



eMerge Interactive

Expansion of CattleLog system into New Zealand

EXAMPLE BUSINESS PLAN

Proposed by: Student

To: CEO

November 3, 2004

Business Concept

The Livestock market is a changing and dynamic industry. The face of agriculture is very different today than it was even 5 years ago. Today's consumers are demanding more and more information about the products they consume, and the pressure of these demands are being felt by livestock producers around the world. Due to current government policy, livestock traceability is needed. This can be obtained by use of Radio Frequency Identification tags (RFIDs). Countries importing good into the U.S. need to provide this traceability information as well. Our company currently offers data collecting and storage services for hundreds of U.S. cattle producers, we believe it will be a profitable venture to market our products and services world wide. We have selected New Zealand as our first potential market. They import large quantities of beef and lamb to the U.S. and will need to be compliant with domestic regulations.



Product Focus

eMerge's Animal Information Solutions Group (AIS) focuses on providing comprehensive, data-driven solutions to our customers' information challenges. It's designed to allow cattle producers, meat packers, and retailers to better manage their product supply chains. CattleLog technology offers individual animal data collection and reporting tools while PCC Feedyard Services provide operational and cattle performance data benchmarking for commercial feedyards. These products include a variety of data collection software tools which, when used in combination with multiple data reporting options, allow users to properly address mandatory ID, Country of Origin Labeling (COOL), export market requirements, health tracking, performance monitoring, or any number of custom information applications.

Market Potential

The U.S. government has recently passed two laws that will affect agriculture (including the import market) directly. Two such policies are Country of Origin Labeling (COOL) and 48 hour trace-back. COOL requires all fresh produce, beef, lamb, pork, sea food, and peanuts, to be labeled as to their country of origin. This includes foods from other countries that are being sold or processed in the U.S. Tracking of livestock is required if the final product is to be traceable to it's place of origin. RFIDs have been a solution to this problem. When these tags are used and accompanied by a database tracking system, movement and livestock can easily be recorded. These systems can also provide helpful information such as weight gains/losses, breeding records, and also make other calculations. Other countries will have to establish some sort of system that allows them to track their livestock as well if they are going to be selling their products in the U.S.

New Zealand has approximately 10 million cattle and 40 millions sheep. ***Over 60% of their beef exports go to the U.S.***

Distinct Competencies

The CattleLog system has an advantage in New Zealand because it is compliant with USDA and US Animal Identification Plan (USAIP) regulations that are being established. New Zealand producers using a system designed in the U.S. will have ready access to the U.S. markets.

Management Team
<i>David C. Warren-Chief Executive Officer</i>
David Warren was appointed its Chief Executive Officer in September 2001. He has an extensive background in livestock management and animal health. Since 1990 he has served as President of Allflex USA, Inc., where his responsibilities included the formation and expansion of Allflex in the U.S., Canada and Mexico, and the development, adoption and growth of electronic ID systems for the cattle, swine and dairy industries in the United States.
<i>Robert E. Drury - Chief Financial Officer</i>
Robert Drury was appointed Chief Financial Officer in June 2004, having served as a member of eMerge's board of directors since June 2001. Before joining eMerge he was Chief Financial Officer for GCA Service Solutions, North America's largest food service provider, as well as Senior Vice President and Chief Financial Officer for Sodexo
<i>Mark S. Fox-Executive Vice President, Information Technologies</i>
Mark Fox brings nearly 20 years' experience in software design, development and management to his position, in which he is responsible for information technology, applications development and database architecture.
<i>Rich Stroman-Executive Vice President, VerifEYE Technology & Operations</i>
Rich Stroman serves as executive vice president, VerifEYE Technology & Operations. He joined eMerge in January 2000, with over 20 years of experience in the creation, development and commercialization of new products lines.
<i>Lacey Price – International Relations</i>
Lacey Price joined eMerge in August of 2004 directly after graduating from the University of Idaho with a Masters of Agricultural Economics and a Bachelors of Agricultural Business. She has a strong livestock background and extensive international experience. She oversees the international relations between eMerge and its international customers as well as explores new possible markets over seas.

