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Courts have struggled for years to determine what is included in a conveyance[1] of specifically enumerated substances and "other minerals."[2] Although mineral grants or reservations generally include broad terminology to indicate the inclusion of more than those minerals specifically named,[3] the meaning of this terminology has often been unclear. Long after a conveyance has been made, problems of ascertaining the meaning of "other minerals" may arise when both the mineral estate owner and the surface estate owner claim ownership of a mineral not specifically enumerated in the initial instrument. As unanticipated economic and technological developments raise new substances to commercial importance, the original agreements are often interpreted in contexts which the parties could not have foreseen at the time of conveyance. Under these conditions, court decisions may allocate tremendous unanticipated benefits or impose tremendous unanticipated costs upon either of the parties to a transaction.

In *Moser v. United States Steel Corp.*,[4] the Texas Supreme Court has announced a new rule for the allocation of "other minerals" in Texas. The decision marks a striking departure from the surface destruction test, a test which the court had recently reaffirmed and reformulated.[5] Under the earlier rule, in the absence of an affirmative expression to the contrary, the term "mineral" in a conveyance did not include any substance for which a reasonable method of extraction could destroy or deplete the surface estate.[6] In *Moser,* the court has departed from the surface de-

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1. The term "conveyance" is used in this article to include any grant, reservation, exception, or devise.

2. For a survey of holdings regarding various specific substances and various jurisdictions, see generally 1 H. WILLIAMS & C. MEYERS, OIL AND GAS LAW § 219 (rev. perm. ed. 1984).

3. The words used in such expressions vary considerably. *See, e.g.,* Reed v. Wylie, 554 S.W.2d 169, 170 (Tex. 1977) ("all oil, gas and other minerals on and under . . ."), *aff'd after remand,* 597 S.W.2d 743 (Tex. 1980); Anderson & Kerr Drilling Co. v. Bruhlmeyer, 134 Tex. 574, 575, 136 S.W.2d 800, 803 (1940) ("all Minerells Paint Rock &c. [sic] found or will be found on . . ."); Luse v. Boatman, 217 S.W. 1096 (Tex. Civ. App.—Fort Worth 1919, writ ref'd) ("coal and minerals in and of . . .").

4. 676 S.W.2d 99 (Tex. 1984).

5. The court's most recent reformulation was in Reed v. Wylie, 597 S.W.2d 743 (Tex. 1980).

6. *See id.* at 747.

struction test by holding that "title to uranium is held by the owner of the mineral estate as a matter of law."[7]

The new rule is a response to the difficulties inherent in the application of prior formulations,[8] but, while it clarifies the ownership of uranium, its impact upon the ownership of other minerals is unclear. This article retraces the history of the Texas Supreme Court's endeavor to allocate unspecified minerals. It then explores the *Moser* decision and the scope of its impact upon the determination of who owns "other minerals" in Texas. Finally, it concludes with suggestions for improving the efficiency and fairness of the determination so as to move the allocation closer to these objectives.

THE DEVELOPMENT OF THE SURFACE DESTRUCTION TEST FOR THE DETERMINATION OF OWNERSHIP OF UNSPECIFIED MINERALS IN TEXAS

It is well established in Texas that the mineral estate may be severed from the surface estate by deed or lease.[9] As owner of the dominant estate, the mineral owner or lessee generally has the implied right to use freely so much of the surface as is reasonably and necessarily incident to the removal of his or her property.[10] The dominant tenant's use of the surface property must be made with due regard for the rights of the surface estate owner or lessee,[11] but the mineral estate owner is generally liable to the surface tenant only for damages that arise from excessive or negligent use of the surface.[12] Determinations of reasonableness or necessity in connection with the removal of a substance from a lease may not seem especially troublesome where the substance is specifically enumerated in the conveyance, or where the use in question is one which should have

7. 676 S.W.2d at 101.

8. *See infra* notes 102-05 and accompanying text.

9. *See Moser,* 676 S.W.2d at 101; Texas Co. v. Daugherty, 107 Tex. 226, 233-34, 176 S.W. 717, 718-19 (1915). *See also Reed,* 597 S.W.2d at 747; Humphreys-Mexia Co. v. Gammon, 113 Tex. 247, 250, 254 S.W. 296, 299 (1923).

10. Ball v. Dillard, 602 S.W.2d 521, 523 (Tex. 1980); Sun Oil Co. v. Whitaker, 483 S.W.2d 808, 810 (Tex. 1972); Getty Oil Co. v. Jones, 470 S.W.2d 618, 621 (Tex. 1971).

11. *See* Getty Oil Co. v. Jones, 470 S.W.2d at 621; Brown v. Lundell, 162 Tex. 84, 87, 344 S.W.2d 863, 866 (1961). *Cf.* Sun Oil Co. v. Whitaker, 483 S.W.2d at 817 (Daniel, J., dissenting) (discussing trend toward conciliation of conflicts and accommodation between the mineral and surface estates). A variant of the effort to accommodate the enjoyment of the surface estate is the doctrine of available alternative means. Where reasonable alternative means are available to the dominant tenant on the premises and those means place less of a burden on the surface estate than other alternatives, those means must be used. *Getty,* 470 S.W.2d at 622-23. *See also Sun Oil,*483 S.W.2d at 812 (limiting application of the doctrine to alternatives available on the subject premises).

12. *Moser,* 676 S.W.2d at 103; *see* Sun Oil v. Whitaker, 483 S.W.2d at 810; Brown v. Lundell, 162 Tex. at 86, 344 S.W.2d at 865.

been contemplated by the parties;[13] however, the problem grows more complex when unnamed substances are involved or unanticipated mining techniques might leave the surface estate substantially destroyed.[14] The surface destruction test may be viewed as an effort to avoid the unexpected imposition of such a burden upon the servient estate.

Heinatz v. Allen: Ordinary and Natural Meaning of "Mineral"

In *Heinatz v. Allen*,[15] the Texas Supreme Court acknowledged the importance of a substance's relationship to the surface of the land and the method and effect of its removal.[16] The instrument at issue severed "the surface rights exclusive of the mineral rights" and "the mineral rights" of a tract which contained substantial quantities of limestone near its surface.[17] In deciding that the limestone was part of the surface estate, the court examined the nature of limestone, its relationship to the surface of the land, its use and value, and the method and effect of its removal.[18] The scientific or technical definition of "minerals" was rejected for such a broad definition would have encompassed "not only metallic minerals, oil, gas, stone, sand, gravel, and many other substances, but even the soil itself."[19] Instead the court held that the words "the mineral rights" were to be interpreted according to their "ordinary and natural meaning."[20] In its opinion, substances such as sand, gravel, and limestone were not minerals within the ordinary and natural meaning of the word unless they were rare and exceptional in character or unless they possessed a peculiar property giving them special value.[21] Because the limestone at issue was located at or near the surface, the court found it to be so closely related to the soil as to be reasonably and ordinarily considered a part of

13. *But see, e.g.*, Sun Oil Co. v. Whitaker, 483 S.W.2d at 812-13 (Daniel, J., dissenting) (arguing that the implied easement doctrine does not provide for the consumption or depletion of the surface estate in connection with extraordinary or secondary recovery methods, and that water flooding is not an ordinary primary production method).

14. *Cf. Moser*, 676 S.W.2d at 102-03 (distinguishing between the dominant tenant's responsibilities to the surface owner for damages caused by the extraction of a specified substance and those caused by the extraction of an unspecified substance); Clark, *Uranium Problems*, 18 TEX. B.J. 505, 536-38 (1955) (arguing that the central issue in a dispute over uranium ore between a surface owner and an oil and gas lessee is the difference between oil and gas production methods and hard mineral mining operations).

15. 147 Tex. 512, 217 S.W.2d 994 (1949).

16. *Id.* at 515, 518, 217 S.W.2d at 995-96, 997-98.

17. *Id.* at 514, 217 S.W.2d at 995.

18. *Id.* at 515, 217 S.W.2d at 995-98.

19. *Id.* at 517, 217 S.W.2d at 997.

20. *Id.* at 518, 217 S.W.2d at 997.

21. *Id.* at 518, 217 S.W.2d at 997. The court went on to suggest that limestone which could be used for the manufacture of cement may possess such a special value, but this suggestion was later rejected in Atwood v. Rodman, 355 S.W.2d 206, 213 (Tex. Civ. App.—El Paso 1962, writ ref'd n.r.e.) *cited with approval in* Acker v. Guinn, 464 S.W.2d 348, 351 (Tex. 1971).

the soil itself.[22] The court supported its conclusion by noting that the limestone was recoverable only by the open-pit method and that such a fact, considered along with others, was relevant towards determining that a substance was not included in a conveyance or reservation of minerals.[23]

Although the court had previously addressed the issue of whether or not the term "minerals" encompassed oil and gas,[24] *Heinatz* represented the Texas Supreme Court's first effort towards determining whether a hard mineral near the surface of a tract was included among the unspecified minerals conveyed to the mineral estate.[25] The object of the court's "ordinary and natural meaning" rule was to effectuate what it perceived as the intent of the parties to an ordinary mineral conveyance.[26] Although several site-specific factual issues were left open to dispute,[27] the case strongly implied that, absent unusual circumstances or a clear expression of intent to the contrary, substances such as sand, gravel, and limestone were not to be considered part of the mineral estate.

Acker v. Guinn: Origin of the Surface Destruction Test

In *Acker v. Guinn*,[28] the Texas Supreme Court adhered to consideration of the same criteria it had used earlier in *Heinatz*,[29] but it shifted its primary emphasis toward the effect that extraction of the unspecified

22. 147 Tex. at 518, 217 S.W.2d at 997.

23. *Id.* at 518-19, 217 S.W.2d at 998.

