

FOR PUBLICATION

**UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT**

ASARCO LLC, a Delaware
corporation,
Plaintiff-Appellee,

v.

ATLANTIC RICHFIELD COMPANY,
LLC, a Delaware corporation,
Defendant-Appellant,

and

BRITISH PETROLEUM, PLC, a United
Kingdom Corporation; AMERICAN
CHEMET CORPORATION, a Montana
Corporation,
Defendants.

No. 18-35934

D.C. No.
6:12-cv-00053-
DLC

OPINION

Appeal from the United States District Court
for the District of Montana
Dana L. Christensen, District Judge, Presiding

Argued and Submitted April 27, 2020
Seattle, Washington

Filed September 14, 2020

Before: M. Margaret McKeown, N. Randy Smith, and
Jacqueline H. Nguyen, Circuit Judges.

Opinion by Judge Nguyen

SUMMARY*

Environmental Law

The panel affirmed in part and vacated in part the district court's judgment, after a bench trial, in favor of the plaintiff in a contribution action under the Comprehensive Environmental Response, Compensation, and Liability Act.

Plaintiff ASARCO LLC entered into a consent decree with the Environmental Protection Agency to clean up environmental contamination at several sites, including a Superfund Site in East Helena, Montana. Asarco, former operator of a lead smelting facility, then brought a CERCLA contribution action against Atlantic Richfield Co., successor in interest to the operator of a zinc fuming plant. The district court found that Asarco had incurred \$111.4 million in necessary response costs for the cleanup of the Site and that Atlantic Richfield was responsible for 25% of that sum.

Vacating and remanding in part, the panel held that the district court erred in its determination of the necessary response costs incurred by Asarco. Specifically, the district court erred when it counted the full settlement amount,

* This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

including about \$50 million of funds that had not been, and might never be, spent on the Site cleanup, as response costs subject to contribution at this stage of the Site cleanup. The panel remanded for further consideration of what response costs were sufficiently concrete and non-speculative such that they would be eligible for contribution under CERCLA.

Affirming in part, the panel held that the district court did not err in allocating responsibility for 25% of the response costs to Atlantic Richfield. The panel held that the district court properly exercised its discretion in its consideration of appropriate equitable factors and did not clearly err in its factual findings supporting its allocation decision.

COUNSEL

Shannon Wells Stevenson (argued), Benjamin B. Strawn, and Kellen N. Wittkop, Davis Graham & Stubbs LLP, Denver, Colorado; Elisabeth S. Theodore and Stephen K. Wirth, Arnold & Porter Kaye Scholer LLP, Washington, D.C.; for Defendant-Appellant.

Gregory Evans (argued), McGuireWoods LLP, Los Angeles, California; Benjamin L. Hatch, McGuireWoods LLP, Washington, D.C.; Kris A. McLean, Kris A. McLean Law Firm PLLC, Missoula, Montana; Rachel H. Parkin, Milodragovich Dale & Steinbrenner P.C., Missoula, Montana; for Plaintiff-Appellee.

OPINION

NGUYEN, Circuit Judge:

In June 2009, ASARCO LLC (“Asarco”) agreed to settle with the government and enter into a consent decree to clean up environmental contamination at several sites, including a Superfund Site in East Helena, Montana (the “Site”). Asarco then brought a contribution action under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (“CERCLA”), 42 U.S.C. §§ 9601–9675, against Atlantic Richfield Company, LLC (“Atlantic Richfield”). Following a bench trial, the district court entered judgment in favor of Asarco, finding that Asarco had incurred \$111.4 million in necessary response costs for the cleanup of the Site and that Atlantic Richfield was responsible for twenty-five percent of that sum. Atlantic Richfield appealed. We have jurisdiction pursuant to 28 U.S.C. § 1291. We hold that the district court erred in its determination of the necessary response costs incurred by Asarco, but the court did not err in allocating twenty-five percent liability to Atlantic Richfield. We therefore vacate and remand in part, and affirm in part.

