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Tangible Personal Property

# Inutility – It's Real

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# Ready-Mix and Concrete Block Industries

## – Ready-Mix:

- mixture of:

  - cement, water, fly ash and chemical admixture (25% - 40%)

  - aggregate - sand, gravel, and/or crushed stone (60% - 75%)

## – Concrete Block:

- mixture of cement, water and sand or fine aggregate  
aka Concrete Masonry Units (CMUs) or Cinder Block

# Ready-Mix and Concrete Block Industries



# Ready-Mix and Concrete Block Industries



# Ready-Mix and Concrete Block Industries

Two of several segments of the Construction Industry hit hard by the economic downturn

- Cement Industry one of leading indicators of an economy's decline or growth
- Nearly one in four construction workers are unemployed – 1/8/2010 Associated General Contractors of America
- Of the American Recovery and Reinvestment Act of 2009's "Recovery Act") \$787B expenditures, DOT's allotment is \$48B (6%) for transportation infrastructure

# Ready-Mix and Concrete Block Industries

## TXI Reports Second Quarter Results

January 07, 2010: 08:30 AM ET

DALLAS, Jan. 7, 2010 (GLOBE NEWSWIRE) -- Texas Industries, Inc. (NYSE:TXI) today reported financial results for the quarter ended November 30, 2009. Net income was a loss of \$3.7 million (<\$0.13> per share) and included after tax gains from sales of emission credits of \$2.1 million (\$0.08 per share). Net income for the quarter ended November 30, 2008 was \$3.1 million (\$0.11 per share).

### General Comments

"We were able to maintain our gross profit margin compared to last year despite sales being down 36%," stated Mel Brekhus, President and Chief Executive Officer. "Abnormally inclement weather in our Texas market and the continuing impact of the recession led to cement, aggregate and ready-mix concrete volumes being down 32%, 43% and 35%, respectively."