Location and Facilities

- **Sebastian, Florida**

Located off the Atlantic coast in Sebastian, Florida, eMerge Interactive's Corporate Headquarters coordinates the company's research and development, computer programming, human resources, accounting, marketing and communications activities. Here, employees work on behalf of the cattle industry to develop new technologies and discover innovative, Internet-enabled business solutions.

- **Weatherford, Oklahoma**

Weatherford, Oklahoma is command central for eMerge Interactive's Professional Cattle Consultants (PCC) Performance Management services. For nearly three decades, PCC has been providing cattle producers nationwide with comprehensive, detailed and accurate management information to help their businesses maintain a competitive edge. Clients receive regular updates designed to increase the efficiency and profitability of their businesses.

The Product

CattleLog is the name for a suite of products and services designed to allow producers to capture and analyze individual animal data. These products include data collection software that operates on a user's PC and a separate online data reporting service that allows you to view and analyze data you and others have collected on the cattle. CattleLog Pro is eMerge's most advanced data collection program. Designed by customers, the program easily fits into any number of cattle processing and data collection scenarios. It may also be rented for 10- and 30-day periods. From high-volume cattle processing in feedyards to detailed ranch data collection, CattleLog Pro incorporates a variety of user-friendly features into a single, simple package.

...**Cattle Tags**: operates with EID and VID tags

...**Real-Time Calculations**: real-time, individual Average Daily Gain (ADG)

...**Sorting**: Weight- or ADG-based sorting

...**History**: Displays historical data

...**Speed**: Highest collection speeds in the industry

...**Simplicity**: Over 100 local and online reports

CattleLog has been built around a series of data sharing standards that allow all CattleLog users to have greater access to useful information while also protecting their privacy, confidentiality, and market relationships. Traditionally, cattlemen have only had access to the data they collect and do not know anything about the cattle before or after they have them in their possession. With CattleLog, more information is available via a secure, anonymous data sharing platform.

With CattleLog, customers are able to view and utilize data from before and after they own the animal because the system provides additional data collected on the same animal by other parties. With this data, they can make better management decisions and meet their goals faster and with greater precision. Our customers have relied on this function for years to provide better information while protecting their privacy and protecting sensitive information. This unique feature is available to users at no additional cost.

In the example below, all three individuals sent in data on an animal:

CattleLog separates the data into public and private fields. Private data is very sensitive data and is only available to the person who sent that data in. Nobody else will ever have access to that data. Public data is available to those who have sent data in on that animal. Examples of public data fields would be weights, vaccinations, implants, ADG, etc. that tend to be less sensitive. Only those sending data in on a given animal will have access to data for that animal. The general public will never have access to any information. (eMergeinteractive.com)

eMerge's CattleLog system was the first and only data service provider whose information management product is approved as a USDA Process Verified Program. CattleLog first received approval in December 2003. The most recent USDA audit was conducted in June 2004, whereby CattleLog successfully met the program requirements and was subsequently recommended for a twelve-month approval, the maximum approval period. Data is such an integral component of the modern beef industry, it should not be trusted to anyone simply claiming to have a data system. Livestock producers are looking for solutions that they can trust their business to and, by having PVP approval, they can be assured that their information is safe, secure, and accurate. (eMergeinteractive.com)

The CattleLog system is different from the current offerings in many ways; a few of these are listed below.

1. **Pricing Model** – Our pricing is very straightforward. Other systems rely on additional fees such as customer service charges, annual fees, renewal fees, training fees, hosting charges – to try and create revenue. Our customers and prospects are very vocal that they do not appreciate this model and resist it. We are honest and make the math surrounding a purchase decision very simple.
2. **Price Points** – Our prices are extremely competitive, among the lowest in the business.
3. **Customer and Field Service** – We employ a very talented field staff that provides the best personal service in the industry. They are experts in animal ID and are sought out by customers for their expertise. Most importantly, we do not charge customers to talk with them like other companies do.
4. **Customer Satisfaction** – We have surveyed our customers relentlessly and consistently grade out with very high satisfaction scores. Additionally our turnover rates are very low, less than 5% annually.
5. **Features** – Our products, especially CattleLog Pro and CattleLog Reports are packed with the industry-leading features that help make ID easy and useful.
6. **USDA PVP** – **We are the only data services company to receive approval as a USDA Process Verified Program, a prestigious quality designation from the USDA that relates directly to the quality of our services and overall customer satisfaction**

