

224 A.3d 334
Supreme Court of Pennsylvania.

Adam **BRIGGS**, Paula **Briggs**, His Wife,
Joshua **Briggs** and Sarah H. **Briggs**, Appellees

v.

SOUTHWESTERN ENERGY
PRODUCTION COMPANY, Appellant

No. 63 MAP 2018

|

ARGUED: September 12, 2019

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DECIDED: January 22, 2020

Synopsis

Background: Landowners brought action against energy company on adjoining property for trespass due to hydraulic fracturing. The Court of Common Pleas, Susquehanna County, Civil Division, No. 2015–01253, [Linda Wallach Miller, J., 2017 WL 10605836](#), granted summary judgment in favor of energy company and denied landowners' motion for partial summary judgment. Landowners appealed. The Superior Court, No. 1351 MDA 2017, [Musmanno, J., 184 A.3d 153](#), reversed and remanded. Energy company appealed.

Holdings: The Supreme Court, No. 63 MAP 2018, [Saylor](#), Chief Justice, held that:

[1] rule of capture may be applied in hydraulic fracturing scenarios, and

[2] a plaintiff alleging trespass by invasion of property must aver something more than mere drainage of minerals from the subject property.

Order of Superior Court vacated and remanded.

[Dougherty, J.](#), filed a concurring and dissenting opinion in which [Donohue, J.](#), joined.

West Headnotes (15)

[1] **Mines and Minerals** 🔑 What are minerals and nature of property in minerals

Oil and gas are minerals, and while in place they are considered part of the land.

[2] **Mines and Minerals** 🔑 Title in general

Oil and gas are subject to the “rule of capture,” which holds that there is no liability for drainage of oil and gas from under the lands of another so long as there has been no trespass.

[2 Cases that cite this headnote](#)

[3] **Mines and Minerals** 🔑 Recovery for Trespass or Conversion

An oil and gas developer may not invade the subsurface area of a neighboring property by drilling at an angle rather than vertically, referred to as slant drilling or slant wells, or by drilling horizontally beneath the surface.

[4] **Mines and Minerals** 🔑 Title in general

The title holder of a parcel of land generally owns everything directly beneath the surface.

[5] **Mines and Minerals** 🔑 Title in general

The rule of capture, holding that there is no liability for drainage of oil and gas from under the lands of another so long as there has been no trespass, applies even where devices such as pumps are used to bring the mineral to the surface and thereby reduce the production of neighboring wells.

[2 Cases that cite this headnote](#)

[6] **Trespass** 🔑 Trespass to Real Property

A “trespass” occurs when a person who is not privileged to do so intrudes upon land in

possession of another, whether willfully or by mistake.

[2 Cases that cite this headnote](#)

[7] Mines and Minerals 🔑 [Title in general](#)

Rule of capture, holding that there is no liability for drainage of oil and gas from under the lands of another so long as there has been no trespass, is not per se inapplicable to drilling and hydraulic fracturing that occurs entirely within the energy developer's property solely because drainage of natural resources takes place as the direct or indirect result of hydraulic fracturing rather than an extraction methodology relying only on the natural drainage of oil or gas within a conventional pool or reservoir.

[8] Pleading 🔑 [Matters of evidence](#)

A plaintiff asserting a cause of action must be able to prove all the elements of his case by proper evidentiary standards.

[9] Appeal and Error 🔑 [Necessity](#)

Supreme Court is limited to the issue as it was framed in the petition for allowance of appeal. Pa. R. App. P. 1115(a)(3).

[1 Cases that cite this headnote](#)

[10] Pleading 🔑 [Matters of Fact or Conclusions](#)

Pennsylvania is a fact-pleading state.

[11] Trespass 🔑 [Declaration, Complaint, or Petition](#)

It is not sufficient for a plaintiff to state a claim under a trespass theory; a plaintiff must also allege the essential facts necessary to a trespass cause of action.

[1 Cases that cite this headnote](#)

[12] Trespass 🔑 [Statement of acts constituting trespass](#)

Plaintiffs asserting a trespass cause of action must allege, even if on information and belief, that their lands have been invaded, and this requirement does not pertain to the use of magic words. Pa. R. Civ. P. 1024(a).

[13] Mines and Minerals 🔑 [Pleading and evidence](#)

A plaintiff alleging that an energy developer engaged in trespass by invasion of property in seeking oil and gas must aver something more than mere drainage of minerals from the subject property, which by itself implicates the rule of capture, and this holds true even where the developer has completed its wells using hydraulic fracturing; thus, the plaintiff must use at least some words alleging physical intrusion, and not merely by inference based on generalized characteristics of a particular drilling method. Pa. R. Civ. P. 1029.

[14] Mines and Minerals 🔑 [Title in general](#)

Energy developers who use hydraulic fracturing may rely on pressure differentials to drain oil and gas from under another's property, at least in the absence of a physical invasion.

[1 Cases that cite this headnote](#)

[15] Mines and Minerals 🔑 [Title in general](#)

A natural-versus-artificially-induced-flow litmus is not to be employed to determine the applicability of the rule of capture, holding that there is no liability for drainage of oil and gas from under the lands of another so long as there has been no trespass.

[1 Cases that cite this headnote](#)

*335 Appeal from the Order of the Superior Court dated 4/2/18, reconsideration denied on 6/8/18 at No. 1351 MDA 2017 reversing the order of the Susquehanna Court of Common Pleas, Civil Division, dated 8/8/17 at No. 2015-01253. Miller, Linda Wallach, Senior Judge

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OPINION

CHIEF JUSTICE SAYLOR

*336 In this appeal by allowance, we consider whether the rule of capture immunizes an energy developer from liability in trespass, where the developer uses hydraulic fracturing on the property it owns or leases, and such activities allow it to obtain oil or gas that migrates from beneath the surface of another person's land.

I. Background

A. The rule of capture

[1] Oil and gas are minerals, and while in place they are considered part of the land. See *Hamilton v. Foster*, 272 Pa. 95, 102, 116 A. 50, 52 (1922). They differ from coal and other substances with a fixed situs in that they are fugacious in nature – meaning they tend to seep or flow across property lines beneath the surface of the earth. See *Huntley & Huntley, Inc. v. Borough Council of Oakmont*, 600 Pa. 207, 228, 964 A.2d 855, 867 (2009). Such underground movement is known as “drainage.” See *Hague v. Wheeler*, 157 Pa. 324, 337, 27 A. 714, 718 (1893). Drainage stems from a physical property of fluids in that they naturally move across a pressure gradient from high to low pressure. See *Coastal Oil & Gas Corp. v. Garza Energy Trust*, 268 S.W.3d 1, 42 (Tex. 2008) (Johnson, J., concurring and dissenting) (recognizing that hydrocarbons flow from high pressure to low pressure and do not respect property lines). Indeed, the extraction of oil or gas by drilling is based, at least in part, on creating a low-pressure pathway from the mineral's subterranean location to the earth's surface. See *Wettengel v. Gormley*, 160 Pa. 559, 567, 28 A. 934, 935 (1894).

[2] Oil and gas have thus been described as having a “fugitive and wandering existence,” *Brown v. Vandergrift*, 80 Pa. 142, 147 (Pa. 1875), and have been compared to wild animals which move about from one property to another. See *Westmoreland & Cambria Nat. Gas Co. v. DeWitt*, 130 Pa. 235, 249, 18 A. 724, 725 (1889) (“In common with animals, and unlike other minerals, [oil, gas, and water] have the power and the tendency to escape without the volition of the owner.”). Accordingly, such minerals are subject to the rule of capture, which is

*337 [a] fundamental principle of oil-and-gas law holding that there is no liability for drainage of oil and gas from under the lands of another so long as there has been no trespass

Black's Law Dictionary 1358 (8th ed. 2004)); accord *Brown v. Spilman*, 155 U.S. 665, 669-70, 15 S. Ct. 245, 247, 39 L.Ed. 304 (1895).¹ A corollary to this rule is that an aggrieved property owner's remedy for the loss, through drainage, of subsurface oil or gas has traditionally been to offset the effects of the developer's well by drilling his or her own well, often termed an "offset well." See *Barnard v. Monongahela Gas Co.*, 216 Pa. 362, 365, 65 A. 801, 803 (1907) ("What then can the neighbor do? Nothing; only go and do likewise.").

[3] [4] The reference to "the lands of another" in the above quote does not suggest a developer may invade the subsurface area of a neighboring property by drilling at an angle rather than vertically (referred to as slant drilling or slant wells),² or by drilling horizontally beneath the surface.³ This is because the title holder of a parcel of land generally owns everything directly beneath the surface. See *Chartiers Block Coal Co. v. Mellon*, 152 Pa. 286, 295, 25 A. 597, 598 (1893); *Jones v. Wagner*, 425 Pa. Super. 102, 107, 624 A.2d 166, 168 (1993) (quoting *Gostina v. Ryland*, 116 Wash. 228, 199 P. 298, 300 (1921)). Rather, and as suggested by the "no trespass" predicate, it refers to the potential for oil and gas to migrate from the plaintiff's property to the developer's land when extracted from a common pool or reservoir spanning both parcels. See *Barnard*, 216 Pa. at 365-66, 65 A. at 803; *Minard Run Oil Co. v. United States Forest Serv.*, 670 F.3d 236, 256 (3d Cir. 2011) ("Under Pennsylvania law, oil and gas resources are subject to the 'rule of capture,' which permits an owner to extract oil and gas even when extraction depletes a single oil or gas reservoir lying beneath adjoining lands."); *Jones v. Forest Oil Co.*, 194 Pa. 379, 383, 44 A. 1074, 1075 (1900) (recognizing that oil and gas belong to the surface property owner while they are in his land, but when they migrate to his neighbor's land they belong to his neighbor).

