



CreditRiskMonitor's assessment of Quantum Corporation's ("Quantum") "high risk" status has been determined by a combination of factors:

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## MONTHLY AVERAGE FRISK® SCORE

CreditRiskMonitor's proprietary FRISK® score has Quantum Corporation (NYSE: QTM) at a **1**, the highest probability of bankruptcy in the next 12 months.

Business Name	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2018	2018	2018
	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
Quantum Corporation	3	3	4	4	4	2	2	2	2	2	2	1	1

The FRISK® score is 96% accurate\* in predicting the risk of corporate failure/bankruptcy over a 12-month horizon. All FRISK® scores are recalculated every night for each subsequent 12-month period.

FRISK® Probability of bankruptcy within 12 months			
	FRISK®	From	To
Best	10	0.00%	0.12%
	9	0.12%	0.27%
	8	0.27%	0.34%
	7	0.34%	0.55%
	6	0.55%	0.87%
	5	0.87%	1.40%
	4	1.40%	2.10%
	3	2.10%	4.00%
	2	4.00%	9.99%
Worst	1	9.99%	50.00%

While the percentage risk of bankruptcy varies at each FRISK® score, 96% of public companies that eventually go bankrupt enter the FRISK® "red zone" prior to filing. **A FRISK® score of 5 or less is an important warning sign.**

\* FRISK® score accuracy of 96% is based on backtesting of U.S. public companies; results may vary by country.

## THE FRISK® SCORE COMPONENTS

At the core of the CreditRiskMonitor process is our 96% accurate FRISK® score, which indicates a company's level of financial stress on a scale of 1 to 10, based on the probability of bankruptcy over a 12-month horizon. When available, the FRISK® score incorporates a number of powerful risk indicators including:

A "Merton" type model using stock market capitalization and volatility

Financial ratios, including those used in the Altman Z"-Score Model

Bond agency ratings from Moody's and Fitch

### Crowdsourced CreditRiskMonitor Usage Data

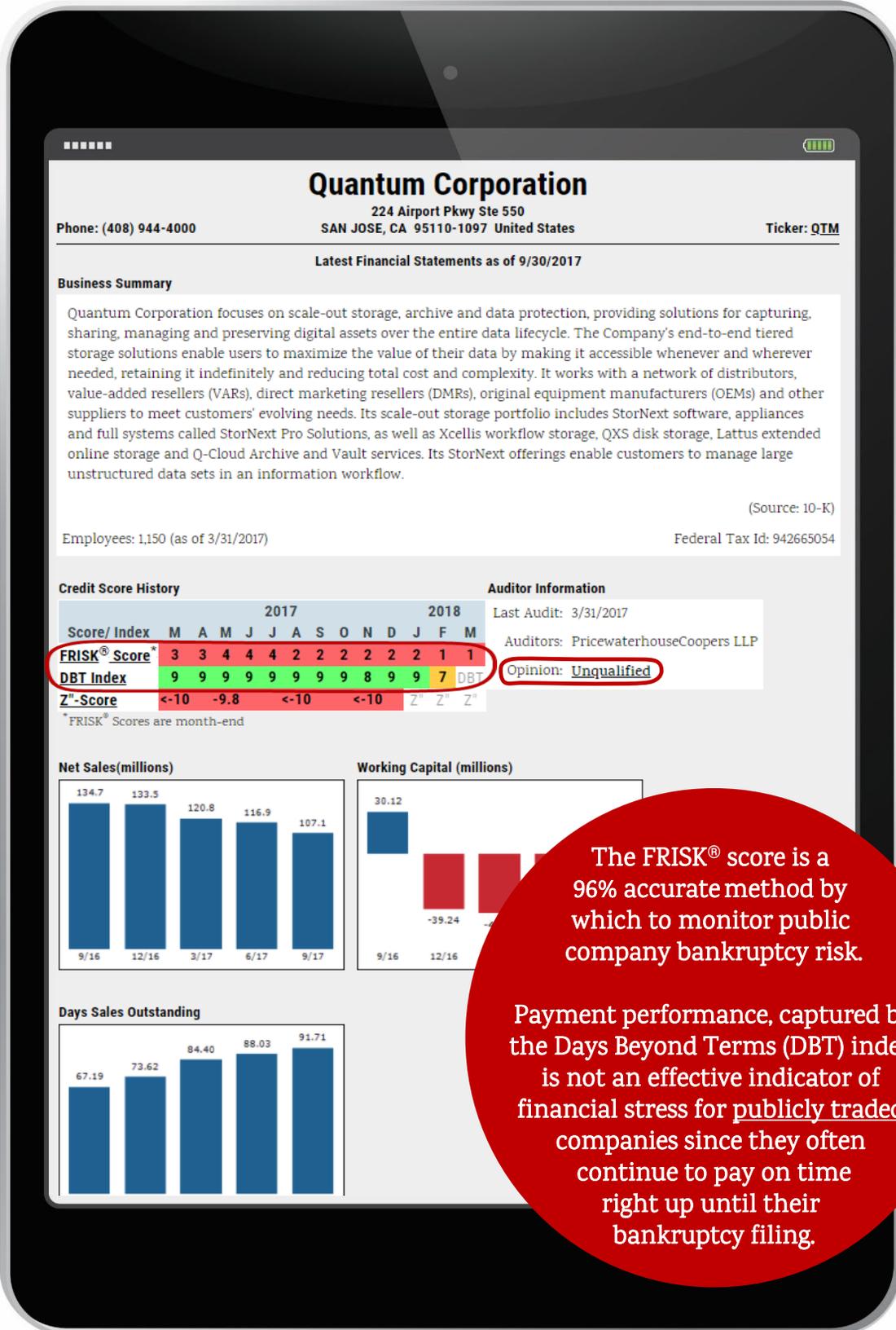
**Crowdsourcing** has enhanced the accuracy and timeliness of the FRISK® score. We collect and analyze data patterns from thousands of CreditRiskMonitor subscribers, including professionals from more than 35% of the Fortune 1000 and other large corporations worldwide.

