Ground Water - Depletion of a Wasting Asset

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ance of such expenses would be in accord with the Internal Revenue Service policy of including income from illegal businesses as taxable income and with the purpose of the tax laws to tax net income and leave it to other legislation to penalize or eliminate illegal businesses.

Because of the influence of the sixth amendment's guarantee of right to counsel on the deductibility of legal expenses, Tellier should have a very limited effect on the deductibility of other expenses denied on public policy grounds but outside the legal expense area.

Charles D. Tuttle

Ground Water — Depletion of a Wasting Asset

INTRODUCTION

A depletion deduction, percentage or cost, gives the taxpayer an offset to the exhaustion of valuable natural resources incident to the production of income. The depletion allowance is often loosely described as permitting a "return" of capital invested in a wasting asset. More precisely, it is the right to deduct certain sums (generally measured by production) in the computation of taxable income. The actual economic advantage to the taxpayer depends largely upon his particular tax rate and is not necessarily directly related to his investment in the wasting asset. No real return of capital is achieved. The depletion provisions being purely a statutory creation, should not be confused with economic or geological concepts of depletion.

I. HISTORICAL PERSPECTIVE

The depletion issue, as it relates to taxation, was first raised under the Corporation Excise Tax Act of 1909. The Supreme Court disallowed several claims for depletion allowance filed by mining cor-

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75 See notes 46 and 47 supra and accompanying text.

2 The economic depletion concept is based primarily on the economic feasibility of the recovery of the wasting asset in its entirety; the geological depletion concept is based on actual physical depletion of the wasting asset.
3 36 Stat. 112 (1909).
porations under this act, basing its decisions on the idea that an excise tax (as opposed to an income tax) may be measured by any computation of income specified by Congress, and that deductions are a matter of legislative grace rather than inherent right. Depletion was first accorded statutory recognition in 1913, and until 1926 all depletion allowances were based on cost. The sole exception was discovery value depletion, which resembled cost depletion in amortizing a fixed sum over the productive life of the property. It differed in that the sum was not cost, but value at date of discovery.

In 1926 a statute allowing percentage depletion was enacted in essentially the same form as it appears today. Percentage depletion was to provide a substitute for discovery value depletion (which it totally replaced in the 1954 Code) and to supplement cost depletion provisions.

The general statutory provision for cost depletion is section 611 of the Internal Revenue Code of 1954:

(a) GENERAL RULE—In the case of mines, oil and gas wells, other natural deposits, and timber, there shall be allowed as a deduction in computing the taxable income a reasonable allowance for depletion and for depreciation of improvements, according to the peculiar conditions in each case.

Section 613 provides for a percentage depletion allowance:

(a) GENERAL RULE—In the case of the mines, wells, and other natural deposits listed . . . the allowance for depletion . . . shall be the percentage . . . of the gross income from the property . . .

(b) . . .

(6) 15 percent—all other minerals . . . For the purposes of this paragraph, the term “all other minerals” does not include—
(A) soil, sod, dirt, turf, water, or mosses; or
(B) minerals from sea water, the air or similar inexhaustible sources.


5 Stratton's Independence v. Howbert, supra note 4, at 414. (Distinguished excise tax as a tax on the privilege of conducting a business measured by income from an actual tax on income.)

6 Tariff Act of 1913, § II B, 38 Stat. 166 (1913), which provided for an “exhaustion” deduction limited to 1% of gross value of output at the mine for that year.

7 Revenue Act of 1926, ch. 27, § 204(c) (1), 44 Stat. 9 (1926).

8 Discovery depletion allowed the discoverer of a mineral deposit to recover his costs plus the appreciation in value of the property from discovery until the mineral was produced, and was often difficult to apply because of the difficulty in establishing initial property value. 4 Mertens, Federal Income Taxation § 24.36 (rev. ed. 1960).

9 See Vinton Petroleum Co. of Texas v. Commissioner, 71 F.2d 420 (5th Cir. 1934).

10 (All Emphasis added.) This is the basic depletion provision. See Int. Rev. Code of 1954, §§ 612, 1011, 1012.
II. PERCENTAGE DEPLETION AND COST DEPLETION—A COMPARISON

Traditionally, to qualify for cost depletion it has been necessary to estimate the total number of recoverable units of the natural resource.\(^{11}\) A fraction, with the total number of recoverable units as a denominator and the number of units produced and sold in the current year as a numerator, is multiplied by the cost basis of the wasting asset to determine the current year’s depletion allowance.\(^{12}\) In contrast, the percentage depletion allowance\(^{13}\) is merely a statutory percentage of the gross income realized from the extraction and sale of the wasting asset.\(^{14}\) There is no requirement that the extent of total reserves be ascertained.