[5] Finally, the rule of capture applies even where devices such as pumps are used to bring the mineral to the surface and thereby reduce the production of neighboring wells. See *Jones*, 194 Pa. at 384-85, 44 A. at 1075.

B. Hydraulic fracturing

One of the central questions in this matter involves how these principles apply where hydraulic fracturing is used to extract oil or gas from subsurface geological formations. Drillers have enhanced the output of oil and gas wells by fracturing the geological formations for over a century. Initially they used

explosives. See *Roberts v. Dickey*, 20 F. Cas. 880 (W.D. Pa. 1871) (gunpowder explosives); *338 *Kepple v. Pa. Torpedo Co.*, 7 Pa. Super. 620 (1898) (nitroglycerine explosives). Hydraulic fracturing was developed in the 1940s, see *U.S. Steel Corp. v. Hoge*, 503 Pa. 140, 144 n.1, 468 A.2d 1380, 1382 n.1 (1983), and has been used in Pennsylvania since 1954. See *N.Y. Nat. Gas Corp. v. Swan-Finch Gas Dev. Corp.*, 173 F. Supp. 184, 198 (W.D. Pa. 1959). Although it would be impractical to set forth a comprehensive description of the technique in the context of the present controversy, there are certain material aspects which are not in dispute. According to the federal government, hydraulic fracturing is

used in "unconventional" gas production. "Unconventional" reservoirs can cost-effectively produce gas only by using a special stimulation technique, like hydraulic fracturing This is often because the gas is highly dispersed in the rock, rather than occurring in a concentrated underground location.

United States Environmental Protection Agency (the "EPA"), *The Process of Unconventional Natural Gas Production*, <https://www.epa.gov/uog/process-unconventional-natural-gas-production> (viewed Oct. 22, 2019).⁴ In terms of how the technique works, the EPA continues:

Fractures are created by pumping large quantities of fluids at high pressure down a wellbore and into the target rock formation. Hydraulic fracturing fluid commonly consists of water, proppant and chemical additives that open and enlarge fractures within the rock formation. These fractures can extend several hundred feet away from the wellbore. The proppants – sand, ceramic pellets or other small incompressible particles – hold open the newly created fractures.

Id.

After injection, fluid is withdrawn from the well while leaving the proppants in place to hold the fissures open. This enhances the drainage of oil or gas into the wellbore where it can be captured. See *id.*; *Trent v. Energy Dev. Corp.*, 902 F.2d 1143, 1147 n.8 (4th Cir. 1990); *Coastal Oil*, 268 S.W.3d at 6-7. See generally Jason B. Binimow, *Liability for Trespass or Nuisance in Hydraulic Fracturing, Hydro-fracturing, or Hydro-fracking*, 41 A.L.R. 7th Art. 1, § 2 (2019).

C. Factual and procedural history of this case

(i) Introduction

This appeal comes to us in a somewhat unusual posture. The parties presently favor essentially the same rule of law: they both, in substance, argue that the traditional rule of capture should apply, subject to the common-law standard for trespass of real property based on physical intrusion onto another's land. See *Restatement (Second) Of Torts § 158 & cmt. i* (1965) (indicating liability follows from the defendant's entry onto the plaintiff's property, and noting this includes throwing, propelling, or placing a thing on the land or above or beneath its surface).⁵ Each party, moreover, depicts the other as erroneously *339 suggesting that an exception to this framework should pertain where hydraulic fracturing is used to obtain oil or natural gas. In particular, the plaintiffs suggest that Southwestern wishes to convert the rule of capture into a precept whereby energy developers may physically invade the property of others to capture natural gas so long as they are using hydraulic fracturing. See, e.g., Brief for Appellees at 6; see also *id.* at 26 (arguing that Southwestern seeks a “license to plunder” others' resources (internal quotation marks and citation omitted)). For its part, Southwestern portrays the plaintiffs and the Superior Court decision from which it appeals as positing that the rule of capture simply does not apply when hydraulic fracturing is used for energy development on one's own land. See, e.g., Brief for Appellant at 15 (arguing that “there is no basis to create an exception to the rule of capture” where hydraulic fracturing is used).

To maintain these positions, the parties proceed from a different understanding of the relevant factual and procedural history. We therefore review that history in some detail, as it will become relevant in determining the nature of the issues before us and how the case should proceed upon resolution of those issues. In so doing, we will attend to whether the plaintiffs have alleged (and can potentially demonstrate) a claim that Southwestern physically intruded into their land through the use of hydraulic fracturing.

(ii) Undisputed facts

Adam, Paula, Joshua, and Sarah **Briggs** (“Plaintiffs”) own a parcel of real estate consisting of approximately eleven acres in Harford Township, Susquehanna County. During all relevant times, Plaintiffs have not leased their property to any entity for natural gas production. Plaintiffs' property is

adjacent to a tract of land leased by Appellant Southwestern Energy Production Company for natural gas extraction (the “Production Parcel”). Southwestern maintains wellbores on the Production Parcel and has used hydraulic fracturing to boost natural gas extraction from the Marcellus Shale formation through those wellbores.

(iii) Proceedings before the Court of Common Pleas

In November 2015, Plaintiffs commenced an action against Southwestern in which they stated two causes of action, trespass and conversion. See *Briggs v. Sw. Energy Prod. Co.*, No. 2015-1253, Complaint (C.P. Susquehanna) (the “Complaint”).⁶ In terms of factual averments, Plaintiffs alleged that Southwestern “has and continues to extract natural gas from under the land of the Plaintiffs,” and that such extraction was “willful[], unlawful[], outrageous[] and in complete conscious disregard of the rights and title of the Plaintiffs in said land and the natural gas thereunder.” Complaint at ¶¶11, 12. In Count I (the trespass claim), Plaintiffs averred that Southwestern's actions constituted a trespass which deprived Plaintiffs of the value of the “natural gas extracted from under their land[.]” *Id.* ¶¶14, 15. In Count II (the conversion claim), Plaintiffs alleged that, through its drilling activities, Southwestern had deprived Plaintiffs of their possession and use of the natural gas and converted it to Southwestern's use. *340 See *id.* at ¶¶17, 18. Notably, Plaintiffs did not expressly allege that Southwestern's activities had caused a physical intrusion into Plaintiffs' property.

Southwestern filed a responsive pleading denying it had extracted gas from Plaintiffs' land and denying it had trespassed upon Plaintiffs' property or converted their natural gas. See *Briggs v. Sw. Energy Prod. Co.*, No. 2015-1253, Answer, New Matter and Counterclaim (C.P. Susquehanna) (the “Answer”).⁷ Southwestern specifically denied it had drilled underneath Plaintiffs' property and stated, further, that it had “only drilled for oil, gas or minerals from under properties for which [Southwestern] has leases.” Answer at ¶¶11, 12, 15, 17.

In its new matter, Southwestern alleged that Plaintiffs' claims were barred by, *inter alia*, the rule of capture. See *id.* at ¶¶35, 36. As such, Southwestern requested declaratory relief confirming its immunity from liability. See *id.* at ¶¶94-102. Notably, although Southwestern also stated in its new matter that Plaintiffs had failed to plead the elements necessary

to demonstrate trespass or conversion, *see id.* at ¶¶51, 62, Southwestern never sought to test the legal sufficiency of Plaintiffs' factual averments through preliminary objections in the nature of a demurrer. *See Pa.R.C.P. No. 1028(a)(4)*. *See generally Pa.R.C.P. No. 1030* (limiting new matter to affirmative defenses and any material facts which are not mere denials of the prior pleading's averments).

In their response to Southwestern's new matter, Plaintiffs focused on Southwestern's intent, generally averring that Southwestern had acted with a purpose to extract natural gas from underneath the surface of Plaintiffs' property. *See Briggs v. Sw. Energy Prod. Co.*, No. 2015-1253, Answer of Plaintiffs to Defendant's New Matter & Counterclaim (C.P. Susquehanna) (the "Response"), at ¶44.1 (alleging that Southwestern "has drilled wells intended to extract natural gas from under the land of Plaintiffs"); *see also id.* at ¶¶45.1, 47.1, 92.1 (all same). As with the Complaint, however, Plaintiffs did not include in the Response any averment expressly stating that Southwestern had effectuated or intended to effectuate any physical intrusion upon their property or into the subsurface portion of it.

