Exxon Mobil Corporation v. Albright, et al., No. 15, September Term 2012.

TORTS – FRAUD – DETRIMENTAL RELIANCE REQUIRED

Although a plaintiff may recover for fraud where the allegedly fraudulent statement was not made directly to the plaintiff, recovery is not permitted without a demonstration that the plaintiff relied, either directly or indirectly, on the relevant misrepresentation to his or her detriment. Maryland law does not permit a third party to recover damages for fraud purely on the basis of a false statement made to a governmental entity. Thus, where a plaintiff does not prove reliance on a personal basis or does not establish detriment arising from his or her reliance, he or she may not recover damages for fraud.

TORTS – DAMAGES – EMOTIONAL DISTRESS FOR FEAR OF DEVELOPING DISEASE

To recover emotional distress damages for fear of developing disease, a plaintiff must show that (1) he or she was exposed actually to a toxic substance due to the defendant's tortious conduct; (2) which led him or her to fear objectively and reasonably that he or she would contract a disease; and, (3) as a result of the objective and reasonable fear, he or she manifested a physical injury capable of objective determination.

TORTS – DAMAGES – MEDICAL MONITORING

A plaintiff may recover damages for medical monitoring costs, usually through the administration of an equitable fund, upon a showing of the following; (1) that the plaintiff was significantly exposed to a proven hazardous substance through the defendant's tortious conduct; (2) that as a proximate result of significant exposure, the plaintiff suffers a significantly increased risk of contracting a latent disease; (3) that increased risk makes periodic diagnostic medical examinations reasonably necessary; and, (4) that monitoring and testing procedures exist which make the early detection and treatment of the disease possible and beneficial.

TORTS – DAMAGES – EMOTIONAL DISTRESS FOR FEAR OF INJURY TO REAL PROPERTY

A plaintiff may ordinarily recover emotional distress damages attendant to injury to real property only in the presence of fraud, malice, or like motives.

DAMAGES – INJURY TO REAL PROPERTY – DUPLICATIVE COMPENSATION PROHIBITED

Owners of real property are not precluded necessarily from recovering both permanent diminution in value and loss of use and enjoyment damages, provided that the injuries for which recovery is sought do not overlap, so as to result in duplicative compensation. Where an alleged loss of use and enjoyment is "not distinguishable from" and "subsumed in" a claim for diminution in value, the impaired market value of the real property presumably reflects the injury, and a plaintiff may not recover damages for both loss of use and

enjoyment and diminution in value.

TORTS – INJURY TO REAL PROPERTY – NO PHYSICAL IMPACT TO LAND
In the absence of physical injury to real property resulting from a defendant's tortious actions, a plaintiff must demonstrate more than modest adjustments in his or her use of his or her real property in order to recover damages. Thus, a plaintiff who has not provided present proof of contamination must show more than a possibility of future contamination or mere annoyance in order to recover. Absent a substantial interference with a plaintiff's use and enjoyment of his or her land, any diminution in value suffered by a plaintiff is not compensable.

DAMAGES – INJURY TO REAL PROPERTY – LOSS OF USE AND ENJOYMENT
An award for compensatory damages must be anchored to a rational basis on which to ensure that the awards are not merely speculative. In the context of damages for loss of use and enjoyment of real property, we determine that loss of use and enjoyment of real property cannot exceed the fair market, unimpaired value of the property at issue.

EXPERT TESTIMONY – VALUATION OF REAL PROPERTY
Expert testimony is required ordinarily to establish diminution in property value resulting from environmental contamination. Although Maryland law does not require the use of comparable sales data, to the exclusion of all other methodologies, a real estate appraisal expert must proffer a reasonable justification for ignoring market data where it is available.

Circuit Court for Baltimore County
Case # 03-C-07-003809

IN THE COURT OF APPEALS OF

MARYLAND

No. 15

September Term, 2012

EXXON MOBIL CORPORATION

v.

THOMAS M. ALBRIGHT, et al.

Bell, C.J.
Harrell
Battaglia
Greene
Barbera
McDonald
Eldridge, John C. (Retired,
Specially Assigned),

JJ.

Opinion by Harrell, J.

Filed: February 26, 2013

On 17 February 2006, Appellant, Exxon Mobil Corporation ("Exxon"), reported a leak of approximately 26,000 gallons of gasoline from the underground tanks at its fueling station located in Jacksonville, Maryland.[1] The seemingly cursed Jacksonville community, the unfortunate site of multiple gasoline leaks over the years, *see, e.g.*, *Exxon Corp. v. Yarema*, 69 Md. App. 124, 516 A.2d 990 (1987) (noting that in the early 1980s, three gasoline stations located along Jarrettsville Pike in Jacksonville experienced underground gasoline tank leaks), is reliant largely on private wells, rather than municipal supply sources, for its potable water. Thus, following the 2006 release into the underground aquifer serving certain of those wells, 466 residents and business proprietors of Jacksonville (hereinafter referred to collectively as "Appellees") filed the present suit against Exxon for asserted damages stemming from the contamination of their water supply, other consequential effects, and alleged misrepresentations by Exxon. The result was a jury award of $496,210,570 in compensatory damages and $1,045,550,000 in punitive damages for Appellees. Exxon appealed both the compensatory and the punitive damages awards as to all recovering plaintiffs, which were based on claims sounding in fraud, emotional distress for fear of contracting cancer, medical monitoring, emotional distress for fear of loss of property value, diminution in value of real property, and loss of use and enjoyment of real property.

FACTS AND PROCEDURAL HISTORY

Exxon purchased the property located at 14258 Jarrettsville Pike in Phoenix,

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[1]The 2006 gasoline leak is also the genesis of *Exxon Mobil Corp. v. Ford*, ____ Md. ____, ____ A.3d ____ (2013), the opinion in which is filed immediately after the opinion in the present case.

Maryland, in 1981 for the construction of a new gasoline fueling station ("the Jacksonville Exxon"). Exxon was granted initially a construction permit in 1981. It applied for an extension of the life of the construction permit in 1983. Upon its application for extension, however, the Baltimore County Health Department expressed its formal opposition due to pre-existing contamination of the underground water supply stemming from prior leaks in the surrounding area. As a result, the Baltimore County Office of Permits and Licenses denied Exxon's request.

Exxon appealed the denial to the Baltimore County Board of Appeals. At a 24 August 1983 hearing before the Board, an environmental engineering specialist for Exxon, Frederick M. Anderson, testified regarding, among other things, the ongoing remediation efforts for the three prior spills in the community. During his testimony, Anderson described the containment prevention features of the proposed underground fuel storage system at the new station, stating that Exxon was "planning to really take some extraordinary measures" in constructing the underground storage system. Specifically, he asserted that Exxon planned to construct secondary containment measures at the Jacksonville Exxon station, including (1) fiberglass tanks and fiberglass lines; (2) sloped concrete troughs under the product lines running from the dispensers back to the tank field; (3) a polymer-coated polyester lining under the entire tank field; and (4) an observation well that would extend nearly to the bottom of the tank field. In response to concerns regarding potential repeated contamination in the wake of the prior gasoline leaks, Anderson opined that the proposed Jacksonville design ensured that the station would not be a source of contamination. He also conceded,

however, that "[a]nything is possible." The Board granted to Exxon the construction permit on 20 October 1983.

During the construction process, Exxon elected to depart from the containment design plans described by Anderson.[2] Rather than installing the tank field liner and single-walled tanks, Exxon installed instead newly-available, double-walled, fiberglass Buffhide tanks, fabric-lined product lines, and a plastic overliner. The Jacksonville Exxon station opened for business on or about 1 November 1984. The station was retrofitted with additional protective features in 1992, made in response to enactment of amendments in 1990 to the federal Clean Air Act.[3] Evidence was submitted at trial suggesting that, during the retrofitting construction, the plastic overliner containment system was destroyed and was not repaired subsequently. Nevertheless, the Jacksonville Exxon station was operated for its owner by Storto Enterprises, Inc. without a harmful incident for over twenty years.[4]

On 13 January 2006, an employee from Crompco Corporation, an Exxon contractor, drilled unknowingly, while performing maintenance on the "super unleaded grade"

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[2]Exxon did not provide any direct evidence at trial that amended construction plans were submitted to Baltimore County, but maintained rather that it was its ordinary practice to update permit applications when altering design plans in the field.

[3]Regulations passed by the Environmental Protection Agency in 1988 established underground storage tank standards, which required station owners and operators to retrofit their stations to comply with the new regulations within a ten-year period. The 1990 amendments to the Clean Air Act required stations located in certain metropolitan areas, including Baltimore, to install Stage II vapor recovery systems.

[4]In 1987, the Jacksonville Exxon experienced a leak, which was contained successfully by the secondary containment system as constructed.

containment sump, a hole in the underground fiberglass "regular grade" gasoline feed line leading from one of the gasoline storage tanks to the pumps.[5] This hole, approximately 3/16 inch in diameter, was detected duly by an electronic leak detection system,[6] which signaled an alarm inside the station and at the central monitoring service, Gilbarco Veeder-Root,[7]

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[5]Appellees attribute this human error to a flaw in Exxon's station design following the retrofitting construction in 1992. Specifically, they contend that, because Exxon sought to disturb the original design of the station as minimally as possible in completing the retrofit, the "regular grade" gasoline line was too close to the containment sump for the "super unleaded grade" gasoline line. Thus, when the Crompco contractor performed maintenance on the "super unleaded grade" containment sump, he was enabled to drill accidentally into the "regular grade" product line – an error that would not have occurred if the product line was located properly. Exxon admits that the "regular grade" gasoline line was located improperly too closely to the containment sump.

[6]The Station employed primarily two leak detection systems, in compliance with Maryland regulations. The first was a daily inventory control system, required by COMAR 26.10.04.01E-G, which consisted of daily measurements of product levels in the tanks and comparison with inventory revealed by the station operator's delivery records, and was capable of detecting leaks both in piping and in the tanks. At the Jacksonville Exxon, this was performed by station operator Andrea Loeiro of Storto Enterprises. The second was an electronic leak detection system, EECO 3000, manufactured by Emco Wheaton, which monitored leak detectors designed to identify leaks in the underground storage tank systems and generate alarms in the event of a positive detection. The automatic line leak detector feature measured pressure levels in the piping system, and could indicate leaks through two types of tests: (1) a precision test designed to detect leaks as small as one-tenth of a gallon per hour, pursuant to COMAR 26.10.05.02D(2)(b); and (2) an "hourly test," run after each dispensing cycle after the pump motor was turned off, designed to detect leaks as small as three gallons per hour, pursuant to COMAR 26.10.05.02D(2)(a).

[7]Exxon contracted with Gilbarco Veeder-Root ("Gilbarco"), a remote monitoring service located in North Carolina. In the event of a failed test by the EECO system, Gilbarco received notice of the alarm and, if the alarm could not be cleared remotely, would notify Exxon's designated Managed Maintenance Service Manager, Integrated Process Technologies ("IPT"), of the alarm. IPT would then dispatch contractors to visit the station and determine the cause of the alarm.

indicating a catastrophic line failure.[8] The leak detection system shut down automatically the regular unleaded gasoline product line. Contractors from Alger Electric, Inc. ("Alger") were sent to the Jacksonville Exxon station to investigate the cause of the alarm. They concluded (incorrectly) that no actual leak existed. Rather, the technicians concluded that the alarm resulted from a problem with a submersible pump motor. After replacing the motor, the Alger technicians recalibrated the leak detection system (incorrectly), such that the alarm system could no longer detect the actual leak when the fuel system was reactivated.

As a result of this confluence of events, the leak continued uninterrupted without activating the alarm system. Andrea Loiero, the station operator, noticed inventory discrepancies following the incident on January 13. Loeiro testified that, although she realized in January that she had an inventory problem, she did not know that the daily inventory variances resulted from a leak. On 16 February 2006, Loeiro reported the discrepancies in her gasoline inventory to Exxon employee Russ Bowen, at which time the fuel system was shut down and the station closed. A sign posted on the property stated, "Please excuse our appearance, we are working to serve you better. Fueling facilities are temporarily closed for upgrade."[9] Following a manual precision line test, which the regular gasoline line failed on February 17, Exxon reported the gasoline release to the Maryland

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[8]An alarm indicated a catastrophic line failure when the EECO 3000's hourly test detected a leak measuring five gallons or more per hour.

[9]The sign was removed, due to its inaccuracy, following a meeting on 21 February 2006 between Exxon representatives, government officials, and residents of the Jacksonville community.

Department of the Environment ("MDE"), informing it of both the leak and the lost product amount. By then, over 26,000 gallons of gasoline were released into the underground environment by the Jacksonville Exxon station.

After notifying the MDE of the leak, Exxon held multiple public meetings in the Jacksonville community to inform residents of the situation, beginning with a previously-scheduled meeting of the Greater Jacksonville Neighborhood Association on February 21. The presentations, conducted by both Exxon and MDE officials, included information regarding the projected migration of the gasoline plume within the underground aquifer. Specifically, Exxon and the MDE predicted that, because of the hydrogeology of the area, the contamination would remain concentrated within a half-mile radius along a line running northeast and southwest from the station, which they termed the "strike line."[10] Baltimore County notified individuals residing or operating businesses within a half-mile radius of the station of the leak. The MDE maintained a website on which it posted information regarding the remediation efforts and all well test results. Some residents outside of the area predicted initially to be contaminated, however, ultimately suffered water contamination.

The MDE is responsible for supervising Exxon's remediation efforts, pursuant to a Consent Decree entered in September 2008.[11] The MDE will determine when Exxon has

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[10]Appellees contended at trial that Exxon and the MDE adopted an oversimplified explanation of the hydrogeology of Jacksonville in order to justify the "strike line" theory, and that Exxon avoided investigating the vertical migration of the contamination.

[11]Under the Consent Decree, Exxon agreed to pay a $4 million civil penalty to the (continued...)

completed its remediation obligations under the Consent Decree. During the remediation process, the MDE directed Exxon's investigation of the severity and scope of the leak, as well as in drilling and sampling monitoring and recovery wells. Exxon also submitted weekly site status reports to the MDE. Exxon has installed over 225 monitoring and recovery wells in the Jacksonville area, and, as of the time of trial, spent over $46 million on remediation.

Additionally, in accordance with the MDE's directives, Exxon provided written updates to residents and government officials regarding the progress of the remediation efforts, including the amount of gasoline recovered. In March and April of 2006, Exxon distributed estimates of how much gasoline had been recovered to Jacksonville residents. After discovering an error in the recovery calculations, Exxon advised residents of the error in April 2006, and submitted corrected estimates to the MDE on 29 June 2006. Exxon and its contractors provided residents with test results from their individual potable wells (where applicable), along with information regarding the drinking water guidelines promulgated by the MDE, and installed POET systems[12] where it and the MDE deemed necessary. Exxon

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[11](...continued)
MDE, comply fully with the Interim Remedial Measures Plan approved by the MDE, develop and follow a Corrective Action Plan subject to the MDE's approval, and submit quarterly progress reports to the MDE including sampling data and volume of treated groundwater, among other things.

[12]POET systems, or point of entry treatment systems, remove gasoline contamination from potable wells before the water is used by the occupants of the dwelling or users of a business.

also delivered voluntarily, for a limited period of time, bottled water to those residents whose wells were being ordered tested by the MDE.

Appellees filed suit initially in the Circuit Court for Baltimore County on 5 April 2007[13] against a number of defendants[14] for negligence, strict liability for an abnormally dangerous activity, private nuisance, trespass to land, and fraudulent concealment. Appellees sought compensatory damages for diminution in value and loss of use and enjoyment of real property, emotional distress for fear of loss of property value, medical monitoring, emotional distress for fear of contracting cancer, and punitive damages. Understandably, the case endured a lengthy procedural travail. Appellees filed a total of nine complaints, with the ultimate Eighth Amended Complaint filed on 12 March 2010.[15] Prior to trial, Exxon filed

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[13]The action was filed initially with 119 plaintiffs and styled as *Allison v. Exxon Mobil Corp.*, Case No. 03-C-07-003809. Five additional actions, also filed on 5 April 2007, were consolidated under the *Allison* caption by order dated 12 May 2008.

[14]Appellees named initially, in addition to Exxon, the following defendants: Storto Enterprises; the Veeder Root Company; Gilbarco Veeder-Root; Crompco, LLC; Crompco Corporation; Alger Electric, Inc.; BP America, Inc.; BP Products North America Inc.; Phoenix BP; and The Carroll Independent Fuel Company. Claims against all other defendants were dismissed, however, and Exxon remained the sole defendant at trial.

[15]Appellees' Fifth and Sixth Amended Complaints, as well as their Motion for Leave of Court to Amend to Add Plaintiffs to the Proposed Seventh Amended Complaint, were stricken by the first judge assigned specially to try the case, Judge Susan Souder, on 9 June 2009 as a violation of the Scheduling Order. An Eighth Amended Complaint was struck by Judge Souder on 23 August 2010. Although Judge Souder struck Appellees' Motion for Leave of Court to Amend to Add Plaintiffs to the Proposed Seventh Amended Complaint, nothing in the record indicates that she struck the Seventh Amended Complaint.

multiple motions for summary judgment,[16] but ultimately, nearly all of Appellees' claims for damages were permitted to be tried.[17]

At trial, which lasted from 3 January 2011 to 17 June 2011, Appellees maintained that Exxon perpetuated an ongoing fraud designed to deceive both public authorities and members of the community, beginning in 1983 with the construction of the containment system and continuing through the remediation efforts following the discovery of the leak. In support of their allegations, Appellees presented evidence regarding six specific instances of alleged fraud:[18] (1) Anderson's 1983 testimony before the Board of Appeals (construction

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[16]Exxon filed multiple motions for partial summary judgment on 18 June 2010. Judge Souder granted Exxon's motion for partial summary judgment on plaintiffs' claims for emotional distress as to certain plaintiffs, but denied it as to others. She also granted Exxon's motion for partial summary judgment as to claims for fear of contracting cancer.

Judge Souder denied Exxon's motions for partial summary judgment as to the following claims: medical monitoring, prospective loss of use and enjoyment, fraud, and liability for punitive damages based on allegations of evil motive, ill will, or intent to injure. Judge Souder required Appellees to elect between pursuit of damages for diminution in value of real property and prospective loss of use and enjoyment of their properties in an order dated 23 August 2010, and also ordered that Exxon's use of MTBE ("methyl tertiary-butyl ether," a chemical additive to vehicular motor fuel) in gasoline and its remediation efforts could not provide a basis for the fraud claims.

[17]Following his assignment to try the case, Judge Robert N. Dugan, on 14 October 2010, reversed Judge Souder's Order granting partial summary judgment as to fear of cancer. On 19 October, Judge Dugan reversed Judge Souder's order stating that Exxon's use of MTBE in gasoline and its remediation efforts could not provide a basis for fraud.

[18]Exxon contends that, of the instances submitted to the jury on the special verdict sheets, two should not have been submitted to the jury because they were not pleaded in any operative complaint. Specifically, an allegation of a 1992 permit fraud was pleaded only in Appellees' Eighth Amended Complaint, which was stricken by Judge Souder on 23 August 2010 (a ruling not reversed by Judge Dugan), and a claim regarding double-walled piping (continued...)

fraud);[19] (2) failure to inform the MDE that the 1992 retrofitting of the station, pursuant to the Clean Air Act, would involve destruction of the overliner (1992 permit fraud); (3) the posting of a misleading sign outside of the Jacksonville Exxon following the discovery of the leak (sign fraud); (4) a 2001 statement by Exxon to the MDE representing that the underground piping at the Jacksonville Exxon was double-walled piping, when actually it was single-walled piping (2001 double-walled piping fraud);[20] (5) inaccuracies in remediation reports regarding the quantity of leaked product recovered and the alleged flow of the leak (remediation fraud); and (6) deception of the MDE during the remediation

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[18](...continued)
was never pleaded, and raised for the first time only at trial.

Further, Exxon argues, it was unclear throughout trial what were the specific bases and arguments in support of Appellees' fraud claims. For example, although Appellees characterized at times their fraud claims as a single overarching fraudulent scheme, and thus only one count of fraud, the special verdict sheets submitted to the jury appeared to contain reference to six separate incidents of fraud, but did not require the jury to allocate any compensatory or punitive awards among the various frauds (or other torts) alleged. Moreover, in closing arguments on 13 June 2011, counsel for Appellees stated that they had "established in this case six fraud claims by clear and convincing evidence."

[19]Appellees argue that the secondary containment system, as installed, was less comprehensive than that proposed by Anderson in 1983, and part of a concerted corporate plot to deceive state and local authorities and cut regulatory corners. By contrast, Exxon contends that the containment system as installed was not only superior, more costly, and incorporated newer technology than that proposed by Anderson in 1983, but also that its features as installed were well-known to the County.

[20]The double-walled piping allegations are based on a "Notification for Underground Storage Tanks" form filed with the MDE in April 2001 by Exxon, which stated incorrectly that the Jacksonville Exxon station utilized double-walled piping. According to Exxon, by 2004, the MDE's files reflected correctly that the Jacksonville Exxon station utilized single-walled piping only.

process.[21]

Additionally, Appellees sought emotional distress damages for fear of contracting cancer, as well as relief in the form of medical monitoring costs, stemming from their alleged actual or future exposure to gasoline constituents, particularly benzene,[22] a known human carcinogen, and methyl tertiary-butyl ether ("MTBE"),[23] a metabolite of which is formaldehyde.[24] Although not classified as known human carcinogens, MTBE and

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[21]Appellees' claim appears to include not only the alleged manipulation of the MDE by Exxon regarding locations of monitoring wells, amount of gasoline recovered, and migration of contamination, but also an alleged awareness by Exxon of the leak prior to notifying the MDE. This allegation appears to be precipitated by a 14 February 2006 visit to the Jacksonville Exxon by employee Brian Shedd of Kleinfelder, Inc., (a company which later played an active role in remediation efforts). It is undisputed that Shedd visited the Jacksonville Exxon on that date to determine whether a soil vapor extraction system was appropriate for that site. Appellees contended that, because soil vapor extraction technology is used to assist in cleaning up gasoline leaks, Shedd's visit constituted evidence of Exxon's knowledge at that time. By contrast, Exxon posited that Shedd's visit was merely part of an ongoing company policy to examine each Maryland Exxon site to determine suitability for soil vapor extraction technologies. Counsel for Exxon indicated in a post-trial motions hearing on 11 October 2011 that Shedd visited three Exxon stations in Maryland, including the Jacksonville Exxon, for this purpose on 14 February 2006. Shedd did not testify at trial.

[22]Benzene is a constituent of gasoline and a known human carcinogen. Both the EPA and the MDE have promulgated drinking water standards indicating that benzene contamination in drinking water may not exceed five parts per billion. *See* 40 C.F.R. § 141.61; COMAR 26.04.01.07(D).

[23]Although MTBE was first used in 1979, it was added to some gasoline in higher concentrations following the 1990 amendments to the Clean Air Act to fulfill oxygenate requirements, help gasoline burn more cleanly, and reduce tailpipe emissions.

[24]The EPA classifies formaldehyde as a "probable human carcinogen." United States Environmental Protection Agency, Integrated Risk Information System: Formaldehyde, *available at* www.epa.gov/iris/subst.0419.htm (last visited 5 February 2013). At trial, Exxon's expert, Dr. James Swenberg, testified that because formaldehyde is present in every

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formaldehyde are known to have mutagenic properties.[25] Monitoring performed by Exxon in accordance with the MDE's requirements revealed benzene contamination in only ten wells.[26] Because few potable wells contained detectable concentrations of benzene, and therefore few Appellees could support their claims for fear of contracting cancer or a need for medical monitoring on the basis of benzene exposure, Appellees' primary contention at trial was that any MTBE contamination detected in any Appellee's well was sufficient to support that Appellee's fear of cancer and medical monitoring claims. Specifically, Appellees contended, through their expert witnesses, that there is "no safe level" of MTBE, and that any exposure to MTBE increases an individual's risk of cancer and is therefore sufficient to support a claim for fear of contracting cancer and medical monitoring. Of

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[24](...continued)
cell of the human body, is exhaled in each human breath, and is essential to life and growth, there is a safe level of exposure of formaldehyde, despite its classification as a probable human carcinogen. By contrast, Appellees' expert witnesses – Dr. Nachman Brautbar and Dr. Kathleen Burns – opined that there is "no safe level" of human exposure to formaldehyde, nor, therefore, to MTBE. There is no relevant EPA or MDE action level for formaldehyde in drinking water.

[25]A mutagen is "an agent (as mustard gas or various radiations) that tends to increase the frequency or extent of mutation." Merriam-Webster's Collegiate Dictionary 768 (10th ed. 1993). In the present case, it refers to a chemical agent that operates at an intra-cellular level.

[26]Benzene was detected at the following Appellees' properties: Ensor family; James and Mary Kelly family; Over family; Rusinko family; Yen family; Dogwood Management, LLC; Klein Family Development Corp.; Klein's of Jacksonville; 3313 Paper Mill Road, LLC; Jarrettsville Retail, LLC; and, Van Ho (Elegant Hair & Nails). Five of these properties were located within the strike line zone (northeast and southwest of the station). The remainder were located outside of the strike line zone, but within an approximately half-mile radius of the Jacksonville Exxon station.

Appellees' potable wells, only eight recorded detections of MTBE above the MDE action level of twenty parts per billion ("ppb") for MTBE in drinking water.[27]

On Appellees' claims for emotional distress for fear of contracting cancer and medical monitoring, the trial court instructed the jury as follows:

> To recover for fear of disease, a Plaintiff need not offer definitive proof of actual exposure to the disease-causing agent where such proof is unavailable; it is sufficient in such a situation if the Plaintiff proves that the Defendant created circumstances making the Plaintiff's exposure a reasonable probability. The evidence is sufficient to establish a reasonable probability if it produces in your minds a belief that an outcome is more likely true than not true.
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> A Plaintiff's entitlement to damages for fear of disease must be confined to injury suffered during the Plaintiff's legitimate window of mental anxiety. The window of anxiety begins when the Plaintiff first learns of the potential exposure to [sic] disease-causing agent and ends when satisfactory information becomes available that puts to rest the fear of disease.
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> Furthermore, a Plaintiff must show that all claimed emotional

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[27]MTBE is not regulated presently by the Environmental Protection Agency ("EPA") under the federal Safe Drinking Water Act. Both the MDE and the EPA have promulgated guidelines, however, recommending control levels for communities that experience MTBE drinking water contamination. The MDE notes that contamination of MTBE in drinking water at or above levels of twenty parts per billion constitutes a "level of concern," *see* COMAR 26.10.02.03(B)(3)(e), while the EPA issued an advisory recommending limiting acceptable levels of contamination between twenty and forty parts per billion. The EPA noted, however, that its respective action level is not based on concerns for human health, but rather is classified appropriately as an "aesthetic" standard, above which MTBE can be detected by an unpleasant odor or taste. The EPA noted that a range of 20–40 parts per billion provides "a large margin of exposure (safety) from toxic effects." United States Environmental Protection Agency, Drinking Water Advisory: Consumer Acceptability Advice and Health Effects Analysis on Methyl Tertiary-Butyl Ether (MtBE) 2 (1997).

> distresses are objectively ascertainable through evidence of physical manifestations. Physical manifestations of emotional distress may include, but are not limited to, any of the following: Depression, inability to work or perform routine household chores, loss of appetite, insomnia, nightmares, loss of weight, extreme nervousness and irritability.
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> ***
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> The Plaintiffs seek a form of relief called medical monitoring. Medical monitoring is a form of relief that represents the cost of periodic medical tests or examinations, to a reasonable degree of medical certainty, that are necessary to monitor a Plaintiff's health and to facilitate early diagnosis and treatment of a disease caused by exposure to a chemical. To qualify for medical monitoring damages, a Plaintiff must prove by a preponderance of the evidence: Relative to the general population, the Plaintiff has been exposed to MTBE, benzene, toluene, or other gasoline constituents; MTBE, benzene, or toluene are disease-causing agents; the exposure was caused by the 2006 Jacksonville Exxon release of gasoline into the environment; the exposure created a significant increase of risk for contracting a serious disease when compared to the general nonexposed population; diagnostic or early detection tests exist for this increased risk of a serious disease and is reasonably beneficial in the treatment of serious disease; this testing would be prescribed by a qualified physician in accordance with contemporary scientific principles and would not be prescribed to the general population absent this exposure.

In support of their claims for fear of contracting cancer, and over the objection of Exxon's counsel, many Appellees testified regarding their opinions that they, members of their families, or their pets contracted disease as a result of the gasoline leak. At trial, however, no Appellee "assert[ed] a claim for sickness or death of any person or animal." The trial court instructed the jury that no claim could be asserted unless Appellees "offered appropriate expert testimony linking those illnesses or deaths to the level of exposure to

gasoline, including any constituent that has caused sickness or death and to any person or animal."

In addition, Appellees sought compensatory damages for diminution in value and past loss of use and enjoyment of real property[28] as a remedy for their claims of nuisance, trespass, negligence, and strict liability for an abnormally dangerous activity.[29] Some Appellees sought additional recovery for emotional distress for fear of loss of property value. Appellees testified that they were reluctant to use portions of their properties, needed to purchase bottled drinking water, and were disturbed generally by the lights, noise, and smells produced by remediation activities, which reduced their enjoyment of their properties. Further, in support of their diminution in value allegations, Appellees introduced Dr. John Kilpatrick as an expert witness, who testified that each of the residential Appellees' properties had sustained a sixty percent diminution in value as of the day the leak was discovered.[30] Exxon countered with its expert witness, Richard Roddewig, who testified that,

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[28]Appellees initially pursued damages for both diminution in value and prospective loss of use and enjoyment, but were required to elect between the two theories of recovery prior to trial. Appellees elected to pursue damages for permanent diminution in value measured as of the day the leak was discovered, as well as damages for past loss of use and enjoyment, measured between the date the leak was discovered and the date trial began.

[29]Many Appellees' properties had not received positive detection well tests at the time of trial. Rather, their claims relied on expert testimony provided by Dr. Caroline Loop and Dr. Richard Spruill, who opined that it was "possible" or "probable" that Appellees' properties would experience contamination at some point during the next thirty years.

[30]The jury adopted ultimately the view of Dr. Kilpatrick, awarding compensatory damages to each property owner amounting to sixty percent of the pre-leak value of his, her, or its property.

based on post-leak sales in the Jacksonville community, some properties had not sustained any diminution in value, while others sustained diminution up to 35% of their pre-leak value.