I. BACKGROUND

A. Operations at the Site

Asarco and its predecessors owned and operated a lead smelting facility at the Site from 1888 to 2001. Asarco’s lead smelting facility was the largest operation at the Site. This operation recovered lead and other metals by smelting a variety of foreign and domestic concentrates, ores, fluxes, and other non-ferrous, metalbearing materials and byproducts. Those materials contained arsenic concentrations as high as 190,000 parts per million (“ppm”).

The smelting operation produced slag as a waste product, which contained small residual quantities of metals and arsenic. It is undisputed that Asarco “released significant amounts of arsenic into the environment” from its smelting facility.

Atlantic Richfield is the successor in interest to Anaconda, which leased a portion of the Site from Asarco to construct and operate a zinc fuming plant. Using a blast furnace fueled with coal, Anaconda reprocessed slag that it purchased from Asarco to recover zinc. Anaconda used and produced several arsenic-bearing materials in its fuming operation, albeit with a lower arsenic concentration than Asarco’s primary materials. Anaconda operated the zinc fuming plant from 1927 to 1972, at which point it sold the plant to Asarco. Asarco then operated the zinc fuming plant for another decade.

B. EPA Involvement and Remediation

In 1984, the Environmental Protection Agency (“EPA”) added the Site to the CERCLA National Priorities List, targeting it for environmental remediation. The primary environmental concern at the Site was arsenic contamination of the groundwater. In the years that followed, Asarco entered into a series of agreements with the EPA to begin the process of remediation.

In 1990, Asarco and the EPA finalized a settlement agreement and consent decree in CERCLA litigation concerning the contamination of the process ponds at the Site. Pursuant to the consent decree, Asarco agreed to undertake a cleanup of the process ponds, which it substantially completed by 1997.

In 1998, Asarco and the EPA entered into another settlement agreement and consent decree, this time resolving claims brought by the EPA under the Resource Conservation and Recovery Act and the Clean Water Act. The settlement did not raise any claims under CERCLA.

On August 9, 2005, Asarco filed a Chapter 11 bankruptcy petition. In connection with the bankruptcy proceedings, the United States, the State of Montana, and the State of Montana Department of Environmental Quality all filed proofs of claim for Asarco's projected liability under CERCLA. Asarco, the United States, and the State of Montana reached two complementary settlement agreements and consent decrees in February and June 2009, resolving Asarco's outstanding environmental liabilities at several Montana sites, including the Site at issue in this case.

The June 2009 consent decree established a custodial trust for the affected sites, and the Montana Environmental Trust Group ("METG") was appointed as the custodial trustee for the East Helena Site. The June 2009 consent decree also designated the EPA as the lead agency for the Site, placing it in charge of selecting, approving, and authorizing all work performed and funds expended by METG. Pursuant to the June 2009 consent decree, Asarco paid approximately \$111.4 million¹ for cleanup of the East Helena Site—accounting for comprehensive damage done to the Site by all responsible parties. That sum included: (a) \$99.294 million into the East Helena Custodial Trust

¹ In total, Asarco paid \$1.8 billion to settle environmental claims related to hazardous waste in the bankruptcy proceedings.

Cleanup Account for a groundwater remedy;² (b) \$6,403,743 toward the establishment of the Custodial Trust and the funding of the Custodial Administrative Account to be used for trust administration expenses; (c) \$706,000 to the U.S. Department of the Interior for natural resource restoration and future oversight costs for the Site; and (d) \$5 million to the State of Montana for compensatory natural resource damages at the Site.

METG has begun its remediation work at the Site. So far, it has fully implemented three interim measures to curb the spread of contaminants and further environmental degradation at the Site. METG also has implemented institutional controls for the Site and the surrounding areas, designed to prevent property owners from using their domestic water wells to avoid contact with contaminated groundwater. METG proposes one additional future project: capping the portion of the slag pile at the Site that consists of unfumed slag. METG has not instated and does not plan to install a pump-and-treat system.

As of the most recent accounting available, METG had spent a little less than half of the trust funds at its disposal, leaving it with approximately \$50 million for further remediation efforts. Atlantic Richfield's expert estimated the ongoing costs for operations and maintenance at \$9.2 million, and METG estimated the cost of covering the unfumed slag at \$3.7 million. Adding those sums to the dollar amount already expended by METG, the total cleanup cost for the Site would approximate \$61.4 million. Asarco contends that Atlantic Richfield's expert vastly understates

² This figure was based on estimates for a pump-and-treat system recommended by the State of Montana's experts, William Bucher and Ann Maest.

how costly the cleanup would be. Asarco's expert opined that METG's proposed remedies would be insufficient to address the groundwater contamination and that more substantial remediation work would be necessary.