**The crowdsourcing advantage is even more powerful in our FRISK® score since many of the professionals who use our service are credit managers:**

- Credit managers control one of the largest sources of working capital going into a company
- They are not held to the same "Fair Disclosure" restrictions that prevent non-disclosed information sharing on public companies
- Credit managers use a variety of non-public information sources such as their own company's management and sales representatives to be alerted to concerns in a public company's performance
- It is commonly known credit managers confidentially share information with other credit managers, thus collectively, their behavior helps to provide advanced insight to financial problems in public companies

[Read more in Credit Research Foundation's quarterly journal article, "Assessing Public Company Financial Risk by Crowdsourcing the Research of Credit Professionals"](#)

# COMPANY REPORT DETAIL



## Quantum Corporation

224 Airport Pkwy Ste 550  
SAN JOSE, CA 95110-1097 United States

Phone: (408) 944-4000

Ticker: QTM

Latest Financial Statements as of 9/30/2017

### Business Summary

Quantum Corporation focuses on scale-out storage, archive and data protection, providing solutions for capturing, sharing, managing and preserving digital assets over the entire data lifecycle. The Company's end-to-end tiered storage solutions enable users to maximize the value of their data by making it accessible whenever and wherever needed, retaining it indefinitely and reducing total cost and complexity. It works with a network of distributors, value-added resellers (VARs), direct marketing resellers (DMRs), original equipment manufacturers (OEMs) and other suppliers to meet customers' evolving needs. Its scale-out storage portfolio includes StorNext software, appliances and full systems called StorNext Pro Solutions, as well as Xcellis workflow storage, QXS disk storage, Lattus extended online storage and Q-Cloud Archive and Vault services. Its StorNext offerings enable customers to manage large unstructured data sets in an information workflow.

(Source: 10-K)

Employees: 1,150 (as of 3/31/2017)

Federal Tax Id: 942665054

### Credit Score History

Score/ Index	2017												2018			
	M	A	M	J	J	A	S	O	N	D	J	F	M	Z'	Z'	Z'
FRISK® Score*	3	3	4	4	4	2	2	2	2	2	2	1	1			
DBT Index	9	9	9	9	9	9	9	9	8	9	9	7	DBT			
Z"-Score	<-10	-9.8				<-10			<-10					Z"	Z"	Z"

