

Analyzing your company's costs

Finding out a company's strengths—and weaknesses—may lead to increased profits

By Desiree Ward

How much does it cost your ready mix company to produce a yard of concrete? If you don't know, or if your figuring is inaccurate, odds are you are incorrectly pricing your product and possibly underpricing yourself.

The key to putting a ready mix company on track lies in analyzing the company's strengths, according to

William B. Allen, president of Allen & Associates, a consulting firm in Memphis, Tenn. Allen speaks from experience; he was a ready mix and aggregate producer until 1982 when he became a consultant. Allen says done correctly, analyzing a ready mix company's strengths allows an owner to see specifically where money is being made and lost.

QUALITATIVE AND QUANTITATIVE ANALYSES

Analyses conducted by most owners or outside parties—bankers and creditors—are either qualitative, quantitative, or both. A qualitative analysis is designed to identify *components* of a substance or mixture. This means examining both external and internal factors affecting a ready mix company. External factors include market type and competitor conditions. Internal factors include the company's history, size, image, customer base, personnel, and equipment.

A quantitative analysis is designed to determine the *amounts* of a substance's components. In the ready mix business, this means using numbers to examine where a company has been and where it is today. External factors for both include market size and growth, and competition size and growth. Internal factors for where a company has been include a five-year financial history and rate of change annually or on a five-year basis. Internal factors for where a company is include the current year's profits, losses, balance sheet, break-even point, financial ratios, and accounting system.

FIGURE 1. XYZ VS. INDUSTRY COSTS OF A YARD OF CONCRETE

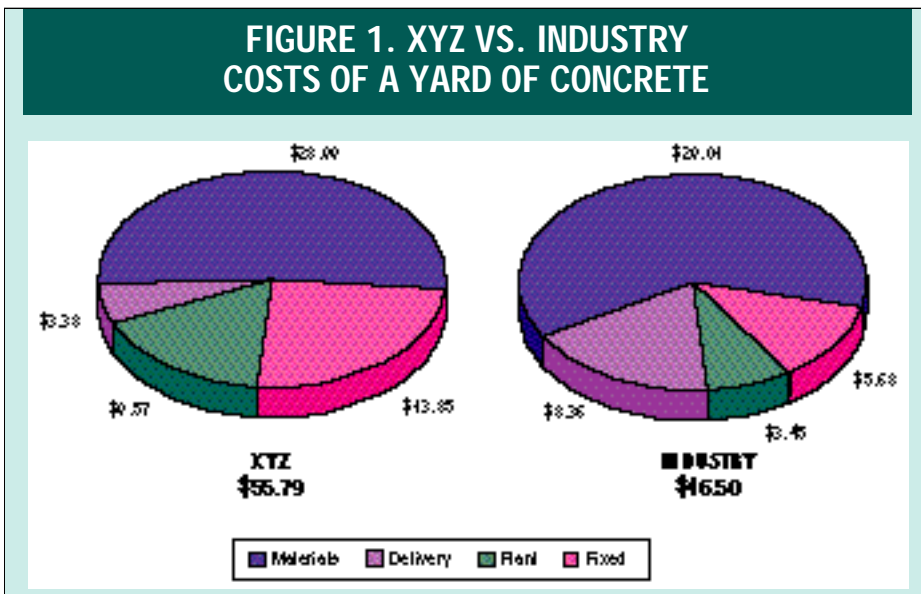
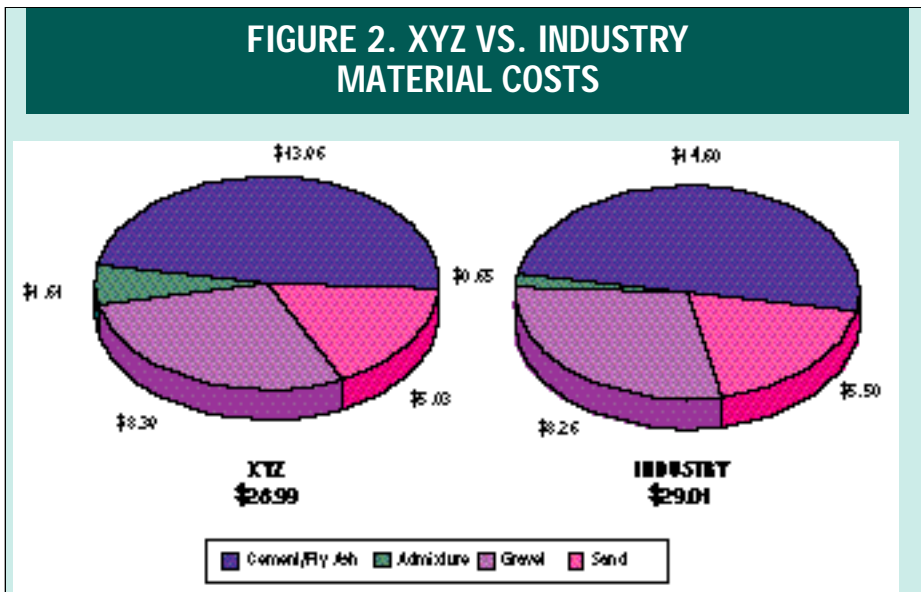