C. Procedural History

In 2012, Asarco brought this contribution action against Atlantic Richfield under CERCLA §§ 107 and 113. The district court granted summary judgment in favor of Atlantic Richfield, finding the action barred by the statute of limitations. Asarco appealed, and we concluded that Asarco's contribution claim was, in fact, timely. *See Asarco LLC v. Atlantic Richfield Co.*, 866 F.3d 1108 (9th Cir. 2017). We vacated the district court's summary judgment order and remanded for further proceedings before the trial judge. *Id.*

On remand, the district court conducted an eight-day bench trial, weighted heavily toward expert testimony. Following trial, the district court issued detailed findings of fact and conclusions of law and entered judgment in favor of Asarco. The court found that Asarco had expended \$111,403,743 in necessary response costs for cleanup of the Site³ and that Atlantic Richfield was liable for twenty-five percent of those costs, i.e., \$27,850,936. The court also granted an additional \$1 million award to Asarco, based on its findings as to Atlantic Richfield's failure to cooperate with the authorities and its misrepresentations to the EPA and to Asarco.⁴ Atlantic Richfield moved to alter or amend

³ This figure is the amount paid by Asarco in connection with the June 2009 consent decree.

⁴ Atlantic Richfield does not challenge on appeal the imposition of this additional \$1 million award.

the judgment, but the district court denied the motion. This appeal timely followed.

II. ANALYSIS

A. The District Court Erred by Including Speculative Future Costs in its Tabulation of Necessary Response Costs Eligible for Contribution Under CERCLA.

Atlantic Richfield argues that the district court erred in finding that Asarco incurred \$111.4 million in necessary response costs for the environmental cleanup of the Site, because that sum improperly included (i) costs that had not yet been, and might never be, incurred; and (ii) costs that were not necessary to protect human health and the environment. Atlantic Richfield contends those costs are unrecoverable under CERCLA, and that the response costs eligible for contribution should be limited to the \$61.4 million that it represents have been incurred so far to remediate the Site.

We review for clear error the district court's findings of fact following a bench trial, and we review *de novo* its conclusions of law and mixed questions of law and fact. *OneBeacon Ins. Co. v. Haas Indus., Inc.*, 634 F.3d 1092, 1096 (9th Cir. 2011). We hold that the district court erred when it counted the full settlement amount—including about \$50 million of funds that had not been, and might never be, spent on the Site cleanup—as response costs subject to contribution at this stage of the Site cleanup. We therefore vacate and remand for further consideration of what response costs are sufficiently concrete and non-speculative such that they would be eligible for contribution under CERCLA.

The parties agree on the initial premise that, pursuant to the CERCLA contribution regime, Asarco is entitled to recover an allocated proportion of the “necessary costs of response incurred . . . consistent with the national contingency plan.” 42 U.S.C. § 9607(a)(4)(B). From that point, their positions diverge.

Atlantic Richfield contends that those funds not yet spent or earmarked for specific, imminent work cannot qualify as costs “incurred.” It relies on cases that prohibit recovery under CERCLA for future response costs or the award of speculative damages unmoored to concrete expenses. *See Stanton Rd. Assocs. v. Lohrey Enters.*, 984 F.2d 1015, 1021–22 (9th Cir. 1993); *In re Dant & Russell, Inc.*, 951 F.2d 246, 249–50 (9th Cir. 1991). Atlantic Richfield asserts that METG no longer expects to implement the costly pump-and-treat remedy, instead planning to carry out cheaper remedial actions that would leave a large portion of the settlement funds untouched. It also cites to a reversion provision in the settlement agreement, whereby unused settlement funds would be redirected to remediate other sites for which Atlantic Richfield has no liability.

