

PUBLISHED

UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT

No. 25-1919

HARRIS INVESTMENT HOLDINGS, LLC, a Georgia Limited Liability Company,

Plaintiff – Appellant,

v.

BFJ OF USA, LLC; CHOUDRY BUTTAR, a North Carolina Resident; SHEHZAD QUAMAR, a North Carolina Resident; FAISAL M. YASIN, An Illinois Resident,

Defendants – Appellees.

Appeal from the United States District Court for the Middle District of North Carolina, at Greensboro. Catherine C. Eagles, Chief District Judge. (1:23-cv-00851-CCE)

Argued: March 18, 2026

Decided: July 30, 2026

Before AGEE, Circuit Judge, and TRAXLER and FLOYD, Senior Circuit Judges.

Vacated and remanded for further proceedings by published opinion. Senior Judge Traxler wrote the opinion, in which Judge Agee and Judge Floyd joined.

ARGUED: Martin Arthur Shelton, LEWIS BRISBOIS BISGAARD & SMITH, Atlanta, Georgia, for Appellant. Robert N. Young, CARRUTHERS & ROTH, PA, Greensboro, North Carolina, for Appellee. **ON BRIEF:** Philip Hinson, LEWIS BRISBOIS BISGAARD & SMITH LLP, Charlotte, North Carolina, for Appellant. Rachel S. Decker, CARRUTHERS & ROTH, PA, Greensboro, North Carolina, for Appellees.

TRAXLER, Senior Circuit Judge:

In 2021, Appellant Harris Investment Holdings bought property in Greensboro, North Carolina, adjacent to a gas station and convenience store owned by Respondent BFJ of USA, LLC. After an environmental assessment showed the presence of hazardous chemicals in the soil and groundwater of Harris’s property, Harris brought this action against BFJ under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. §§ 9601-9675, and under state law, seeking recovery of the costs associated with installing a vapor barrier to protect against the risks associated with the volatile organic compounds (VOCs) found on its property. The district court granted summary judgment in favor of BFJ on all claims, and Harris now appeals. We agree with Harris that the district court erred by granting summary judgment, and we therefore vacate and remand for further proceedings.

I. Statutory Background

CERCLA was enacted “to address the increasing environmental and health problems associated with inactive hazardous waste sites. The statute encourages private cleanup of such hazards by providing a cause of action for the recovery of costs incurred” in the cleanup. *Nurad, Inc. v. William E. Hooper & Sons*, 966 F.2d 837, 841 (4th Cir. 1992).

CERCLA applies when there is a “release” or a “threatened release” of a “hazardous substance” at a “facility.” 42 U.S.C. § 9607(a). A “release” is broadly defined as “any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.” 42 U.S.C. § 9601(22). “Facility” is also a broad term under the statute, encompassing

(A) any building, structure, installation, equipment, pipe or pipeline . . . , well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or (B) any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located

42 U.S.C. § 9601(9).

CERCLA identifies the hazardous substances within its scope as those designated as hazardous by the Federal Water Pollution Control Act, the Solid Waste Disposal Act, the Clean Air Act, and the Toxic Substances Control Act. *See* 42 U.S.C. § 9601(14)(A)-(F). However, CERCLA expressly excludes petroleum from its scope, stating that the term “hazardous substance”

does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

42 U.S.C. § 9601(14). This carve-out is generally referred to as the “petroleum exclusion.”

This circuit has not yet addressed the scope of the petroleum exclusion, and we will discuss it in more detail later in this opinion. For now, it suffices to say that the prevailing view is that unadulterated crude oil and crude-oil derivatives like gasoline fall within the scope of the petroleum exclusion despite the fact that they naturally contain substances that are individually listed as hazardous under the statutes specified in § 9601(14). *See, e.g., Wilshire Westwood Assocs. v. Atlantic Richfield Corp.*, 881 F.2d 801, 810 (9th Cir. 1989) (concluding that the petroleum exclusion applies “to unrefined and refined gasoline even though certain of its indigenous components and certain additives during the refining

process have themselves been designated as hazardous substances within the meaning of CERCLA”).

CERCLA “imposes broad and strict liability for the costs of cleaning up hazardous waste sites without regard to whether the persons assigned liability under the Act placed the waste material on the site or had knowledge of the waste materials’ presence.” *Crofton Ventures Ltd. P’ship v. G & H P’ship*, 258 F.3d 292, 296 (4th Cir. 2001). Actions seeking to recover response costs may be brought against certain statutorily defined categories of persons, including past and current owners of the facility and those who transport or dispose of hazardous substances. *See* 42 U.S.C. § 9607(a)(1)-(4). “Those who fall within one of the categories described by the statute are known as ‘potentially responsible persons,’ and are strictly liable for cleanup costs subject only to the statute’s limited defenses.” *Axel Johnson, Inc. v. Carroll Carolina Oil Co.*, 191 F.3d 409, 413 (4th Cir. 1999).

A private-party CERCLA plaintiff seeking recovery of its response costs makes a *prima facie* case by showing that:

(1) the defendant is a potentially responsible person . . . ; (2) the site constitutes a facility; (3) a release or a threatened release of hazardous substances exists at the facility; (4) the plaintiff has incurred costs responding to the release or threatened release of hazardous substances . . . ; and (5) the response costs conform to the National Contingency Plan.

PCS Nitrogen Inc. v. Ashley II of Charleston LLC, 714 F.3d 161, 167-68 (4th Cir. 2013) (cleaned up).¹ “Contrary to the rule followed in most areas of the law, the burden of proof as to causation in a CERCLA case lies with the defendant.” *Westfarm Assocs. Ltd. P’ship v. Washington Suburban Sanitary Comm’n*, 66 F.3d 669, 681 (4th Cir. 1995).

