

IN THE SUPREME COURT OF THE STATE OF NEVADA

RICHARD JERNEE; PILAR JERNEE;
TONNIE SAVAGE, IN HER CAPACITY
AS SPECIAL ADMINISTRATRIX OF
THE ESTATE OF ADAM JERNEE;
MARY FAY, IN HER INDIVIDUAL
CAPACITY AND IN HER CAPACITY AS
GUARDIAN AD LITEM FOR EWAN
MIKEL SANDS, A MINOR; JASON
SANDS; SIERRA SANDS; TONNIE
SAVAGE, IN HER CAPACITY AS
SPECIAL ADMINISTRATRIX OF THE
ESTATE OF FLOYD SANDS; AND
TONNIE SAVAGE, IN HER CAPACITY
AS SPECIAL ADMINISTRATRIX OF
THE ESTATE OF STEPHANIE SANDS,
Appellants,
vs.
KENNAMETAL, INC.,
Respondent.

No. 60653

FILED

JAN 08 2015

TRACIE K. LINDEMAN
CLERK OF SUPREME COURT
BY S. Young
DEPUTY CLERK

ORDER OF AFFIRMANCE

This is an appeal from a district court order granting respondent's motion for summary judgment and denying appellants' motion for sanctions. Second Judicial District Court, Washoe County; Steven P. Elliott, Judge.

Between 1997 and 2002, sixteen children who had at one time lived in Fallon were diagnosed with Acute Lymphoblastic Leukemia (ALL). The plaintiffs' claims relate to two of the individuals diagnosed with ALL, Adam Jernee and Stephanie Sands.¹ Both individuals died in

¹The appellants are referred to collectively as "Jernee" for simplicity. Individual references to the decedents are to "Adam" and "Stephanie."

2001 from complications related to ALL. Jernee filed a complaint in 2003, arguing that the actions of multiple parties were a substantial factor in causing the decedents' ALL. Eventually, Jernee narrowed the claim to argue that emissions of tungsten carbide with cobalt from respondent Kennametal caused what became known as the Fallon Leukemia Cluster and specifically caused Adam's and Stephanie's ALL. In 2012, following extensive discovery, the district court issued an order granting Kennametal's motion in limine to exclude the testimony of Dr. Pike, Jernee's expert on specific causation, on the grounds that his opinion was not reliable. Because Jernee lacked an expert to prove specific causation, the district court granted Kennametal's motion for summary judgment in the same order. The district court also denied Jernee's motion to strike Kennametal's answer. This motion alleged widespread litigation misconduct.

On appeal, Jernee argues that (1) the district court abused its discretion by excluding Dr. Pike's testimony on specific causation; (2) even if excluding Dr. Pike's testimony was not an abuse of discretion, the district court erred by granting summary judgment; and (3) the district court abused its discretion in denying Jernee's motion to strike Kennametal's answer.

The district court did not abuse its discretion by excluding testimony from Dr. Pike on specific causation

In toxic tort litigation, a plaintiff must prove both general and specific causation. *Holcomb v. Ga. Pac., LLC*, 128 Nev. ___, ___ n.5, 289 P.3d 188, 192 n.5 (2012). General causation requires proof that the substance in question is capable of causing the alleged injury. *Id.* Specific causation requires proof that the plaintiff was actually exposed to the substance in question and that exposure was a substantial factor in

causing the plaintiff's injury. *Id.* Causation in toxic tort litigation is generally proven by expert testimony. *See Dow Chem. Co. v. Mahlum*, 114 Nev. 1468, 1482, 970 P.2d 98, 107-08 (1998).

A witness may testify as an expert if, in addition to other requirements, the expert's opinion is the product of a reliable methodology. *Hallmark v. Eldridge*, 124 Nev. 492, 500, 189 P.3d 646, 651 (2008). To help determine whether an opinion is reliable, "a district court should consider whether the opinion is (1) within a recognized field of expertise; (2) testable and has been tested; (3) published and subjected to peer review; (4) generally accepted in the scientific community," which is not always determinative; "and (5) based more on particularized facts rather than assumption, conjecture, or generalization." *Id.* at 500-01, 189 P.3d at 651-52. "[T]hese factors are not exhaustive, may be accorded varying weights, and may not apply equally in every case." *Id.* at 502, 189 P.3d at 652.²

Jernee argues that the district court abused its discretion by concluding that Dr. Pike's testimony on specific causation was not based on reliable methods. *See id.* at 498, 189 P.3d at 650. We disagree because Dr. Pike's report fails to set forth a reliable methodology.