24. *See, e.g.*, Anderson & Kerr Drilling Co. v. Bruhlmeyer, 134 Tex. 574, 581-84, 136 S.W.2d 800, 804-05 (1940) (holding that "all Minerells Paint Rock &c [sic] includes oil and gas"); Rio Bravo Oil Co. v. McEntire, 128 Tex. 124, 127-33, 95 S.W.2d 381, 383-84 ("coal, mineral, stone, or any other valuable deposits" held to include oil and gas), *reh'g on other issue*, 96 S.W.2d 1110 (1936); Elliot v. Nelson, 113 Tex. 62, 70-71, 251 S.W. 501, 504 (1923) ("all minerals in, upon, and under the said land" held to include oil and gas).

25. *Cf.* 147 Tex. at 520-21, 217 S.W.2d at 999 (distinguishing the only other "other mineral" cases which had been decided by the court on the basis that those decisions only addressed whether "minerals" included oil or gas). The Texas Supreme Court had previously denied writ on two Court of Civil Appeals decisions which it cited with approval in *Heinatz*. *Id.* at 522-23, 217 S.W.2d at 1000. In both Psenick v. Wessels, 205 S.W.2d 658 (Tex. Civ. App.—Austin 1947, writ ref'd) and Winsett v. Watson, 206 S.W.2d 656 (Tex. Civ. App.—Fort Worth 1947, writ ref'd), the courts held that sand and gravel were not included within the term "minerals."

26. *Cf. Heinatz*, 147 Tex. at 517, 217 S.W.2d at 997 (stating that the words "the mineral rights" are to be interpreted according to their ordinary and natural meaning because this gives effect to the intention of the testatrix, who is presumed to have been familiar with the ordinary and natural meaning of the words used in her will). *See also id.* at 518, 217 S.W.2d at 998 (stating that the fact that the limestone was recoverable only by the open pit method further supports the conclusion that the words "the mineral rights" were not intended to include the rights to limestone).

27. For example, a mineral estate owner might have argued that a substance under dispute possessed peculiar qualities, had an extraordinary or special value, or that the reserves were deep and extractable with little disturbance to the surface. *See supra* notes 18, 21-23 and accompanying texts.

28. 464 S.W.2d 348 (Tex. 1971).

29. *Compare supra* text accompanying note 18 *with* 464 S.W.2d 348.

substance would have upon the surface estate.[30] At issue in *Acker* was whether the words "all of the oil, gas and other minerals" encompassed iron ore.[31] Upon review of the record, the court found that the ore was a mineral within the technical meaning of the word and that it had some, but not extraordinary, commercial value.[32] The ore deposits were at or near the surface of the tract and could only be mined by the open pit method, resulting in substantial destruction of the surface.[33] While acknowledging that the mineral estate was dominant and that its owner could make such use of the surface as was reasonably necessary, the court argued that it was not "ordinarily contemplated" that the utility of the surface for agricultural or grazing purposes would be destroyed or substantially impaired. Accordingly, the court set forth the following rule as dispositive of the case: "Unless the contrary intention is affirmatively and fairly expressed, . . . a grant or reservation of 'minerals' or 'mineral rights' should not be construed to include a substance that must be removed by methods that will, in effect, consume or deplete the surface estate."[34]

In reaching its conclusion, the court expressly rejected application of the rule of *ejusdem generis* to "minerals."[35] Accepting in part the approach of Professor Eugene Kuntz,[36] the court perceived that it was a

30. After determining that the ore was a mineral in the technical sense, that it had some commercial value, and that it was found at or near the surface, the court identified the primary issue as whether a grant or reservation of 'minerals' included minerals that were recoverable only by open-pit mining. 464 S.W.2d at 351-52.

31. 464 S.W.2d at 349.

32. *See id.* at 350. Specifically, the court noted that the ore had a definite chemical composition and that, although it was inadequate when used alone for the production of pig iron, it was used over the years as a foundation base in road construction. Although the court indicated that the nature of the substance and commercial value were prerequisite to the surface destruction test, one may reasonably conclude that these requirements were of minimal importance. For example, substances such as oil and gas are not technically minerals, Clark, *supra* note 14, at 534, yet they have been held to be within the meaning of the word. *See, e.g.*, Anderson & Kerr Drilling Co. v. Bruhlmeyer, 134 Tex. 574, 581-84, 136 S.W.2d 800, 804-09 (1940); Rio Bravo Oil Co. v. McEntire, 128 Tex. 124, 127-33, 95 S.W.2d 381, 383-84, *reh'g on other issue*, 96 S.W.2d 1110 (1936); Elliot v. Nelson, 113 Tex. 62, 70-71, 251 S.W. 501 (1923). One may also reasonably conclude that few disputes will be litigated over substances that have no commercial value.

33. 464 S.W.2d at 351. The court noted that at least one commentator had suggested that hard-mineral mining conducted by the sinking of shafts or tunnels might also result in destruction of the surface through the deposit of tailings and other waste, but it declined to rule on that issue. *Id.* (citing Clark, *supra* note 14, at 505).

34. *Id.* at 352.

35. *Id.* at 350. The difficulty with the rule lies in the determination of which characteristics of the substances specifically named are relevant for defining the general term; for example, coal is like oil and gas in that it is a hydrocarbon used for energy, but it is different in its manner of extraction. *See* Note, *Beneath the Surface-Destruction Test: The Dialectic of Intention and Policy*, 56 TEX. L. REV. 99, 101 (1977).

36. 464 S.W.2d at 352 (citing with approval Kuntz, *The Law Relating to Oil and Gas in Wyoming*, 3 WYO. J.L. 107, 112 (1949)).

mistake to attempt to discover and give effect to an intention to include or exclude a specific substance when the parties in fact had no such specific intent.[37] Kuntz acknowledged that an intention test was appropriate, but he disagreed with its application to specific substances.[38] He argued that the intention sought should be the "general intent," rather than any supposed but unexpressed "specific intent," and that it could be reasonably assumed that the parties intended to sever the entire mineral estate from the surface estate. Kuntz reached this assumption by considering what he perceived to be the purposes of the grant or reservation in terms of the manner of enjoyment of the ensuing interests.[39] The court agreed with this portion of the Kuntz analysis[40] and concluded that it would not be "ordinarily contemplated" that the term "minerals" would

37. 464 S.W.2d at 352.

38. *See* Kuntz, *supra* note 36, at 112.

39. *Id.* Professor Kuntz concluded that:

> Applying this intention, the severance should be construed to sever from the surface all substances presently valuable in themselves, apart from the soil, whether their presence is known or not, and all substances which become valuable through development of the arts and sciences, and that nothing presently or prospectively valuable as extracted substances would be intended to be excluded from the mineral estate.
>
> A limitation upon the mineral estate should be that only those substances can be removed without compensation which can be removed without unreasonable injury to the enjoyment of the surface estate, i.e. without unreasonably interfering with the uses for which the land is adapted. To this extent, the surface and mineral estates are not only mutually dominant, but are also mutually servient estates. The surface estate is burdened with the right of access, and the mineral estate is burdened with the right of the surface owner to insist that the surface be left intact and that it not be rendered valueless for the purposes for which it is adapted, by depletion of sub-surface or surface substances.

Id. at 113. Since the enjoyment of oil and gas is not necessary to and does not destroy the enjoyment of the surface, oil and gas should be considered within a general grant or reservation of minerals. *Id.*

40. Although the court purported to endorse the basic approach taken by Professor Kuntz, substantial departures from the original approach were made. *See* Reed v. Wylie, 554 S.W.2d 169, 177 (Tex. 1977) (Daniel, J., dissenting) (noting the court's failure to recognize the qualifications described below as limits Kuntz placed upon his approach). The analysis relied upon by the court was devoted to identifying what substances should be included in a general conveyance of minerals, and, specifically, whether oil and gas should be included in such a conveyance. Kuntz, *supra* note 36, at 108-14. Kuntz placed a limitation upon this analysis where substances were specifically enumerated:

> Since minerals may be severed piece-meal, i.e. both as to type and location, if the language of the instrument indicates a specific intention to do so, then that intention must be given full effect. For example, where the purposes of the grant indicate that a specific type of mineral was intended to be covered, or where there is an enumeration of certain minerals having characteristics in common followed by "etc.," or where the description of the rights of removal are sufficiently specific to indicate that only a certain character of mineral was intended to be covered, then, in such cases, there is a specific intent present and it is expressed, although perhaps not with the desired clarity. In all other cases, i.e. where no specific intent can be found, the general intention to sever all substances valuable in themselves should be given effect.

Id. at 114. Along with the common method of extraction used for oil and gas, Kuntz would presumably use other clauses from a typical or "Producers' 88" oil and gas lease to exclude solid minerals from the mineral estate. For example, the usual provisions for the burying of pipelines at certain depths or keeping operations at specified distances from surface improvements might be probative. *See* Clark, *supra* note 14, at 537.

convey a substance the extraction of which would effectively destroy the surface and the opportunity for its enjoyment.[41]

Reed v. Wylie: Restatements of the Surface Destruction Test

The principal query in the *Reed v. Wylie* decisions[42] concerned whether interests in coal or lignite were included in a reservation of an undivided interest in "all oil, gas, and other minerals."[43] On the first appeal of *Reed* (*Reed I*), the Texas Supreme Court expressly affirmed *Acker* and held that the *Acker* rule was dispositive,[44] but the court also elaborated upon the rule and added requirements pertaining to matters not at issue in the earlier decision.

Two new requirements were the most relevant.[45] First, the court declared that *Acker* did not favor the surface owner merely because he or she could show that it was possible to extract a substance through strip or open-pit mining: "Instead, the surface estate owner must prove that, as of the date of the instrument being construed, if the substance near the surface had been extracted, that extraction would necessarily have consumed or depleted the land surface."[46] Second, the court declared that if the substance at issue was "at the surface of the land," no further proof would be required to establish the title of the surface owner to the substance.[47] The court also indicated that, even if a substance did not lie "at the surface," evidence of the depth of a deposit might adequately show that extraction would necessarily destroy the surface.[48]

41. 464 S.W.2d at 352.