The plaintiff must prove only that contaminants which were once in the custody of the defendant could have travelled onto the plaintiff’s land, and that subsequent contaminants (chemically similar to the contaminants once existing in defendant’s custody) on the plaintiff’s land caused the plaintiff to incur cleanup costs. . . . The plaintiff need not produce any evidence that the contaminants did flow onto its land from the defendant’s land. Rather, once plaintiff has proven a *prima facie* case, the burden of proof falls on the defendant to disprove causation.

Id. A CERCLA defendant likewise bears the burden of proving its entitlement to any of the statute’s limited defenses or exemptions, including the petroleum exclusion. *See PCS Nitrogen*, 714 F.3d at 185 (“[C]urrent owners and operators seeking to avoid CERCLA’s strict liability scheme must meet the requirements necessary to claim the narrow defenses and exemptions specifically established by Congress.”); *Johnson v. James Langley Operating Co.*, 226 F.3d 957, 963 n.4 (8th Cir. 2000) (“[O]nce plaintiffs have presented evidence to support their allegation of a release or threatened release, defendants bear the burden of showing the petroleum exclusion applies.”); *Tosco Corp. v. Koch Indus., Inc.*,

¹ The National Contingency Plan “is EPA’s regulatory template for a CERCLA quality cleanup.” *Pub. Serv. Co. of Colorado v. Gates Rubber Co.*, 175 F.3d 1177, 1181 (10th Cir. 1999) (cleaned up). “It sets performance standards, identifies methods for investigating the environmental impact of a release or threatened release, and establishes criteria for determining the appropriate extent of response activities.” *Id.* (cleaned up); *see* 40 C.F.R. § 300.1 (“The purpose of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) is to provide the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants.”).

216 F.3d 886, 894 n.5 (10th Cir. 2000) (“In any CERCLA case, once the plaintiff alleges a release or threatened release of hazardous substances, which Tosco has alleged and supported with evidence here, the party asserting the benefit of the petroleum exclusion bears the burden of proof on that issue.”).

II. Factual Background

In 2008, Defendant BFJ purchased a parcel of land at 2209 East Bessemer Avenue in Greensboro, North Carolina. A gas station and convenience store had been in operation on the property for decades before BFJ bought it, and BFJ continues to operate a gas station and store on the site.

At some point in the late 1950s, prior owners of the Bessemer Avenue property installed four underground storage tanks (USTs) for kerosene, waste oil, and heating oil. Those tanks were closed in place² in 1996. In 1982, the then-owners installed four USTs for gasoline and diesel fuel; those tanks were removed in 2007. After purchasing the property, BFJ installed two USTs on the property in 2008; those tanks are still in operation.

In 1996, the then-owners of the site decided to permanently close the first group of tanks after receiving a Notice of Violation for failure to have a leak detection system for the kerosene or waste oil USTs. Soil removed during the closure was stained and contained product odor, which indicated a release of the substances contained in the tanks. Although no groundwater samples were taken, soil samples taken during the closure showed the

² The tanks were emptied, cleaned, then filled and sealed with Portland cement, and left in place underground.

presence of petroleum-related substances in the soil beneath the tanks, including oil and grease found below the waste oil tank. As required by state law, the release was reported to the appropriate state agency and was designated as UST Incident No. 16347 in North Carolina's public database of UST releases. An additional environmental assessment of the property conducted in 2006 found petroleum constituents in the groundwater at a level below the then-current regulatory standards. After the 2006 assessment, the State issued a letter stating that no further remedial action was required as to this incident.

A release was also discovered when the second set of USTs were removed in 2007; that release was designated as UST Incident No. 37405 in North Carolina's UST database. In 2008, a limited environmental assessment performed in connection with that release found above-regulatory-standard levels of benzene and other petroleum hydrocarbons in the soil and groundwater. In May 2009, the State issued a notice stating that no further remedial action was required as to that incident but noting that the property was suitable only for industrial or commercial use because the contamination exceeded residential standards, and that the groundwater was not suitable for use as a water supply. The property owners were thus required to provide public notice of the contamination and file a Notice of Residual Petroleum with the County Register of Deeds.

Since BFJ purchased the Bessemer Street property and installed the third set of USTs, the State has conducted compliance inspections every two or three years. After each of the inspections in 2012, 2015, 2018, 2020, and 2022, the State cited the facility for at least nine violations of the UST regulations. The violations include failure to test the USTs

leak-detection and spill-prevention systems; failure to conduct necessary visual inspections; and failure to contain and report spills and overfills.

In 2021, Plaintiff Harris bought the property at 617 N. English Street, which adjoins BFJ's Bessemer Street property. Harris's property had been operated as a car repair facility from the 1960s until shortly before Harris bought it, and a portion of the property had been used as a junkyard for old cars since at least 1999. Harris, which planned to build an office for a commercial staffing company on the site, hired Summit Engineering to perform an environmental assessment of the property. The Phase II assessment completed in June 2022 found VOCs and other hazardous substances in the groundwater on Harris's property at concentrations above regulatory standards. To mitigate the hazards to people who would be working in the building, Harris installed a vapor-intrusion mitigation system ("vapor barrier") during the construction process.

Harris subsequently filed this action against BFJ and its members, asserting claims under CERCLA and under North Carolina law. The district court issued a scheduling order requiring, *inter alia*, Harris's disclosure of expert testimony by August 15, 2024, BFJ's expert disclosure by September 27, 2024, and Harris's rebuttal disclosure by October 11, 2024. Under the scheduling order, discovery closed on December 31, 2024.

Harris retained Peter de Haven as its expert, and de Haven's initial report was timely disclosed. In the report, de Haven noted that the report was prepared in order to address two questions: whether the operation of "fuel facilities" on BFJ's property "cause[d] or contribute[d] to contamination on [Harris's] property" and thus warranted the installation

of the vapor barrier, J.A. 468; and whether the vapor barrier was “designed to the appropriate standard of care” and reasonably priced, J.A. 468.