Hallmark Factor 1: Recognized Field of Expertise

The district court found that Dr. Pike had no specialization in childhood leukemia, any form of cancer, or the causes thereof. Indeed, Dr. Pike had never before diagnosed the cause of a patient's leukemia. These

²Jernee argues that the district court erred because it did not apply the *Hallmark* factors to Kennametal's motion in limine. This argument is without merit as the district court explicitly discusses *Hallmark* and weighed several *Hallmark* factors.

findings are supported by substantial evidence; therefore, the first factor indicates Dr. Pike's opinion was not in the field of his actual expertise.

Hallmark Factors 2 and 3: Testable and Has Been Tested and Published and Subjected to Peer Review

The district court did not appear to address whether Dr. Pike's opinion was tested and testable, but it did find that his opinion was not subjected to peer review. Again, this finding is supported by substantial evidence. Therefore, the second *Hallmark* factor was not considered and the third weighs in favor of exclusion.

Hallmark Factor 4: Generally Accepted in the Scientific Community

The district court also found that Dr. Pike's opinion was not supported by the scientific community. To ensure reliability, an expert must employ "in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999). Indeed, district courts must consider whether the expert's method is "generally accepted in the scientific community." *Hallmark*, 124 Nev. at 500, 189 P.3d at 651-52 (emphasis added). Therefore, applying a lower "litigation standard" that lacks an accepted scientific or medical basis indicates a lack of reliability. See *Kumho Tire Co.*, 526 U.S. at 152; *Hallmark*, 124 Nev. at 500-502, 189 P.3d at 651-52.

Dr. Pike's analysis cited three epidemiological studies on tungsten carbide and lung cancer that mentioned a statistically insignificant relationship between tungsten carbide and leukemia. One found an increased mortality from leukemia among workers exposed to tungsten carbide, but the increase was not statistically significant at a 95

percent confidence level.³ Dr. Pike, however, determined that when applying a 70 percent confidence level, the results are statistically significant. According to Dr. Pike, this is an acceptable standard because a civil standard of proof is one of “more likely than not.” The district court properly concluded that applying such a low confidence level was not supported by the scientific community.⁴

*Hallmark Factor 5: Based More on Particularized Facts
Rather Than Assumption*

³“Scientists use the concept of a ‘confidence interval’ as the means by which an epidemiologist can express confidence in a specific finding of relevant risk.” *Berry v. CSX Transp., Inc.*, 709 So. 2d 552, 559 (Fla. Dist. Ct. App. 1998). “A confidence interval is a range of values, calculated from the results of a study, within which the true value is likely to fall.” *Cook v. Rockwell Int’l Corp.*, 580 F. Supp. 2d 1071, 1100-01 (D. Colo. 2006). “Regardless of statistical significance, one can never exclude the possibility that a particular association occurred by chance. Even using a 95% confidence interval, there is a 5% likelihood that any association found is not a true association, but is rather a chance occurrence.” *Wade-Greaux v. Whitehall Labs., Inc.*, 874 F. Supp. 1441, 1452 (D.V.I. 1994) *aff’d*, 46 F.3d 1120 (3d Cir. 1994).