Cost depletion is generally independent of income. Theoretically it is determined by the physical depletion for the taxable year, but this is in turn dependent on the accuracy of the estimate of the total recoverable reserves. Percentage depletion, however, is directly proportional to yearly gross income with a maximum limitation equal to one-half of net taxable income and is thus related to both production and the market price of the product.\(^{15}\)

Cost depletion is limited strictly to the taxpayer’s cost or other tax basis. Theoretically, upon total physical depletion of the recoverable reserve, the taxpayer will have been entitled to tax deductions under the cost depletion provision equal to his initial tax basis in the recoverable reserve. The actual economic advantage to the taxpayer is considerably less than the cost of the asset depleted and depends on his income and tax rates for the years during which the depletion occurred.\(^{16}\)

Percentage deduction is not predicated on a cost basis nor is the total depletion allowance limited by a strict theory of recovery of

\(^{11}\) The courts have recognized the difficulty of estimating the amount of deposits for this purpose. E.g., United States v. Ludey, 274 U.S. 295 (1927), where the Court, speaking through Mr. Justice Brandeis, said:

‘The fact that the reserve is hidden from sight presents difficulties in making an estimate of the amount of the deposits. The actual quantity can rarely be measured. It must be approximated. And because the quantity originally in the reserve is not actually known, the percentage of the whole withdrawn in any year, and hence the appropriate depletion charge, is necessarily a rough estimate. But Congress concluded, in the light of experience, that it was better to act upon a rough estimate than to ignore the fact of depletion.’

\(^{12}\) For examples of calculations in varying circumstances see Treas. Regs. §§ 1.612 (1960), 1.1014 (1960).

\(^{13}\) Int. Rev. Code of 1954, § 613(a).


\(^{15}\) Int. Rev. Code of 1954, § 613(a). Generally speaking percentage depletion and cost depletion are alternate, mutually exclusive methods of allowance, and unless expressly prohibited, a taxpayer may select the method which will give him the greatest tax savings. See 4 Mertens, Federal Income Taxation § 24.31a (rev. ed. 1960).

\(^{16}\) See text following note 1 supra.
capital. The percentage depletion allowance may be deducted as long as there is income derived from the wasting asset and thus may give an economic advantage greater than the cost of the asset.

III. "Economic Interest"

The most basic, and perhaps the most controversial, requirement for the utilization of any depletion allowance is that the taxpayer have a "capital investment" or an "interest" in the natural resource for which he seeks a depletion allowance. The problem frequently is posed in terms of "economic interest," as defined in the landmark case of Palmer v. Bender. Prior to that case, the courts had become mired in attempts to correlate "economic interest" with legal title, insisting that a taxpayer only could have an "economic interest" if he owned an estate in the wasting asset. The Supreme Court's decision in Palmer v. Bender broadened the concept of "economic interest" by disregarding ownership or legal title and looking rather at the taxpayer's right to share in the resource produced. This concept in later cases was limited by the somewhat illusory distinction between "economic interest" and "economic advantages.

IV. United States v. Shurbet

The taxpayer, an irrigation farmer in the Southern High Plains region of the United States, claimed a cost depletion allowance for water removed from a ground water reservoir beneath his property.
and used to irrigate his crops. The Southern High Plains is a plateau area located in northern Texas and eastern New Mexico encompassing approximately 35,000 square miles. Underlying this Plains region is the Ogallala formation, a stratum of fresh water trapped during formation of the area millions of years ago. The Ogallala formation is surrounded by relatively impermeable "red beds" in the shape of a shallow bowl which allows no appreciable percolation or flow into or from the formation. The only source of new water entering the formation is precipitation. Thus, under natural conditions, the reservoir is in a state of dynamic equilibrium and would not be replenished once it is depleted.

Taxpayer Shurbet had paid $25 per acre for the ground water under 380 acres of his farm acquired in 1946 and $120 per acre for ground water under the remaining 100 acres acquired in 1953. Shurbet introduced evidence that at the respective purchase dates the saturated thickness of the water reservoir beneath the 380 acre tract was 342 feet and beneath the 100 acre tract, 332 feet. He also established that through 1959, the level of saturation (water level) of the formation beneath his farm had subsided 5.9 feet. The court stated that Shurbet could deplete the water beneath his land, and computed the deduction by multiplying his cost basis in the ground water by the fractional decline in the water level of the reservoir during the tax years in question.