There are several hundred producers using CattleLog. Of those using CattleLog, there are probably 50-60 software systems in the field. The balance of users either (a) use CattleLog Data Collection Services, our custom data entry service, or (b) are tied into a franchise, veterinarian, or livestock market that collects data on their behalf. There are a half dozen larger organizations or alliances such as ADM Alliance Nutrition, Ranchers Renaissance, Montana Beef Network, Beef Marketing Group, Oklahoma Cattlemen's Association, and Texas and Southwestern Cattle Raisers Association (TSCRA) that use CattleLog as well.

Competition

Other providers of RFID technology and data processing services are displayed in the table below.

Company	Tags	Handheld	Stationary	Scale Head	Software	Data Storage	System
AgInfoLink USA	NO	YES	NO	NO	YES	YES	cost
Allflex USA	YES	YES	YES	NO	NO	NO	cost
APEIS Corp	NO	NO	NO	NO	YES	YES	cost
Beef Concepts, Inc	NO	NO	NO	NO	YES	YES	cost
Cow/Tek, Inc.	YES	YES	YES	NO	YES	YES	cost
Digital Angel Corporation	YES	YES	YES	NO	YES	NO	cost
<i>eMerge Interactive</i>	<i>NO</i>	<i>NO</i>	<i>NO</i>	<i>NO</i>	<i>YES</i>	<i>YES</i>	<i>cost</i>
EZ-ID, LLC Animal Identification	YES	YES	YES	NO	NO	NO	cost
Global Animal Management, Inc.	NO	NO	NO	NO	YES	YES	cost
I.D. ology	YES	YES	YES	NO	YES	NO	cost
IMI Inc.	NO	NO	NO	NO	YES	YES	cost
Micro Beef Technologies, Ltd.	NO	NO	NO	NO	YES	YES	cost

There are many suppliers of tags and readers, but very few incorporate the data storage and analysis tools as eMerge does. Also, using an American company will assure that their traceability capabilities are compliant with the U.S. This compliancy will give New Zealand producers a great advantage over other countries without traceability capabilities.

Currently, New Zealand producers use private quality assurance programs for traceability. None of these are approved by the USDA or the USAIP who regulate the traceability requirements within the U.S.

Market Analysis

Market Description

Chart 2 - Livestock Production in New Zealand (000)				
Total	Sheep	Beef Cattle	Dairy Cattle	Deer
1996	47,395	5,183	4,090	1,192
1999	45,680	4,644,	4,316	1,677
2002	39,546	4,495	5,162	1,644