At the close of trial, Judge Dugan granted Exxon's Motion for Judgment on Plaintiffs' Claims for Punitive Damages based on allegations of evil motive, ill will, or intent to injure, determining that Appellees' only viable basis for seeking recovery of punitive damages was fraud. Thus, the case went to the jury on causes of action for negligence, strict liability, trespass, nuisance, and fraud.[31] The jury returned verdicts for 466 plaintiffs on all causes of action on 28 June 2011, amounting to a total compensatory damages award of $496,210,570. Following presentation of evidence on the issue of punitive damages, the jury returned an award for punitive damages totaling $1,045,550,000.

Exxon filed motions for judgment notwithstanding the verdict and for a new trial and/or remittitur, which were denied on 19 July 2011. On 18 August 2011, Exxon noted timely an appeal to the Court of Special Appeals.[32] Before the intermediate appellate court

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[31]For some Appellees, Exxon admitted causation and liability for some compensatory damages, while preserving its arguments as to the type and amount of damages that may be awarded. Specifically, Exxon admitted that it caused the following Appellees to suffer compensatory damages of some type as a result of the Jacksonville Exxon gasoline leak: Allison family; Craig family; DiPino family; Ensor family; Hairston family; Van Ho; James and Mary Kelly family; Larrabee family; Lindenmeyer family; Munson family; Odend'hal family; Puller family; Rebold family; Riegger family; Rusinko family; Sheeler family; Stehman family; Sullivan family; Trader family; Tripp family; Vuong family; Welms family; Yen family; Lenore Zaccari; 14237 Jarrettsville Pike, LLC; 14231 Jarrettsville Pike, LLC; 3313 Paper Mill Road, LLC; 3422 Sweet Air Road, LLC; and Dogwood Management, LLC.

[32]Following Exxon's notice of appeal, proceedings continued in the trial court. On 17 November 2011, Judge Dugan issued an opinion explaining his reasons for denying (continued...)

could decide the appeal, Appellees filed a petition for writ of *certiorari* in this Court on 24 February 2012. Exxon opposed Appellees' petition, arguing that it was better for the case to proceed first through the Court of Special Appeals. We granted Appellees' petition for *certiorari* on 9 May 2012, 426 Md. 427, 44 A.3d 421 (2012), to consider the following issues,[33] rephrased and consolidated for brevity:[34]

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[32](...continued)
generally Exxon's request to set aside or reduce the punitive damages award. Judge Dugan reduced the punitive damages awards for five plaintiffs, as set forth in an order dated 16 May 2012. The trial court proceeded to resolve various ambiguities and errors with regard to specific plaintiffs and the verdict sheets, with the final judgment entered on 14 June 2012.

[33]Because the case is before this Court on bypass of the Court of Special Appeals by virtue of our granting Appellees' petition for *certiorari* pursuant to Maryland Rule 8-302(a), we stand in the shoes of the Court of Special Appeals. *See* Md. R. 8-131(b)(2). Thus, although the scope of our review with regard to the issues raised by Appellees is limited, as in a cross-appeal, to those contained in their petition for *certiorari*, any and all issues raised by Exxon in its brief, if preserved in the trial court, are within the purview of this Court on review. *See Wildwood Med. Ctr., LLC v. Montgomery Cnty.*, 405 Md. 489, 496, 954 A.2d 457, 461 (2008).

[34]In its brief, Exxon posited the following questions:

> (1) May verdicts for fraud be upheld (a) when based on claims not found in the operative complaint or defined for the jury; and (b) absent clear and convincing evidence that Defendant made a knowingly false representation to the Plaintiff, intending to deceive the Plaintiff, and resulting in reliance by and damage to the Plaintiff?
>
> (2) May punitive damage verdicts be upheld when it is impossible to determine what, if any, compensatory damages were awarded for fraud, or what punitive damages were awarded on any of the six frauds, and where the punitive damage instructions did not advise the jury of all of the relevant factors it should consider?

(continued...)

[34](...continued)

> (3) Did the trial court commit reversible error in admitting highly prejudicial, emotional lay opinion regarding cancer and other illnesses that was not supported by expert testimony and contradicted by the admissions of Plaintiffs' counsel?
>
> (4) Did the trial court commit reversible error in allowing recovery for emotional distress damages for fear of contracting cancer recoverable in the absence of proof of exposure or proof that future disease is more likely than not to occur, and by failing to instruct the jury that such proof was required?
>
> (5) Does Maryland law permit recovery of medical monitoring damages and, if so, should recovery be permitted where (a) no Plaintiff claimed to have any current disease caused by MTBE; (b) no Plaintiff has a significantly increased risk of disease; and (c) many Plaintiffs were not exposed to MTBE?
>
> (6) Were the property damage awards speculative, duplicative, grossly excessive and contrary to Maryland law?
>
> (7) If punitive damages were permitted, were the punitive damage awards impermissibly excessive?

In their petition for *certiorari*, Appellees framed the following questions for review:

> (1) Whether, in an action for fraud, evidence of the Defendant's deceitful representations to the government, made with the intent of influencing government action, and relied upon by it to the Plaintiffs' detriment, satisfies the requirement that Plaintiffs prove reliance?
>
> (2) Whether, in an action involving the release of 26,000 gallons of gasoline into the aquifer which is the Plaintiffs' sole source of potable water, where expert testimony has established the Plaintiffs' resulting exposure to a genotoxic substance for which there is no safe level, Plaintiffs are entitled to recover damages for fear of cancer and medical monitoring?

(continued...)

(1) Does Maryland recognize third party reliance in a fraud action?

(2) Was there sufficient evidence to support the jury's fraud awards?

(3) Where a Plaintiff alleges multiple instances of fraud, must the jury verdict sheet allocate compensatory damages among the various instances of fraud?

(4) Was the punitive damages award excessive?

(5) Was there sufficient evidence to support the jury's award of emotional distress damages for fear of cancer?

(6) Does Maryland recognize a claim for medical monitoring?

(7) Were the jury's property damages duplicative, excessive, and speculative?

(8) Is the release of a contaminant into an aquifer sufficient to establish trespass to land regardless of the level of detected contamination in an individual Plaintiff's well?

ANALYSIS

I. Sufficiency of Evidence for Fraud Verdict and Punitive Damages

Exxon challenges on multiple grounds the jury's fraud verdicts and resultant punitive damages awards. First, Exxon seeks to undermine the legal sufficiency of the jury's finding of fraud, contending that Appellees did not prove detrimental reliance as to any of the six

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[34](...continued)

(3) Whether, in an action for property damage, evidence that the Defendant released 26,000 gallons of gasoline into the aquifer that serves as the Plaintiffs' sole source of potable water is sufficient to establish the Defendant's liability for an invasion of the Plaintiffs' land?

alleged categories of alleged fraudulent conduct. Second, Exxon argues that the jury verdict sheets were faulty in that they failed to allocate compensatory and punitive damages among the separate categories of alleged fraud, such that an assumed finding of insufficiency by this Court on some, but not all, of the fraud claims mandates nonetheless a new trial. Third, Exxon contends that by failing to require Appellees to define what they meant by "remediation fraud" prior to the commencement of trial, the trial court permitted Appellees to shift their theory of liability during trial in violation of Exxon's due process rights. Lastly, Exxon asseverates that the punitive damages awards are constitutionally excessive. Because we conclude that Appellees' evidence in support of their fraud claims was legally insufficient, we need not decide Exxon's other contentions.

In reviewing a trial court's denial of a motion for judgment notwithstanding a verdict for fraud, we must determine whether "there is any evidence adduced, however slight . . . from which reasonable jurors, applying the appropriate standard of proof, could find in favor of the plaintiff on the claims presented." *Hoffman v. Stamper*, 385 Md. 1, 16, 867 A.2d 276, 285 (2005); *see also Darcars v. Borzym*, 379 Md. 249, 270, 841 A.2d 828, 840 (2004) (noting that a court "must account for and consider the appropriate burden of persuasion in deciding whether to allow the jury to decide an issue"). We review the trial court's decision to "determine whether it was legally correct, while viewing the evidence and the reasonable inferences to be drawn from it in the light most favorable to the non-moving party." *Scapa Dryer Fabrics, Inc. v. Saville*, 418 Md. 496, 503, 17 A.3d 159, 163 (2011) (internal citations omitted). We will reverse the denial of a motion for judgment notwithstanding the verdict

"only if the facts and circumstances permit but a single inference as relates to the appellate issue presented." *Jones v. State*, 425 Md. 1, 31, 38 A.3d 333, 350 (2012) (citing *Scapa*, 418 Md. at 503, 16 A.3d at 163). Thus, because fraud must be proven by clear and convincing evidence, *Hoffman*, 385 Md. at 16, 867 A.2d at 285 (citing *VF Corp. v. Wrexham Aviation*, 350 Md. 693, 704, 715 A.2d 188, 193 (1998)), reversal of the trial court's denial of the motion for judgment notwithstanding the verdict is only appropriate when, looking at the evidence in the light most favorable to Appellees, we determine that Appellees did not meet their burden of establishing fraud by clear and convincing evidence.

A. Third Party Reliance

At trial, Appellees alleged on Exxon's part a continuous course of fraudulent conduct continuing over approximately thirty years, based on six specific instances. Exxon challenges the legal sufficiency of the jury's verdict as to three of those instances – the 1983 construction fraud, 1992 permit fraud, and 2001 double-walled piping fraud – on the grounds that the jury relied improperly on a theory of third party reliance, which Exxon contends is not recognized under Maryland law. We determine that Appellees' theory of third party reliance fails to satisfy the requirement that Appellees demonstrate personal reliance, and thus, because they presented no competent evidence on this missing element, their proof is legally insufficient. Therefore, we reverse the judgment as to fraud.

To establish fraud, a plaintiff must prove by clear and convincing evidence that "(1) the defendant made a false representation to the plaintiff, (2) the falsity of the representation was either known to the defendant or the representation was made with reckless indifference

to its truth, (3) the misrepresentation was made for the purpose of defrauding the plaintiff, (4) the plaintiff relied on the misrepresentation and had the right to rely on it, and (5) the plaintiff suffered compensable injury as a result of the misrepresentation." *Hoffman*, 385 Md. at 28, 867 A.2d at 292. Exxon takes issue with the trial court's jury instructions on reliance, which read, in relevant part, that, in order to recover damages for fraud, Plaintiffs need only prove that Exxon "intended the Plaintiffs *or Baltimore County or the State of Maryland* would act in reliance on [its false] statements" and that "the Plaintiff *or Baltimore County or the State of Maryland* did justifiably rely on the representations of the Defendant." (Emphasis added).

Ordinarily, a plaintiff seeking recovery for fraud must prove that "the defendant . . . made a false representation *to the person defrauded*." *Gourdine v. Crews*, 405 Md. 722, 759, 955 A.2d 769, 791 (2011) (citations omitted) (emphasis in original). Here, there is no dispute that (1) Exxon did not direct any of these three allegedly fraudulent representations to any of the Appellees; and (2) none of the Appellees relied personally on the three allegedly fraudulent misrepresentations. None of the Appellees contend that they were present at the 1983 meeting of the Baltimore County Board of Appeals at which Anderson testified, knew about the 1992 permit application, or saw, prior to the leak, the 2001 MDE document representing that the Exxon station employed double-walled piping. In the absence of personal reliance, however, Appellees assert an attenuated third-party reliance theory under which they claim that they need not show any evidence of actual, personal reliance in order to establish fraud. Rather, they claim, a cause of action for fraud may be successful under

a theory of third-party reliance by demonstrating that Exxon made intentionally or recklessly a false statement to public officials (Baltimore County or the State of Maryland), which the public officials then relied on to the ultimate detriment of the Appellees – rather like fraud on the people's government constitutes fraud on the people. Exxon, by contrast, contends that Maryland law requires that "a plaintiff prove he had knowledge of, and relied upon, a misrepresentation" on a direct and personal basis.

In some circumstances, an individual may recover for fraud even when the allegedly fraudulent statement at issue was not made to him or her directly. *See, e.g.*, *Diamond Point Plaza Ltd. P'ship v. Wells Fargo Bank, N.A.*, 400 Md. 718, 741–42, 929 A.2d 932, 946 (2007) ("Liability [for fraud] is not defeated by the fact that Diamond Point's representations [in a commercial document] were not made directly to Wells Fargo."); *Rhee v. Highland Development Corp.*, 182 Md. App. 516, 539–40, 958 A.2d 385, 389–90 (2008) (permitting a subsequent purchaser of real estate to proceed against the original seller for his or her alleged fraudulent concealment, even though the misrepresentation was not made directly to the subsequent purchaser); Restatement (Second) of Torts § 531 ("One who makes a fraudulent misrepresentation is subject to liability to the persons or class of persons whom he intends or has reason to expect to act or to refrain from action in reliance upon the misrepresentation . . ."). *But see Gourdine*, 405 Md. at 759–60, 955 A.2d at 791–92 (declining to sustain a cause of action for fraud to a third party in part because the third party was not a party to the alleged misrepresentation).

Despite the instances where recovery for fraud has been sanctioned where the

allegedly fraudulent statement was not made directly to the plaintiff, we have not permitted recovery without a demonstration that the plaintiff relied, either directly or indirectly, on the relevant misrepresentation. For example, in *Diamond Point Plaza*, the defendant, Diamond Point, made a fraudulent misrepresentation to two lenders, Pinnacle and PaineWebber, "for the purpose of inducing Pinnacle and PaineWebber to extend a loan, aware that PaineWebber likely would sell the loan in the secondary market." 400 Md. at 741, 929 A.2d at 946. Wells Fargo bought the loan in the secondary market. Thus, we reasoned that Diamond Point had "reason to expect that the loan documents, including [the fraudulent misrepresentation], would be presented to, would be considered by, and would influence the decision of prospective buyers in the secondary market." *Id.* at 741–42, 929 A.2d at 946. Therefore, not only did Pinnacle and PaineWebber, the parties to whom the actual misrepresentation was made, rely, but so too did Wells Fargo, the third party buyer in the secondary market. *Id.* Although Diamond Point's representations were not made directly to Wells Fargo, Wells Fargo, as the third party, established reliance and resultant harm.

Appellees contend that, because we have permitted previously recovery where the allegedly fraudulent statement was not made directly to the plaintiff, recovery by Appellees for the statements made to Baltimore County and the MDE is justified in the present case. Reliance by Baltimore County or the State of Maryland is simply February 22, 2013not enough, however.[35] Appellees, like Wells Fargo in *Diamond Point*, must also have relied

[35]Moreover, even assuming that reliance by Baltimore County or the MDE alone was (continued...)

personally, either directly or indirectly, on the allegedly false representations. Here, however, Appellees do not provide any evidence that they relied personally on Exxon's allegedly fraudulent statements,[36] nor do they provide any persuasive legal authority sufficient to support their contention that proof of reliance is excused. *Cf. Philip Morris, Inc. v. Angeletti*, 358 Md. 689, 752 n.29, 752 A.2d 200, 234 n.29 (2000) (denying class certification for a claim of fraud in part because reliance on a misrepresentation by a plaintiff, on an individual basis, is essential to a civil claim of fraud). Maryland law does not permit a third party to recover damages for fraud purely on the basis of a false statement made to a governmental entity.

Appellees argue that such an interpretation, in effect, immunizes corporate deceit to

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[35](...continued)
sufficient to support Appellees' cause of action for fraud, we are not convinced that Appellees proved by clear and convincing evidence reliance by the governmental entities. Rather, Appellees' claims appear to be based on mere conjecture, and the absence of any testimony by anyone at either the MDE or the Baltimore County Board of Appeals demonstrates Appellees' failure to meet their burden of proof.

[36]Appellees also rely on *State v. Fox*, 79 Md. 514, 29 A. 601 (1894), and *State v. Katcef*, 159 Md. 271, 150 A. 801 (1930), which each noted that the seller of a horse, represented falsely to be healthy or safe, could be held liable to third parties sickened or injured by the horse. These cases, however, are inapposite, as they imposed liability for the sale of an inherently dangerous instrumentality that was "placed in such position that injury might be inflicted, and that without notice or warning to the vendee in respect to the dangerous qualities or afflictions." *Rounds v. Phillips*, 166 Md. 151, 162–63, 170 A. 532, 536 (1934) (discussing *Fox* and *Katcef*). Moreover, in *Fox*, we emphasized that liability to a third party could only exist where the third party was "in some way connected with the purchaser," noting that under the facts of that case, the third party was acting under the direction of the purchaser. 79 Md. at 529, 29 A. at 604. Specifically, we stated, "we do not mean to decide that any third party [injured by the horse] . . . could sue." *Id.*

governmental officials. We disagree. Government is capable and empowered generally to take action in such instances to protect its interests and those of the public. Other parties meeting the elements of fraud may proceed properly on such an action if they so choose. Appellees, however, purely by virtue of being residents in the area, without more, cannot maintain an action for fraud based on false statements for which they have admitted no direct, indirect, or personal reliance. Thus, to the extent the jury verdict was dependent on the 1983 construction fraud, the 1992 permit fraud, and the 2001 double-walled piping fraud claims, it is unsupported.

B. Sign Fraud and Remediation Fraud

Exxon argues that Appellees failed to prove by clear and convincing evidence the remaining three instances of alleged fraud: (1) sign fraud; (2) remediation fraud; and (3) remediation fraud in allegedly misleading affirmatively the MDE. Specifically, Exxon contends that, of the approximately 125 Appellees who testified that they saw the misleading sign, most did not provide any testimony lending itself to establishment of any detrimental reliance or change in their water consumption habits. Additionally, although 459 Appellees received awards for remediation fraud either personally or on the basis of the MDE's reliance, Exxon argues that at least 300 of these Appellees did not offer any testimony mentioning the alleged remediation fraud in the first instance, no Appellee proved detrimental reliance, and Appellees provided insufficient evidence to demonstrate that the MDE relied on any false statements.

1. Sign Fraud

Exxon contends that the sign fraud verdicts should be reversed. One-hundred, eighty-six Appellees recovered damages for sign fraud, stemming from the placement of the "misleading" sign outside of the Jacksonville Exxon station from 17 February until 21 February 2006. Exxon claims that of the 186 recovering Appellees, most either provided no testimony regarding seeing the sign in the first instance or "offered no evidence of detrimental reliance or continued using their well water even after they discovered the sign was inaccurate." Moreover, Exxon argues, those demonstrating reliance did not offer any evidence of resulting injury or damage.

As noted above, a false statement by a defendant does not alone provide a sufficient basis to support a cause of action for fraud. Rather, the plaintiff must prove by clear and convincing evidence that he or she relied on the allegedly fraudulent statement to his or her detriment. *See Hoffman*, 385 Md. at 28, 867 A.2d at 292. Here, Appellees' failure to demonstrate detrimental reliance is fatal to their claims. As Exxon notes, very few Appellees testified that they continued to use their well water after seeing the sign because they presumed the sign was correct, that they altered their water consumption following the discovery that the sign was misleading, or that they would have altered immediately their water consumption had the content of the sign been accurate at its installation. For example, many Appellees who asserted that they saw the sign did not begin using bottled water or install POET systems until well after the leak was publicized and the sign removed, therefore negating any claim that their continued consumption of potentially contaminated water resulted from the sign's inaccuracy. Thus, even though 186 Appellees saw the sign, very few

demonstrated reliance.[37]

Of those Appellees that claimed to have relied on the misleading sign, none established that he or she suffered injury or damages as a result of his or her reliance. Appellees testifying as to reliance either did not have demonstrable contamination of their wells stemming from the Jacksonville Exxon leak until months after Appellees learned about the leak, or never had a positive well test for contamination. Thus, no Appellee proved by clear and convincing evidence any resulting injury from consuming contaminated water during the five-day period during which the sign was displayed. As a result, Appellees failed to establish a cause of action for fraud based on the posting of the "misleading" sign. The sign fraud verdicts as to all Appellees are therefore reversed.

2. Remediation Fraud

Exxon urges this Court to reverse the fraud verdicts for the 459 Appellees who recovered for remediation fraud, claiming that they failed to prove fraud by clear and convincing evidence. Exxon challenges additionally the remediation fraud verdicts based on the reliance by the MDE on Exxon's remediation expertise. Lastly, Exxon complains that even the concept of remediation fraud is a violation of Exxon's due process rights, claiming that Appellees' theory of remediation fraud remained undefined and ever-shifting throughout

[37]Upon our review of Appellees' testimony, it appears that only the following Appellees demonstrated arguably reliance on the sign: Susan Allison; Margaret Brown; John Wright; Clever Fonseca; Denise Fonseca; James Kelly; Mary Kelly; Stephanie Kelly; Jennifer Riegger; Julia Riegger; KatieRose Riegger; Meghen Riegger; Anna Walega; and, Nancy Williams.

the course of the trial.

The concept of remediation fraud appears to encompass various subtheories premised mainly on actions taken by Exxon during the remediation process. Appellees point to a number of Exxon's representations, including recovery estimates of gasoline proclaimed by Exxon, which later proved to be incorrect and were amended by a subsequent recovery estimate; statements made by Exxon officials predicting that the contamination would migrate, and thus be contained generally, to a "strike line" within a half-mile radius of the station, which was proved incorrect later; representations concerning the safety of the state action level for MTBE contamination; Exxon's decision to deliver or discontinue the delivery of bottled water; and, the decision of where to drill monitoring wells and sample for contamination.

We need not consider whether the amorphous concept of remediation fraud violated Exxon's due process rights. Upon our review of Appellees' testimony,[38] we conclude

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[38]Many Appellees who received verdicts for remediation fraud did not offer any testimony in support of their assertions, including most of the minor and adult children occupants of residences. Because fraud requires proof of reliance on an individual basis, the trial court should not have permitted the claim for remediation fraud for these Appellees to go to the jury, absent the presentation of testimony regarding their fraud claims offered by them or on their behalf. *See, e.g.*, Agniezka Hudzik (Allison); Eric Allison; Kristen Allison; Caitlin Andrews; Daniel Andrews; Jeanne Andrews; Ian Austin; Reid Austin; Emily Backus; Alex Blum; Madelyn Blum; Lloyd Burke, Jr.; Lloyd Burke; Riley Burke; Ashley Brookhart; Sean Brookhart; Victoria Brookhart; Tara Brown; Terry Bueche; Louise Bull; Amanda Buscemi; Cari Cheelsman (Buscemi); Charles Cheelsman (Buscemi); Mary Buscemi; Rachel Buscemi; Adriana Capizzi; Francesca Capizzi; Julia Capizzi; Maria Cole-Navarro; Phillip Diedeman, Jr.; Dominique DiPino; Francesca DiPino; Joseph DiPino; Paul DiPino III; Sarah Dyer; Brian Easton; David Easton; Michael Easton; James Turfler (Eisgruber); Janice Elliott;

(continued...)

that the Appellees' claims for remediation fraud suffer from various deficiencies of proof.

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[38](...continued)
Christopher Federico; Emily Federico; Grace Federico; Kevin Federico; Sarah Fletcher; Zachary Fletcher; Bruna Fonseca; Maira Fonseca; Tiago Fonseca; Gia Fontanazza; Debra Gillespie; Kevin Gillespie; Tara Gillespie; Thomas Gillespie III; Marjorie Gribble; Gavin Grogan: Linda Hairston-Taulton; Theodore Hannibal; Connor Hartman; Gavin Hartman; Allison Higgins; Patrick Higgins; Richard Higgins; Kenneth Kelly; Lauren Dance (Kelly); Michele Tehan (Kelly); Kathleen Kennedy; Calvin Kirkwood; Chase Kirkwood; Jeremy Kirkwood; Tyler Kirkwood; Kristen Lawrence; Jennifer Lazzaro; Kaitlyn Lindenmeyer; Megan Lindenmeyer; Corey Makowy; Allie Mangione; Taylor Mangione; Ryan McCleary; Leigh Morgan Sharp (Morgan); R. Wade Morgan; Catherine Murphy (Moss); Gregory Moss; Natalie Murphy; Payton Murphy; Rosemary Murphy; Gregory Naylor, Jr.; Kenneth Naylor; Tracy Naylor; Bessie Over; Andrew Palmer; Geoffrey Palmer; Andrew Parker; James Parker; Bradley Peters; John Peters; Jena Pietropaoli; Joseph Pietropaoli, Jr.; Paulette Pietropaoli; Jennifer Riegger; KatieRose Riegger; Meghen Riegger; Mary Judith Rudell; Janice Scarff; Allison Shields; Erin Shields; John Shields, Jr.; Kevin Shields; Marah Schmitz; Susan Schmitz; Adam Seery; Meghan Seery; Chelsea Simanski; Alexander Trader; Matthew Trader; Brian Tripp; Steven Tripp; Elliot Gloger (Vaughan); Kieran Vaughan; Chase Vosvick; Tanner Vosvick; Jack Wachter; Kimberly Wachter; Ryan Wachter; Megan Welms; Cole Wilhelmsen; Hans Wilhemsen III; and, Jennifer Winfield.

In addition to these Appellees, the following Appellees did not present any testimony supporting remediation fraud by any owner or occupier of the relevant premises, but recovered verdicts and punitive damages for fraud nonetheless: Edgar Argo, through personal representative Marlene Argo (did not seek recovery for fraud); Dana Rhyne Dieter; Patricia Dieter; Alissa Dutrow; Daryl Dutrow; Emily Dutrow; Jennifer Dutrow; Anthony Frattarola; Marianne Frattarola; Victoria Frattarola; Eugene Freeman; Pearlie Freeman; Katherine King, through personal representative Paul King; Kathleen Oursler; Rodger Oursler; Bessie Over, through personal representative Nancy Lee Over Webster; Christy Shaw; Thomas Shaw; Amy Vuong; Krystal Vuong; Man A. Vuong; Shuzhen Wu (Vuong); Sinh Vuong; Stacy Vuong; Chen-Yu Yen (regarding remediation fraud due to false statements made by MDE); Ray-Whey Yen (regarding remediation fraud due to false statements made by MDE); Christopher Zaccari; Patricia Zaccari; Lenore Zaccari; Dogwood Management, LLC; Klein Family Development Corp.; Klein's of Jacksonville, Inc.; 14342 Jarrettsville Pike, LLC; 3313 Paper Mill Road, LLC; Jarrettsville Retail, LLC; 14231 Jarrettsville Pike, LLC; 14237 Jarrettsville Pike, LLC; and, 3422 Sweet Air Road, LLC.

We therefore reverse the verdicts for remediation fraud for these Appellees.

Specifically, some Appellees never established that the source of their impressions related to the remediation efforts was a representation made by Exxon Mobil,[39] nor that any statement allegedly relied upon was false,[40] let alone intentionally so. Others relied on opinions or predictions regarding where the contamination would flow in the aquifer to form

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[39]*See, e.g.*, Phillip Diedeman; Susan Diedeman; Laura Hartman; Michael Hartman; Cheryl Howells; Almarie Ianuly; Paul Ianuly; Charles Parker; Kimberly Parker; Joseph Pietropaoli; Anna Popomaronis; Cynthia Popomaronis; Eleni Popomaronis; Peter Vailas (Popomaronis); Thomas Popomaronis; William Popomaronis; Joseph Schmitz; David Vaughan; Terri Vaughan; David Vosvick; Deedra Vosvick; Anna Walega; and, John Walega.

[40]*See, e.g.*, Annette Armstrong; John Armstrong; Ryan Backus; Shelly Backus; Patricia Bateman; Jon Blum; Tracey Blum; Florence Brock; Keith Brock; Ellen Brookhart; Margaret Brown; Adriane Burke; Karen Buscemi; Frederick Craig; Rosina Craig; Bruce Elliott; Ellison Ensor; Sarah Ensor; Gina DiPino; Paul DiPino, Jr.; Tracy Federico; Edward Fletcher; Regina Fletcher; Thomas Gillespie, Jr.; Curtis Glatfelter; Alicia Grogan; David Grogan; Mary Pat Goodhues; Jeanette Hairston; Walter Hairston; Virginia Hannibal; Rebecca Heyman-Magaziner; John Higgins; Mary Higgins; Dorothy Hyman; Richard Hyman; Kenneth Kelly; Stephanie Kelly; Kimberly Kobus; Thomas Kobus; Ellen Koerner (through Gloria Quinan); Henry Koerner (through Gloria Quinan); Barbara Larrabee; John Larrabee; Mitchell Larrabee; William Larrabee; Donna Lawrence; Lelah Mahoney; Patrick Mahoney; Christopher Makowy; Heather Meldron (Makowy); Kim Makowy; Rebecca Meldron (Makowy); William Makowy; Alexander Makris; Eleni Makris; Nikolaos Makris; Valerie Makris; Brian Mangione; Justine Mangione; John Matra; Mary Matra; Eric Munson; Georgia Munson; Jeffrey Munson; Leslie Munson; John Murphy; Christian O'Brien; Christopher O'Brien; Shelby O'Brien; Edward Odend'hal; Nanette Odend'hal; Betty Over; Sylvester Over; Emily Pagani; Nicholas Pagani; Rebecca Pagani; Steven Pagani; Charles Parker; Kimberly Parker; Joseph Pietropaoli; Anna Popomaronis; Cynthia Popomaronis; Eleni Popomaronis; Peter Vailas (Popomaronis); Thomas Popomaronis; William Popomaronis; Mary Prime; William Prime; Casey Proefrock; Kate Proefrock; John Proefrock; Mary Kathryn Proefrock; Megan Proefrock; Scott Proefrock; Gloria Quinan; Granville Quinan; Jerome Rebold; Rochelle Roth; Steven Roth; Alan Saeva; Ellaine Saeva; Alexander Scheetz; Arden Scheetz; Michele Scheetz; Ricky Scheetz; Charlotte Slaughter; Diann Kohute (Slaughter); Emily Slaughter; Kaitlyn Jones (Slaughter); Nancy Slaughter; William Slaughter, Jr.; William Slaughter; Bruce Stumpp; Norma Stumpp; David Vaughan; Terri Vaughan; Anna Walega; John Walega; Nancy Welms; Christy Whaley; Neil Whaley; Dolores Whitehurst; Gertrude McNicholas (Whitehurst); and, Van Ho, Elegant Nails & Hair.

the basis for their fraud claims,[41] which is an insufficient basis for fraud. *See, e.g.*, *Babb v. Bolyard*, 194 Md. 603, 609, 72 A.2d 13, 16 (1950) (noting that, to form the basis for fraud, the statement "must be a statement of an alleged existing fact or facts, and not merely of some future or contingent event, or an expression of opinion as to the subject of the statement" (quoting *Boulden v. Stilwell*, 100 Md. 543, 551, 60 A. 609, 610 (1905))). Most claims, however, suffered in particular from an insufficient showing of detrimental reliance.