In the report, de Haven outlined the history of both properties and discussed the environmental tests and assessments that had been performed. de Haven explained that because VOCs “drive vapor intrusion risk,” his summaries of the soil and groundwater impacts of the 1996 and 2007 releases “are focused on VOCs and are not necessarily exhaustive descriptions of all sampling that have occurred during a particular investigation.” J.A. 474.

As to BFJ’s site, de Haven noted that only soil samples, but no groundwater samples, were taken in 1996 when the release (UST Incident No. 16347) was discovered in connection with the closure of the first batch of USTs in 1996. However, as part of a 2006 reevaluation of the incident, new soil and groundwater samples were taken. *See* J.A. 475. According to de Haven’s report, “[t]he soil samples were analyzed for VOCs, semi-volatile organic compounds (SVOCs), volatile petroleum hydrocarbons (VPH), extractable petroleum hydrocarbons (EPH), and lead and chromium.” *Id.* Consistent with his focus on VOCs, de Haven did not report the results of the lead or chromium tests and noted only that “[t]he sole VOC identified above laboratory method detection limits was methyl tert butyl ether.” *Id.*

Regarding the 2007 UST leaks (Incident No. 37045), de Haven stated that soil tests showed high levels of petroleum hydrocarbons under the USTs and the dispensers and product lines. VOCs including benzene were also identified in the soil that was excavated

laterally from the tanks in concentrations higher than regulatory standards. Groundwater samples likewise showed levels of VOCs well above regulatory standards.

As to Harris's property, de Haven summarized the results of the environmental assessments performed by Summit Engineering after Harris's purchase. de Haven noted that Summit tested the soil and groundwater for VOCs and other petroleum hydrocarbons, and for various hazardous heavy metals, including chromium and hexavalent chromium. As with his discussion of BFJ's site, however, de Haven only provided sampling results for VOCs. *See* J.A. 477 ("As this matter involves the installation of a [vapor barrier] due to identified VOC impacts in the subsurface, the following discussion is limited to the VOC results."). de Haven explained that Summit's testing showed low concentrations of VOCs in the soil, but that VOCs were found in the groundwater at levels exceeding regulatory standards.

de Haven's report also addressed whether BFJ's property was the likely source of the contamination on Harris's property. Based on the topography of the region and the properties and the location of drainage basins, de Haven stated that the groundwater from BFJ's property would be expected "to flow toward the northeast"—*i.e.*, towards Harris's property. J.A. 480. Although monitoring wells on Harris's property showed water flowing in a more easterly direction, de Haven did not find those limited results to be conclusive given that "constituent fate and transport can be subject to additional variation in flow directions due to a variety of factors, including fracture flow systems common in Piedmont geology, transverse dispersion of constituents, and lateral migration of petroleum constituent vapors in the subsurface beyond plume boundaries." J.A. 486. In de Haven's

view, “the groundwater flow data are not conclusive,” and he believed that additional data collection from both properties “would better inform the understanding of groundwater flow between the two properties.” J.A. 481. Nonetheless, de Haven found no clear evidence that any source on Harris’s property was responsible for the soil or groundwater contamination, *see* J.A. 481, and he identified BFJ’s property as “a potential source of groundwater impacts to [Harris’s] property.” J.A. 487.

After de Haven’s report was disclosed, BFJ timely disclosed the report and opinions of its own expert, James Cornette. Cornette reviewed aerial photographs of Harris’s property taken over the course of several years and observed areas of darkened soil in each of the pictures. Because the site had been used as an automotive repair business, Cornette believed the darkened areas of soil had been stained by releases from the cars and trucks kept on the site and that it was “logical” to conclude that the substance that was released was “petroleum, or at least [was] primarily petroleum.” J.A. 707. Cornette also addressed the groundwater flow question, opining that groundwater from BFJ’s property would carry contaminants eastward and away from Harris’s property. Cornette therefore believed that the “[c]ontamination associated with the Plaintiffs’ tract likely originated within the confines of their own property.” J.A. 708.

Harris submitted a timely rebuttal report from de Haven addressing Cornett’s conclusions. de Haven pointed out various problems with Cornette’s assumption that all soil that appeared dark in the photographs was *stained* soil—for example, wet soil would appear dark in a picture, as might a section of soil whose top layer was disturbed by vehicles moving around in an unpaved parking area. de Haven also noted that if the contamination

originated from the auto repair business on Harris's property, "one would expect similar constituents in both soil and groundwater." J.A. 520. Instead, the groundwater was contaminated with high concentrations of substances "that are characteristic of a gasoline release," while the soil was contaminated with low concentrations of substances "that are not typically associated with gasoline releases but may be present due to a motor oil release." J.A. 520.

de Haven's rebuttal report also challenged Cornette's conclusions about groundwater flow. While acknowledging that "the limited data available for [Harris's] property indicate a flow that on average may be toward the east," J.A. 522, de Haven explained that the "groundwater flow direction estimates are descriptions of the hydraulic gradient, which can be thought of as the slope of the water table." J.A. 522. According to de Haven, "heterogeneity in soil lithologies"—structural variations in the geological material, including layers of different rock types or soil sediments—"can lead to the transport of groundwater in directions that are not parallel to the hydraulic gradient," such that it was "plausible that oblique flow has occurred toward the north or northeast, resulting in the migration of [hazardous substances] originating at [BFJ's] property onto [Harris's] property." J.A. 522.