There was no doubt that, under state law, the ground water in the formation was owned by taxpayer or that it was of substantial value. The basic question was whether there was an express or implied prohibition of a depletion allowance for an exhaustible reservoir of ground water which is in effect "mined."

This is a truism as, if more water had flowed into the reservoir than had been lost by extrication or evaporation, etc., during the milleniums, it would have overflowed; and conversely, if the recharge had been less than the loss, the formation would long ago have been depleted. In the Ogallala formation it appears there is currently a slight natural recharging of the formation. It was estimated that at the present rate of charge it would take thirty centuries to refill the reservoir if it were emptied. Thomas, The Conservation of Ground Water 46 (1951), cited in Brief for Appellee, p. 25.

2 Total cost per acre of the two tracts was $100 and $280 respectively. Thus 23% and 43% of the total cost of the two tracts respectively was attributable to the value of the underlying ground water. Taxpayer proved his basis by establishing he was aware of the water reservoir prior to the purchase of the land and at that time intended and did pay the above amounts because of the presence of irrigation water. See the district court's opinion in Shurbet, 242 F. Supp. 736, 737 (N.D. Tex. 1961).

5.90/342 of $9,100 plus 5.90/332 of $12,000 equals $177.19. This method of calculation is a notable and somewhat arbitrary departure from the conventional method of calculating cost depletion. See note 37 infra.

The court of appeals, in affirming the district court, found that
the ground water in the Ogallala reservoir underlying taxpayer's
farm was a "natural deposit" within the meaning of the federal in-
come tax statutes, but specifically limited this determination to the
particular facts and characteristics of the Ogallala reservoir. The
court also decided that the exclusions of the percentage and cost
depletion provisions are independent of each other. In so doing, the
court rejected the argument advanced by the Commissioner that
because both provisions referred to "natural deposits" the exclusion
of water from this general term in section 613 also applied to sec-
tion 611. Thus, even though water is specifically excluded from
percentage depletion, it is not excluded from cost depletion.
Sale of the production from the wasting asset is not necessary to
qualify for cost depletion, for here the taxpayer used the water for
irrigation purposes. Use rather than sale has previously been approved
by the courts in allowing cost depletion; however, in all previous
cases the number of units actually produced in the year was employed
as a basis for the depletion allowance. In Shurbet, not all of the de-
cline in the water level could necessarily be attributed to the tax-
payer's production. The recent tendency of the courts to disregard
the requirement of a sale to establish, for cost depletion purposes, the
quantity of the wasting asset produced during the year is probably a
derivative of the trend in recent percentage depletion cases. In these

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29 See text following note 10 supra.
30 347 F.2d at 107. Judge Rives states:
   "The main thrust of the government's argument is that ordinary ground water
   is not a "natural deposit" for cost depletion purposes. In that connection, we
   would confine the holding in this case to the water extracted by taxpayers
   from the Ogallala formation in the Southern High Plains. (Emphasis added.)"
Under the rationale of this case, water is not necessarily an inexhaustible resource but
under conditions existing in the Ogallala reservoir it was definitely being exhausted.
31 Int. Rev. Code of 1954, §§ 611(a), 613(a).
32 See text following note 10 supra.
33 Ibid. Cf., Flona Corp. v. United States, 218 F. Supp. 354 (S.D. Fla. 1963), which
   held that the exclusion of sod from percentage depletion allowance did not exclude it from
cost depletion allowance.
34 Int. Rev. Code of 1954, § 613(b)(6)(A). The underlying policy in granting per-
centage depletion is the dependence of the civilian economy and national safety on certain
commodities. See Baker and Griswold, Percentage Depletion—A Correspondence, 64 Harv.
entitled to depletion on total amount mined and not just the amount sold). Contras,
Inspiration Consol. Copper Co. v. Commissioner, 11 B.T.A. 1425, 1431 (1928) (depletion deduc-
tion limited to number of pounds of copper sold during the year instead of number of
pounds produced).
36 United States v. Cannelton Sewer Pipe Co., 364 U.S. 76 (1960) (the court allowed
the taxpayer to establish a constructive income from the market value of raw material
and take a percentage depletion on this income although the material was actually used
by taxpayer in subsequent manufacturing processes); United States v. Longhorn Portland
Cement Co., 328 F.2d 491 (5th Cir. 1964) (limited depletable gross income to crush
cement rock rather than income from finished cement); United States v. Portland Cement
cases where the asset is used rather than sold, a constructive gross income is used as a basis for percentage depletion allowance.