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[41]See, e.g., Susan Allison; David Austin; Emily Austin; Tracey Blum; Margaret Brown; Adriane Burke; Ronald Bueche; Carlo Capizzi; Franca Capizzi; Philip Capron; Susan Capron; Philip Carbone; Joan Clark; Lloyd Clark; Michael Cole; Frederick Craig; Rosina Craig; Phillip Diedeman; Susan Diedeman; Gina DiPino; Paul DiPino, Jr.; Sharon Dorsch; William Dorsch; Robert Dyer; Teresa Dyer; Christopher Easton; Monique Easton; Edward Fletcher; Regina Fletcher; Franklin Fontanazza; Gina Fontanazza; Alexandra Freas; James Freas; Kathleen Freas; Paul Freas; Thomas Gillespie, Jr.; Charlene Glatfelter; George Gribble; Alicia Grogan; David Grogan; Walter Hairston; Joan Hanst; John Hanst; Laura Hartman; Michael Hartman; Brendan Huey; Heather Huey; Michael Huey; Shannon Huey; James Kelly; Mary Kelly; Mark Kirkwood; Nancy Pugliese Kirkwood; Dale Knapp; James Knapp; Kimberly Kobus; Thomas Kobus; Barbara Larrabee; John Larrabee; Mitchell Larrabee; William Larrabee; Robert Lazzaro; Susan Lazzaro; Karen Lindenmeyer; Mark Lindenmeyer; Lelah Mahoney; Patrick Mahoney; Carol Malstrom; William Malstrom; Brian Mangione; Justine Mangione; Ian Marsico; Jodi Marsico; Kaitlin Marsico; Michael Marsico; Denise Moss; Gregory Naylor; Susan Naylor; Alexandra Nemer; Emanuel Nemer; Donald Nemer; Kelli Nemer; Edward Odend'hal; Nanette Odend'hal; Emily Pagani; Nicholas Pagani; Rebecca Pagani; Steven Pagani; David Palmer; Kimberly Palmer; Cathy Gay-Peters; Marcus Peters; Andrew Podles; Anita Podles; Claire Podles; John Podles; Thomas Podles; Thomas Podles, Jr.; Amy Gumina (Prime-Gumina); Brynn Puller; John Puller; Patricia Puller; Richard Puller; Gloria Quinan; Granville Quinan; Charles Riegger; Julia Riegger; Rochelle Roth; Steven Roth; Paul Rudell; Barbara Rusinko; John Rusinko; Alexander Scheetz; Arden Scheetz; Michele Scheetz; Ricky Scheetz; Joseph Schmitz; Susan Seery; Thomas Seery; Ernest Sessa; Paula Sessa; Barbara Sheeler; Donald Sheeler; Natalie Shields; Alyssa Stehman; John Stehman; Jonathan Stehman; Marina Stehman; Sierra Stehman; Theresa Stehman; Bruce Stumpp; Norma Stumpp; Alicia Sullivan; Brendan Sullivan, Jr.; Brendan Sullivan; Emily Sullivan; Leslie Tripp; Timothy Tripp; Martin Wachter; Christy Whaley; Neil Whaley; Hans Wilhelmsen; Kristen Wilhelmsen; Jean Wimmer; Paul Wimmer; Janet Winfield; Timothy Winfield; Andrea Zachary; and, Mary Lefell (Zachary).

A mere false statement is insufficient to establish fraud. Even for those Appellees who could demonstrate the falsity of a statement, no Appellee proved by clear and convincing evidence detrimental reliance. Most Appellees did not demonstrate any change in behavior resulting from any of the allegedly false statements[42] – for example, few changed (or did not change, as applicable) their water consumption habits in response to the assumedly false statements or in response to their discovery of the assumed falsity of the gasoline recovery estimates. Moreover, many Appellees disclaimed expressly reliance on Exxon's statements, testifying that they knew immediately of the gasoline release or thought

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[42]*See, e.g.*, Richard Andrews; Margaret Brown; Bari Jo Burnett; John Wright (Bull/Wright); Ellen Brookhart; Ronald Brookhart; Carlo Capizzi; Franca Capizzi; Robert Dyer; Teresa Dyer; Carl Eisgruber; Lynn Eisgruber; Clever Fonseca; Denise Fonseca; Alexandra Freas; James Freas; Kathleen Freas; Paul Freas; Ann Fuller; Stanley Fuller; Thomas Gillespie, Jr.; George Gribble; Virginia Hannibal; Jeffrey Hummel; Dorothy Hyman; Richard Hyman; James Kelly; Mary Kelly; Kenneth Kelly; Stephanie Kelly; Leonard Kennedy; Margaret Kennedy; Mark Kirkwood; Nancy Pugliese Kirkwood; Robert Lazzaro; Susan Lazzaro; Karen Lindenmeyer; Mark Lindenmeyer; Lelah Mahoney; Patrick Mahoney; Christopher Makowy; Heather Meldron (Makowy); Kim Makowy; Rebecca Meldron (Makowy); William Makowy; Eric Munson; Georgia Munson; Jeffrey Munson; Leslie Munson; John Murphy; Gregory Naylor; Susan Naylor; Kathleen Naughton; Tim Naughton; Alexandra Nemer; Emanuel Nemer; Donald Nemer; Kelli Nemer; Betty Over; Sylvester Over; Anna Popomaronis; Cynthia Popomaronis; Eleni Popomaronis; Peter Vailas (Popomaronis); Thomas Popomaronis; William Popomaronis; Amy Gumina (Prime-Gumina); Casey Proefrock; Kate Proefrock; John Proefrock; Mary Kathryn Proefrock; Megan Proefrock; Scott Proefrock; Jerome Rebold; Barbara Rusinko; John Rusinko; Alan Saeva; Ellaine Saeva; Alexander Scheetz; Arden Scheetz; Michele Scheetz; Ricky Scheetz; Joseph Schmitz; Natalie Shields; Amanda Sutor; Austin Sutor; David Sutor; Lynn Sutor; Mary Trader; Patrick Rudolph (Trader); Christopher Tsakalos; Nicholas Tsakalos; Triantafilia Tsakalos; Ernest Viscuso; Francesca Viscuso; Gabrielle Viscuso; Lisa Viscuso; Nicole Viscuso; Martin Wachter; Lindsey Williams; Nancy Williams; Owen Williams; Thomas Williams; Janet Winfield; Timothy Winfield; Andrea Zachary; Mary Lefell (Zachary); Dogwood Management, LLC; and, Van Ho, Elegant Nails & Hair.

Exxon was understating the severity of the leak.[43] Additionally, many of the Appellees who recovered for remediation fraud never experienced a positive well test for contamination, thereby undercutting conclusively any contention that false representations regarding recovery estimates, predicted migration of contaminants, necessity for bottled water, safety of MTBE, and locations of monitoring wells caused any harm.[44] Further, most Appellees

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[43]*See, e.g.*, Richard Andrews; Ryan Backus; Shelly Backus; Christopher Easton; Clever Fonseca; Denise Fonseca; Alicia Grogan; David Grogan; Edward Odend'hal; Nanette Odend'hal; Joseph Schmitz; Charlotte Slaughter; Diann Kohute (Slaughter); Emily Slaughter; Nancy Slaughter; William Slaughter, Jr.; William Slaughter; Martin Wachter; and, Van Ho, Elegant Nails & Hair.

[44]*See, e.g.*, Susan Allison; David Austin; Emily Austin; Patricia Bateman; Jon Blum; Tracey Blum; Margaret Brown; John Wright (Bull/Wright); Adriane Burke; Bari Jo Burnett; Carlo Capizzi; Franca Capizzi; Philip Capron; Susan Capron; Joan Clark; Lloyd Clark; Sharon Dorsch; William Dorsch; Christopher Easton; Monique Easton; Bruce Elliott; Tracy Federico; Clever Fonseca; Denise Fonseca; Ann Fuller; Stanley Fuller; Mary Pat Goodhues; Connor Hartman; Gavin Hartman; Laura Hartman; Michael Hartman; Cheryl Howells; Brendan Huey; Heather Huey; Michael Huey; Shannon Huey; Dorothy Hyman; Richard Hyman; Kenneth Kelly; Stephanie Kelly; Leonard Kennedy; Margaret Kennedy; Mark Kirkwood; Nancy Pugliese Kirkwood; Ellen Koerner (through Gloria Quinan); Henry Koerner (through Gloria Quinan); Donna Lawrence; Jennifer Lazzaro; Robert Lazzaro; Susan Lazzaro; Alexander Makris; Eleni Makris; Nikolaos Makris; Valerie Makris; John Matra; Mary Matra; Kelly McCleary; Kirk McCleary; Mary McCleary; Pamela Morgan; Ronald Morgan; Denise Moss; Kathleen Naughton; Tim Naughton; Gregory Naylor; Susan Naylor; Alexandra Nemer; Emanuel Nemer; Donald Nemer; Kelli Nemer; Joanne O'Connell; Andrew Podles; Anita Podles; Claire Podles; John Podles; Thomas Podles; Thomas Podles, Jr.; Anna Popomaronis; Cynthia Popomaronis; Eleni Popomaronis; Peter Vailas (Popomaronis); Thomas Popomaronis; William Popomaronis; Casey Proefrock; Kate Proefrock; John Proefrock; Mary Kathryn Proefrock; Megan Proefrock; Scott Proefrock; Jeff Reckseit; Edna Rudell; Paul Rudell; Richard Rudell (no potable water on property); Alan Saeva; Ellaine Saeva; Joseph Schmitz; Ernest Sessa; Paula Sessa; Natalie Shields; Alyssa Stehman; John Stehman; Jonathan Stehman; Marina Stehman; Sierra Stehman; Theresa Stehman; Bruce Stumpp; Norma Stumpp; Chester Tokarski; Marilyn Tokarski; Ernest Viscuso; Francesca Viscuso; Gabrielle Viscuso; Lisa Viscuso; Nicole Viscuso; David

(continued...)

offered no evidence that their period of alleged reliance on Exxon's representations caused any damage,[45] and some did not switch to bottled water after discovering contamination in

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[44](...continued)
Vosvick; Deedra Vosvick; Nancy Welms; Christy Whaley; Neil Whaley; Jean Wimmer; Paul Wimmer; Christopher Garliss/Highpoint Homebuilders, Inc.; 14342 Jarrettsville Pike, LLC; and, 3422 Sweet Air Road, LLC.

[45]*See, e.g.*, Richard Andrews; Annette Armstrong; John Armstrong; Ryan Backus; Shelly Backus; Ellen Brookhart; Ronald Brookhart; Ronald Bueche; Florence Brock; Keith Brock; Karen Buscemi; Philip Carbone; Michael Cole; Frederick Craig; Rosina Craig; Phillip Diedeman; Susan Diedeman; Gina DiPino; Paul DiPino, Jr.; Robert Dyer; Teresa Dyer; Carl Eisgruber; Lynn Eisgruber; Ellison Ensor; Sarah Ensor; Edward Fletcher; Regina Fletcher; Franklin Fontanazza; Gina Fontanazza; Alexandra Freas; James Freas; Kathleen Freas; Paul Freas; Thomas Gillespie, Jr.; Charlene Glatfelter; Curtis Glatfelter; George Gribble; Alicia Grogan; David Grogan; Virginia Hannibal; Joan Hanst; John Hanst; Rebecca Heyman-Magaziner; John Higgins; Mary Higgins; Jeffrey Hummel; Almarie Ianuly; Paul Ianuly; James Kelly; Mary Kelly; Dale Knapp; James Knapp; Kimberly Kobus; Thomas Kobus; Ellen Koerner; Henry Koerner; Robert Lazzaro; Susan Lazzaro; Karen Lindenmeyer; Mark Lindenmeyer; Lelah Mahoney; Patrick Mahoney; Christopher Makowy; Heather Meldron (Makowy); Kim Makowy; Rebecca Meldron (Makowy); William Makowy; Makris family; Carol Malstrom; William Malstrom; Brian Mangione; Justine Mangione; Ian Marsico; Jodi Marsico; Kaitlin Marsico; Michael Marsico; Eric Munson; Georgia Munson; Jeffrey Munson; Leslie Munson; John Murphy; Christian O'Brien; Christopher O'Brien; Shelby O'Brien; Betty Over; Sylvester Over; Emily Pagani; Nicholas Pagani; Rebecca Pagani; Steven Pagani; David Palmer; Kimberly Palmer; Charles Parker; Kimberly Parker; Cathy Gay-Peters; Marcus Peters; Joseph Pietropaoli; Andrew Podles; Anita Podles; Claire Podles; John Podles; Thomas Podles; Thomas Podles, Jr.; Anna Popomaronis; Cynthia Popomaronis; Eleni Popomaronis; Peter Vailas (Popomaronis); Thomas Popomaronis; William Popomaronis; Mary Prime; William Prime; Brynn Puller; John Puller; Patricia Puller; Richard Puller; Jerome Rebold; Charles Riegger; Julia Riegger; Rochelle Roth; Steven Roth; Richard Rudell; Barbara Rusinko; John Rusinko; Alexander Scheetz; Arden Scheetz; Michele Scheetz; Ricky Scheetz; Joseph Schmitz; Alfred Schober; Susan Seery; Thomas Seery; Barbara Sheeler; Donald Sheeler; Simanski family; Charlotte Slaughter; Diann Kohute (Slaughter); Emily Slaughter; Kaitlyn Jones (Slaughter); Nancy Slaughter; William Slaughter, Jr.; William Slaughter; Alicia Sullivan; Brendan Sullivan, Jr.; Brendan Sullivan; Emily Sullivan; Amanda Sutor; Austin Sutor; David Sutor; Lynn Sutor; Mary Trader; Patrick Rudolph (Trader); Leslie Tripp; Timothy Tripp; Christopher Tsakalos; Nicholas Tsakalos;
(continued...)

their water supply.[46] Bare contamination of a well or brief consumption of water containing contaminants at or below the MDE and EPA action levels is not, without more, sufficient to support detrimental reliance.

Additionally, Appellees attempt to anchor a claim for remediation fraud based on Exxon's alleged deception of the MDE. Even assuming such a claim by Appellees is permissible under Maryland law, no representative of the MDE testified that Exxon misled intentionally the MDE, or that the MDE relied on Exxon's assertions. Any claim that Appellees relied on Exxon's representations to the MDE fails necessarily for the same reasons that Appellees' personal remediation fraud claims fail on this record. Appellees failed to prove any intentionally misleading statement, by clear and convincing evidence, that resulted in detrimental reliance.

Appellees' proof, rather than proving fraud, demonstrates a general dissatisfaction with Exxon's remediation efforts. The shortcomings in Exxon's remediation efforts (and reporting) simply do not rise to the level of fraud, however. Not only was the decision of where and when to test or install monitoring wells directed by the MDE, but many of the allegedly fraudulent statements made by Exxon were statements of opinion and prediction

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[45](...continued)
Triantafilia Tsakalos; David Vaughan; Terri Vaughan; David Vosvick; Deedra Vosvick; Martin Wachter; Dolores Whitehurst; Gertrude McNicholas (Whitehurst); Lindsey Williams; Nancy Williams; Owen Williams; Thomas Williams; Hans Wilhelmsen; Kristen Wilhemsen; Janet Winfield; Timothy Winfield; Andrea Zachary; Mary Lefell (Zachary); and, Dogwood Management, LLC.

[46]*See, e.g.*, Michael Marsico and Jerome Rebold.

reflecting the available knowledge at the time. Appellees attempt to paint Exxon as attempting intentionally to deceive Jacksonville residents at every turn with a callous disregard for their health and safety, yet provide little but speculation as to Exxon's actual knowledge during the remediation process. Certainly, Exxon could have done a better job communicating with residents of the Jacksonville area, reduced errors, and described more clearly the investigatory process. That Exxon's efforts were imperfect, however, does not rise to fraud. Appellees did not prove by clear and convincing evidence that they relied justifiably, and to their detriment, on statements made with the intention to mislead by Exxon. In the absence of such proof, we reverse the jury's verdict for all Appellees as to the two asserted types of remediation fraud.

Because we reverse the verdicts as to each of the alleged instances of fraud submitted to the jury, the award to Appellees of punitive damages must be reversed as well. Punitive damages may be awarded only if a plaintiff proves at trial malice, ill will, or intent to injure. *See, e.g.*, *Ellerin v. Fairfax Savings, F.S.B.*, 337 Md. 216, 228–29, 652 A.2d 1117, 1122–23 (1995) (noting that Maryland law restricts recovery of punitive damages to situations where the defendant acted wrongfully intentionally); *Owens-Illinois Inc. v. Zenobia*, 325 Md. 420, 460, 601 A.2d 633, 652 (1992) (noting that punitive damages may be awarded only where "the plaintiff has established that the defendant's conduct was characterized by evil motive, intent to injure, ill will, or fraud, *i.e.*, 'actual malice'"). At the close of trial, Judge Dugan granted Exxon's Motion for Judgment on Plaintiffs' Claims for Punitive Damages based on Allegations of Evil Motive, Ill Will, or Intent to Injure. Appellees did not appeal that aspect

of the court's decision. Because no basis for recovering punitive damages remains, we reverse the jury's award of punitive damages.

II. Emotional Distress Damages for Fear of Contracting Cancer

Exxon argues primarily that, because Appellees established neither the existence of present disease nor that they were more likely than not to contract cancer as a result of the 2006 Jacksonville Exxon leak, it was entitled to judgment as a matter of law on Appellees' emotional distress claims premised on fear of contracting cancer. In the alternative, Exxon contends that, because recovery for fear of cancer requires a showing of past or present exposure and objective, reasonable fear, the instructions submitted to the jury were erroneous, entitling it to a new trial. Lastly, Exxon argues that the trial court committed reversible error by permitting Appellees to testify regarding their opinions that they, members of their families, or their pets contracted various disorders as a result of the gasoline leak, in the absence of expert testimony sufficient to demonstrate causation. Thus, there are three central issues for our consideration: (1) whether Maryland permits recovery for emotional distress due to fear of contracting cancer; (2) if such recovery is permitted, what are the elements required to be established to permit recovery; and (3) whether the evidence in this record, viewed in a light most favorable to Appellees, is legally sufficient to justify recovery of emotional distress damages due to fear of contracting cancer.

We review the trial court's grant or denial of a motion for judgment notwithstanding the verdict to determine whether it was legally correct. *Scapa Dryer Fabrics, Inc. v. Saville*, 418 Md. 496, 503, 16 A.3d 159, 163 (2011) (quoting *Scapa Dryer Fabrics, Inc. v. Saville*,

190 Md. App. 331, 343, 988 A.2d 1059, 1065 (2010)). In so doing, we must "resolve all conflicts in the evidence in favor of the plaintiff and must assume the truth of all evidence and inferences as may naturally and legitimately be deduced therefrom which tend to support the plaintiff's right to recover." *Smith v. Bernfeld*, 226 Md. 400, 406, 174 A.2d 53, 55 (1961). If there is any competent evidence, "however slight, from which a rational mind could infer a fact in issue," then denial of a motion for judgment notwithstanding the verdict is appropriate. *Impala Platinum v. Impala Sales*, 283 Md. 296, 328, 389 A.2d 887, 905–06 (1978). Thus, if there is any evidence legally sufficient to generate a jury question, we must affirm the denial of a motion for judgment notwithstanding the verdict. *Jones v. State*, 425 Md. 1, 30–31, 38 A.3d 333, 350 (2012).

The decision whether to grant a motion for a new trial is "within the sound discretion of the trial court." *Buck v. Cam's Broadloom Rugs, Inc.*, 328 Md. 51, 56, 612 A.2d 1294, 1296 (1992) (quoting *Brinand v. Denzik*, 226 Md. 287, 292, 173 A.2d 203, 206 (1961)). Thus, the trial court's denial of a motion for a new trial and/or remittitur will be reversed only upon a showing that the trial court abused its discretion in failing to order a new trial. *Merritt v. State*, 367 Md. 17, 28, 785 A.2d 756, 763 (2001).

A. The Law Relating to Emotional Distress Damages
for Fear of a Latent Disease

In Maryland, recovery of damages for emotional distress must arise out of tortious conduct. *Hamilton v. Ford Motor Credit Co.*, 66 Md. App. 46, 63, 502 A.2d 1057, 1066 (1986) ("Recovery may be had in a tort action for emotional distress arising out of negligent

conduct. In such case, the emotional distress is an element of damage, not an independent tort."). The seminal case is *Green v. T. A. Shoemaker & Co.*,[47] where we adopted a rule allowing recovery for mental distress if physical injury resulted from the commission of a tort, regardless of impact. 111 Md. 69, 77–78, 73 A. 688, 691 (1909). After noting that mental distress alone cannot be an independent cause of action and that recovery cannot be obtained for mental distress without "physical impact," we expressed concern that emotional distress may be feigned easily. *Id.* at 77–79, 73 A. at 691–92. Although no fool-proof method to measure such suffering was imagined, we held that demonstrable emotional distress due to a physical impact would provide a "sufficient guarantee of genuineness that would otherwise be absent in a claim for mental distress alone." *Vance v. Vance*, 286 Md. 490, 498, 408 A.2d 728, 732 (1979) (discussing *Green*). Thus, as long as the emotional distress due to the tortious conduct is manifested objectively, the emotional distress is deemed genuine and compensable even though the tortious conduct did not cause bodily harm. *Beynon v. Montgomery Cablevision Ltd. P'ship*, 351 Md. 460, 506–07, 718 A.2d

[47]In *Green*, over a period of nearly eight months, the defendants conducted blasting operations in the vicinity of the plaintiff's home, hurling large stones on the plaintiff's property that broke the roof, windows, other glass, and doors of the house. The plaintiff sought damages for mental distress caused by the defendants' negligent operations. The evidence showed that the defendants' negligent conduct caused the plaintiff to fear for her life, drove her frequently to take refuge in the cellar, and to suffer frequent and violent vibrations. This Court held that the evidence was legally sufficient to demonstrate that the plaintiff suffered a physical injury as a proximate result of the fright she suffered because of the defendants' negligence, even though the plaintiff was not struck by the hurled stones. 111 Md. 69, 71–83, 73 A. 688, 689–93 (1909).

1161, 1184–85 (1998).[48] A physical injury may operate, however, "as the yardstick by which a tort victim's emotional harm may be measured," and serves as an "objective determination [that] provides reasonable assurance that the claim is not spurious." *Id.* at 507, 718 A.2d at 1184 (quoting *Belcher v. T. Rowe Price Found.*, 329 Md. 709, 735, 621 A.2d 872, 885 (1993)); *see also Belcher*, 329 Md. at 735, 745–46, 621 A.2d at 885, 890 (holding that a plaintiff may recover under the Worker's Compensation Act for Post Traumatic Stress Disorder sustained after a three-ton beam crashed through her office and landed several feet from her work desk, even in the absence of physical injury, as her mental distress was manifested through ample objective evidence).

With these concerns and principles in mind, the central issues to address in the present case are, first, whether recovery for emotional distress based on fear of contracting cancer

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[48]In *Beynon*, the survivors of the decedent's estate filed actions against a cable company, as well as others, for wrongful death and survivorship, claiming that defendants were negligent and were liable jointly and severally for the car accident that killed the decedent. We held that a decedent's estate may recover for emotional distress and mental anguish where a decedent experiences undoubtedly "great fear and apprehension of imminent death before the fatal physical impact," as long as the distress is capable of objective determination. *Id.* at 464, 621 A.2d at 1163. Based on evidence showing that the decedent's vehicle left 71 ½ feet of skid marks before the collision (indicating that the decedent applied his brakes), we determined that the decedent's anticipation of an imminent collision and great fear was capable of objective determination, and reversed the judgment denying the plaintiffs damages for pre-impact emotional distress suffered by the decedent. *Id.* at 507–09, 621 A.2d at 1184–85. Several other wrongful death cases have affirmed this form of recovery for pre-impact emotional distress that was manifested objectively. *See, e.g.*, *Smallwood v. Bradford*, 352 Md. 8, 15, 720 A.2d 586, 589 (1998); *Freed v. D.R.D. Pool Serv.*, 186 Md. App. 477, 488, 974 A.2d 978, 985 (2009), *aff'd*, 416 Md. 46, 5 A.3d 45 (2010).

that arose from a defendant's tortious act is permissible in Maryland;[49] and, if so, under what circumstances may a plaintiff recover for fear of cancer.

We hold that, to recover emotional distress damages for fear of contracting a latent disease, a plaintiff must show that (1) he or she was exposed actually to a toxic substance due to the defendant's tortious conduct; (2) which led him or her to fear objectively and reasonably that he or she would contract a disease; and (3) as a result of the objective and reasonable fear, he or she manifested a physical injury capable of objective determination.

1. A Reasonable and Objective Fear of Disease

Faya v. Almaraz, 329 Md. 435, 620 A.2d 327 (1993),[50] a case involving a claim for emotional distress damages based on a fear of contracting the human immunodeficiency virus (HIV), determines the appropriate standard in this case. To constitute a "reasonable" fear,

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[49]Recovery for damages for fear of cancer differs from the cause of action of a claim for enhanced or increased risk of disease. Fear of cancer is contemporaneous, but the risk of developing future disease necessitates speculation. *See Day v. NLO*, 851 F. Supp. 869, 879 (S.D. Ohio 1994) (determining that to allow recovery for increased risk of cancer would be to permit speculation).

[50]In *Faya*, an oncological surgeon performed operations on two patients knowing that he had the human immunodeficiency virus (HIV), but did not inform his patients of his condition. 329 Md. at 450, 620 A.2d at 330. After discovering one year later that the surgeon had died from acquired immune deficiency syndrome (AIDS), the patients sued the surgeon's estate, the surgeon's Maryland professional association business entity, and the hospital for failing negligently to inform them that he was HIV-positive prior to their operations. *Id.* Several weeks after the discovery, the patients tested HIV-negative. In their suit, the patients claimed that the surgeon's negligence placed them in fear of contracting HIV, causing severe emotional distress, including headaches and sleeplessness. *Id.* The trial court dismissed the plaintiffs' complaints for failure to state a claim for a legally compensable injury. *Id.* at 442–43, 620 A.2d at 330–31.

we held that the defendant's conduct must create circumstances that would cause a reasonable person to fear contracting HIV. *Id.* at 447–48, 620 A.2d at 333. Requiring the plaintiffs to prove actual transmission of the virus, we concluded, "would unfairly punish them for lacking the requisite information" to prove transmission at the time of their discovery, which produced their fears. *Id.* at 455, 620 A.2d at 336–37. The plaintiffs' actual *exposure* to the risk of contracting the virus (as the disease vector was understood at that time), however, was undisputed. *Id.* at 439–41, 620 A.2d at 329.

Because the *Faya* plaintiffs tested negative for HIV over one year after their surgeries, we held that their continued fear of contracting the virus after the negative test was unreasonable as a matter of law. *Id.* at 455–56 & n.9, 620 A.2d at 337 & n.9. The plaintiffs therefore recovered for their mental distress only within a reasonable window of time: the time period between learning of the surgeon's HIV-positive status and their subsequent negative blood test. *Id.* at 459, 620 A.2d at 337. In triangulating this window of time, we concluded that the time period for which the plaintiffs could recover was approximately six months because evidence at the time showed that there was a 95% certainty that an individual will test positive for HIV, if at all, within six months after exposure. *Id.* The plaintiffs' fear within that particular time period, based on actual exposure to the virus by means of their surgeon's HIV-positive status, created an objectively reasonable fear of contracting HIV. *Id.* *Faya* thus demonstrates that there may be a reasonable "window," or measure, of time for which to recover for fear of future disease. Beyond that window of time, the likelihood of contracting future disease becomes so remote that the fear of future disease becomes

objectively unreasonable.

Exxon contends that the more stringent "reasonably certain" or "reasonably probable" standards to recover damages for fear of contracting future disease are applicable. *See Pierce v. Johns-Manville Sales Corp.*, 296 Md. 656, 666–67, 464 A.2d 1020, 1026–27 (1983) (in a case decided before *Faya*, the Court adopted a reasonably certain ("greater than 50% chance") standard in holding that the plaintiff's cause of action for developing lung cancer as a result of asbestosis accrued when the presence of cancer was reasonably discovered in the cancer diagnosis, and not when he was diagnosed with asbestosis). *See also Lohrmann v. Pittsburgh Corning Corp.*, 782 F.2d 1156, 1160 (4th Cir. 1986) (interpreting Maryland law prior to *Faya* and holding that "recovery of damages based on future consequences of an injury" requires a reasonably probable standard, where the plaintiffs sought recovery for sustaining risks to cancer after being exposed to asbestos, and the district court excluded cancer testimony on the issue of damages). *Lohrmann* and *Pierce*, however, dealt with recovery of damages based on *future consequences* of an injury, namely, recovery for disease that may (or may not) develop in the future. By contrast, damages for fear of cancer are limited to recovery for present, particularized emotional distress based on an objective, reasonable fear as a matter of law. *See Wetherill v. Univ. of Chicago*, 565 F. Supp. 1553, 1559 (N.D. Ill. 1983) (where a federal district court rejected the "reasonably certain" standard for recovery of feared disease because "such a stringent requirement would distort traditional notions of proximate cause. That concept's touchstone – reasonable foreseeability of the claimed injury [emotional distress] – merely demands a reasonable fear, not a high

degree of likelihood, that the feared contingency be likely to occur.”).

While cancer caused by chemical carcinogens and the transmission of HIV are clearly distinct vectors of different diseases, a fear of contracting any disease has several common principles as a matter of law. *Faya* provides a template for analogous cases involving fear of future disease: namely, that recovering emotional distress damages for fear of future disease requires a rational basis, based on objective circumstances, that the disease may occur because of actual exposure caused by a defendant’s tortious conduct. These principles are supported by our precedent. *See Smith v. Borello*, 370 Md. 227, 247–48, 804 A.2d 1151, 1163 (2002) (a pregnant woman who suffers personal injury and the loss of the fetus due to a defendant’s tortious conduct may recover for any demonstrable psychic injury, rather than sorrow, that arose as a result of losing the fetus, including depression, anguish, and distress); *Beynon*, 351 Md. at 507–08, 718 A.2d at 1184–85 (where an automobile crash caused the decedent plaintiff’s fatal injuries, “[d]amages for ‘pre-impact fright’ are recoverable when the decedent experiences it during the ‘legitimate window of mental anxiety,’” which was the time period between the decedent’s realization that he was in “imminent” danger and his subsequent death (quoting *Faya*, 329 Md. at 459, 620 A.2d at 338–39))). *See Buck v. Brady*, 110 Md. 568, 572–73, 73 A. 277, 279 (1909) (a plaintiff was permitted properly to testify about her continuing fear of developing rabies after having been bitten by a rabid dog, even though she did not have the disease currently and had received immediate preventive treatment for the disease).