42. 554 S.W.2d 169 (Tex. 1977) [hereinafter cited as *Reed I*] *aff'd after remand*, 597 S.W.2d 743 (Tex. 1980) [hereinafter cited as *Reed II*]. The Texas Supreme Court issued its first opinion on the case on May 25, 1977. 20 TEX. SUP. CT. J. 327, 329 (May 25, 1977), *withdrawn and replaced by* 554 S.W.2d 169 (1977). For discussion of the differences between the two versions of *Reed I*, see *infra* note 51.

43. *Reed I*, 554 S.W.2d at 170.

44. 554 S.W.2d at 170, 171.

45. *See Reed II*, 597 S.W.2d 743, 745 (Tex. 1980). Under the agreed facts in *Acker*, the controverted ore deposits outcropped on the surface and had to be mined by open-pit or strip-mining methods, 464 S.W.2d at 351; therefore, the subjects of the two new requirements were not at issue.

46. *Reed I*, 554 S.W.2d at 172 (emphasis added).

47. *Id.* at 173.

48. *Cf. id.* (noting that the record failed to prove the depth at which the lignite was located "so as to show that the extraction of the lignite would have necessarily removed or destroyed the surface of the land"). One sentence of the dicta in the opinion could even be interpreted to imply that proximity to the surface was a specific requirement under *Reed I*. *Cf.* 554 S.W.2d at 173 (in response to the suggestion that there was shaft mining of lignite in the area prior to the date of the 1950 deed, the court states, "This fact would have no effect if lignite were located at or near the surface of the land being conveyed and if in 1950 this shallow lignite would have been extracted only by a method that would have destroyed the surface of the land"). But the remainder of the opinion indicates that the proximity of the substance to the surface is merely probative of whether extraction would necessarily destroy the surface. *See, e.g., Reed II*, 597 S.W.2d at 748 (stating that *Reed I* did not require that a deposit outcrop or be at the surface of the particular tract in question, but noting that the language of *Reed I* was subject to the contrary interpretation). *Contra* Note, *Abandonment of the Surface Destruction Test in Determining Ownership of Unnamed Minerals: Moser v. United States Steel Corp.*, 15 TEX. TECH. L. REV. 699, 705 (1984).

The court explained several other aspects of the *Acker* rule. For example, it emphasized that the *Acker* test conclusively determined the ownership of the substance at issue at all depths, not only those accessible through strip or pit mining.[49] The rule did not horizontally divide ownership of the substance between the two estates. Furthermore, upon a showing that the extraction of a substance would have been destructive, any showing that devices of restoration or reclamation would have been available would be immaterial.[50] The actual intention or knowledge of the parties would also be immaterial, as would be the value of the substance, either on the date of the instrument or at any subsequent date.[51] In summary, the refined rule as set forth by *Reed I* may be stated as follows:

> In the absence of an affirmative expression to the contrary, the term "mineral" in an instrument of conveyance does not include any part of a substance at any depth if there exist on the property substantial quantities of the substance the extraction of which would, at the date of the conveyance, necessarily have consumed or depleted the land.[52]

Although *Reed I* gave the supreme court an opportunity to elaborate upon its surface destruction test, the same opportunity would soon present itself again. The record before the court in *Reed I* failed to prove the depth at which the lignite at issue was located or that extraction of the substance would necessarily have destroyed the surface.[53] Accordingly, the appellant's motion for summary judgment was denied and the case was remanded to the trial court.

Separate concurring and dissenting opinions in *Reed I* raised some of the problems of the decision which would become evident in the ensuing years. Chief Justice Greenhill concurred with the majority's determination of the inadequacy of the summary judgment proof as to the depth of the lignite, but he disagreed with the majority's requirement that the surface

49. 554 S.W.2d at 172. The court acknowledged that it could have construed the conveyance in *Acker* to vest ownership of all ore in the mineral owner and allowed the problem of minerals lying near the surface to be met by limiting the implied easement of the mineral owner, but this was not the holding of *Acker*. The substance which could be extracted only by substantial destruction of the surface was to be owned by the surface owner. *Id.*

50. *Id.*

51. *Id.* The value of the substance at issue was of some importance in the supreme court's first opinion. There the court held that a surface destructive method was a necessity if surface mining was the only "commercially feasible" method of extraction and there were "commercially producible quantities" of the substance at the date of conveyance. 20 TEX. SUP. CT. J. 327, 329 (May 25, 1977), *withdrawn and replaced by* 554 S.W.2d 169 (1977). Although the court retained the date of conveyance requirement in its second opinion, 554 S.W.2d at 172, it omitted the commerciality requirements in favor of requiring that extraction "would necessarily have consumed or depleted" the surface and that "substantial quantities" of the substance existed. *Id.*

52. *Reed I*, 554 S.W.2d at 173.

53. *Id.*

owner show that extraction would have necessarily destroyed the surface.[54] Although he agreed that the instrument should be construed as of the date of its execution, he would have allowed the surface owner to prevail upon showing that any reasonable method of production would have destroyed or depleted the surface estate.[55]

Justice Daniel delivered a vigorous dissenting opinion.[56] The dissent agreed with Chief Justice Greenhill that the surface owner should not be required to bear the onerous burden of proving that a substance could only be mined by a surface destructive method. Accordingly, the dissent would have held *Acker* to apply only to near-surface coal and lignite which could be mined and removed by open-pit or strip mining methods.[57] But based upon the premise that the parties contemplated that the integrity of the surface would be protected from destruction by any and all methods of extraction, the dissent saw no reason to limit consideration of the means available for extraction to the time of the deed.[58] As the dissent saw it, the controlling principle in *Acker* was the ore's existence so near the surface that it formed a part of the surface itself.[59]

The dissent argued that the factual issues inherent in the majority's approach would lead to title uncertainty and inequitable results.[60] As an alternative, the dissent suggested that coal and lignite should be held outside of a conveyance of "all oil, gas and other minerals" for the simple reason that neither was specifically enumerated and "other minerals" was "obviously" applicable only to "oil and gas related minerals" which could be extracted through a well bore.[61]

Reed v. Wylie (*Reed II*)[62] provided the supreme court with another

54. *Id.* (Greenhill, C.J., concurring).

55. *Id.* Following the reasoning of *Acker*, the former Chief Justice concluded that a surface owner would not intend to convey away any unnamed substance as a "mineral" when any reasonable method of producing the substance would destroy or deplete his or her estate. *Id.* at 174. It should be noted that, had the doctrine of available alternative means or an analogous protectionary doctrine, *see supra* note 10 and accompanying text, been employed in conjunction with the majority's "necessity" rule so that alternatives would have been evaluated as of the date of the instrument's execution, then the surface owner would only need to show that surface mining techniques were the only reasonable alternative if she sought to acquire title to a controverted substance. She would only need to allow the mineral estate owner to show that other mining techniques were reasonably available in order to protect the surface from destruction. These doctrines have not been extended to such situations as of yet, but the potential exists for doing so. Recognition of this latent feature of the majority's approach somewhat undermines the rationale here used by the former Chief Justice.

56. 554 S.W.2d at 174. Justice Daniel actually wrote two dissenting opinions to *Reed I*, the latter of which was an addendum written after the majority's first *Reed I* opinion was withdrawn and replaced. He was joined in both dissents by Justice Steakley.

57. *Id.* at 174-75.

58. *Id.* at 181.

59. *Id.* at 175, 181.

60. *Id.* at 178-79.

61. *Id.* at 175.

62. 597 S.W.2d 743 (Tex. 1980).

opportunity to reevalute its surface destruction test and respond to the challenges offered by Justice Daniel's dissent.[63] In *Reed II,* the court expounded further upon the *Acker-Reed* rule and renounced the more extreme positions taken in *Reed I.* In regard to its "at the surface" test, the court explained that the word "surface" was to have depth. A disputed substance was "at the surface" if it was at "a depth shallow enough that it must have been contemplated that its removal would be by a surface destructive method."[64] Evidence of one outcrop on the tract in question and others in the county sufficiently demonstrated that the lignite was "at the surface"; therefore, the lignite was not an "other mineral" reserved to the mineral owner.[65]

Although the facts of the case did not require it to do so, the court went on to specifically reject the argument that the controverted deposit must outcrop, or be at the surface of, the particular tract in question.[66] A requirement that the near surface location of the substance be shown for each tract was perceived as placing an undue burden on the owners of small surface tracts. Instead, the surface owner needed only to show that the controverted substance was at the surface in the "reasonably immediate vicinity," and a showing that the substance was merely "near the surface" in the reasonably immediate vicinity would also be adequate.[67] The court added that a deposit within 200 feet of the surface was "near the surface" as a matter of law.[68]

The opinion explained that, once the "at the surface" test was satisfied, evidence of available mining techniques was immaterial.[69] Nevertheless, the court seized the opportunity to expressly overrule that portion of *Reed I* which required a prevailing surface owner to show that a substance could only be removed by surface destructive methods.[70] Recognizing the inequities and debates which could stem from efforts to determine

63. On remand, the trial court again granted the surface owner's motion for summary judgement after finding that coal and lignite were at the surface of the land. *Id.* at 744. The Court of Civil Appeals again reversed. Wylie v. Reed, 579 S.W.2d 329, 333 (Tex. Civ. App.—Waco 1979), *aff'd on other grounds,* 597 S.W.2d 743 (Tex. 1980). The supreme court affirmed the judgement of the Court of Civil Appeals, but it disagreed with the holding and opinion of that court as to the ownership of the lignite. 597 S.W.2d at 744.

64. *Id.* at 746.

65. *Id.* at 745-46.

66. *Id.* at 748.

67. *Id.*

68. *Id.* The court did not explain whether "surface" as used in this context was a legal term of art with depth or whether it was to be defined in some other manner, such as where the earth meets its atmosphere.

69. *Id.* at 746.

