

## **FROM WASTE TO WEALTH: CACTUS WATER SERVICES V. COG OPERATING AND THE COMING STORM OF PRODUCED WATER LITIGATION**

In one of the most anticipated cases of 2025, the Texas Supreme Court's decision in *Cactus Water Services, LLC v. COG Operating, LLC*, No. 23-0676, resolves—on its face—a straightforward question of first impression: who owns produced water when an oil and gas lease doesn't expressly address it? The Court delivered its answer with unusual speed following oral argument: the mineral lessee, not the surface owner. In essence, the Court held that produced water is a waste byproduct of oil and gas production, necessarily included in a mineral lease unless it expressly states otherwise.

But any practitioner who reads only the majority opinion and considers produced water to be an issueless settled matter is making a serious mistake.

Justice Busby's concurrence, joined by Justices Lehrmann and Sullivan, tells a different story. It's a roadmap of unresolved issues that many believe will spawn a new wave of oil and gas litigation in Texas. The concurrence makes clear that, although the *Cactus* opinion answers that one narrow question, the Court deliberately avoided a host of thornier issues lurking just beneath the surface, such as related royalty obligations, rights to lithium extraction and beneficial reuse, and the very nature of the parties' relationship when technology and markets evolve such that this "waste" becomes wealth.

For some, *Cactus* is not the end of produced water disputes. It's the beginning.

### **THE TRANSFORMATION OF A BURDEN INTO A BONANZA**

To understand why this case matters, you need to understand the seismic shift that's occurring in how the industry views produced water. For over a century, produced water was simply waste—an expensive, hazardous byproduct that operators were legally obligated to dispose of properly. For example, in *Cactus*, COG Operating spent \$21 million disposing of 52 million barrels of produced water between December 2018 and March 2021 alone. Operators viewed that as pure loss; or the cost of doing business in the oilfield.

But technology is rapidly changing that calculus. Produced water can now be treated and recycled for use in subsequent fracking operations. It can be mined for critical minerals like lithium. Companies like Element3 have successfully extracted lithium from Permian Basin produced water, transforming what was once a disposal problem and cost into a potential profit center. Some landowners have begun to contract around produced water, not for waste management, but with an eye toward new revenue streams.

This is where the litigation begins.

### **THE SUPREME COURT'S HOLDING: PRODUCED WATER AS INCIDENTAL WASTE**

The facts of *Cactus Water* are straightforward. Between 2005 and 2014, COG Operating acquired four oil and gas leases covering approximately 37,000 acres in Reeves County. Some leases granted COG the right to explore for, produce, and keep "oil and gas" and others "oil, gas,

and other hydrocarbons.” None went further to describe “other minerals,” or produced water, or even oil and gas waste. And three of the leases set out expressly prohibitions on COG’s use of water.

Years later, in 2019 and 2020, Cactus came along and acquired “produced water lease agreements” from the surface owners, purporting to cover all right, title, and interest to “water from oil and gas producing formations and flowback water produced from oil and gas operations” on the same lands covered by COG’s leases. When Cactus notified COG that it now owned the produced water, COG sued for a declaratory judgment. The trial court and appellate court sided with COG.

The Supreme Court affirmed that COG, the mineral lessee, owned the produced water. Justice Devine’s majority opinion rests on several key principles. First, the Court emphasized that “produced water is an inherent and inescapable byproduct of oil-and-gas production. Hydrocarbons cannot be extracted without simultaneously generating liquid waste, and production cannot continue without disposing of this hazardous—sometimes toxic—solution.”

Second, the Court held that Texas law has “long recognized that the hydrocarbon producer’s possession and control over the disposition of liquid-waste byproduct is necessarily incidental to, and therefore encompassed in, a conveyance of oil-and-gas rights.” The Court relied heavily on statutory and regulatory definitions that classify produced water as “oil-and-gas waste” and on longstanding industry practice placing disposal obligations squarely on operators.