Asarco responds that the costs for which it seeks contribution were actually “incurred.” It argues that the entire sum paid in settlement, \$111.4 million, was intended to fund the environmental cleanup of the Site, as evidenced by the fact that the reversion provision does not allow the return of any funds to Asarco’s hands. Based on its irrevocable payment, Asarco says it “incurred” those response costs within the meaning of the statute. Asarco attempts to distinguish the cases cited by Atlantic Richfield, noting that they occurred in different contexts and lacked the same type of firm monetary commitment that Asarco undertook here. And Asarco points to cases from other

circuits allowing recovery of future costs, arguing that precluding recovery for such costs could undermine CERCLA's policy objective of incentivizing settlements and early, accountable cleanup. *See RSR Corp. v. Commercial Metals Co.*, 496 F.3d 552, 558–60 (6th Cir. 2007); *Am. Cyanamid Co. v. Capuano*, 381 F.3d 6, 26–27 (1st Cir. 2004); *Action Mfg., Co. v. Simon Wrecking Co.*, 287 Fed. App'x 171, 174–76 (3d Cir. 2008); *PCS Nitrogen, Inc. v. Ross Dev. Corp.*, 104 F. Supp. 3d 729, 744 (D.S.C. 2015).

On this factual record, Atlantic Richfield has the better argument. We have held that the full dollar value of a settlement agreement to discharge CERCLA liability is not automatically subject to contribution. *AmeriPride Servs. Inc. v. Texas E. Overseas Inc.*, 782 F.3d 474, 490 (9th Cir. 2015) (“[I]f a party who was liable under § 9607(a) entered into a settlement agreement to discharge its CERCLA liability to a third party, it can seek contribution under § 9613(f)(1) only for the settlement costs that were for necessary response costs incurred consistent with the NCP.”). In many cases, the full settlement amount may equate with the necessary response costs incurred—but that is not *inherently* so. Thus, funding a settlement obligation, on its own, does not automatically render the entire sum compensable in a contribution action, even if that payment is irrevocable. A party seeking contribution must still show that the settlement amount represents “necessary response costs incurred consistent with the NCP.” *Id.* Although the meaning of “incur” is sufficiently broad that it does not require that an expense already be paid, it is also not so broad that it encompasses future expenses that are mere potentialities. *See Trimble v. Asarco, Inc.*, 232 F.3d 946, 958 (8th Cir. 2000) (“We do not dispute plaintiffs’ point that a party may be found to have ‘incurred’ a cost without having actually paid for it[:] . . . a finding that a cost has been

‘incurred’ may be based upon an existing legal obligation. However, the mere possibility, even the certainty, that an obligation to pay will arise in the future does not establish that a cost has been incurred, but rather establishes that a cost may be incurred, or will be incurred.”), *abrogated on other grounds by Exxon Mobil Corp. v. Allapattah Servs., Inc.*, 545 U.S. 546 (2005); *see also Chubb Custom Ins. Co. v. Space Sys./Loral, Inc.*, 710 F.3d 946, 961 (9th Cir. 2013) (explaining that courts apply the ordinary meaning of the term “incur” in the CERCLA context, “which is ‘[t]o acquire or come into,’ ‘[t]o become liable or subject to as a result of one’s action,’ to ‘bring upon oneself’” (quoting *Am. Heritage Dictionary* (4th ed. 2000)) (alterations in original)).

Reinforcing our focus on non-speculative costs actually incurred, our circuit historically has refused to award future response costs. *Stanton Rd.*, 984 F.2d at 1021–22 (holding that “CERCLA prohibits awards of future response costs” and finding error in the district court’s order requiring defendants to place \$1.1 million in escrow for future cleanup costs); *Dant & Russell*, 951 F.2d at 249–50 (explaining that response costs not yet incurred cannot be recovered under CERCLA, and highlighting that “[s]ection 9607(a)(4)(B) permits an action for response costs ‘incurred’—not ‘to be incurred’”). Likewise, we have found “no suggestion in the statute that Congress intended CERCLA to create a general federal right of contribution for damages and response costs that are not otherwise cognizable under the statute.” *AmeriPride*, 782 F.3d at 490 (quoting *Cty. Line Inv. Co. v. Tinney*, 933 F.2d 1508, 1517 (10th Cir. 1991)). Therefore, we conclude that speculative, potential future response costs are not recoverable in a CERCLA contribution action, even if the party seeking contribution has already made an outlay for such costs pursuant to a settlement. Instead, a declaratory judgment, whereby liability for future response costs would

be allocated at a set percentage across responsible parties, is the proper mechanism for recouping future response costs in the CERCLA regime.⁵ See *Boeing Co. v. Cascade Corp.*, 207 F.3d 1177, 1191 (9th Cir. 2000) (holding that declaratory judgments are appropriate not only in the context of cost recovery actions brought under 42 U.S.C. § 9607, but also in CERCLA contribution actions brought under 42 U.S.C. § 9613).