FIGURE 2. XYZ VS. INDUSTRY MATERIAL COSTS



FISCAL PHYSICAL

In conjunction with the quantitative analysis, the company also undergoes a fiscal physical—a look at the company's financial health. There are three components to this physical:

- **Balance sheet.** This sheet is basically a snapshot of a company's financial health at a particular time. Most bankers and creditors use it to look for trends that they compare to numbers published by Robert Morse & Associates, an organization of bank loan and credit officers. Unfortunately, Allen says, this comparison doesn't help ready mix owners because the numbers, in general, aren't relative to the ready mix indus-

try. Allen, in conjunction with NRMCA and Ready Mix 2000, hopes to start a new statistical data base for the industry.

- **Income statement.** This sheet is a moving picture of the company's operating health. It, too, is analyzed for trends and used for comparisons.

- **Ratios.** Three types of ratios are examined for trends and comparisons: operating, which are relative to sales; financial, which are various assets compared to different liability; and liquidity, which are debt relative to equity.

STEPS TO ANALYZING A COMPANY

Allen's experience in the ready mix business has taught him that the numbers analyzed by most bankers and creditors often don't tell a ready mix company's whole financial story. When these numbers are compared to other businesses outside of ready mix, as they are with Robert Morse & Associates, a ready mix company often looks financially worse than it really is. To alleviate this discrepancy, Allen devised his own program for analyzing ready mix companies.

First, Allen separates fixed costs—costs that are fixed relative to time, including depreciation, leases, rent, salaries, and insurance—and variable costs—costs incurred when a sale is made, including material, plant, and delivery. Allen says it's key to separate these costs because a ready mix company can't determine its true break-even point without doing so.

Contribution and profit summaries, which are basically the same as pro forma income, are then developed through a format Allen has.

After analyzing the contribution and profit summaries, Allen determines the company's break-even point.

Once these calculations are complete, Allen normalizes the historical financial data. Here, such things as perks and capitalization of major repairs, which most companies legally leave off their profit amount to pay less taxes, are added back in to get a true financial value.

Allen then analyzes the company's balance sheet and ratios. These give a snapshot of the company's health, revealing whether the company has more money than it owes or vice versa.

After comparing these numbers to available industry data and standards, future cash flows can be developed and the company's intrinsic value determined. A company's intrinsic, or true, value is the present value of future cash flow that the company's assets can generate. Finally, Allen is able to summarize the company's strengths and weaknesses.

INCOME STATEMENT VS. CONTRIBUTION AND PROFIT SUMMARY

As already stated, part of a ready mix company's fiscal physical is analyzing the income statement for trends (see Table 1). These statements

track expenditures, including salaries, advertising, insurance, depreciation, and profits, on a monthly and year-to-date basis in dollars and percentage of sales.

But the problem with most income statements, according to Allen, is that they only tell the ready mix owner whether money was made or lost, but not *why* it was made or lost. Consequently, Allen uses his own form, a contribution and profit summary, to calculate a ready mix company's worth (see Table 2). This summary allows an owner to see how each individual operating unit contributes to the company's profit.