⁴ “Statisticians typically calculate margin of error using a 95 percent confidence interval.” *Duran v. U.S. Bank Nat. Assn.*, 325 P.3d 916, 943 (Cal. 2014). Jernee relies on two cases, *Mahlum*, 114 Nev. at 1484-85, 970 P.2d at 109, and *Williams v. Eighth Judicial Dist. Court*, 127 Nev. ___, ___, 262 P.3d 360, 368 (2011), to support Dr. Pike’s assertion that reliance on a lower confidence level is acceptable. First, *Mahlum* is unhelpful because the question in the present case is not whether the scientific community has reached a consensus that tungsten carbide causes leukemia, but whether Dr. Pike’s conclusion on specific causation was the result of a reliable methodology. *See* 114 Nev. at 1484-85, 970 P.2d at 109. Second, *Williams* undermines Jernee’s argument because it requires medical experts’ opinions to be held to a “reasonable degree of medical probability” so that the expert has actually made a *medical* judgment on which a fact-finder can rely. *See* 127 Nev. at ___, 262 P.3d at 367-68.

Finally, the district court found that Dr. Pike's opinion was based on assumptions and speculation because Dr. Pike assumed Adam and Stephanie were exposed to a dose of tungsten carbide with cobalt sufficient to cause ALL, and Dr. Pike's differential diagnosis failed to rule out other potential causes for Adam's and Stephanie's ALL.

First, the district court did not abuse its discretion in concluding that "Dr. Pike did not have sufficient evidence of exposure, and instead just speculated that Adam Jernee and Stephanie Sands were exposed based on their presence in Fallon."

Although we have upheld the admission of circumstantial evidence to prove that certain food caused food poisoning, "to be sufficient for that purpose, the circumstantial evidence must exclude other extrinsic causes of the accident." *Wilson v. Circus Circus Hotels, Inc.*, 101 Nev. 751, 754, 710 P.2d 77, 79 (1985) (quoting *Vuletich v. Alivotvodic*, 392 N.E.2d 663, 667 (Ill. App. Ct. 1979)). Dr. Pike explains that one study of the Cluster showed an elevated concentration of tungsten in the urine samples of Fallon residents, and other studies showed increased presence of tungsten emissions during the relevant time. Dr. Pike infers that Stephanie and Adam were exposed to tungsten carbide with cobalt based on these environmental factors.⁵ However, these studies only measured tungsten and cobalt, not tungsten carbide or tungsten carbide with cobalt. Furthermore, the urine study concluded that tungsten naturally occurred

⁵Jernee also cites the testimony of Stephanie's father that Stephanie would enter the Kennametal's Fallon plant to retrieve balls and would return with sooty hands. Dr. Pike's report ruled out transdermal exposure as a viable exposure pathway, but opined that hand-to-mouth contact could lead to exposure through ingestion. There is no similar evidence of direct exposure for Adam, however.

in the test subjects' urine and in the groundwater. Also, the Nevada Department of Health generated extensive data on the exposure history of affected families, including the Jernees, but such data is not mentioned in Dr. Pike's report.

An inference of environmental exposure appears reasonable, and requiring Dr. Pike to describe a specific toxic dose would be unreasonable burden. Still, Dr. Pike was unable to testify as to (1) whether Adam and Stephanie were in fact exposed to tungsten carbide or tungsten carbide with cobalt or (2) whether the tungsten carbide or tungsten carbide with cobalt emissions in Fallon were sufficient to cause ALL. Therefore, Dr. Pike's opinion on specific causation was based on speculation about Adam's and Stephanie's exposure, and the district court did not abuse its discretion in this regard.

Second, we conclude that the district court did not abuse its discretion in finding that Dr. Pike failed to rule out other potential causes for Adam's and Stephanie's leukemia. A number of courts have held that an expert's testimony on causation lacks reliability where the expert fails to conduct a differential diagnosis. *See Hendrix v. Evenflo Co., Inc.*, 609 F.3d 1183, 1195 (11th Cir. 2010); *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 758-59 (3d Cir. 1994).

According to Jernee, however, Dr. Pike did perform a differential diagnosis because the CDC ruled out a number of other causes for the Cluster, neither Adam's nor Stephanie's family histories showed a history of childhood cancer, and neither Adam's nor Stephanie's medical records revealed prior toxic exposures. Dr. Pike, however, did not rule out toxic exposures during Adam's stay in Mexico or exposure to toxic fumes from his father's at-home car painting business. Similarly, Dr. Pike did

not rule out exposures during Stephanie's time in Florida or Pennsylvania. Although Jernee argues that Kennametal did not present any evidence of exposures outside Fallon, the expert's proponent bears the burden of showing that the expert's testimony is reliable. *State, Dep't of Motor Vehicles v. Bremer*, 113 Nev. 805, 808-09, 942 P.2d 145, 147-48 (1997). As such, the district court did not abuse its discretion here because Dr. Pike failed to adequately rule out other causes of Adam's and Stephanie's ALL.