\* FRISK® Scores are month-end

### Auditor Information

Last Audit: 3/31/2017

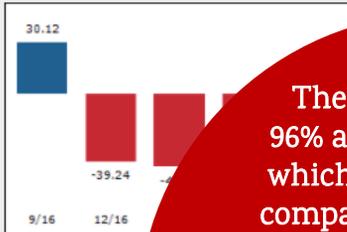
Auditors: PricewaterhouseCoopers LLP

Opinion: Unqualified

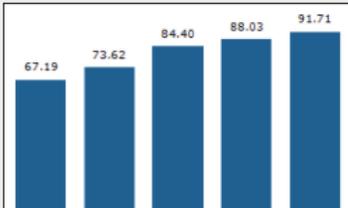
### Net Sales(millions)



### Working Capital (millions)



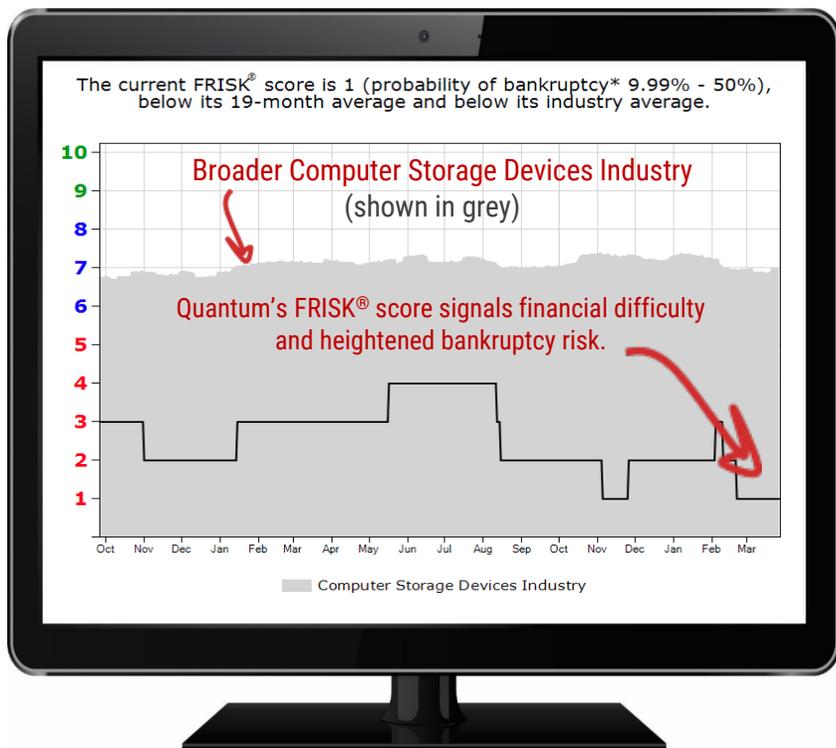
### Days Sales Outstanding



The FRISK® score is a 96% accurate method by which to monitor public company bankruptcy risk.

Payment performance, captured by the Days Beyond Terms (DBT) index, is not an effective indicator of financial stress for publicly traded companies since they often continue to pay on time right up until their bankruptcy filing.

## FRISK® DEEP DIVE



The FRISK® score relative to the broader Computer Storage Devices industry raises an additional red flag signaling heightened risk relative to peers, as well...

**MAKING IMMEDIATE ATTENTION REQUIRED.**

## ADJUSTED MARKET CAP VOLATILITY



One of the inputs of the FRISK® score is a company's market cap volatility, adjusted for dividends, over the course of a year. Incorporating this information allows us to capture the "wisdom of markets" on a daily basis. This ensures our subscribers are getting the most up to date view of the risks they face since stocks tend to be more liquid and faster moving than bond prices and ratings.

# FRISK® STRESS INDEX

Business Name	Country	FRISK Score
Moser Baer India Limited	India	1
Quantum Corp	United States	1
Tintri Inc	United States	1
Dynacard Co Ltd	Taiwan	2
Euro Multivision Ltd	India	2
Moser Baer India Limited(Parent)	India	3
One Stop Systems Inc	United States	4
Apex Ace Holding Ltd	Hong Kong	4
Technology Inc	Taiwan	4
Technology Inc	Taiwan	4