# Overall Cement Industry

Cement Demand and Consumption

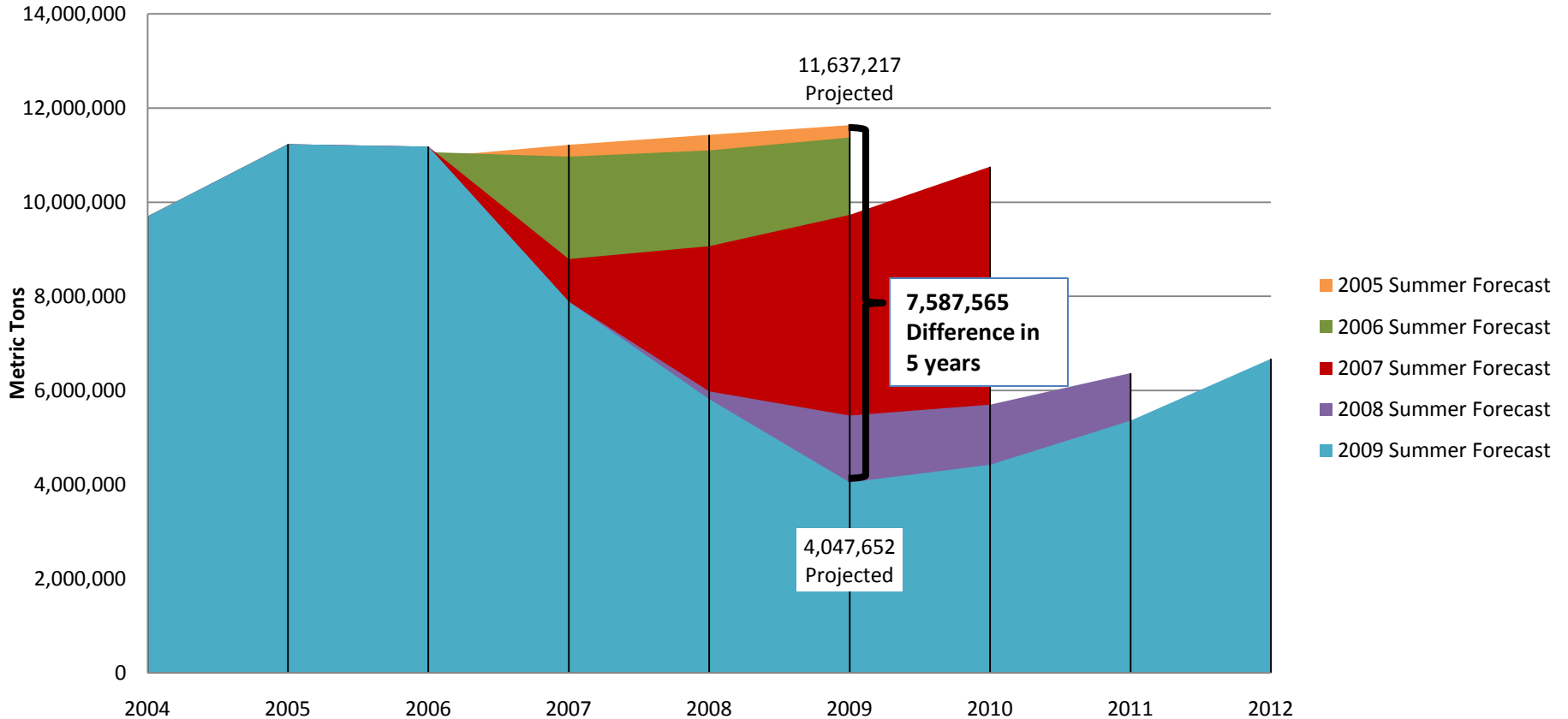
Forecast	Description	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>2005 Summer Forecast *</b>	Florida Cement Consumption-Metric Tons	<b>9,697,929</b>	<i>10,423,138</i>	<i>10,956,297</i>	<i>11,219,385</i>	<i>11,432,367</i>	<i>11,637,217</i>			
	US Cement Consumption - Metric Tons									
	US Cement Imports - Metric Tons									
	Import Share (%)									
<b>2006 Summer Forecast *</b>	Florida Cement Consumption-Metric Tons	<b>9,697,929</b>	<b>11,232,570</b>	<i>11,065,315</i>	<i>10,968,262</i>	<i>11,100,373</i>	<i>11,375,168</i>			
	US Cement Consumption - Metric Tons	<b>120,060,000</b>	<b>126,764,000</b>	<i>129,619,000</i>	<i>131,226,000</i>	<i>134,494,000</i>	<i>137,712,000</i>	<i>141,293,000</i>		
	US Cement Imports - Metric Tons	<b>27,305,000</b>	<b>33,652,000</b>	<i>37,437,000</i>	<i>38,513,000</i>	<i>36,158,000</i>	<i>30,918,000</i>	<i>30,631,000</i>		
	Import Share (%)	<b>23.80%</b>	<b>27.70%</b>	<i>30.20%</i>	<i>30.70%</i>	<i>28.00%</i>	<i>23.40%</i>	<i>22.60%</i>		
<b>2007 Summer Forecast *</b>	Florida Cement Consumption-Metric Tons	<b>9,697,929</b>	<b>11,232,572</b>	<b>11,180,456</b>	<i>8,792,038</i>	<i>9,066,019</i>	<i>9,730,718</i>	<i>10,755,556</i>		
	US Cement Consumption - Metric Tons		<b>127,997,000</b>	<b>127,218,000</b>	<i>121,585,000</i>	<i>124,035,000</i>	<i>128,756,000</i>	<i>134,230,000</i>	<i>139,178,000</i>	
	US Cement Imports - Metric Tons		<b>33,652,000</b>	<b>35,895,000</b>	<i>28,153,000</i>	<i>28,715,000</i>	<i>25,348,000</i>	<i>26,111,000</i>	<i>27,265,000</i>	
	Import Share (%)		<b>27.50%</b>	<b>29.50%</b>	<i>24.20%</i>	<i>24.10%</i>	<i>20.50%</i>	<i>20.30%</i>	<i>20.40%</i>	
<b>2008 Summer Forecast *</b>	Florida Cement Consumption-Metric Tons	<b>9,697,929</b>	<b>11,232,572</b>	<b>11,180,428</b>	<b>7,886,434</b>	<i>5,981,491</i>	<i>5,467,372</i>	<i>5,699,068</i>	<i>6,368,642</i>	
	US Cement Consumption - Metric Tons				<b>114,706,000</b>	<i>100,952,000</i>	<i>94,796,000</i>	<i>97,332,000</i>	<i>105,238,000</i>	<i>113,247,000</i>
	US Cement Imports - Metric Tons				<b>22,729,000</b>	<i>11,045,000</i>	<i>6,761,000</i>	<i>6,681,000</i>	<i>6,675,000</i>	<i>6,675,000</i>
	Import Share (%)				<b>20.60%</b>	<i>11.30%</i>	<i>7.40%</i>	<i>7.10%</i>	<i>6.60%</i>	<i>6.10%</i>
<b>2009 Summer Forecast *</b>	Florida Cement Consumption-Metric Tons				<b>7,886,434</b>	<b>5,816,294</b>	<i>4,047,652</i>	<i>4,422,199</i>	<i>5,358,822</i>	<i>6,673,578</i>
	US Cement Consumption - Metric Tons					<b>96,545,000</b>	<i>75,345,000</i>	<i>83,581,000</i>	<i>94,557,000</i>	<i>104,779,000</i>
	US Cement Imports - Metric Tons					<b>11,519,000</b>	<i>6,212,000</i>	<i>6,000,000</i>	<i>6,000,000</i>	<i>7,000,000</i>
	Import Share (%)					<b>11.90%</b>	<i>8.50%</i>	<i>7.40%</i>	<i>6.60%</i>	<i>6.90%</i>

Source: Portland Cement Association's Forecasts

\* Actual Consumption figures in Bold - Forecasted Consumption figures in Italics

# Florida Cement Industry

## Florida Cement Consumption 2004 - 2012 Based on PCA Forecasts



# Ready-Mix Industry

## 2004 – 2010 Trend of Ready-Mix Usage

### Florida

(0,000s Cubic Yards)