After the parties engaged in discovery, Southwestern filed a motion for summary judgment and a supporting brief in which it argued that it did not physically invade Plaintiffs' property and, to the extent that it had recovered any gas through drainage from that property to the Production Parcel, again, it was entitled to judgment as a matter of law under the rule of capture. In response, Plaintiffs requested that the court stay resolution of Southwestern's motion on the grounds that there was an outstanding motion to compel Southwestern to respond to a set of interrogatories. Plaintiffs additionally filed their own motion for partial summary judgment as to liability, asserting that courts should not apply the rule of capture in circumstances where gas has been captured through the use of hydraulic fracturing.

In their supporting brief, Plaintiffs suggested, for the first time, that Southwestern's hydraulic fracturing activities may have caused a disturbance of the subsurface area of their land in the form of rock fractures propagating horizontally from the wellbore, *see Briggs v. Sw. Energy Prod. Co.*, No. 2015-1253, Brief of Plaintiffs *341 in Opposition to [Southwestern's] Motion for Summary Judgment and in Support of Their Motion for Partial Summary Judgment at to Liability (C.P. Susquehanna) ("Plaintiffs' Summary Judgment Brief"), at 8 (discussing the Texas court's *Coastal Oil* decision, and in particular, that court's suggestion

that a subsurface fracture can run several thousand feet horizontally from the wellbore), albeit that, again, they did not expressly contend that Southwestern had injected any material substances into their land.

Plaintiffs also relied on *Young v. Ethyl Corp.*, 521 F.2d 771 (8th Cir. 1975), in which the Eighth Circuit held that the rule of capture did not apply where the developer had injected water beneath the plaintiff's land to force subsurface brine out of its location so that it could be harvested through wells situated on the developer's property. Although, again, Plaintiffs did not contend that Southwestern had done anything similar, their theory was that, just as the brine was non-fugacious and had to be forced out of its place, *see id.* at 774, so natural gas located in shale is non-fugacious and must be "extracted" from its place by hydraulic fracturing. Plaintiffs' Summary Judgment Brief at 13. Plaintiffs ultimately concluded that the rule of capture should only apply where oil or gas is obtained from a common underground pool. *See id.* at 15.

By order and opinion, the common pleas court granted Southwestern's motion for summary judgment, denied Plaintiffs' motion for partial summary judgment, and denied the motion to compel as moot. The court agreed with Southwestern's position that the rule of capture applied in the circumstances and, as such, Plaintiffs could not recover under theories of trespass or conversion even if some of the gas harvested by Southwestern had drained from under Plaintiffs' property. In reaching its decision, the court referenced, *inter alia*, the *Barnard* decision for the position that the rule of capture applies to natural gas. It stated that post-*Barnard* advances in technology, such as hydraulic fracturing, did not negate such application.

Plaintiffs filed a notice of appeal, as well as a court-ordered statement pursuant to *Pa.R.A.P. 1925(b)*, in which they raised a single issue: whether the trial court erred in determining that the rule of capture precluded liability under theories of trespass and conversion, where Southwestern had used hydraulic fracturing to obtain natural gas which originated under Plaintiffs' land. As with their prior filings, Plaintiffs, again, did not include any suggestion that Southwestern had physically intruded onto their property.

The common pleas court issued a *Pa.R.A.P. 1925(a)* opinion largely summarizing the reasoning in its prior opinion.

(iv) Proceedings before the Superior Court

On appeal to the Superior Court, Plaintiffs again focused their advocacy on the concept that the rule of capture should only apply where there is a conventional underground reservoir, and not when hydraulic fracturing is used. See *Briggs v. Sw. Energy Prod. Co.*, No. 1351 MDA 2017, Brief for Appellant, at 11 (“Simple: no common pool, no rule of capture.” (capitalization altered)); *id.* at 8 (referring to the “nonapplicability” of the rule of capture where natural gas is extracted through hydraulic fracturing). As well, Plaintiffs suggested at one point that they were not relying on an alleged physical invasion of their property below the surface, stating, “[n]or is there a requirement of a ‘physical intrusion’ onto (or under) the plaintiff’s land.” *Id.* at 6.

A two-judge panel of the Superior Court reversed in a published decision. See *342 *Briggs v. Sw. Energy Prod. Co.*, 184 A.3d 153, 164 (Pa. Super. 2018).⁸ The panel initially recited the Restatement definition of trespass in terms of a physical invasion through propelling or placing objects on or beneath the surface of the property of another, as outlined above. And it acknowledged Plaintiffs’ position that the contested actions amounted to a trespass “despite the lack of physical intrusion by Southwestern.” *Briggs*, 184 A.3d at 156. Nevertheless, the panel expressed that gas located in a shale formation is non-migratory, see *id.* at 162 (citing *Butler v. Charles Powers Estate ex rel. Warren*, 620 Pa. 1, 16, 65 A.3d 885, 894 (2013)), and – inconsistently with its assessment that Plaintiffs were not relying on an asserted physical intrusion – characterized the issue before it in terms of whether a trespass occurs when the defendant uses hydraulic fracturing in a manner “which extends into an adjoining landowner’s property and results in the withdrawal of natural gas from beneath that property[.]” *Id.* at 158 (emphasis added).

In considering the question as thus framed, the panel highlighted the dissenting portion of Justice Johnson’s responsive opinion in *Coastal Oil* (the “*Coastal Oil* dissent”), as well as a federal district court decision from West Virginia. See *Stone v. Chesapeake Appalachia, LLC*, No. 5:12-CV-102, 2013 WL 2097397 (N.D.W. Va. Apr. 10, 2013), order vacated, 2013 WL 7863861 (N.D.W. Va. July 30, 2013).⁹ The panel observed that, in those disputes, hydraulic fracturing took place directly beneath the surface of the plaintiff’s property. In particular, the panel expressed that the *Coastal Oil* parties had agreed that the “propped lengths” of the well in question exceeded the distance between the well and the

plaintiff’s property line, *Briggs*, 184 A.3d at 160, and that the question before the federal court in *Stone* was whether an operator “may use hydraulic fracturing on a neighboring property.” *Id.* at 162 (quoting *Stone*, 2013 WL 2097397, at *7). Given those circumstances, the panel indicated that the salient litmus, in determining whether the rule of capture applies in a given situation, is whether the flow of oil or gas occurs naturally or is artificially induced. See *id.* at 162-63 (expressing that the “rule of capture precludes liability for capturing oil or gas drained from a neighboring property whenever such flow occurs solely through the operation of natural agencies in a normal manner, as distinguished from artificial means applied to stimulate such a flow.” (quoting with approval *Coastal Oil*, 268 S.W.3d at 42 (Johnson, J., dissenting)) (emphasis added by Superior Court panel)).

Persuaded by the *Stone* court and the *Coastal Oil* dissent, and drawing support from the *Young* decision (regarding water injected under the plaintiff’s property to force subsurface brine toward the operator’s well), the panel stated the following: first, that hydraulic fracturing is distinguishable from conventional drilling because it does not involve tapping into reservoirs within which gas flows freely, but instead, extracts gas trapped in a shale formation by using artificial means to stimulate the flow of the resource, see *id.* at 162-63; second, that the self-help remedy of drilling one’s own well is less feasible for small landowners in the hydraulic-fracturing arena than with conventional wells due to the high cost of such operations, see *id.* at 163; and third, that employing the rule of capture would permit a developer *343 to locate a well near the leased property’s boundary line and withdraw gas from beneath the adjoining property – which in turn would diminish the developer’s incentive to negotiate mineral leases with small property owners. See *id.*

In light of these conclusions, the panel held that hydraulic fracturing may give rise to liability in trespass, particularly if subsurface fractures, fluid or proppant[s] cross boundary lines, resulting in the extraction of natural gas from beneath an adjoining landowner’s property. See *id.* at 163-64. The court noted, however, that the record did not indicate whether Southwestern’s operations had resulted in a subsurface intrusion into Plaintiffs’ property, going so far as to express that “[t]here does not appear to be any evidence, or even an estimate, as to how far the subsurface fractures extend from each of the wellbore [sic] on Southwestern’s lease.” *Id.* at 164 (emphasis added). Regardless, the court continued, Plaintiffs’ “allegations” were sufficient to preclude summary judgment by “rais[ing] an issue as to whether there has been a trespass.”

Id. Accordingly, the panel reversed the trial court's order and remanded for additional factual development. *See id.*

In sum, then, the Superior Court panel's analysis can reasonably be viewed as embodying two distinct, but interrelated, holdings: first, that whenever “artificial means,” such as hydraulic fracturing, are used to stimulate the flow of underground resources, the rule of capture does not apply because drainage does not occur through the operation of “natural agencies,” and second, that in this particular case summary judgment was premature in light of certain unspecified allegations relating to cross-boundary intrusions into Plaintiffs' land.