## FRISK® Stress Index - SIC classification: Computer storage devices located in All Countries

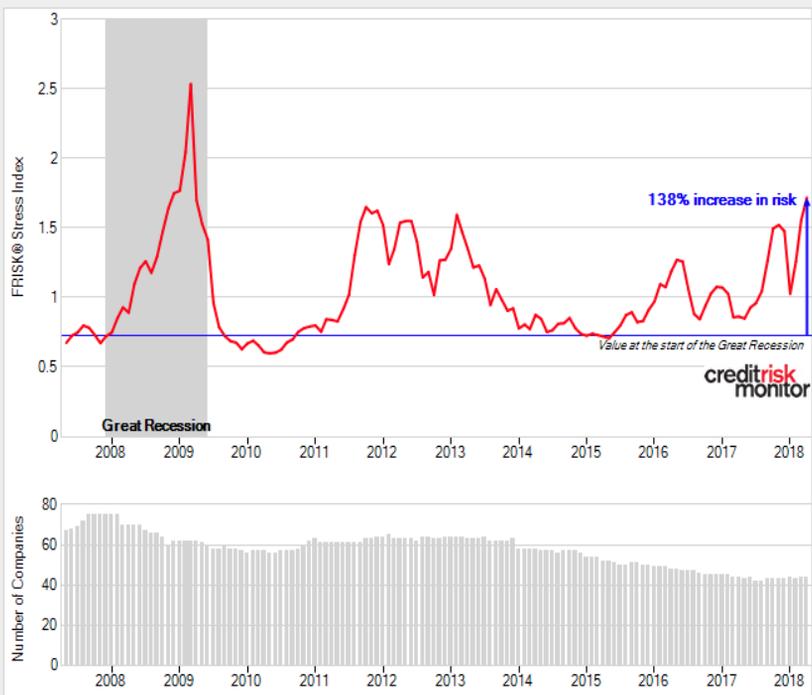
Primary industry codes only
  Primary and secondary industry codes

Businesses From: All Businesses CLEAR  
 In Industry: SIC 3572: Computer storage devices  
 Country: All Countries

**UPDATE RESULTS**

Scale: Auto

Total Companies in all months 102



The FRISK® Stress Index shows the collective probability of failure in a group of companies (such as an industry, country or portfolio) over the next 12 months. It is designed to show trends in risk level across groups of companies and is shown on a zero to 50 scale, with 50 being the most risky.

**The average probability of failure for SIC code 3572 (Computer Storage Devices) has increased 138% since 2007.** Quantum is among the weakest names in the industry as evidenced by its FRISK® score of 1.

# PEER ANALYSIS ON ALTERNATE SUPPLIERS AND CUSTOMERS

Quantum demonstrates bottom quartile ranking in key financial ratios (shown in red) vs. its Computer Storage Devices industry peers.

The Peer Analysis expands to provide a ranking of a company's competitors, which can help provide options for alternate suppliers or new customers.