Here, based on the most recent accounting as of trial, METG had spent only about \$48.5 million of its allocated funds, leaving it with another \$50 million for further cleanup efforts. Although the settlement figure was based on the estimated cost of a pump-and-treat remedy,⁶ METG does not plan to implement a pump-and-treat remedy at this time. It considers a pump-and-treat remedy too costly, potentially ineffective, and risky in that it could affect the stability of the arsenic-contaminated groundwater plume. Instead, METG's proposed final remedies are meaningfully less costly—quoted to bring the full cleanup costs for the Site to about \$61.4 million.

Asarco challenges METG's assessment and proffered the expert testimony of Margaret Staub, who emphasized that the original settlement contemplated implementation of a pump-and-treat system at the Site. Staub opined that the

⁵ We also do not intend to foreclose a settling party from seeking contribution for costs not yet incurred in a future action, once those costs have been incurred within the meaning of CERCLA, to the extent otherwise permitted by law.

⁶ The settlement does not require that any particular remedial measure be taken to clean up the Site. Therefore, the settlement does not specifically mandate a pump-and-treat remedy, even though it was priced with such a remedy in mind.

measures proposed by METG likely would not restore the groundwater to acceptable levels, and that, while she could not say definitively what the final remedy would be, “something at some point is going to have to be done.” But Staub’s opinion, upon which the district court relied, does not provide sufficiently concrete evidence that the entire sum would likely be expended to remediate the Site. Not only is Staub’s opinion steeped in speculation to begin with, but there is a vast logical leap from the broad conclusion that “something” further will need to be done to remediate the Site, to the specific quantification of the necessary response costs for the Site at \$111.4 million or greater.

In short, Asarco relies on conjecture rather than firmly-grounded facts and figures. As noted, METG has not paid for or assumed an obligation to pay for a pump-and-treat remedy, nor has it earmarked any funds for that purpose. At this stage, any such response costs remain speculative. Further adding to the uncertainty surrounding total response costs, the settlement contains a reversion provision that redirects any unused Site cleanup funds to other causes, including the other contaminated properties subject to the broader settlement. Although Asarco is liable for the cleanup of all the covered properties, Atlantic Richfield is not.

Asarco’s argument, which the district court adopted, strays from CERCLA’s legal framework. The district court explained:

The Court . . . concludes that unless and until the groundwater is restored to achieve [maximum contaminant levels] and drinking water standards, something more substantial will need to be done. Whether there remain[] sufficient funds in the trust to accomplish this

task, and whether a pump and treat system is the ultimate solution, are not the controlling questions. Regardless of the answer to those two questions, and notwithstanding Atlantic Richfield's arguments to the contrary, the Court is convinced that the balance of the approximate \$50 million in the trust will most likely be expended to achieve the mandated remediation results.

Working from that premise, the court found the full \$111.4 million settlement amount to be necessary response costs eligible for contribution. While we do not question the district court's finding that further remedial action may be necessary in the future, its forecast was not adequately tethered to any concrete evidence in the record.

If, as the district court concludes, "something more substantial will need to be done," a party in Asarco's position ultimately *can* recover the corresponding response costs from its fellow responsible parties. But until further information is known about the nature and costs of that "something more," those future costs are not eligible for contribution. In the meantime, the contribution-seeker can pursue (i) contribution for those necessary response costs that have been incurred to date, and (ii) a declaratory judgment to establish liability and a contribution allocation for those costs that have not been incurred yet, but may be incurred in the future.

