IN THE SUPREME COURT, STATE OF WYOMING

2005 WY 76

APRIL TERM, A.D. 2005

July 13, 2005

PHILIP L. HOY,	)	
	)	
Appellant	)	
(Plaintiff) ,	)	
	)	
v.	)	**No. 04-46**
	)	
DRM, INC., a Wyoming corporation; and	)	
CONSOLIDATED ENGINEERS, INC.,	)	
	)	
Appellees	)	
(Defendants) .	)	

Appeal from the District Court of Campbell County
The Honorable Dan R. Price II, Judge

Representing Appellant:

Virgil G. Kinnaird and Sheryl Smith Bunting of Kinnaird Law Office, P.C., Sheridan, Wyoming. Argument by Mr. Kinnaird.

Representing Appellees:

R. Douglas Dumbrill of Lubnau, Bailey and Dumbrill, Gillette, Wyoming for appellee Consolidated Engineers, Inc., and James L. Edwards of Stevens, Edwards, Hallock & Carpenter, P.C., Gillette, Wyoming for appellee DRM, Inc. Argument by Messers. Dumbrill and Edwards.

Before HILL, C.J., and GOLDEN, KITE, and VOIGT, JJ., and STEBNER, DJ., Retired.

HILL, Chief Justice.

[¶1] Phillip L. Hoy (Hoy) filed a complaint for negligence alleging that DRM, Inc. and Consolidated Engineers, Inc. (collectively the Defendants), while in the course of trenching a water line, had damaged the leach field for his mobile home park.[1] The district court granted the Defendants' motion in limine to exclude the testimony of Hoy's two designated expert witnesses because their opinions did not meet the standards for reliability set forth in *Bunting v. Jamieson*, 984 P.2d 467 (Wyo. 1999). On the basis of that ruling, the district court granted the Defendants' motion for summary judgment for a lack of proof of proximate cause. Hoy challenges these rulings on appeal. We affirm.

ISSUES

[¶2] Hoy provides the following statement of the issue:

> The trial court abused its discretion in excluding [Hoy's] expert testimony that Defendants' construction activities were the proximate cause of the failure of [Hoy's] leach field.

The Defendants restate the issue and add an additional one:

> Was the granting of summary judgment in favor of the Defendants correct?
>
> Whether the cited amendments to the depositions of [Hoy's] experts are properly before this court?

FACTS

[¶3] Hoy filed a complaint alleging that the Defendants' negligent acts had caused the leach field[2] that serviced his mobile home park to fail.[3] Hoy alleged that while the Defendants were trenching a waterline on adjacent property, they accidentally breached the leach field. In attempting to repair that damage, the Defendants enlisted the services

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[1] Defendant CEI, an engineering firm, did the design work for the waterline project while DRM provided the construction services.

[2] A leach field is part of a septic system. A typical field consists of a perforated piping network laid on top of gravel-filled trenches and buried about one to two feet below the surface. After sewage has undergone primary treatment in a septic tank, the clarified effluent flows into the leach field's piping system. The process of percolation into the surrounding soil removes any remaining impurities.

[3] In addition to DRM and CEI, Hoy named Slattery Enterprises, Inc. d/b/a Paintbrush Sanitation as a defendant. Paintbrush reached a settlement with Hoy, and the claims against it were dismissed. Paintbrush is not a party to this appeal.

of a vacuum truck from Paintbrush Sanitation. The truck was driven onto the fragile leach field where it became mired. The Defendants then used heavy equipment on the leach field to assist in the removal of the vacuum truck. Once the truck was free, the Defendants used it to vacuum out large quantities of water from the field flowing from the breach. Hoy also theorized that the location of the waterline resulted in a "damming effect" whereby water from the leach field was prevented from flowing out of the leach field causing the water table to rise. These actions, Hoy alleged, caused the leach field to fail and become unusable.

[¶4] Hoy designated two professional engineers, Steven M. Bruce (Bruce) and Gerald Williams (Williams), as expert witnesses, each of whom had experience designing, constructing, and maintaining leach fields. In his designation of experts, Hoy indicated that each expert's testimony and opinion would be in accord with reports that they had produced. In his report, Bruce offered the following:

> My conclusion is that the leach field soil system is relatively old, it was however operating well and it is difficult to predict how much life it had left. Leach fields tend to fail, or plug slowly. I believe that it is too much of a coincidence that the system suddenly failed naturally while the construction was being performed adjacent to and on the surface of the facility. While I do not have any direct scientific evidence, I believe that the disturbance caused by heavy equipment could have slightly changed the soil structure and water table in the immediate area causing the system to fail.

In his deposition, Bruce explained the basis for his opinion. Bruce testified that heavy equipment should never be driven over a leach field because the weight and vibration from the machinery will compact the soil. He noted that the soil in a leach field tends to compact easier because it is wet, and as it compacts, it loses its ability to absorb water from the septic tank, which could cause the water table to rise and the field to fail. Bruce also testified that the vacuuming of water from the trench after the Defendants breached the leach field could have caused the field to fail. He opined that the sudden dewatering of the field could have adversely affected the structure of the soil by impairing its ability to absorb water. Bruce personally inspected the soils taken from the leach field after it had failed and testified that he saw no evidence in those samples indicating that the field was failing naturally. Bruce testified that his opinion was based upon his personal knowledge of leach field operations, his personal observation of the damage to the surface of the leach field from the Defendants' equipment, and the application of basic theories of hydrology, soil mechanics, and structure. He conceded that he did not run any tests on the soil or the water in the leach field or review any scientific literature on leach field failure or consult with any other experts. Bruce admitted that his opinion was only a theory based on experience and that he had no direct scientific evidence to support it. He

also admitted that his theory was predicated on Hoy's representations that the field had not experienced any operating problems until after the Defendants' actions. Further, he acknowledged that he could not rule out other possible causes for the leach field's failure, including natural fluctuations in the ground water level or nearby coal bed methane mining activity.