Third—and this is critical—the Court rejected Cactus’s argument that produced water is simply “water” that belongs to the surface estate. While acknowledging that produced water “contains molecules of water, both from injected fluid and subsurface formations,” the Court held that “the solution itself is waste—a horse of an entirely different color.” The Court distinguished cases like *Robinson v. Robbins Petroleum Corp.*, 501 S.W.2d 865 (Tex. 1973), which had previously held that brine remained water belonging to the owner of the surface estate notwithstanding its salt content. The Court distinguished *Robinson* on grounds that it involved saltwater extracted from a dedicated water well and used for flooding operations, whereas produced water was liquid waste generated from hydrocarbon production. The Court emphasized that produced water is subject to a specialized regulatory scheme unique to oil-and-gas waste, further distinguishing it from the groundwater at issue in *Robinson* and similar cases.

Fourth, the Court emphasized that the conveyances must be interpreted as of the time they were executed, not through a modern lens informed by new technologies. The parties contracted at a time when produced water was understood to be burdensome waste requiring disposal. “Courts cannot employ a backward-looking construction of the conveyances that is informed by new technologies offering the potential for recycling and reuse that were not within the parties’ contemplation at the time of the conveyances.”

Finally, the Court held that if surface owners want to retain ownership of produced water, “the reservation or exception from the mineral conveyance must be express and cannot be implied.” Because the leases here contained no such express reservation, COG owns the produced water.

The majority opinion provides a bright-line rule: absent express language to the contrary, produced water goes with the minerals. Many operators saw this as a significant victory. For surface owners and would-be produced water entrepreneurs like *Cactus*, it could be a setback. But, as Justice Busby's concurrence illustrates, those viewpoints may not be absolute.

### **JUSTICE BUSBY'S CONCURRENCE: THE DEVIL IN THE DETAILS**

Here is where sophisticated practitioners have paid attention. Justice Busby, joined by Justices Lehrmann and Sullivan, wrote separately to emphasize that the majority opinion is narrow, and to highlight several outstanding potential issues the majority did not decide.

#### *Semantics: Words Matter*

Notably, Justice Busby deliberately uses different terminology throughout his concurrence. While the majority consistently refers to "produced water," Justice Busby repeatedly uses the term "produced groundwater" and "groundwater produced with hydrocarbons." This semantic choice is significant because it characterizes the substance as groundwater that happens to be produced alongside hydrocarbons, rather than as a waste byproduct that happens to contain water molecules. The distinction may seem subtle, but it is a distinction that could influence how future courts analyze related ownership and compensation questions.

#### *The Default Rule: Freedom to Contract*

Justice Busby's first point is foundational: the Court's holding "merely represents the default rule" and "parties are free to contract differently." This may seem obvious, but it's critical. The Court did not hold that produced water *must* belong to the operator as a matter of law. It held that, *absent express language*, produced water is included in a hydrocarbon conveyance. So sophisticated parties, going forward, may intentionally and expressly cover produced water in their agreement.

But what about the tens of thousands of existing leases that don't expressly address produced water? That is where the litigation begins.

#### *A Big Distinction: "Oil and Gas" vs. "Oil, Gas, and Other Minerals"*

Justice Busby's second point is crucial and could drive significant litigation. The leases at issue in *Cactus Water* conveyed rights only to "oil and gas" or "oil, gas, and other hydrocarbons." Busby's concurrence states that the majority opinion "does not apply to the production of any unleased minerals or those incidental to the leased minerals (i.e., minerals in addition to 'oil and gas' or 'oil, gas, and other hydrocarbons')."

Think about that. Most lease forms cover "oil, gas, *and other minerals*." If you acquired such a lease, do you now own the lithium possibly dissolved in the produced water? Busby specifically flags this as an open question. The majority expressly noted this in a footnote, stating "[w]e express no view regarding ownership of any nonhydrocarbon minerals included in liquid-waste byproduct, as no such substances are in dispute here."

This distinction is going to matter—a lot. Lithium is a mineral, not a hydrocarbon. If an operator holds a lease granting “oil, gas, and other minerals,” there’s a plausible argument that lithium extraction rights were included in that conveyance. But if the lease grants only “oil and gas” or “oil, gas, and other hydrocarbons,” there’s a plausible argument that lithium extraction is outside the scope of the grant.

The Texas Legislature tried to address this issue earlier in 2025 with proposed legislation (SB 1763) that would have classified minerals contained within brine as part of the mineral estate. Significantly, the bill defined “brine” to specifically *exclude* groundwater, surface water, and produced water. This exclusion suggests the Legislature recognized that produced water occupies a different legal category than other brine sources—a distinction that could be relevant in future statutory interpretation arguments. The bill ultimately stalled and failed.