70. *See id.* at 747. This portion of the opinion embodies many of the points urged in the concurring and dissenting opinions of *Reed I. See supra* notes 54-61 and accompanying text. Chief Justice Greenhill, the author of the concurring opinion in that case, authored the majority opinion in *Reed II.*

the state of the art of a substance's removal upon some date in the past, the court also overruled that part of *Reed I* which required an inquiry into whether the surface would have been destroyed as of the date of the instrument.[71] Both concessions represented a return to *Acker* and the notion that the close physical relationship of a substance to the surface was the controlling factor.[72] Chief Justice Greenhill, the author of the majority opinion, announced the new rule: "The rule for near surface lignite, iron or coal, therefore, is that if the deposit lies near the surface, the substance will not be granted or retained as a mineral if it is shown that any reasonable method of production would destroy or deplete the surface."[73]

Justice Spears wrote a concurring opinion in which he agreed with the analysis and results reached by the majority.[74] While praising the announced rule for reducing uncertainty as to the ownership of coal and lignite, he criticized the rule for failing to provide "identifiable and workable criteria to either mineral or surface owners."[75] The opinion advocated the abandonment of any rule which would require tract-by-tract determination of mineral ownership; it urged the adoption of a rule which would allow any person reading a mineral lease to know from the instrument itself what had been granted or reserved, without resort to factual investigation.[76] Justice Spears concluded that an alternative could

71. 597 S.W.2d at 747. Although the court eliminated or reduced many evidentiary difficulties by backing away from its "at the time of conveyance" requirement, it introduced a new element by doing so. Under the new rule, as new technologies become developed and different mining techniques shift from impracticality to reasonableness to obsolescence, the title to unspecified minerals could also shift. One commentator has described this possibility as the "passage of title by technology." *See* Patton, *Recent Changes in the Correlative Rights of Surface and Mineral Owners*, 18 ROCKY MTN. MIN. L. INST. 19, 25-26 (1973).

72. 597 S.W.2d at 747.

73. *Id.* The court added that "The strip-mining method of removal used in *Reed* is a reasonable method as a matter of law for the purposes of this holding." *Id.* at 748. It should be noted that in both announcements of the rule in *Reed II*, the substances enumerated were limited to lignite, coal or iron. *Id.* at 747, 748.

74. *Id.* at 750 (Spears, J., concurring).

75. *Id.*

76. Justice Spears perceived at least four possible factual issues implicit in the *Acker-Reed* rule: (1) whether deposits were in the "reasonable immediate vicinity"; (2) whether there were deposits "at or near" the surface; (3) whether the deposits conformed generally to the contour of the earth's surface; and (4) what was a "reasonable" method of recovery.

The opinion's suggestions followed two themes. Under the first theory, the questions on mineral ownership and reasonable use of the surface would be divided into two separate issues. "Minerals" would be construed as those substances normally regarded as minerals regardless of the method of extraction, but the mineral estate owner would be limited to only the reasonable use of the surface for extraction of his or her minerals. In the absence of an affirmative expression to the contrary, the mineral estate owner would not be allowed to employ any method which would destroy, consume, or deplete the surface. A variant of this theme would be to limit the easement to well bores and mine shafts and so much of the surface as would be reasonably necessary for operations, thereby dividing the ownership of mineral substances by their method of extraction. Deposits recoverable by surface mining techniques would belong to the surface owner, those recoverable through wells

be developed which would give greater clarity and definition to the ownership of resources without significantly impairing the interests of those who had relied on *Acker* and *Reed*.[77]

The Surface Destruction Test in Review

The Texas Supreme Court's endeavor to accommodate what it perceived to be the general intent of the parties led to a rule fraught with factual uncertainty. Although the *Reed II* test resulted in far less of a burden than *Reed I*, a determination of the ownership of an unspecified mineral might still require extensive factual inquiry. The decision required investigation into the location of the deposits on or near a disputed tract and the availability of various mining methods. Except in those instances where the substance outcropped on the surface of the land, the determination of the rights to a substance might not be conclusive until the parameters of the entire deposit were determined. Such factors only exacerbated the uncertainty already associated with searching for minerals. A mineral owner could invest in the exploration of a tract and delineate the boundaries of the deposit only to find that the substance was near the surface on a nearby tract.[78] Others might find the title to a substance shifting out of their hands as innovation introduced and made reasonable mining techniques which were previously unavailable. Furthermore, a multitude of commercial and technological variables could be introduced to determine whether a surface destructive technique was a reasonable alternative, regardless of whether either of the two parties contemplated or would contemplate the use of that particular technique. These factual complexities inevitably frustrated the objectives of many who needed to rely on the *Acker-Reed* test. As noted by Justice Spears, mineral and surface owners sought a definite and certain rule of ownership that would be fair, lend stability to land titles, and allow the development of vital energy resources to proceed unimpeded by title uncertainty.[79]

The most troubling aspect of the *Acker-Reed* rule was the parties' inability to determine the ownership of a mineral from the face of an instrument of conveyance.[80] The court had expressly rejected inquiries

or mine shafts to the mineral estate owner. Those recoverable by either method would belong to the dominant mineral estate, subject to the limitations prohibiting surface destruction. Under the second type of alternative, in the absence of an affirmative expression to the contrary, coal and lignite would belong to the surface estate as a matter of law, regardless of the depth of the reserves or the means of extraction. "Other minerals" would simply not include lignite and coal as a matter of law. *Id.* at 750-51.

77. *Id.* at 751-52.

78. Naturally, these circumstances would compel many of those interested in exploration to seek quitclaim agreements from both the surface and the mineral estate owners, but such private initiative would not obviate the need for a more definitive legal framework.

79. 597 S.W.2d at 750.

80. *See Moser*, 676 S.W.2d at 101. *See generally* Note, *supra* note 35; Comment, *Lignite: Surface or Mineral—The Surface Destruction Test and More*, 29 BAYLOR L.REV. 879 (1977).

into the parties' intent.[81] Instead, it sought to determine the parties "general intent."[82] The court purported to recognize that, in most instances, the parties did not intend to convey any specific minerals through general terminology such as "other minerals."[83] Nevertheless, the court's decisions indicated that the underlying objective of the approach was an inquiry into the reasonable intentions of the parties to the transaction.[84]

The inquiries in *Heinatz* differed only in emphasis from those employed in *Acker,* but the latter decision represented a distinct move away from the former's determination of the ordinary and natural meaning of the word "mineral." In *Heinatz,* the court strongly implied that, absent unusual circumstances or an affirmative expression to the contrary, sand, gravel, and limestone were not conveyed by the term "minerals."[85] In *Acker,* however, the court made the test for title determination more site specific.[86] *Reed I* and *Reed II* intensified this site specificity and expanded the court's rule to encompass a multitude of factual issues.[87] Despite numerous remarks that stated the intentions of the parties were immaterial, the court's test increasingly grew to resemble a search for the reasonable intentions of the parties to each dispute. Instead of inquiring into the intent of a reasonable person who would use the term "other minerals" in a mineral conveyance, the inquiry became one of the intent of a reasonable person who would use the term "other minerals" in the specific

81. *Reed I,* 554 S.W.2d at 172.

82. *Reed II,* 597 S.W.2d at 747; *Reed I,* 554 S.W.2d at 171-72; *Acker,* 464 S.W.2d at 352.

83. *See, e.g., Reed I,* 554 S.W.2d at 171 (stating the court's belief that, in most cases of unnamed minerals which subsequently become valuable, the subsequent controversy decides who will be enriched by a substance that was not part of the parties' intentions at the time of the bargain); *Acker,* 464 S.W.2d at 352 (quoting with approval the article by Professor Kuntz in which he asserted that the parties probably had no intention to include or exclude a specific substance with the general term "minerals").

84. *Cf., e.g., Reed II,* 597 S.W.2d at 747 (altering the *Reed I* requirement that means of extraction be considered as of the date of the instrument by referring to the general intent of the parties to not destroy the surface at any time); *Reed I,* 554 S.W.2d at 172 (stating that the court could not expect the parties to have intended the destruction of the surface by the mineral owner); *Acker,* 464 S.W.2d at 352 (interpreting "minerals" as excluding substances that must be removed by methods that will deplete the surface by reference to the intent of the parties not to impair utility of the surface for other purposes); *Heinatz,* 217 S.W.2d at 997 (interpreting "minerals" in ordinary rather than scientific sense in order to give effect to the intention of the testatrix who, absent any clear indication to the contrary, was presumed to have been familiar with the ordinary meaning of the word). Although the court never described its test as an inquiry into the parties "reasonable intent," the test may be appropriately characterized as such an inquiry. *See infra* text accompanying notes 88-90. *See also* Note, *supra* note 35, at 111 (describing intent to be the apparent rationale of the court, but arguing that such an intent could not be inferred). *But see* Note, *Moser v. United States Steel Corp.: Owners of "Other Minerals" Hit Pay Dirt as Texas Buries Acker-Reed Surface Destruction Test,* 5 J. ENERGY L. & POL'Y 147, 156 (1983) (stating in regard to the *Acker-Reed* test: "Mineral ownership had become not a question of the parties' intent or even a question of law, but a question of fact oftentimes not judicially ascertainable because of the uncertainty of geologic data.").

85. *See supra* note 27 and accompanying text.

86. *Compare supra* notes 16-27 and accompanying text with *supra* notes 29-41 and accompanying text.

87. *See supra* notes 42-77 and accompanying text.

mineral conveyance at issue. The inquiry paradoxically suggested that the reasonable party to a conveyance would make numerous factual inquiries about a particular substance and then fail to specifically enumerate that substance in the instrument of conveyance.

Rather than viewing the rule as a test which avoids inquiry into the parties' intent, one may view it as a rule designed merely to limit the extrinsic evidence to be evaluated in the determination of reasonable intent.[88] The surface destruction test limits the evidence used to determine the ownership of an "other mineral"—geological and technical information is given preeminent consideration and other extrinsic evidence is excluded[89]—but if the rule's primary function was to restrain the introduction of evidence, the rule's primary problem was that it did not restrain enough.[90]

MOSER v. UNITED STATES STEEL CORP.: DEPARTURE FROM THE SURFACE DESTRUCTION TEST FOR SUBSTANCES DETERMINED TO BE "OTHER MINERALS" BY LAW

In *Moser v. United States Steel Corp.*,[91] the Texas Supreme Court has again reexamined its rule for the allocation of "other minerals." The new rule represents an effort to add definition and clarity to the term "other minerals" and reduce the factual inquiries incident to the determination of their ownership.