[¶5] Expert witness Williams set forth the following in his report:

> The field has operated with no problems for 24 years. Suddenly, after the encroachment into the field, the subsequent equipment being placed on the field and the construction of the water line near the southern edge of the property, the field fails.
>
> There are several possible reasons for this failure:
>
> 1) When the field was disturbed on the SE edge and the vac truck subsequently drained the field to facilitate the repairs, the loss of hydraulic pressure may have allowed settlement to occurre [sic]. This would account for the depressions in the field surface which were not attributed to the equipment.
> 2) The placement of heavy equipment on the field may have damaged the leach field pipes and the damage was not evident in the one small area exposed for observation.
> 3) The construction of the water line near the south edge of the field may have created a damming effect and caused the water table to rise into the field. The leach field surface slopes down to the SW corner and the ground water table would generally slope this way as well.
> 4) The water table naturally fluctuated and rose to the field level.
> 5) The soils in the field area have become clogged and can no longer handle the flow of the sewage water. Based on CER's test results, we do not believe this is the case.
> 6) Another outside influence, not considered in this report, caused the water to rise.
>
> It is my opinion that the water table at its current level has caused the leach field to fail. The encroachment into the SE

> corner of the leach field by the back hoe and the presence of equipment on the field in conjunction with the placement of the water line has led to the diminished capacity of the leach field. With out [sic] historic water table levels it is impossible to verify this opinion, but the fact the field has worked well for an extended period of time gives a strong indication that this opinion is correct. Additionally when Phil Hoy exposed the leach field infiltrator pipe in 4 locations, the exposed soil did not appear to be in a failure mode.

Like Bruce, Williams gave further details about the basis of his opinion during the course of his deposition. Williams opined that all three incidents – driving heavy equipment on the leach field, breaching the field with a trench, and vacuuming the water out and constructing the waterline in a location that caused a "damming" effect on the field – were contributing factors to the leach field's failure. Williams based his opinions upon Hoy's representations that the field was working normally before the Defendants' actions and only showed evidence of failure thereafter. Those representations were the "linchpin" of Williams' opinions. Williams admitted that his opinions were not verifiable largely because he did not have access to any baseline or pre-failure data for the soil conditions and water table levels. Without any baseline data, Williams testified that he had to make certain assumptions. Williams indicated that his opinion was basically common sense. Williams declared that it was within a reasonable degree of engineering certainty that the Defendants' actions caused the leach field to fail. Yet, Williams also acknowledged that he could not scientifically rule out other causes for the field's failure including natural ground water fluctuations, flaws in the leach field's design, degradation of the soil's ability to absorb water, or nearby methane gas development. Ultimately, Williams could not give any probabilities for the potential causes of the leach field's failure.

[¶6] With respect to the specific acts of the Defendants, Williams testified that driving heavy equipment over a leach field may cause soil compression and alter the "geotechnical capacity of the soil." Williams believed that is what happened here. Williams noted that the compression of soil depends upon its moisture content, and he assumed that at the time of the incident, the soil was "fairly" moist. He admitted that he had no knowledge of the soil condition at the time the trucks and equipment went onto the leach field, and that he could only make assumptions based upon his personal observations of the field and what Hoy told him. Williams tried to test the soil but was unable to get samples for most areas of the leach field, and those he did obtain did not evidence any compaction. Williams conceded that he could not determine if there had been any hydraulic movement within the leach field as a result of the Defendants' actions. Despite the lack of direct evidence, Williams maintained that "coincidental" evidence led him to believe that Defendants' actions caused the failure of the leach field. That belief was derived from what Williams called an "interpretation of the data" with

the "data" being the fact that heavy equipment was placed on a working leach field coupled with a subsequent failure of the field.

[¶7] Williams testified that the Defendants' breach of the leach field during trenching for the waterline may have contributed to the field's failure. Williams stated that when the Defendants breached the field and had to vacuum out a large quantity of water that flowed from the field into the trench, the loss of hydraulic pressure may have allowed the soil to settle, inhibiting its ability to absorb water. However, Williams stated that there was no way to determine whether the soil surrounding the piping was affected by any settlement. Williams did not conduct any scientific experiments to determine whether the removal of the water from the leach field had actually affected the soil. His opinion was just a guess based on "engineering principles." Williams cited the presence of undulations on the surface of the leach field in the area of the Defendants' activities as evidence in support of his opinion. When confronted with photographs that appeared to show the undulations predated the Defendants' activities by almost four years, Williams admitted that they could have been caused by some other phenomenon.

[¶8] Finally, Williams theorized that the waterline installed by the Defendants caused the flow from the leach field to back up raising the water table under the field causing its failure. Williams drilled three wells, two on the leach side of the waterline and one on the opposite, to monitor the water level. After re-activating the leach field, Williams recorded the water level readings. In his opinion, the experiment indicated a possible damming effect since the water levels in the leach-side wells rose quicker than the one on the other side of the waterline. Nonetheless, there was no evidence as to how the soil was reacting prior to the placement of the waterline, and without any baseline to compare the results of his experiment, Williams admitted that the results could have been the same prior to the installation of the line. Furthermore, Williams did not know if the soils underlying each well were the same and that differences in soil could account for the difference in water levels between the wells. While unable to express to any degree of certainty that the installation of the waterline caused a damming effect that was responsible for the leach field's failure, Williams concluded that his test tended to show that was the case. At the end of his deposition, Williams opined that the only error the Defendants made was in placing the waterline too close to the leach field in the initial plans. Williams confessed that where the waterline was actually located did not violate any engineering standard of care. Finally, Williams asserted that the damming effect would not have occurred if the Defendants had used permeable material around the waterline but he immediately acknowledged that the use of non-permeable material was not a violation of any engineering standard of care.