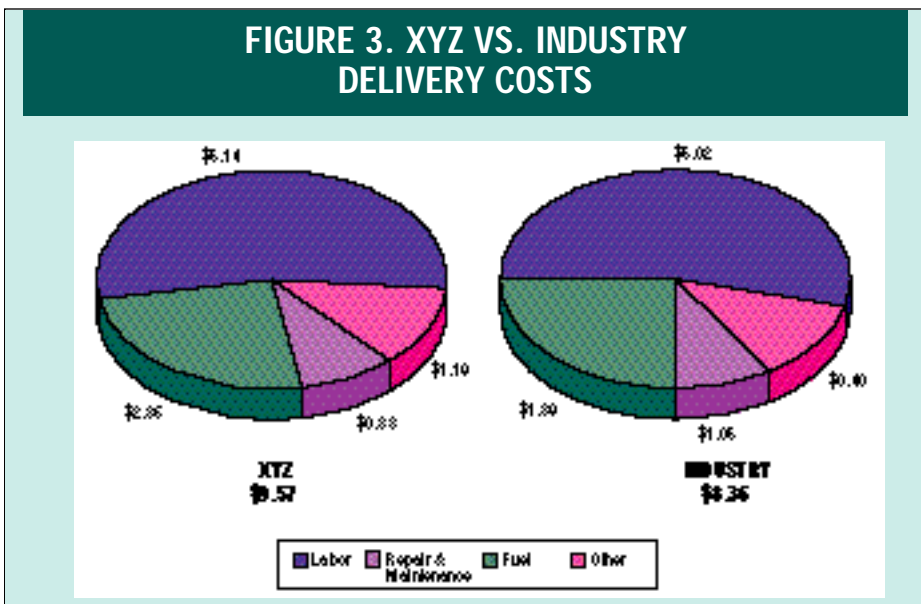
For example, in 1993 XYZ Ready Mix Co. had total sales of \$4,589 after having sold 100 yards of ready mix. Under ready mix material, XYZ spent \$1,436, or 31.3% of sales, on cement/fly ash; it also spent \$1,315, or 28.7% of sales, on heavy aggregates. Under plant variable costs, labor cost \$100, or 2.2% of sales, and parts and repairs cost \$50, or 1.1% of sales.

Once a profit contribution summary has been tallied, a ready mix company's costs can be analyzed. In this example (see Figure 1), it costs XYZ Co. \$55.79 to produce a yard of concrete; the industry average is around \$46.50. The costs to produce a yard of concrete is the sum of material, delivery, plant, and fixed costs. A ready mix company's success is directly tied to its ability to control these costs.

MATERIAL COSTS

As Figure 1 shows, a good portion of XYZ Co.'s cost of a yard of concrete is material. Material costs include cement, admixtures, gravel, and sand (see Figure 2). Allen says material costs can be controlled by:

- **Controlling and accounting for all incoming material.** Make sure the company is receiving everything that has been paid for.
- **Raw material inventories.** Accurate raw material inventories should be taken monthly. If the numbers don't balance monthly, conduct inventories weekly. If it doesn't balance weekly, do daily inventories until the problem is discovered.
- **Assigning responsibility for mix**



designs. Appoint someone in management to make sure the right mix design is being used for every job.

- **Routine checking of mixes for strength, yield, and costs.** Make sure the right mix is that mix that is going to produce the best yard of concrete at the lowest cost for the company. Also have routine quality checks.

- **Monthly review of average material costs compared to specific mixes.** After finding out what the company's average mix size is, someone needs to figure out the theoretical cost of that mix based on what is being put into the mix, including admixtures and aggregates. This then needs to be compared to the average unit material cost posted in the company's profit and loss statement.

- **Quarterly review of raw material purchasing practices.** Make sure that the company is paying the correct price for what it's getting and that it's getting what it's buying.

- **Computer batching.** Be aware that computers, while they are highly efficient, do make mistakes.

DELIVERY COSTS

Delivery is usually the second largest expenditure. These costs include labor, repair, maintenance, and fuel (see Figure 3). Delivery costs can be controlled by:

- **Labor and fringes.** How much is morning start-up time? How long is a truck in the plant? What is the time to and from the job? What is the time in the yard?

- **Fuel.** Costs depend on maintenance, purchasing, and truck scheduling.

- **Repairs and maintenance.** Factors affecting the cost include age of fleet, type of equipment, truck retirement schedule, preventive maintenance program, purchasing, and production. Allen says a computerized preventive maintenance program can help keep this cost to a minimum by allowing easy tracking of truck maintenance cost and down time, helping an owner determine when it is time to retire a truck.