That legislative failure, combined with the majority’s express reservation of the issue, sets the stage for significant future litigation over who owns lithium and other minerals in produced water. Expect to see discovery battles over the composition of produced water, expert testimony about whether lithium should be classified as incidental to oil-and-gas production, and sophisticated arguments about whether direct lithium extraction (DLE) technologies constitute “production” of minerals or something else entirely.

#### *Financial Obligations: The Royalty Question*

Busby’s third point is perhaps most explosive: “The Court does not address the mineral lessee’s obligation to a landowner for the groundwater produced with the hydrocarbons.” He then poses a series of questions that could foretell an onslaught of future royalty litigation:

- Will the lessee owe royalties on the produced water it now owns?
- If so, how should the parties account for those royalties?
- What about when produced water is sold for beneficial reuse rather than disposed of?
- How should the parties account for any profit or loss realized from beneficial reuse or disposal?

These are not mere hypotheticals. Consider the economics. COG spent \$21 million disposing of 52 million barrels of produced water (roughly 40 cents per barrel). But if COG could instead *sell* that produced water for beneficial reuse at, say, 50 cents per barrel, that’s a \$26 million swing—from a \$21 million cost to a \$5 million profit. Do mineral owners with a lease providing royalties on “oil, gas, and other hydrocarbons” get a royalty on that profit? Under what theory?

And it gets more complicated. Suppose COG can treat and reuse produced water on-site for \$25 million, compared to the \$21 million it was spending on disposal. That’s a \$4 million economic loss. Does the mineral owner share in that loss through reduced royalties on hydrocarbons? Or is waste management purely an operational expense that doesn’t affect royalty calculations?

Consider another complication. What if COG were to spend \$10 million on treating and handling the produced water, and then sells the treated water for \$1 million? That would be an

overall loss of \$9 million, but still much better than \$25 million in disposal costs. Would the mineral owner be entitled to a royalty on the water sales, even though it was a net loss, and even though it was an alternative to the substantial disposal costs?

These questions have no bright-line answers, and the *Cactus Water* majority opinion doesn't attempt to provide them.

### *Implied Covenants and the Duty to Manage*

Busby's concurrence also hints at implied covenant issues that could spawn an entirely separate line of litigation. If the mineral lessee now "owns" the produced water and has the exclusive right to its "possession, custody, control, and disposition," what implied duties does that create, if any?

Traditional implied covenants in oil and gas leases include the duty to reasonably develop the lease, the duty to protect the lease, and the duty to market. Could there now be an implied covenant to maximize the value of produced water? If beneficial reuse technology exists that would generate more value than disposal, does the operator have an obligation to pursue it?

Consider the scenario where an operator continues to dispose of produced water at a cost of \$0.40 per barrel when a produced water recycling company might pay \$0.50 per barrel. If the operator owes royalties on produced water sales (a question Busby leaves open), does the operator breach an implied covenant by disposing rather than selling?

Conversely, if the operator *doesn't* owe royalties on produced water, does it have any obligation whatsoever to maximize its value or to avoid disposal costs? Or can the operator dispose of it however it sees fit, regardless whether it could be monetized? How might that analysis impact other implied covenants, given that they can depend on overall profitability.

The majority doesn't answer these questions. But they're there, waiting for creative litigators.

### *House Bill 49: A Legislative Band-Aid on a Gaping Wound*

While the *Cactus* litigation was pending, the Texas Legislature was paying attention. On June 20, 2025—just one week before the Supreme Court issued its opinion—Governor Abbott signed House Bill 49 into law.

H.B. 49 provides broad liability protections to companies that sell produced water. As of September 1, 2025, companies selling produced water can only be sued for gross negligence, failure to comply with applicable laws and standards, and other wrongful acts. Critically, the law also creates a handling-and-discharge permitting system overseen by the Texas Commission on Environmental Quality (TCEQ). While the Railroad Commission of Texas (RRC) traditionally holds regulatory oversight over oil and gas waste, H.B. 49 consolidates regulatory authority over produced water beneficial reuse under the TCEQ. The TCEQ will develop rules and effluent standards for the treatment and beneficial use of produced water, including permits for discharge and land application. Lawmakers anticipate this will streamline the permitting process for businesses seeking to monetize produced water, though it also fragments regulatory oversight

between two agencies depending on whether the produced water is being disposed of (RRC jurisdiction) or beneficially reused (TCEQ jurisdiction).