[¶9] Both experts attached amendments to their depositions. Bruce included a statement declaring that:

> After reviewing my deposition, I feel that this summary of my concerns is very necessary. After reviewing my testimony, I am not disputing the words I said, but the context that both the deposing attorney and myself were using them. In numerous instances, we were not using the same definitions and understood terms differently.

In those amendments, Bruce admits he had no laboratory data and that he did not know how deeply or how much the soils were adversely affected by the Defendants' activities. However, he stressed that his opinion was based on basic scientific principles embodied in engineering theory. Bruce stood by his opinion that the only logical conclusion was that the construction activities on and around the leach field caused its failure. He added that he thought it was unlikely that the failure was due to old age because the soil samples that he observed had not shown any sign of plugging.

[¶10] Williams did not include any statement setting forth the reasons for making the amendments to his deposition. In his amendments, Williams clarified his statement that his opinion was "common sense" by noting that it was based on his personal knowledge of "void ratios, porosity, permeability, soil classifications, leach field design, subsidence, effective stresses and pore pressures in soil, water tables, water flow through soils, compressibility of soils, etc." Williams also attempted to mitigate his declaration that his opinions were not verifiable because he did not have any baseline data for soil conditions and water table levels by declaring: "I do believe I have a baseline before the leach field failure. The baseline is the field was working for 24 years. I also have a baseline after the failure in that I know the depth of the water table and the moisture content of the soils and soil types." Finally, Williams stressed that the undulations on the surface of the leach field mirrored the placement of the leach field lines and the photographs depicting these undulations constituted "hard, physical evidence [substantiating] the engineering theory."

[¶11] After deposing Hoy's experts, the Defendants concurrently filed a motion in limine to exclude the proposed expert testimony under *Bunting* and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993) and a motion for summary judgment on the grounds that Hoy had failed to provide any competent expert testimony showing that the Defendants' actions caused damage, and that Hoy had failed to propound any evidence that the Defendants' actions deviated from the standards of care for engineers in Wyoming. After a hearing, the district court issued a decision letter granting both motions:

> In this case, the court finds that the methodology or technique used was not reliable. This first shows in the experts[']depositions with their testimony that defendants' actions "may have" caused the damages; "Without historic water

table levels it is impossible to verify this opinion."; "While I do not have any scientific evidence…it could have…"; "Q: Do you have any evidence or information that the soils were compressed to such an extent that the leach field was affected? A: I do not."; "I am just throwing theory at you now."; "…possibly altering…"; "…could be contribution factors."; ["] Q: But you don't know why the ground water level is currently level with the leach field; if that is natural or something from some other cause. A: Correct."; "Q: Have you done any scientific investigation at all to indicate that the removal of water from the leach field actually affected the soils in that leach field? A. No." There are numerous other examples of the experts['] failure to show that their conclusions are reliable. Although these examples do not state all of the experts' opinions, they are emblematic of the testimony in their deposition testimony. The following questions and answers are indicative of the unreliability of the conclusions:

> Q. Do you have any evidence that it did cause negative consequences?
>
> A. Yes.
>
> Q. What evidence is that?
>
> A. The leach field failed.

This type of "consequences" analysis is insufficient for the court to admit these expert opinions. Of the four factors to consider [from *Daubert*], the experts showed nothing that their theories can be or could be tested. No research was made to show peer review and publication. Thus there was no known rate of error or standards. Finally, there seemed to be no uniform acceptance within the scientific community.

The expert opinion must be based on reliable methodology and reliably flow from that and the facts at issue. In this case, it does not. "The ultimate question for the trial judge is whether both sides will have a fair opportunity to test the validity of scientific results; if not, those results should not be admissible. …[E]xpert testimony should be admitted so long as it can be adequately tested by an

> adversary." *Bunting*, [984 P.2d] at 473, citing Daniel J. Capra, *The Daubert Puzzle*, 32 Georgia Law Rev. No. 3, 699, 705 (Spring 1998). I find under these tests that the testimony should not be admitted and the plaintiff's case fails for lack of proximate cause.

Hoy has appealed.

STANDARD OF REVIEW

[¶12] Summary judgment is appropriate when there is no genuine issue as to any material fact and the prevailing party is entitled to have a judgment as a matter of law. A genuine issue of material fact exists when a disputed fact, if proven, would have the effect of establishing or refuting an essential element of the cause of action or defense asserted by the parties. We examine the record from the perspective most favorable to the party opposing the motion, and we give that party the benefit of all favorable inferences that may be fairly drawn from the record. We evaluate the propriety of a summary judgment using the same standards and the same materials used by the lower court. We do not accord the district court's decisions on questions of law any deference. *In re Estate of Drwenski*, 2004 WY 5, ¶12, 83 P.3d 457, ¶12 (Wyo. 2004) (quoting *Mathewson v. City of Cheyenne*, 2003 WY 10, ¶4, 61 P.3d 1229, ¶4 (Wyo. 2003) and *Anderson v. Two Dot Ranch, Inc.*, 2002 WY 105, ¶10, 49 P.3d 1011, ¶10 (Wyo. 2002)). Summary judgments are not favored, especially in negligence actions. *Drwenski*, ¶13. As a consequence, summary judgments in negligence actions are subject to "more exacting scrutiny" by this Court. *Id.*; *see also Woodard v. Cook Ford Sales, Inc.*, 927 P.2d 1168, 1169 (Wyo. 1996).