We emphasize, however, that our holding is a narrow one. We are presented with a cash-out bankruptcy settlement, reached as part of a global settlement of liability for several contaminated sites, with a reversion provision that diverts unused funds to other sites for which only one of

the parties is responsible. We likewise face the unusual scenario in which the projected costs of the remediation process, as well as the proposed means of remediation, have fluctuated dramatically since the time the settlement was reached; significantly, one of the core facets of the initial remediation plan, a pump-and-treat remedy, now appears extremely unlikely to come to fruition. On this record, Asarco has failed to adequately support its asserted response costs.

Finally, to the extent the parties disagree about whether the costs of a pump-and-treat system (or other yet-to-be-incurred costs) would be “necessary,” we need not resolve the parties’ dispute. Because such costs have not been incurred, they cannot be awarded even if they satisfy the remaining requirements for contribution eligibility. For these reasons, we vacate the district court’s finding that the full \$111.4 million settlement amount was eligible for contribution and remand for further consideration of what necessary response costs were actually incurred within the meaning of CERCLA.

B. The District Court Did Not Err in Allocating Responsibility for Twenty-Five Percent of the Response Costs to Atlantic Richfield.

Atlantic Richfield argues that the district court inflated its liability far beyond its actual environmental impact and ascribed to it a share of the response costs that bore little relation to the evidence presented at trial. Specifically, Atlantic Richfield contends that the district court failed to take account of the volume and toxicity of the waste each party handled; failed to explain adequately what factors it considered in reaching its allocation; and arrived at an allocation that meaningfully outpaced the level of contamination it could have caused. We disagree, and we

hold that the district court did not err in devising an equitable allocation of liability for the Site cleanup.

In a contribution action, CERCLA empowers a district court to “allocate response costs among liable parties using such equitable factors as the court determines are appropriate.” 42 U.S.C. § 9613(f)(1). On appeal, we then “review for an abuse of discretion the equitable factors that a district court considers in allocating CERCLA costs and review for clear error the allocation according to the selected factors.” *TDY Holdings, LLC v. United States*, 885 F.3d 1142, 1146–47 (9th Cir. 2018).

As an initial matter, we conclude that the district court properly exercised its discretion by anchoring its analysis around the so-called “Gore factors.”⁷ *See id.* at 1147 (approving of the use of the Gore factors in CERCLA costs allocation); *United States v. Burlington N. & Santa Fe Ry. Co.*, 520 F.3d 918, 940 n.26 (9th Cir. 2008) (same), *rev’d on other grounds*, 556 U.S. 599 (2009). The district court also acted well within its discretion in its broader efforts to tabulate the parties’ historical responsibility for the contamination, its choice to ground that assessment in the expert testimony offered by the parties, and its concern with

⁷ The Gore factors are: (i) the ability of the parties to demonstrate that their contribution to a discharge, release, or disposal of a hazardous waste can be distinguished; (ii) the amount of the hazardous waste involved; (iii) the degree of toxicity of the hazardous waste involved; (iv) the degree of involvement by the parties in the generation, transportation, treatment, storage, or disposal of the hazardous waste; (v) the degree of care exercised by the parties with respect to the hazardous waste concerned, taking into account the characteristics of such hazardous waste; and (vi) the degree of cooperation by the parties with federal, state, or local officials to prevent any harm to public health or the environment. *See TDY Holdings*, 885 F.3d at 1146 n.1.

the duration of each party's operations at the Site.⁸ Nor was it improper for the court to determine that it could not and need not allocate response costs to a mathematical certainty, and that it could apply general principles of fairness and equity in deciding whether to err on the side of over- or under-compensation. The district court was not required to adopt the particular set of factors, or the weighting among them, for which Atlantic Richfield advocated. Because we find no abuse of discretion at this step of the analysis, the propriety of the district court's allocation decision turns on whether it committed clear error in its allocation of Atlantic Richfield's responsibility. *See TDY Holdings*, 885 F.3d at 1146–47.