(v) *Southwestern's request for discretionary review*

In seeking this Court's review, Southwestern initially mentioned that Plaintiffs had not alleged that Southwestern physically intruded onto their property. *See Briggs v. Sw. Energy Prod. Co.*, No. 443 MAL 2018, Petition for Allowance of Appeal, at 6. Still, Southwestern did not question the Superior Court's action in setting forth its holding, at least in part, based on the opposite premise, *i.e.*, that Plaintiffs' claims were grounded on allegations that Southwestern had, indeed, injected fluid and/or proppants into their property. Instead, Southwestern criticized the panel's analysis to the extent it indicated an energy developer may be held liable for damages for trespass if its hydraulic fracturing activities, *conducted on its own property*, captures oil or gas from a neighboring property through drainage. *See id.* at 11; *see also id.* at 13-14 (portraying the Superior Court's decision as embodying a policy-based determination that the rule of capture should not apply to mere drainage from a neighboring property when hydraulic fracturing is used); *id.* at 30 (discussing difficulties in determining how much of the oil or gas produced from a well was obtained via drainage from a neighbor's property). As such, Southwestern framed a single issue for our review, as follows:

Does the rule of capture apply to oil and gas produced from wells that were completed using hydraulic fracturing and preclude trespass liability for allegedly draining oil or gas from under nearby property, where the well is drilled solely on and beneath the driller's own property *and the hydraulic fracturing fluids are injected solely on or beneath the driller's own property?*

Briggs v. Sw. Energy Prod. Co., — Pa. —, —, 197 A.3d 1168, 1169 (2018) (*per* *344 *curiam*) (emphasis added).¹⁰

(vi) *Parties' arguments*

In terms of its merits brief, Southwestern criticizes the Superior Court panel's opinion in multiple respects. For example, it takes issue with the panel's utilization of non-record sources to conclude that small landowners will have more difficulty offsetting natural-gas drainage caused by hydraulic fracturing than by conventional drilling. *See* Brief for Appellant at 11-12. More centrally, Southwestern objects to the panel's “inaccurate perception of hydraulic fracturing” which it gleaned from the *Coastal Oil* dissent and the vacated decision in *Stone, id.* at 13, and which led it to conclude that gas obtained through fracturing is non-migratory in nature and, as a consequence, the rule of capture does not apply. *See id.* at 14. In this regard, and as discussed above, Southwestern proceeds from the supposition that the Superior Court panel concluded that the rule of capture is inapplicable whenever hydraulic fracturing leads to the capture of oil or gas that drained from underneath another's property. *See, e.g., id.* at 27 (“This Court likewise should not change the rule of capture.”), 52 (arguing that no “exception to the rule of capture” should be made for hydraulic fracturing).

Southwestern additionally highlights its view that most remaining oil and gas in Pennsylvania can only be obtained through hydraulic fracturing, *see id.* at 40, and emphasizes that the appropriate means to protect small landowners from losing oil and gas revenue due to drainage occasioned by hydraulic fracturing represents a public-policy question within the province of the General Assembly. *See id.* at 55-58. Finally, Southwestern suggests that miles beneath the surface of the earth the traditional trespass paradigm should be relaxed, just as it is for areas directly above the surface at high altitudes. *See, e.g., id.* at 47 (citing *United States v. Causby*, 328 U.S. 256, 260-61, 66 S. Ct. 1062, 1065, 90 L.Ed. 1206 (1946) (disapproving the maxim that ownership of the land extends indefinitely upward, and noting that such precept would imply that “every *345 transcontinental flight would subject the operator to countless trespass suits”)).¹¹

Plaintiffs, as discussed, start from a different factual assumption. They now contend, for the first time, that Southwestern physically intruded upon their subsurface property. *See, e.g.,* Brief for Appellees at 14 (submitting that Southwestern's hydraulic fracturing activities have caused proppants to be propelled beneath the surface of their land). They argue forcefully that such an invasion violates

fundamental property rights, most notably, the right to exclude others and the right to be compensated when property is taken. *See id.* at 9-11. As such, they view the Superior Court's decision as properly refusing to expand the rule of capture beyond its traditional bounds so as to permit such an intrusion to occur with impunity. *See id.* at 11, 20-22 (expressing, *inter alia*, that the Superior Court recognized that it would be improper to “expand” the rule of capture so as to allow an energy company to inject proppants into its neighbors' land under a rule-of-capture rubric).

Plaintiffs assume it is physically impossible to cause drainage of oil or gas from a neighbor's property via hydraulic fracturing without effectuating a physical intrusion onto that property. *See id.* at 11 (“Without the intervention of ‘proppants’ and other ‘fracking materials’ being propelled into their land by [Southwestern], [Plaintiffs' natural gas] would be locked in place, not going anywhere.”); *id.* at 21 (same). To support this position, Plaintiffs rely solely on a passage from Southwestern's brief that is more modest in its factual assertion – that, without hydraulic fracturing, oil and gas located in shale formations cannot be developed. *See id.* at 11 n.4 (quoting Brief for Appellant at 25-26); *id.* at 20 n.8 (same). Plaintiffs thus compare Southwestern to a person who enters his neighbor's property, opens the gate to a livestock pen, captures the livestock as they walk out, and pleads the rule of capture as the basis for immunity. *See id.* at 11-12.

In contrast to Southwestern, Plaintiffs claim that the extent of the underground discharge of proppants is sufficiently determinable to support a finding that the driller did, in fact, intrude into the subsurface land of another. *See id.* at 19. Their position, in this regard, is that it may not be known with certainty how far liquid and proppants will travel from the wellbore, but there is a pre-set distance from the wellbore from which the developer expects and intends to extract natural gas. *See id.* at 21. Given Plaintiffs' starting assumption that natural gas can only be obtained from a particular underground location if a physical intrusion into that precise location has occurred, their position in this regard appears to be that the driller should be held liable in trespass (and conversion) so long as it intends to free up and capture *346 natural gas that originates from any location directly beneath the surface of a plaintiff's property.

Appearing to revert to their original no-physical-intrusion hypothesis, Plaintiffs continue by suggesting that the rule of strict liability pertaining under the ultrahazardous-activity doctrine – whereby a person conducting blasting activities on

his own property is liable without fault for resultant damage to nearby property – should apply here. *See id.* at 12 (citing *Lobozzo v. Adam Eidemiller, Inc.*, 437 Pa. 360, 362, 263 A.2d 432, 433 (1970) (in turn discussing Restatement (First) Of Torts § 519)).

II. Preliminary Discussion

A. Trespass

[6] In Pennsylvania, a trespass occurs when a person who is not privileged to do so intrudes upon land in possession of another, whether willfully or by mistake. *See Kopka v. Bell Tel. Co. of Pa.*, 371 Pa. 444, 449-50, 91 A.2d 232, 235 (1952); *Cochran Coal Co. v. Mun. Mgmt. Co.*, 380 Pa. 397, 403-04, 110 A.2d 345, 348 (1955) (quoting *Kiel v. Chartiers Val. Gas Co.*, 131 Pa. 466, 473-74, 19 A. 78, 79 (1890)). This conception of trespass is not disputed by the parties. Nevertheless, meaningful appellate review at this stage is not straightforward for multiple reasons.

B. Pleading deficiencies, decisional irregularities, and issue limitation

First, Plaintiffs did not assert – in their pleadings, in their brief to the common pleas court, in their Rule 1925(b) statement, or in their brief to the Superior Court – that Southwestern had effectuated a physical intrusion onto (or into) their property.¹² The Superior Court panel recognized this aspect of Plaintiffs' litigation position, but raised and resolved, *sua sponte*, an issue based on the opposite premise, that Plaintiffs *had* alleged a physical intrusion. Then, stating that there was no record evidence that such an intrusion had taken place, and without referencing any specific aspect of the pleadings, the panel indicated that the Complaint's allegations were alone sufficient to raise a genuine issue of fact so as to preclude summary judgment.¹³

*347 This is in some tension with the governing summary-judgment standard which generally centers on whether the adverse party has produced enough evidence to raise a question of material fact as to each element of the claim. *See* Pa.R.C.P. Nos. 1035.2, 1035.3(a) (prescribing that the adverse party ordinarily may not rest solely upon its pleadings in opposing a summary-judgment motion); *see also Ario v. Ingram Micro, Inc.*, 600 Pa. 305, 327 n.15, 965 A.2d 1194,

1207 n.15 (2009) (stating that, to survive a defense motion for summary judgment, a plaintiff must “adduce sufficient evidence on an issue essential to his case and on which he bears the burden of proof such that a jury could return a verdict in his favor” (internal quotation marks and citation omitted)); *Barnish v. KWI Bldg. Co.*, 602 Pa. 402, 420, 980 A.2d 535, 546 (2009); *401 Fourth St., Inc. v. Inv'rs Ins. Grp.*, 583 Pa. 445, 461 n.4, 879 A.2d 166, 175 n.4 (2005).¹⁴ We will address below how this circumstance affects our ultimate disposition of this appeal.

As described above, moreover, Southwestern elected not to challenge the Superior Court panel's actions in relation to these irregularities; instead, it articulated the issue for this Court's consideration in terms of whether the rule of capture should be applied in the same manner it has always been applied: to allow for the capture of oil and gas which merely drains from an adjacent property after the completion of a well using hydraulic fracturing *solely within the developer's property*. This is an issue, again, on which the parties do not presently diverge: they both answer in the affirmative. Their disagreement is limited to whether any physical intrusion has taken place – a question that is not fairly subsumed within the issue framed for our review.