[¶13] Where a trial court excludes evidence essential to maintain a cause of action, the propriety of the summary judgment depends, as here, entirely on the evidentiary ruling. *Mitchell v. Gencorp, Inc.*, 165 F.3d 778, 780 (10th Cir. 1999). Our review is, therefore, focused on the district court's evidentiary ruling.

> Trial court rulings on the admissibility of evidence are reviewed for an abuse of discretion. *Clark v. Gale*, 966 P.2d 431, 435 (Wyo. 1998). The ultimate issue is whether the trial court reasonably could have concluded as it did or whether it exceeded the bounds of reason under the circumstances. *Id.* (*quoting Hilterbrand v. State*, 930 P.2d 1248, 1250 (Wyo. 1997)). This standard applies to a trial court's exclusion of expert testimony. *Chapman v. State*, 2001 WY 25, ¶8, 18 P.3d 1164, 1169 (Wyo. 2001); *Bunting v. Jamieson*, 984 P.2d 467, 470 (Wyo. 1999).

Expert testimony is admissible if it meets the requirements of W.R.E. 702:

> If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise.

The United States Supreme Court has described a "gatekeeper" function for the trial court under Rule 702, whereby the reliability of proffered expert testimony is tested. *Kumho Tire Co. Ltd. v. Carmichael*, 526 U.S. 137, 141, 119 S.Ct. 1167, 143 L.Ed.2d 238 (1999); *Daubert v. Merrill Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 592-93, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993), *cert. denied*, 516 U.S. 869, 116 S.Ct. 189, 133 L.Ed.2d 126 (1995). * * *

> The primary goal of *Daubert's* gatekeeping requirement "is to ensure the reliability and relevancy of expert testimony. It is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field."

[*Bunting*, 984 P.2d at 471.] (*quoting Black v. Food Lion, Inc.*, 171 F.3d 308, 311(5th Cir. 1999)).

In *Bunting*, we adopted *Daubert's* two-part test: first, the trial court is to determine whether the methodology or technique used by the expert is reliable, and second, the trial court must determine whether the proposed testimony "fits" the particular case. *Bunting*, 984 P.2d at 471. We also noted with approval the non-exclusive criteria that have been utilized to guide trial courts in making that first determination:

> 1) whether the theory or technique in question can be and has been tested; 2) whether it has been subjected to peer review and publication; 3) its known or

> potential rate of error along with the existence and maintenance of standards controlling the technique's operation; …4) the degree of acceptance within the relevant scientific community[;] …[5)] the extensive experience and specialized expertise of the expert[;] …[6)] whether the expert is proposing to testify about matters growing naturally and directly out of research [he has] conducted independent of the litigation; and [7)] the non-judicial uses to which the method has been put[.]
>
> *Id*. at 472. As to the second part of *Daubert's* two-part test – whether the expert testimony "fits" the particular facts of the case – we concluded in *Bunting* that this is a question of relevance that incorporates the concept of "helpfulness" found in W.R.E. 702. In other words, "'the expert's opinion must relate to an issue that is actually in dispute and must provide "a valid scientific connection to the pertinent inquiry."'" *Bunting*, 984 P.2d at 472 (*quoting Graham v. Playtex Products, Inc.*, 993 F.Supp. 127, 130 (N.D. N.Y. 1998) and Margaret A. Berger, *Procedural Paradigms for Applying the Daubert Test*, 78 Minn. L.Rev. 1345, 1351 (1994)).

Reichert v. Phipps, 2004 WY 7, ¶¶5-8, 84 P.3d 353, ¶¶5-8 (Wyo. 2004).

DISCUSSION

Deposition Amendments

[¶14] Initially, we address a claim raised by the Defendants that the amendments to the depositions were improper under W.R.C.P. 30(e).[4] The Defendants contend that the

[4] W.R.C.P. 30(e) (emphasis added) provides:

> When the testimony is fully transcribed the deposition shall be submitted to the witness for examination and shall be read to or by the witness, unless such examination and reading are waived by the witness and by the parties. **Any changes in form or substance which the witness desires to make shall be entered upon the deposition by the officer with a statement of the reasons given by the witness for making them**. The deposition shall then be signed by the witness, unless the parties by stipulation waive the signing or the witness is ill or cannot be found or refuses to sign. If the deposition is not signed by the witness within 30 days of its submission to the witness, the officer shall sign it and state on the record the fact of the

amendments attempted to effect substantive changes to the experts' deposition testimony without a statement of the reasons for doing so as required under the rule. They also argue that the amendments were an attempt to create a sham issue of fact in an attempt to avoid summary judgment. *See generally Hanna v. Cloud 9, Inc.*, 889 P.2d 529, 534 (Wyo. 1995). For those reasons, the Defendants request the amendments be stricken.

[¶15] We decline to address the Defendants' argument. The only mention of this issue in the record before us is when defense counsel stated during the summary judgment hearing that he believed the amendments were not proper. There is nothing in the record indicating that the Defendants filed a motion to strike or raised any demand that the district court strike the amendments. The district court's decision letter and order on the summary judgment motion and the motion in limine are silent on the issue so it is impossible for us to determine whether the court ever considered the matter. Even if it is assumed that the district court considered and rejected a motion to strike, we would not be able to discern the court's reasoning from the record.

[¶16] An appellee may support the judgment below by asserting any theory offered to and rejected by the district court. *Campbell County School District v. Catchpole*, 6 P.3d 1275, 1280 (Wyo. 2000). The non-appealing party is limited, however, to supporting the judgment with matters that appear in the record. *Id., see also Broyles v. Broyles*, 711 P.2d 1119, 1123 (Wyo. 1985). We generally do not consider arguments not raised in the court below. *Hammons v. Table Mountain Ranches Owners Association, Inc.*, 2003 WY 85, ¶17, 72 P.3d 1153, ¶17 (Wyo. 2003). As the proponent of the argument, the duty is on the Defendants to present us with a sufficient record for review. They have not done so here and, therefore, we decline to address the Defendants' contention.