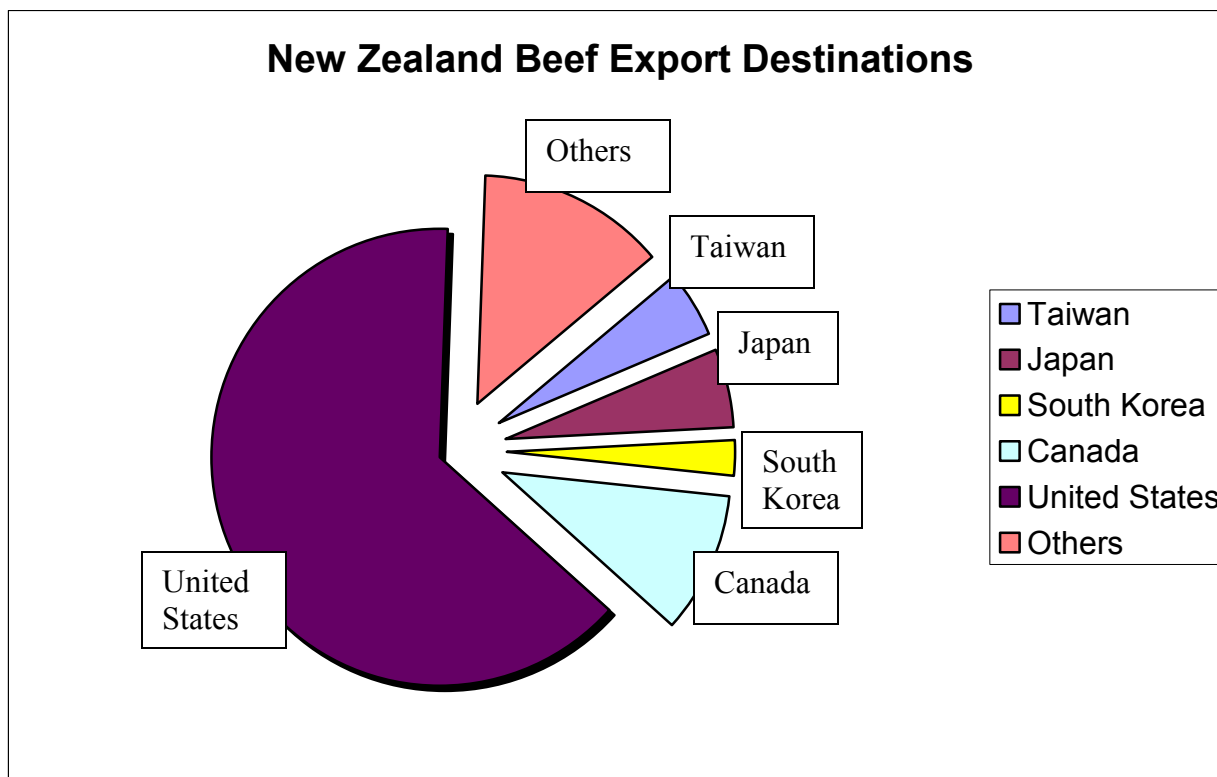
Chart 3 - US beef Imports (000 lbs)							
Year	Australia	New Zealand	Canada	Brazil	Argentina	Other	US Total
1999	865,596	560,957	947,238	202,241	156,786	140,870	2,873,688
2000	1,025,344	639,130	918,312	173,584	130,708	144,764	3,031,842
2001	1,151,862	637,531	985,707	163,557	99,099	123,628	3,161,395
2002	1,136,804	604,045	1,090,909	200,785	85,351	99,764	3,217,658
2003	1,089,493	702,290	726,670	211,241	88,223	68,721	2,886,638

Chart 4 - Percentage of US beef imports to countries							
% of exports	Australia	New Zealand	Canada	Brazil	Argentina	Other	
1999	30	20	33	7	5	5	
2000	34	21	30	6	4	5	
2001	36	20	31	5	3	4	
2002	35	19	34	6	3	3	
2003	38	24	25	7	3	2	

Target Segments

Today New Zealand Farmers operate in an almost completely unsubsidized economy with subsidies accounting for less than 1% of producer income. Exports play a very strong role in the New Zealand economy. Approximately 80% of New Zealand's beef is exported (www.beef.org.nz/statistics).

Beef is New Zealand's least diversified export with a majority of the exports going to North America. In 1999, 63% of exports went to the US and 13% went to Canada. This is because most of the beef imported by the North American markets is processing grade beef, not "table beef" or the prime cuts demanded by other countries. Farmers will have to focus on meat quality and appearance traits such as muscle and fat color, degree of marbling, and yield of red meat to succeed in the table market sector. Regardless of these challenges, much energy has been put into an effort to gain market share in Mexico, South Korea, Taiwan, Japan, Singapore, Indonesia and Malaysia exported (www.beef.org.nz/statistics).



The climate of New Zealand favors pasture growth, which provides up to 95% of the diet of dairy cows and virtually the entire diet of sheep and beef cattle. With 35 million acres of grassland in New Zealand, a large number of livestock can be supported. The number of sheep in New Zealand has been decreasing since 1984 and the numbers of beef cattle have remained relatively constant given yearly fluctuations.