Our sister jurisdictions that permit recovery for fear of contracting cancer developed

an array of guidance by which a plaintiff may recover damages for fear of contracting cancer; however, most jurisdictions require a form of objectively reasonable fear. *See, e.g.*, *Atkins v. Ferro Corp.*, 534 F. Supp. 2d 662, 667 (M.D. La. 2008) (where plaintiffs presented no evidence that they were exposed actually to harmful levels of hydrochloric acid, their fear was not sufficiently reasonable as a matter of law); *In re Methyl Tertiary Butyl Ether Prods. Liab. Litig.*, No. 1:00-1898, 2008 U.S. Dist. LEXIS 50255, at *20 (S.D.N.Y. July 1, 2008) (expert could not testify reliably that plaintiffs had reasonable fear of cancer because he did not analyze levels of plaintiffs' exposure to MTBE); *Salazar v. American Sterilizer Co.*, 5 P.3d 357, 369 (Colo. App. 2000) (expert medical testimony that plaintiff's fear of cancer was reasonable because of the length of her exposure and because ethylene oxide is a known carcinogen provided a reasonable basis for admitting evidence regarding plaintiff's fear of cancer); *Devlin v. Johns-Manville Corp.*, 495 A.2d 495 (N.J. Super. Ct. Law. Div. 1985).[51]

These jurisdictions differ, however, on how a plaintiff must prove his or her objectively reasonable fear. While expressing concerns similar to those we voiced in *Vance* and *Green* regarding the difficulty of proving genuine fear and consequent mental anguish, *see supra*, most jurisdictions require actual exposure. *See, e.g.*, *Meyer v. Lockformer Co.*,

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[51]In *Devlin*, an asbestos-related case, the court held that recovery for reasonable and reliable fear of cancer was permitted if (1) the plaintiff suffers currently from "serious fear or emotional distress or a clinically diagnosed phobia of cancer;" (2) the "fear was proximately caused by exposure to asbestos;" (3) the plaintiff's "fear of getting cancer due to their exposure to asbestos is reasonable;" and (4) the defendants "are legally responsible for plaintiff's exposure to asbestos." *Id.* at 499. If plaintiffs meet this burden of proof, the court concluded such plaintiffs' reasonable "fear of cancer will not lead to recovery for speculative claims." *Id.*

No. 02-C-2672, 2005 U.S. Dist. LEXIS 15844, at *12 (N.D. Ill. Aug. 2, 2005) (no facts supported plaintiff's allegation of actual exposure to industrial solvent trichloroethylene (TCE)); *Reynolds v. Highland Manor, Inc.*, 954 P.2d 11 (Kan. Ct. App. 1998) (examining several states' different requirements for exposure in fear of HIV claims and noting that Kansas requires actual exposure). Many jurisdictions also require that the fear be genuine and a foreseeable result of the defendant's tortious conduct. *See Bennett v. Mallinckrodt, Inc.*, 698 S.W.2d 854, 867 (Mo. Ct. App. 1985) (in a case involving a denial of recovery for "cancerphobia," the court emphasized that such fear must have been foreseeable reasonably by the defendant); *Ferrara v. Galluchio*, 152 N.E.2d 249, 252 (N.Y. 1958) (explaining that, for recovery for fear of cancer, "[i]t is entirely possible to allow recovery only upon satisfactory evidence . . . , or to look for some guarantee of genuineness in the circumstances of the case").

Our assessment of these cases leads us to conclude that a plaintiff must have a rational basis to recover for fear of cancer. Therefore, recovery for fear of disease is allowed if the plaintiff proves he or she was exposed actually to a toxic substance, which created an objective, reasonable fear that the plaintiff will contract an identified disease. Mere exposure to a toxic substance is insufficient; rather, the circumstances of actual exposure to a toxic substance must lead a reasonable person in the plaintiff's position to believe that contracting a disease is a real consequence of the defendant's tortious conduct.

2. Demonstrable Physical Injury is Required

Jurisdictions considering the question are divided on whether a plaintiff must sustain

additionally a physical injury to recover for fear of cancer. In Maryland, however, a plaintiff may recover damages for emotional distress "if a physical injury *resulted from* the commission of the tort, regardless of impact." *Hoffman*, 385 Md. at 34, 867 A.2d at 295 (emphasis in original). *See Green*, 111 Md. at 77, 73 A. at 691 (determining that recovery for mental distress damages should be permitted "when it is shown that a *material physical injury* has resulted from fright caused by a wrongful act, and especially, as in this case, from a constant repetition of wrongful acts, in their nature calculated to cause constant alarm and terror" (emphasis in original)). For example, in *Green*, we approved the admission of evidence showing the plaintiff's nervous condition, even though there was no physical impact with or corporal injury to her person. *Id.* A defendant's tortious conduct does not have to produce necessarily a physical impact for a plaintiff to recover emotional distress damages. A plaintiff must prove, however, a "clearly apparent and *substantial* physical injury" in one of four ways: (1) an external condition; or (2) symptoms of a resulting pathological; (3) physiological; or (4) mental state. *Bowman v. Williams*, 164 Md. 397, 404, 165 A. 182, 184 (1933) (emphasis added).[52] *See also H&R Block, Inc. v. Testerman*, 275 Md. 36, 48, 338 A.2d 48, 55 (1975), *abrogated on other grounds by Owens-Illinois, Inc. v.*

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[52]In *Bowman*, the defendant operated negligently a truck and crashed into the plaintiff's house. Prior to the crash, the plaintiff saw the truck coming toward his house and feared that his son, who was in the basement, was in danger. As a result, the plaintiff experienced a nervous shock when the defendant crashed into the foundation of his house, and he fell to the floor. For several weeks thereafter the plaintiff was bed-ridden and was unable to work for six months. The plaintiff experienced no physical injury or impact from the truck. *Id.* at 398–99, 164 A. at 182.

Zenobia, 325 Md. 420, 601 A.2d 633 (1992) ("The cases have adhered to the *Bowman* rule . . . in requiring that there be clearly apparent and substantial physical injury, to guard against the possibility of feigned claims." (citations omitted)); *Mahnke v. Moore*, 197 Md. 61, 69, 77 A.2d 923, 927 (1951) (affirming *Bowman*).

In *Vance v. Vance*,[53] 286 Md. 490, 408 A.2d 728 (1979), we addressed specifically the methods by which the traditional "physical injury" element may be proved. The first three methods echo the standards we expressed in *Bowman*, because they include evidence of an external condition that manifests physical injury or "symptoms of a pathological or physiological state." *Id.* at 500, 408 A.2d at 733. The fourth way to prove a physical injury that demonstrates emotional distress is by "evidence indicative of a 'mental state.'" *Id.* These four methods must each be "capable of objective determination" so as to "guard against feigned claims." *Id.* at 500, 408 A.2d at 733–34.

Three key principles are thus relevant to determine whether a physical injury is capable of objective determination:

> First, . . . the evidence must contain *more than mere conclusory statements*, such as "He was afraid," . . . . The evidence must be *detailed enough to give the jury a basis upon which to quantify the injury*. Second, a claim of emotional injury is less likely to succeed if the victim is the sole source of all evidence of emotional injury . . . There is no reason why the victim's own testimony may not be sufficient, as long as it otherwise *provides*

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[53]The plaintiff in *Vance*, Muriel Vance, obtained damages for emotional distress arising from negligent misrepresentations made by Dr. Vance, the person whom she believed for 18 years was her husband, but had never divorced his first wife before marrying Muriel. 286 Md. 490, 492–93, 408 A.2d 728, 729 (1979).

> *the jury with enough information to render his or her injuries capable of objective determination*. Third, although minor emotional injuries may be less likely to produce the kind of evidence that renders an injury capable of objective determination, that does not mean that an emotional injury must reach a certain threshold level of severity before it becomes compensable. There is no severity prong of the *Vance* test. Our focus thus is properly on the evidence of mental anguish produced . . . .

Hunt v. Mercy Med. Ctr., 121 Md. App. 516, 531, 710 A.2d 362, 369–70 (1998) (emphasis added).

The evidence in *Vance* of Muriel Vance's mental distress is a particularly effective example of an objective and demonstrable physical injury, as a matter of law:

> The disclosure that her twenty-year marriage was void was shown to have had a devastating effect on Muriel. She went into a state of shock, engaged in spontaneous crying and for a period seemed detached and unaware of her own presence. She was unable to function normally, unable to sleep and too embarrassed to socialize. In addition to experiencing symptoms of an ulcer, Muriel suffered an emotional collapse and depression which manifested itself in her external condition, i.e., her significantly deteriorated physical appearance – unkempt hair, sunken cheeks and dark eyes.

286 Md. at 501, 408 A.2d at 734. We concluded that this evidence demonstrated an objectively demonstrable physical injury caused proximately by the defendant's negligence. *Id.* The requirement of an objective and demonstrable physical injury stands unchanged for claims of recovery for emotional distress. *Compare New Summit Assocs. Ltd. P'ship v. Nistle*, 73 Md. App. 351, 362–63, 533 A.2d 1350, 1355 (1987) (where the court found compensable emotional distress based on objective evidence of insomnia, diarrhea, and

nausea, as a result of the tortious conduct), *with Roebuck v. Steuart*, 76 Md. App. 298, 315, 544 A.2d 808, 816 (1988) (where the court held there was no compensable emotional distress where the plaintiff's sole evidence of physical injury rested on testimony that she went to see a psychiatrist six times, but did not testify as to her own symptoms). *See Belcher*, *Dobbins v. Washington Suburban Sanitary Comm'n*, 338 Md. 341, 342–43, 658 A.2d 675, 675–76 (1995) (where, on two separate occasions, a water pipe of the defendant's broke and damaged the plaintiff's property, which plaintiff claimed caused her severe and permanent bodily injury and severe and "protracted shock" to her nervous system and mental anguish, this Court held that the plaintiff's alleged injuries were not caused proximately by the defendant's negligence); 329 Md. at 745–46, 621 A.2d at 890 (where the plaintiff provided ample and objective evidence that, as a result of defendant's tortious conduct, she suffered from nightmares, heart palpitations, headaches, and other mental anguish, and was diagnosed with Post Traumatic Stress Disorder, we held that she proved an objective and demonstrable physical injury);[54] *Beynon*, 351 Md. at 505, 718 A.2d at 1183 (noting that "the

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[54]Specifically, the evidence of the objectively demonstrable physical injury in *Belcher* showed that, after a three-ton beam (under the control of the defendant) crashed into the plaintiff's office and landed near the plaintiff's work desk, the plaintiff's employer sought trauma counseling for the plaintiff as a result of the plaintiff's fright and nervous condition subsequent to the crash. *Id.* at 713, 621 A.2d at 874. After processing her worker's compensation claim, the plaintiff received psychiatric counseling for evaluation and treatment twenty-two times. *Id.* The psychiatrist's reports were introduced into evidence at the administrating hearing, and included the following history of the accident after the beam fell:

> [The plaintiff] was frozen in fear, did not know what had

(continued...)

compensability of 'pre-impact fright' [in survival actions] is permissible [for the decedent's estate] when it is the proximate result of a wrongful act and it produces a physical injury or is manifested in some objective form"); *Faya*, 329 Md. at 456, 620 A.2d at 337 (noting that "nervous disturbances may constitute suffering of the body or of the mind"). An objective and demonstrable physical injury requirement achieves a primary purpose of emotional distress damages: to compensate plaintiffs for actual harm, rather than feigned or speculative injury. *Green*, 111 Md. at 81, 73 A. at 692 ("[A] nervous injury arising from actual physical impact is as likely to be imagined as one resulting from fright without physical impact, and that the former is as capable of simulation as the latter.").

In the context of physical injuries sustained as a result of exposure to toxic substances, subcellular change produced by exposure to toxic chemicals – without manifested symptoms of a disease or actual impairment – is not a compensable "injury" under Maryland law. *See*

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[54](...continued)

> happened and wondered if it had been a bomb. She was quite shaken. She seemed to have had some amnesia for the next several hours but was told that she was shaking, chain smoking and holding onto the walls. She was, at that point, quite cold and may have been in shock. Concrete pieces were all over her bodice. There are still some nuggets present on her desk. . . . Headaches occur and she often has dry mouth. She is fearful of a heart attack. She feels like she may explode. She has panic attacks at work and sometimes has to leave the area. . . . She has had ongoing nightmares, waking up screaming several times and, in each nightmare, she herself has been killed. . . . She has had some weight gain, a loss of senses and, at times feels "as if she is dead".

Id. at 713–14, 621 A.2d at 874.

Hollingsworth & Vose Co. v. Connor, 136 Md. App. 91, 128, 764 A.2d 318, 338 (2000) (pleural plaques or thickening of blood or vessel walls caused by asbestos exposure is not a compensable injury). Likewise, most states decline to recognize subcellular or subclinical[55] injuries as an element of recovery of damages for fear of disease. *Rainer v. Union Carbide Corp.*, 402 F.3d 608, 620–22 (6th Cir. 2005) (noting that Kentucky courts would be adverse to allowing a claim based upon subcellular damage); *Burns v. Jaquays Mining Corp.*, 752 P.2d 28, 31 (Ariz. Ct. App. 1987) (rejecting subcellular injury as a basis for emotional distress damages); *Schweitzer v. Consolidated Rail Corp.*, 758 F.2d 936, 942 (3d Cir. 1985) (subclinical injury resulting from exposure to asbestos is insufficient to constitute actual loss or damage).

With these standards in mind as to how a plaintiff must prove physical injury to recover damages for emotional distress in Maryland, we must determine how such standards apply to recovery of emotional distress damages for fear of contracting cancer. The majority of states allowing recovery for fear of cancer require that a plaintiff sustain a manifested and physical injury to prove an objective and reasonable fear of disease. *See, e.g.*, *Capital Holding Corp. v. Bailey*, 873 S.W.2d 187, 195 (Ky. 1994);[56] *Cleary v. Wallace Oil Co.*, 865

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[55] A "subclinical" condition is one that is "not detectable or producing effects that are not detectable by the usual clinical tests," such as cancer. Merriam-Webster Dictionary 1173 (9th ed. 1989).

[56]The *Bailey* court required a physical injury for recovery for feared disease because "mere ingestion of a toxic substance does not constitute sufficient physical harm upon which (continued...)

N.Y.S.2d 663, 665–66 (N.Y. App. Div. 2008) (rejecting plaintiffs' fear of disease claim because there was insufficient evidence of exposure and no evidence of physical manifestation of contamination); *Wolff v. A-One Oil, Inc.*, 627 N.Y.S.2d 788, 789–90 (N.Y. App. Div. 1995) (plaintiff must establish a "rational basis" for his fear of developing disease, which "has been construed to mean the clinically demonstrable presence" of the feared disease, specifically, a "physical manifestation" of an asbestos-induced disease);[57] *Capital Holding Corp. v. Bailey*, 873 S.W.2d 187, 195 (Ky. 1995).[58]

For these reasons, we hold that to recover emotional distress damages for fear of contracting a disease, a plaintiff must show that (1) he or she was exposed actually to a toxic substance due to the defendant's tortious conduct; (2) which led him or her to fear objectively and reasonably that he or she would contract a disease; and (3) as a result of the objective and reasonable fear, he or she manifested a physical injury capable of objective determination.

B. Appellees Cannot Recover Emotional Distress Damages for Fear of Contracting Cancer

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[56](...continued)
to base a claim for damages." A plaintiff has the burden to prove some harmful result attributable to the exposure, though he or she need not prove that he or she suffers from cancer. *Id.*

[57]The court in *Wolff* required proof of asbestos-induced disease or presence of asbestos fibers in the plaintiff's body.

[58]The court required a physical injury for recovery for feared disease because "mere ingestion of a toxic substance does not constitute sufficient physical harm upon which to base a claim for damages." Thus, a plaintiff has the burden to prove some harmful result attributable to the exposure, though he or she need not prove that he or she suffers from cancer. *Id.*

1. No Evidence of Actual Exposure Giving Rise to Objective Reasonable Fear

As explained above, recovery of emotional distress damages for fear of contracting cancer requires that a plaintiff demonstrate that he or she has been exposed actually to a toxic chemical as a result of the defendant's tortious conduct. Thus, Appellees who did not demonstrate actual exposure to benzene or MTBE stemming from the Jacksonville Exxon leak cannot recover damages for fear of cancer. Here, eighty-eight Appellees recovered damages for emotional distress for fear of contracting cancer, yet did not provide evidence of any detectable contamination in their potable wells, air, or water vapors.[59] In the absence of demonstrable contamination, these Appellees have provided no evidence of actual

[59]The following Appellees recovered damages for emotional distress for fear of cancer, but did not provide evidence of actual exposure: Agnieszka Hudzik (Allison); Eric Allison; Susan Allison; David Austin; Emily Austin; Jon Blum; Tracy Blum; Margaret Brown; John Wright (Bull/Wright property); Adriane Burke; Lloyd Burke; Bari Jo Burnett; Philip Capron; Susan Capron; Joan Clark; Lloyd Clark; Sharon Dorsch; William Dorsch; Monique Easton; Bruce Elliott; Clever Fonseca; Denise Fonseca; Ann Fuller; Mary Pat Goodhues; Laura Hartman; Michael Hartman; Cheryl Howells; Heather Huey; Michael Huey; Richard Hyman; Kenneth Kelly; Stephanie Kelly; Margaret Kennedy; Calvin Kirkwood; Chase Kirkwood; Jeremy Kirkwood; Mark Kirkwood; Nancy Pugliese Kirkwood; Tyler Kirkwood; Donna Lawrence; Kristen Lawrence; Robert Lazzaro; Susan Lazzaro; Alexander Makris; John Matra; Mary Matra; Kelly McCleary; Kirk McCleary; Mary McCleary; Denise Moss; Gregory Naylor; Susan Naylor; Donald Nemer; Kelli Nemer; Joanne O'Connell; Anita Podles; Thomas Podles; Anna Popomaronis; Cynthia Popomaronis; Eleni Bowden (Popomaronis); Thomas Popomaronis; William Popomaronis; Mary Kathryn Proefrock; Scott Proefrock; Jeff Reckseit (Wilhelmsen property); Edna Rudell; Paul Rudell; Ellaine Saeva; Joseph Schmitz; Susan Schmitz; Ernest Sessa; John Stehman; Theresa Stehman; Bruce Stumpp; Norma Stumpp; Chester Tokarski; Marilyn Tokarski; Ernest Viscuso; Lisa Viscuso; David Vosvick II; Deedra Vosvick; Man A. Vuong; Stacy Vuong; Nancy Welms; Christy Whaley; Neil Whaley; Jean Wimmer; and, Paul Wimmer.

exposure to toxic chemicals stemming from Exxon's conduct.[60] As a result, these Appellees cannot recover damages for fear of cancer.

2. Insufficient Evidence of Actual Exposure Giving Rise to an Objectively Reasonable Fear

In addition to actual exposure, Appellees must demonstrate an objective, reasonable fear of developing cancer in order to recover emotional distress damages for fear of cancer. A plaintiff may demonstrate an objective reasonable fear by showing that he or she has a rational basis to believe reasonably that cancer is likely to develop as a result of exposure to toxic substances stemming from the defendant's tortious conduct. Here, Appellees contend that proof that the aquifer is contaminated with MTBE and benzene is sufficient to support a claim for emotional distress for fear of cancer, regardless of any actual, demonstrable exposure on an Appellee-specific basis. We determine that Appellees who were exposed actually to MTBE as a result of the Jacksonville Exxon leak (as determined by tests of their potable wells), but at levels below the relevant EPA and MDE action levels, cannot demonstrate an objective, reasonable fear of developing cancer.[61]

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[60]As to many of the Appellees, Exxon challenges whether the contaminants found in their potable wells was attributed properly to the Jacksonville Exxon leak. The jury was presented with conflicting evidence regarding the underground flow of the gasoline. Because we must view all inferences in the evidence in the light most favorable to Appellees, we presume that Appellees who demonstrated contamination in their potable wells attributed the contamination correctly to the Jacksonville Exxon leak.

[61]At trial, Appellees' experts testified that there is "no safe level" of MTBE, and thus any exposure to MTBE, however slight, is sufficient to justify an award of damages for fear of cancer. Without delving into the reliability of such a theory (which was not raised by

(continued...)

For a fear to be objectively reasonable, it must be based on more than mere exposure to a chemical or contaminant of concern. The exposure must be sufficient, based on objective standards, to justify fear of disease. In *Faya*, for example, we noted that there was "current credible evidence of a 95% certainty that one will test positive for the AIDS virus, if at all, within six months after exposure to it." 329 Md. at 455, 620 A.2d at 337. Thus, we determined that it was only reasonable for the plaintiffs to fear contracting HIV or AIDS within a limited period of time – specifically, the period of time between discovery of the surgeon's illness, which was over a year after their last contact with him, and when they received a negative HIV test. *Id.* at 455–56, 620 A.2d at 337.

Although individuals are exposed routinely and unfortunately in everyday life to MTBE and other carcinogenic toxins, low levels of exposure, absent a rational basis to support a fear of developing cancer, are not sufficient generally to justify an objectively reasonable fear. Here, similar to the circumstances in *Faya*, there is credible scientific evidence to suggest levels of exposure to benzene and MTBE at which a fear of developing

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[61](...continued)
Exxon on appeal), we do not believe that such testimony is sufficient to support the causation requirement set forth today. To satisfy their burden of proof, Appellees must show that any actual exposure, as well as any objective and reasonable fear they have of developing cancer, is attributable to the Exxon leak. Individuals are exposed routinely to MTBE and its metabolite of concern, formaldehyde, in everyday life. Thus, Appellees would need to show that any objectively reasonable fear, and any actual exposure, was due not to the MTBE and formaldehyde that they have been exposed to routinely, but specifically to that released by Exxon. If Appellees' experts are correct that there is no safe level of exposure to MTBE, then a claim that Appellees' fear of developing cancer as a result of the Exxon spill specifically would necessarily be unreasonable, due to the background levels of MTBE that individuals (and Appellees) are exposed to on a regular basis.

cancer becomes objectively reasonable. The EPA and MDE establish routinely action levels, above which exposure to contaminants is deemed generally to be unsafe for human health. As admitted at trial, the relevant drinking water standards are 5 parts per billion for benzene, and 20 parts per billion[62] for MTBE.[63] We therefore determine that in order to have an objectively reasonable fear of developing cancer as a result of water contamination, measurable contamination must meet or exceed the relevant environmental action levels, if applicable, for the allegedly carcinogenic or mutagenic contaminant. As a result, Appellees residing at or occupying properties whose evidence shows test results detecting contamination below five parts per billion of benzene and twenty parts per billion of MTBE offered insufficient evidence to establish an objectively reasonable fear supporting recovery of emotional distress damages for fear of contracting cancer.[64] We therefore reverse the

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[62]The EPA recommends against exposure in drinking water to MTBE at levels above 20–40 parts per billion. Because the MDE's standard is stricter than the recommended level promulgated by the EPA, we look to the MDE's action level for purposes of our analysis.

[63]The MTBE action level is described generally as an aesthetic standard, meaning a level at which contamination is detectable by unpleasant taste and smell, rather than necessarily a human safety level. The MDE has not developed a standard at which MTBE is deemed to be hazardous to human health, although testimony presented at trial suggests that this level may be many times higher – perhaps 20,000 to 100,000 times higher – than the aesthetic standard. Absent specific standards from the MDE regarding the level at which MTBE exposure becomes hazardous to human health, however, we decline to speculate that the action level promulgated by the MDE is insufficiently protective of human health. Thus, for purposes of this case, we shall treat any measurable contamination of MTBE exceeding the MDE action level of 20 parts per billion as sufficient to support an objective, reasonable fear of developing cancer.

[64]These Appellees are: Jeanne Andrews; Richard Andrews; Annette Armstrong; John Armstrong; Ryan Backus; Shelly Backus; Florence Brock; Ellen Brookhart; Ronald

(continued...)

awards for these Appellees.

3. Legally Insufficient Evidence of Physical Injury
Resulting from the Jacksonville Exxon Leak

Only eight Appellees recovering emotional distress damages for fear of cancer offered well test results detecting contamination sufficient to create an objectively reasonable fear

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[64](...continued)
Brookhart; Sean Brookhart; Ronald Bueche; Terry Bueche; Amanda Buscemi; Charles C. Buscemi; Karen Buscemi; Mary Buscemi; Rachel Buscemi; Philip Carbone; Maria Navarro Cole; Michael Cole; Frederick Craig; Rosina Craig; Phillip Diedeman; Susan Diedeman; Dana Rhyne Dieter; Patricia Dieter; Gina DiPino; Paul DiPino, Jr.; Robert Dyer; Teresa Dyer; Carl Eisgruber; Lynn Eisgruber; Ellison Ensor; Edward Fletcher; Regina Fletcher; Franklin Fontanazza; Gia Fontanazza; Gina Fontanazza; Paul Freas; Eugene Freeman; Pearlie Freeman; Debra Gillespie; Kevin Gillespie; Tara Gillespie; Thomas Gillespie, Jr.; Charlene Glatfelter; Curtis Glatfelter; George Gribble; Marjorie Gribble; Alicia Grogan; David Grogan; Jeanette Hairston; Linda Hairston-Taulton; Walter Hairston; Virginia Hannibal; John Higgins; Patrick Higgins; Richard Higgins; Jeffrey Hummel; Almarie Ianuly; Paul Ianuly; James Kelly; Dale Knapp; James Knapp; Kimberly Kobus; Thomas Kobus; Kaitlyn Lindenmeyer; Karen Lindenmeyer; Mark Lindenmeyer; Megan Lindenmeyer; Kim Makowy; William Makowy; Carol Malstrom; William Malstrom; Brian Mangione; Justine Mangione; Jodi Marsico; Michael Marsico; Jeffrey Munson; Leslie Munson; John Murphy; Rosemary Murphy; Christian O'Brien; Christopher O'Brien; Kathleen Oursler; Roger Oursler; Betty Over; Sylvester Over; Rebecca Pagani; Steven Pagani; David Palmer; Kimberly Palmer; Charles Parker; Kimberly Parker; Cathy Peters; Marcus Peters; Mary Prime; William Prime; Brynn Puller; John Puller; Patricia Puller; Richard Puller; Charles Riegger; Jennifer Lookingbill (Riegger); Julia Riegger; KatieRose Dobrzykowski (Riegger); Meghen Riegger; Rochelle Roth; Steven Roth; John Rusinko; Michele Scheetz; Ricky Scheetz; Susan Seery; Thomas Seery; Barbara Sheeler; Donald Sheeler; Anna Marie Simanski; Kaitlyn Jones (Slaughter); Diann Kohute (Slaughter); William Slaughter; Brendan Sullivan; Emily Sullivan; David Sutor; Lynn Sutor; Alexander Trader; Mary Trader; Patrick Rudolph (Trader); Leslie Tripp; Timothy Tripp; Christopher Tsakalos; Triantafilia Tsakalos; David Vaughan; Terri Vaughan; Kimberly A. Wachter; Martin R. Wachter; Delores Whitehurst; Gertrude Whitehurst; Hans Wilhelmsen; Kristen Wilhelmsen; Lindsey Williams; Nancy Williams; Owen Williams; Thomas Williams; Chen-Yu Yen; Ray-Whey Yen; Andrea Zachary; and, Mary Leffell (Zachary).

of developing cancer.[65] These Appellees still must prove, however, a physical injury resulting from their objectively reasonable fear. The physical injury requirement contemplates not necessarily a "physical" injury as used in its ordinary sense, but rather "that the injury for which recovery is sought is capable of objective determination." *Vance*, 286 Md. at 500, 408 A.2d at 733–34. Because the physical injury requirement is intended to guard against feigned claims, *id.* at 500, 408 A.2d at 733, an injury that is capable of objective determination must be supported by sufficient evidence tending to prove both the genuineness of the claims and a causal relationship to the alleged tortious conduct. *Id.* at 502, 408 A.2d at 734.

As we noted in *Vance*, claims for emotional distress need not be supported necessarily by expert medical testimony to establish injury and causation where "the causal connection

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[65]These Appellees are: Barbara Larrabee; Jon Larrabee; Edward Odend'hal; Nanette Odend'hal; Amy Gumina; Gloria Quinan; Anna Walega; and, Van Ho (Elegant Nails & Hair).

Exxon contends, and presented evidence at trial supporting its assertion, that the contamination on the property owned by Anna and John Walega is not attributable to the Jacksonville Exxon leak, but rather to an improperly abandoned underground storage tank found nearby. The jury, however, determined otherwise. Because we view the evidence in the light most favorable to these Appellees, we will not disturb the jury's conclusion that the evidence was sufficient to determine that the contamination detected on the Walega property was attributable to the Jacksonville Exxon spill.

Similarly, the property leased by Van Ho (Elegant Nails & Hair) was contaminated already at the time of the Jacksonville Exxon leak due to a prior gasoline leak in 2004 at the Four Corners Amoco/BP station, and was already equipped with a carbon filtration system. The jury, however, determined apparently that the contamination detected in March of 2006 (after the POET system malfunctioned) was attributable to the Exxon leak.

is clearly apparent from the illness itself and the circumstances surrounding it, or where the cause of the injury relates to matters of common experience, knowledge, or observation of laymen." *Id.* at 502–03, 408 A.2d at 734–35 (quoting *Wilhelm v. State Traffic Safety Comm'n*, 230 Md. 91, 99, 185 A.2d 715, 719 (1962)); *see also Hunt*, 121 Md. App. at 531, 710 A.2d at 369 ("[A] claim for emotional injury is less likely to succeed if the victim is the sole source of all evidence of emotional injury."). In *Vance*, for example, we determined that expert testimony was not necessary because the plaintiff's discovery of the true status of her "marriage" and its attendant emotional toll is a matter within the common understanding of a layperson. 286 Md. at 503–04, 408 A.2d at 735. *See also* Md. R. 5-702 ("Expert testimony may be admitted . . . if the court determines that the testimony will assist the trier of fact to understand the evidence or to determine a fact in issue."). Here, however, the causal connection between the physical injuries alleged and fear resulting from exposure to carcinogenic or mutagenic contaminants is neither clearly apparent, nor within the "common experience, knowledge, or observation of laymen." *See Vance*, 286 Md. at 502–03, 408 A.2d at 734–35. Thus, in order for Appellees to demonstrate that their alleged physical injury is related causally to their fear of developing cancer as a result of the Exxon leak, expert testimony is necessary.