Peer Analysis						
Year:	2017.3					
Group:	Sector: Technology, Industry: Computer Storage Devices					
<b>REFRESH</b>						
[Technology] [Industry: Computer Storage Devices] [Calendar Year/Quarter]						
Businesses in Peer Group: 179	Ranking Within Peer Group	Number Of Peers Ranked	Company Value	Peer Group Range		
				Low	Median	High
<b>Credit Ratings</b>						
ZScore	34	39	-11.18	-459.72	4.42	28.97
<b>Performance ratios:</b>						
Net Sales (Thousands of U.S. Dollars)	4	9	107,051	0	31,772	5,181,000
Gross Margin % Of Sales	8	37	40.89	-89.76	25.82	
Gross Margin % Of Sales -- TTM	6	39	42.16	-227.27	25.47	
SG&A % Of Sales	31	36	35.81	1.07	15.35	
SG&A % Of Sales -- TTM	34	38	32.51	1.35	17.12	
Operating Margin % Of Sales	26	37	-4.51	-1,066.67		
Operating Margin % Of Sales TTM	28	39	0.22	-281.60		
EBITDA Margin Of Sales	20	27	-3.26	-1,043.88		
EBITDA Margin Of Sales -- TTM	25	31	-0.60	-276.00		
Net Profit Margin % Of Sales	29	37	-7.35	-1,092.75		
Net Profit Margin % Of Sales - TTM	30	39	-1.77	-291.53		
Pre-tax Income % Of Sales	29	37	-6.88	-1,092.75		
Effective Tax Rate	6	39	-6.78	-15.36	5.09	
Depreciation % Of Prop/Plant/Equipment	28	35	47.43	3.39	17.28	126.03
Capital Expense % Of Prop/Plant/Equipment	29	33	38.98	0.33	12.74	2,179.79
Interest Coverage	19	25	-1.33	-300.25	6.50	536.14
Interest Coverage -- TTM	25	29	-0.29	-96.96	5.74	107.73
<b>Liquidity ratios:</b>						
Cash Ratio	36	40	0.04	0.00	1.11	8.13
Quick Ratio	35	39	0.52	0.03	1.70	8.76
Current Ratio	36	40	0.78	0.03	2.19	
<b>Efficiency ratios:</b>						
Accounts Receivable Turnover	30	39	3.98	0.00	5.00	
Days Sales Outstanding	30	37	91.71	10.99	6.00	
% of Inventory Financed by Vendors	17	34	98.89	14.06	9.00	
% of Inventory Financed by Vendors -- TTM	17	34	96.74	12.05	9.00	
Inventory Turnover	26	38	5.24	0.00		
Inventory Turnover TTM	23	39	5.49	0.67		
Days Sales in Inventory	26	37	69.68	0.94	66.00	
Inventory to Working Capital	34	38	-1.01	1.01	0.22	
Accounts Payable Turnover	25	35	5.41	0.00	6.58	
Accounts Payable Turnover -- TTM	23	35	5.88	0.63	7.47	
<b>Leverage &amp; debt coverage:</b>						
Total Debt to Equity Ratio	N/A	27	N/A	0.00	0.29	4.03
Debt to Tangible Equity Ratio	N/A	25	N/A	0.00	0.24	3.28
Total Debt to Assets Ratio	30	33	0.60	0.00	0.22	2.72
Short-Term Debt % of Total Debt	8	31	44.67	1.96	82.51	100.00
Short-Term Debt % of Working Capital	28	32	-117.99	-318.43	19.12	670.80
Liabilities to Net Worth Ratio	N/A	32	N/A	0.05	0.44	8.20
Total Liabilities to Equity Ratio	N/A	34	N/A	0.04	0.46	6.21
TTM EBITDA Over Total Debt	22	26	-0.02	-4.69	0.31	3.17

- 1 Trek 2000 International Ltd
- 2 Audix Corporation
- 3 Hives International Co Ltd
- 4 ELECOM CO., LTD.
- 5 NetApp, Inc.
- 6 Argosy Research Inc.
- 7 ImmoDisk Corp

- 1 Chaintech Technology Corp
- 2 Trek 2000 International Ltd
- 3 Maxell Holdings Ltd
- 4 ELECOM CO., LTD.
- 5 Western Digital Corp
- 6 Infortrend Technology Inc.
- 7 Hives International Co Ltd

Green - Ranked in Upper Quartile of Peer Group  
 White - Ranked in the Middle Two Quartiles of Peer Group  
 Red - Ranked in Lower Quartile of Peer Group  
 Orange - Confidential  
 Grey - Data is Not Available

# QUARTERLY PERFORMANCE RATIOS

Net losses  
in the last 3  
fiscal quarters

## Performance Ratios - Sequential Quarters

(Thousands of U.S. Dollars)