Other indicia of unreliability and reliability

The *Hallmark* factors are not exhaustive and are designed to help determine whether an expert's opinion is relevant and based on a reliable methodology such that the opinion will actually assist a fact-finder. *Hallmark*, 124 Nev. at 500, 502, 189 P.3d at 651-52. Therefore courts should consider additional factors that tend to indicate that an expert's opinion is reliable or unreliable.

Dr. Pike's opinion was formed in preparation for litigation. Although a litigation-based opinion is not unreliable per se, the fact that it arose from litigation is a factor that, in concert with the other factors, tends to diminish an expert's reliability. *Cabrera v. Cordis Corp.*, 134 F.3d 1418, 1421 (9th Cir. 1998). Therefore, the district court did not abuse its discretion in determining that Dr. Pike's opinion was less reliable because it was formed in the context of ongoing litigation.

Additionally, Jernee argues that the district court failed to consider other indicia of reliability in excluding Dr. Pike's testimony.

Specifically, Jernee argues that Dr. Pike's specific causation opinion was based on extensive independent research and discussion.⁶

First, Dr. Pike relied on statistical probabilities and epidemiological studies, but these two items do not support specific causation. The probabilities and epidemiological studies may suggest a common cause for many of the leukemia cases in the Cluster, but they do not necessarily show that Adam's and Stephanie's ALL were caused by the same exposure or that the cause was exposure to emissions from Kennametal's plants.

Dr. Pike also cited mechanistic studies involving combinations of substances and diseases other than leukemia and tungsten carbide, but no studies discussing whether tungsten carbide causes leukemia. There is no evidence showing how these studies support the conclusion that tungsten carbide causes leukemia, thus these additional studies do not appear to support the reliability of Dr. Pike's opinion. See *Glastetter v. Novartis Pharm. Corp.*, 252 F.3d 986, 990 (8th Cir. 2001) ("Even minor deviations in molecular structure can radically change a particular substance's properties and propensities.").

Next, the temporal relationship between Kennametal's emissions and the Cluster is more tenuous than Jernee suggests. Kennametal began manufacturing tungsten carbide at its Fallon plant in 1961, meaning that, according to Dr. Pike, Kennametal was emitting

⁶Jernee also argues that the district court disregarded the fact that Dr. Pike relied on another expert's report in reaching his opinion. However, the district court also excluded that other expert's testimony on specific causation (an order from which Jernee does not appeal), so that report can add little reliability to Dr. Pike's opinion on specific causation.

tungsten carbide for 35 years before the Cluster surfaced in 1997. Jernee argues that the Cluster was caused by an increase in emissions from Kennametal between 1995 and 1997. However, Stephanie stopped living in Fallon in 1995, before the increase in emissions. Similarly, Adam moved to Fallon in 1999 and was diagnosed with ALL in May 2000.

Finally, Jernee argues that the district court failed to consider decisions from other jurisdictions that support allowing Dr. Pike to testify on specific causation. Specifically, Jernee cited *Rubanick v. Witco Chem. Corp.*, 593 A.2d 733 (N.J. 1991), and *Donaldson v. Cent. Ill. Pub. Serv. Co.*, 767 N.E.2d 314 (Ill. 2002) (abrogated on other grounds by *In re Commitment of Simons*, 821 N.E.2d 1184, 1189 (Ill. 2004)). These cases apply the *Frye* standard for expert admissibility, which we have expressly rejected. *Santillanes v. State*, 104 Nev. 699, 704 n.3, 765 P.2d 1147, 1150 n.3 (1988). Moreover, these cases are factually distinguishable. Unlike *Rubanick*, there is no large body of evidence showing that tungsten carbide with cobalt causes ALL, and exposure in this case is much less certain. See 593 A.2d at 748. Likewise, the evidence supporting specific causation in this case is inferior to the evidence presented in *Donaldson*.⁷ 767 N.E.2d at 323-30.