[¶17] We note that we reviewed the amendments and did not find anything contained therein that would affect our decision to affirm the district court's ruling. In a sense then, the Defendants' claim is effectively moot. It should be stressed, however, that appellees must, like any appellant, provide us with a sufficient record on appeal to ensure proper consideration of their arguments.

Expert Testimony

[¶18] We begin with a review of the district court's rationale for excluding the experts' testimony. Hoy asserts that the district court misapplied the *Daubert* test by focusing on the conclusions of the expert witnesses and not on their methodology. In its decision

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> waiver or of the illness or absence of the witness or the fact of the refusal to sign together with the reason, if any, given therefor; and the deposition may then be used as fully as though signed unless on a motion to suppress under Rule 32(d)(4) the court holds that the reasons given for the refusal to sign require rejection of the deposition in whole or in part.

letter, the court noted that certain excerpts from the experts' depositions, wherein they admit that they do not have any direct scientific evidence that the Defendants' actions caused the failure of the leach field, show that their conclusions are not reliable. The analysis set forth in *Bunting* and *Daubert* does not contemplate a determination of whether a **conclusion** is reliable or not:

> … *Daubert* admonished that methodology should be distinguished from the conclusion of the expert. *Daubert* at 595, 113 S.Ct. 2786. Thus, a trial judge need not and should not determine the scientific validity of the conclusions offered by an expert witness. Rather, to decide admissibility, the trial judge should only consider the soundness of the general scientific principles or reasoning on which the expert relies and the propriety of the methodology applying those principles to the specific facts of the case. Charles Alan Wright & Victor James Gold, [Federal Practice and Procedure § 6233 (1997)]; *see also* [*Springfield v. State*, 860 P.2d 435, 443 (Wyo. 1993)], *quoting* [*United States v. Jakobetz*, 955 F.2d 786, 797 (2nd Cir. 1992)] ("In other words, the court need not make the initial determination that the expert testimony or the evidence proffered is true before submitting the information to the jury.")

Bunting, 984 P.2d at 472-73. Instead, the focus of the gatekeeping function is to assure that the theories relied upon by experts to support their conclusions are scientifically "reliable" and that they "fit" the facts in question. The experts in this case relied upon the theories of subsidence caused by dewatering, compaction caused by heavy equipment, and damming caused by installation of a pipeline. The district court seemed to conclude that these experts could not rely upon these theories because there was a lack of on-site testing to prove their application to the instant facts. Rather, the court appeared to apply the four, non-exclusive factors applicable to the first step of the *Daubert* analysis, which considers whether a theory or technique is sufficiently reliable to support an expert opinion, to the second step of the analysis, which considers whether the theories "fit" the facts in this case. The court then concluded that without on-site testing of the theories, the experts' conclusions should not be admitted.

[¶19] The first step of the two-step *Daubert* analysis and the four, non-exclusive factors suggested for determining whether an expert's theories are scientifically reliable are "most relevant in the context of a new and novel scientific theory – asking if it has been tested, subjected to peer review and publication, etc." and that "they do provide examples of the general kinds of issues a trial court need probe in light of its purpose of ensuring that an expert employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Kumho Tire*, 526 U.S. at

152. This step of the analysis does not require that all theories must be proven by tests specific to the facts in question.

[¶20] The court in *Bitler v. A.O. Smith Corporation*, 391 F.3d 1114 (10th Cir. 2004) addressed the lack of testing of well-accepted theories stating:

> We turn to the issue whether the Bitlers' experts, particularly Sommer, were required to test their theory. No doubt, *Daubert* noted that a key factor in valid scientific methodology is the practice of testing hypotheses to determine whether they can be falsified. *Daubert*, 509 U.S. at 593 (citing Karl Popper, *Conjectures and Refutations: The Growth of Scientific Knowledge* (5th ed. 1989), who emphasized the importance of testing scientific theories to determine whether they can withstand critical scrutiny). One object of Popper's method of falsification as a way of testing scientific theory is to acknowledge that any scientific theory is subject to future refutation through further observation and testing. Such emphasis, however, is aimed at theories purporting to explain the causal relations among regularly occurring natural phenomena. (Ptolemy's theory of the movement of celestial bodies which hypothesized that the Earth was the center of the solar system, later falsified by Copernicus, is a prominent example of such a scientific theory subject to falsification by further inquiry.) No such theory is in question here. The Bitlers need only establish by a preponderance of the evidence that copper sulfide particles caused a one-time occurrence - the gas explosion in their basement. *See, e.g., Kaiser Found. Health Plan v. Sharp*, 741 P.2d 714, 719 (Colo. 1987). Their experts do not present any controversial or novel explanations concerning regularly occurring natural phenomena. Undoubtedly, had their experts conducted further tests on their water heater's safety valve and established by observation that it did intermittently fail, they would have established causation to a near certainty. But such a high degree of certainty is not required. In fact, the only phenomenon of regular occurrence at issue here is one that is undisputed: copper sulfide particles of sufficient size or quantity if lodged on the valve seat may cause a gas leak. Thus, because testing is not necessary in all instances to establish reliability under *Daubert*, and because it is not required by the particular factual circumstances of this case,

> we conclude that the district court did not abuse its discretion in finding that the Bitlers' experts' testimony is reliable.

Id. at 1122 (Footnote omitted.).