This legislation is significant, but it doesn't resolve the many questions left open by *Cactus*. In fact, H.B. 49 might make some of these disputes more likely. By providing liability protections and establishing a regulatory framework for produced water sales, the Legislature has effectively greenlighted a produced water market. As that market develops and operators increasingly view produced water as a revenue source rather than a disposal cost, the economic stakes increase, and the litigation will follow.

### **PRACTICAL IMPLICATIONS**

Based on *Cactus* and Justice Busby's concurrence, operators should expect a wave of produced water litigation over the next several years. The disputes will likely fall into three categories, each requiring different preparation.

#### *Category One: Lease Interpretation Disputes*

The *Cactus* default rule will generate years of litigation over whether specific lease language deviates from it—much like the steady stream of cases following *Van Dyke v. Navigator Group*, where parties continue arguing their deed language deviates from that default rule for double-fraction royalty deeds.

Review your entire lease portfolio, not just granting clauses. *Cactus* tells us the granting clause is critical, and the Court held that provisions merely limiting the use of water on the leased premises did not deviate from the default because they did not address ownership. But lessors will argue that other clauses—water use provisions, scope-of-rights language, surface use restrictions—are sufficient to take their lease outside the default. Identify leases with unusual language now.

Expect discovery aimed at establishing the parties' intent at execution, including course of dealing and industry custom. You may need experts on historical industry practices and what parties in a given era would have understood various lease terms to mean.

#### *Category Two: Royalty Claims*

When operators generate revenue from produced water—whether through sales, beneficial reuse, or lithium extraction—royalty claims will follow. These claims could arise from direct operator activities or even when an operator sells produced water to a third party who then extracts and sells lithium.

Review royalty clauses across your portfolio. Analyze how various provisions may create exposure—not only whether any royalty is due, but also the royalty yardstick, valuation location, and permissible deductions. Pay particular attention to catch-all provisions like "other benefits" clauses and how courts might apply them to produced water monetization.

Expect discovery into the composition of your produced water (particularly lithium content), revenues and cost savings from reuse or sales, and your accounting methodology. You may need

experts on produced water composition, lithium extraction economics, and royalty accounting—including whether avoided disposal costs factor into royalty calculations.

### *Category Three: Implied Covenant Claims*

Perhaps the most novel category: claims that operators have an implied obligation to monetize produced water rather than disposing of it. The implied covenant to market has long applied to hydrocarbons; plaintiffs will argue it extends to produced water now that *Cactus* confirms operators own it.

The theory is straightforward: if an operator disposes of produced water at significant cost when beneficial reuse, sales, or lithium extraction would generate revenue, the operator breached its duty to act as a reasonably prudent operator.

Document your decision-making on disposal versus alternatives. Maintain contemporaneous records of your analysis—disposal costs, potential revenues from alternatives, and why you chose your approach. Monitor the developing produced water market; what is defensible today may not be in two years.

Expect discovery into every aspect of your produced water management: volumes, disposal costs, alternatives you considered and rejected, and what other operators in the basin are doing. You may need experts on treatment technologies, market conditions, and what alternatives were economically feasible at the relevant time.

### *Across All Categories*

When produced water from multiple leases is commingled for treatment, sale, or disposal, anticipate discovery and/or additional ground for disputes regarding allocation methodologies and related records.

The transformation of produced water from waste to wealth is accelerating. Conduct a portfolio-wide lease review, establish documentation protocols, and identify experts before disputes arise.

### **CONCLUSION: A NARROW HOLDING WITH BROAD IMPLICATIONS**

*Cactus Water* provides a clear answer, but only to a narrow question: under oil and gas leases that convey only “oil and gas” or “oil, gas, and other hydrocarbons,” but which do not expressly address produced water, the lease includes incidental produced water. But Justice Busby’s concurrence makes clear that the Court has left many crucial questions unanswered.

The coming transformation of produced water from waste to wealth is not merely an economic phenomenon—it’s a potential legal earthquake that could shape oil and gas litigation in Texas for years to come. The default rule is now settled. The disputes over what that default rule means in practice are just beginning.