⁷In *Donaldson*, admitted expert opinions were based on studies on neuroblastoma, scientific risk factors for nervous system cancers, animal studies regarding nervous system cancer, the statistical odds of that cluster being caused by chance, circumstantial evidence of the children's exposure to the defendant's emissions, the temporal relationship between the release of emissions from the site to the onset of the neuroblastoma, the fact that the site was the only common risk factor among all plaintiffs, and facts specific to the children's family histories. 767 N.E.2d at 323-30.

In sum, we conclude that the indicia of reliability Jernee raises do not overcome the reliability problems discussed by the district court. Accordingly, we conclude that the district court did not abuse its discretion in excluding Dr. Pike's testimony on specific causation.

The district court properly granted summary judgment

Jernee argues that even if this court affirms the district court's exclusion of Dr. Pike's testimony, the district court still erred by granting summary judgment without first addressing Jernee's motion to strike Kennametal's answer. Jernee argues that its motion to strike, if granted, would have resulted in a judgment against Kennametal or the imposition of a presumption as to causation. We disagree.

"This court reviews a district court's grant of summary judgment de novo." *Wood v. Safeway, Inc.*, 121 Nev. 724, 729, 121 P.3d 1026, 1029 (2005). Summary judgment is proper if the pleadings and all other evidence on file demonstrate that no genuine issue of material fact exists and the moving party is entitled to judgment as a matter of law. *Id.*

First, after the district court held that Dr. Pike's testimony would be excluded, Jernee's counsel asked the court to vacate argument on pending motions, which included Kennametal's motion for summary judgment, and only asked to reserve the right to contest factual findings in the final order. Accordingly, Jernee waived its argument that the district court erred by deciding the motion for summary judgment without further arguments. *See Old Aztec Mine, Inc. v. Brown*, 97 Nev. 49, 52, 623 P.2d 981, 983 (1981) ("A point not urged in the trial court . . . is deemed to have been waived and will not be considered on appeal.").

Second, Jernee did not seek an inference of causation based on Kennametal's alleged litigation misconduct in its motion, and did not raise the possibility that the district court could have applied such an inference

until this appeal. Thus, Jernee waived the argument that the district court should have applied an inference of causation instead of granting summary judgment. *See id.*

Accordingly, the district court did not abuse its discretion by deciding the motion for summary judgment prior to deciding the motion to strike Kennametal's answer.

The district court did not abuse its discretion by denying Jernee's motion to strike Kennametal's answer

Jernee argues that the district court abused its discretion by denying Jernee's motion to strike Kennametal's answer and affirmative defenses. *See Lane v. Allstate Ins. Co.*, 114 Nev. 1176, 1181, 969 P.2d 938, 941 (1998) (litigation sanction decisions are reviewed for an abuse of discretion). Jernee argues that such a sanction was justified based on Kennametal's alleged litigation misconduct.

First, Jernee attempts to characterize certain legal arguments from Kennametal as improper Rule 11 threats. Kennametal never threatened to file an NRCP 11 motion, no motion was filed, and Jernee points to no authority supporting the argument that a party is subject to sanctions for suggesting that opposing counsel violated NRCP 11. Second, Kennametal initially failed to disclose certain documents⁸ under NRCP 16.1, but those documents did not fit squarely into Jernee's initial request,

⁸These documents included: (a) Power Point slides from a 1998 presentation titled "Industry at Risk" discussing the potential carcinogenicity of tungsten carbide with cobalt; (b) multiple studies underlying the 1998 presentation; (c) a journal entry by Kennametal's Health, Safety, and Environment Director stating "2 EPI study show increase leukemia death;" and (d) reports showing an increase in emissions prior to the advent of the Cluster, and a drop to zero simultaneous with the cessation of the Cluster.