Moser: Determination of Other Minerals by Law

At issue in *Moser* was whether uranium was included in a 1949 reservation of "oil, gas and other minerals."[92] The nearest ore horizon was approximately 193 feet below the surface, with another more substantial

88. *Cf. Heinatz*, 217 S.W.2d at 995 (before exploring the relationship of the substance to the surface and other factors, stating that "the intention of the testatrix as to what is devised is to be ascertained without aid from evidence as to the attending circumstances"); *Reed I*, 554 S.W.2d at 182 (Daniel, J., dissenting) (stating that decisions prior to *Reed I* were not concerned with subjective intent, knowledge, or attendant circumstances in their effort to determine the parties' intent, but that *Reed I*'s requirements which "must be proved" would base the intention of the parties not on the language of the document but on matters of fact and opinion evidence).

89. For example, extrinsic evidence might include information as to the context of the conveyance, the state of mineral knowledge common to the area at the date of the conveyance, or discussions between the parties.

90. *See Reed II*, 597 S.W.2d at 750, 752 (Spears, J., concurring) (praising the court for backing away from the more factually intensive requirements of *Reed I* but advocating a further withdrawal from the mire of tract-by-tract determination of mineral ownership by extrinsic evidence); *infra* notes 104-05 and accompanying text.

91. 676 S.W.2d 99 (Tex. 1984). The Texas Supreme Court issued its first opinion on the case on June 8, 1983. 26 TEX. SUP. CT. J. 427 (June 8, 1983), *withdrawn and replaced by* 676 S.W.2d 99 (1984). For discussion of the substantive differences between the two opinions, see *infra* notes 114-16, 120, 127 and accompanying texts.

92. 676 S.W.2d at 100. Although the instrument at issue used the terms "all of the oil, gas and minerals of every kind and character," the opinion identified the question as one of interpreting the meaning of "oil, gas and other minerals" and did not restate the latter part of the actual phrase. *Id.* at 100.

horizon occurring approximately 325 feet below the surface.[93] Although there was conflicting evidence as to whether strip mining techniques or underground mining techniques would have been employed to extract the deposits in 1949, subsequent developments had produced solution mining techniques which would not consume or deplete the surface estate.[94] The uranium ore on the tract in question was part of a major formation which had been mined exclusively by these *in-situ* leaching or solution mining techniques,[95] and it was undisputed that the uranium would be mined through these methods in 1979, the year of trial.[96] A jury found that extraction would not have necessarily resulted in substantial surface destruction at the time the deed was executed. Accordingly, the trial court held the uranium to be part of the mineral estate on the basis of the rule set forth in *Reed I*.[97] The Court of Civil Appeals affirmed, based upon the rule announced in *Reed II*.[98] The appellate court found that, as a matter of law, the only reasonable method of mining uranium from the tract at the time of trial was by *in-situ* leaching or solution mining, a process which it found did not result in substantial destruction of the surface.[99]

The supreme court affirmed the judgment of the court below but, in doing so, it expressly abandoned the *Acker-Reed* approach.[100] The court proclaimed:

> We now hold a severance of minerals in an oil, gas and other minerals clause includes all substances within the ordinary and natural meaning of that word, whether their presence or value is known at the time of extraction. (Citations omitted.) We also hold uranium is a mineral within the ordinary and natural meaning of the word. . . .[101]

93. Moser v. United States Steel Corp., 601 S.W.2d 731, 733 (Tex. Civ. App.—Eastland 1980) *aff'd on other grounds*, 676 S.W.2d 99 (1984). The court did not indicate whether the word "surface" was used as a legal term of art and was itself meant to have depth.

94. *See id.* The court explained:

> Solution mining is a process by which wells are drilled into ore horizons containing uranium and solvents are injected through these wells to capture the uranium from the land in solution form. . . . The evidence conclusively established that the surface is not depleted or destroyed by the solution mining process.

Id. at 734. But at least one Texas court has found that an *in-situ* or solution mining method could impair the surface. *See* Kenny v. Texas Gulf Sulphur Co., 351 S.W.2d 612 (Tex. Civ. App.—Waco 1961, *writ ref'd*) (mineral owner not liable for causing two inch to three feet subsidence of surface in connection with the extraction of sulphur).

95. 601 S.W.2d at 733-34.

96. *See id.* at 732, 733.

97. 676 S.W.2d at 100.

98. 601 S.W.2d at 732-34.

99. *Id.* at 734.

100. 676 S.W.2d at 101.

101. *Id.* at 102. In the first version of *Moser*, this section of the opinion read: "all substances within the ordinary and natural meaning of that word, whether their presence or value is known at the time of *extraction*." 26 TEX. S. CT. J. at 429 (emphasis added). Presumably the earlier use of "extraction" was unintentional. Unlike the term "severance," it has little explanatory worth, because the presence and value of most minerals, especially those subject to dispute, is known at extraction.

The opinion recounted the numerous construction aids that Texas courts had considered and rejected,[102] and it acknowledged that the previous rules had aimed at two objectives, effectuating the parties' intent to convey valuable minerals to the mineral estate owner while at the same time protecting the surface owner from any destruction of the surface that might result from extraction.[103] The court allowed that the *Acker-Reed* rule generated title uncertainty. The multitude of factual issues it introduced made it impossible to ascertain the ownership of a substance from the face of the instrument of conveyance.[104] By condemning this uncertainty, the court strongly implied that definition and clarity were the primary objectives underlying the new rule.[105]

Having announced that the mineral estate owner was entitled to uranium by law, the court turned to the issue of defining a reasonable use of the surface estate by the uranium owner.[106] While reaffirming the general rule that the mineral owner, as owner of the dominant estate, has the right to make any use of the surface reasonably and necessarily incident to the removal of minerals, the court drew a distinction between the use of the surface for minerals specifically conveyed and its use for those which are not. The court explained that restricting the mineral owner's liability to negligently inflicted damage or to excessive use of the surface might be justified where a mineral was specifically conveyed,[107] but that the rationale was not compelling when a grantor conveyed by general language a mineral for which removal could destroy the surface. Accordingly, the court held that the general limitation of the mineral owner's liability to negligently inflicted damages does not control in a conveyance of un-

102. *Id.* at 101-02. *See, e.g.*, Southland Royalty Co. v. Pan American Petroleum Corp., 378 S.W.2d 50 (Tex. 1964) (refusing to employ the rule of *ejusdem generis* to limit the terms "oil, gas and other minerals" to hydrocarbons); Heinatz v. Allen, 147 Tex. 512, 517, 217 S.W.2d 994, 997 (1949) (rejecting the scientific or technical definition of the word "minerals" because it would obfuscate any distinction between the surface and mineral estates); Cain v. Newmann, 316 S.W.2d 915, 922 (Tex. Civ. App.—San Antonio 1958, no writ) (stating that the knowledge of the parties of the value, or even the existence of a substance at the time of its conveyance, is irrelevant to its inclusion or exclusion from a grant of minerals).

103. 676 S.W.2d at 101.

104. *Id.*

105. *See infra* notes 135, 137-38 and accompanying texts.

106. 676 S.W.2d at 102-03. The separation of the mineral title and surface protection questions was suggested by Justice Spears in his concurring *Reed II* opinion. *See supra* note 76.

107. *Id.* at 103. The court perceived the mineral owner's easement as an "imperative rule of mineral law," without which the mineral owner's estate would be worthless. *Id.* It reasoned that the limitation upon the mineral owner's liability was justified because:

> It is reasonable to assume a grantor who expressly conveys a mineral which may or must be removed by destroying a portion of the surface estate anticipates his surface estate will be diminished when the mineral is removed. It is also probable the grantor has calculated the value of the diminution of his surface in the compensation received for the conveyance.

Id.

specified minerals.[108] Where the mineral owner has taken title to an unnamed substance, he or she must compensate the surface owner for surface destruction.[109] The mineral owner under the grant or reservation remains restricted in his use of the surface estate by the "due record" or "accommodation doctrine"; however, the holding does not affect the right of a mineral owner to enter and use so much of the surface as is reasonably necessary to remove the minerals.[110]

The holding of *Moser* is not to be applied retroactively. Due to the possibility of public reliance on the holdings of *Acker* and *Reed II*, a provision in the opinion explains that the rules of *Moser* are to be applied "only prospectively" from the date of the original opinion, June 8, 1983.[111]

The Scope of the New Rule

The rule set forth in *Moser* unequivocally allocates the ownership of uranium in a conveyance severing the ownership of oil, gas and other minerals; however, the language and history of the opinion obscure its scope as to the substances to which it applies and the period for which it is to be used.

The substances to which Moser applies

Despite the general language in the opinion which implies that the new rule applies to "all substances within the ordinary and natural meaning" of the word *minerals*,[112] other phrases may limit the scope of the rule to uranium. The most notable illustration is the court's denouncement of its previous test: "We now abandon, in the case of uranium, the *Acker* and *Reed* approach to determining ownership of 'other minerals' and hold that title to uranium is held by the owner of the mineral estate as a matter of law."[113]

This language could be construed as merely confining the language of the holding to the facts of the case, but the history of the opinion implies

108. *Id.*

109. *Id.* The holding does not affect the statutory duty of the mineral owner or lessee to reclaim the surface after surface mining. *Id.* at 103 n.4. *See* Texas Uranium Surface Mining and Reclamation Act, Tex. Nat. Res. Code Ann. §§ 131.001-.270 (Vernon 1978 & Supp. 1984). *See also* Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. § 1201 (Supp. V 1981) (establishing need for surface mining and reclamation standards). Among other things, the Texas Code provides the surface owner with an opportunity to have the land classified as unsuitable for surface mining if he believes the land cannot be reclaimed according to the Code's strict standards. Tex. Nat. Res. Code Ann. §§ 131.038, -.039, -.047. The Code also demands all reclamation efforts proceed as contemporaneously as practicable with the surface mining operations. *Id.* at § 131.102(b)(14).