- **Tires/others.** This cost depends on fleet age, equipment type, tire replacement program, and purchasing.

TABLE 1. SIMPLIFIED TYPICAL INCOME STATEMENT				
	MONTH-TO-DATE		YEAR-TO-DATE	
	DOLLARS	% SALES	DOLLARS	% SALES
SALES	XXXXX.XX	XX.X	XXXX.XX	XX.X
COST OF GOODS SOLD	XXXXX.XX	XX.X	XXXX.XX	XX.X
GROSS PROFIT	XXXXX.XX	XX.X	XXXX.XX	XX.X
EXPENSES				
Salaries	XXXXX.XX	XX.X	XXXX.XX	XX.X
Payroll taxes	XXXXX.XX	XX.X	XXXX.XX	XX.X
Advertising	XXXXX.XX	XX.X	XXXX.XX	XX.X
Utilities	XXXXX.XX	XX.X	XXXX.XX	XX.X
Office supplies	XXXXX.XX	XX.X	XXXX.XX	XX.X
Insurance	XXXXX.XX	XX.X	XXXX.XX	XX.X
Bad debts	XXXXX.XX	XX.X	XXXX.XX	XX.X
Depreciation	XXXXX.XX	XX.X	XXXX.XX	XX.X
Vehicles	XXXXX.XX	XX.X	XXXX.XX	XX.X
Accounting	XXXXX.XX	XX.X	XXXX.XX	XX.X
Professional	XXXXX.XX	XX.X	XXXX.XX	XX.X
Travel/entertainment	XXXXX.XX	XX.X	XXXX.XX	XX.X
Shop supplies	XXXXX.XX	XX.X	XXXX.XX	XX.X
Repairs	XXXXX.XX	XX.X	XXXX.XX	XX.X
Taxes	XXXXX.XX	XX.X	XXXX.XX	XX.X
Other	XXXXX.XX	XX.X	XXXX.XX	XX.X
TOTAL EXPENSES	XXXXX.XX	XX.X	XXXX.XX	XX.X
OPERATING PROFIT	XXXXX.XX	XX.X	XXXX.XX	XX.X
OTHER INCOME (EXPENSES)				
Interest Paid	(XXXXX.XX)	(XX.X)	(XXXX.XX)	(XX.X)
Discounts	(XXXXX.XX)	(XX.X)	(XXXX.XX)	(XX.X)
Sale of Assets	XXXXX.XX	XX.X	XXXX.XX	XX.X
Interest Collected	XXXXX.XX	XX.X	XXXX.XX	XX.X
TOTAL	XXXXX.XX	XX.X	XXXX.XX	XX.X
NET PROFIT BEFORE TAX	XXXXX.XX	XX.X	XXXX.XX	XX.X
TAX	XXXXX.XX	XX.X	XXXX.XX	XX.X
NET PROFIT AFTER TAX	XXXXX.XX	XX.X	XXXX.XX	XX.X

PLANT COSTS

Plant costs usually take up the smallest piece of the cost pie, and have an industry average of around \$3.45 per yard (see Figure 4). A num-

ber of factors affect plant costs including:

- **Labor and fringes.** Are the batch and yard workers salaried or hourly? Does the company have multiple