None of the remaining Appellees, with the exception of Gloria Quinan, presented expert testimony attributing their alleged physical injury to the Jacksonville Exxon leak. Therefore, we reverse the jury awards for emotional distress for fear of contracting cancer to Amy Gumina, Van Ho, Barbara Larrabee, Jon Larrabee, Edward Odend'hal, Nanette

Odend'hal, and Anna Walega.[66]

Only one Appellee demonstrating an objectively reasonable fear of developing cancer, Gloria Quinan, presented expert testimony linking her claimed physical injury to the Jacksonville Exxon release. In reviewing Quinan's claims for emotional distress for fear of cancer to determine if there was sufficient evidence to support her claim as a matter of law, we must resolve all conflicts in the evidence in her favor. *See Houston v. Safeway Stores, Inc.*, 346 Md. 503, 521, 697 A.2d 851, 859 (1997) ("Only where reasonable minds cannot differ in the conclusions to be drawn from the evidence, after it has been viewed in the light most favorable to the plaintiff, does the issue in question become one of law for the court and not of fact for the jury." (quoting *Pickett v. Haislip*, 73 Md. App. 89, 98, 533 A.2d 287, 291 (1987))).

As noted previously, the Court of Special Appeals in *Hunt* provided guidance for determining whether an injury is capable of objective determination. The evidence offered in support of physical injury "must contain more than mere conclusory statements," and be sufficiently detailed "to give the jury a basis upon which to quantify the injury." *Hunt*, 121 Md. App. at 531, 710 A.2d at 369. Moreover, because the requirement for physical injury must be viewed objectively, and is designed to protect against feigned claims, a claim for emotional distress damages is more likely to succeed "if the victim is [not] the sole source

[66]Because we determine that Appellees have not demonstrated sufficiently on this record a causal connection between their alleged physical injuries and the Jacksonville Exxon leak, we make no determination regarding the sufficiency of Appellees' testimony to establish physical injury.

of all evidence of emotional injury." *Id.* Lastly, although more severe injuries may be more likely "capable of objective determination," there is no threshold severity requirement for establishing compensable physical injury. *Id.* at 531, 710 A.2d at 369–70.

In *Hunt*, the decedent plaintiff,[67] Charles Dell'uomo, offered testimony from three sources in support of his claim for emotional distress damages: his doctor, himself, and the personal representative of his estate. The doctor testified, in essence, that Mr. Dell'uomo was "emotionally upset and . . . very skeptical," which the court characterized as "simple, unadorned statements that Mr. Dell'uomo was upset," and thus insufficient to establish an injury capable of objective determination. *Id.* at 532, 710 A.2d at 370. In reviewing Mr. Dell'uomo's testimony, the court determined that statements like, "I thought I was going to die," and "[my physical problems consisted of] the stress and the aggravation and the worrying about it," were insufficient to render his injury capable of objective determination, *id.* at 533–34, 710 A.2d at 371, whereas detailed statements regarding "the duration of [his] constipation, the types of activities with which [his] fatigue interfered, and the incessant nature of [his] sleeplessness would give a jury at least some of the information necessary for quantifying a level of damages attributable to his mental injury." *Id.* at 535, 710 A.2d at 371.

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[67]Mr. Dell'uomo filed a medical malpractice suit with the Medical Health Claims Arbitration Office after being misdiagnosed with prostate cancer and receiving several radiation treatments. *Id.* at 520, 710 A.2d at 364. Prior to the arbitration hearing, Mr. Dell'uomo passed away, and the personal representative of his estate, Carol Sue Hunt (the appellant), was substituted for Mr. Dell'uomo. *Id.* at 520–21, 710 A.2d at 364. Mr. Dell'uomo sat for a deposition prior to his death, the transcript of which was introduced at the arbitration hearing. *Id.* at 533, 710 A.2d at 370.

Because the personal representative of Mr. Dell'uomo's estate testified that Mr. Dell'uomo became "extremely tired," "more irritable," stopped walking and accepting invitations to social events, lost his appetite, and became "extremely quiet," the Court of Special Appeals determined that there was sufficient evidence to show a "reasonable basis for [Mr. Dell'uomo's] anxiety and . . . render [his] emotional injury capable of objective determination." *Id.* at 536–37, 710 A.2d at 372.

Here, in support of her claim for emotional distress for fear of contracting cancer, Quinan testified on her own behalf and presented the testimony of Dr. Abdul Malik, a psychiatrist, who examined Quinan.[68] Quinan testified as to the following:

> Q: Has the gasoline release affected your emotional state?
>
> A. Yes.
>
> Q: Can you please explain?
>
> A: Well, you know, you get depressed. Anxiety. Headaches. You feel nauseous. Lose your appetite. Don't feel like doing anything. You lose your enthusiasm.

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[68]Quinan's husband, Granville Quinan, also testified. He did not, however, offer any testimony regarding his wife's emotional distress.

In its brief, Exxon criticizes the testimony of Dr. Malik, noting that of the ninety-six plaintiffs for whom he performed a psychiatric evaluation, every plaintiff but one received a psychiatric diagnosis, despite Dr. Malik's conclusion that all of the plaintiffs seen were functioning normally. Additionally, Exxon claims that Dr. Malik erred in conducting clinical examinations, rather than forensic examinations, which take into account broader sources of information (rather than relying solely on the patient). Despite these criticisms, Exxon did not raise the admission of Dr. Malik's expert testimony as an issue on appeal on grounds of reliability or methodology. We therefore presume that Dr. Malik's testimony was admitted properly.

Q: Do you have any concerns for your health and your husband's health?

A: Yes, I do. I'm concerned about cancer or any other things that might develop because not knowing how long – I mean, we were drinking it for all that time and didn't even know it. . . .

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Q: You mentioned a couple of things, but do you know whether or not the fears and concerns that you have have physically manifested themselves in you in any way?

A. Yes. . . .

Q: You talked about depression?

A. Yes.

Q: Okay. And you talked about lethargy?

A. Yeah. It depends. You start thinking about all of this, and it just gets you so down and then you just lose all your enthusiasm. You don't feel like doing anything. . . . So, you know, it just gets you down, and it just comes out in all different ways. You lose your appetite. It depends how much you think about it and when you think about it. If you think about it at night, then you don't sleep.

Q. I understand. When did you first begin to feel depressed about the effects of the gasoline release on your family and your home?

A. Well, you know, in the very beginning the concerns made us, you know, gave us, you know, an uneasy feeling and everything, but, when it finally kicked in the fact that we had the contamination, it really did and then I had a rash that wouldn't

go away.[69]

Q. When did that start? When did the rash start?

A. It started before May of 2008. I don't know how far before that, but I know May of 2008 I had it.

Q. So after the release?

A. Pardon?

Q. After the gasoline release?

A. After the gasoline release.

Q. How long did you suffer with the rash?

A. Over a year.

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[69]Testimony regarding the rash suffered presumptively by Quinan was admitted by the trial court solely for the purpose of establishing Quinan's state of mind. The rash may not support an award for emotional distress damages for fear of cancer on the grounds that it constitutes a physical injury resulting from the Exxon leak. Because we determine that expert medical testimony is required to establish that physical injury is related causally to fear of developing disease as a result of exposure to toxic substances, and Quinan did not present expert medical testimony supporting a claim that the rash resulted from her fear of developing cancer, Quinan's rash may not support an award for emotional distress damages for fear of cancer on these grounds.

Exxon argues that this type of testimony, admitted as probative of the state of mind of an Appellee, should have been excluded by the trial court because the prejudicial impact of the testimony far outweighs its probative value. *See* Md. R. 5-403. Alternatively, Exxon contends that the trial court should have given an immediate limiting instruction to the jury, rather than waiting until the end of the trial. Because we review the trial judge's decision to admit such evidence under an abuse of discretion standard, reversal is appropriate only "where no reasonable person would share the view taken by the trial judge." *Consol. Waste Indus., Inc. v. Std. Equip. Co.*, 421 Md. 210, 219, 26 A.3d 352, 357 (2011). Because we do not believe that "no reasonable person" would admit the testimony regarding Quinan's rash, we decline to disturb Judge Dugan's evidentiary ruling in the limited circumstances presented by the testimony relating to Quinan.

Q. Did you try to treat it?

A. Yes. I used all types of prescription topical ointments and creams. I was given a lot. A very potent one by the dermatologist. It did nothing. Nothing took it away until we went on vacation for two weeks, went away and not bathing in the water. When I came back, it was gone.

Q. And during that approximate year that you were suffering from a rash, did you ever receive any communication from Exxon giving you any information about any potential association between exposure to MTBE and the water and rashes?

A. No.

Q. You mentioned sleeplessness?

A. Yes.

Q. When did you start beginning to have issues with sleeplessness as it relates to your fears and concerns about the gasoline release?

A. We had in the beginning of 2006 and afterwards and they continued but not regularly. I mean, it was a concern and it would bother me, and some nights I couldn't sleep, but after we found out about the contamination, it was going on and on because everything would go through your head. You know, how long have you been drinking it? You know, what is it going to do to us? How is it going to impact our lives?

Q. So over this five year period from 2006 to the present, how often would you say you would have issues of sleeplessness?

A. Sometimes, several nights a week. Sometimes, maybe several times a month.

Q. And you also mentioned headaches?

A. Yes. Same thing.

> Q. Same kind –
>
> A. It just depends on how much you let yourself get, I guess, worked up over the whole thing. You know, you try to settle down and then it just gets you again.
>
> Q. . . . [O]ver this five year period are you able to tell us would you find yourselves [sic] worked up to the point that would you experience headaches as a result of your fears and concerns relating to the gasoline release?
>
> A. Several times a week. Sometimes, it would be a week or so and then you have them again, but would be, you know, several times a week. Several times a month.
>
> Q. You also mentioned a loss of appetite?
>
> A. Yes.
>
> A. Can you talk a little bit about what you mean by that?
>
> A. Well, you just don't feel like eating. You're kind of feeling nauseous. You get upset and then you just don't feel like eating.
>
> Q. Do you feel that way when you're thinking about the gasoline release?
>
> A. Definitely.
>
> Q. How often would you find yourself feeling nauseous and not willing to eat as it relates to your fears and concerns with the gasoline release?
>
> A. Maybe, you know, weekly or a few times a month. I guess several times. I mean, like, a couple days a week or several times a month, you know. Whatever. Like, you might have a few days or a week in between and then it hits you again.

Dr. Malik testified that Quinan was "angry and frustrated and concerned" that she had been drinking and bathing in her well water from 2006 until the first positive detection of

contamination of her well in April of 2009.[70] He testified that Quinan "had a rash which started before May of 2008 which [she] never had before . . . [which] continued . . . until June of 2009 when she went to Florida for one week and South Carolina for one week, so in those two weeks, it – the rash all disappeared after being way from [the] water and has not come back." Additionally, he testified that Quinan was concerned about her future health:

> Q: . . . Did you notice anything about her anxiety elements?
>
> A. Yes. She had been drinking and bathing in the contaminated water for several months to years before it was detected in April of 2009, and she had all kinds of problems which disappeared after she was on vacation for two weeks; and her husband also had all kinds of health problems related to [his] stomach, and nothing definitive was diagnosed. And it all disappeared after he started drinking bottled water within two weeks. She was anxious about developing cancer. . . .
>
> Q: Doctor, were you able to reach a diagnosis to a reasonable degree of psychiatric certainty?
>
> A. Yes. She was suffering with anxiety disorder not otherwise specified.
>
> Q: Were you able to determine the cause of her mental disease to a reasonable degree?
>
> A. Yes. It was directly caused by the Exxon spillage.
>
> Q: This did not affect her normal functioning, I take it?
>
> A: No. She has been able to function in her usual ways.

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[70]The Quinan well first tested positive for MTBE contamination below the MDE action level on 16 April 2009. On 9 July 2009, a well test revealed MTBE contamination at 22 ppb, exceeding the MDE action level. The MDE installed a POET system at the Quinan property on 3 August 2009.

> Q: Has it impacted her quality of life and relationships?
>
> A: Yes. She had been drinking bottled water as soon as she learned about the contamination of the water, and she had suffered through a skin condition[]; and her husband had suffered through gastrointestinal conditions. Both of them are feeling much better away from the water.

Although the testimony proffered by Quinan and Dr. Malik does not rise to the level of detail observed in *Hunt*, we conclude that the evidence presented was sufficient to create a jury question as to whether Quinan suffered an injury capable of objective determination. Quinan provided testimony regarding the duration and extent of her physical symptoms. Moreover, although much of Dr. Malik's testimony contained conclusory statements which otherwise might be insufficient to establish physical injury, he testified regarding his examination and diagnosis of anxiety disorder. Although we recognize that anxiety disorder not impacting normal functioning is less severe than the physical injuries asserted in *Vance*, as the Court of Special Appeals noted in *Hunt*, "[t]here is no severity prong of the *Vance* test." 121 Md. App. at 531, 710 A.2d at 370. Thus, "although minor emotional injuries may be less likely to produce the kind of evidence that renders an injury capable of objective determination, that does not mean that an emotional injury must reach a certain threshold level of severity before it becomes compensable." *Id.* at 531, 710 A.2d at 369–70. Therefore, even though Dr. Malik testified that Quinan remained able to function normally in spite of her diagnosed anxiety disorder, we conclude there is sufficient evidence, considered in the light most favorable to Quinan, to submit her claim to the jury. Therefore, we shall direct remand for Quinan's claim for emotional distress damages for fear of

contracting cancer to the trial court for a new trial.

C. Compensatory Damages for Medical Monitoring

1. Does Maryland Recognize a Right to
Recovery for Damages for Medical Monitoring?

Although the trial court permitted nearly every Appellee's claim for damages for medical monitoring to go to the jury, this Court has not recognized yet a cause of action for the recovery of medical monitoring damages[71] in Maryland. Exxon contends that the trial court erred in denying its motion for judgment notwithstanding the verdict regarding Appellees' medical monitoring awards. In considering Exxon's assertions, we must decide first whether to recognize a right in Maryland to recover damages for medical monitoring. Secondly, we must determine, if we recognize such a claim *vel non*, whether, considering the evidence in this record "taken in the light most favorable to the nonmoving party," the trial court was legally correct in denying Exxon's motion for judgment notwithstanding the verdict. *Gallagher*, 182 Md. App. at 101, 957 A.2d at 632.

The possibility of recovery of damages for medical monitoring in Maryland was raised, but not decided by this Court, in *Philip Morris, Inc. v. Angeletti*, 358 Md. 689,

[71]Recovery of damages for medical monitoring, also known as medical surveillance, where allowed, is distinct from a cause of action for an enhanced or increased risk of disease. In theory, a plaintiff may receive damages for medical monitoring only for "quantifiable costs of periodic examinations necessary to detect the onset of physical harm, whereas an enhanced risk claim seeks compensation for the anticipated harm itself, proportionately reduced to reflect the chance that it will not occur." *Angeletti*, 358 Md. 689, 781 n.40, 752 A.2d 200, 251 n.40 (2000) (quoting *Recovery for Damages for Expense of Medical Monitoring to Detect or Prevent Future Disease or Condition*, 17 A.L.R.5th 327, § 3).

779–80, 752 A.2d 200, 250 (2000).[72] In *Angeletti*, we recognized that many courts permit a cause of action for medical monitoring or allow compensation for such as damages in tort actions, and discussed briefly the purpose of recovering damages for medical monitoring and policy concerns associated with this form of recovery. *Id.* Under such a claim, a plaintiff may recover only the quantifiable costs of "periodic medical examinations necessary to monitor plaintiffs' health and to facilitate early diagnosis and treatment of disease(s) caused by exposure to chemicals . . . ." *Id.* at 781, 752 A.2d at 250 (citing *Ayers v. Jackson*, 525 A.2d 287, 308 (N.J. 1987); *In re Paoli R. Yard PCB Litigation* (*Paoli I*), 916 F.2d 829, 849–50 (3d Cir. 1990)). These standards for recovering for medical monitoring costs help enforce the common law principle that a defendant must compensate a plaintiff fully for past or present injuries caused by the defendant's tortious conduct. *See, e.g.*, *Ayers*, 525 A.2d at 311–12 ("Compensation for reasonable and necessary medical expenses is consistent with well-accepted legal principles. . . . It is also consistent with the important public health interest in fostering access to medical testing for individuals whose exposure to toxic

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[72]In *Angeletti*, the plaintiffs, as class representatives, sought damages and injunctive relief against tobacco manufacturers and related entities for cancer and pulmonary disorders from smoking cigarettes, claiming violations of the Maryland Consumer Protection Act, Md. Code Ann. Com. § 13-101 *et seq*., and damages for medical monitoring, among other claims. *Angeletti*, 358 Md. at 699–704, 752 A.2d at 205–08. The case reached this Court on a petition for writ of mandamus or prohibition by the tobacco manufacturers based on issues of class certification. *Id.* We granted the relief of mandamus and ordered the trial court to decertify two classes. Specifically, and most relevant to this case, we held that, even if medical monitoring constituted a valid cause of action or form of relief in Maryland, a class action seeking equitable relief should not have been certified under Maryland Rule 23(b)(2) on the basis of a claim for medical monitoring, under the circumstances of that case. *Id.* at 782, 752 A.2d at 251.

chemicals creates an enhanced risk of disease.”).

We agree now with other jurisdictions that recognize that “exposure itself and the concomitant need for medical testing” is the compensable injury for which recovery of damages for medical monitoring is permitted, *Hansen v. Mountain Fuel Supply Co.*, 858 P.2d 970, 977 (Utah 1993), because such exposure constitutes an “invasion of [a] legally protected interest.” *Bower v. Westinghouse Electric Corp.*, 522 S.E.2d 424, 430 (W. Va. 1999) (quoting Restatement (Second) of Torts § 7(1) (1964)). Invasion of a specific legally-protected interest in a claim for compensable medical monitoring consists of “a significantly increased risk of contracting a particular disease relative to what would be the case in the absence of exposure.” *Id.* at 433.

While problems may arise in limiting the potentially expansive class of plaintiffs in medical surveillance awards, *see Metro-North Commuter R.R. Co. v. Buckley*, 521 U.S. 424, 442–43, 117 S. Ct. 2113, 2122–23, 138 L. Ed. 2d 560, 576 (1997), permitting only proven necessary medical costs helps prevent the danger of awarding medical monitoring for speculative injuries, a risk inherent in the area of other common law torts, such as emotional distress.[73] *Id.*

Although in *Angeletti* we considered the possibility that a plaintiff may recover for

[73]Moreover, “if a reasonable physician would not prescribe [medical monitoring] for a particular plaintiff because the benefits of the monitoring would be outweighed by the costs, which may include, among other things, the burdensome frequency of the monitoring procedure, its excessive price, or its risk of harm to the patient, then recovery would not be allowed.” *Hansen*, 858 P.2d at 980.

damages for medical monitoring either as an independent cause of action or as an element of damages, we noted that a "medical monitoring claim may perhaps more accurately be deemed a remedy rather than a distinct cause of action." 358 Md. at 786, 752 A.2d at 253. *See also Potter v. Firestone Tire & Rubber Co.*, 863 P.2d 795, 823 (Cal. 1993) (holding that a defendant's conduct creating the need for future medical monitoring "does not create a new tort. It is simply a compensable item of damage when liability is established under traditional tort theories of recovery."); James A. Henderson & Aaron D. Twerski, *Asbestos Litigation Gone Mad: Exposure-Based Recovery for Increased Risk, Mental Distress, and Medical Monitoring*, 53 S.C. L. Rev. 815, 840 (2002) (academic commentators concluded that those states that allow recovery for medical monitoring did not create new causes of action, but rather recognized a new form of tort remedy).

Likewise, our sister jurisdictions that allow recovery for medical monitoring, more often than not, allow such recovery as a remedy, rather than as an independent cause of action. *See Xavier v. Philip Morris USA Inc.*, No. C 10-02067, 2010 U.S. Dist. LEXIS 107959, at *8–*9 (N.D. Cal. Oct. 8, 2010) (dismissing stand-alone medical monitoring claim, but recognizing that California allows a medical monitoring claim as a remedy); *Mann v. CSX Transp., Inc.*, No. 1:07-CV-3512, 2009 U.S. Dist. LEXIS 106433, at *7 (N.D. Ohio Nov. 10, 2009) (medical monitoring recognized as a form of tort damages in Ohio); *Duncan v. Northwest Airlines, Inc.*, No. C98-130Z, 2001 U.S. Dist. LEXIS 18276 (W.D. Wash. Nov. 5, 2001) (declining to create new and independent tort for medical monitoring because flight attendants exposed to second-hand smoke, with present injury, could seek medical

monitoring as remedy to a negligence cause of action); *Meyer v. Fluor Corp*., 220 S.W.3d 712 (Mo. 2007) (medical monitoring is a compensable element of damage if liability is demonstrated under traditional tort theories of recovery); *Badillo v. American Brands, Inc.*, 16 P.3d 435, 440 (Nev. 2001) (concluding that remedy of medical monitoring, but not a stand-alone claim, may be available under common law). For these reasons, we hold that a remedy for medical monitoring costs is a compensable element of damage under traditional tort theories of recovery.

2. Burden of Proof for Recovery of Damages for Medical Monitoring

The United States Supreme Court noted that "an exposed plaintiff can recover related reasonable medical monitoring costs [as an element of damages] if and when he develops symptoms." *Buckley*, 521 U.S. at 438, 117 S. Ct. at 2121, 138 L. Ed. 2d at 573. By contrast, there is a divided array of states that allow medical monitoring based on different threshold standards. *Compare Remson v. Verizon Commc'ns, Inc.*, No. CV 07-5296, 2009 U.S. Dist. LEXIS 20310 (E.D.N.Y. Mar. 13, 2009) (finding that, in New York, recovery for medical monitoring is allowed as long as the plaintiff alleges exposure to an allegedly toxic chemical and a rational basis for belief of contracting a disease), *with Parker v. Brush Wellman, Inc.*, 377 F. Supp. 2d 1290, 1296, 1302 (N.D. Ga. 2005) (where plaintiffs claimed a"subclinical" condition due to toxic exposure, but lacked any contemporaneous physiological manifestations, the court concluded that Georgia does not recognize a medical monitoring action without a showing of physical injury). When those costs are deemed "reasonable," and irrespective of whether actual physical "symptoms" of the toxic substance-induced

disease are required to recover such costs, is what we must determine in the present case.

a. "Reasonable and Necessary" Medical Costs

The weight of authority across the country recognizes that recovery for costs of medical monitoring is limited to costs that are necessary *and* reasonable. The seminal case recognizing compensable damages for medical monitoring seems to be *Ayers v. Jackson*, 525 A.2d 287 (N.J. 1987). The New Jersey Supreme Court held that a group of plaintiffs could recover medical surveillance costs for toxic exposure after their Township contaminated the town aquifer and consequently their well water, even though no plaintiff had developed symptoms of exposure-related disease that were "quantified" by the evidence, if such monitoring were found to be reasonably necessary. *Id.* at 312–14. The court articulated certain factors to consider in defining the meaning of "reasonably necessary."[74] *Id.* at 312 (noting that the evidence must prove that medical surveillance of the "effect of exposure to toxic chemicals is reasonable and necessary"). Necessity for medical monitoring, however, must be reasonably certain, rather than merely possible. *Potter*, 863 P.2d at 824 ("[T]he cost of medical monitoring is a compensable item of damages where the proofs demonstrate, through reliable medical expert testimony, that the need for future monitoring is a reasonably certain consequence of a plaintiff's toxic exposure and that the recommended monitoring is reasonable."). The prime inquiry into the necessity and reasonableness of a plaintiff's

[74]To recover for medical monitoring, the court held, the plaintiff must prove "through reliable expert testimony predicated upon the significance and extent of exposure to chemicals, the toxicity of the chemicals, the seriousness of the diseases for which individuals are at risk, the relative increase in the chance of onset of disease in those exposed, and the value of early diagnosis." *Id.* at 312.

claimed monitoring costs is whether "medical monitoring is, to a *reasonable degree of medical certainty*, necessary in order to diagnose properly the warning signs of disease." *Paoli I*, 916 F.2d at 851 (emphasis added). This standard requires, necessarily, medical testimony by a plaintiff's expert(s).

To determine whether monitoring is reasonably necessary, several courts have established specific multi-factor tests, such as that adopted by the Supreme Court of California:

> In determining the reasonableness and necessity of monitoring . . . the following factors are relevant: (1) the significance and extent of the plaintiff's exposure to chemicals; (2) the toxicity of the chemicals; (3) the relative increase in the chance of onset of disease in the exposed plaintiff as a result of the exposure, when compared to (a) the plaintiff's chances of developing the disease had he or she not been exposed, and (b) the chances of the members of the public at large of developing the disease; (4) the seriousness of the disease for which the plaintiff is at risk; and (5) the clinical value of early detection and diagnosis.

Potter, 863 P.3d at 824–25; *see also Paoli I*, 916 F.2d at 852 (identifying analogous factors to consider in awarding compensable damages for medical surveillance);[75] *Donovan v. Philip Morris USA, Inc.*, 914 N.E.2d 891, 901 (Mass. 2009) ("When competent medical testimony establishes that medical monitoring is necessary to detect the potential onset of a serious

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[75]The Third Circuit outlined specific elements that a plaintiff must prove to recover damages for medical monitoring: a plaintiff must show (1) that he or she "was significantly exposed to a proven hazardous substance through the negligent actions of the defendant;" (2) that, "[a]s a proximate result of exposure, *plaintiff suffers a significantly increased risk of contracting a serious latent disease*;" (3) that "increased risk makes periodic diagnostic medical examinations reasonably necessary;" and (4) that "monitoring and testing procedures exist which make the early detection and treatment of the disease possible and beneficial." *Paoli I*, 916 F.2d at 852 (emphasis added).

illness or disease due to physiological changes indicating a substantial increase in risk of harm from exposure to a known hazardous substance, the element of injury and damage will have been satisfied and the cost of that monitoring is recoverable in tort.”).

b. Proving Causation and a “Significantly Increased Risk” are Key to Recovery

Keys to a plaintiff’s recovery are evidence of causation (from the defendant’s tortious conduct) and a *significantly* increased risk of contracting a latent disease. For example, in *Theer v. Philip Carey Co.*, 628 A.2d 724 (N.J. 1993), the New Jersey Supreme Court held that recovery for medical monitoring may be obtained only by plaintiffs who have “experienced *direct and hence discrete exposure* to a toxic substance and who have [] *suffered an injury or condition resulting from that exposure* and whose risk of cancer [can] be limited and *related specifically and tangibly* to that exposure." *Id.* at 733 (emphasis added). Hence, a plaintiff who was exposed to asbestos by laundering her husband's clothes had no medical monitoring claim because evidence linking any potential risk of cancer to the defendant’s tortious conduct was tenuous; also, the plaintiff was a smoker. *Id.* Courts have concluded, moreover, that an increased or different monitoring of a latent disease, even due to a preexisting condition caused by a plaintiff’s voluntary conduct, may create entitlement to recover damages, as long as there is reliable evidence that the increased risk is a *direct* and *proximate* result of the exposure to defendant’s tortious conduct. *Potter*, 863 P.2d at 825 n.27.

Although we recognize that the injury giving rise to an alleged need for medical monitoring costs is the exposure to toxic substances, and that this exposure is an invasion of

a legally-protected interest, *see Hansen*, 858 P.2d at 977, we are wary of damages for speculative claims resting on tenuous proof of risk of disease *attributable* to the type of exposure. In evaluating at "what stage in the evolution of a toxic injury should tort law intercede by requiring the responsible party to pay damages[,]" *Ayers*, 525 A.2d at 298, we believe that, by its nature, recovery for a *latent* disease due to toxic exposure involves necessarily somewhat nebulous forecasts of a potential risk to develop a disease in the future. We recognize that, because of the "latent nature of most diseases resulting from exposure to toxic substances, . . . most toxic-tort plaintiffs cannot establish an immediate physical injury of the type contemplated in traditional tort actions . . . [because] the physical injury . . . manifests itself years after exposure." *Hansen*, 858 P.2d at 977. Requiring quantifiable and reliable proof, however, will assist courts in determining whether causation and significant risk are present in a plaintiff's prima facie case.

For a fact finder to "ascertain the probability" that the remedy of medical monitoring is appropriate, *Paoli I*, 916 F.2d at 852, proof of a "*significantly* increased risk" of developing a future disease, based on reliable expert testimony quantifying the risk, is necessary. *See id.* at 851 (requiring medical expert testimony to demonstrate a plaintiff's need for reasonable and necessary medical costs); *Donovan*, 914 N.E.2d at 901 ("When competent medical testimony establishes that medical monitoring is necessary to detect the potential onset of a serious illness or disease due to physiological changes indicating a substantial increase in risk of harm from exposure to a known hazardous substance, the element of injury and damage will have been satisfied and the cost of that monitoring is

recoverable in tort.”). Otherwise, it is difficult for a reasonable fact finder to measure “the relative increase in the chance of onset of disease in the exposed plaintiff as a result of the exposure, when compared to (a) the plaintiff’s chances of developing the disease had he or she not been exposed, and (b) the chances of the members of the public at large of developing the disease.” *Potter*, 863 P.2d at 824–25.

Quantifiable and reliable indicators of risk in developing disease are also helpful to determine a “significant” increase in risk of disease, thus ensuring that the nature and extent of medical monitoring is actually greater than that which should be undertaken by the general population, a key purpose in awarding appropriate medical monitoring damages. *Id.* at 825 (noting that “there can be no recovery for preventative medical care and checkups to which members of the public at large should prudently submit”).

Hence, we conclude that quantifiable, reliable indicia that a defendant’s actions have so increased significantly the plaintiff’s risk of developing a disease are necessary to recover damages for medical monitoring costs. The indicia may be proven by a medical expert’s testimony, particularized to a plaintiff, and demonstrating a reasonable link to toxic exposure. This requirement helps to achieve the objective of medical monitoring – that a defendant must compensate a plaintiff for past or present injuries caused by the defendant – and inhibits damages awards for speculative, and thus unreliable, opinions as to a plaintiff’s potential risk of developing a future disease.

c. A Showing of “Physical Injury” is Not Required

We conclude, as have the majority of our sister jurisdictions, that evidence of physical

injury is not required to support costs for medical surveillance. A compelling illustration of why proof of physical injury is not needed for this form of relief is *Friends for All Children, Inc. v. Lockheed Aircraft Corp.*, 746 F.2d 816, 818–19 (D.C. Cir. 1984), where recovery for medical monitoring was permitted, without proof of physical injury, where the defendant caused proximately a present physical manifestation of the plaintiff children who developed brain dysfunctions. The plaintiff organization, on behalf of 149 Vietnamese orphans who survived a plane crash during the evacuation of Vietnam in 1975, sued Lockheed, alleging that because of decompression, as well as the crash, the children suffered from a neurological disorder that was classified generically as Minimal Brain Dysfunction. *Id.* Initial medical diagnosis trials were conducted for selected children to provide necessary information about probable litigation results. *Id.* at 820–22. Lockheed did not deny liability for compensatory damages, but disputed that the crash was a cause of the need for medical diagnostic tests. *Id.*

The federal court rejected the argument that the need for diagnostic examination was not a compensable injury, and affirmed the imposition on Lockheed of liability for diagnostic examination expenses because the need for such examinations was the proximate result of the crash. *Id.* at 825–26. Even without further proof of injury, the court held, a reasonable need for medical examinations was compensable. *Id.* at 826. The court held further that a reasonable need for medical examinations was itself compensable, without proof of other injury: "[i]t is difficult to dispute that an individual has an interest in avoiding expensive diagnostic examinations just as he or she has an interest in avoiding physical injury. When

a defendant negligently invades this interest, *the injury to which is neither speculative nor resistant to proof*, it is elementary that the defendant should make the plaintiff whole by paying for the examinations." *Id.* (emphasis added).