Under the district court's scheduling order, the discovery period ended on December 31, 2024. On December 9, Harris served notice requesting entry on BFJ's property in order to install two temporary monitoring wells and conduct additional environmental sampling and testing. After BFJ objected, Harris filed a motion seeking to compel the requested entry. The magistrate judge denied the motion, in part because "the discovery is specifically

sought to supplement expert reports and opinions, but the expert deadlines have already passed, and . . . [Harris] failed to show why this discovery could not have been sought and included earlier by the applicable deadlines.” J.A. 278-79.

A couple of weeks after the denial of Harris’s motion to compel, BFJ filed a motion seeking summary judgment on all claims. As to the CERCLA claim seeking response costs, BFJ argued, *inter alia*, that Harris failed to make a prima facie case because “there is no evidence of any current release or threatened release from the USTs installed and currently used on the Property while owned and/or operated by BFJ,” J.A. 289, and because Harris failed to prove that any release from BFJ’s property caused the contamination on Harris’s property. Even if a prima facie case had been made, BFJ contended it was entitled to summary judgment under the petroleum exclusion because any releases from the property “could only be gasoline or diesel fuel.” J.A. 294. BFJ also contended that Harris’s failure to prove causation was fatal to all claims asserted under state law.

As part of its opposition to the motion for summary judgment, Harris included a declaration from de Haven. In the declaration, which de Haven said was primarily intended to provide “explanations of the opinions provided in [his] prior reports,” J.A. 1732, de Haven responded to some of BFJ’s summary-judgment arguments. As to BFJ’s assertion that only petroleum products could ever have been discharged from its site, de Haven noted that prior testing revealed the presence of chromium, “a non-petroleum related constituent,” in the soil and groundwater of both properties. J.A. 1736. BFJ argued in its reply that de Haven’s declaration should not be considered because it contained new opinions submitted well after the deadline for disclosing expert opinions and reports.

The district court granted judgment in favor of BFJ on all claims. Agreeing with BFJ that de Haven’s summary judgment declaration should not be considered, the district court held that while Harris made a *prima facie* claim for recovery of response costs under CERCLA, BFJ’s evidence showed that the only possible releases were of petroleum constituents falling within the scope of the petroleum exclusion, and Harris’s evidence failed to create a question of fact about the substances released. As to the state-law claims, the district court noted that each claim asserted by Harris required proof of proximate cause, and the court found Harris’s evidence of causation—de Haven’s reports—insufficient.

Harris appeals, challenging the district court’s rejection of its CERCLA claims and state-law claims and the denial of its motion seeking entry on BFJ’s property to install monitoring wells and conduct environmental testing.

III. CERCLA Claims

We begin with the CERCLA claims. The district court held that Harris made the required *prima facie* showing, a conclusion that BFJ does not dispute on appeal. The district court nonetheless concluded that BFJ was entitled to judgment in its favor by virtue of the petroleum exclusion.

Recognizing that the burden of proof was on BFJ, the district court concluded that the evidence relied on by BFJ showed that “any released substances were unadulterated petroleum products.” J.A. 1817. As support for its claim, BFJ pointed to de Haven’s expert reports, which repeatedly used the phrase “petroleum constituents” when describing the substances present on the properties and noted the existence of prior “petroleum releases”

on BFJ's property; and the 2008 site assessment of BFJ's property, which also described a "petroleum release" on BFJ's property. In the district court's view, this evidence was sufficient to show the applicability of the petroleum exclusion, and Harris's evidence failed to create a question of fact.

In reaching this conclusion, the district court rejected Harris's argument that other evidence in the record showed the presence of substances outside the scope of the petroleum exclusion. The court first declined to consider de Haven's statements in his summary-judgment declaration that chromium was found on both properties. In the district court's view, de Haven's discussion of chromium amounted to opinion testimony that was not included in his initial or rebuttal report, and the court therefore excluded the chromium evidence because it was not timely disclosed. *See* Fed. R. Civ. P. 37(c)(1) ("If a party fails to provide information or identify a witness as required by Rule 26(a) or (e), the party is not allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless.").

The court also rejected Harris's argument that substances not covered by the petroleum exclusion could have leaked from the group of tanks that were closed in 1996, which were used for kerosene, heating oil, and waste oil:

As the defendants point out, those tanks were closed nearly 30 years ago. At the time, there was evidence of a petroleum release on the property. But that proves BFJ's point that the release was petroleum, and Harris has not pointed to any evidence that the release involved anything other than petroleum. Nor has it pointed to evidence that there has since been a non-petroleum release from those tanks.

J.A. 1820 (cleaned up).

On appeal, Harris contends the district court erred by incorrectly construing and applying the petroleum exclusion, by refusing to consider de Haven's summary-judgment declaration, and by not properly viewing the evidence in its favor.

A. Petroleum Exclusion

We first address Harris's claim that the district court erred in determining the scope of the petroleum exclusion. "As in all statutory construction cases, we begin with the language of the statute." *Barnhart v. Sigmon Coal Co.*, 534 U.S. 438, 450 (2002). "The first step is to determine whether the language at issue has a plain and unambiguous meaning with regard to the particular dispute in the case. The inquiry ceases if the statutory language is unambiguous and the statutory scheme is coherent and consistent." *Id.* (cleaned up). "The plainness or ambiguity of statutory language is determined by reference to the language itself, the specific context in which that language is used, and the broader context of the statute as a whole." *Robinson v. Shell Oil Co.*, 519 U.S. 337, 341 (1997).

As outlined above, CERCLA applies to releases and threatened releases of "hazardous substances" and defines "hazardous substances" as those substances listed as hazardous under five specified statutes. *See* 42 U.S.C. § 9601(14)(A)-(F). CERCLA does not apply to releases or threatened releases of petroleum, however, because the petroleum exclusion provides that "the term 'hazardous substance' . . . does not include petroleum, including crude oil or any fraction thereof *which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph.*" *Id.* (emphasis added).