[¶21] Hoy's experts in this case relied on well-known and accepted engineering principles such as compaction and subsidence. To the extent the district court's reasoning relied upon a lack of on-site testing, irrespective of whether such testing was feasible, it constituted a misapplication of the *Daubert* analysis. However, despite our concern that the district court misapplied the *Daubert* two-step test, its ultimate conclusion regarding the inadmissibility of these expert opinions is supported for other reasons. We will affirm a district court's action on appeal if it is sustainable on any legal ground appearing in the record even if the legal ground or theory articulated by the district court is incorrect. *Drwenski,* 2004 WY 5, ¶39, 83 P.3d at ¶39; *see also Heilig v. Wyoming Game and Fish Commission*, 2003 WY 27, ¶8, 64 P.3d 734, ¶8 (Wyo. 2003).

[¶22] Hoy's experts developed several theories regarding the cause of the failure of the leach field based upon their personal experience coupled with the factual history of the leach field, as related by Hoy, along with their knowledge of the basic principles underlying the science of water, soils, and their interactions under varying conditions, such as pressure. The experts attempted to verify their theories through the application of scientific tests of the leach field. They were unable to obtain conclusive results because of the lack of baseline data on the nature of the soil and water table underlying the field prior to the Defendants' actions. The experts did not attempt to apply any other methodology to verify their theories; instead, they simply fell back on what they used to develop their theories in the first place – their personal knowledge and experience.

[¶23] A qualified expert may provide opinion testimony derived from their knowledge and experience. W.R.E. 702. As with all proffered expert opinion testimony, the requirements of *Daubert* and *Bunting* of "reliability" and "fitness" must be satisfied before such testimony is admissible. While *Daubert* does not require a particular kind of causation proof, a proffered expert opinion must provide, "a valid scientific connection to the pertinent inquiry." *Bunting*, 984 P.2d at 472. The Eleventh Circuit Court of Appeals recently explained how the principles underlying *Daubert* apply to the admission of proffered expert opinion testimony that rests on experience and personal knowledge:

> Of course, the unremarkable observation that an expert may be qualified by experience does not mean that experience, standing alone, is a sufficient foundation rendering reliable any conceivable opinion the expert may express. As we observed in *Quiet Technology*, "while an expert's overwhelming qualifications may bear on the reliability of his proffered testimony, they are by no means a

guarantor of reliability…. Our caselaw plainly establishes that one may be considered an expert but still offer unreliable testimony." 326 F.3d at 1341-42. Quite simply, under Rule 702, the reliability criterion remains a discrete, independent, and important requirement for admissibility.

Indeed, the Committee Note to the 2000 Amendments of Rule 702 expressly says that, "if the witness is relying solely or primarily on experience, then the witness must explain how that experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts. The trial court's gatekeeping function requires more than simply 'taking the expert's word for it.'" Fed. R. Evid. 702 advisory committee's note (2000 amends.) (emphasis added); see also *Daubert v. Merrell Dow Pharmaceuticals, Inc.* (on remand), 43 F.3d 1311, 1316 (9th Cir. 1995) (observing that the gatekeeping role requires a district court to make a reliability inquiry, and that "the expert's bald assurance of validity is not enough"). If admissibility could be established merely by the ipse dixit of an admittedly qualified expert, the reliability prong would be, for all practical purposes, subsumed by the qualification prong.

Thus, it remains a basic foundation for admissibility that "proposed [expert] testimony must be supported by appropriate validation – i.e., 'good grounds,' based on what is known." *Daubert*, 509 U.S. at 590, 113 S.Ct. at 2795. As the Supreme Court put it, "the Rules of Evidence – especially Rule 702 -- …assign to the trial judge the task of ensuring that an expert's testimony…rests on a reliable foundation." *Id*. at 597, 113 S.Ct. at 2799.

When evaluating the reliability of scientific [footnote omitted] expert opinion, the trial judge must assess "whether the reasoning or methodology underlying the testimony is scientifically valid and…whether that reasoning or methodology properly can be applied to the facts in issue." *Id*. at 592-93, 113 S.Ct. at 2796. To evaluate the reliability of scientific expert opinion, we consider, to the extent practicable:

> (1) whether the expert's theory can be and has been tested; (2) whether the theory has been subjected to peer review and publication; (3) the known or potential rate of error of the particular scientific technique; and (4) whether the technique is generally accepted in the scientific community.

Quiet Tech., 326 F.3d at 1341 (citing *McCorvey*, 298 F.3d at 1256 (citing *Daubert*, 509 U.S. at 593-94, 113 S.Ct. at 2796-97)). These factors are illustrative, not exhaustive; not all of them will apply in every case, and in some cases other factors will be equally important in evaluating the reliability of proffered expert opinion. See *Kumho Tire*, 526 U.S. at 150-52, 119 S.Ct. at 1175-76; Fed. R. Evid. 702 advisory committee's note (2000 amends.); see also *Heller v. Shaw Indus., Inc.*, 167 F.3d 146, 155 (3d Cir. 1999) ("Not only must each stage of the expert's testimony be reliable, but each stage must be evaluated practically and flexibly without brightline exclusionary (or inclusionary) rules.").

The same criteria which are used to assess the reliability of a scientific opinion may be used to evaluate the reliability of non-scientific, experience-based testimony. *Kumho Tire*, 526 U.S. at 152, 119 S.Ct. at 1176; see also *Clark v. Takata Corp.*, 192 F.3d 750, 758 (7th Cir. 1999) ("In determining whether an expert's testimony is reliable, the *Daubert* factors are applicable in cases where an expert eschews reliance on any rigorous methodology and instead purports to base his opinion merely on 'experience' or 'training.'"). As the Supreme Court explained in *Kumho Tire*:

> In certain cases, it will be appropriate for the trial judge to ask, for example, how often an engineering expert's experience-based methodology has produced erroneous results, or whether such a method is generally accepted in the relevant engineering community. Likewise, it will at times be useful to ask even of a witness whose expertise is based purely on experience, say, a perfume tester able to distinguish among 140 odors at a sniff, whether his preparation is of a kind that others in the field would recognize as acceptable.