III. Analysis

The issue as stated by Southwestern should nonetheless be resolved for purposes of this dispute – and to provide guidance to the bench and bar – because at least part of the Superior Court's opinion can reasonably be construed as setting forth a *per se* rule foreclosing application of the rule of capture in hydraulic fracturing scenarios, and that rule rests on faulty assumptions. In particular, and most saliently, the panel appears to have indicated that one litmus for whether the rule of capture applies is whether the defendant's gas extraction methodology relies only on the natural drainage of oil or gas within a conventional pool or reservoir, or whether instead those methods utilize some means of artificial stimulation to induce drainage.

The Superior Court's position in this respect logically rests on one of two grounds: (a) the act of artificially stimulating the cross-boundary flow through the use of hydraulic fracturing solely on the developer's property in and of itself renders the rule of capture inapplicable; or (b) as Plaintiffs argue, any time natural gas migrates across property lines resulting, directly

or indirectly, from hydraulic fracturing, a physical intrusion into the plaintiff's property must necessarily have taken place.

As to the first proposition, all drilling for subsurface fugacious minerals involves the artificial stimulation of the flow of that *348 substance. The mere act of drilling interferes with nature and stimulates the flow of the minerals toward artificially-created low pressure areas, most notably, the wellbore. *See infra* note 16. This Court has held that the rule of capture applies although the driller uses further artificial means, such as a pump, to enhance production from a source common to it and the plaintiff – so long as no physical invasion of the plaintiff's land occurs. *See Jones*, 194 Pa. at 384, 44 A. at 1075 (indicating that, absent physical intrusion, a developer may use “all the skill and invention of which a man is capable” to appropriate resources from under his own property). There is no reason why this precept should apply any differently to hydraulic fracturing conducted solely within the driller's property. *Accord* Brief for Appellant at 20 (positing that “hydraulic fracturing involves the same considerations regarding the rights of adjacent landowners and the nature of oil and gas development as do other methods of production”); *cf. People's Gas Co. v. Tynor*, 131 Ind. 277, 31 N.E. 59, 60 (1892) (holding that, as long as a property owner may draw, from a well on his property, gas which originated under adjacent land, “no valid reason can be given why he may not enlarge his well by the explosion of nitroglycerin therein for the purpose of increasing the flow”).

The Superior Court may have believed it should impose a different rule because of the added expense associated with hydraulic fracturing as compared to conventional drilling. It expressed its concern that drilling an offset well may not be as affordable to an aggrieved landowner today as it was in the era when conventional drilling was still able profitably to produce oil and natural gas. *See Briggs*, 184 A.3d at 163. Southwestern observes, however, that both types of drilling are costly and specialized, and posits that the traditional self-help remedy is still available – as a neighboring landowner may enter into a lease with an energy developer to drill a well and obtain oil or gas through hydraulic fracturing, and be compensated accordingly. *See* Brief for Appellant at 56 n.38.

[7] Hydraulic fracturing may be more expensive than conventional drilling and, as a consequence, the feasibility of drilling an offset well may be diminished for some landowners. The judiciary nonetheless lacks institutional tools necessary to investigate the continuing feasibility of self-help remedies under the myriad of circumstances that

may present themselves in the context of a dispute such as this one. The legislative branch is not similarly constrained, and if the General Assembly believes that additional measures are needed in favor of small landowners, it is in a better position to ascertain the need for such measures and to articulate their details.¹⁵ Accordingly, we reject as a matter of law the concept that the rule of capture is inapplicable to drilling and hydraulic fracturing that occurs entirely within the developer's property solely because drainage of natural resources takes place as the direct or indirect result of hydraulic fracturing, or that such drainage stems from less "natural" means than conventional drainage.

The second predicate – that drainage from under a plaintiff's parcel can only occur if the driller first physically invades that property – does not lend itself to a purely legal resolution. By design, hydraulic fracturing creates fissures in rock strata which store hydrocarbons within their porous structure. On the state of the present record, this alone does not establish that a physical intrusion into a neighboring property is necessary for such action to result in drainage from that property. We cannot rule out, for example, that a fissure created through the injection of hydraulic fluid entirely within the developer's property may create a sufficient pressure gradient to induce the drainage of hydrocarbons from the relevant stratum of rock underneath an adjacent parcel even absent physical intrusion. Nor can we discount the possibility that a fissure created within the developer's property may communicate with other, pre-existing fissures that reach across property lines. *Accord* Brief for Amicus Prof. Terry Engelder, at 18 (indicating gas located in unconventional reservoirs exists within a network of cracks and fissures, and the gas may move across property lines when hydraulic fracturing "tap[s] into" that network).¹⁶ Whether these, or any other non-invasive means of drainage occasioned by hydraulic fracturing, are physically possible in a given case is a factual question to be established through expert evidence.

[8] The Superior Court panel appears to have assumed, if implicitly, that such occurrences were impossible – but, again, there is no basis in the record for such an assumption. In all events, a plaintiff asserting a cause of action "must be able to prove all the elements of his case by proper evidentiary standards." *Papieves v. Lawrence*, 437 Pa. 373, 379, 263 A.2d 118, 121 (1970); *accord Chance v. BP Chems., Inc.*, 77 Ohio St.3d 17, 670 N.E.2d 985, 991 (1996) (holding that plaintiffs alleging a subsurface trespass upon their property bear the burden of proving all elements of their claim). Thus, to the extent this lawsuit goes forward on Plaintiffs'

new, physical-intrusion theory, Plaintiffs will bear the burden of demonstrating that such an intrusion took place. *See generally* Owen L. Anderson, *Foreword: The Evolution of Oil & Gas Conservation Law & the Rise of Unconventional Hydrocarbon Production*, 68 ARK. L. REV. 231, 251-53 (2015) (discussing advanced technologies used to monitor underground fractures).¹⁷

*350 We have not overlooked Southwestern's argument that trespass should not be viewed as occurring miles beneath the surface of the earth. *See supra* note 5. As Southwestern observes, in some jurisdictions traditional concepts of physical trespass have been relaxed where activities take place miles below the surface and the plaintiff is not deprived of the use and enjoyment of the land. *See, e.g., Baumgartner v. Gulf Oil Corp.*, 184 Neb. 384, 168 N.W.2d 510, 516-17 (1969) (quoting and discussing *Railroad Comm'n of Texas v. Manziel*, 361 S.W.2d 560 (Tex. 1962)). Southwestern posits that this is analogous to the principle that trespass does not arise high above the surface. *See Causby*, 328 U.S. at 260-61, 66 S. Ct. at 1065. It emphasizes that other socially useful endeavors – such as carbon sequestration projects, energy storage wells, and waste disposal sites – could be jeopardized if the rule against trespass were to be enforced in an unduly stringent manner where deep subsurface activities are concerned. *See, e.g.*, Brief for Appellant at 46 & n.35 (quoting Owen L. Anderson, *Subsurface Trespass: A Man's Subsurface is not His Castle*, 49 WASHBURN L.J. 247, 281 (2010)).

[9] Without speaking to the merit of such a claim, we note that this Court is limited to the issue as it was framed in the petition for allowance of appeal, *see* Pa.R.A.P. 1115(a)(3); *Commonwealth v. Metz*, 534 Pa. 341, 347 n.4, 633 A.2d 125, 127 n.4 (1993) (citing *Commonwealth v. Milyak*, 508 Pa. 2, 5 n.3, 493 A.2d 1346, 1348 n.3 (1985)), and Southwestern has not articulated any reason an exception should be made in the present dispute. *See generally Rendell v. Pa. State Ethics Comm'n*, 603 Pa. 292, 309, 983 A.2d 708, 718 (2009) (recognizing that this Court's mandate is to the "decide the discrete legal issue presented to us"). Thus, to the extent Southwestern argues it should be permitted to escape liability even if it is ultimately found to have effectuated a physical intrusion into Plaintiff's subsurface property, its claim in this regard has not been preserved for review by this Court.

This brings us to the question of whether the lawsuit can, indeed, progress on a theory of trespass by physical intrusion, and by extension, to the question of the appropriate mandate from this Court. Ordinarily, and for the reasons

explained, we would deem any such contention to be absent from the litigation, as it does not appear to have been mentioned in Plaintiffs' pleadings or argued as a basis to deny Southwestern's motion for summary judgment. The Superior Court, however, evidently believed there was some legitimate basis to dispose of the appeal on the presupposition that Southwestern was alleged to have physically invaded Plaintiffs' subsurface property with hydraulic fracturing liquid and proppants; and, as noted, Southwestern has not challenged the intermediate court's action in this respect.¹⁸

***351** That being the case, we will not reinstate the common pleas court's order granting summary judgment, nor will we address whether Plaintiffs may now proceed on a physical-invasion trespass cause of action, as that is for the Superior Court to determine on remand in light of the limited legal issue presented to us. Nevertheless, we find the Superior Court panel's opinion to suffer from multiple infirmities, many of which have been discussed above. Of particular concern in terms of the mandate from this Court, it is not entirely clear whether the Superior Court's foundational assumptions for its holding that the rule of capture does not apply to wells completed using hydraulic fracturing – which we have now disapproved – were integral to its ultimate ruling. In these circumstances, and because such ambiguities would otherwise subsist in a published decision of the Superior Court dealing with an issue of substantial public importance, we find that the appropriate action at this juncture is to vacate the Superior Court's order and remand for reconsideration in light of the guidance provided in this opinion, and the certified record on appeal.