The italicized language above is at the heart of this issue; Harris believes this language makes the petroleum exclusion inapplicable to releases of any petroleum product containing an individually listed hazardous substance. As Harris points out, many of the indigenous components of petroleum and crude oil, including benzene, are individually listed as hazardous under the statutes specified in § 9601(14). *See Wilshire Westwood*, 881 F.2d at 803 (“It is undisputable that benzene, toluene, xylene, ethylbenzene and lead are hazardous substances . . . pursuant to several of the statutes set forth in Section 9601(14)(A)-(F). We take judicial notice that benzene, toluene, xylene, ethylbenzene and lead also are all indigenous components of crude oil.”). Harris therefore argues that because benzene and other individually listed substances have been documented in the soil and groundwater, the product that was released on BFJ’s property does not fall within the petroleum exclusion. We disagree.

Although compounds such as benzene, which are listed as hazardous under the statutes referenced in the petroleum exclusion, are indigenous to crude oil, the mere presence of those compounds does not render the petroleum exclusion inapplicable, as Harris suggests. Instead, the “not otherwise specifically listed or designated as a hazardous” language of the petroleum exclusion must be understood as modifying only the word “fraction.” *See Lockhart v. United States*, 577 U.S. 347, 351 (2016) (explaining that under the “rule of the last antecedent . . . a limiting clause or phrase should ordinarily be read as modifying only the noun or phrase that it immediately follows”) (cleaned up). Thus, we believe the petroleum exclusion is most naturally read as encompassing crude oil and any fractions of crude oil, so long as *the specific fraction* has not been individually listed

as hazardous. *See Wilshire*, 881 F.2d at 804 (concluding that “the doctrine of the last antecedent compels the construction that ‘hazardous substance’ does not include any fraction of crude oil which has been listed or designated as a hazardous substance under Section 9601(14)(A)–(F)”); *United States v. Alcan Aluminum Corp.*, 755 F. Supp. 531, 539 (N.D.N.Y. 1991) (“[W]hat does come within the ambit of the ‘petroleum exclusion’ is the oil or oil fraction which naturally contains the hazardous substance(s) *unless the fraction itself is specifically listed or designated as a hazardous substance.*”) (emphasis added).

Although CERCLA does not define “fraction,” the word has an established meaning in the context of the petroleum industry. “Fractions” of crude oil are the useful petroleum products created from crude oil through the refining process of “fractional distillation,” which involves discharging heated crude oil into a distillation tower or unit, where “the liquids and vapors separate into petroleum components, called *fractions*, according to their boiling points.” U.S. Energy Information Administration, *Oil & Petroleum Products Explained*, <https://www.eia.gov/energyexplained/oil-and-petroleum-products/refining-crude-oil-the-refining-process.php> [<https://perma.cc/C7XY-DMFJ>]; *see also Wilshire Westwood*, 881 F.2d at 803; *BP Prods. N. Am. Inc. v. United States*, 716 F. Supp. 2d 1291, 1296 (Ct. Int’l Trade 2010). “The most important fractions of petroleum” are produced through fractional distillation, including “naptha, gasoline, fuel oil, kerosene, and tarry or waxy residues.” Richard J. Lewis, Sr., *Hawley’s Condensed Chemical Dictionary* 582 (15th ed. 2007) (defining “fraction” and “fractional distillation”).

Because no crude oil fraction is listed as hazardous under the relevant statutes, *see* 42 U.S.C. § 9601(14)(A)–(F), the mere presence of hazardous substances like benzene does

not automatically render the petroleum exclusion inapplicable. Crude oil fractions are products of the refining process and necessarily contain hazardous substances, as the indigenous components of crude oil are likewise present in crude oil fractions and additional hazardous substances are often added during the refining process. Thus, for the petroleum exclusion to have any vitality, it must be understood to encompass what is in fact present in all crude oil fractions: hazardous substances indigenous to crude oil and the crude-oil refining process. See Memorandum from EPA General Counsel, *Scope of the CERCLA Petroleum Exclusion Under Sections 101(14) and 104(a)(2)* at p.5 (July 31, 1987), <https://www.epa.gov/sites/default/files/2013-09/documents/petro-exclu-mem.pdf> [<https://perma.cc/DA2Z-8QVY>] (“Because . . . hazardous substances [such as benzene] are found naturally in all crude oil and its fractions, they must be included in the term ‘petroleum,’ for [the petroleum exclusion] to have any meaning.”); ³ *United States v. Gurley*, 43 F.3d 1188, 1199 (8th Cir. 1994) (“A petroleum product may be exempted from CERCLA even though certain of its indigenous components and certain additives added

³ While we are no longer required to give deference to the EPA’s views, we remain free, as always, to factor the agency’s views into our analysis. See *Loper Bright Enters. v. Raimondo*, 603 U.S. 369, 394 (2024) (“[C]ourts must exercise independent judgment in determining the meaning of statutory provisions. In exercising such judgment, though, courts may—as they have from the start—seek aid from the interpretations of those responsible for implementing particular statutes. Such interpretations constitute a body of experience and informed judgment to which courts and litigants may properly resort for guidance consistent with the APA.”) (cleaned up). Given the EPA’s long experience in applying the Act and its deep understanding of the petroleum industry and the products it creates, we find the agency’s views and expertise very helpful in our effort to determine the best meaning of the petroleum exclusion.

during the refining process have themselves been designated as hazardous substances within the meaning of CERCLA.”) (cleaned up); *Wilshire*, 881 F.2d at 810 (“[T]he petroleum exclusion in CERCLA does apply to unrefined and refined gasoline even though certain of its indigenous components and certain additives during the refining process have themselves been designated as hazardous substances within the meaning of CERCLA.”).