We conclude that the district court did not clearly err in its factual findings supporting its allocation decision. The district court, in a ninety-five page order, made extensive findings about the historical use and contamination of the Site by Asarco and Atlantic Richfield. It described in detail each party's operations at the Site; their respective uses and releases of arsenic, to the extent knowable from the historical records; their efforts, and failures, to prevent environmental contamination; and their interactions with the government concerning accountability and remediation. Although the district court's discussion of the nexus between its factual findings and the Gore factors could have been clearer at times, the court's findings and overarching analysis were

⁸ We are not persuaded by Atlantic Richfield's argument that the comparative duration of the parties' operations is "irrelevant" to an appropriate allocation. The number of years a polluter operates can be tied to the amount of pollution it generates and its overall responsibility for contamination. Atlantic Richfield contends that other factors would be superior, but that does not render the district court's approach to be an abuse of discretion.

sufficiently robust that we do not find reversible error on that basis here.

The first Gore factor inquires into the ability of the parties to demonstrate that their contribution to a discharge, release, or disposal of a hazardous waste can be distinguished. *Id.* at 1146 n.1. The district court explained that the “sparse historical record” complicated the task of distinguishing the parties’ contributions, noting a lack of clarity as to “the precise nature and amount of pollutants” historically emitted by each operator. It noted that the deficiencies in the record were partially attributable to Atlantic Richfield’s longstanding denial of responsibility for contamination at the Site. Nonetheless, the court found that the record generally “revealed enough information to understand the history of operations . . . at the Site,” coupled with the aid of expert testimony, such that it could make a rough assessment of the parties’ respective contributions.

The second and third Gore factors ask how much hazardous waste was involved, as well as the degree of toxicity of that waste. *Id.* The fourth Gore factor considers the degree of involvement by the parties in the generation, transportation, treatment, storage, or disposal of the hazardous waste. *Id.* To this end, the district court made detailed findings about the historical operations of Asarco and Atlantic Richfield, including the manners in which each used and released arsenic at the Site. It recognized, as do both parties, that “the majority of the groundwater contamination METG is remediating at the Site was caused by Asarco’s operations.” But the court noted that both parties used vast quantities of arsenic-laden materials in their everyday operations and generated substantial amounts of arsenic-laden byproducts. Although the court could not quantify all of Atlantic Richfield’s past releases, given the

large gaps in the historical record, it noted that Atlantic Richfield released so much toxic fly ash and coal dust that it received complaints from the City of Helena. The court likewise made findings as to the relative toxicity of arsenic in the various materials used by Asarco and Atlantic Richfield, to the extent those toxicities could be ascertained.

The fifth Gore factor assesses the degree of care exercised by the parties with respect to the hazardous waste concerned. *Id.* The district court reviewed the precautions taken by both Asarco and Atlantic Richfield to protect against environmental contamination, as well as the failures of certain preventive measures taken by each party—such as leakages in the protective infrastructure and the careless handling of contaminated wash-down water. The court further noted Asarco’s adoption of relatively intensive preventive measures toward the later years of its operation, including replacing Thornock Lake with a massive steel holding tank, as well as broader remediation efforts beginning in the 1990s.

The sixth Gore factor evaluates the degree of cooperation by the parties with federal, state, or local officials to prevent any harm to public health or the environment. *Id.* As to this factor, the court explained that Atlantic Richfield had repeatedly evaded responsibility for any environmental contamination at the Site, flagrantly misled the EPA regarding its releases at the Site, and made ongoing misrepresentations throughout the course of the litigation. Atlantic Richfield contends the district court’s misrepresentation findings are “irrelevant” to its appeal of the twenty-five percent allocation because the court separately awarded a \$1 million uncertainty premium pursuant to the sixth Gore factor. However, it is not inconsistent for the district court to award an uncertainty

premium based on the egregiousness of its findings as to the sixth Gore factor, and also separately to consider Atlantic Richfield's non-cooperation when weighing the equities in the context of reaching its baseline allocation.

In addition to its core factual findings, the district court considered the expert testimony proffered by the parties in arriving at its allocation. Asarco's expert proposed three alternative liability allocation strategies, which apportioned Atlantic Richfield's responsibility at twenty-five percent to forty-one percent depending on the method. Atlantic Richfield's expert focused on challenging Atlantic Richfield's liability altogether and opined that Atlantic Richfield should have zero responsibility for the Site cleanup. The court reviewed the testimony of the parties' dueling experts, discussing the merits and shortcomings of each. The court found the opinions of Asarco's expert, Andy Davis, "to be compelling and persuasive," adding that he "was the only witness at trial who was qualified by education, training, experience, and the work he performed in this case, to quantify the contribution of arsenic made by Anaconda's 45 years of operation at the Site." By contrast, the court found that Atlantic Richfield's expert, Brian Hansen, focused too much on Asarco's operations and tried so hard to minimize Anaconda's role that he failed to provide a useful quantification of its contamination. The court further found that Hansen failed to account for several material historical documents, and "[e]ft] the majority of expert Davis's opinions largely unchallenged."