Period Ended	3 mos 9/30/2017	3 mos 6/30/2017	3 mos 3/31/2017	3 mos 12/31/2016	3 mos 9/30/2016
<b>Net Sales \$</b>	<b>\$107,051</b>	<b>\$116,858</b>	<b>\$120,835</b>	<b>\$133,484</b>	<b>\$134,742</b>
% change	-8.39%	-3.29%	-9.48%	-0.93%	15.87%
<b>Gross Margin \$</b>	<b>\$43,773</b>	<b>\$50,819</b>	<b>\$52,050</b>	<b>\$55,002</b>	<b>\$55,726</b>
% change	-13.86%	-2.37%	-5.37%	-1.30%	10.03%
% of sales	40.89%	43.49%	43.08%	41.20%	41.36%
change as % of incremental sales	n/m	n/m	n/m	n/m	27.52%
<b>SG&amp;A \$</b>	<b>\$38,337</b>	<b>\$40,333</b>	<b>\$39,514</b>	<b>\$37,275</b>	<b>\$38,718</b>
% change	-4.95%	2.07%	6.01%	-3.73%	-1.55%
% of sales	35.81%	34.51%	32.70%	27.92%	28.73%
change as % of incremental sales	n/m	n/m	n/m	n/m	-3.30%
<b>Operating margin \$</b>	<b>(\$4,824)</b>	<b>(\$2,454)</b>	<b>\$1,101</b>	<b>\$7,205</b>	<b>\$5,592</b>
% change	-96.58%	-322.89%	-84.72%	28.84%	412.23%
% of sales	-4.51%	-2.10%	0.91%	5.40%	4.15%
change as % of incremental sales	n/m	n/m	n/m	n/m	40.00%
<b>EBITDA \$</b>	<b>(\$3,490)</b>	<b>(\$1,088)</b>	<b>\$2,412</b>	<b>n/a</b>	<b>\$6,929</b>
% change	-220.77%	-145.11%	n/a	n/a	3,480.00%
% of sales	-3.26%	-0.93%	2.00%	n/a	5.14%
change as % of incremental sales	n/m	n/m	n/a	n/a	38.65%
<b>EBIT \$</b>	<b>(\$4,747)</b>	<b>(\$2,356)</b>	<b>\$978</b>	<b>\$7,724</b>	<b>\$5,602</b>
% change	-101.49%	-340.90%	-87.34%	37.88%	442.42%
% of sales	-4.43%	-2.02%	0.81%	5.79%	4.16%
change as % of incremental sales	n/m	n/m	n/m	n/m	39.21%
<b>Pre-tax income \$</b>	<b>(\$7,364)</b>	<b>(\$4,914)</b>	<b>(\$1,518)</b>	<b>\$5,301</b>	<b>\$4,117</b>
% change	-49.86%	-223.72%	-128.64%	28.76%	230.99%
% of sales	-6.88%	-4.21%	-1.26%	3.97%	3.06%
change as % of incremental sales	n/m	n/m	n/m	n/m	39.33%
<b>Net income (loss) \$</b>	<b>(\$7,863)</b>	<b>(\$3,674)</b>	<b>(\$1,913)</b>	<b>\$5,006</b>	<b>\$4,072</b>
% change	-114.02%	-92.05%	-138.21%	22.94%	215.68%
% of sales	-7.35%	-3.14%	-1.58%	3.75%	3.02%
change as % of incremental sales	n/m	n/m	n/m	n/a	41.13%
<b>Tax expense \$</b>	<b>\$499</b>	<b>(\$1,240)</b>	<b>\$395</b>	<b>\$1,005</b>	<b>\$1,155</b>
Effective tax rate	-6.78%	25.23%	-26.02%		
<b>Depreciation expense \$</b>	<b>\$1,257</b>	<b>\$1,268</b>	<b>\$1,398</b>	<b>\$1,398</b>	<b>\$1,398</b>
% of sales	1.17%	1.09%	1.16%		
% of capital expenses	121.68%	1,030.89%	8,737.50%		
% of PP&E, net (annualized)	47.43%	46.87%	49.10%		
<b>Capital expenditures \$</b>	<b>\$1,033</b>	<b>\$123</b>	<b>\$16</b>	<b>\$16</b>	<b>\$16</b>
% change	739.84%	668.75%	-96.71%		
% of PP&E, net (annualized)	38.98%	4.55%	0.56%		
% of working capital (annualized)	-8.30%	-1.05%	-0.16%	-42.20%	-10.05%
<b>Interest coverage ratio</b>	<b>(1.33)</b>	<b>(0.43)</b>	<b>0.97</b>	<b>n/a</b>	<b>4.67</b>
% change	-213.57%	-144.01%	n/a	n/a	3,530.88%
<b>Free cash flow \$</b>	<b>(\$2,355)</b>	<b>\$895</b>	<b>(\$1,571)</b>	<b>\$7,601</b>	<b>(\$3,500)</b>
% change	-363.13%	156.97%	-120.67%	317.17%	-175.56%
Source:	10-Q	10-Q	10-K	10-Q	10-Q
	11/9/2017	8/9/2017	6/1/2017	2/3/2017	11/9/2017

Poor interest  
coverage ratio  
& recurring  
negative free  
cash flow

# QUARTERLY LEVERAGE RATIOS

Negative tangible net worth suggests loanable collateral has been exhausted

## Leverage Ratios - Sequential Quarters

(Thousands of U.S. Dollars)