IV. The responsive opinion's objections

As reflected in his Concurring and Dissenting Opinion, Justice Dougherty would draw the inference that Plaintiffs, in effect, alleged a physical invasion into their land by virtue of their having asserted a trespass cause of action, combined with the fact that hydraulic fracturing necessarily entails the underground propulsion of physical matter over a distance. See Concurring and Dissenting Opinion, at 357. We are not as certain.

[10] [11] “Pennsylvania is a fact-pleading state.” *Bricklayers of W. Pa. Combined Funds, Inc. v. Scott's Dev. Co.*, 625 Pa. 26, 46 n.14, 90 A.3d 682, 694 n.14 (2014) (citing *McShea v. City of Phila.*, 606 Pa. 88, 96, 995 A.2d 334, 339 (2010)). It is not sufficient, therefore, for plaintiffs to state

a claim under a trespass *theory*. See *Steiner*, 600 Pa. at 524 n.11, 968 A.2d at 1258 n.11 (distinguishing between claims and legal theories). As previously discussed, see *supra* note 12, plaintiffs must also allege the essential *facts* necessary to their trespass cause of action.

[12] Insofar as hydraulic fracturing is concerned, we agree that it is reasonable to assume that liquid and proppants will travel some distance from the well bore. But the distances may vary from case to case, and plaintiffs asserting a trespass cause of action in Pennsylvania must still allege – even if on information and belief, see Pa.R.C.P. No. 1024(a) – that their lands have been invaded. This requirement does not pertain to the use of “magic words,” as the responsive expression portrays, see Concurring and Dissenting Opinion, at 353-54, but, again, to the precept that essential facts must be averred.

In terms of the present controversy, while it may be true that “at every stage” Plaintiffs alleged a trespass, *id.* at 353-54, that again speaks only to Plaintiffs' legal theory, and not to whether the Complaint in fact stated the elements of such cause of action. See generally *Ashcroft v. Iqbal*, 556 U.S. 662, 679, 129 S. Ct. 1937, 1950, 173 L.Ed.2d 868 (2009) (“While legal conclusions can provide the framework of a complaint, they must be supported by factual allegations.”); accord *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 127 S.Ct. 1955, 1964-65, 167 L.Ed.2d 929 (2007). Notably, in this regard, the word “trespass” does not itself automatically contain within it all essential facts to make out a trespass cause of action. To endow it with such an effect would be to convert it into the type ***352** of “magic word” which the responsive opinion rightly eschews.

[13] Nor do we suggest that “the use of ... ‘invasion’ or ‘intrusion’ [is required] at every turn in order to apprise Southwestern of the nature of [Plaintiffs'] trespass claim[.]” Concurring and Dissenting Opinion, at 353-54. Our point is that a plaintiff alleging trespass by invasion of property must aver something more than mere drainage of minerals from the subject property, which by itself implicates the rule of capture. This holds true even where the defendant has completed its wells using hydraulic fracturing. Thus, the plaintiff must use at least *some* words alleging physical intrusion – and not merely by inference based on generalized characteristics of a particular drilling method, *cf. Frankel v. Donehoo*, 306 Pa. 52, 55, 158 A. 570, 572 (1931) (observing that the pleading of a “good cause of action” cannot “be ambiguous or depend on conjecture or inference”) – if for no other reason than to give the defendant a chance to deny the allegation and

avoid an implied admission. See Pa.R.C.P. No. 1029. See generally 4 STANDARD PENNSYLVANIA PRACTICE 2d § 32.1 (West 2015) (noting that the material facts on which an action is based “must be sufficiently specific so that the defending party can frame a proper answer and prepare a defense” (footnotes omitted)); *Smith v. Furness*, 117 Conn. 97, 166 A. 759, 760 (1933) (“The adverse party has the right to have the facts appear so that the question whether they support the conclusion may be determined and that he may have an opportunity to deny them.”).

Finally, it is tenuous to suggest that a potential pleading defect along these lines may be obviated by post-hoc references to scientific evidence concerning hydraulic fracturing in general, expressions of jurists in other jurisdictions, subsequent questions propounded by a plaintiff during discovery, or subsequent advocacy in opposition to summary judgment. See Concurring and Dissenting Opinion, at 353-55. In any event, we again stress that the adequacy of the Complaint's factual allegations is not an issue that we are tasked with finally resolving at this juncture. Our present discussion is necessitated by the inherent contradictions appearing in the Superior Court's opinion together with its lack of specificity as to the averments on which its holding rested, all of which has been elaborated upon above.

V. Summary and Conclusion

[14] [15] In summary, the parties to the appeal are in agreement – and we concur as well – that the rule of capture remains extant in Pennsylvania, and developers who use hydraulic fracturing may rely on pressure differentials to drain oil and gas from under another's property, at least in the absence of a physical invasion. The Superior Court panel erred to the extent it assumed that either (a) the use of hydraulic fracturing alters this rule, or (b) where hydraulic fracturing is utilized, such physical invasion is a necessary precondition in all cases for drainage to occur from underneath another property. More broadly, insofar as the panel's decision may be construed to suggest that a natural-versus-artificially-induced-flow litmus should be employed to determine whether the rule of capture applies in a given situation, that standard rests on a false distinction and is disapproved.

The order of the Superior Court is vacated and the matter is remanded to that court for further proceedings consistent with this opinion.

Justices Baer, Todd, Wecht and Mundy join the opinion.

Justice Dougherty files a concurring and dissenting opinion in which Justice Donohue joins.

*353 CONCURRING AND DISSENTING OPINION

JUSTICE DOUGHERTY

I join the majority's holding that the rule of capture remains effective in Pennsylvania to protect a developer from trespass liability where there has been no physical invasion of another's property. In so holding, the majority correctly recognizes that if there **is** such a physical invasion the rule of capture will **not** insulate a developer engaged in hydraulic fracturing from trespass liability. As I agree with both propositions, I also agree the matter should be remanded for further proceedings involving a specific inquiry into a physical invasion. I respectfully dissent, however, from the notion that this question must be determined by the Superior Court on the present record, and would instead remand to the trial court for completion of the discovery that was forestalled by erroneous summary judgment, and for trial, if necessary.

The learned majority has expertly explained the rule of capture and its purpose in our jurisprudence related to oil and gas drilling; in my view, the rule was a reasonable innovation in response to the inherent nature of underground gas and oil deposits, that is, their “fugitive” nature, and their tendency to move freely deep inside the earth and “escape” across surface property lines “without the volition of the owner.” *Westmoreland & Cambria Nat. Gas Co. v. DeWitt*, 130 Pa. 235, 18 A. 724, 725 (1889). The majority also correctly recognizes the Superior Court erred in focusing — in its decision not to apply the rule in this case involving hydraulic fracturing — on the “artificial” mechanisms of fracking. However, I cannot agree with the majority's rationale and disposition for the following reasons.

First, my review reveals the majority's repeated suggestion that the plaintiffs did not consistently make allegations of a physical invasion in their trespass case is erroneous and misleading. See, e.g., Majority Opinion, at 339-40, 340-41, 341-42, 341-42, 345-46, 345-46, 349-50. As the majority itself recognizes, fracking — by definition — involves the injection of fluid and proppants into the earth, with the

expected and intended result they will move horizontally in all directions, for long distances, to create new fractures (or join with existing ones) to allow drainage up to the driller's wellbore. *See id.* at 337-38, quoting from EPA (“These fractures can extend several hundred feet away from the wellbore.”). *See also Coastal Oil & Gas Corp. v. Garza Energy Trust*, 268 S.W.3d 1, 7 (Tex. 2008) (fracking fluid travels “sometimes as far as 3,000 feet from the well”); *id.* at 33 n.34 (Willett, J., concurring) (typical fracture runs 2,500-4,500 feet from wellbore) (citation omitted). Indeed, at every stage of the litigation, there was no dispute among the parties that plaintiffs alleged a trespass — which by definition involves a physical invasion¹ — caused by fracking — which by necessity involves underground injection and dispersal of fluid and proppants across great distances of underground territory. *See, e.g.,* Majority Opinion, at 340-41 (noting Southwestern's argument in support of summary judgment that it did not physically invade Plaintiffs' property). Compare *id.* at 350-51 (observing Plaintiffs did not *354 expressly mention a physical intrusion in response to defendant's motion for summary judgment) with *id.* at 340-41 (noting Plaintiffs used intrusion verbiage in their motion for partial summary judgment). *See also Coastal Oil*, 268 S.W.3d at 37 (Willett, J., concurring) (“[Fracking] involves the injection of fluids across lease lines, but ... is not a trespass because [it] is not wrongful because [it] generates societal and economic benefits that outweigh any harm to individual operators.”). I reject the notion that Plaintiffs had to use the magic words “invasion” or “intrusion” at every turn in order to apprise Southwestern of the nature of their trespass claim, and I cannot agree with the majority's unfair characterization of the plaintiffs' case as somehow lacking in this regard.