The dairy industry contributes largely to the total beef production of New Zealand. 52% of the total beef production, 59% of processing grade beef, and 45% of total income from beef. This indicates how important the role of the dairy sector is to the New Zealand agricultural economy.

New Zealand agriculture is based on pastoral systems; livestock are grazed on pasture all year in most areas. Extensive grassland systems for animal production favor sustainable agriculture since they are less wasteful of natural resources such as fossil fuels which are used to provide grains and processed animal feeds. They are also more efficient converters of solar energy to animal protein. This pastoral system also eliminates the need for confining animals and allows them to move about more naturally. Geographic isolation and good border control have allowed New Zealand to maintain excellent herd health. New Zealand livestock is free from Bovine Spongiform Encephalopathy (BSE), foot and mouth disease and a host of other diseases that affect production in other countries (www.nzmeat.co.nz).

New Zealand meat processing companies have established a quality assurance program that incorporates animal welfare standards having to do with on-farm practices, transportation, and processing practices. These programs are independently audited and offer New Zealand Beef customers assurance on traceability of the product from “farm to plate”, animal welfare, and food safety (www.nzmeat.co.nz).

Industry Analysis

Entry Barriers

New Zealand has very strict barriers to entry when it comes to livestock, but not for livestock technology. There is no way that foreign diseases could be introduced to New Zealand herds by the use of the CattleLog system. There are no technological or biological or social barriers to keep eMerge out of New Zealand.

Future New Zealand Markets

New Zealand is one of the world's largest exporters of lamb and mutton, and supplies about 90 countries with meat (the major markets are the U.K., Iran, Russia, Japan, U.S., and Canada). New Zealand is also one of the largest and most efficient exporters of dairy products. The combination of a good growing climate, stable rainfall, and lush grass year-round has produced an average herd of about 120 cows; most of the 3.3 million dairy cows in the country are Jerseys or Friesians (that's one cow per person!). Butter (mostly to the U.K.) and cheddar cheese (mostly to Japan and the U.K.) are the major dairy exports, but casein (mainly to the U.S.) and skim-milk powder (to a wide variety of countries, mainly in Asia) are also in demand. Many of these export markets already have traceability requirements of some sort which the CattleLog system could satisfy. CattleLog products could easily be used on sheep and dairy cattle, that just hasn't been the demand in the U.S.

Marketing and Sales

CattleLog pro has a very specific market, but a very large one as there are approximately 27,000 beef and dairy farms in New Zealand. Only CattleLog will be offered in this venture, and possibly in the future the VerifEye system will be introduced.

Pricing

The program is divided into two pieces, collection and reporting. Prices are as shown below:

Collection:

CattleLog Pro software	\$695
If collecting weights automatically, add \$300 for an adapter	
CattleLog Data Services	\$.25/head entered

Reporting:

CattleLog Data Fees	\$.50/head compliance only
	\$1.25/head for full data

Data fees are per owner for the life of the animal.

Discounted rates, payment plans, and annual fee plans are all available.

Distribution

At first, there will only be one technician in New Zealand who will be based in Auckland. This is on the north island where most of the cattle production takes place. If expansion is needed in

the future, another office could be established in Christchurch on the south island. Due to the electronic nature of the system, producers will be able to setup the entire system without outside assistance. The tagging of livestock is the responsibility of the producer as well. The two tags used by the CattleLog system are from international companies, so New Zealand producers can easily purchase these tags online, through catalogs or through local stores.

Promotion

CattleLog Pro will be advertised and Cattle Producer meetings and sponsorship from domestic cattle producer organizations such as Meat New Zealand and New Zealand Beef will be pursued. Since many processors already have quality assurance programs in place, plant managers will be approached about adopting the CattleLog system so they will be in compliance with USDA traceability regulations.

Partnerships

Partnerships may be established with the current quality assurance programs in New Zealand. Producers may be comfortable with their current provider of traceability technology, however, this provider may not be compliant with U.S. regulations. The provider could switch to use eMerges CattleLog system and still maintain their customer base.