Although the presence of indigenous hazardous substances does not automatically render the petroleum exclusion inapplicable, the petroleum exclusion does not provide a safe haven in cases where petroleum products have been contaminated with additional hazardous substances. As the EPA has explained,

contaminants present in used oil or any other petroleum substance are not within the petroleum exclusion. “Contaminants” . . . are substances not normally found in refined petroleum fractions or present at levels which exceed those normally found in such fractions. If these contaminants are CERCLA hazardous substances, they are subject to CERCLA response authority and liability.

1987 EPA Petroleum Exclusion Memorandum at p.1,

<https://www.epa.gov/sites/default/files/2013-09/documents/petro-exclu-mem.pdf>

[<https://perma.cc/DA2Z-8QVY>]; see *Tosco Corp. v. Koch Indus., Inc.*, 216 F.3d 886, 893 (10th Cir. 2000) (“Congress intended that the petroleum exclusion address oil spills, not releases of oil which has become infused with hazardous substances.”); *Gurley*, 43 F.3d at 1199 (“[H]azardous substances which are added to petroleum or which increase in concentration solely as a result of contamination of the petroleum during use are *not* part of the ‘petroleum’ and thus are not excluded from CERCLA.”) (cleaned up); *Cose v. Getty Oil Co.*, 4 F.3d 700, 704 (9th Cir. 1993) (“If a specifically listed hazardous substance is

indigenous to petroleum and is present as a result of the release of petroleum, such substance will fall within the petroleum exclusion *unless* it is present at a concentration level that exceeds the concentration level that naturally occurs in the petroleum product.”).

We therefore reject Harris’s claim that the district court improperly interpreted the scope of the petroleum exclusion. The question, then, is whether the district court erred by concluding that the evidence showed that any releases only involved compounds encompassed by the petroleum exclusion.

B. Summary Judgment Evidence

As discussed above, the district court held that the evidence pointed to by BFJ showed that any releases were of petroleum products, which satisfied BFJ’s obligation to establish the applicability of the petroleum exclusion, and that Harris failed to identify any admissible evidence showing the presence of non-petroleum substances. We agree with Harris that the district court’s analysis was flawed.

BFJ’s position is that “the only substance that could have been released on BFJ’s property was petroleum since it has only been utilized as a gas station before and after BFJ’s purchase.” Brief of Respondent at 18. In support of this argument, BFJ points to the 2008 environmental assessment of the property, which identified the presence of petroleum-based substances on the property. BFJ also points to de Haven’s initial report, which refers to “petroleum releases” on the property and recounts the results of soil and groundwater sampling showing the presence of petroleum constituents. While we agree that these reports show that there were releases of petroleum products on BFJ’s property, the question is not simply whether petroleum products were released, but whether the

petroleum products that were released were contaminated with hazardous substances. And as to that question, the evidence relied upon by BFJ simply does not support its claim as a matter of law.

Although de Haven's report discusses petroleum releases on BFJ's property and repeatedly refers to the presence of petroleum constituents, de Haven never purported to identify all of the substances present on the property, nor did he ever assert that only petroleum products were released or identified on the property. de Haven's report explained that because he was charged with determining whether installation of the vapor barrier was warranted, the report would focus on "volatile organic compounds (VOCs)[, which] drive vapor intrusion risk," and that the report's summaries of the investigations of BFJ's property "are not necessarily exhaustive descriptions of all sampling that may have occurred during a particular investigation." J.A. 474. And when discussing the testing conducted on Harris's property, de Haven likewise noted that while soil and groundwater samples had been tested for the presence of heavy metals, his discussion was "limited to the VOC results" because "this matter involves the installation of a VIMS due to identified VOC impacts in the subsurface." J.A. 477. Because de Haven's report explicitly disavowed any effort to document all hazardous substances on the properties, the report does not support BFJ's assertion that the only substances that could ever have been released were petroleum products falling within the petroleum exclusion.

The 2008 environmental assessment suffers from similar issues. While the assessment documents a petroleum release from BFJ's property and discusses soil sampling showing the presence of petroleum hydrocarbons, it does not indicate whether

any testing was conducted for chromium or other non-petroleum hazardous substances. The assessment is thus evidence that a petroleum release occurred, but it is not evidence that *only* petroleum was released.

Although BFJ bears the burden of proving that the petroleum exclusion applies, BFJ contends that showing the existence of petroleum releases was enough to carry that burden. According to BFJ, it was not obligated to prove that no other substance was released with the petroleum unless Harris first pointed to evidence showing that the petroleum was contaminated with a non-petroleum hazardous substance. BFJ claims Harris did not identify any such evidence, and that it therefore established the applicability of the petroleum exclusion by showing that petroleum products were released.

Preliminarily, we question BFJ's understanding of its burden of proof. As discussed, CERCLA is a strict-liability scheme that inverts the usual burdens of proof; once a CERCLA plaintiff satisfies the relatively minimal elements of a *prima facie* claim, the defendant bears the burden of proving the applicability of one of the statute's limited defenses. The petroleum exclusion creates one of those limited defenses, by excluding from CERCLA's reach releases of "petroleum." As explained above, "contaminants present in used oil or any other petroleum substance are not within the petroleum exclusion. . . . If these contaminants are CERCLA hazardous substances, they are subject to CERCLA response authority and liability." *1987 EPA Petroleum Exclusion Memorandum* at p.1 <https://www.epa.gov/sites/default/files/2013-09/documents/petro-exclu-mem.pdf> [<https://perma.cc/DA2Z-8QVY>]. In our view, a defendant seeking to establish the

applicability of the petroleum exclusion bears the burden of proving that the petroleum released was not contaminated with non-petroleum hazardous substances.⁴

But even if BFJ were right and Harris was first obliged to present some evidence of a release of contaminated petroleum, Harris's evidence in fact does just that. The evidence before the district court, including de Haven's initial report, showed that in the late 1950s, the prior owners of BFJ's property installed an underground tank to collect and store waste oil generated by the business. That tank, which had no system for detecting leaks, was in use until it was closed in 1996. The owners decided to close the waste-oil tank (and the other USTs installed at the same time) in place after they received notice that the lack of a leak-detection system violated state requirements. During the closing-in-place process, oil and grease were found in the soil below the waste oil tank.