2004	2005	2006	2007	2008	2009F	2010F
35,194	39,392	40,471	27,818	20,409	15,460	16,806

Source: Portland Cement Association



# Ready-Mix Industry

## Example 1

### Scale Factor For Ready Mix

To calculate the exponent  $n$  in the cost-to-capacity relationship

Mfg	As of	Cost (Rounded)	Capacity - Cubic Yards per Hour
Souther	2009	\$202,000	110
Souther	2009	\$162,000	80

**Solution:**

$$\left( \frac{\$202,000}{\$162,000} \right) = \left( \frac{110}{80} \right)^n$$

$$1.247 = 1.375^n$$

Natural Log of	1.247 =	0.220741
Natural Log of	1.375 =	0.318454
Scale Factor	$n =$	$.220741/.318454$
Scale Factor	$n =$	0.693
Scale Factor	$n$ rounded	0.70

Source: 2009 Souther Equipment cost plus installation for Ready-Mix batch plants

# Ready-Mix Industry

## Example 1

- Typical plant operation (normal times)
  - 5.5 Days per Week; 10- to 12-Hour Days; 50 Weeks/Year
- Capacity of 110 CY/Hr Plant
  - $110 \text{ CY} \times 10\text{-Hours/Day} \times 5.5 \text{ Days} \times 50 \text{ Weeks} = 302,500 \text{ CY/Year}$

# Ready-Mix Industry

## Example 1

- Production (Cubic Yards)

2004	2005	2006	2007	2008	2009
190,000	225,000	325,000	178,000	98,000	125,000

# Ready-Mix Industry

## Example 1

		<b>ReadyMix</b>
Inutility Penalty, percent		= [1 - (Capacity A/Capacity B) <sup>n</sup> ] x 100
<b>Actual Production for 2009</b>	<b>2009</b>	
	Annual Production (CY)	
ACTUAL UNITS SHIPPED- (B)	125,000	
RATED CAPACITY (A)	<b>302,500</b>	
B/A	0.4132	
SCALE FACTOR (n)	0.7000	
B/A RAISED TO n	0.5387	
1 - B/A RAISED n	0.4613	
TIMES	100	
INUTILITY, PERCENT	46.13%	
	Rounded	45.00%

(B) Units Shipped-Total production on annual basis  
 (A) Rated Capacity - Cubic Yards ("CY")

# Ready-Mix Industry

## Example 1

- Solution:

$$\text{\$202,000} \times \% \text{ Good} \times \text{Inutility (1-.45)} =$$

Just Value ?

# Concrete Block Industry

- Close to 50% of Florida's Concrete Block plants have been idled/closed in last 2 years
- Remaining "Open" Plants are running at less than 50% percent utilization



# Concrete Block Industry

## Example 2

### Scale Factor For Concrete Block

To calculate the exponent  $n$  in the cost-to-capacity relationship

Mfg	As of	Cost (Rounded)	Capacity - 8" Block Equivalents/Shift
Besser	2004	\$3,785,000	16,000
Besser	2004	\$2,725,000	10,000

**Solution:**

$$\left( \frac{\$3,785,000}{\$2,725,000} \right) = \left( \frac{16,000}{10,000} \right)^n$$

$$1.389 = 1.6^n$$

Natural Log of	1.389 =	0.328584
Natural Log of	1.6 =	0.470004
Scale Factor	$n =$	$.328450 / .470004$
Scale Factor	$n =$	0.699
Scale Factor	$n$ rounded	0.70

Source: 2004 Besser's cost plus installation for concrete block machines

# Concrete Block Industry

## Example 2

- Typical plant operation (normal times)
  - 5 to 6 Days per Week; two 8-hour shifts; 50 Weeks/Year
- Capacity of 10,000 8” Block Equivalent (“BEU”)/Shift Plant
  - $10,000 \text{ BEU/Shift} \times 2 \text{ shifts} \times 5 \text{ Days} \times 50 \text{ Weeks} = 5,000,000 \text{ BEU/Year}$

# Concrete Block Industry

## Example 2

- Production (BEU)

2004	2005	2006	2007	2008	2009
4,250,000	4,800,000	6,250,000	3,000,000	1,200,000	250,000

# Concrete Block Industry

## Example 2

<b>Concrete Block</b>	
Inutility Penalty, percent	$= [1 - (\text{Capacity A} / \text{Capacity B})^n] \times 100$
<b>Actual Production for 2009</b>	<b>2009</b> Annual Production (BEU)
ACTUAL UNITS SHIPPED- (B)	<b>250,000</b>
RATED CAPACITY (A)	5,000,000
B/A	0.0500
SCALE FACTOR (n)	0.7000
B/A RAISED TO n	0.1228
1 - B/A RAISED n	0.8772
TIMES	100
INUTILITY, PERCENT	87.72%
	Round 85.00%

(B) Units Shipped-Total production on annual basis  
 (A) Rated Capacity - 8" Block Equivalent Units ("BEU")

# Concrete Block Industry

## Example 2

- Solution:

$$\text{\$3,450,000} \times \% \text{ Good} \times (1 - .85) =$$

Just Value ?

# Inutility - Questions

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