110. 676 S.W.2d at 103. *See supra* notes 10-12 and accompanying text; *infra* notes 151-54 and accompanying text.

111. 676 S.W.2d at 103.

112. *See supra* text accompanying note 101.

113. 676 S.W.2d at 101 (emphasis added).

that it may have greater significance. In the supreme court's first *Moser* opinion, the abandonment was not expressly limited to uranium.[114] The phrase "in the case of uranium" was nonexistent and "uranium" read "a substance which we have determined to be a mineral."[115] That this was one of only three substantive alterations made to the opinion upon its withdrawal and replacement[116] may imply that the court intends to limit the applicability of the *Moser* rule to uranium.

Other language in the opinion addresses the ownership of substances previously construed by the courts as either "minerals" or part of the surface estate. After holding that a severance of minerals in an oil, gas and other minerals clause included "all substances within the ordinary and natural meaning of that word," and that uranium was such a substance, the court expressly noted that it would continue to adhere to prior decisions which held certain substances "to belong to the surface estate as a matter of law."[117] The first opinion of the court cited four examples of such decisions,[118] each of which used the common or ordinary and natural meaning of the word "minerals" to determine the ownership of limestone, stone, caliche, surface shale, sand, gravel, or water.[119] The second version of the opinion contains a fifth example: *Reed II*.[120] By citing *Reed II* with approval, the court has implied that the surface destruction test still has application. The inference is further corroborated

114. *See* 26 TEX. SUP. CT. J. at 428.

115. *Compare* 26 TEX. SUP. CT. J. at 428 *with* 676 S.W.2d at 101. In addition to the two changes described above, the word "minerals" in the first version was changed to "other minerals" in the second.

116. *Compare* 26 TEX. SUP. CT. J. 427 *with* 676 S.W.2d 99. The remaining two substantive changes are discussed below. *See infra* notes 120, 127 and accompanying texts. The only other alteration of the first opinion was the correction of a clerical error in the description of the case facts.

117. 676 S.W.2d at 102.

118. 26 TEX. SUP. CT. J. at 429. The court cited the following examples: Heinatz v. Allen, 217 S.W.2d 994 (building stone and limestone); Atwood v. Rodman, 355 S.W.2d 206 (Tex. Civ. App.—El Paso 1962 *writ ref'd n.r.e.*) (limestone, caliche, and surface shale); Fleming Foundation v. Texaco, 337 S.W.2d 846 (Tex. Civ. App.—Amarillo 1960, *writ ref'd n.r.e.*) (water); Psencik v. Wessels, 205 S.W.2d 658 (Tex. Civ. App.—Austin 1947, *writ ref'd*) (sand and gravel).

119. *Cf. Heinatz, supra* notes 14-25 and accompanying text; *Atwood,* 355 S.W.2d 206 (although discussing surface damage that would result from the mining of limestone, holding that "other minerals" did not include limestone, caliche, clay and surface shale because those substances were not within the ordinary meaning of the word); *Fleming Foundation,* 337 S.W.2d 846 (determining that the term "other minerals" does not include subsurface water under its ordinary meaning); *Psencik,* 205 S.W.2d 658 (holding that, absent an expressed intent to the contrary, sand and gravel were not minerals because the word minerals should only include those substances commonly regarded as minerals).

120. 676 S.W.2d at 102. The other four examples were retained. *Compare id. with* 26 TEX. SUP. CT. J. at 429. *Reed II* was also added to another string-cite earlier in the opinion where the court listed examples of previous decisions made in its effort to catalog substances as impliedly reserved to the mineral or surface estates. *Compare* 676 S.W.2d at 101 *with* 26 TEX. SUP. CT. J. at 428. The addition of *Reed II* to these two string citations is the second of the three substantive distinctions mentioned *supra* note 116.

by the withdrawal of the opinion which did not cite *Reed II* or restrict the holding to uranium and the replacement of that opinion with language which implies that the surface destruction test may still have life.

A parenthetical explanation adds that the substances held to belong to the surface estate as a matter of law in *Reed II* were "near surface lignite, iron and coal."[121] Although the other examples given by the court were not qualified by their substances' proximities to the surface,[122] the court clearly acknowledged that *Reed II* was so qualified. By its own language, *Reed II*'s application was limited to "near surface lignite, iron or coal."[123] Accordingly, the second *Moser* opinion could even be interpreted as leaving *Reed II* untouched. But under an alternative reading, *Reed II* would only apply to "near surface" deposits so that, even after a showing that such deposits existed, the mineral estate owner would be entitled to any deeper deposits if such deposits were within the ordinary and natural meaning of the word "mineral." If lignite, iron and coal deposits were construed under *Reed II* to be not near the surface, the mineral estate owner would probably still be liable to the surface owner for damages to the surface estate. Language of the damage section of the opinion strongly implies that it applies to all unnamed substances which vest in the mineral estate.[124] Nevertheless, the *Moser* opinion leaves unanswered several significant questions regarding the substances to which its other provisions are applicable.

Moser introduces substantial certainty as to the ownership of uranium and certain other substances.[125] Nevertheless, the decision aggravates the title uncertainty surrounding lignite, coal, and iron. It was these substances which were the subjects of the *Reed II* decision and, ironically, whose uncertainty of title was the ostensible rationale for the new rule.[126] Despite these difficulties, however, once the court has declared the ownership of these other substances by law, the *Moser* rule will provide the predictability for which it was designed.

Prospective Application of the Moser Decision

The court's attempt to protect the interests of those who relied on the holdings of *Acker* and *Reed* leaves some troubling questions. In the court's

121. 676 S.W.2d at 101-02 (emphasis added). The words "near surface" were used to qualify the significance of *Reed II* in both of the citations which were added to the second version of the opinion. *Id.*

122. *See supra* note 119.

123. *See* 597 S.W.2d at 747. One may even speculate that the language of *Reed II* which limited its application to lignite, iron or coal, *see id.*, and the absence of such language in *Acker, see supra* notes 34, 36-38 and accompanying texts, led to the inclusion of *Reed II* and the exclusion of *Acker* from the list of cases cited with approval in *Moser.*

124. *See supra* notes 107-09 and accompanying text.

125. *See supra* text accompanying note 119.

126. See 676 S.W.2d at 101.

second opinion, it explained that the rules announced in *Moser* "are to be applied only prospectively" from the date of the original opinion, June 8, 1983.[127] What is the event which determines the applicable rule? One may reasonably assume the critical event is the date of the conveyance,[128] for an assumption that the new rule is to be applied prospectively from the date of the opinion would deprive the provision of any worth. But the first assumption brings the value of the entire decision into question.

Assuming that the applicable law is to be determined by the date of the disputed conveyance, then the rules of *Moser* would apply to unnamed minerals severed from surface estates after June 8, 1983. But if this is all that the new rule covers, then it provides little relief to the many parties holding mineral or surface interests severed before that date.[129] Under this interpretation, the prospective application provision would severely cripple the new rule's ability to meet its implied objective. The decision would do nothing to clarify the title to minerals severed from the surface prior to June 8, 1983. On the other hand, quite similar difficulties arise if one interprets the provision as applying to interests which have already been severed. Because mineral interests may be severed from the surface on a piecemeal basis,[130] one would need to establish what had and had not been severed from the surface on June 8 before one could prospectively apply the new rule. One would still face the task of determining what had and had not been severed under the old rules. Such determination would by definition produce the same uncertainty and costs which were associated with the *Acker-Reed* approach. Again, the outcome would provide little comfort to the many parties already holding severed mineral or surface interests before June 8, 1983.

The provision introduces further problems to those who wish to transfer

127. *Id.* at 103. The original opinion held that all contracts, leases and deeds dealing with minerals that were executed between the *Acker* and original *Moser* opinions would be controlled by the law in effect at the time the instrument was executed. 26 TEX. SUP. CT. J. at 430. Under this earlier provision, three different rules were required for the determination of the title to minerals in different instruments previously controlled solely by *Reed II*. For a brief discussion of the problems posed by this earlier holding, *see* Note, *supra* note 48, at 716-19.

128. Although the analogous provision of the original opinion held that the date that a disputed instrument was executed would determine the law under which it would be interpreted, *see* 26 TEX. SUP. CT. J. at 430, this language was dropped from the second opinion, *see* 676 S.W.2d at 103. Nevertheless, one may reasonably assume that the reference to the instrument was not the object of the revision, *see supra* note 127, and that the date of execution of the instrument remains the determinative factor. Conveyance is the most obvious point for the parties to develop a reliance interest, and any subsequent enhancements or improvements to either estate would have presumably been made in reliance on the conveyance.

129. The emptiness of the rule becomes even more evident if one considers that, for those agreements drafted with the aid of a competent attorney, the state of the law would dictate that known minerals be specifically enumerated in the instruments.

130. Note that the ability to sever various substances on a piecemeal basis underlies the line of cases considered in this note. If piecemeal severance was not allowed, then the specific enumeration of substances in a conveyance would serve no purpose.

their interests. Ambiguities will inevitably arise when a party who owns a substance under the grandfather clause tries to convey it. For example, could a surface owner who owned a substance not yet of commercial interest under *Reed II* freely convey his or her interest? Alternatively, what claims in regard to the substance would a third party have if he or she purchased the underlying mineral estate under the belief that the term "other minerals" includes the substance? Respecting the allocations between mineral and surface estates at June 8, 1983, will allow the uncertainties of the *Acker-Reed* definition of other minerals to haunt titles for years to come. On the other hand, refusing to respect those initial allocations may create an undesirable restraint on transferability.