Oil can easily pick up contaminants through use, and it likewise can be contaminated by rust or other particles absorbed from the metal tank in which it is stored. *See, e.g., United States v. Alcan Aluminum Corp.*, 964 F.2d 252, 266 (3d Cir. 1992) (“[A] plain reading of the [petroleum exclusion] does not warrant the inclusion of oil which has become contaminated with hazardous substances through use.”) (cleaned up); *Members of Beede Site Grp. v. Fed. Home Loan, Mortg. Corp.*, 968 F. Supp. 2d 455, 461 (D.N.H. 2013)

⁴ We note that the district court also shared our understanding of the scope of BFJ's burden of proof. *See* J.A. 1817 (“To prevail on a CERCLA claim for cost recovery, a plaintiff must prove, among other things, that there was a release or a threatened release of hazardous substances. But there is a statutory exception: if a defendant proves that the released substances were unadulterated petroleum products, then the plaintiff cannot recover.”).

(“[T]he normal use of engine oil adds hazardous substances that do not fall within the Petroleum Exclusion.”); *id.* (discussing testimony that used motor oil “would typically include metals, acids, post-refining additives and additive byproducts, gasoline combustion by products (from engine blowby) and possibly antifreeze”) (cleaned up); *United States v. W. Processing Co.*, 761 F. Supp. 713, 722 (W.D. Wash. 1991) (discussing evidence that “scale . . . composed in part of the oxides of chromium and nickel” forms inside steel storage tanks and is absorbed by the sludge at the bottom of the tank); *1987 EPA Petroleum Exclusion Memorandum* at p.10, <https://www.epa.gov/sites/default/files/2013-09/documents/petro-exclu-mem.pdf> [<https://perma.cc/DA2Z-8QVY>] (noting that “used oil is generally contaminated by definition” but recognizing that “the impurities added by use may not be CERCLA hazardous substances”).

Accordingly, we believe that the evidence of the leaking waste-oil tank on BFJ’s property at a minimum raised a question of fact about the release of contaminated oil falling outside the scope of the petroleum exclusion. Because BFJ did not come forward with evidence showing that only unadulterated petroleum was released, the district court therefore erred by granting summary judgment to BFJ.

C. Exclusion of Summary Judgment Declaration

As outlined above, even without consideration of the chromium identified in de Haven’s summary-judgment declaration, the evidence of a release from the waste-oil tank on BFJ’s property alone requires reversal of the grant of summary judgment. Nonetheless, because questions may arise after remand about the permissible scope of any testimony

from de Haven, we believe it would be prudent to address Harris’s challenge to the district court’s exclusion of de Haven’s declaration.

(1)

Rule 26 of the Federal Rules of Civil Procedure requires a party seeking to present expert testimony to disclose the identity of the expert and provide a written report containing “a complete statement of all opinions the witness will express and the basis and reasons for them,” as well as “the facts or data considered by the witness” and “any exhibits that will be used to summarize or support” the expert’s opinion. Fed. R. Civ. P. 26(a)(2)(B). The disclosures must be made “at the times and in the sequence that the court orders.” Fed. R. Civ. P. 26(a)(2)(D). Rule 26(e) requires a party to timely supplement or correct its disclosure or response “if the party learns that in some material respect the disclosure or response is incomplete or incorrect.” Fed. R. Civ. P. 26(e)(1)(A).

Under Rule 37, “[i]f a party fails to provide information or identify a witness as required by Rule 26(a) or (e), the party is not allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless.” Fed. R. Civ. P. 37(c)(1). As we have explained, the plain language of Rule 37(c) sets a default rule of exclusion of undisclosed evidence unless there was good cause for the failure to disclose or the nondisclosure was harmless. *See S. States Rack & Fixture, Inc. v. Sherwin-Williams Co.*, 318 F.3d 592, 597 (4th Cir. 2003) (“Rule 37(c)(1) . . . generally requires exclusion of evidence that a party seeks to offer but has failed to disclose.”).

(2)

In the portion of his declaration addressing chromium, de Haven stated, “As noted in [his initial report], dated August 2024, there were concentrations of Chromium, a non-petroleum related constituent that existed in the soil and groundwater of Plaintiff and Defendants’ property. After review of the data, I have found that there are concentrations of Chromium on the Defendant’s property. Specifically, two grab soil samples . . . from Defendants’ property showed total chromium concentrations ranging from 57 to 69 mg/kg.” J.A. 1735-36.

The district court excluded that evidence after concluding that it amounted to new expert opinion testimony that had not been disclosed by the deadline set in the scheduling order for disclosure of expert opinions. The court explained:

Mr. de Haven testifies that chromium was present on BFJ’s property. He does not cite any factual evidence for this statement, mentioning only his earlier, timely expert disclosure. It therefore seems clear that this is opinion testimony.

Had Mr. de Haven discussed chromium in his earlier report, there would likely be no problem. But he did not, at least not as far as the Court can tell. His opinion about chromium was thus first proffered well after the October 11, 2024, deadline for disclosing expert opinions

J.A. 1819 (cleaned up). Harris challenges this analysis, arguing that his declaration was a proper and timely supplement to his original opinions under Rule 26(e) that was “necessary to ensure the accuracy and completeness of his expert opinion.” Brief of Appellant at 18.

We find the district court’s analysis a bit puzzling. While de Haven is of course an expert, not everything an expert says is an opinion; experts also testify about the existing facts and data that they relied on to reach their opinions. As we see it, de Haven’s

statements about the presence of chromium are purely factual statements recounting the results of environmental sampling. We are aware of no legal principle that would transform an expert's factual testimony into opinion testimony simply because the expert did not adequately identify the document he reviewed to determine the facts.