Additionally, and for the same reason, I cannot agree that the Superior Court considered this pivotal question of physical intrusion *sua sponte*, as the majority posits, *see* Majority Opinion, at 346-47. In my view, the panel simply confronted the issues as the parties themselves have litigated them, and I would emphasize it is for this same reason Southwestern did not challenge the Superior Court's holding in this regard. *See id.* at 343-44 (Southwestern did not question Superior Court's ruling based in part on the premise that Plaintiffs' claims were grounded on allegations fluid/proppants were injected into their property).²

In fact, the complaint states that, by the use of its “units” adjacent to Plaintiffs' land, Southwestern “continues to extract natural gas from under the land of the Plaintiffs,” and that these actions were a “past and continuing trespass” on

Plaintiffs' land. Complaint at ¶¶8-9, 11, 14; *see also* Answer to New Matter and Counterclaim at ¶61.1 (“Plaintiffs allege that natural gas is being extracted from under their land by way of wells, the boreholes of which are located on [Southwestern's leaseholds].”). As the majority notes, Southwestern did not file preliminary objections in the nature of a demurrer; instead, Southwestern has consistently focused, *inter alia*, on the rule of capture as their defense to the Plaintiffs' trespass action. *See, e.g.,* Answer, New Matter and Counterclaim at ¶¶36-39.

Moreover, Plaintiffs' three sets of interrogatories served on Southwestern included numerous questions about the horizontal distance from each side of a Southwestern borehole from which Southwestern reasonably anticipated extracting natural gas, and the filings related to both summary judgment motions included discussion of trespass by physical intrusion beneath Plaintiffs' property. For example, Plaintiffs opposed summary judgment by arguing, *inter alia*, that truthful answers to these interrogatories — the subject of an outstanding motion to compel the trial court ultimately denied as moot — would “readily demonstrate the extent of the intrusion under” their property. Brief of Plaintiffs in Opposition to [Southwestern's] Supplemental Brief in Support of Motion for Summary Judgment and in Opposition to Plaintiffs' *355 Motion for Partial Summary Judgment at 3.³ Plaintiffs also relied on an expert report indicating at least one of Southwestern's boreholes is located within 63 feet of their land, when the relevant “fracking area” could be approximately 371 feet each way from a borehole. *Id.* at 2. *See also* Plaintiffs' Brief in Opposition to SWN's Motion for Summary Judgment and in Support of Their Motion for Summary Judgment at 4 (explaining a trespass “may be made by causing or permitting a thing to cross the boundary of the premises”) (citation omitted); 6 (noting that, with respect to horizontal fractures caused by injection of fluids, nothing can be done to control their direction) (citation omitted); 16-17 (explaining, with respect to statute of limitations, manner of entry onto Plaintiffs' land is by hydrofracturing far underground). Under the circumstances, in my view, the argument that Southwestern's fracking activities effected a physical intrusion upon Plaintiffs' property has always been at the crux of the present litigation.

Finally, I make the following observations relating to the rule of capture in the context of fracking of non-conventional shale deposits. First, although I recognize natural gas has a “fugacious” nature regardless of whether it lies in an open pool or in a sandstone or shale deposit, it is clear that natural

gas trapped in shale drains naturally much more slowly than from a pool or from other materials; indeed, this is the very reason developers engage in fracking, to make shale gas development productive faster, that is, more efficient and economically viable. The practice exploits natural shale fractures and creates new ones, and with present technology, much remains mysterious about precisely what happens so far beneath the surface. However, I do not view this uncertainty as a basis to absolve developers from trespass liability if a plaintiff can prove the fluids and proppants they intentionally injected into their wellbores travelled horizontally across property lines and caused drainage of gas previously trapped under the plaintiff's land.

Moreover, the industry routinely divides royalties payable on natural gas produced among multiple landowners on whose property the extraction is known to be taking place, *i.e.*, methods exist to measure or estimate these amounts. See Appellees' Brief at 25-26; 58 P.S. § 34.1 (“Where an operator has the right to develop multiple contiguous leases separately, the operator may develop those leases jointly by horizontal drilling unless expressly prohibited by a lease. In determining the royalty where multiple contiguous leases are developed, in the absence of an agreement by all affected royalty owners, the production shall be allocated to each lease in such proportion as the operator reasonably determines to be attributable to each lease.”); *see also* *Bailets*

v. Pa. Turnpike Comm'n, 645 Pa. 520, 181 A.3d 324, 336 (2018) (“Generally, under Pennsylvania law, damages need not be proved with mathematical certainty, but only with reasonable certainty, and evidence of damages may consist of probabilities and inferences.”). *356 I do not view the difficulty as a barrier to fact-finding, and I disagree that only the General Assembly can provide the necessary relief to small, landlocked landowners such as Plaintiffs here. See Majority Opinion, at 348-49.⁴

Given the majority's holding that the rule of capture does not preclude a trespass if there is a physical invasion, I would affirm the Superior Court's disposition insofar as it vacated summary judgment and remanded for further factual development. *Briggs*, 184 A.3d at 164. Given the state of the record, which was apparently not complete at the time the trial court erroneously entered summary judgment, I would remand the matter to that court for further proceedings, including the completion of discovery on the factual question of physical invasion, and trial thereon as necessary.

Justice *Donohue* joins this opinion.

All Citations

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Footnotes

- 1 The term “capture” is also drawn from an analogy to wild animals. At common law, a person could acquire title to such an animal by reducing it to possession. See *Potts v. Davis*, 149 Pa. Cmwlth. 8, 610 A.2d 74, 75 (1990) (quoting *Douglas v. Seacoast Prods., Inc.*, 431 U.S. 265, 284, 97 S. Ct. 1740, 1751, 52 L.Ed.2d 304 (1977)).
- 2 See *Gliptis v. Fifteen Oil Co.*, 204 La. 896, 16 So. 2d 471, 474 (1943); *Edwards v. Lachman*, 534 P.2d 670, 671 (Okla. 1974); *Hastings Oil Co. v. Texas Co.*, 149 Tex. 416, 234 S.W.2d 389, 390-91 (1950).
- 3 See *Diamond McCattle Co. LLC v. Range Louisiana Operating LLC*, No. 3:18-CV-00229, *slip op.*, 2018 WL 6728587, at *5 (W.D. La. Dec. 21, 2018). *But cf.* *Cont'l Res., Inc. v. Farrar Oil Co.*, 559 N.W.2d 841, 844 (N.D. 1997) (permitting horizontal drilling across property lines where leases have been pooled); 58 P.S. § 34.1 (same).
- 4 Some geologists add that the gas itself is not “unconventional,” as gas, like water, is the same and has the same properties wherever it is found. See, *e.g.*, Brief for Amicus Thomas D. Gillespie, Professional Geologist, at 5. It appears that “unconventional gas” or “unconventional gas production” is a shorthand way of referring to natural gas located in, or retrieved from, unconventional geological formations.
- 5 The only exception occurs in Southwestern's suggestion that, just as property rights are not absolute high above the surface of the earth, they should not be deemed absolute very deep beneath the surface. See Brief for Appellants at 45-49; Reply Brief for Appellant at 12-15. This contention is discussed below.
- 6 Plaintiffs also requested punitive damages. Although punitive damages are a remedy, *i.e.*, an “element of damages arising out of the initial cause of action,” *Kirkbride v. Lisbon Contractors, Inc.*, 521 Pa. 97, 101, 555 A.2d 800, 802 (1989), Plaintiffs

styled the request as an independent, third cause of action and did not specifically tether it to the claims sounding in trespass or conversion. See Complaint at ¶20. This aspect of the Complaint is not directly material to the issues presently before the Court.

7 In its Answer, Appellant noted its name had been changed to **SWN** Production Company, LLC. To maintain consistency with the caption as it has appeared throughout this litigation, we will continue to refer to Appellant as “Southwestern.”

8 One member of the original three-judge panel did not participate.

9 The order in *Stone* was vacated after the parties reached a private settlement.

10 Although this Court’s order describes the issue as having been rephrased, see *id.*, the issue as stated above was taken verbatim from Southwestern’s petition for allowance of appeal. The only change made by this Court was the deletion of an introductory sentence which Southwestern had included within the issue, asserting that the rule of capture has been followed by Pennsylvania courts since the late 1800s. See *Briggs v. Sw. Energy Prod. Co.*, No. 443 MAL 2018, Petition for Allowance of Appeal, at 3-4 (“Since at least 1889, Pennsylvania courts have followed the rule of capture, under which property owners who produce oil or gas from wells located on their lands own the oil or gas they ‘capture’ through those wells and are not liable for drainage of oil and gas from under neighboring property, in trespass or otherwise.”).

We respectfully disagree with Justice Dougherty’s suggestion that the phrase, “hydraulic fracturing fluids are injected solely on or beneath the driller’s own property,” impliedly reflects an intent on the part of the driller to physically intrude into adjacent land. See Concurring and Dissenting Opinion, at 354-55 n.2. First, such implication would be counterintuitive. Second, the reference to “drainage” in the introductory sentence – which sets the context for the question that follows – suggests otherwise. Finally, Southwestern’s brief to this Court again clarifies its understanding that the Plaintiffs’ allegations relate only to drainage. See Brief for Appellant at 8 & n.7; see also *id.* at 9-10 (arguing that Plaintiffs “acknowledge that their claims against [Southwestern] relate solely to their belief that [Southwestern’s] activities on or under [its] own property cause gas to drain from beneath [Plaintiffs’] property” (emphasis added)); *id.* at 27 (again arguing that the dispute only involves allegations of drainage, and not physical invasion into Plaintiffs’ property – and, as such, the rule of capture should be applied in the same manner as in “the early cases” such as *Westmoreland*, *Barnard*, and *Jones*).