V. The Enigmas Posed by Shurbet

A. Method Of Computing Depletion Allowance

The conventional method of determining the cost depletion allowance is governed by Treasury regulation section 1.611-2 which contemplates the calculation of a "depletion unit"—the estimated number of recoverable units remaining as of the taxable year, divided into the adjusted basis which the taxpayer has in the mineral property. The allowance is then computed by multiplying the depletion unit by the number of units of the deposit which were sold in the taxable year. The Shurbet case, though limited to its facts, undoubtedly eliminates any requirement of a sale of the asset. The court's method of calculation of the depletion allowance is not a function of the quantity of units of the mineral produced; thus, it would be possible for a taxpayer to compute a depletion allowance (by the decline in the water table beneath his property) without the necessity of showing that he actually produced the water. The only express requirement set forth is that the water table decline under taxpayer's property and that he be able to ascertain the decline in the water table with reasonable certainty. The court's method of calculation of the depletion allowance secures a just result, but it is a considerable departure from the traditional method of computation in which the quantity of units produced is the determinative

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Co. of Utah, 338 F.2d 798 (10th Cir. 1964) (constructive income on which depletion allowance is to be based is the market value at the first stage in which the material can be said to have commercial marketability). See also Henderson Clay Products v. United States, 199 F. Supp. 304 (E.D. Tex. 1961); and cf. The North Carolina Granite Corp. v. Commissioner, 43 T.C. 149 (1964).

37 Treas. Reg. § 1.611-2(a)(1) (1960) states:

The basis upon which cost depletion is to be allowed is the basis provided for in section 612 and the regulations thereunder. After the amount of such basis applicable to the mineral property has been determined for the taxable year, the cost depletion for that year shall be computed by dividing such amount by the number of units of mineral remaining as of the taxable year. and by multiplying the depletion unit, so determined, by the number of units of mineral sold within the taxable year. . . .

See text accompanying notes 25 and 26 supra.

38 Although an anomalous situation is created by allowing a taxpayer, regardless of how he uses the property or whether he produces the water, a depletion allowance if he can prove a cost basis in the water, it might be rationalized by regarding the depletion as a reduction in the value of the right to produce the water and as this right is lost (by lowering of the water table) the taxpayer suffers loss. However, losses are not normally deductible unless evidenced by "closed and completed transactions." Treas. Reg. § 1.165-1(b) (1964).
factor. The court has adopted, in effect, the method of calculating depletion allowance established in certain instances for natural gas.

The use of a cost depletion allowance which is not dependent on production raises a myriad of questions as to the method of computation available to a holder, other than a fee owner, of an "economic interest" in the depletable resource. Illustrative of the problem is the dilemma facing the purchaser of water rights for a period of years.

The discussion thus far has raised the question of whether the taxpayer must realize income from the depletion of his wasting asset. Treasury regulation section 1.611-1, imply that income (or constructive income) is required. If so, and if the income must result directly from the sale of the mineral produced, *Shurbet* is inconsistent since it dispenses with production, *a fortiori* with income. The inconsistency disappears if indirect income (e.g., sale of a crop irrigated by the water) is sufficient. In either case depletion is denied the investor who purchases land and holds it idle but does not produce the underlying water, even though the water declines by natural means or neighbors' drainage. *Shurbet* fails to state how much (if any) connection there must be between the decline in water and some income earning activity. If income is required (directly or indirectly) from the depletion of the wasting asset, the problem also

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40 Any attempt to measure depletion by recording the number of units is complicated by the fact that a considerable percentage of the water produced returns to the formation in the irrigation process.

41 Two alternatives in this situation are: (1) depletion allowance based on his actual use during the taxable year divided by his total estimated use over the period of his interest; (2) a depletion allowance which disregards production or decline in the water table but is based rather on the fraction of time which his interest has to run. This would be the application of a depreciation concept to depletion.

42 Treas. Reg. 1.611-1(b)(1) (1960): Annual depletion deductions are allowed only to the owner of an economic interest in mineral deposits or standing timber. An economic interest is possessed in every case in which the taxpayer has acquired by investment any interest in mineral or standing timber and secures, by any form of legal relationship, income derived from the extraction of the mineral or severance of the timber, to which he must look for a return of his capital. But a person who has no capital investment in the mineral deposit or standing timber does not possess an economic interest merely because through a contractual relation he possesses a mere economic or pecuniary advantage derived from production. (Emphasis added.)