To be sure, de Haven did not note the factual presence of chromium on BFJ's property in his initial report. While de Haven stated that sampling from the property had been *tested* for chromium in 2006, he did not include the *results* of those tests in the report. *See* J.A. 475. Nonetheless, de Haven's initial report provided a fair amount of detail about the 1996 release and the environmental assessments that followed, such as the UST incident number assigned to the 1996 release, *see* J.A. 474, along with the dates and titles of the environmental assessments and the names of the company that conducted the assessments, *see* J.A. 474, 488. Given the amount of factual detail de Haven provided about the 1996 incident, the failure to include the results of the chromium would seem, at least at first blush, to be the kind of omission that could be corrected under Rule 26(e)(1)(A).

The district court, however, did not address Harris's argument that de Haven's summary-judgment was a proper supplement under Rule 26(e)(1)(A). Instead, the court simply concluded that his statements about the existence of chromium were new opinions not timely disclosed. And while courts are appropriately skeptical of attempts to use Rule 26(e)(1)(A) to smuggle in new, untimely opinions, *see, e.g., E.E.O.C. v. Freeman*, 778 F.3d 463, 467 n.7 (4th Cir. 2015), we disagree with the district court's characterization of de Haven's chromium testimony as opinion testimony. Because this case will be remanded given the improper grant of summary judgment, we believe the prudent course of action is

to vacate the district court's exclusion of de Haven's declaration to permit the district court to reconsider the issue *de novo*, including the question of whether the chromium testimony was proper as a supplementation or correction under Rule 26(e)(1)(A).⁵

IV. State-law Claims

In its complaint, Harris also sought recovery under North Carolina law, asserting claims for negligence, nuisance, and trespass, as well as a claim under North Carolina's Oil Pollution and Hazardous Substances Control Act, N.C. Gen. Stat. § 143-215.75, *et seq.* The district court granted summary judgment in favor of BFJ on those claims, concluding that Harris's evidence failed to prove that BFJ caused the damage to its property. Although de Haven stated in his summary-judgment declaration that BFJ's property "is the most likely source of the contamination as I have stated in my reports," J.A. 1733, the court found that evidence inadmissible because the declaration was made well after the window

⁵ North Carolina maintains publicly accessible databases providing information about leaks and discharges from underground storage tanks, including a map that is searchable by incident number and includes links to relevant documents, including environmental assessments of the affected property and actions taken by the State. *See* <https://www.deq.nc.gov/about/divisions/waste-management/science-data-and-reports/gis-maps/underground-storage-tank-incidents-map> [<https://perma.cc/P4GY-ANM2>]. Though it is not necessary to our decision, we note that the 2006 environmental assessment referred to in de Haven's initial report appears to be the source of the information about chromium contained in his summary-judgment declaration, as that assessment shows the presence of chromium in the soil at the concentrations provided in the declaration. *See* Phase I Limited Site Assessment Report prepared by CBM Environmental Services at p.16-17 (June 15, 2006)<https://edocs.deq.nc.gov/WasteManagement/DocView.aspx?id=147120&dbid=0&repo=WasteManagement> [<https://perma.cc/48L7-X5FX>]; *Navigators Ins. Co. v. Under Armour, Inc.*, 165 F.4th 171, 180-81 n.9 (4th Cir. 2026) (explaining that appellate court "may take judicial notice of matters of public record").

for expert-testimony disclosure had closed and the declaration did not identify any portion of de Haven's (timely) initial report that contained a clear statement of causation.

Harris contends on appeal that de Haven's testimony was sufficient to show that BFJ was the source of the contamination on Harris's property. We agree.

As the district court held, the state-law claims, unlike the CERCLA claim, require the plaintiff to present proof of causation, *see Ammons v. Wyson & Miles Co.*, 431 S.E.2d 524, 528 (N.C. Ct. App. 1993) (in case where plaintiff asserted the same state-law claims as asserted by Harris, explaining that "causation is a common element necessary in each claim asserted by the appellants"), and the causation opinions expressed by de Haven in his initial report are not the most definitive. de Haven notes that groundwater flow "from the Defendant's to the Plaintiff's property is limited," but that "petroleum constituents present at the Defendant's property could have traveled" to Harris's property. J.A. 486-87. de Haven also identified BFJ's property as "a *potential* source of groundwater impacts to the Plaintiff's property" given "the similarity in constituents and difference in magnitudes of the groundwater impacts as well as the lack of significant soil contamination identified on the Plaintiff's property." J.A. 487.

If those were the only statements, we might agree with the district court that they were insufficient to establish BFJ as the source of the contamination. In his timely rebuttal report, however, de Haven states that "[a]vailable evidence strongly points against" Harris's property being the source of the contamination, and that "it is our opinion that transverse groundwater flow is likely to have occurred and resulted in the migration of gasoline constituents from the Defendant's property onto the Plaintiff's property." J.A.

524. While de Haven’s language is not the most definitive, North Carolina law does not appear to require any specific language to establish causation. And in our view, de Haven’s ruling out of Harris’s property as the source and his statement that groundwater flow from BFJ’s property “likely” resulted in the pollution on Harris’s property is enough—if just barely—for the claims to survive summary judgment.

V.

Accordingly, for the foregoing reasons, we vacate the grant of summary judgment on the CERCLA and state law claims and remand for further proceedings consistent with this opinion.⁶

VACATED AND REMANDED

⁶ We find no abuse of discretion in the court’s denial of Harris’s motion to compel entry on BFJ’s property for the purpose of conducting additional environmental testing. If the court on remand decides to permit additional discovery, Harris is free to renew the request should it so desire.