

**IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF UTAH
CENTRAL DIVISION**

DAVID CALDER, Individually, and as
Father and Guardian of BC, a Minor, and of
JC, a Minor, and as Father and Guardian of
HMP, a Deceased Minor,

Plaintiff,

v.

BLITZ USA,

Defendant.

**MEMORANDUM DECISION and
ORDER**

Case No. 2:07-cv-00387-TC-PMW

Judge Tena Campbell

This matter comes before the court on Defendant Blitz U.S.A.'s motion in limine to exclude the testimony of Plaintiff's proposed expert Andrew T. Armstrong, Ph.D. On October 29, 2010, the court held a hearing to determine whether Mr. Armstrong qualifies as an expert under Rule 702 of the Federal Rules of Evidence and Daubert v. Merrill Dow Pharm., Inc., 509 U.S. 579 (1993). Having considered the record established in pleadings and at the hearing, as well as pertinent law, the court holds that Dr. Armstrong qualifies as an expert witness in the areas for which he has been designated to testify. Accordingly, the court denies Defendant's motion.

Standards Governing Admissibility of Expert Witness Testimony

Under the Federal Rules of Evidence, “[i]f 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.” Fed. R. Evid. 702 (emphasis added). The proponent of an expert witness bears the burden of showing that witness’s proffered testimony is admissible under Rule 702. U.S. v. Nacchio, 555 F.3d 1234, 1241 (10th Cir. 2009).

The court’s inquiry under Rule 702 is twofold. First, the court must determine whether the witness is qualified as an expert in the area about which he will testify. Id. “In determining whether expert testimony is admissible, the district court generally must first determine whether the expert is qualified ‘by knowledge, skill, experience, training, or education’ to render an opinion.” Id. (quoting Fed. R. Evid. 702). Second, the court must determine whether the expert opinion is relevant and reliable. Daubert v. Merrill Dow Pharm., Inc., 509 U.S. 579, 589 (1993).

The court evaluates several factors when assessing the reliability of the proposed expert witness’s testimony, including: “(1) whether the expert’s technique or theory has been or can be tested; (2) whether the technique or theory has been subject to peer review and publication; (3) whether there is a known or potential rate of error of the technique or theory when applied; (4) whether standards and controls for the technique or theory exist and are used; and (5) whether the technique has been accepted in the scientific community.” Daubert, 509 U.S. at 593-94. Additionally, “expert testimony prepared solely for purposes of litigation, as opposed to testimony flowing naturally from an expert's line of scientific research or technical work, should be viewed with some caution.” Johnson v. Manitowoc Boom Trucks, Inc., 484 F.3d 426, 434 (6th Cir. 2007).

Dr. Armstrong's Opinion

Background

Plaintiff's expert Dr. Lori Hasselbring asked chemist Christine Foran to determine whether there was any gasoline on several pieces of clothing worn by the Calder family on the night of the accident. Ms. Foran was not asked to determine whether, if she found gasoline, that gasoline was weathered. Ms. Foran found gasoline on a white sneaker, some blue boxer shorts, and some blue and white flannel pants. She opined that the gasoline was fresh. Mr. Calder then retained Dr. Armstrong to determine whether the gasoline was aged or fresh.

Opinion

Using the data produced by Ms. Foran's Gas Chromatograph – Mass Spectrometry (GCMS) testing, Dr. Armstrong opined that the gasoline on the clothing was "well-weathered, highly evaporated," gasoline, in other words, gasoline that was aged and not fresh. (Expert Report of Andrew Armstrong at 2 (attached as Ex. 1 to Blitz's Mem. in Supp of Mot. To Exclude Testimony of Dr. Armstrong).)

Blitz's Objections

Blitz moves to exclude this testimony because, according to Blitz, Dr. Armstrong is relying on his experience alone and that experience does not provide a reliable basis for his opinion. Also, Blitz contends that Dr. Armstrong's methodology is flawed for the following reasons: (1) Dr. Armstrong conducted no testing; (2) Dr. Armstrong's methodology is not supported by published standards or literature; (3) there is no known error rate for Dr. Armstrong's methodology; (4) Dr. Armstrong's methodology has not been peer-reviewed; (5) Dr. Armstrong's opinion was developed for litigation; and (6) Dr. Armstrong's opinion that

weathered gasoline is present in the Calder samples has an insufficient factual basis.

