

Chapter I10

Depreciation, Cost Recovery, Depletion, and Amortization

Problems

I10-21 a. Even though Sandy did not claim any depreciation in 1999 and 2000, she is required to reduce her basis for the amount of allowable depreciation. The adjusted basis of the machine is \$5,247.

Computed as follows:

1998: \$10,000 x 0.1429 =	\$ 1,429
1999: \$10,000 x 0.2449 =	2,449
2000: \$10,000 x 0.1749 x ½ year =	<u>875</u>
Total allowable depreciation	<u>\$ 4,753</u>
Acquisition cost	\$10,000
Minus: Allowable depreciation	<u>(4,753)</u>
Adjusted basis	<u>\$ 5,247</u>

Sandy may file an amended return for 1999 to claim the depreciation for that year. The 2000 return should be corrected before filed or amended to claim the depreciation for 2000 and properly compute the gain on sale.

b. A \$753 gain is recognized upon the sale of the asset which is computed as follows:

Sales price	\$ 6,000
Minus: Adjusted basis	<u>(5,247)</u>
Recognized gain	<u>\$ 753</u>

p. I10-3.

I10-22 a. The automobile's basis for depreciation is \$6,000. When personal use property is converted to business use, the property's basis for depreciation is the lesser of its adjusted basis or the FMV on the date the property is converted to business use.

b. Depreciation for 2000 is \$1,200 (\$6,000 x 0.2000) see Table 1, Appendix C. pp. I10-3, I10-6 and I10-12.

I10-23 a. The amount of depreciation deduction, using the half-year convention, for each asset in 2000 is:

Light truck: \$2,000 (\$10,000 x 0.2000)

Machinery:	\$7,145 (\$50,000 x 0.1429)
Land:	-0- (not eligible for depreciation)
Building:	\$107 (\$100,000 x 0.00107) See Table 8 in Appendix C.
Equipment:	-0- (not eligible for depreciation because it was not in service until the next year)

b. Since more than 40% of all personal property acquired in the current year is placed in service in the last three months ($\$60,000/\$60,000 = 100\%$), the mid-quarter convention is applied (Table 5 in Appendix C).

Light truck	\$ 500 (\$10,000 x 0.05)
Machinery	\$1,785 (\$50,000 x 0.0357)
Land	-0-
Building	\$ 107 (\$100,000 x 0.00107) See also Table 8 in Appendix C.
Equipment	-0-

c. Machinery

Depreciation for 2000: \$7,145 (\$50,000 x .1429)
 2001: \$12,245 (\$50,000 x .2449)
 2002: \$4,373 (\$50,000 x .1749 x 1/2 year)

Adjusted basis: cost of machinery	\$50,000
accumulated depreciation (\$7,145 + \$12,245 + \$4,373)	(23,763)
adjusted basis	\$26,237

Building

Depreciation for 2000: \$107 (\$100,000 x .00107)
 2001: \$2,564 (\$100,000 x .02564)
 2002: \$2,030 (\$100,000 x .02564 x 9.5/12)

Adjusted basis: cost of building	\$100,000
accumulated depreciation (\$107 + \$2,564 + \$2,030)	(4,701)
adjusted basis	\$ 95,299

pp. I10-6 through I10-9.

10-25 a. Tish may deduct up to \$3,000 under Sec. 179 in 2000. The Sec. 179 election has several rules and limitations. If the total cost of qualified property placed into service during the year is greater than \$200,000, the \$20,000 ceiling is reduced by the excess amount. In addition, the Sec. 179 election may not exceed the taxpayer's taxable income before deducting the Sec. 179 expense from the trade or business. In this case, the ceiling is first reduced by \$14,000 [\$214,000 (cost of

qualifying property) - \$200,000(limit on qualifying property)] to \$6,000. The taxpayer may then use up to \$4,000 which is his taxable income before deducting the Sec. 179 expense. The \$2,000 worth of unused cost may be carried forward to the succeeding taxable year and is added to the other amounts eligible for the Sec. 179 deduction. pp. I10-10 and I10-11.

b. The MACRS depreciation deduction for the machine in 2000 is \$2,715 ($\$19,000 \times 0.1429$). Total deductions for 2000 are \$6,715 ($\$4,000$ expense under Sec. 179 + \$2,715 MACRS depreciation) computed as follows:

Cost of machine	\$ 25,000
Minus: Sec. 179 deduction of \$4,000 + \$2,000 carryover	<u>(6,000)</u>
MACRS depreciable basis	\$ 19,000
Times: MACRS rate for seven-year property	<u>x 0.1429</u>
MACRS deduction	<u>\$ 2,715</u>

pp. I10-6 through I10-8.

10-28 The purpose of this problem is to illustrate the tax advantage of properly allocating the Sec. 179 deduction among properties when the mid-quarter convention is applicable. In this case, depending on which property is selected for the Sec. 179 deduction, the mid-quarter convention may or may not apply. Two alternatives are demonstrated below:

Alternative #1: Allocate the entire Sec. 179 deduction to Equipment A. Since the entire \$20,000 is allocated to Equipment A, the mid-quarter convention will apply, as follows:

Property placed into service in 4th quarter	\$50,000
Total property placed into service during the year (50,000 + 30,000)	\$80,000
Percentage of equipment placed into service in 4th quarter (50,000/80,000)	62.5%

Since 40% or more equipment was placed into service in the last quarter of the year, the mid-quarter convention applies.