As we discussed earlier, the physical injury a plaintiff suffers in a claim for recovery for medical surveillance costs is the invasion of a legally-protected interest. *See Hansen*, 858 P.2d at 977. Hence, we believe that, as long as the plaintiff presents proof that the significantly increased risk of contracting a latent disease is not "speculative," *Friends*, 746 F.2d at 826, but is instead reasonably certain based on reliable evidence, there is no need that such plaintiff sustain an actual physical harm to recover damages.

d. Administration of Medical Monitoring Award Through an Equitable Fund

We note with approval the recent tendency of many courts that award medical monitoring costs to do so by establishing equitably a court-supervised fund, administered by a trustee, at the expense of the defendant. *See Exxon Mobil Corp. v. Ford*, 204 Md. App. 1, 144, 40 A.3d 514, 598 (2012) (J. Eyler, J., concurring and dissenting in part), *aff'd in part and rev'd in part*, ___ Md. ___, ___ A.3d ___ (2013) ("In our view, the alternative that best achieves the goal of medical monitoring is that a court, in the exercise of its equitable powers, can establish a fund, when justified by the evidence, to be administered by a trustee, at the expense of the defendant."). *See also Buckley*, 521 U.S. at 441, 117 S. Ct. at 2122, 138 L. Ed. 2d at 574. This approach helps ensure that the medical surveillance funds will be used for their intended purpose, while still achieving the objectives of the medical monitoring remedy, for "given the difficulty in precisely estimating the cost of relief to the plaintiffs, any

money damages award would run the risk of overcompensating the plaintiffs, and the surest way for the Court to avoid any such inefficiency is to fashion relief through an injunction rather than a money damages award." *Donovan v. Philip Morris USA, Inc*., No. 06-12234, 2012 U.S. Dist. LEXIS 37974, at *55 (D. Mass. Mar. 21, 2012). The U.S. Supreme Court assessed the ample support among courts across the country to order an equitable fund to disburse appropriate medical monitoring costs:

> [T]he cases authorizing recovery for medical monitoring in the absence of physical injury do not endorse a full-blown, traditional tort law cause of action for lump-sum damages – of the sort that the Court of Appeals seems to have endorsed here. Rather, those courts, while recognizing that medical monitoring costs can amount to a harm that justifies a tort remedy, have suggested, or imposed, special limitations on that remedy. *Compare Ayers*, [] 525 A.2d at 314 (recommending in future cases creation of "a court-supervised fund to administer medical-surveillance payments"); *Hansen*, [858 P.2d] at 982 (suggesting insurance mechanism or court-supervised fund as proper remedy); *Potter*, [] 863 P.2d at 825, n.28 (suggesting that a lump-sum damages award would be inappropriate); *Burns*, [] 752 P.2d at 34 (holding that lump-sum damages are not appropriate) with, e.g., *Honeycutt v. Walden*, 294 Ark. 440, 743 S.W.2d 809 (1988) (damages award for future medical expenses made necessary by physical injury are awarded as lump-sum payment) . . .

Buckley, 521 U.S. at 440–41, 117 S. Ct. at 2122, 138 L. Ed.2d at 574.

The District Court of Appeals of Florida, holding that future medical monitoring costs are compensable in Florida, determined that a Florida trial court could use its equitable powers to create a fund for medical monitoring recovery, if the plaintiff established a *prima facie* case for recovery. *Petito v. A.H. Robbins Co.*, 750 So.2d 103, 106 (Fla. Dist. Ct. App. 1999). The court outlined specific guidelines for a trial court to follow if it decided that a

fund was appropriate, such as: (1) appoint a plan administrator; (2) with the administrator's advice, approve an advisory panel of persons qualified and knowledgeable in the relevant medical field or fields to supervise, among other things, the persons who consume or undergo medication and treatment, and select a list of skilled and neutral examining physicians to perform the medical tests; (3) establish a time frame for those eligible to obtain the monitoring; and, (4) authorize the plan administrator to pay the reasonable amounts of claims based on submitted reports and findings by the monitoring physicians. *Id.* at 107. For these procedures to operate effectively, they "must be tailored to fit the facts in a given case." *Ford*, 204 Md. App. at 146, 40 A.3d at 599 (J. Eyler, J., concurring and dissenting in part).

In sum, we hold that Maryland recognizes a remedy of recovery for medical monitoring costs resulting from exposure to toxic substances resulting from a defendant's tortious conduct. To sustain an award for recovery for medical costs, a plaintiff must show that reasonable medical costs are necessary due to a reasonably certain and significant increased risk of developing a latent disease as a result of exposure to a toxic substance. In awarding relief, a court must consider whether the plaintiff has shown: (1) that the plaintiff was significantly exposed to a proven hazardous substance through the defendant's tortious conduct; (2) that, as a proximate result of significant exposure, the plaintiff suffers a significantly increased risk of contracting a latent disease; (3) that increased risk makes periodic diagnostic medical examinations reasonably necessary; and (4) that monitoring and testing procedures exist which make the early detection and treatment of the disease possible and beneficial.

To determine what is a "significantly increased risk of contracting a latent disease" for a particular plaintiff, the court may consider quantifiable and reliable medical expert testimony that indicates the plaintiff's chances of developing the disease had he or she not been exposed, compared to the chances of the members of the public at large of developing the disease. We hold further that, where a plaintiff sustains his or her burden of proof in recovering this form of relief, the court should award medical monitoring costs ordinarily by establishing equitably a fund, administered by a trustee, at the expense of the defendant.

3. Recovery of Medical Monitoring Damages by Appellees in the Present Case

Appellees' claims for medical monitoring damages suffer from various deficiencies of proof under the tests set out above. Specifically, because Appellees with no detected contamination have not demonstrated sufficiently that they were exposed significantly to a proven hazardous substance, they may not recover damages for medical monitoring.[76]

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[76]These appellees are: Agnieszka Hudzik (Allison); Eric Allison; Kristen Allison; Susan Allison; David Austin; Emily Austin; Ian Austin; Reid Austin; Patricia Bateman; Alex Blum; Jon Blum; Madelyn Blum; Tracy Blum; Margaret Brown; Tara Brown; John Wright (Bull/Wright property); Adriane Burke; Lloyd Burke; Lloyd Burke, Jr.; Riley Burke; Bari Jo Burnett; Adriana Capizzi; Carlo Capizzi; Franca Capizzi; Francesca Capizzi; Julia Capizzi; Philip Capron; Susan Capron; Joan Clark; Lloyd Clark; Sharon Dorsch; William Dorsch; Alissa Dutrow; Daryl Dutrow; Emily Dutrow; Jennifer Dutrow; Brian Easton; David Easton; Michael Easton; Monique Easton; Bruce Elliott; Janice Elliott; Chris Federico; Emily Federico; Grace Federico; Kevin Federico; Tracy Federico; Bruna Fonseca; Clever Fonseca; Denise Fonseca; Maira Fonseca; Tiago Fonseca; Anthony Frattarola; Marianne Frattarola; Victoria Frattarola; Ann Fuller; Stanley Fuller; Mary Pat Goodhues; Connor Hartman; Gavin Hartman; Laura Hartman; Michael Hartman; Cheryl Howells; Brendan Huey; Heather Huey; Michael Huey; Shannon Huey; Dorothy Hyman; Richard Hyman; Kenneth Kelly; Lauryn Kelly; Michele Kelly; Stephanie Kelly; Kathleen Kennedy; Leonard Kennedy; Margaret Kennedy; Calvin Kirkwood; Chase Kirkwood; Jeremy Kirkwood; Mark Kirkwood; Nancy Pugliese Kirkwood; Tyler Kirkwood; Ellen Koerner; Henry Koerner; Donna Lawrence; (continued...)

Moreover, as noted above in our discussion of emotional distress damages for fear of contracting cancer, individuals are exposed routinely in everyday life activities to MTBE and its metabolite of concern, formaldehyde. Thus, those Appellees with no demonstrated exposure exceeding the MDE action levels for MTBE and/or benzene are no more at risk of developing a latent disease from these contaminants than the average person – much less suffer a significantly increased risk of developing disease. As a result, Appellees with no demonstrated contamination exceeding the governmental action levels of five and twenty parts per billion for benzene and MTBE, respectively, did not prove as a matter of law that they suffer a significantly increased risk of developing a latent disease justifying an award

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[76](...continued)
Kristen Lawrence; Jennifer Lazzaro; Robert Lazzaro; Susan Lazzaro; Alexander Makris; Eleni Makris; Nikolaos Makris; Valerie Makris; John Matra; Mary Matra; Kelly McCleary; Kirk McCleary; Mary McCleary; Ryan McCleary; Leigh Morgan; Pamela Morgan; R. Wade Morgan; Ronald Morgan; Denise Moss; Gregory Naylor; Gregory Naylor, Jr.; Kenneth Naylor; Susan Naylor; Tracy Naylor; Alexandra Nemer; Donald Nemer; Emmanuel Nemer; Kelli Nemer; Joanne O'Connell; Andrew Podles; Anita Podles; Claire Podles; John Podles; Thomas Podles; Thomas Podles, Jr.; Anna Popomaronis; Cynthia Popomaronis; Eleni Bowden (Popomaronis); Peter Vailas (Popomaronis); Thomas Popomaronis; William Popomaronis; Casey Proefrock; John Proefrock; Kate Proefrock; Mary Kathryn Proefrock; Megan Proefrock; Scott Proefrock; Jeff Reckseit (Wilhelmsen property); Edna Rudell; Paul Rudell; Alan Saeva; Ellaine Saeva; Joseph Schmitz; Marah Schmitz; Susan Schmitz; Ernest Sessa; Paula Sessa; Allison Shields; Erin Shields; John Shields, Jr.; Kevin Shields; Natalie Shields; Alyssa Stehman; John Stehman; Jonathan Stehman; Marina Stehman; Sierra Stehman; Theresa Stehman; Bruce Stumpp; Norma Stumpp; Chester Tokarski; Marilyn Tokarski; Ernest Viscuso; Francesca Viscuso; Gabrielle Viscuso; Lisa Viscuso; Nicole Viscuso; Chase Vosvick; David Vosvick II; Deedra Vosvick; Tanner Vosvick; Amy Vuong; Krystal Vuong; Man A. Vuong; Shuzhen Vuong; Sinh Vuong; Stacy Vuong; Megan Welms; Nancy Welms; Christy Whaley; Neil Whaley; Jean Wimmer; and, Paul Wimmer.

of damages for medical monitoring. We therefore reverse these judgments.[77]

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[77]These appellees are: Thomas Albright; Paula Albright; Caitlin Andrews; Daniel Andrews; Jeanne Andrews; Richard Andrews; Annette Armstrong; John Armstrong; Emily Backus; Ryan Backus; Shelly Backus; Keith Brock; Ashley Brookhart; Ellen Brookhart; Ronald Brookhart; Sean Brookhart; Victoria Brookhart; Ronald Bueche; Terry Bueche; Amanda Buscemi; Cari C. Buscemi; Charles C. Buscemi; Karen Buscemi; Mary Buscemi; Rachel Buscemi; Philip Carbone; Maria Navarro Cole; Michael Cole; Frederick Craig; Rosina Craig; Phillip Diedeman; Phillip Diedeman, Jr.; Susan Diedeman; Dana Rhyne Dieter; Patricia Dieter; Dominique DiPino; Francesca DiPino; Gina DiPino; Joseph DiPino; Paul DiPino, Jr.; Paul DiPino, III; Robert Dyer; Sarah Dyer; Teresa Dyer; Carl Eisgruber; James Turfler (Eisgruber); Lynn Eisgruber; Ellison Ensor; Sarah Ensor; Edward Fletcher; Regina Fletcher; Sarah Fletcher; Zachary Fletcher; Franklin Fontanazza; Gia Fontanazza; Gina Fontanazza; Alexandra Freas; James Freas; Kathleen Freas; Paul Freas; Eugene Freeman; Pearlie Freeman; Debra Gillespie; Kevin Gillespie; Tara Gillespie; Thomas Gillespie, Jr.; Thomas Gillespie, III; Charlene Glatfelter; Curtis Glatfelter; George Gribble; Marjorie Gribble; Alicia Grogan; David Grogan; Gavin Grogan; Jeanette Hairston; Linda Hairston-Taulton; Walter Hairston; Theodore Hannibal; Virginia Hannibal; Joan Hanst; John Hanst; Rebecca Heyman-Magaziner; Allison Higgins; John Higgins; Mary Higgins; Patrick Higgins; Richard Higgins; Almarie Ianuly; Paul Ianuly; James Kelly; Mary Kelly; Dale Knapp; James Knapp; Kimberly Kobus; Thomas Kobus; Kaitlyn Lindenmeyer; Karen Lindenmeyer; Mark Lindenmeyer; Megan Lindenmeyer; Christopher Makowy; Corey Makowy; Heather Makowy; Kim Makowy; Rebecca Makowy; William Makowy; Carol Malstrom; William Malstrom; Allie Mangione; Brian Mangione; Justine Mangione; Taylor Mangione; Ian Marsico; Jodi Marsico; Kaitlin Marsico; Michael Marsico; Eric Munson; Georgia Munson; Jeffrey Munson; Leslie Munson; John Murphy; Natalie Murphy; Payton Murphy; Rosemary Murphy; Christian O'Brien; Christopher O'Brien; Shelby O'Brien; Kathleen Oursler; Roger Oursler; Betty Over; Sylvester Over; Emily Pagani; Nicholas Pagani; Rebecca Pagani; Steven Pagani; Andrew Palmer; David Palmer; Geoffrey Palmer; Kimberly Palmer; Andrew Parker; Charles Parker; James Parker; Kimberly Parker; Bradley Peters; Cathy Peters; John Peters; Marcus Peters; Jena Pietropaoli; Joseph Pietropaoli; Joseph Pietropaoli, Jr.; Paulette Pietropaoli; Sheila Pinsch; Mary Prime; William Prime; Brynn Puller; John Puller; Patricia Puller; Richard Puller; Jerome Rebold; Charles Riegger; Jennifer Lookingbill (Riegger); Julia Riegger; KatieRose Dobrzykowski (Riegger); Meghen Riegger; Rochelle Roth; Steven Roth; Barbara Rusinko; John Rusinko; Alexander Scheetz; Arden Scheetz; Michele Scheetz; Ricky Scheetz; Alfred Schober; Adam Seery; Meghen Seery; Susan Seery; Thomas Seery; Barbara Sheeler; Donald Sheeler; Anna Marie Simanski; Chelsea Simanski; Garrett Simanski; James Simanski; Julia Simanski; Charlotte Slaughter; Emily Slaughter; Kaitlyn Jones (Slaughter); Diann Kohute (Slaughter); Nancy Slaughter; William Slaughter; William Slaughter, Jr.; Alicia Sullivan; Brendan Sullivan; Brendan

(continued...)

The remaining Appellees' potable wells tested at or above the relevant state action levels for benzene and/or MTBE.[78] As we noted above, however, in order for any Appellee to recover damages for medical monitoring, he or she must present expert testimony quantifying his or her risk of developing a latent disease. Specifically, the expert must indicate a particularized, significantly-increased risk of developing a disease in comparison to the general public. Here, in support of their medical monitoring claims, Appellees presented testimony by medical experts Dr. Kathleen Burns and Dr. Nachman Bratbaur. Dr. Burns testified, in effect, that if an individual is exposed to MTBE or benzene in any dosage or amount, he or she incurs an additional risk of developing cancer.[79] Similarly, Dr. Brautbar

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[77](...continued)
Sullivan, Jr.; Emily Sullivan; Amanda Sutor; Austin Sutor; David Sutor; Lynn Sutor; Alexander Trader; Mary Trader; Matthew Trader; Patrick Rudolph (Trader); Brian Tripp; Leslie Tripp; Steven Tripp; Timothy Tripp; Christopher Tsakalos; Nicholas Tsakalos; Triantafilia Tsakalos; David Vaughan; Elliott Gloger (Vaughan); Kieran Vaughan; Terri Vaughan; Kimberly A. Wachter; James Wachter; Martin R. Wachter; Ryan Wachter; Delores Whitehurst; Gertrude Whitehurst; Cole Wilhemsen; Hans Wilhelmsen; Hans Wilhelmsen, III; Kristen Wilhelmsen; Lindsey Williams; Nancy Williams; Owen Williams; Thomas Williams; Janet Winfield; Jennifer Winfield; Timothy Winfield; Chen-Yu Yen; Ray-Whey Yen; Christopher Zaccari; Patricia Zaccari; Andrea Zachary; and, Mary Leffell (Zachary).

[78]These Appellees are: Amy Gumina; Van Ho; Barbara Larrabee; John Larrabee; Mitchell Larrabee; William Larrabee; Edward Odend'hal; Nanette Odend'hal; Gloria Quinan; Granville Quinan; Anna Walega; and, John Walega.

[79]Specifically, Dr. Burns testified to the following:

> Q. Did you qualitatively assess the risk faced by individuals in the Jacksonville area who were exposed or being exposed to MTBE in terms of whether or not they are at increased risk of cancer?

(continued...)

opined that plaintiffs exposed to MTBE or benzene contamination in groundwater at greater levels than that to which they would otherwise be exposed through everyday activities possessed a significantly increased risk of developing cancer.[80]

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[79](...continued)

> A. Yes. "Qualitative" means I didn't assign numbers to people, but I did look at where there's going to be increased cancer risk. If somebody is exposed to MTBE or benzene, they are incurring additional risk.
>
> ***
>
> Q. At what level of exposure in your professional opinion should individuals be afforded medical monitoring who have been exposed to MTBE?
>
> A. . . . You know, any level of exposure, whether it's by dermal exposure in a shower, inhalation [sic] or ingestion imposes some risk so any level of exposure of people really requires that they be[] offered medical monitoring."
>
> ***
>
> Q. Do you have an opinion to a reasonable degree of scientific certainty as to what level of exposure to benzene puts someone at risk of developing leukemia before the nonexposed person?
>
> A. Any level of exposure to benzene imposes some cancer risk.

[80]In particular, Dr. Brautbar stated:

> Q. Doctor, I want you to assume that there was a 26,000 gallon gasoline release at the Jacksonville Exxon from January 13th to February 13th, 2006. I want you to further assume that it is more likely than not that all of the Plaintiffs in this case have been or will be exposed to gasoline constituents, including MTBE, in the 30 years following the release. Finally, I want you to assume that the exposure as a result of that release to

(continued...)

Such testimony is insufficient to establish that Appellees had a significantly increased risk of developing cancer as a result of their alleged exposure to MTBE and benzene. Neither Dr. Brautbar nor Dr. Burns attempted to quantify any individual Appellee's increased risk of developing cancer. Rather, because Dr. Brautbar and Dr. Burns testified under the assumption that any exposure to MTBE or benzene is unacceptable from a public health standpoint and increases the risk of developing cancer, they offered no Appellee-specific testimony. The level of generalization in this regard presented at trial is insufficient to

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[80](...continued)

> these individuals and Plaintiffs will be greater than that to which they would otherwise be exposed. Assuming all of those to be true, do you have an opinion based on a reasonable degree of medical certainty whether those Plaintiffs would have a significantly increased risk greater than the normal risk all of us encounter in our everyday lives?
>
> ***
>
> Q. Do you have an opinion, Doctor?
>
> A. Yes, I do.
>
> Q. And what is that opinion?
>
> A. The opinion is that they will have an increased risk of cancer.
>
> Q. And how would you characterize the risk, significant?
>
> A. Significantly increased risk of cancer.
>
> Q. What do you mean by significantly increased risk of?
>
> A. Meaning that it is not a theoretical or rhetorical factor. It is an actual factor.

establish that the remaining Appellees suffered a significantly increased risk of developing cancer as a result of their exposure to MTBE and/or benzene as a consequence of the Exxon leak. Accordingly, we reverse.[81]

III. Compensatory Damages for Injury to Real Property

A. The Proper Measure of Compensatory Damages for Injury to Real Property

As noted earlier, we review the trial court's denial of Exxon's motion for judgment notwithstanding the verdict to determine whether it was legally correct. *Scapa Dryer Fabrics*, 418 Md. at 503, 16 A.3d at 163. At the conclusion of the trial, the jury awarded Appellees damages for injury to real property of three principal types: (1) emotional distress for fear of property value loss and fear of loss of use and enjoyment; (2) diminution in value, measured by the difference in value between the day immediately preceding the announcement of the leak and the day immediately subsequent to the announcement of the leak; and (3) loss of use and enjoyment for the period spanning from the day immediately subsequent to the discovery of the leak until the commencement of trial. Exxon challenges these awards as contrary to Maryland law, duplicative, speculative, and grossly excessive. Specifically, Exxon contends that emotional distress damages for fear of injury to property

[81]Although this Court has not recognized previously the availability of damages for medical monitoring, we determine that, because the jury instructions given by Judge Dugan hew closely to the standards we adopt today, Judge Dugan's exposition of law relating to medical monitoring was consistent with this opinion. Our opinion does not alter the legal standard as instructed by Judge Dugan, but merely elaborates on the sufficiency of the evidence needed to create a jury question. Thus, because the evidence provided by Appellees at trial was insufficient, considering the legally correct standard enunciated by Judge Dugan, to create a jury question, reversal (without remand) is appropriate.

is not compensable, that Appellees' recovery of damages for both diminution in value and past loss of use and enjoyment constitutes impermissible double compensation, that awards to Appellees not experiencing well contamination were improper and speculative, and that the jury awards were excessive and based on inadmissible expert testimony.

1. Appellees May Not Recover Emotional Distress Damages For Injury to Real Property

The jury awarded approximately one hundred and ninety-five Appellees emotional distress damages for fear of loss of property value and fear of loss of use and enjoyment. Exxon contends that these awards were impermissible. Exxon advances principally three alternative arguments in support of its contention. First, Exxon argues that, in the absence of actionable fraud, Appellees cannot recover for emotional distress as a result of property damage. In the alternative, Exxon maintains that, even if Appellees proved actionable fraud, the emotional distress awards should be reversed as duplicative of the loss of use and enjoyment awards. Lastly, Exxon argues that, of those Appellees recovering damages for emotional distress for fear of loss of property value, approximately one hundred and eighteen did not provide testimony at trial supporting their emotional distress claims.

We need not reach the latter contentions. Ordinarily, as Judge James Eyler of the Court of Special Appeals noted in *Ford*, in the absence of fraud, malice, or like motives, "emotional distress attendant to property damage is not compensable." *Ford*, 204 Md. App. at 101, 40 A.3d at 573 (J. Eyler, J., concurring and dissenting in part). *See also H & R Block, Inc. v. Testerman*, 275 Md. 36, 48–49, 338 A.2d 48, 55 (1975) (stating that "Maryland decisions have generally denied compensation for mental anguish resulting from damage to

property"); *Zeigler v. F. Street Corp.*, 248 Md. 223, 226, 236 A.2d 703, 705 (1967) (noting that emotional distress damages attendant to injury to property may be recovered only where there is fraud or malice). Because, as we explained *supra*, we reverse the fraud award in this case,[82] the emotional distress damages related to fear of loss of property value alleged by Appellees are not compensable as a matter of law, and the awards are therefore reversed.[83]

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[82]As noted earlier, Judge Dugan granted Exxon's Motion for Judgment Motion for Judgment on Plaintiffs' Claims for Punitive Damages based on Allegations of Evil Motive, Ill Will, or Intent to Injure. Thus, because Judge Dugan determined as a matter of law that Appellees could not establish malice or evil intent sufficient to support a finding of punitive damages, Appellees similarly may not recover emotional distress damages related to injury to real property on the basis of evil motive, ill will, or intent to injure.

[83]The awards being reversed are as to the following Appellees: Susan Allison; Jeanne Andrews; Richard Andrews; Annette Armstrong; John Armstrong; David Austin; Emily Austin; Ryan Backus; Shelly Backus; Tracy Blum; Florence Brock; Ellen Brookhart; Ronald Brookhart; Margaret Brown; Ronald Bueche; Terry Bueche; Louise Bull; Adriane Burke; Lloyd Burke; Bari Jo Burnett; Philip Capron; Susan Capron; Philip Carbone; Joan Clark; Lloyd Clark; Michael Cole; Frederick Craig; Rosina Craig; Phillip Diedeman; Susan Diedeman; Dana Rhyne Dieter; Patricia Dieter; Paul DiPino, Jr.; Sharon Dorsch; William Dorsch; Robert Dyer; Teresa Dyer; Christopher Easton; Monique Easton; Carl Eisgruber; Lynn Eisgruber; Bruce Elliott; Ellison Ensor; Edward Fletcher; Regina Fletcher; Clever Fonseca; Denise Fonseca; Franklin Fontanazza; Gina Fontanazza; Paul Freas; Eugene Freeman; Pearlie Freeman; Ann Fuller; Debra Gillespie; Thomas Gillespie, Jr.; Charlene Glatfelter; Curtis Glatfelter; Mary Pat Goodhues; George Gribble; Marjorie Gribble; Alicia Grogan; David Grogan; Jeanette Hairston; Walter Hairston; Virginia Hannibal; Richard Higgins; Heather Huey; Michael Huey; Jeffrey Hummel; Richard Hyman; Almarie Ianuly; Paul Ianuly; James Kelly; Kenneth Kelly; Stephanie Kelly; Margaret Kennedy; Mark Kirkwood; Nancy Pugliese (Kirkwood); Dale Knapp; James Knapp; Kimberly Kobus; Thomas Kobus; Barbara Larrabee; John Larrabee; Donna Lawrence; Robert Lazzaro; Karen Lindenmeyer; Mark Lindenmeyer; Kim Makowy; William Makowy; Carol Malstrom; William Malstrom; Brian Mangione; Justine Mangione; Jodi Marsico; Michael Marsico; John Matra; Mary Matra; Kirk McCleary; Mary McCleary; Denise Moss; Jeffrey Munson; Leslie Munson; John Murphy; Rosemary Murphy; Gregory Naylor; Susan Naylor; Donald Nemer; Kelli Nemer; Christian O'Brien; Christopher O'Brien; Joanne O'Connell; Edward Odend'hal; Nanette Odend'hal; Kathleen Oursler; Roger Oursler; Betty Over; Sylvester

(continued...)

2. Appellees May Recover Damages for Diminution in Value Only

The jury awarded to Appellees, in many instances, damages for both diminution in property value and past loss of use and enjoyment of real property, over Exxon's objection. Prior to trial, Judge Dugan required Appellees to elect between pursuit of damages for diminution in value and prospective loss of use and enjoyment, noting that the forms of relief are duplicative. Appellees elected to pursue damages for diminution in value of real property, rather than prospective loss of use and enjoyment. In addition, however, Judge Dugan permitted Appellees to seek damages for past loss of use and enjoyment,[84] measured as

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[83](...continued)
Over; Rebecca Pagani; Steven Pagani; David Palmer; Kimberly Palmer; Charles Parker; Kimberly Parker; Cathy Gay-Peters; Marcus Peters; Joseph Pinsch; Anita Podles; Thomas Podles; Cynthia Popomaronis; William Popomaronis; Mary Prime; William Prime; Mary Kathryn Proefrock; Scott Proefrock; Patricia Puller; Richard Puller; Gloria Quinan; Jeff Reckseit (awarded to landlord Hans Wilhelmsen); Charles Riegger; Julia Riegger; Rochelle Roth; Steven Roth; Edna Rudell; Paul Rudell; Richard Rudell; John Rusinko; Ellaine Saeva; Michele Scheetz; Ricky Scheetz; Joseph Schmitz; Susan Schmitz; Susan Seery; Thomas Seery; Ernest Sessa; Barbara Sheeler; Donald Sheeler; Anna Marie Simanski; William Slaughter; John Stehman; Theresa Stehman; Bruce Stumpp; Norma Stumpp; Brendan Sullivan; Emily Sullivan; David Sutor; Lynn Sutor; Chester Tokarski; Marilyn Tokarski; Mary Trader; Christopher Tsakalos; Triantafilia Tsakalos; David Vaughan; Terri Vaughan; Ernest Viscuso; Lisa Viscuso; Man A. Vuong; Stacy Vuong; Kimberly A. Wachter; Martin R. Wachter; Anna Walega; Nancy Welms; Christy Whaley; Neil Whaley; Hans Wilhelmsen; Kristen Wilhelmsen; Nancy Williams; Thomas Williams; Jean Wimmer; Paul Wimmer; Chen-Yu Yen; Ray-Whey Yen; Andrea Zachary; Mary Leffell (Zachary); and, Christopher Garliss.

[84]The parties characterize differently the loss of use and enjoyment damages awarded by the jury. Exxon refers in its brief to these awards as damages for prospective loss of enjoyment, presumably because its primary contention is that these damages were incurred prospectively from the date of valuation of property and thus are subsumed in its market value. By contrast, Appellees refer to these damages as past loss of use and enjoyment, presumably because the trial court determined that damages for prospective loss of use and
(continued...)

damages for loss of use and enjoyment incurred between the date of the discovery of the leak and the commencement of trial.

Exxon contends that the awards for past loss of use and enjoyment are duplicative of (and subsumed by) the awards for diminution in value, and therefore the trial court erred in permitting recovery of both. Because diminution in value of real property, measured on the date the leak was discovered, encompasses necessarily the lost use and enjoyment of that real property suffered by the property owner from that date forward, Exxon contends that there remains no period of time for which Appellees are eligible for lost use and enjoyment damages. Moreover, Exxon avers that, even if Appellees were entitled to receive both types of damages, the awards for loss of use and enjoyment are excessive because they, in conjunction with the diminution in value damages, exceeded frequently the unimpaired value of the real property. In retort, Appellees contend that their recovery of damages for diminution in value, in addition to past loss of use and enjoyment for the period between the announcement of the leak and the commencement of trial, is consistent with Maryland law. Such an award is neither duplicative nor excessive, as Appellees see it, because the right to use and enjoy one's property exists as a compensable element, independent of the monetary value of real property.