> 526 U.S. at 151, 119 S.Ct. at 1176. Sometimes the specific *Daubert* factors will aid in determining reliability; sometimes other questions may be more useful. As a result, "the trial judge must have considerable leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable." *Id*. at 152, 119 S.Ct. [at] 1176. Exactly how reliability is evaluated may vary from case to case, but what remains constant is the requirement that the trial judge evaluate the reliability of the testimony before allowing its admission at trial. See Fed. R. Evid. 702 advisory committee's notes (2000 amends.) ("The trial judge in all cases of proffered expert testimony must find that it is properly grounded, well-reasoned, and not speculative before it can be admitted."

United States v. Frazier, 387 F.3d 1244, 1261-62 (11th Cir. 2004) (*en banc*).

[¶24] As the *Frazier* court notes, the Federal Rule 702 was amended in 2000.[5] The amendment was in response to the *Daubert* decision and the many cases applying it. *See* Fed R. Evid. 702 advisory committee's note (2000 amends.). Wyoming has not similarly amended its version of Rule 702. However, the advisory committee's notes to the federal amendment are relevant, as we have, of course, adopted the *Daubert* analysis. We find the following discussion by the committee instructive:

> As stated earlier, the amendment does not distinguish between scientific and other forms of expert testimony. The trial court's gatekeeping function applies to testimony by any expert. See *Kumho Tire Co., Ltd. v. Carmichael*, 119 S.Ct. 1167, 1171, 526 U.S. 137, 140, 143 L.Ed.2d 238 (1999) ("We conclude that Daubert's general holding – setting forth the trial judge's general 'gatekeeping' obligation – applies not only to testimony based on 'scientific' knowledge, but also to

[5] Effective December 1, 2000, Federal Rule of Evidence 702 reads:

> If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

testimony based on 'technical' and 'other specialized' knowledge."). While the relevant factors for determining reliability will vary from expertise to expertise, the amendment rejects the premise that an expert's testimony should be treated more permissively simply because it is outside the realm of science. An opinion from an expert who is not a scientist should receive the same degree of scrutiny for reliability as an opinion from an expert who purports to be a scientist. See *Watkins v. Telsmith, Inc.*, 121 F.3d 984, 991 (5th Cir. 1997) ("[I]t seems exactly backwards that experts who purport to rely on general engineering principles and practical experience might escape screening by the district court simply by stating that their conclusions were not reached by any particular method or technique."). Some types of expert testimony will be more objectively verifiable, and subject to the expectations of falsifiability, peer review, and publication, than others. Some types of expert testimony will not rely on anything like a scientific method, and so will have to be evaluated by reference to other standard principles attendant to the particular area of 0expertise. The trial judge in all cases of proffered expert testimony must find that it is properly grounded, well-reasoned, and not speculative before it can be admitted. The expert's testimony must be grounded in an accepted body of learning or experience in the expert's field, and the expert must explain how the conclusion is so grounded. See, e.g., American College of Trial Lawyers, Standards and Procedures for Determining the Admissibility of Expert Testimony after *Daubert*, 1993 WL 754951 (1993) ("[W]hether the testimony concerns economic principles, accounting standards, property valuation or other non-scientific subjects, it should be evaluated by reference to the 'knowledge and experience' of that particular field.").

The amendment requires that the testimony must be the product of reliable principles and methods that are reliably applied to the facts of the case. While the terms "principles" and "methods" may convey a certain impression when applied to scientific knowledge, they remain relevant when applied to testimony based on technical or other specialized knowledge. For example, when a law enforcement agent testifies regarding the use of code words in a drug transaction, the principle used by the agent is that participants in such transactions regularly use code words to conceal the nature of

their activities. The method used by the agent is the application of extensive experience to analyze the meaning of the conversations. So long as the principles and methods are reliable and applied reliably to the facts of the case, this type of testimony should be admitted.

Nothing in this amendment is intended to suggest that experience alone – or experience in conjunction with other knowledge, skill, training or education – may not provide a sufficient foundation for expert testimony. To the contrary, the text of Rule 702 expressly contemplates that an expert may be qualified on the basis of experience. In certain fields, experience is the predominant, if not sole, basis for a great deal of reliable expert testimony. See, e.g., *United States v. Jones*, 107 F.3d 1147 (6th Cir. 1997) (no abuse of discretion in admitting the testimony of a handwriting examiner who had years of practical experience and extensive training, and who explained his methodology in detail); *Tassin v. Sears, Roebuck, and Co.*, 946 F.Supp. 1241, 1248 (M.D. La. 1996) (design engineer's testimony can be admissible when the expert's opinions "are based on facts, a reasonable investigation, and traditional technical/mechanical expertise, and he provides a reasonable link between the information and procedures he uses and the conclusions he reaches"). See also *Kumho Tire Co., Ltd. v. Carmichael*, 119 S.Ct. 1167, 1178, 526 U.S. 137, 155, 143 L.Ed.2d 238 (1999) (stating that "no one denies that an expert might draw a conclusion from a set of observations based on extensive and specialized experience.").

