Old Turkey Whiskey

Old Turkey Mash is a whiskey manufactured by distilling grains and corn and then aging the mixture for five years in fifty gallon oak barrels. Distilling requires about a week and aging takes place in carefully controlled warehouses. Before it ages, the whiskey is too bitter to be consumed. Aging mellows the brew (and ultimately the consumer). The cost of the product prior to aging is $100 per barrel (direct plus indirect costs of distilling). In the aging process, each barrel must be inspected monthly and any leaks repaired. Every six months the barrels are rotated and sampled for quality. Costs of direct labor and materials in the aging process (excluding the cost of oak barrels) amount to $50 per barrel per year (all variable). As the whiskey ages, evaporation and leakage cause each 50 gallon barrel to produce only 40 gallons of bottled whiskey. New oak barrels costs $75 each and cannot be reused. After aging they are cut in half and sold for flowerpots. The revenues generated from sales of the pots just cover the costs of disposing of used barrels. As soon as the whiskey is aged five years, it is bottled and sold to wholesalers.

While domestic consumption of whiskey is falling, an aggressive international marketing campaign has opened up new international markets. The firm is in the third year of a five year campaign to double production. Because it takes five years to increase production (an additional barrel of mash produced today does not emerge from the aging process for five years), the firm is adding 100,000 gallons of distilled product each year. Prior to the expansion, 500,000 distilled gallons were produced each year. Distilled output is being increased 100,000 gallons a year for five years until it reaches 1 million gallons. Distilled output is currently 800,000 gallons and is projected to rise to 900,000 gallons next year. The accompanying table describes production, sales, and inventory in the aging process.

 Base Year Year 1 Year 2 Year 3

Production (Dist gl) 500,000 600,000 700,000 800,000

Aged Gal sold 400,000 400,000 400,000 400,000

**Warehouse inventory at Beginning of Year**

4 yr old bbls 10,000 10,000 10,000 10,000

3 yr old bbls 10,000 10,000 10,000 10,000

2 yr old bbls 10,000 10,000 10,000 12,000

1 yr old bbls 10,000 10,000 12,000 14,000

New bbls added 10,000 12,000 14,000 16,000

Total bbls aged in yr 50,000 52,000 56,000 62,000

Warehousing rental costs to age the base year production of 10,000 barrels per year are $1million per year. Additional warehouse rental cost of $40,000 per year must be incurred to age each additional 20,000 barrels (100,000 distilled gallons). All costs incurred in warehousing are treated as handling or carrying costs and are written off when incurred. Bottled Old Turkey is sold to distributers for $15 per gallon. These income statements summarize the firms current operating performance.

 Base Year Year 1 Year 2 Year 3

Revenues $6,000,000 $6,000,000 $6,000,000 $6,000,000

Less:

Cost of goods sold

10,000 bbls / 100/bbl 1,000,000 1,000,000 1,000,000 1,000,000

Oak barrels 750,000 900,000 1,050,000 1,200,000

Warehouse rental 1,000,000 1,040,000 1,120,000 1,240,000

Warehouse dir cost 2,500,000 2,600,000 2,800,000 3,100,000

Net Income loss

Before taxes 750,000 460,000 30,000 (540,000)

Income tax (30%) 225,000 138,000 9,000 (162,000)

Net Income aft tax 525,000 322,000 21,000 (378,000)

Management is quite concerned about the loss that is projected for the third year of the expansion (current year). The president has scheduled a meeting with the local bank to review the firm’s current financial performance. This bank has been lending the firm the capital to finance the production expansion.

1. Instead of writing off all the warehousing and oak barrel costs, prepare revised income statements for years 1 through 3, treating the warehousing and barrel costs as product costs.
2. Which set of income statements (those given or the ones prepared) should the president show the bank at the meeting? Justify your answer.