Required Funding and its Use

Expanding into New Zealand has very limited costs. Contacts have already been made with Meat New Zealand as well as the New Zealand Beef and Wool. If a cooperation agreement can be reached with these organization, only a few main systems will have to be established because these producer groups would work with their members.

One year Enterprise budget - New Zealand Venture		
1 employee salary		50,000
Relocation Expenses		5,000
Office rental	\$600/month	7,200
Utilities etc		1,800
Office Equipment		2,000
Vehicle		20,000
Vehiclular Expenses		2,400
Product Promotion		50,000
Operations Expenses		15,000
Total		153,400

Break Even Analysis		
Year 1 - 2% market		
13,000 Cattle farms		260 farms
CattleLog Pro System	\$695 x .25 expected customers	\$ 45,175
Average 250 head/farm		65000 head
Collection of Data (\$.25/head)		\$ 16,250.00
Reporting Data		
	Compliance only (\$.50/head)	\$ 32,500
	Full data (\$1.25/head)	\$ 81,250
Compliance only scenario revenue:		\$ 93,925
Full data scenario revenue:		\$ 142,675
Year 2 - 4% market		
13,000 Cattle farms		520
CattleLog Pro System	\$695 x .25 expected customers	\$ 90,350
Average 250 head/farm		130000
Collection of Data (\$.25/head)		\$ 32,500.00
Reporting Data		
	Compliance only (\$.50/head)	\$ 32,500
	Full data (\$1.25/head)	\$ 81,250
Compliance only scenario revenue:		\$ 155,350
Full data scenario revenue:		\$ 204,100
Year 3 - 6% market		
13,000 Cattle farms		780
CattleLog Pro System	\$695 x .25 expected customers	\$ 135,525
Average 250 head/farm		195000
Collection of Data (\$.25/head)		\$ 48,750.00
Reporting Data		
	Compliance only (\$.50/head)	\$ 32,500
	Full data (\$1.25/head)	\$ 81,250
Compliance only scenario revenue:		\$ 216,775
Full data scenario revenue:		\$ 265,525

This is a worse case scenario. We are only looking at the 13,000 beef cattle producers. As previously mentioned 52% of all New Zealand beef production comes from dairy cattle. There are 14,000 **dairy** producers in New Zealand who are also a part of our target market. We are also making the assumption that only 25% of CattleLog users will use the CattleLog Pro system Data Base. If more purchased this, revenue would increase greatly.

Break even performance is reached at 425 “average producers” annually; this is approximately 3% of the beef cattle market. The first year we are only expecting 260 producers (2%), but projecting a rapid growth rate, break-even will be reached in the second year, and profits will be made in year three.

Capitalization and Structure

Legal Structure of Company

eMerge is a publically helpd company. February 2000 eMerge announced initial public offering of 8,000,000 shares of Class A stock which are traded on NASDAQ under the symbol EMRG. The activity of eMerge stock is summarized on the table below.

Commom Stock Values		
-----	High	Low
January 1, 2002 to March 31, 2002	1.65	.58
April 1, 2002 to June 30, 2002	.71	.22
July 1, 2002 to September 30,	.51	.17
October 1, 2002 to December 31,	.50	.28
January 1, 2003 to March 31, 2003	.48	.32
April 1, 2003 to June 30, 2003 \$	1.2	.35
July 1, 2003 to September 30,	1.27	.66
October 1, 2003 to December 31,	1.64	.83

Expansion

Additional Funding

Emerge is currently very heavily leveraged. A small amount of capital investment will be needed to get the New Zealand venture off the ground, but there is very small initial investment as we are simply broadening our market base and selling a product that we have already developed.