2000 Depreciation:	
Equipment A: $\$50,000 - 20,000 = 30,000 \times 25\%$ (Table 3, Appendix C)	\$ 7,500
Section 179	20,000
Equipment B: $\$50,000 \times 3.57\%$ (Table 5, Appendix C)	<u>1,785</u>
TOTAL DEPRECIATION - 1999	<u>\$29,285</u>

Alternative #2: Allocate the entire Sec. 179 deduction to Equipment B. The mid-quarter convention will not apply, as follows:

Property placed into service in 4th quarter (less Sec. 179 deduction)	\$30,000
Total property placed into service during the year	\$80,000

Percentage of equipment placed into service in 4th quarter 37.5%

Since less than 40% of equipment was placed into service in the last quarter of the year, the mid-quarter convention does not apply.

2000 Depreciation:

Equipment A: \$50,000 x 20% (Table 1, Appendix C)	\$10,000
Equipment B: \$50,000 - 20,000 = 30,000 x 14.29% (Table 1, Appendix C)	4,287
Section 179	<u>20,000</u>
TOTAL DEPRECIATION - 1999	<u>\$34,287</u>

In this case, Todd would maximize his depreciation in 2000 if he selects Equipment B for the Sec. 179 deduction. It should be pointed out that taxpayers are not required to select the entire \$20,000 to one piece of equipment. A portion of the Sec. 179 deduction could be allocated to Equipment A and the remainder to Equipment B. In some cases, the allocation of the Sec. 179 deduction to property placed into service early in the year to force the mid-quarter convention will be favorable to the taxpayer. This is not the case in this problem. pp. I10-7 through I10-11.

I0-30 Both assets are "listed property" and are subjected to the special rules contained in Sec. 280F. The MACRS depreciation deduction for the automobile in 2000 is \$1,320. The depreciation for the personal computer in 2000 is \$160 under the alternative depreciation system. These amounts are computed as follows:

For the automobile:

If a property's business use is greater than 50% of its total usage, the taxpayer may use the regular MACRS rates for the business use portion of the asset's cost.

Cost of the automobile	\$11,000
Times: MACRS rate	<u>x0.2000</u>
MACRS depreciation	\$ 2,200 ^a
Times: Business percentage use	<u>x .60</u>
MACRS depreciation	<u>\$ 1,320</u>

^a Luxury car limit is \$3,060 in 2000, so limit is \$1,836 (\$3,060 x 60%) and, therefore, does not apply in this situation.

For the computer:

If a property's business use is less than 50%, the taxpayer must use the alternative depreciation system which is five-year straight-line depreciation for automobiles and computers.

Cost of the computer	\$4,000
Times: Business percentage use	<u>x .40</u>
Business portion	\$1,600

Times: rate from Table 10, Appendix C
 Depreciation

x .10
\$ 160

pp. I10-11 and I10-12.

I0-33 The depreciation for 2000, 2001, 2002 is \$3,060, \$4,900 and \$2,950, respectively. These amounts are computed as follows:

Year	MACRS Deduction	Ceiling Limit	Allowed Deduction
2000	\$4,000 (\$20,000 x 0.2000)	\$3,060	\$3,060
2001	\$6,400 (\$20,000 x 0.3200)	4,900	4,900
2002	\$3,840 (\$20,000 x 0.1920)	2,950	2,950

Note: For subsequent years there is a \$1,775 ceiling limitation until the automobile is fully depreciated. pp. I10-12 and I10-13.

I0-39 If the IDCs are expensed, the cost depletion amount is \$40,000, computed as follows:

Acquisition cost	\$200,000
Divided by:	
Estimated recoverable units	<u>20,000</u>
Amount per unit cost depletion	\$ 10
Times: Units sold	<u>x 4,000</u>
Depletion amount	<u>\$ 40,000</u>

b. If the IDCs are capitalized, the cost depletion amount is \$44,000. The basis for cost depletion purposes is \$220,000.

Acquisition cost (\$200,000 + \$20,000)	\$220,000
Divided by:	
Estimated recoverable units	<u>20,000</u>
Amount per unit cost depletion	\$ 11
Times: Units sold	<u>x 4,000</u>
Depletion amount	<u>\$ 44,000</u>

c. One must include in the tax return, the greater of cost depletion or percentage depletion not to exceed 100% of taxable income before depletion is included. Therefore, cost depletion of \$44,000 is deducted if the IDCs are capitalized and \$40,000 if the IDCs are expensed because percentage depletion is only \$25,000.

d. Assuming there is substantial gross income, the immediate expense method is preferable because \$20,000 intangible drilling costs may be expensed in the initial year while still deducting \$40,000 of cost depletion. Under the capitalization method, gross income may only be reduced by \$44,000. pp. I10-18 through I10-20.