The district court favored Davis's most conservative allocation, which ascribed twenty-five percent of the total liability to Atlantic Richfield. It rejected Asarco's higher proposed allocations, as well as Atlantic Richfield's

proposed zero percent allocation.⁹ Davis’s conservative allocation, i.e., “Strategy III,” assigned equal responsibility to Asarco and Atlantic Richfield for discharges into the north plume and the Thornock Pond and Lake area plume, adjusted for the respective time periods the parties operated in each region, and then adjusted for the square footage of the contaminated groundwater in each area. The court found this strategy appealing, because it accounted for the parties’ differential time periods of ownership—notably, a factor that favored *Atlantic Richfield* due to its comparatively short-lived operations at the Site. Particularly given the failure of Atlantic Richfield’s expert to proffer a well-supported, sensible alternative allocation, the district court reasonably resorted to the most conservative of Asarco’s proposed allocations.¹⁰

The district court acknowledged that all the allocation strategies presented were imperfect and explained that it would compensate for the mathematical uncertainties by considering “such equitable factors as the court determines are appropriate,” per the framework of CERCLA. 42 U.S.C.

⁹ The district court also rejected three alternative allocations suggested by Atlantic Richfield in its proposed amended post-trial findings of fact and conclusions of law. Atlantic Richfield contests the court’s cursory rejection of those alternatives. However, Atlantic Richfield devoted nearly all of its energy at trial—and all of its expert testimony—to challenging *any* attribution of responsibility to Atlantic Richfield, so it provided minimal support for these alternative allocations. Although the court’s rejection was terse, it was sufficient under the circumstances—especially when coupled with the district court’s explanation of the allocation it did choose.

¹⁰ Moreover, that allocation aligned with the overarching theme of the court’s factual findings, i.e., that Asarco bore responsibility for the vast majority of the Site’s contamination, but Atlantic Richfield was more than a *de minimis* polluter.

§ 9613(f)(1). Ultimately, the court used the Gore factors—as well as the general equitable principle that the cooperating, settling party should receive the benefit of the doubt—to support its decision to adopt an allocation that erred on the side of over-compensation rather than under-compensation for the contamination emitted by Atlantic Richfield. Because these equitable factors weighed in Asarco’s favor, and the court found Davis’s “Strategy III” to be the most compelling of the proffered allocation strategies, it decided to stand by a twenty-five percent allocation of responsibility to Atlantic Richfield. Because the district court assessed the record evidence and underlying equities with sufficient rigor and care, we affirm.¹¹

Finally, Atlantic Richfield argues that the district court’s decision provided an insufficient articulation of the reasoning behind its allocation. We conclude that the court below made a sufficient record to inform our review. The court’s ninety-five page decision is expansive and detailed, and it thoughtfully grapples with a challenging case. A decision need not be articulated with perfection to meet the standards we have set forth in our case law. *See Traxler v. Multnomah County*, 596 F.3d 1007, 1016 (9th Cir. 2016) (explaining that the district court must articulate its reasoning in a manner sufficient to permit meaningful appellate review, and remanding where the record “d[id] not

¹¹ Atlantic Richfield further argues that a twenty-five percent allocation exceeds its realistic share of the Site contamination. But the district court was not required to allocate response costs precisely along the lines of the parties’ emissions. Because consideration of “equitable factors” is permissible, it is immaterial if the court did not apportion response costs perfectly in line with emissions—especially where no party has been able to quantify those emissions with precision.

permit [the court] to infer a rationale”). For these reasons, we affirm the district court’s allocation decision.

Each party shall bear its own costs.

AFFIRMED IN PART, VACATED IN PART, AND REMANDED.