Financial Ratios	
Quick Ratio	0.84
Current Ratio	1.4
LT Debt to Equity	0
Total Debt to Equity	15.39
Return On Equity (ROE) Per Share	-80
Return On Assets (ROA)	-69.09
Return On Invested Capital (ROIC)	-76.9

Exit Strategy

If break even is not reached by year three, we will close the office in Auckland, however, we will keep the customers we gained during our time in New Zealand. Over that time, relationships would have been built with processors, producers, and managers of quality assurance programs. Once the CattleLog system has been put into place, maintenance and use is very simple. The purpose of the eMerge employee and office in New Zealand is to expand market share and gain customers. If this is not happening at a rapid enough place to pay for the employee and associated expenses, we can easily manage existing accounts from within the U.S. Cutting the loses and getting out before more money is sunk is the exit strategy we believe will most benefit the company.

Risks and Contingencies

There is a chance of increased competition is the CattleLog system has great success in New Zealand. Other U.S. companies will try to expand to this market and New Zealand companies may seek to be USDA process verified like eMerge. If the CattleLog system can get a strong enough base before much competition enters the market, the venture will still be very worthwhile. New Zealand has been an exporting agricultural product to the US for decades; therefore, this is a stable market that will not be changing much in the near future.

Summary and Conclusions

Expansion into the New Zealand livestock traceability market appears to hold great possibilities for eMerge. We have some very large and specific advantages over our competitors in New Zealand, providing a favorable market condition. Large amounts of research and development costs have gone into the CattleLog system. These costs are being carried by the company and creating a burden. Expansion into New Zealand has minimal costs associated with it and great profit potential. This additional income is greatly needed by eMerge. Due to the slow adoption of its products, eMerge has been forced to carry a heavy debt load, the reduction of this debt would allow eMerge the freedom stay on the cutting edge of livestock technology by continuing research and development of new products. In the case that the venture was unsuccessful, losses could be cut with little effect on the company.

Appendix II

Income Statement	3-Dec	2-Dec	1-Dec	Dec-00	Dec-99
Net Sales or Revenues	0.93	13.16	1,195.30	803.02	43.78
Cost of Goods Sold	0.3	12.56	1,181.43	793.82	41.75
Depreciation, Depletion & Amortization	2.46	3.85	15.71	10.1	1.77
Gross Income	-1.83	-3.26	-1.83	-0.89	0.27
Selling, General & Admin Expenses	7.62	10.7	32.02	33.35	15.58
Other Operating Expenses	0	0.02	0	0	0
Other Expenses - Total	10.38	27.14	1,229.16	837.26	59.1
Operating Income	-9.45	-13.98	-33.85	-34.24	-15.32
Extraordinary Credit - Pretax	0	0	0	0	0
Extraordinary Charge - Pretax	0.42	6.38	57.41	3.79	0
Non-Operating Interest Income	0.05	1.75	0.62	5.01	0.48
Reserves - Inc(Dec)	0	0	0	0	0
Pretax Equity in Earnings	0	0	0	0	0
Other Income/Expenses - Net	0.03	-0.04	-0.41	0	0
Earnings Before Interest and Taxes (EBIT)	-9.8	-18.64	-91.06	-33.02	-14.84
Interest Expense On Debt	0.02	0.44	0.7	0.12	0.76
Interest Capitalized	0	0	0	0	0
Pretax Income	-9.82	-19.09	-91.75	-33.14	-15.61
Income Taxes	0	0	0	0	0
Current Domestic Income Taxes	0	0	0	0	0
Current Foreign Income Taxes	0	0	0	0	0
Deferred Domestic Income Taxes	0	0	0	0	0
Deferred Foreign Income Taxes	0	0	0	0	0
Income Tax Credits	0	0	0	0	0
Minority Interest	0	0	0.14	0	0
Equity in Earnings	0	0	-0.29	-0.08	0
After Tax Income/Expense	0	0	0	0	0
Discontinued Operations	0.09	0	0	0.08	0.01
Net Income Before Extra Items/Preferred Div	-9.73	-19.08	-92.19	-33.14	-15.6
Extra Items & Gain(Loss) Sale of Assets	0	-11.49	-0.23	0	0
Net Income Before Preferred Dividends	-9.73	-30.57	-92.42	-33.14	-15.6
Preferred Dividend Requirements	0	0	0	0	5.54
Net Income Available to Common	-9.73	-19.08	-92.19	-33.14	-21.13

in millions of USD