43 Although the court recognizes in the opinion that the farmers of the Southern High Plains use the water pumped from the reservoir in the irrigation of their farms, it does not expressly limit the deduction to a person engaged in using or selling the water in an income producing activity. Query: what about the farmer who makes personal use of substantial amounts of water? (Any limitation on the depletion deduction based on the "use" by the taxpayer becomes very complex as it would not only involve a determination of how much water was used, but also for what purpose.)
arises as to how the income is derived, how much is required, and how it is to be determined. Conceivably, if income “from” the asset is required and the amount of depletion allowance is not a function of production or income from the sale of the asset (as the court held in the Shurbet case) then a very small income could justify a full depletion allowance based on a decline of the water table.

Another problem, assuming the taxpayer has established the required separate cost basis in the water reservoir, is the possibility that the taxpayer's cost basis cannot be accurately reduced to a dollars per unit area figure. This would most likely occur when the ground water formation beneath the land varies considerably in thickness. To complicate further the computation of the depletion allowance in light of the Shurbet case, each unit may not only have a different cost basis but the fractional decline of water table for each unit may also vary, thus necessitating a complex calculation. Shurbet, as a test case, presented the court with an oversimplified set of facts; it is clear that much more complicated situations could arise. It should be observed that although the burden of proof as to the depletion allowance is on the taxpayer, difficulty of proof and a willingness by courts to recognize depletion may lead to the adoption of less precise methods of determining depletion allowances in circumstances such as those discussed above. Nevertheless, cost depletion is always a matter of approximation, more or less precise.

B. Physical Limitations

The court of appeals was careful to limit its opinion to the physical factors present in the Ogallala reservoir. The extent of application of this case to various types of ground water formations is highly problematical. Probably the most obvious situation to which the Shurbet holding could be extended would be a ground reservoir where the recharge rate is substantial, but, due to the number of users, the

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44 The court in Shurbet seemed to be saying tacitly that the income was from the water even though in reality the income was realized through the sale of crops which the water aided in growth; however, portions of the income certainly could be attributed to other factors than the presence of water, e.g., labor, seed, etc.

45 Cf., Crabb v. Commissioner, 41 T.C. 686 (1940). A small amount of production was held to justify percentage depletion allowance on a much larger sum received as a lease bonus.

46 It is possible that the courts will allow an averaging technique to simplify this calculation.

47 The court noted that the case was a test case for irrigation farmers in the Southern High Plains. 347 F.2d at 104.


49 See note 11 supra.

50 See note 30 supra.
reservoir is steadily being depleted. For all practical purposes, the property owners of such a reservoir face the same economic factors as the farmers of the Southern High Plains: the value of their land is substantially affected by the amount of recoverable water beneath the property. The troublesome point in this hypothetical situation is that the mineral is not really exhaustible (because of the substantial recharge rate), although it may be depleted to the point where it can no longer be recovered in substantial quantities. The difficulty from an economic point of view stems from the possibility, which may be very remote, that the reservoir, through a decline in number of users or rate of use, may recharge itself. Then the taxpayers who have taken the depletion allowance will receive a “windfall” because they have depleted an asset that is not really exhaustible. Under the example posed, even though it appears for all practical and economic purposes that the landowners would share the same plight as farmers in the Southern High Plains, it is doubtful that a depletion allowance would be granted because the analogy to the exhaustible nature of mineral and oil and gas deposits is negated by the substantial recharge factor.

There are innumerable variations in physical factors which could be presented in attempts to secure depletion allowances for ground water; (e.g., effect of springs, underground watercourses, surface flow, etc.) however, at the present time it appears doubtful that the Shurbet holding will be extended substantially beyond the facts in that case. The court, however, has failed to decide several crucial issues which will determine the future importance of this decision: (1) Is actual production necessary to qualify for the depletion deduction? (2) If actual production is required, does it have to be pursuant to an income producing activity to qualify? (3) Is there any limit on the disproportionality which the courts will allow between income and depletion deduction calculated by the decline in water level? (4) May other common minerals qualify as a “natural deposit” for depletion purposes?

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51 Apparently the court ignored the recharge in the Shurbet case, probably under a de minimis theory.