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[84](...continued)
enjoyment and diminution in value are duplicative. For purposes of simplicity and consistency with the trial court's characterization of these damages, we will refer to the loss of use and enjoyment damages awarded by the jury for the period between when the harm first occurred and the commencement of trial as damages for "past loss of use and enjoyment."

Assuming that the trial court required properly Appellees to elect between pursuing either diminution in value or prospective loss of use and enjoyment damages, and Appellees were in fact entitled to receive damages for diminution in value,[85] the trial court erred in later

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[85]Generally, diminution in value damages are available only where the injury to real property is permanent. *Goldstein v. Potomac Elec. Power Co.*, 285 Md. 673, 682, 404 A.2d 1064, 1068 (1979). Here, the trial court did not determine expressly that the injury to Appellees' property was permanent in nature, although Appellees' expert, Dr. John Kilpatrick, based his valuation opinion upon the assumption that the well water contamination was permanent. Because Appellees elected to proceed to trial claiming damages for diminution in value, rather than prospective loss of use and enjoyment, and no party has raised on appeal the issue of the propriety of awarding damages for diminution in value, we assume, without deciding, that the injury to land here is permanent.

Because damages for permanent injury to real property are generally available only to the owners of real property, *see Peters v. Contigroup*, 292 S.W.3d 380, 389 (Mo. Ct. App. 2009) (noting that, because "damages for a permanent nuisance involve the diminution in value of the property[,] . . . one seeking damages for a permanent nuisance must have a property interest"); *In re the Premcor Refining Grp., Inc.*, 233 S.W.3d 904, 908–09 (Tex. App. 2007) (dismissing the claims of minor plaintiffs, adult next friends, and adult plaintiffs who were not "record owners of the real property at the time the initial injury [constituting a permanent nuisance] to the real property occurred"), awards for loss of use and enjoyment to children and non-owner occupiers of the land therefore are reversed.

Thus, the loss of use and enjoyment awards are reversed as to the following Appellees: Agniezka Hudzik (Allison); Eric Allison; Kristen Allison; Caitlin Andrews; Daniel Andrews; Ian Austin; Reid Austin; Emily Backus; Alex Blum; Madelyn Blum; Ashley Brookhart; Sean Brookhart; Victoria Brookhart; Tara Brown; John Wright (Bull/Wright); Amanda Buscemi; Cari Cheelsman (Buscemi); Charles Cheelsman (Buscemi); Karen Buscemi; Mary Buscemi; Rachel Buscemi; Adriana Capizzi; Francesca Capizzi; Julia Capizzi; Maria Navarro-Cole; Dominique DiPino; Francesca DiPino; Gina DiPino; Joseph DiPino; Paul DiPino, III; Alissa Dutrow; Emily Dutrow; Sarah Dyer; Brian Easton; David Easton; Michael Easton; James Turfler (Eisgruber); Emily Federico; Grace Federico; Kevin Federico; Sarah Fletcher; Zachary Fletcher; Bruna Fonseca; Maira Fonseca; Tiago Fonseca; Gia Fontanazza; Anthony Frattarola; Marianne Frattarola; Victoria Frattarola; Alexandra Freas; James Freas; Eugene Freeman (individually); Pearlie Freeman (individually); Kevin Gillespie; Tara Gillespie; Thomas Gillespie, III; Gavin Grogan; Linda Hairston-Taulton; Allison Higgins; John Higgins; Patrick Higgins; Brendan Huey; Shannon Huey; Lauryn

(continued...)

permitting Appellees to recover damages for both diminution in value and past loss of use and enjoyment. Compensatory damages should be "precisely commensurate with the injury; nothing more, nor less." *Baltimore Belt R.R. Co. v. Sattler*, 102 Md. 595, 601, 62 A. 1125, 1127 (1906). Thus, "the general principle upon which compensation for injuries to real

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[85](...continued)
Kelly; Michele Kelly; Kathleen Kennedy; Calvin Kirkwood; Chase Kirkwood; Jeremy Kirkwood; Tyler Kirkwood; Mitchell Larrabee; William Larrabee; Kristen Lawrence; Jennifer Lazzaro; Susan Lazzaro; Kaitlyn Lindenmeyer; Megan Lindenmeyer; Christopher Makowy; Corey Makowy; Heather Makowy; Rebecca Makowy; Alexander Makris; Eleni Makris; Allie Mangione; Taylor Mangione; Ian Marsico; Kaitlin Marsico; Kelly McCleary; Leigh Morgan; R. Wade Morgan; Catherine Moss; Natalie Murphy; Payton Murphy; Gregory Naylor, Jr.; Kenneth Naylor; Tracy Naylor; Alexandra Nemer; Emmanuel Nemer; Shelby O'Brien; Emily Pagani; Nicholas Pagani; Andrew Palmer; Geoffrey Palmer; Andrew Parker; James Parker; Bradley Peters; John Peters; Andrew Podles; Claire Podles; John Podles; Thomas Podles, Jr.; Anna Popomaronis; Eleni Popomaronis; Peter Vailas (Popomaronis); Thomas Popomaronis; Casey Proefrock; John Proefrock; Kate Proefrock; Megan Proefrock; Brynn Puller; John Puller; Jennifer Riegger; KatieRose Riegger; Meghen Riegger; Mary Judith Rudell; Alexander Scheetz; Arden Scheetz; Marah Schmitz; Adam Seery; Meghen Seery; Allison Shields; Erin Shields; Kevin Shields; Chelsea Simanski; Garrett Simanski; Julia Simanski; Charlotte Slaughter; Diann Kohute (Slaughter); Emily Slaughter; Kaitlyn Jones (Slaughter); Nancy Slaughter; William Slaughter, Jr.; Alyssa Stehman; Jonathon Stehman; Marina Stehman; Sierra Stehman; Alicia Sullivan; Brendan Sullivan, Jr.; Amanda Sutor; Austin Sutor; Alexander Trader; Matthew Trader; Patrick Trader; Brian Tripp; Steven Tripp; Nicholas Tsakalos; Elliott Gloger (Vaughan); Kieran Vaughan; Francesca Viscuso; Gabrielle Viscuso; Nicole Viscuso; Chase Vosvick; Tanner Visvoci; Amy Vuong; Krystal Vuong; Shuzhen Vuong; Sinh Vuong; Jack Wachter; Ryan Wachter; Megan Welms; Delores Whitehurst; Gertrude McNicholas (Whitehurst); Cole Wilhelmsen; Hans Wilhelmsen III; Lindsey Williams; Owen Williams; and, Jennifer Winfield.

As explained below, Exxon admitted liability for some compensatory damages to Appellee Van Ho. Because Ms. Ho is a lessee, she did not claim, and is not entitled to recover, damages for diminution in value of the real property she leased. Because Exxon admitted liability to Ms. Ho, however, she may recover damages for loss of use and enjoyment as a lessee, and not an owner, of the real property at issue in this case. As explained below, we will reverse and direct remand for a new trial as to the loss of use and enjoyment award to Ms. Ho.

property is given is that the plaintiff shall be reimbursed to the extent of his injury." *Id.* (quoting *Redemptorists v. Wenig*, 79 Md. 348, 355, 29 A. 667, 668 (1894)). Plaintiffs are entitled to "but one compensation," and thus may not recover twice for the same injury. *Mayor & City Council of Havre de Grace v. Maxa*, 177 Md. 168, 182, 9 A.2d 235, 242 (1939).

Compensation for injury to real property is dependent generally upon the character of the harm. *See, e.g.*, *Hall v. Lovell Regency Homes Ltd. P'ship*, 121 Md. App. 1, 23–24, 708 A.2d 344, 355 (1998) (noting that permanent harm to property is measured properly by the permanent diminution in the property's value, while temporary harm may be measured by the decrease in the value of the property's use and enjoyment or by the cost of restoring the property to its unimpaired state). Diminution in value of real property is available generally as the remedy for damages in actions where the injury to real property is permanent in nature. *Goldstein v. Potomac Elec. Power Co.*, 285 Md. 673, 682, 404 A.2d 1064, 1068 (1979). In addition to damages for permanent diminution in value of real property, an individual whose real property has suffered permanent injury may also recover the loss in the "usable value" of his property and any consequential damages incurred, provided that neither is encompassed within the diminution in value. *See Maxa*, 177 Md. at 182–83, 9 A.2d at 242 (permitting a property owner to collect damages for diminution in value as a result of his property's loss of water access, in addition to the consequential damages incurred by plaintiff for having to store his boat in an alternate location); Restatement (Second) of Torts § 929 Cmt. d (noting that a plaintiff may recover loss of use and enjoyment damages, in addition

to diminution in value, provided that the loss of use and enjoyment award is not encompassed within the diminution in value of the real property).

Diminution in value damages are appropriate where the injury is considered permanent because such damages compensate presumably the property owner fully for the injury to his or her land and improvements. Damages for diminution in value are determined by calculating the difference between the fair market value of the property immediately preceding the harm and the fair market value of the property immediately following the harm. The fair market value of property in Maryland is generally the "price as of the valuation date for the highest and best use of the property which a [seller], willing but not obligated to sell, would accept for the property, and which a purchaser, willing but not obligated to buy, would pay . . . ." Md. Code Ann. (1974, 2010 Repl. Vol.) § 12-105(b) of the Real Property Article; *see also Pumphrey v. State Roads Comm'n*, 175 Md. 498, 506, 2 A.2d 668, 671 (1938) ("Market value is defined as the price which an owner willing but not obliged to sell would accept for the property and which a buyer willing but not obliged to buy would pay therefor.").

The definition of fair market value suggests that an agreement as to price between the prospective buyer and prospective seller necessarily takes into account any known defects or deleterious conditions in the property.[86] Here, for example, fair market value as

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[86]Maryland law requires sellers of real property to disclose any latent defects of which he or she has actual knowledge. *See* Md. Code (1974, 2010 Repl. Vol.), Real Property Article § 10-702. As the trial court instructed the jury, "[u]nder Maryland law, a seller of real property has a duty to disclose any latent defects of which he or she has actual (continued...)

determined immediately after public announcement of the gasoline leak would rely necessarily on the highest and best price that a willing purchaser would pay – and thus, would consider presumably not only the features of the individual property, but also, among other things, the existence of a nearby underground gasoline leak, the reliance of the property on well water, the likelihood of ongoing and future remediation activities and potential resulting disturbances, and the possibility that the tap water may be inappropriate or undesirable for consumption or other normal household or business use.[87] Because fair market value as determined immediately following the announcement of the gasoline leak would take presumably these factors into account prospectively, these inconveniences constitute, for Appellees, part of the permanent diminution in value of their properties.[88]

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[86](...continued)
knowledge that a purchaser would not reasonably be expected to ascertain by a careful visual inspection and that would pose a direct threat to the health or safety of the purchaser or an occupant. The seller must disclose, among other things, any latent defects in the 'source of household water' and any issues related to 'hazardous materials'."

[87]Indeed, Appellees who purchased their properties in the vicinity of the strike line radius subsequent to 16 February 2006 acknowledged that they knew about the leak prior to closing, yet opted to complete the sale, in some instances even signing a written statement acknowledging their knowledge of the leak.

[88]Thus, Appellees who purchased their homes or business properties following the announcement of the leak presumably did so at a depreciated value, and are therefore ineligible to receive damages for either diminution in value or loss of use and enjoyment. These Appellees include the Hartmans (Laura and Michael), Cheryl Howells, and the Vosvicks (Chase, David II, Deedra, and Tanner). Exxon contends that the verdicts for the Hueys, Nemers, and Proefrocks should be reversed also on these grounds. These Appellees entered into contracts to buy homes in the Jacksonville community prior to announcement of the leak, but did not go to settlement until after the discovery of the leak. We do not believe that these Appellees' awards for injury to property should be reversed simply because
(continued...)

Owners of real property, however, are not precluded necessarily from recovering both permanent diminution in value and loss of use and enjoyment damages, *see Maxa*, 177 Md. at 182–83, 9 A.2d at 242, provided that the injuries for which recovery is sought do not overlap, so as to result in duplicative compensation. *See id.*; Restatement (Second) of Torts § 929 Cmt. d. Appellees claim that, in addition to diminution in value, they are entitled to recoup damages for injury to property as past loss of use and enjoyment for the period spanning from the date of the injury through the commencement of the trial. To permit Appellees to recover for these injuries, as a measure of the loss in monetary value of their home, as well as in past loss of use and enjoyment is, however, to permit recovery twice for the same injury on the record of this case.

In *Mayor & City Council of Havre de Grace v. Maxa*, we considered whether an individual suffering permanent injury to property by virtue of a town dredging improperly fill material and depositing it onto his property (cutting off his water frontage and access) could recover damages for loss of "usable value" in addition to diminution in market value. 177 Md. at 182–83, 9 A.2d at 242. Noting that an individual may not recover twice for the same injury, but that an individual is entitled to "complete" compensation, we permitted recovery of damages for loss in market value as well as loss in "usable value." *Id.* We

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[88](...continued)
they did not proceed to closing until after the leak was discovered. Rather, because they entered into contracts for sale prior to discovery of the leak, they paid presumably the pre-leak, unimpaired values for their homes, and thus, barring any other grounds for reversal, would be eligible for damages for diminution in value of real property only (as explained herein).

defined "usable value" as "the personal enjoyment and use by the plaintiffs as occupiers of the premises, independently of the difference in market value." *Id.* at 182, 9 A.2d at 242. In *Maxa*, the plaintiff was permitted to recover, as loss in "usable value," boat storage and wharfage fees, which constituted an additional expense that the plaintiff was forced to bear in order to obtain the same benefit from his property from what he was deprived of by the defendant's conduct. Thus, the plaintiff recovered damages for diminution in value, as well as loss of use and enjoyment in the form of consequential damages – as an additional expense incurred by the plaintiff as a direct result of the defendant's tortious conduct.

In *Hall v. Lovell Regency Homes*, the Court of Special Appeals determined that the plaintiffs could not recover both diminution in value and loss of use and enjoyment damages, based on breach of contract, caused by drainage problems left behind by their builder's construction of the subdivision and their homes. 121 Md. App. at 25, 708 A.2d at 356. The plaintiff homeowners in *Hall* sought damages for diminution in value as a result of damage done essentially to their basements, as well as loss of use and enjoyment based on the following:

> The type of loss that they can't use their basements. Its [sic] the type of loss that they have a lot of tension between the spouse and the husband. They don't enjoy their home when they walk in there and think about what the fungus might be in the basement or think about in a few months when the winter comes the water table is coming up again, that they don't enjoy being there.

Id. Because the alleged loss of use and enjoyment was, in effect, the same as the condition that diminished the market value of their properties, the court determined that "[t]he damages

the homeowners were seeking for the loss of use of their basements (and their yards) were subsumed in and were not distinguishable from the damages that they were seeking for loss in fair market value of their properties." *Id.*

Although Appellees' claims differ qualitatively from those in *Hall*, in that Appellees suffered injury as a result of Exxon's tortious, rather than contractual, wrongdoing, the principle set forth in both *Hall* and *Maxa* applies to the present case. Appellees may not recover twice for the same injury. Testimony by Appellees reveals that their claims for loss of use and enjoyment revolve largely around their inability to use their well water for customary purposes and the emotional toll and stress attendant to such a disruption.[89] Specifically, Appellees noted that they reduced their outdoor activities, including gardening and swimming, reduced the frequency and length of showers and baths, entertained less or worried about potential contamination impacting visitors, drank bottled water, and endured noise and other disturbance emanating from the remediation activities. We fail to see, however, how the injury alleged is distinguishable from the injury constituting the diminution in value.

Unlike the plaintiff in *Maxa*, who recovered consequential damages for loss of use and enjoyment resulting from his payment for alternative boat storage charges – a defined

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[89]We assume, without deciding, that the testimony offered in support of Appellees' claims for loss of use and enjoyment was appropriate to that purpose. As Judge James Eyler recognized in *Ford*, however, a plaintiff may not circumvent the prohibition against the recovery of emotional distress awards relating to property damage by cloaking his or her emotional distress claim as a claim for loss of use and enjoyment of property. 204 Md. App. at 103, 40 A.3d at 574 (J. Eyler, J., concurring and dissenting in part) (citing *Hall v. Lovell Regency Homes*, 121 Md. App. 1, 26, 708 A.2d 344, 356 (1998)).

expense caused directly by the defendant and not encompassed necessarily within the value and expected use of the home itself – the contentions here are, like in *Hall*, largely subsumed within the claim for diminution in market value.[90] Appellees allege loss of use and enjoyment due to their inability to use their water, but their homes are diminished in value precisely because their water is contaminated, where evidence supports that conclusion, and the property's use is therefore circumscribed. Appellees argue that noise from remediation activities disturbed their use and enjoyment, but such activities, too, diminished the market value of their property. Thus, their alleged loss of use and enjoyment damages are "not distinguishable from" and "subsumed in" their claim for diminution in value, and presumably, the impaired market values of their respective homes reflects the injury. Thus, to the extent that Appellees pleaded and proved at trial an incidental cost that they were forced to bear to obtain or regain a benefit provided previously to them by their property, akin to the boat storage and wharfage charges incurred by the plaintiff in *Maxa*, such

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[90]Exxon cites *Washington Suburban Sanitary Comm'n v. CAE-Link Corp.*, 330 Md. 115, 622 A.2d 745 (1993) ("*WSSC*"), for the proposition that loss of use and enjoyment and diminution in value damages are necessarily duplicative remedies. Exxon's reliance on *WSSC* is mistaken, however. In *WSSC*, we considered whether damages for inverse condemnation, calculated under both the common law and the statutory method, could be recovered for the same injury. *Id.* at 149–52, 622 A.2d at 762–63. We determined that, because both measures of damages sought to achieve the same goal, they were necessarily duplicative and thus could not both be recovered. *Id.* at 151–52, 622 A.2d at 763 (citing *Brannon v. State Roads Comm'n*, 305 Md. 793, 799, 506 A.2d 634, 637–38 (1986)). Here, however, Appellees did not assert both a common law and a statutory remedy, but rather two, permissible, common law methods of calculating damages. Thus, any analogy sought to be drawn between *WSSC* and the present case fails.

damages would be recoverable.[91] In the absence of such proof, however, Appellees are not entitled to any damages for loss of use and enjoyment. Allowing Appellees to recover both, then, constitutes an impermissible double recovery. Because Appellees elected at trial to pursue damages for diminution in value, we therefore reverse the trial court's award of damages for loss of use and enjoyment of real property to all Appellees who pursued damages for both diminution in value and loss of use and enjoyment. Thus, we need not consider whether the damages awarded by the jury for past loss of use and enjoyment are excessive.

3. Plaintiffs With No Detected Contamination May Not Recover Property Damages

The potable wells on the properties of approximately sixty-five Appellees or Appellee families did not test positive for either benzene or MTBE contamination as of the time of trial.[92] Nonetheless, these Appellees recovered property damages stemming from the leak,

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[91]Some Appellees with businesses were allocated damages for out-of-pocket expenses by the jury. It does not appear, however, that the residential Appellees claimed recovery of costs for the installation and maintenance of POET systems or the purchase of bottled water, which, provided that causation was proved sufficiently, may have been recoverable under *Maxa*. Although the proposed versions of the verdict sheets offered by Appellees' counsel appear to indicate the possibility that some Appellees could recover out of pocket expenses if alleged, and some Appellees testified regarding the costs of such out-of-pocket expenditures, the Appellee-specific verdict sheets sent to the jury did not provide an option for the jury to allocate damages for out-of-pocket expenses. As a result, damages were therefore not allocated thusly and it appears that no residential Appellee sought out-of-pocket expenses for POET systems and bottled water.

[92]These Appellee-owned properties include the following Appellee families or businesses: Allison; Austin; Bateman; Blum; Brown; Bull/Wright; Burke; Burnett; Capizzi; Capron; Clark; Dorsch; Dutrow; Easton; Elliott; Federico; Fonseca; Frattarola; Fuller; (continued...)

predicated on expert testimony produced at trial predicting probable or possible contamination appearing during the next thirty years based on the prevailing hydrogeology of the region. Exxon argues primarily that the expert testimony predicting the flow of contamination over the next thirty years was speculative, and thus should not have been admitted. Alternatively, Exxon argues that, despite this expert testimony, in the absence of present proof of contamination, these Appellees may not recover property damages because they cannot satisfy the elements necessary to maintain a cause of action in negligence, nuisance, trespass, or strict liability and prove legal injury. By contrast, Appellees contend that the trial court properly awarded damages to the "non-detect" Appellees because the general contamination of the aquifer from which Appellees draw their water constitutes a substantial interference with a property interest. We consider each of the four theories asserted by Appellees for recovery for damage to property – trespass, nuisance, strict liability for abnormally dangerous activities, and negligence – to determine whether the non-detect

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[92](...continued)
Goodhues; Hartman; Howells; Huey; Hyman; Kenneth & Stephanie Kelly; Kennedy; King; Kirkwood/Pugliese; Koerner; Lawrence; Lazzaro; Makris; Matra; McCleary; Morgan; Moss; Naughton; Naylor; Nemer; Joanne O'Connell; Podles; Popomaronis; Proefrock; Jeff Reckseit (Wilhelmsen property); Edna Rudell; Paul Rudell; Richard Rudell; Saeva; Schmitz; Sessa; Shields; Stehman; Stumpp; Tokarski; Viscuso; Vosvick; Vuong; Welms; Whaley; Wilhelmsen (properties located at 13707, 13729, and 13821 Jarrettsville Pike); Wimmer; Christopher Garliss/Highpoint Homebuilders, Inc.; 14342 Jarrettsville Pike, LLC; and, 3422 Sweet Air Road, LLC.

Of these Appellees, Exxon admitted liability for negligence, trespass, nuisance, and strict liability to the following: Allison, Stehman, Vuong, Welms, and 3422 Sweet Air Road, LLC. Because Exxon admitted liability to these Appellees, they are excluded from this discussion and may recover damages for diminution in value to real property, even though their properties never tested positive for contamination.

Appellees may recover damages for injury to real property.[93]

a. Trespass

Appellees contend that the mere existence of any contamination in the aquifer from which the non-detect Appellees draw their water permits the non-detect Appellees to recover damages for injury to property on a theory of trespass, by virtue of the potential for future detected contamination. Appellees are mistaken. An action for trespass may lie "[w]hen a defendant interferes with a plaintiff's interest in the exclusive possession of the land by entering or causing something to enter the land." *Rosenblatt v. Exxon Co., U.S.A.*, 335 Md. 58, 78, 642 A.2d 180, 189 (1994). Thus, recovery for trespass requires that the defendant must have entered or caused something harmful or noxious to enter onto the plaintiff's land. *See, e.g.*, *Toy v. Atlantic Gulf & Pacific Co.*, 176 Md. 197, 205–06, 4 A.2d 757, 761–62 (1939) (noting that because the premises of the plaintiffs was not physically invaded, an action in trespass cannot lie). Here, the non-detect Appellees failed to demonstrate any physical intrusion of their land. General contamination of an aquifer that may or may not reach a given Appellee's property at an undetermined point in the future is not sufficient to prove invasion of property. Thus, the non-detect Appellees could not recover, at the time of trial, damages for diminution in value of property based on a theory of trespass.

b. Nuisance

Exxon contends that the non-detect Appellees may not recover damages for

[93]All of the Appellees listed at *supra* n.92 claimed damages for diminution in value, with the exception of the Viscuso family, who claimed damages for loss of use and enjoyment only.

diminution in value under a theory of nuisance because the interference with their properties is not substantial. A cause of action for nuisance does not require present proof of contamination. *See Yarema*, 69 Md. App. at 147–49, 515 A.2d at 1003–04. Private nuisance is "a nontrespassory invasion of another's interest in the private use and enjoyment of land." *Wietzke v. Chesapeake Conf. Ass'n*, 421 Md. 355, 374, 26 A.3d 931, 943 (2011) (quoting *Rosenblatt*, 335 Md. at 80, 642 A.2d at 190 (quoting Restatement (Second) of Torts § 821D)). Not every interference with a plaintiff's use and enjoyment of land, however, will support a cause of action for nuisance. *WSSC*, 330 Md. at 143, 662 A.2d at 749 (citing *Adams v. Michael*, 38 Md. 123, 126 (1873)). *See Wietzke*, 421 Md. at 382–83, 26 A.3d at 948 (noting that a finding of nuisance involves "a balance of the competing property interests at stake"). To succeed on a nuisance claim, a plaintiff must establish an unreasonable and substantial interference with his or her use and enjoyment of his or her property, such that the injury is "of such a character as to diminish materially the value of the property as a dwelling . . . and seriously interfere with the ordinary comfort and enjoyment of it." *WSSC*, 330 Md. at 143–44, 662 A.2d at 759 (quoting *Slaird v. Klewers*, 260 Md. 2, 9, 271 A.2d 345, 348 (1970)).

In *Exxon Corp. v. Yarema*, the Court of Special Appeals considered whether property owners, who had not demonstrated any physical injury to property from contamination resulting from a gasoline leak, could recover in nuisance despite the absence of tangible or physical harm. 69 Md. App. 124, 515 A.2d 990. Noting that Maryland courts permitted recovery for nuisance resulting from the intangible emanation of sound, *see, e.g.*, *Gorman*

v. Sabo, 210 Md. 155, 122 A.2d 475 (1956); *Meadowbrook Swimming Club, Inc. v. Albert*, 173 Md. 641, 197 A. 146 (1938), and the threat of future harm related to nearby storage of explosives, *see Hendrickson v. Standard Oil Co.*, 126 Md. 577, 95 A. 153 (1915), the court determined that the gravamen of a nuisance claim rests not on a tangible invasion of property, but rather on the disturbance and interference in use and enjoyment of property resulting from a defendant's actions. *Yarema*, 69 Md. App. at 147–49, 516 A.2d at 1003–04. In so holding, the *Yarema* court emphasized that, despite there being no requirement to demosntrate physical injury, a plaintiff must show nonetheless that the defendant's interference with the plaintiff's property rights, tangible or intangible, is substantial in order to recover for nuisance. *Id.* at 151–52, 516 A.2d at 1004. Thus, mere diminution of property value, in the absence of a demonstrable tortious injury, is not sufficient to support a cause of action for nuisance. *Id.* at 151, 516 A.2d at 1004.

In order to get to the jury on their claimed cause of action in nuisance, therefore, Appellees without demonstrable contamination were obliged to establish that Exxon's tortious actions unreasonably and substantially interfered with their use and enjoyment of their properties. In *Yarema*, the court determined that the property owners demonstrated a substantial interference due to the "crippling restrictions" imposed on the property owners by Baltimore County government officials. 69 Md. App. at 153, 516 A.2d at 1005. Specifically, owners of contaminated and surrounding non-contaminated properties were forbidden from using their water, constructing homes, or selling their land. *Id.* Thus, the *Yarema* court distinguished the plaintiffs' injury from cases in which only the reputation of

the plaintiffs' land was harmed as a result of the defendant's actions, *see, e.g.*, *McGaw v. Harrison*, 259 S.W.2d 457, 458 (Ky. 1953) (a cemetery did not constitute a nuisance "merely because it is a constant reminder of death and has a depressing influence on the minds of persons who observe it, or because it tends to depreciate the value of property in the neighborhood, or is offensive to the aesthetic sense of the adjoining proprietor"); *Gray v. Southern Facilities, Inc.*, 183 S.E.2d 438, 445 (S.C. 1971) (no recovery for nuisance when the "claim for damages is predicated upon an asserted diminution in market value resulting, not from any physical injury, but from a psychological factor, in that prospective buyers allegedly would be reluctant to purchase the property due to the fear of a similar occurrence in the future"). *Yarema*, 69 Md. App. at 152–53, 516 A.2d at 1004–05.

Here, however, although there is no dispute that any interference with Appellees' properties by Exxon was unreasonable, there is little to suggest that Appellees with non-detect results experienced a substantial interference. Unlike the plaintiffs in *Yarema*, the gravamen of Appellees' complaints consist largely of relatively minor disturbances and stigma impacts that are not comparable to the severe restrictions placed on the *Yarema* plaintiffs. Although interference with the use and enjoyment of property, in the absence of physical impact, need not rise necessarily to the level of the restrictions in *Yarema* to constitute a nuisance, the disturbances reported in this case fall well on the opposite end of the continuum and are insufficient to maintain a nuisance action. For example, most non-detect Appellees complain primarily of using bottled water or Brita filters, entertaining in and about their homes less than expected, reducing the frequency of use of outdoor spaces, and

taking shorter showers and baths. Such Appellees were not deprived, however, of the use of significant portions of their property, nor was the availability of their properties for their customary uses impaired substantially.

Moreover, Appellees' adjustments in the use of their properties appear to derive not from Exxon's actual interference with their property, but rather from their fear of contamination and its possible impacts. In order to recover for nuisance, however, a plaintiff must establish that any adjustments he, she or it makes in the use of his, her, or its property as a result of the defendant's tortious conduct are objectively reasonable. *See, e.g.*, *Gorman*, 210 Md. at 159, 122 A.2d at 477 (noting that, to recover for nuisance, the disturbance alleged must be "offensive or inconvenient to the normal person"). As noted above in our discussion of fear of contracting cancer, however, these Appellees' fear of future contamination and resultant effects thus far is not objectively reasonable. They have no detected contamination, nor been advised that their water is unsafe for use. Unlike the plaintiffs in *Yarema*, Appellees have not received communication from governmental entities that would lead them to believe reasonably that alteration of water use is necessary to protect their health. Thus, in the absence of physical injury to real property resulting from Exxon's actions, Appellees must demonstrate more than modest adjustments in their use of their real property resulting from the leak in order to establish nuisance. Because this category of Appellees have not demonstrated that Exxon's interference with the use and enjoyment of their land was substantial, they may not recover damages for diminution in value of real property on the grounds that Exxon's actions constituted a nuisance.

c. Negligence and Strict Liability

The *Yarema* court concluded also that no proof of physical harm to property is required to recover under a negligence or strict liability theory.[94] 69 Md. App. at 153–55, 516 A.2d at 1005–06. In reaching this conclusion, the Court of Special Appeals relied principally on *Toy v. Atlantic Gulf & Pacific Company*, 176 Md. 197, 4 A.2d 757 (1939), where this Court considered whether a defendant could be held liable for negligence despite the absence of physical invasion of property. *Yarema*, 69 Md. App. at 155, 516 A.2d at 1006. In *Toy*, the plaintiffs sought recovery for the loss of water access and use of a carp pond on their property resulting from obstruction of a navigable creek following dredging operations performed by the defendant. We noted that, because the destruction of the creek "greatly diminished in value the property of the Plaintiffs, . . . [it] was the cause of a particular and special injury for which an action will lie," despite the lack of physical invasion of property owned by the plaintiffs. *Toy*, 176 Md. at 207, 4 A.2d at 763. Because plaintiffs had suffered damages as a result of the obstruction of the navigable creek – specifically, they could no longer access their property via boat, nor control the level of water necessary to sustain the carp in their pond – we determined that plaintiffs alleged a sufficient injury to land in order to recover, provided that they could establish a wrongful act

[94]The *Yarema* court noted that leaking underground storage tanks could support causes of action for negligence and strict liability because a leak "constitute[s] a breach of [Exxon's] duty to its neighboring landowners not to impair their ownership rights through water contamination," and "the placement of large underground gasoline tanks in close proximity to private residences and drinking wells constitutes an abnormally dangerous activity from which strict liability may flow." *Id.* at 153–54, 516 A.2d at 1005 (citing *Yommer v. McKenzie*, 255 Md. 220, 257 A.2d 138 (1969)).

on the part of the defendant.[95] *Id.* at 207–08, 4 A.2d at 762–63.