FIGURE 4. XYZ VS. INDUSTRY PLANT COSTS

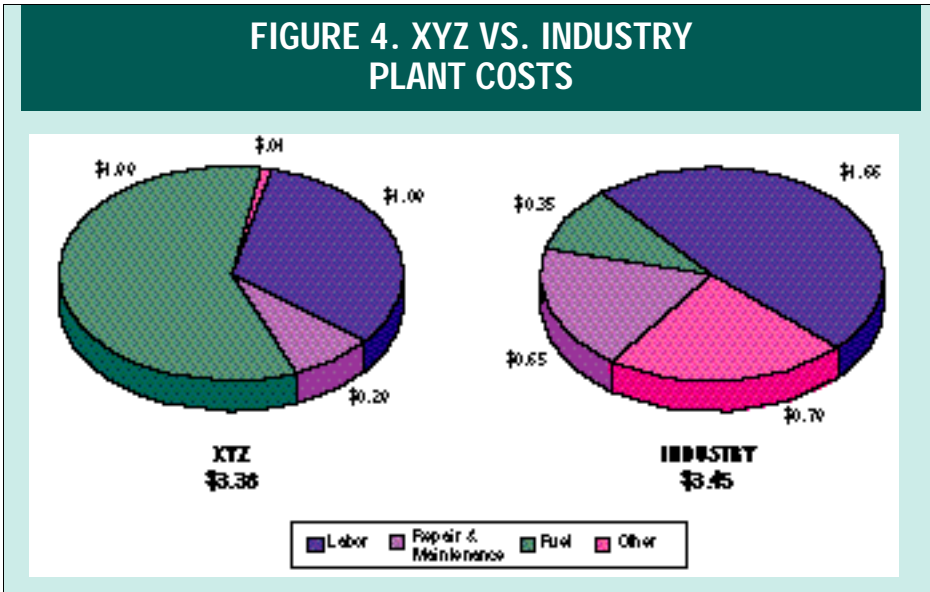
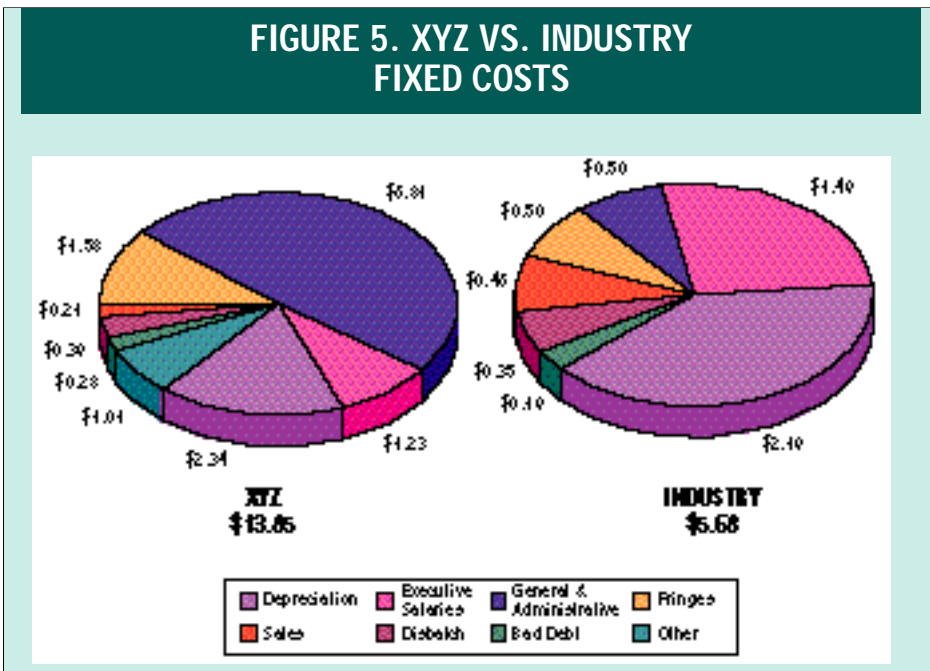


FIGURE 5. XYZ VS. INDUSTRY FIXED COSTS



plants with different crews or the same crews?

- **Repairs and maintenance.** This cost depends on whether the company is central or dry batch plant. If it's a central plant, it will probably be more expensive because there is more cleanup time as well as more repairs and maintenance.

- **Plant expenses.** This cost depends on the plant's geographical location. These include utilities and power costs, heating and cooling costs, and conveyor costs.

FIXED COSTS

The industry average for fixed costs is around \$5.68 per yard (see Figure 5),

although Allen has seen many ready mix companies that average \$10 per yard or more. According to Allen, many companies are geared up for the volume of business they had through 1990. Unfortunately, some ready mix companies have seen their sales fall 50% or more, and most haven't been successful in trimming back expenses. Factors affecting fixed costs include depreciation, executive salaries, general and administrative costs, and debt.

Industrywide, fixed costs usually climb 1.25% to 1.5% annually, Allen says they can be controlled by:

- **Sorting by cost.** List costs, starting with the most expensive and

descending in order. This makes it easier to see where money is spent.

- **Reviewing and analyzing each line item.** Look at where the company is spending its money. For each line item, ask if that money spent is really necessary or whether it can be reduced or eliminated.

- **Developing a budget and comparing to actual costs.** Make monthly budgets for the year and compare budgeted costs with actual costs.