11 This appears to be a fallback position because elsewhere, and consistent with its position throughout this litigation as well as the issue for resolution as Southwestern framed it, Southwestern steadfastly denies it has injected any physical substance into Plaintiffs’ land – or, at least, it posits that nobody can possibly know the direction and extent of underground fissures created by its hydraulic fracturing treatments, as such fissures depend on the way nature has formed the rock miles below the surface. See *id.* at 37-38; cf. Brief for Amicus Prof. Terry Engelder, at 13 (indicating that natural fractures cannot be distinguished from artificial ones using modern techniques such as microseismic analysis). Moreover, Southwestern contends that Plaintiffs “do not allege anything different about [Southwestern’s] production of oil and gas” than plaintiffs alleged in prior non-hydraulic-fracturing drainage cases where the rule of capture was applied. *Id.* at 27; see also *id.* (“Like the operators in each of those cases, [Southwestern] is conducting its activities from and on its own property.”).

12 As a rule, plaintiffs must, in their pleadings, not only apprise the defendant of the cause of action being asserted, they must also summarize the essential facts supporting that cause of action. See Pa.R.C.P. No. 1019(a); *McShea v. City of Phila.*, 606 Pa. 88, 96, 995 A.2d 334, 339 (2010); see also *Steiner v. Markel*, 600 Pa. 515, 524 n.11, 968 A.2d 1253, 1258 n.11 (2009) (“The purpose behind the rules of pleading is to enable parties to ascertain ... the claims and defenses asserted in the case.” (quoting *Grossman v. Barke*, 868 A.2d 561, 568 (Pa. Super. 2005))). Moreover, this Court has expressed that plaintiffs should not make their request for relief into a “moving target” by altering their theory of liability on appeal. *Seebold v. Prison Health Svcs., Inc.*, 618 Pa. 632, 657, 57 A.3d 1232, 1248 (2012).

13 Justice Dougherty charges that our reading of the Complaint is “unfair.” Concurring and Dissenting Opinion, at 353-54. There is no aspect of the Complaint, however, in which a physical intrusion into Plaintiffs’ land is alleged as a fact, and its repeated contention that the gas came “from under” Plaintiffs’ land is consistent with the process of drainage, which does not implicate physical invasion. This topic is addressed in further detail in Section IV below.

Justice Dougherty likewise disputes our characterization of the Superior Court's actions, opining the court "simply confronted the issues as the parties themselves have litigated them," and that we are incorrect to suggest it "considered th[e] question of physical intrusion *sua sponte*." *Id.* It is difficult to reconcile that position with the court's own observation that Plaintiffs had argued "that the extraction of natural gas from beneath their property is a trespass, *despite the lack of physical intrusion by Southwestern.*" **Briggs**, 184 A.3d at 156 (emphasis added) (citing Brief for Plaintiffs at 5-6).

- 14 Had the common pleas court dismissed the Complaint on preliminary objections in the nature of a demurrer, the appellate court's reference solely to the pleadings would have been more appropriate, as a demurrer tests the legal sufficiency of the pleadings. See Pa.R.C.P. No. 1028(a)(4); *Jefferies v. Hoffman*, 417 Pa. 1, 4, 207 A.2d 774, 775 (1965). Nevertheless, Southwestern did not file a demurrer.
- 15 See, e.g., 58 P.S. §§ 401-419 (Oil and Gas Conservation Law of 1961); *Hunter Co. v. McHugh*, 202 La. 97, 11 So. 2d 495 (1942) (upholding a Louisiana statute aimed at preventing waste and securing equitable apportionment among landowners with subsurface oil or gas), *appeal dismissed*, 320 U.S. 222, 64 S. Ct. 19, 88 L.Ed. 5 (1943). See generally Frank Sylvester & Robert W. Malmshemer, *Oil & Gas Spacing & Forced Pooling Requirements: How States Balance Energy Development & Landowner Rights*, 40 U. Dayton L. Rev. 47 (2015) (describing state-level regulations relating to well spacing and the pooling of interests and profits).

In response to the above, Justice Dougherty "disagree[s] that only the General Assembly can provide the necessary relief to small, landlocked landowners such as Plaintiffs here." Concurring and Dissenting Opinion, at 356. Nothing in this opinion states as much, and judicial relief is available where a plaintiff pleads and proves the elements of a trespass claim.

- 16 The Superior Court panel suggested that, unlike gas contained in an underground reservoir, shale gas "is non-migratory in nature." **Briggs**, 184 A.3d at 162. This description is imprecise. Natural gas molecules in shale reservoirs have the same properties as natural gas molecules in conventional reservoirs. See *Butler*, 620 Pa. at 16, 65 A.3d at 894. They will thus migrate when a migration path comes into existence. See generally Brief for Amicus Prof. Terry Engelder, at 12 (indicating that fugacious minerals located in a conventional and unconventional reservoirs (e.g., shale rock) behave the same way – they remain static until the reservoir is entered by mechanical means, namely, "drilling and the fracturing that comes with drilling").
- 17 Some wells that are ultimately completed using hydraulic fracturing treatments are first drilled vertically to a "kickoff point" at a depth of several thousand feet. At that point, the drill bit is directed through an arc until it proceeds horizontally within the reservoir rock. See *Robinson Twp. v. Commonwealth*, 623 Pa. 564, 587, 83 A.3d 901, 915 (2013). In such instances it may be readily ascertainable whether the wellbore invaded the neighboring property, as the horizontal drilling distance will be known. This would clearly constitute a physical intrusion into the neighboring property.

Although there is no present suggestion that Southwestern has engaged in horizontal drilling, some evidentiary support was nonetheless proffered for the concept that fracturing fluid and/or proppants may have been propelled beneath Plaintiffs' land. See Dr. John Wang & Assocs., *Assessment of Mineral Rights of 11.07 Acres Land of Briggs et al. in Harford Township, Susquehanna Co., PA Being Developed by SWN*, at 2 (Aug. 24, 2015).

- 18 One *amicus curiae* supporting Plaintiffs suggests an interpretive gloss be given to the Complaint's allegations: namely, that they were intended to convey that Southwestern placed its well close enough to Plaintiffs' land that a physical intrusion became likely. See Brief for Amicus Protect PT at 5 n.4. Whether or not this is what the intermediate court panel had in mind, if that tribunal on remand determines that the Complaint does indeed allege a physical invasion into Plaintiffs' land, the better practice will be for it to identify the allegation in question and explain why it should be so construed.
- 1 See, e.g., Majority Opinion, at 346 ("In Pennsylvania, a trespass occurs when a person who is not privileged to do so intrudes upon land in possession of another, whether willfully or by mistake.").
- 2 I reach the same conclusion regarding the question presented in this appeal. Contrary to the majority's view that the idea of a physical intrusion is "not fairly subsumed within the issue framed for our review," see Majority Opinion, at 347, it is clear to me that the phrasing of the question as pertaining to fracking fluids that are "injected solely on or beneath the driller's own property" inherently includes the idea that those fluids — while injected at the driller's wellbore site — are by definition injected with the intention that they will be disseminated horizontally in all directions for great distances, and

the majority itself concedes there is “some evidentiary support ... for the concept that fracturing fluid and/or proppants may have been propelled beneath Plaintiffs’ land.” *Id.* at 350 n.17.

- 3 I disagree with the majority’s suggestion discovery was complete when judgment was entered. Majority Opinion, at 340 (stating Southwestern’s summary judgment motion was filed “[a]fter the parties engaged in discovery”). It is clear that Plaintiffs’ outstanding motion to compel Southwestern’s response to interrogatories was denied as moot in the summary judgment order. Order dated 8/8/17; *see also* Majority Opinion, at 340-41. Plaintiffs expressly objected to determination of the motion for summary judgment because discovery was outstanding and the case was therefore not “ripe for resolution.” Plaintiffs’ Motion to Stay Resolution of Defendant’s Motion for Summary Judgment, 1-2.
- 4 Notably, Plaintiffs once had a lease with Southwestern, which was not renewed. Appellees’ Brief at 39. It appears Southwestern, having leased the properties on three sides of Plaintiffs’ parcel and potentially recovering drainage from beneath all of their land by fracking, *see id.* at 3, had minimal incentive to enter into such a renewal. I am therefore wary of the proposition that landowners who want to benefit from the shale gas beneath their property should simply enter into leases, or drill their own wells. *See Briggs v. Sw. Energy Prod. Co.*, 184 A.3d 153, 163 (Pa. Super. 2018) (“Hydraulic fracturing is a costly and highly specialized endeavor, and the traditional recourse to ‘go and do likewise’ is not necessarily readily available for an average landowner.”) (citation omitted).

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