Prospective application of a rule is most appropriate where the aim of the rule is to affect behavior, and the *Moser* decision should notify those involved with mineral title conveyancing of the need to specifically enumerate known minerals in the instrument of conveyance. The mandate is especially clear for those substances of which the parties are aware but for which the court has yet to determine ownership. Even so, the decision may not significantly affect behavior. The previous decisions of the court should have already put those involved in mineral conveyancing on notice of the need to specifically enumerate known substances.[131] Similarly, those drafting such instruments should have already been aware of the need to specifically delineate horizontal severances by depth or horizon, if so desired, or to limit or express the breadth of various easements expected. Those prior existing demands upon those who assisted in the drafting of instruments should have tempered the need for prospective application of the *Moser* decision.[132] Although behavior modification is the general rationale behind the prospective application of a rule, it is unlikely that the *Moser* rule will significantly alter the behavior of competent attorneys or other persons engaged in mineral conveyancing.

The foregoing suggests that behavior modification should not have been a prominent factor in the development of a means for the determination of "other minerals." Although the precise impact of the pros-

131. *Cf. Reed I*, 554 S.W.2d at 172 (stating that the mineral estate owner's intentions would have been clearly expressed had the instrument specifically reserved coal and lignite or expressly reserved all minerals lying upon the surface or at any depth and including those minerals which may be produced by open pit or strip mining).

132. As Justice Spears noted in his dissent to *Reed II:*

> The only likely change in the conduct of surface owners who were aware of (*Acker* and *Reed*) would have been to specifically name iron, coal, and lignite in their grant or reservation and thus remove any doubt about their intent. Similarly, mineral lessees and grantees who wished to develop iron ore or coal and lignite after those decisions would have had to purchase rights to those substances from both the surface owner and the mineral owner in order to be assured that they had obtained the right to extract those substances.

597 S.W.2d at 751-52.

pective application provision is unclear, it is clear that the prospective application provision falls far short of quieting the title to minerals severed from or reserved to the surface estate prior to January 8, 1983. Accordingly, this provision and its ambiguity could hamper the ability of the *Moser* rules to effectuate their purpose.

MOSER EXAMINED

The Texas Supreme Court knew that its *Moser* decision would signal a significant departure from its recent efforts to determine the ownership of "other minerals."[133] While acknowledging that any significant changes to a property rule could not be taken lightly, the court recognized a compelling need for a more definitive rule.[134] It specifically criticized the unpredictability of the *Acker-Reed* approach.[135] The court sought a rule that would reduce the factual issues of title determination to those which could be gleaned from the face of an instrument of conveyance.[136] Once the aforementioned scope ambiguities are settled, the rule should provide the sought-after means of determining the title of certain "other minerals" from the face of instruments. This objective will be satisfied.

The opinion does not explain whether other policies were intended to be met by the new rule.[137] Except for criticism of prior rules and proposals, the opinion is remarkably devoid of any supporting rationales or explanations. But policy is generally called upon in the face of uncertainty or where a court must allocate between parties that for which they have not bargained.[138] Earlier elaborations by the court recognized that, in all probability, these "other mineral" determinations merely allocated between surface and mineral estates those substances the allocation of which the parties had not contemplated at the date of conveyance.[139] The es-

133. *Cf., e.g., Moser,* 676 S.W.2d at 102-03 (distinguishing the new holding from prior decisions); *id.* at 103 (providing for prospective application because of the perceived significance of the departure from the surface destruction test).

134. *Cf.* 676 S.W.2d at 103 (providing for prospective application of the new rule because of public reliance upon prior formulations). *See also Reed II,* 597 S.W.2d at 751 (Spears, J., dissenting) ("It is axiomatic that rules of property are not to be tampered with lightly or easily changed.").

135. 676 S.W.2d at 101.

136. The sentence summarizes the ostensible objectives offered by the court. *Cf. id.* (criticizing the *Acker-Reed* rule's failure to satisfy this objective).

137. *See* 676 S.W.2d 99. The reference to the "new rule" is to that regarding the ownership of unnamed minerals. That portion of the holding which pertains to damages is well supported. *See id.* at 102-03. The court's path of logic may be summarized as follows: (1) *Acker-Reed* provided the previous rule; (2) that rule produced title uncertainty; (3) the court has rejected other proposed rules, for in the past it has tried to effectuate the parties' intent; therefore, (4) the court now holds that uranium is included within the word "mineral" by law. *See id.* at 100-02.

138. *See* Note, *supra* note 35, at 110-24.

139. *See, e.g., Reed I,* 554 S.W.2d at 171 (stating the court's belief that, in most cases of unnamed minerals which subsequently become valuable, the subsequent controversy decides who will be enriched by a substance for which the parties had no intention at the time of their bargain); *Acker,* 464 S.W.2d at 352 (quoting with approval an article by Professor Kuntz in which he asserted that the parties probably had no specific intent to include or exclude a specific substance with the general term "minerals").

tablishment of a clear rule of title determination may have been the court's preeminent consideration,[140] but under such circumstances other policies probably were or should have been considered.

The parties may not have contemplated the allocation of a particular unnamed substance, but the typical conveyance does arise in the context of a bargain, gift, or devise. Accordingly, the intent of the reasonable person in such a context would be one relevant policy consideration. While one portion of the opinion implicitly rejects any inquiry into the parties' intent,[141] the damage provision explicitly attempts to accommodate what the parties may have reasonably anticipated at the time of conveyance.[142] Similarly, the reference to the parties' reliance in the prospective application provision represents an attempt to respect the parties' reasonable expectations. Since both the trial and the appellate courts found that reasonable parties to the conveyance would have intended for the uranium to be part of the mineral estate and the supreme court affirmed those decisions,[143] the determination under a reasonable intent analysis coincides with the determination under *Moser*. The *Moser* opinion also reaffirms *Heinatz*,[144] a decision which was never explicitly overruled despite the court's journey away from it during the *Reed* years. *Heinatz* was expressly aimed at effectuating the reasonable expectations of the party who had executed the contested conveyance.[145] The foregoing suggest that the reasonable expectations of the parties to a conveyance of oil, gas and other minerals was one of the court's considerations in *Moser*.

How reasonable are the expectations endorsed by *Moser*? Allocation of uranium to the mineral estate may in itself be quite reasonable. Both of the lower courts found that the solution mining available to the owner of the uranium under the Moser tract would not have impaired the surface substantially.[146] Where solution or *in-situ* methods may be used, the surface owner will be able to enjoy a substantial portion of the surface's total utility and be compensated for that which is lost.[147] In this situation, the rule accommodates the general enjoyment of the surface in the manner advocated by Professor Kuntz.[148] Problems might arise, however, where solution or *in-situ* methods are not available or where other, more destructive, methods are available in the alternative.[149]

140. *See supra* notes 134-36 and accompanying text.

141. *Cf.* 676 S.W.2d at 101 (noting that the court had previously attempted to create a rule which would effectuate the parties' intent and that such a rule was factually cumbersome, implying that the new rule would not have such burdensome inquiries into intent).

142. *See id.* at 103.

143. *Id.* at 100-01.

144. *Id.* at 102.

145. *See supra* notes 84, 88 and accompanying texts.

146. 601 S.W.2d at 732.

147. For a description of the *in-situ* processes, see *supra* note 94 and accompanying text.

148. *See supra* notes 39-40.

149. *In-site* or solution mining methods may also impair the surface in unexpected ways. *See supra* note 94.

The court suggests a means of alleviating any unnecessary burden upon the surface owner.[150] Where a choice exists between *in-situ* or other reasonable mining methods, the doctrines of due regard and available alternative means may be extended to compel the mineral owner to use the least destructive alternative.[151] Where only surface destructive means of extraction are available, the surface owner might still endeavor to show that less destructive means could be made available.[152] Naturally, whether such alternatives would be required would turn on questions of reasonableness.[153] The doctrines of due regard and reasonable alternative means will only be of aid where more preferable means are reasonably available.[154] Where the *in-situ* or solution approach is used, the consequences to the surface may be quite similar to those resulting from the extraction of oil or gas with the aid of injection wells.[155] Assuming no piecemeal severance of minerals was intended, the rule in this instance would accommodate the objectives of both of the interested estates. But where the mineral owner plans to extract uranium ore by strip or pit mining techniques, the reasonableness of the *Moser* rule arguably hinges on the adequacy of the surface owner's compensation.

The surface damage provision of the *Moser* decision entitles the surface owner to compensation for his or her loss of the surface's enjoyment.[156] The decision explicitly recognizes that the loss was not one for which the surface owner bargained,[157] implying that considerations of fairness

150. 676 S.W.2d at 103.

151. For a description of these two doctrines, see *supra* notes 10-12 and accompanying text. *Moser* represented the first of this line of cases in which either of these two doctrines were mentioned. 676 S.W.2d at 103. The two *Reed* cases had implied that the doctrines were not to be considered in this context. *See supra* note 55.

152. For example, where plants for *in-situ* extraction have not been built, uranium deposits would presumably be mined by the conventional strip mining techniques which were used before the former process was developed. *See generally* Crawford, *Developers Eye Texas Potential for In-situ Uranium Leaching,* ENGINEERING AND MINING J. 81 (July 1975). Could the surface owner who wished to preserve his or her property prevail upon showing that the new plant should be built? Not under the current version of the doctrine, which limits the available alternative means to those available on the premises itself. *See supra* note 11. Nevertheless, it would not be illogical for the court to draw a distinction for unspecified minerals and extend the doctrine to such applications.

153. Where uranium could not be extracted by a solution process because of some inherent quality of the formation or other technical difficulty, the theory behind Justice Daniel's dissent in *Sun Oil Co. v. Whitaker* could be activated. *See supra* note 13. Under that theory, the mineral owner's implied easement would not extend to extraordinary or secondary recovery methods, and, as a consequence of the development of the *in-situ* approach, strip or pit mining techniques could be considered extraordinary methods for the extraction of uranium. This theory has not been accepted by the court, but it is not unreasonable and the situation described above would provide an appropriate application for it.

154. *Moser,* 676 S.W.2d at 103; see *supra* note 11 and accompanying text.

155. *See supra* note 94. It has been suggested that the means of extraction should be the determinative factor in the allocation of unnamed minerals to the surface or mineral estate. *See Reed II,* 597 S.W.2d at 751 (Spears, J. concurring).

