more tangential and indirect than compelling and direct. The Court will not exclude Kaltofen’s opinions concerning the various pathways through which DDT left the Ciba site, and the sampling evidence of same, but it will insist that the time spent presenting evidence on this collateral matter not be disproportional to its clearly minor significance to the case. Should plaintiffs and Kaltofen belabor these points at trial, the Court will entertain Rule 403 objections from the defense to prevent the trial from being derailed by a tangent.

#### IV. Conclusion.

For all of the foregoing reasons, it is hereby **ordered** as follows:

1. Defendants' Motion in Limine to Exclude Expert Testimony, Opinions and/or Reports of Marco Kaltofen (doc. 313) is **granted** with respect to data and opinions about alleged Ciba contaminants other than DDT. That evidence is **excluded** for lack of relevance and fit, and because any probative value it may have is substantially outweighed by risks of unfair prejudice, confusion of the issues, and waste of time. In all other respects, the Motion in Limine is **denied**.
2. Plaintiffs' motion (set forth on page 11 of its opposition brief (doc. 337)) to amend the witness and exhibit lists to include all laboratory reports and requisite laboratory personnel relating to the Boston Chemical Data samples is **moot** because the Court will allow Kaltofen to testify to the lab testing results of those samples pursuant to Rule 703. Should plaintiffs (for any reason) decide that they wish to present the lab's custodian of records as a live witness or to include the lab reports for particular samples as trial exhibits, they must file an appropriate motion to amend the pretrial document by no later than **March 12, 2010**.
3. Plaintiffs' motion (set forth on page 13 of its opposition brief) to strike the Affidavit of Dr. Langseth submitted by defendants is **denied**. The sole basis for that motion is plaintiffs' conclusory one-sentence assertion that defendants have not proven that Dr. Langseth's opinions concerning Kaltofen are relevant or reliable. Such an opaque objection cannot be sustained, and this Court will not endeavor to construct plaintiffs' arguments for them.
4. Plaintiffs are **ordered** to take appropriate measures to coordinate the testimony of their two fate-and-transport experts (Kaltofen and Dr. Scates) on direct examination to avoid unnecessary duplication and cumulative evidence, pursuant to Rule 403, Fed.R.Evid.

DONE and ORDERED this 2nd day of March, 2010.

s/ WILLIAM H. STEELE  
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CHIEF UNITED STATES DISTRICT JUDGE