The alleged injury to the non-detect Appellees' properties here, however, is different in kind than that suffered by the plaintiffs in *Toy*. In *Toy*, the defendant's actions deprived the plaintiffs of substantial benefits of their property – specifically, their right of access by water and the use and enjoyment of the carp pond on their property. *Id.* at 207, 4 A.2d at 762–63. The non-detect Appellees here, however, have proven no analogous injury. In the absence of direct evidence of physical injury, Appellees must show more than a possibility of future contamination or mere annoyance in order to recover. Although we do not determine expressly that it need rise to the level of the interference in *Yarema* or *Toy*, there is insufficient evidence on which to base recovery for the non-detect Appellees on the record of this case. The diminution in real property value suffered by these Appellees is, without more, *damnum absque injuria* – a loss without legal injury.

4. Remaining Loss of Use and Enjoyment Awards

It appears to us that only four Appellees may maintain a claim for loss of use and enjoyment of real property: Amy Gumina, Van Ho, and Leslie and Timothy Tripp. Exxon conceded that it was liable to Ms. Ho and to the Tripp family for compensatory damages, but did not specify which type of damages.[96] Ms. Ho leased her property from a landlord, who

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[95]The plaintiffs in *Toy* were denied recovery ultimately, however, because plaintiffs could not demonstrate that defendant failed to take reasonable care in performing the dredging operations, nor did the facts support a cause of action for strict liability. *Id.* at 211, 214, 4 A.2d at 764–65.

[96]Because Exxon conceded liability to Ms. Ho and the Tripp family (while disputing (continued...)

was not a named plaintiff in either this case or *Ford*. Ms. Gumina and the Tripps, who have each sold their properties subsequent to the announcement of the leak, were owners of real property at the time of the leak and that tested positive for contamination during their period of occupancy in their properties. None of these four named Appellees claimed damages for diminution in value.

Exxon asserts that the loss of use and enjoyment awards are excessive and that the trial court should have granted its motion for a new trial and/or remittitur. We review the trial court's denial of a motion for a new trial and/or remittitur under an abuse of discretion standard. *Merritt*, 367 Md. at 28, 785 A.2d at 763. As we noted, we will reverse a trial court's denial of a motion for remittitur only where the verdict is "'grossly excessive' or 'shocks the conscience of the court.'" *Banegura v. Taylor*, 312 Md. 609, 624, 541 A.2d 969, 976 (1988) (citations omitted).

Compensatory damages awards "attempt to make the plaintiff whole again by monetary compensation." *Yarema*, 69 Md. App. at 137, 516 A.2d at 997. Although, as the Court of Special Appeals noted in *Yaffe v. Scarlett Place Residential Condo., Inc.*, determining damages for loss of use and enjoyment "must be flexible and based on the factual circumstances of each case," 205 Md. App. 429, 450, 45 A.3d 844, 856 (2012), such damages must also be capable generally of reasonable measurement, rather than purely speculative. *See McAlister v. Carl*, 233 Md. 446, 455, 197 A.2d 140, 145 (1963).

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[96](...continued)
expressly any fraud, fear of cancer, or medical monitoring claims), they may recover damages for loss of use and enjoyment, their sole remaining category of damages.

Although we recognize that an interest in property may be composed of a "bundle of rights" and is thus not determinate, *see Weems v. County Comm'rs*, 397 Md. 606, 618–24, 919 A.2d 77, 85–88 (2007) (discussing an individual's right to compensation "for the taking of . . . [a] 'stick' from [his or her] bundle of rights"), plaintiffs may not receive generally damages for loss of use and enjoyment of real property exceeding the pre-injury fair market value of the property. *See generally Regal Constr. Co. v. West Lanham Hills Citizen's Assoc.*, 256 Md. 302, 305, 260 A.2d 82, 84 (1970) (noting that restoration damages exceeding the pre-impairment value of the home are not permitted generally, but may be recovered only where the owner establishes a "reason personal for restoring the original condition"). Even though compensatory damages are intended to make the plaintiff whole, *see Sattler*, 102 Md. at 601, 62 A. at 1127; *Yarema*, 69 Md. App. at 137, 516 A.2d at 997, they are not intended to grant to the plaintiff a windfall as a result of the defendant's tortious conduct. Thus, an award for compensatory damages must be anchored to a rational basis on which to ensure that the awards are not merely speculative. *See McAlister*, 233 Md. at 455, 197 A.2d at 145 (noting, while considering a claim for loss of enjoyment of life, the difficulty in laying down a "hard and fast rule and to draw a clear and sharp line of demarcation between damages which are purely speculative and damages which are capable of some reasonable measurement"). In the context of damages for loss of use and enjoyment of real property, we determine that loss of use and enjoyment of real property cannot exceed the fair market, unimpaired value of the property at issue.

We affirm the awards for loss of use and enjoyment as to Ms. Gumina and Leslie and

Timothy Tripp. The fair market value of Ms. Gumina's unimpaired property was, as determined by Appellees' expert, $370,000. Ms. Gumina testified that, because her water made her skin itchy and had an odor that burned her nostrils, she showered at an alternate location, avoided consumption of her well water, and changed her gardening habits. Additionally, she testified that she could no longer maintain koi fish in her pond, and that her cooking pots and bathtub began to stain. Ms. Gumina received, for her approximately fourteen months' residency, $250,000 in compensatory damages for loss of use and enjoyment.

Similarly, Appellees' expert determined that the unimpaired value of the Tripps' property was $730,000. Mr. and Mrs. Tripp testified that, as a result of the gasoline leak, they used bottled water, stopped using their Jacuzzi and pool, stopped doing yardwork, showered outside for a time, and suffered from noise and odors relating to remediation activities. Mr. and Mrs. Tripp each recovered $350,000 in damages for loss of use and enjoyment, thus totaling $700,000 – $30,000 less than the unimpaired value of their home. Although Ms. Gumina and the Tripps' compensatory damage awards approach very nearly the unimpaired market value of their respective properties, they do not violate the standards discussed above. Thus, while acknowledging that Ms. Gumina and the Tripps resided in the contaminated properties for only limited amounts of time, we do not think the awards are unsupported by the evidence, nor do they shock this Court's conscience. Thus, we decline to substitute our judgment for that of the jury.

As to Ms. Ho, Exxon challenges the facial excessiveness of the award for loss of use

and enjoyment, although it admitted liability. Ms. Ho operates a nail and hair salon in a property located directly adjacent to the Jacksonville Exxon station. Ms. Ho provided no evidence regarding the unimpaired market value of her salon as an ongoing business,[97] and thus we do not have a rational basis, on appeal, upon which to determine whether her award was excessive. Moreover, Ms. Ho testified that the remediation efforts and related noise impacted negatively her business, and that the use of bottled water to provide service to her customers was extremely difficult in practice. Although difficult, she stated that it was necessary because some customers told her that they would no longer patronize her salon if she discontinued the use of bottled water. She testified that, following the announcement of the leak, her business has dropped off by an average of $3,000 to $4,000 per year, lost twenty to thirty percent of its customers, and required the addition of hair services and related investments (such as the purchase of appropriate chairs) to remain in business. Ms. Ho testified that she shortened her operating hours during the evening as a result of her fears of the men performing remediation activities nearby. Additionally, Ms. Ho testified that the testing of the POET system in her building was inconvenient, the nearby monitoring well was noisy, and that the area outside surrounding the Exxon station (and her adjacent business) was chaotic.

We determine that, in light of the evidence provided at trial, the $1.6 million loss of use and enjoyment award to Ms. Ho was too speculative and thus, denial of the request for

[97]Evidence produced at trial suggested that Ms. Ho paid approximately $590 per month in rent and associated costs for her salon space.

a new trial as to Ms. Ho's claim was an abuse of discretion. As noted above, awards for loss of use and enjoyment may not exceed the unimpaired market value of the property at issue. Without evidence of the pre-leak, unimpaired market value of the ongoing business of the salon operated by Ms. Ho, we cannot determine appropriately whether the jury's award was premised on a rational basis. Although we are sympathetic to the inconveniences suffered by Ms. Ho, an award of $1.6 million was not justified properly, based on the evidence of a discomfort, annoyance, and a $3,000-$4,000 per year loss in business. We therefore reverse her verdict and direct remand of her claim for a new trial.

B. Admissibility of Testimony of Dr. Kilpatrick to Establish Diminution in Value of Real Property

Exxon contends that the trial court admitted impermissibly the testimony of Dr. John Kilpatrick, Appellees' real property valuation expert witness. "[T]he admissibility of expert testimony is a matter largely within the discretion of the trial court and its action will seldom constitute ground for reversal." *Radman v. Harold*, 279 Md. 167, 173, 367 A.2d 472, 476 (1977). Thus, the admissibility of expert opinion "is within the sound discretion of the trial judge and will not be disturbed on appeal unless clearly erroneous." *Blackwell v. Wyeth*, 408 Md. 575, 618, 971 A.2d 235, 261 (2009) (quoting *Wilson v. State*, 370 Md. 191, 200, 803 A.2d 1034, 1039 (2002)); *see also Radman*, 269 Md. at 173, 367 A.2d at 476 ("[I]t is well settled . . . that the trial court's determination [regarding expert qualification] . . . may be reversed if it is founded on an error of law or some serious mistake, or if the trial court clearly abused its discretion."). Therefore, we must determine whether the trial court abused

its discretion in admitting the expert testimony of Dr. Kilpatrick.[98]

Expert testimony is required ordinarily to establish diminution in property value resulting from environmental contamination. *See Ford*, 204 Md. App. at 151, 241–42, 40 A.3d at 602, 654 (J. Eyler, J., concurring and dissenting in part, and Graeff, J., concurring); *Hous. Auth. of City of New Brunswick v. Suydam Investors, LLC*, 810 A.2d 1137, 1150 (N.J. Super. Ct. App. Div. 2002) ("[T]he effect of environmental contamination upon a property's value must be determined on the basis of expert appraisal evidence."), *aff'd in part and rev'd in part on other grounds*, 826 A.2d 673 (N.J. 2003). The admissibility of expert testimony is examined generally under Maryland Rule 5-702, which requires the court to make three determinations regarding an expert's opinion. Specifically, the court must determine that (1)

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[98]Exxon contends that Dr. Kilpatrick's testimony should have been disqualified under *Frye-Reed*, and that we should therefore apply a *de novo* standard of review. *See Wilson*, 370 Md. at 201 n.5, 803 A.2d at 1040 n.5 ("Appellate review of a trial court's decision regarding admissibility under *Frye-Reed* is *de novo* . . . ."). *Frye-Reed* is the Maryland test for determining the admissibility of expert scientific testimony. *See Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923) (articulating standard of "general acceptance in the relevant scientific community"); *Reed v. State*, 283 Md. 374, 391 A.2d 364 (1978) (adopting the *Frye* standard in Maryland). *Frye-Reed* applies only to expert opinion based on new and novel scientific techniques. *Montgomery Mut. Ins. Co. v. Chesson*, 399 Md. 314, 328, 923 A.2d 939, 946 (2007); *Clemons v. State*, 392 Md. 339, 364, 896 A.2d 1059, 1073 (2006); *Reed*, 283 Md. at 381, 391 A.2d at 368. As the Court of Special Appeals noted in *CSX Transportation, Inc. v. Miller*, *Frye-Reed* contemplates "new, and arguably questionable, techniques such as lie detector tests, breathalyzer tests, paraffin tests, DNA identification, voiceprint identification, as in the *Reed* case itself, and the use of polarized light microscopy to identify asbestos." 159 Md. App. 123, 187, 858 A.2d 1025, 1062 (2004).

Here, Exxon attempts to impose the strictures of *Frye-Reed* on the expert testimony of a real estate appraiser. Valuation of real property, however, is not the type of scientific expert opinion contemplated by the *Frye-Reed* test. *See id.* Thus, even though the trial court conducted a *Frye-Reed* hearing prior to accepting Dr. Kilpatrick as an expert witness, we determine that *Frye-Reed* does not apply here.

the witness is qualified as an expert by knowledge, skill, experience, training, or education; (2) the subject matter is appropriate for expert testimony; and (3) a sufficient factual basis exists to support the expert's opinion. Md. R. 5-702.

As the Court of Special Appeals noted in *Giant Food, Inc. v. Booker*, "simply because a witness has been tendered and qualified as an expert in a particular occupation or profession, it does not follow that the expert may render an unbridled opinion, which does not otherwise comport with Md. Rule 5-702." 152 Md. App. 166, 182–83, 831 A.2d 481, 490 (2003). Rather, an expert's opinion must be grounded in sufficient facts, such that it constitutes more than mere speculation or conjecture, and reflect the use of "reliable principles and methodology in support of the expert's conclusions." *Id.*; *see also CSX Transp., Inc.*, 159 Md. App. at 189, 858 A.2d at 1063 (noting that the third factor of Maryland Rule 5-702 encompasses the two sub-issues of sufficient factual basis and reliable methodology). Here, Exxon challenges the trial court's admission of Dr. Kilpatrick's expert testimony under only the third requirement, contending that (1) the methodology underlying his estimates as to diminution in value is unreliable (as reflected in Exxon's *Frye-Reed* challenge); and (2) the testimony lacked a sufficient factual basis because Dr. Kilpatrick failed to take into account actual comparable real estate sales in the area following the leak.[99]

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[99]Exxon did not object at trial to Dr. Kilpatrick's valuation methods as it relates to the following Appellee commercial properties: Dogwood Management, LLC; Klein Family Development Corp.; 14342 Jarrettsville Pike, LLC; 3313 Paper Mill Road, LLC; Jarrettsville Retail, LLC; 14231 Jarrettsville Pike, LLC; 14237 Jarrettsville Pike, LLC; 3422 Sweet Air Road, LLC; and, Lenore Zaccari/Lenore Zaccari Residual Trust (property at 3411 Sweet Air Road). Exxon does not challenge specifically on appeal the diminution in value awards to (continued...)

In developing his "impaired" valuation of Appellees' residential properties, Dr.

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[99](...continued)
these Appellees, and thus, with the exception of 14342 Jarrettsville Pike, LLC (reversed on other grounds as explained *supra*), those judgments are affirmed.

Exxon challenges on appeal, however, Dr. Kilpatrick's valuation of Appellee Klein's of Jacksonville ("Klein's"), which operated a grocery store on property owned by Appellee Klein Family Development Corp. at 14330 Jarrettsville Pike, and recovered damages for injury to its business based on a "forced liquidation theory." Exxon did not object to the admission of Dr. Kilpatrick's testimony before the trial court, but argued at trial that Dr. Kilpatrick's testimony as to Klein's was speculative, not supported by a factual basis, and should not be permitted to go to the jury.

Klein's opened for business in the years immediately preceding the subject gasoline leak, and remained unprofitable at the time of the leak (as was expected by Klein's, according to Dr. Kilpatrick's testimony). Dr. Kilpatrick testified that the proper valuation of Klein's was its liquidation value, or what the store would be worth to a prospective purchaser. Dr. Kilpatrick's "impaired" valuation was based on what he termed a "disorderly liquidation," in which there is no prospective purchaser due to the undesirability of locating in the Jacksonville area. Under Dr. Kilpatrick's theory, therefore, Klein's would be forced to sell off its fixtures and furniture in piecemeal form to prospective purchasers from outside the Jacksonville area, thus incurring additional costs.

Exxon argues that this methodology was based on the unfounded assumption that Klein's of Jacksonville would go out of business regardless of the existence of the leak, an assumption not supported by testimony from any Klein's representative or other evidence produced at trial. To the contrary, Dr. Kilpatrick acknowledged that unprofitability in the store's first few years of operation was anticipated by Klein's, and that, following the leak, revenues had increased approximately fifty percent. Because Dr. Kilpatrick's fundamental assumption – that Klein's would be forced to liquidate due to negative impacts resulting from the spill – was unsupported by any evidence offered at trial, we conclude that his opinion lacked a sufficient factual basis. Thus, because Dr. Kilpatrick's testimony had no probative force as to the valuation of the business, and Klein's offered no additional evidence in support of its claim for damages, the trial judge erred in submitting the claim to the jury. *See Giant Food*, 152 Md. App. at 182, 831 A.2d at 490 ("No matter how highly qualified the expert may be in his field, his opinion has no probative force unless a sufficient factual basis to support a rational conclusion is shown." (quoting *State Dep't of Health v. Walker*, 238 Md. 512, 520, 209 A.2d 555, 559 (1965))). Therefore, we reverse the judgment for "loss of liquidation value" as to Klein's of Jacksonville.

Kilpatrick used three primary methods: (1) meta-analysis derived from an article published by Dr. Robert Simons; (2) case studies, including jury verdicts and settlements from around the country (including *Ford*);[100] and (3) a contingent valuation telephone survey designed by Dr. Simons, in which respondents were asked what they would be willing to pay for a hypothetical house with MTBE well water contamination. Dr. Kilpatrick did not rely on comparable sales data, despite numerous sales of residential properties in the relevant Jacksonville area following the announcement of the leak, opining that the market was unreliable and the buyers uninformed perhaps. Thus, Dr. Kilpatrick concluded, as a blanket proposition, that each of the Appellees' properties suffered a 60% permanent diminution in value as of 16 February 2006 – regardless of the distance of the property from the emanating gasoline station[101] and whether, and in what amount, the wells on the properties tested positive for MTBE or benzene contamination. Exxon contends that Dr. Kilpatrick's methodology was faulty, and claims that he should have considered the comparable sales data of the nearly 180 real estate sales that occurred in Jacksonville between the leak and

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[100]Dr. Kilpatrick's case study methodology considered summaries of settlements or jury verdicts in seven trials that involved claimed property damage due to groundwater contamination. One of these seven trials was *Exxon Mobil Corp. v. Ford*, in which the jury was permitted to find that some of the plaintiffs' homes were valueless. Although we recognize, assuming that the case study methodology is an appropriate valuation technique, that the data generated in *Ford* is likely most relevant as it concerns the same community, we do not think it appropriate to base valuation conclusions on jury awards that are not yet final because of a contemporaneously pending appeal.

[101]Dr. Kilpatrick testified that proximity was, in essence, the same for each and every plaintiff in this case, and thus an irrelevant factor, because every Appellees' property sits atop the same aquifer that experienced MTBE contamination.

2008.[102] We agree with Exxon's points. Because we determine that Dr. Kilpatrick's methodology was faulty, for failing to consider comparable sales data, we do not consider here the validity of the use of the three alternative methods utilized in his report.

Appraisals of fair market value are the most common method of establishing the value of real property. Comparable sales are often utilized in determining fair market value, and "ha[ve] long been accepted in Maryland." *Bern-Shaw Ltd. P'ship v. Mayor & City Council of Balt.*, 377 Md. 277, 289, 833 A.2d 502, 509 (2003) (citing *Brinsfield v. Mayor & City Council of Balt.*, 236 Md. 66, 202 A.2d 335 (1964)). While Maryland law does not compel the use of comparable sales data, to the exclusion of all other methodologies, a real estate appraisal expert must proffer a reasonable justification for ignoring market data where it is available. Here, there was ample actual market data from which a valuation opinion (baseline or otherwise) could have been made, had Dr. Kilpatrick chosen to use it. Any adjustments could have been explained and justified. Thus, to discard market data, Dr. Kilpatrick had to provide a reasonable justification explaining the unsuitability or unreliability of the comparable sales data in the Jacksonville area.

Dr. Kilpatrick did not discard the use of comparable sales data generally. In fact, he measured the value of plaintiffs' properties prior to the leak using actual transactional data. He opined, however, that the post-leak value of the properties at issue could not be calculated

[102]Dr. Kilpatrick acknowledged the existence of the sales in his testimony, and even noted that he deemed 100 of these sales to be relevant to valuing the contaminated properties. He did not consider them, however, in calculating his impaired values. These sales reflected, as a general proposition, an approximately seven percent diminution in value.

principally using comparable sales data because of the inherent unreliability of the comparable sales data in the post-leak Jacksonville community. In trying to establish this unreliability, Dr. Kilpatrick's report advanced a nuanced distinction between "market value" and "market price." Specifically, Dr. Kilpatrick stated that market value represents the true value of the property where the buyer and seller possess perfect and utterly complete information. Market price, by contrast, does not necessarily reflect perfect information. Because of the possibility that the buyer may be uninformed, Dr. Kilpatrick asserts that the market price of real estate reflects an artificial inflation over the market value. Here, Dr. Kilpatrick determined that the transactional data could not be relied upon because the sales in Jacksonville represented the market price, rather than the market value, stating that "disclosure of the ExxonMobil spill, and the risks of latent defects stemming from that spill, is not occurring in a reasonable fashion. The lack of information to buyers is creating market inefficiencies and thus sales transactions that do not represent market value."

Dr. Kilpatrick based his assessment of unreliability on informal interviews and surveys of real estate agents. These interviews, however, belie Dr. Kilpatrick's assertions. The surveyed real estate agents noted the difficulties in closing sales in the Jacksonville real estate market subsequent to announcement of the leak. Specifically, these agents noted that some buyers stayed away from the area surrounding the spill, with buyers refusing to "even look at the house because of the spill," or "look and then decide it's just too much to deal with." Other agents noted that prices were reduced dramatically in order to complete a sale; that disclosure forms were given to prospective purchasers; and in most cases, water tests

were performed prior to the sale of residential properties in the Jacksonville area. Additionally, surveys of real estate mortgage lenders suggested that some financial institutions would not even agree to finance the purchase of a property with actual groundwater contamination.[103] Taken together, these interviews and surveys suggest, contrary to Dr. Kilpatrick's assertions, that individuals in the Jacksonville real estate market were, in fact, informed regarding the leak, and that such information made it significantly more difficult to complete a sale; yet, there were nearly 180 sales after the leak was made public.

The statements of the real estate agents are relevant to the amount of diminution in value of properties in the Jacksonville area, but do not provide an acceptable or sufficient factual basis for Dr. Kilpatrick's conclusion that the sales that occurred were unreliable. An expert's opinion "is of no greater probative value than the soundness of his reasons given therefor will warrant." *Surkovich v. Doub*, 258 Md. 263, 272, 265 A.2d 447, 451 (1970). Not only do the interviews and surveys of real estate agents and the testimony of the homeowners contradict Dr. Kilpatrick's proffered justifications for ignoring comparable sales data, but the level of speculation attendant to that conclusion is, as the United States District Court for the Northern District of California noted in reviewing Dr. Kilpatrick's proposed testimony in another case, "serious[ly] concern[ing]." *Palmisano v. Olin Corp.*, No. C-03-01607 RMW, 2005 U.S. Dist. LEXIS 48005, at *16 n.5 (N.D. Cal. July 5, 2005). Dr.

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[103]One lender stated that many banks "stay away from lending on property near gas stations" as a general proposition.

Kilpatrick testified that he does not know when, if ever, the "market price" will reflect the sixty percent diminution in "market value" that he concludes the properties suffered. As we have noted, however, fair market value is the highest and best price at which a prospective buyer and a prospective seller will agree for the sale of a given property. *See* Md. Code (1974, 2010 Repl. Vol.), Real Property Article § 12-105(b). Thus, even if we accepted, for the sake of argument, Dr. Kilpatrick's theory that prospective purchasers are ill-informed regarding the Jacksonville Exxon leak, the market prices represented by actual sales in the community still represent the highest and best price for the property – even if the buyers are paying, as Dr. Kilpatrick asserts, too much. Allowing the plaintiffs to recover damages for a hypothetical and speculative diminution in market value that may never materialize is to permit them a potential double recovery – "[i]f plaintiffs could recover for a decline in value that had not yet been reflected in prices, they could sell their homes immediately and receive a windfall: damages for as-yet unrealized diminution in value plus the full market price." *Palmisano*, 2005 U.S. Dist. LEXIS 48005, at *16 n.5. Dr. Kilpatrick's disregard of the existence of an actual, functioning market – no matter how skewed – was clear error. Because the trial court's admission of Dr. Kilpatrick's testimony was clear error, we reverse the jury awards for diminution in value as to all Appellees and direct remand for a new trial.

JUDGMENTS OF THE CIRCUIT COURT FOR BALTIMORE COUNTY FOR FRAUD IN FAVOR OF ALL APPELLEES REVERSED; JUDGMENTS FOR PUNITIVE DAMAGES IN FAVOR OF ALL APPELLEES REVERSED; JUDGMENTS FOR EMOTIONAL

DISTRESS FOR FEAR OF CONTRACTING CANCER IN FAVOR OF ALL APPELLEES REVERSED, EXCEPT THAT THE CLAIM OF APPELLEE GLORIA QUINAN IS VACATED AND REMANDED TO THE CIRCUIT COURT FOR A NEW TRIAL NOT INCONSISTENT WITH THIS OPINION; JUDGMENTS FOR MEDICAL MONITORING IN FAVOR OF ALL APPELLEES REVERSED; JUDGMENTS FOR EMOTIONAL DISTRESS FOR FEAR OF LOSS OF PROPERTY VALUE IN FAVOR OF ALL APPELLEES REVERSED; JUDGMENTS FOR LOSS OF USE AND ENJOYMENT IN FAVOR OF APPELLEES AMY GUMINA, LESLIE TRIPP, AND TIMOTHY TRIPP AFFIRMED; JUDGMENT FOR LOSS OF USE AND ENJOYMENT IN FAVOR OF APPELLEE VAN HO REVERSED AND REMANDED TO THE CIRCUIT COURT FOR A NEW TRIAL NOT INCONSISTENT WITH THIS OPINION; JUDGMENTS FOR LOSS OF USE AND ENJOYMENT IN FAVOR OF ALL OTHER APPELLEES REVERSED; JUDGMENTS FOR DIMINUTION IN VALUE OF REAL PROPERTY IN FAVOR OF APPELLEES DAVID AUSTIN, EMILY AUSTIN, PATRICIA BATEMAN, JON BLUM, TRACY BLUM, MARGARET BROWN, LOUISE BULL, ADRIANE BURKE, LLOYD BURKE, BARI JO BURNETT, CARLO CAPIZZI, FRANCA CAPIZZI, PHILIP CAPRON, SUSAN CAPRON, LLOYD CLARK, JOAN

CLARK, SHARON DORSCH, WILLIAM DORSCH, DARYL DUTROW, JENNIFER DUTROW, CHRISTOPHER EASTON, MONIQUE EASTON, BRUCE ELLIOTT, CHRIS FEDERICO, TRACY FEDERICO, CLEVER FONSECA, DENISE FONSECA, MARIANNE FRATTAROLA LIVING TRUST, ANN FULLER, STANLEY FULLER, MARY PAT GOODHUES, HEATHER HUEY, MICHAEL HUEY, DOROTHY HYMAN, RICHARD HYMAN, KENNETH KELLY, STEPHANIE KELLY, LEONARD KENNEDY, MARGARET KENNEDY, PAUL KING AS PERSONAL REPRESENTATIVE FOR KATHERINE KING, MARK KIRKWOOD, NANCY PUGLIESE, ELLEN KOERNER, HENRY KOERNER, DONNA LAWRENCE, ROBERT LAZZARO, NIKOLAOS MAKRIS, VALERIE MAKRIS, JOHN MATRA, MARY MATRA, KIRK MCCLEARY, MARY MCCLEARY, PAMELA MORGAN, RONALD MORGAN, DENISE MOSS, GREGORY MOSS, KATHLEEN NAUGHTON, TIM NAUGHTON, GREGORY NAYLOR, SUSAN NAYLOR, DONALD NEMER, KELLI NEMER, JOANNE O'CONNELL, ANITA PODLES, THOMAS PODLES, CYNTHIA POPOMARONIS, WILLIAM POPOMARONIS, MARY KATHRYN PROEFROCK, SCOTT PROEFROCK, EDNA RUDELL, PAUL RUDELL, RICHARD RUDELL, ALAN SAEVA, ELLAINE SAEVA, JOSEPH SCHMITZ, SUSAN

SCHMITZ, ERNEST SESSA, PAULA SESSA, NATALIE SHIELDS, BRUCE STUMPP, NORMA STUMPP, CHESTER TOKARSKI, MARILYN TOKARSKI, CHRISTY WHALEY, NEIL WHALEY, HANS WILHEMSEN (AWARDS FOR PROPERTIES LOCATED AT 13707, 13729, AND 13821 JARRETTSVILLE PIKE), JEAN WIMMER, PAUL WIMMER, CHRISTOPHER GARLISS/ HIGHPOINT HOMEBUILDERS, INC., KLEIN'S OF JACKSONVILLE, AND 14342 JARRETTSVILLE PIKE, LLC REVERSED; JUDGMENTS FOR DIMINUTION IN VALUE OF REAL PROPERTY IN FAVOR OF DOGWOOD MANAGEMENT, LLC, KLEIN FAMILY DEVELOPMENT CORP., 3313 PAPER MILL ROAD, LLC, JARRETTSVILLE RETAIL, LLC, 14231 JARRETTSVILLE PIKE, LLC, 14237 JARRETTSVILLE PIKE, LLC, 3422 SWEET AIR ROAD, LLC, LENORE ZACCARI/LENORE E. ZACCARI RESIDUAL TRUST AFFIRMED; JUDGMENTS FOR DIMINUTION IN VALUE OF REAL PROPERTY IN FAVOR OF ALL OTHER APPELLEES REVERSED AND REMANDED TO THE CIRCUIT COURT FOR A NEW TRIAL NOT INCONSISTENT WITH THIS OPINION. COSTS IN THIS COURT TO BE DIVIDED PRO RATA BY APPELLEES.