06/20/03 "See News Release 045 for any dissents and/or concurrences

SUPREME COURT OF LOUISIANA

No. 02-C-0826

WILLIAM G. CORBELLO, ET AL.

VERSUS

IOWA PRODUCTION, SHELL OIL COMPANY, SHELL WESTERN E & P, INC., ET AL.

On Writ of Certiorari to the Court of Appeal, Third Circuit, Parish of Calcasieu

PER CURIAM

Rehearing granted in part for the sole purpose of clarification, otherwise denied.

This court granted a partial rehearing to clarify our views on the required burden of proof in environmental pollution cases, which remains proof by a preponderance of the evidence.

In applying for a rehearing, Shell focuses on the following highlighted language to state that damage to the Chicot Aquifer was speculative:

> The court of appeal reviewed the expert testimony of both sides on the issue of the threat to the Chicot Aquifer and concluded that the jury was not manifestly erroneous in accepting the testimony of plaintiffs' expert, Mr. Arabie. As did the court of appeal, we find Mr. Arabie's testimony persuasive. As we previously stated, Mr. Arabie's investigation was extensive. In his opinion, the contamination of the property poses a threat to the Chicot Aquifer. He explained that because of the depth of the contamination and the nature of the clays between the contamination and the aquifer, contamination may travel into the aquifer. Mr. Arabie also testified that Shell's expert, Mr. Deuel, agreed in deposition that it was possible the drinking water source might be contaminated. [Emphasis supplied.]

Corbello v. Iowa Production, 2002-2826, pp. 13-14 (La. 2/25/03), ____ So.2d ___.

Contrary to Shell's argument, the few sentences quoted above should not be seized upon, now or in future cases, as allowing compensation if the harm done is only potential, as opposed to actual harm. Proof of actual damages by a

preponderance of evidence is required to be entitled to compensation for environmental damages. In this matter, the plaintiffs met their evidentary burden and established Shell polluted their property and established the amount of compensation necessary to remediate the property. The plaintiffs also established that this contamination posed a substantial risk to the aquifer.

The evidence in this case clearly supports a conclusion by the jury that the groundwater beneath the plaintiffs' property was polluted by Shell. Thus, an award for restoration, including the $28 million for clean-up of the groundwater, was within the jury's discretion. The further fact that the pollution was a threat to the Chicot Aquifer was merely one factor in the plaintiffs' case; it was not an essential element of plaintiffs' cause of action for actual damage to the property by pollution.

Nevertheless, because the threat to the Chocot Aquifer was an issue presented to the jury, we reiterate that plaintiff's expert on restoration, Austin Arabie, was of the opinion that "the contamination of the property poses a threat to the Chicot Aquifer." ***Id.***

A persuasive portion of Mr. Arabie's expert testimony informed the jury of his examination of Shell's own tests and reports, which evidence was unrefuted by Shell. Shell's 1984 report showed soil samples with thirty-five percent hydrocarbons, which is significantly excessive in light of the state regulation that allows only one percent oil field waste to be left on the site. Later, Shell's 1991 report was consistent with the earlier one, and the soil samples also showed a high level of salts. The state's limit of electrical conductivity in the soil, an indicator of the presence of salt, is four, but Shell's soil samples revealed a level of thirty.

Early use by Shell of unlined pits resulted in saltwater seeping through the ground into the soil.[1]

Environmental expert Dr. Lloyd Deuel was employed by Shell to analyze soil samples and groundwater samples prior to trial, but he was not called as a witness by Shell despite his presence at trial. Dr. Deuel found the groundwater contained benzene contamination higher than former standards and also higher than more lenient newer standards. He also found the samples exceeded DEQ's established, initial screening limits for heavy metals. Consistent with his reports that do not rule out drinking water contamination, Dr. Deuel agreed it was possible that drinking water sources, such as wells in the area, might be contaminated from the oilfield waste he found, such as benzene, cadmium, silver, lead, and other toxic poisons, substances different from oil, grease, or salt. Unexplainably, Dr. Deuel testified at deposition that he would wait until someone complained before taking any action to address the groundwater contamination.

In addition to showing a history of overflows and seepage from the pits, Shell's records reveal that in the 1970's, its two injection wells for saltwater disposal evidenced underground leakage and "communication" at a site where the aquifer is 120 to 130 feet underground. When Shell pumped saltwater into one injection well, it came out at the other injection well; the saltwater had to pass through the Chicot Aquifer or through the sands and clays immediately above the aquifer.[2]

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[1] The state regulatory agencies began requiring lined pits because it became apparent unlined pits would leak into the groundwater.

[2] Mr. Arabie testified the clays in the area are "fractured," analogous to a dried-up mud puddle, which allows water to seep through. Thus, the Chicot Aquifer is vulnerable to groundwater contamination moving through the fractured clays.

At trial, Mr. Arabie explained that at his deposition he answered he could not say the aquifer was contaminated by the groundwater because he was asked to eliminate the evidence of the leaking injection wells from his consideration.

Plaintiffs' expert, Mr. Arabie, took samples from various locations on plaintiffs' property which showed significant groundwater contamination, although the full extent of it has not been documented. The salt content at 20 to 21 feet was 100 times greater than what would occur naturally in the soil, almost like seawater, and salt pollution can last for hundreds of years. Although drinking water wells are typically 200 feet deep, the Chicot Aquifer is from 120 to 130 feet underground, but it could be as high as 50 to 70 feet beneath this particular property. Studies have been made of the chlorides (salt) in the Chicot Aquifer, and the studies show a surprisingly high amount of chlorides in the Iowa Field, the site of the plaintiffs' property. Thus, Mr. Arabie is of the opinion the contamination of plaintiffs' property should be taken very seriously as an explanation of the increased salt in the aquifer. In the areas where groundwater beneath plaintiffs' property leaches to lower levels, it would carry the contamination to the aquifer.[3]

Mr. Arabie concluded that the subsurface communication of the two injection wells, considered together with the high salt level of the Chicot Aquifer at this location, was "significant evidence" that the aquifer is contaminated below the plaintiffs' property. Mr. Arabie, who has been involved in actual cases of the Chicot Aquifer being remediated, summarized: "We know right now that the water 10 to 12 feet is contaminated. We know that the water at 22 to 24 feet is contaminated. There's also another water zone at a little more than 50 feet that hasn't been investigated yet. ... Shell's contractors drill[ed] to it, but they didn't sample it to see if it was contaminated. ... [T]hat may be contaminated because the fractured clays are right above that, and it's not unusual to see that zone contaminated ... at least down to 50 feet."

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[3] Further, the benzene content of the groundwater beneath plaintiffs' property is excessive, as found by Shell's expert, and as confirmed by Mr. Arabie's sampling.

Thus, there is sufficient evidence and adequate proof that the groundwater was contaminated and that the groundwater contamination beneath the property of the plaintiffs invaded the aquifer: proof of higher salt concentrations within the aquifer which the expert testified were probably from the salt water injection wells, not from the Gulf of Mexico; fractures in the clays allowing communication; Shell's own records indicating communication between the two injection wells at a depth of 95 feet.

The threat to the aquifer is real; the pollution on the plaintiffs' property is undisputable. The damage award is to clean the plaintiffs' property in order to prevent the pollution from further migrating into the aquifer. Regardless of who owns the groundwater, it is the pollution left on plaintiffs' property by Shell which is the source of contamination of the aquifer.