156. *See supra* notes 107-09 and accompanying text.

157. *See supra* note 107.

may underlie the provision. It also represents progress toward the internalization of the costs of extracting the unnamed substance.[158] The primary difficulty of the provision lies in its application. Determination of the amount of damages suffered by individual tracts must be performed on a tract-by-tract basis. Unlike the damage determinations inherent in the *Acker-Reed* approach, the determinations are not speculative; compensation is based on damages actually incurred.[159] Nevertheless, tract-by-tract determinations are still required. These factual determinations may be far more simple than those required under *Reed II*,[160] but they at least partially undermine the efficiency of the court's rule.

In its present form, the court's damage provision may provide the surface owner with an economic equivalent of the reasonable enjoyment of his or her surface estate. By awarding the access to the underlying minerals to the mineral estate and granting a damage remedy to the surface estate, the court has reached a result much closer to the approach advocated by Professor Kuntz.[161] Assuming that the parties intended to sever all valuable minerals from the mineral estate, the new scheme gives effect to the parties "general intent."[162] *Moser* thereby gives effect to what the court perceived that the original parties to the conveyance would have intended.

Unlike the court's earlier decisions, the analysis of *Moser* breaks the ownership of near surface minerals into two distinct issues. Rather than separating the issue of the protection of the surface from the issue of who owned the disputed substance, prior decisions made the latter depend on the first. This former approach invariably compromised one or the other objective.[163] The *Moser* analysis divides the two issues. While the rules of *Moser* will accomplish the court's first goal of granting valuable minerals to the mineral estate, it may fall short of fully protecting the interest

158. Although the court's rule may internalize costs, it may not be an efficient means of doing so. *See infra* notes 164-68 and accompanying text. One commentator has argued that, if a court believes the parties have no intention sufficient to resolve the issue of the disputed ownership to minerals, it should give all of the disputed minerals to the surface owner. *See* Note, *supra* note 35, at 112-18. To do so would deprive the mineral owner of nothing he had bargained for; to fail to do so would externalize costs of mining in a way that is unfair and economically unjustified. *Id.* This writer believes that the surface entitlement is the key issue, and that the mineral entitlement itself will not affect the internalization of costs; therefore, this article concentrates on the transfer of the surface entitlement.

159. Naturally, the possibility of *ex post* disputes may motivate the mineral devloper to seek an *ex ante* agreement with the surface owner. *But see infra* note 169 and accompanying text.

160. *See supra* notes 78-79 and accompanying text.

161. *See supra* note 39.

162. *See supra* notes 38-39 and accompanying text.

163. Where the mineral was awarded to the mineral estate, the surface owner was not compensated for any ensuing destruction of the surface. Where the substance was awarded to the surface estate, the mineral estate owner was not compensated for the valuable minerals which he or she was not allowed to extract.

of the surface owner. Aside from the cost of determining the amount of damages, there is a substantial possibility that the compensation to the surface owner will be deficient. The mineral estate owner's bargaining position is far superior to that of the surface estate owner. Although the allocation of a damage remedy to the surface owner is to be commended, it still leaves the mineral estate owner with property entitlements to both the mineral and the relevant surface. This imbalance in the relative positions of the two parties may, as a practical matter, prevent the surface owner from receiving the full economic equivalent of his surface interest.[164] Furthermore, any undercompensation to the surface owner may result in socially undesirable externalities and allocative inefficiencies. The imbalance is particularly striking when one considers that the substance awarded to the mineral estate may often be a substance for which the parties did not bargain.

The court formulated the *Moser* rule under the belief that the dominant mineral owner's right to the reasonable and necessary use of the surface was an "imperative rule of mineral law."[165] But the entitlement is hardly "imperative" in the normal sense of the word.[166] If the complete surface entitlement was allocated to the surface estate, the surface and mineral owners would probably bargain over the mining of the substance. Where profit is to be made from extraction, there is no reason to assume that the mineral owner would be the only party interested in that profit.[167] Instances where the competing interests would fail to reach a bargain

164. Even if the market value of the easement is readily determinable, the surface owner's compensation may remain inadequate. As Professors Calabresi and Melamed have explained:

> Liability rules represent only an approximation of the value of the object to its original owner and willingness to pay such an approximate value is no indication that it is worth more to the [mineral owner] than the [surface owner]. In other words, quite apart from the expense of arriving collectively at such an objective valuation, it is no guarantee of the economic efficiency of the transfer.

Calabresi & Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1125 (1972) (footnotes omitted).

165. *Moser*, 676 S.W.2d at 103.

166. The Texas legislature has recognized that access to minerals is not imperative where the surface will present special reclamation problems. *Cf.* Texas Uranium Surface Mining and Reclamation Act, Tex. Nat. Res. Code Ann. §§ 131.038-.039 (Vernon 1978). Legislation in several states now requires the explicit consent of the surface owner before the surface may be destroyed by the mineral owner. *See generally* Dycus, *Legislative Clarification of the Correlative Rights of Surface and Mineral Owners*, 33 VAND. L. REV. 871 (1980) (discussing the various acts and proposing a comprehensive model act).

167. The facts of *Moser* illustrate this point. After a new road left a 6.77 acre tract of one owner separated from the remainder of his land and a 6.42 acre tract separated from another owner's land (each property being across the road from the other), the two owners exchanged their surface rights in order to retain contiguous surface estates. The mineral rights to both tracts were, however, reserved to the original owners. The Mosers granted the right to mine uranium under the 6.42 acre tract, the tract under which they owned the mineral rights. But the Mosers, as surface owners of the 6.77 acre tract at issue in this case, also sued the owners of title to the mineral rights of the 6.77 acres in order to quiet title to the uranium in that tract as well. 601 S.W.2d at 731-32.

would probably be exceptional, but the mineral owner could be given a damage remedy as compensation if he or she was unreasonably excluded from extracting and enjoying the fruits of his or her property.[168]

The transfer of the surface entitlement to the surface owner may produce some redistribution of the profits of the mining activity to the owner of the surface estate. Nevertheless, the transfer would hardly be inequitable. Such a redistribution and division of the profits might even provide a more equitable solution. Since the allocation of the controverted substance, uranium, and the access to the substance, the surface easement, are made on the assumption that the entitlements were not conveyed as part of a bargain,[169] it might be more equitable to give one of the two entitlements to the surface owner. Such a measure would somewhat balance the bargaining positions of the two interests, thus avoiding the allocation of the entire windfall to only one of the two parties. Granting the entitlement to the surface owner would also help to ensure that the surface owner would receive at least enough of a recovery to compensate for loss of surface enjoyment. Assuming that the parties did not bargain for the allocation of a particular substance, and that the award of it to the mineral owner represents a windfall, then such special precautions may be warranted to assure that part of the costs associated with the windfall do not fall upon other parties, i.e., parties such as the surface owner.[170] The suggested rule would help to make sure that the costs of extracting an "other mineral" would be internalized.

The suggested rule could also reduce overall transaction costs. The mutual profit incentive provides a more compelling reason for *ex ante* bargaining, thereby avoiding many of the factual entanglements which might ensue from the *ex post* assessment of damages suggested by the *Moser* rule.[171] By shifting the surface entitlement to the surface estate, the rule improves the efficiency and the fairness of its allocation of "other minerals." The modification would move the test one step closer to matching the theme of the court's efforts to accommodate the "general intent" of the parties to the transaction.

Moser presents a significant departure from the factual complexities of the *Acker-Reed* approach, yet, despite these factual simplifications, it is

168. The objective underlying such a rearrangement of entitlements would be to assign the relevant entitlements in a manner which would promote economic efficiency, distributional preferences, and other justice considerations. *See generally* Calabresi & Melamed, *supra* note 164.

169. *See supra* note 107 and accompanying text.

170. *See* Note, *supra* note 35, at 112-18.

171. Under *Moser*, the expectation of *ex post* disputes over the dollar amount of damages should motivate those interested in developing minerals to seek an *ex ante* agreement for the amount to be paid to the surface owner. Nevertheless, by giving entitlements to the owners of both competing estates, the two parties would have a greater incentive to reach an agreement. Both parties would have a profit incentive.

not evident that the court's original objectives have been compromised. The rule may still be used to effectuate "the intent of the parties to convey valuable minerals to the mineral estate owner, while protecting the surface estate owner from destruction of the surface estate by the minerals owner's extraction of minerals."[172] Although the protection afforded the surface owner is presented in the form of damages, this form of protection may be adequate in many instances. Nevertheless, there exists a potential for inadequate surface protection. It is a weakness which stems from the court's reluctance to sever the title to the mineral from the access to it. By carrying its analysis one step further and severing these two interests, the court may move even closer to its original goal without compromising the clarity of its new rule. The modificiation would not only enhance the efficiency and certainty of the rule—it would add an element of fairness as well.

CONCLUSION

The *Moser* decision presents a potential for clarity that is unmatched by its predecessors. Rather than leaving the determination of mineral ownership to the vagaries of the surface destruction test, the court has determined the ownership of certain "other minerals" by law. The court has also attempted to assure that parties who receive the title and ensuing benefits from a mineral bear the associated costs. In those instances where substances have been allocated to the mineral estate, the court has provided economic protection to the surface owner. Assuming that the parties had no specific intent to allocate a substance to one party or the other, then the expectations of neither of the two will suffer as long as the surface owner is adequately compensated. Shifting a greater entitlement to the surface owner would reduce the administrative complexity of the new rule and enhance its equitable aspects, but whether the damaged surface owner will be adequately compensated is only one of several issues left open by the *Moser* decision. The decision conclusively declares that uranium belongs to any mineral estate severed by a conveyance of "oil, gas and other minerals" after June 8, 1983. Exactly what other substances or conveyances the opinion will apply to is difficult to ascertain. Several aspects of the rule warrant further definition and refinement. Nevertheless, the opinion signals a significant move toward a reliable and workable means of determining the ownership of "other minerals" in Texas.

172. *Moser*, 676 S.W.2d at 101.