Dr. Armstrong's Qualifications

Dr. Armstrong received a B.S. and an M.S. in chemistry from North Texas State University in 1958 and 1959, and a Ph.D. in analytical chemistry from Louisiana State University in 1967. The American Institute of Chemistry certified him as a professional chemist.

Dr. Armstrong co-founded Armstrong Forensic Laboratory, Inc., a private laboratory that provides specialized testing on the identification of ignitable liquids, and environmental and industrial hygiene monitoring. He is the Primary Consultant at Armstrong Forensic Laboratory, and has been the primary consultant on over 10,000 suspect fires/explosions. As a member of the American Society of Testing Materials, Forensic Science Committee and past chairman of the Criminalistics Sub-Committee, he is responsible for outlining the requirements for laboratory identification of accelerants, evidence handling, report preparation and other technical areas.

Dr. Armstrong has authored numerous papers on topics in fire science, including one of the first scientific papers on the use of dual, capillary columns for the identification of ignitable liquids by gas chromatography.

Dr. Armstrong's Methodology

At the Daubert hearing, Dr. Armstrong explained that he determined the age of the gasoline using a basic principle of chemistry: that lighter components evaporate first, and heavier components later. Dr. Armstrong compared the amount of the lighter, aliphatic compounds found in a given sample of gasoline to the amount of toluene in the sample. In a fresh gasoline sample, the amount of aliphatic compounds contained in the sample is roughly equivalent to the amount of toluene—that is, the ratio of toluene to aliphatic compounds in fresh gasoline is

roughly 1:1. The ratio of toluene to aliphatic compounds in the samples from the Calder clothing is near 10:1. In other words, when one compares the levels of toluene to the level of aliphatic compounds in the samples from the Calder clothing, the aliphatics are ten times less than what they would be in fresh gasoline. According to Dr. Armstrong, the low ratio of aliphatic compounds to toluene in the samples taken from the Calder clothing indicates that the gasoline was highly evaporated, i.e., well-weathered.

Blitz suggests that Dr. Armstrong's method is unreliable, but Blitz has not questioned the scientific principle on which Dr. Armstrong's method is based. According to Dr. Armstrong, he did not need to conduct any testing himself because he had no reason to doubt the reliability of the data collected by Ms. Foran. Dr. Armstrong testified at the Daubert hearing that there are no published standards or literature on his method of determining the age of gasoline because it is scientifically obvious. Because there have been no recorded studies, there is no known error rate for the methodology. The court considers the Daubert factors to the extent they are relevant and helpful here. See Kumho Tire Co. v. Carmichael, 526 U.S. 137, 151 (1999). Although Dr. Armstrong's opinion was developed for litigation, and should therefore be viewed with some caution (see Johnson v. Manitowoc Boom Trucks, Inc., 484 F.3d 426, 434 (6th Cir. 2007)), Dr. Armstrong testified credibly, and his methodology appears sufficiently reliable to be presented to the jury.¹

Dr. Armstrong has a Ph.D. in analytical chemistry and extensive experience in fire science. His testimony is based on the data produced by Ms. Foran (data that has not been

¹ Of course, Blitz's objections may go to the weight that the jury might give to Dr. Armstrong's testimony.

questioned by either party to the litigation) and a method based on the most basic of scientific principles, applied to the facts of the case.² Accordingly, the court rejects Blitz's arguments that Dr. Armstrong is relying on his experience alone and that Dr. Armstrong's opinion has an insufficient factual basis.

ORDER

For the forgoing reasons, the court DENIES Defendant's motion to exclude the testimony of Dr. Armstrong (Dkt. No. 371).

DATED this 1st day of November, 2010.

BY THE COURT:



TENA CAMPBELL
Chief Judge

² Blitz has not challenged the reliability of Dr. Armstrong's application of his method to the facts.