If the witness is relying solely or primarily on experience, then the witness must explain how that experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts. The trial court's gatekeeping function requires more than simply "taking the expert's word for it." See *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 43 F.3d 1311, 1319 (9th Cir. 1995) ("We've been presented with only the experts' qualifications, their conclusions and their assurances of reliability. Under Daubert, that's not enough."). The more subjective and controversial the expert's inquiry, the more likely the testimony should be excluded as unreliable. See *O'Conner v.*

> *Commonwealth Edison Co.*, 13 F.3d 1090 (7th Cir. 1994) (expert testimony based on a completely subjective methodology held properly excluded). See also *Kumho Tire Co., Ltd. v. Carmichael*, 119 S.Ct. 1167, 1176, 526 U.S. 137, 151, 143 L.Ed.2d 238 (1999) ("[I]t will at times be useful to ask even of a witness whose expertise is based purely on experience, say, a perfume tester able to distinguish among 140 odors at a sniff, whether his preparation is of a kind that others in the field would recognize as acceptable.").

Fed. R. Evid. 702 advisory committee's notes (2000 amends.). Keeping these principles in mind, we turn to the case before us.

[¶25] The reliability of the experts' opinions is undermined in two ways. First, the experts were unable to rule out other causes for the leach field's failure. That calls into question whether their experience was a sufficient basis for their opinion. Second, when proffering an opinion based on experience and knowledge, an expert must explain how that opinion was reliably derived from the application of that experience and knowledge to the facts. Reliability could be established, for example, by reference to the expert's experience with similar situations. The particular means by which the expert may establish the reliability of his opinion will necessarily vary with the particular circumstance. Nevertheless, there must be some explanation of how that experience and knowledge renders the proffered opinion reliable. Here, there is little in the record that could be described as a reliable foundation or basis for the experts' opinions. The experts stated that their opinions were based on their experience and knowledge and, only after prompting from defense counsel during depositions, on various texts. The experts, however, never explained exactly how their experience and knowledge or the texts supported their opinions. During depositions, the Defendants questioned Hoy's experts concerning the basis for their opinions that the Defendants' actions were the cause of the leach field's failure. The experts replied that they relied on their experience and knowledge of leach fields along with their knowledge of soil and water science in general. After being pressed by the Defendants on whether they had relied on any scientific literature or studies, Williams and Bruce cited three texts between them: U.S.G.S., *Land Subsidence from Groundwater Pumping*; Perloff and Baron, *Soil Mechanics*; Braja M. Das, *Principles of Geotechnical Engineering*[6]. Both experts acknowledged that beyond their inconclusive testing of the field, they had not undertaken any research, reviewed any relevant literature, or consulted with any other experts in the

[6] The experts testified that they consulted these texts. Neither offered any explanation specifying how the texts supported their opinions. Williams, for example, was asked if there was any particular chapter that was relevant replied, "I couldn't tell you off the top of my head." In response to a question whether there was a subject that one would look under, Williams replied, "Probably the effective stress." None of the books was put into the record. It is difficult to see how recitation of the title of a text with vague references to its contents could assist the district court in its endeavor to determine reliability.

field to verify the validity of their theories of causation. An expert cannot rely just upon their status as an expert to bootstrap the admission of their opinion testimony. There must be some indicia of reliability. We cannot say that the district court abused its discretion when it excluded the experts' proffered testimony under the "reliability" prong of the *Daubert* test.

[¶26] Further, we also conclude that the experts' proffered testimony would not meet the second part of the *Daubert* test. In the opinion of these experts, the only connection between the leach field failure and Defendants' actions was timing. The experts acknowledged, however, that the same circumstantial evidence could support a conclusion that there was another cause for the leach field's failure such as a natural rise in the water table level. Williams' report listed six possible causes for the leach field failure, three of which were the Defendants' responsibility and three that were not. The possible causes that were not the responsibility of the Defendants were 1) natural groundwater fluctuations, 2) another unspecified "outside influence" which caused the groundwater levels to rise, or 3) soils in the leach field area becoming clogged by operation of the field over its twenty-five year life, *e.g.*, age of the field itself. Williams' on-site examination of the soils at the excavation points did not indicate clogging or "failure mode" and, therefore, he elminated that possible cause. However, he could not eliminate the other possible causes for which the Defendants had no responsibility – increasing ground water levels due to natural causes or "another outside influence." When asked if he knew what caused the water table to be high enough to cause the leach field to fail, Williams testified, "No, I do not." In answer to the question, "But you don't know why the ground water level is currently level with the leach field: if that is natural or something from some other cause?", Williams stated, "Correct." He confirmed that he could not rule out the other possible causes, but simply thought them less likely given the timing of the failure of the field. Likewise, Bruce could not rule out other possible causes. The experts' inability to rule out other admittedly possible causes for the leach field's failure prevents their opinions from being "helpful" to the jury as contemplated by W.R.E. 702. They presented nothing that would allow a jury to objectively evaluate their opinion on causation. Accordingly, the analytical gap in the experts' testimony is simply too great for the opinions to establish causation. *Dodge v. Cotter Corporation*, 328 F.3d 1212, 1222-23 (10th Cir. 2003); *Mitchell v. Gencorp, Inc.*, 165 F.3d 778, 782 (10th Cir. 1999); *United States v. Mamah*, 332 F.3d 475, 478 (7th Cir. 2003); *Nelson v. Tennessee Gas Pipeline Company*, 243 F.3d 244, 254-55 (6th Cir. 2001). Their testimony plainly was not helpful to a jury because it asked them to determine causation based upon possibilities, not probabilities. Without an objective basis upon which the proffered opinion could be evaluated, the experts were merely asking a jury to speculate. Such testimony is not admissible, and the district court's exclusion of it was not an abuse of discretion under the "fitness" prong of the *Daubert* test.

CONCLUSION

[¶27] Since the district court did not abuse its discretion when it excluded the expert testimony, its order granting summary judgment is affirmed.