PUTTING NUMBERS TOGETHER

After all costs are analyzed, Allen looks at a company's historical financial data—five-year income statement, five-year balance sheet, and five-year ratio sheet—and compares them to the company's current numbers that he has just analyzed. By looking at both sets of numbers, Allen can spot trends and determine whether the company's financial health is good or bad.

In addition, the company's ratios can be analyzed and a break-even analysis conducted.


- **Balance sheet ratios.** These are the ratios used to analyze the company's financial health.

- **Income statement ratios.** These ratios are analyses of operating costs and earnings as a percentage of sales. This allows a comparison of the company's numbers to industry standards.

- **Overall efficiency ratios.** These ratios are analyses of the use of the company's assets—cash, equipment, inventory, and receivables—and how well the company is using these assets.

Finally, the company's break-even analysis is used to determine the minimum volume required to cover fixed costs and to determine the true profit per yard once all fixed costs have been covered.

A good ready mix owner knows the financial stability of the company is important for present and future success. Analyzing the company's strengths, by obtaining an accurate picture of where money is being made and spent, is key to this success. Separating fixed and variable costs, developing a contribution and profit summary, determining trends,

and comparing budgeted numbers to real numbers are all a part of finding out a company's profits and expenses. Owners who spend the time to find out these numbers may very well find their companies at the top of the ready mix industry. 

**TABLE 2. XYZ READY MIX CO.
CONTRIBUTION AND PROFIT SUMMARY**

ITEM	READY MIX SALES	% SALES	UNIT
Ready mix sales	\$4,303	93.8%	\$43.03
Other sales	173	3.8	1.73
Discounts/allowances	114	2.5	1.14
Total Sales	4,589	100.0	45.89
Ready Mix Cubic Yards	100 yards		
READY MIX MATERIAL			
Cement/fly ash	1,436	31.3	14.36
Admixture/other material	65	1.4	0.65
Heavy aggregates	1,315	28.7	13.15
Other aggregates	40	0.9	.40
Adjustments/other	0	0	0
Total Material	2,855	62.2	28.55
READY MIX DELIVERY VARIABLE COSTS			
Labor	675	14.7	6.75
Gas, oil	112	2.4	1.12
Repairs/maintenance	280	6.1	2.80
Tires	32	0.7	0.32
Rentals	0	0	0
Other expenses	0	0	0
Total Delivery Variable Costs	1,099	24.0	10.99
PLANT VARIABLE COSTS			
Labor	100	2.2	1.00
Parts/repairs	50	1.1	0.50
Loader expense	25	0.5	0.25
Utilities/other	89	1.9	0.89
Total Plant Variable Costs	264	5.8	2.64
TOTALS			
Ready mix variable costs	4,218	91.9	42.18
Ready mix margin	371	8.1	3.71
Other variable costs	0	0	0
Total Variable Costs	4,218	91.9	42.18
Other margin	0	0	0
Total Margin	371	8.1	3.71
READY MIX FIXED COSTS			
Corporate salary	142.50	3.1	1.43
Truck depreciation	125.00	2.7	1.25
Officers	107.50	2.3	1.08
Sales	60.00	1.3	0.60
Taxes	50.00	1.1	0.50
Insurance	47.60	1.0	0.48
Plant depreciation	45.00	1.0	0.45
Travel/entertainment	45.00	1.0	0.45
Telephone	44.20	1.0	0.44
Interest	42.50	0.9	0.43
Corporate hourly	36.00	0.8	0.36
Bad debts	32.00	0.7	0.32
Legal/professional	28.00	0.6	0.28
Office supplies/G&A	27.40	0.6	0.27
Bonus	18.00	0.4	0.18
Advance/promotion	9.00	0.2	0.09
Shop supplies	8.50	0.2	0.08
Permits/licenses	6.50	0.1	0.07
Dues, subscriptions	3.50	0.1	0.04
Contributions	1.60	0.0	0.02
Other/rentals	0.00	0.0	0.00
Truck leases	0.00	0.0	0.00
Total Ready Mix Fixed Costs	880.00	19.2	8.80
TOTALS			
Total Costs	\$5,098.00	111.1%	\$50.98
Operating income	509.00	-11.1	5.09
Other income/expenses	125.00	2.7	1.25
Pre-Tax Profit	384.00	-8.4	3.84
Break-Even Point \$/cubic yds	\$10,893.00	0.0	237.00