and any prejudice from late production was minimal because the district court delayed several deadlines to allow Jernee's experts to consider the newly discovered evidence. Third, Kennametal did not misrepresent emissions figures by requesting changes to a diagram that made areas of trace emissions appear the same as areas of no emission. Kennametal requested changes to the diagram, as it was entitled to, by taking advantage of a notice and comment period for the report that contained the emissions diagram. See *Cal. Motor Transp. Co. v. Trucking Unlimited*, 404 U.S. 508, 510-11 (1972) (observing that companies may "advocate their causes and points of view" to state and federal agencies). Fourth, Kennametal did not improperly intimidate potential expert witnesses by informing a scientific journal that two of its authors failed to disclose a financial interest in Jernee's case. Kennametal did not know that Jernee had listed the experts without first contacting them, and even if Jernee had retained them, the journal's policy would have required disclosure of that potential conflict.

Finally, Kennametal's destruction of 55 boxes of documents, although troubling, also does not entitle Jernee to case-ending sanctions. "Dismissal for failure to obey a discovery order should be used only in extreme situations; if less drastic sanctions are available, they should be utilized." *Nev. Power Co. v. Fluor Ill.*, 108 Nev. 638, 645, 837 P.2d 1354, 1359 (1992). Even where a default judgment is awarded as a discovery sanction, the non-offending party must still establish a prima facie case in order to obtain the judgment. *Foster v. Dingwall*, 126 Nev. 56, 67, 227 P.3d 1042, 1049 (2010).

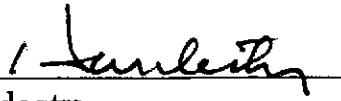
We set forth a nonexhaustive list of factors that a district court should consider when imposing case-concluding sanctions in *Young*

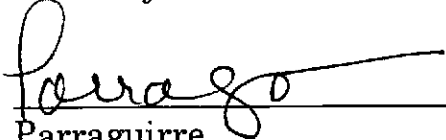
v. Johnny Ribeiro Bldg., Inc., 106 Nev. 88, 93, 787 P.2d 777, 780 (1990). We conclude that the district court did not abuse its discretion by refusing to strike Kennametal's answer. Our analysis of the *Young* factors demonstrates that the district court's decision was proper. First, the destruction of the documents does not appear to have been willful, as the person responsible for destroying the documents did so in response to an OSHA inspection and believed that the documents did not relate to the litigation. Second, Jernee does not explain why a lesser sanction would be inadequate. Third, given the evidence in the record indicating that the documents in question were financial reports and invoices, striking Kennametal's answer would be far more severe than the alleged misconduct. Fourth, although some of the evidence has been irreparably lost, Kennametal has been able to reproduce duplicates of some of the records. Fifth, alternative sanctions, like an adverse inference related to the content of the documents, are feasible but pointless because Jernee would only benefit from an adverse inference on specific causation, and the record indicates that the documents were irrelevant to that issue. Sixth, striking the answer would be entirely contrary to the policy favoring adjudication on the merits, particularly in this case where the district court already concluded that Jernee could not prove specific causation. Seventh, it does not appear that the alleged wrongdoing was related to the conduct of counsel, as the actual destruction was by a Kennametal employee seeking to comply with OSHA guidelines. Finally, deterrence would not be best served by striking the answer because Jernee is seeking a sanction far in excess of the conduct sought to be punished.

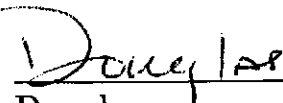
For these reasons, we conclude that the district court did not abuse its discretion by refusing to strike Kennametal's answer.

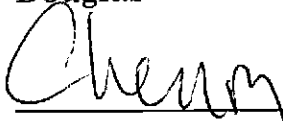
Accordingly, we


ORDER the judgment of the district court AFFIRMED.⁹


, C.J.
Hardesty

, J.
Parraguirre

, J.
Douglas

, J.
Cherry

, J.
Saitta

, J.
Gibbons

cc: Second Judicial District Court Dept. 10
Calvin R.X. Dunlap and Associates
Babst, Calland, Clements and Zomnir, P.C.
Jenkins Law Firm
Washoe District Court Clerk

⁹The Honorable Kristina Pickering, Justice, voluntarily recused herself from participation in the decision of this matter.