Period Ended	9/30/2017	6/30/2017	3/31/2017	12/31/2016	9/30/2016
<b>Total debt \$</b>	\$127,665	\$123,145	\$127,855	\$136,458	\$129,733
% change	3.67%	-3.68%	-6.30%	5.18%	-1.06%
<b>Stockholders' equity \$</b>	(\$124,334)	(\$117,998)	(\$115,999)	(\$116,554)	(\$123,423)
% change	-5.37%	-1.72%	0.48%	5.57%	4.37%
<b>Tangible net worth \$</b>	(\$124,334)	(\$117,998)	(\$116,275)	(\$116,866)	(\$123,778)
% change	-5.37%	-1.48%	0.51%	5.58%	4.39%
<b>Total assets \$</b>	\$211,150	\$213,032	\$225,027	\$229,661	\$220,898
% change	-0.88%	-5.33%	-2.02%	3.97%	5.82%
<b>Total debt to assets ratio</b>	0.60	0.58	0.57	0.59	0.59
% change	4.58%	1.74%	-4.38%	1.17%	-6.50%
<b>Tangible assets \$</b>	\$211,150	\$213,032	\$224,751	\$229,349	\$220,543
% change	-0.88%	-5.21%	-2.00%	3.99%	5.85%
<b>Short-term debt \$</b>	\$57,034	\$62,926	\$62,827	\$64,219	\$0
% change	-9.36%	0.16%	-2.17%	n/m	-100.00%
<b>Short-term debt % of total debt</b>	44.67%	51.10%	49.14%	47.06%	0.00%
% change	-12.57%	3.99%	4.42%	n/m	-100.00%
<b>Short-term debt % of working capital</b>	-117.99%	-122.78%	-149.48%	-163.66%	0.00%
% change	3.91%	17.86%	8.66%	n/m	
<b>Total liabilities \$</b>	\$335,484	\$331,030	\$341,026	\$346,000	\$346,000
% change	1.35%	-2.93%	-1.50%		
<b>Total debt to EBITDA ratio (annualized)</b>	n/a	n/a	13.25		
Source:	10-Q	10-Q	10-K	10-Q	10-Q
	11/9/2017	8/9/2017	6/1/2017	2/3/2017	9/30/2016

Inadequate working capital to meet short term liabilities

# QUARTERLY LIQUIDITY RATIOS AND RATES OF RETURN

Recurring negative working capital

Meager cash, quick, & current ratios

## Liquidity Ratios - Sequential Quarters

(Thousands of U.S. Dollars)

Period Ended	9/30/2017	6/30/2017	3/31/2017	12/31/2016	9/30/2016
<b>Current assets \$</b>	<b>\$175,073</b>	<b>\$177,584</b>	<b>\$188,325</b>	<b>\$192,622</b>	<b>\$203,870</b>
% change	-1.41%	-5.70%	-2.23%	-5.52%	6.31%
% of short-term debt	306.96%	282.21%	299.75%	299.95%	n/a
<b>Current liabilities \$</b>	<b>\$223,412</b>	<b>\$228,834</b>	<b>\$230,355</b>	<b>\$231,861</b>	<b>\$173,751</b>
% change	-2.37%	-0.66%	-0.65%	33.44%	5.59%
<b>Working capital \$</b>	<b>(\$48,339)</b>	<b>(\$51,250)</b>	<b>(\$42,030)</b>	<b>(\$39,239)</b>	<b>\$30,119</b>
% change	5.68%	-21.94%	-7.11%	-230.28%	10.68%
% of sales (annualized)	-11.29%	-10.96%	-8.70%	-7.35%	5.59%
<b>Cash \$</b>	<b>\$9,504</b>	<b>\$8,661</b>	<b>\$12,958</b>	<b>\$22,595</b>	<b>\$29,528</b>
% change	9.73%	-33.16%	-42.65%	-23.48%	-14.40%
% of short-term debt	16.66%	13.76%	20.62%	35.18%	n/a
<b>Cash ratio</b>	<b>0.04</b>	<b>0.04</b>	<b>0.06</b>	<b>0.10</b>	<b>0.17</b>
% change	12.43%	-32.86%	-42.26%	-42.61%	-18.94%
<b>Quick assets \$</b>	<b>\$115,275</b>	<b>\$118,079</b>	<b>\$129,014</b>	<b>\$130,072</b>	<b>\$137,438</b>
% change	-2.37%	-8.48%	-0.81%	-5.36%	9.92%
% of short-term debt	202.12%	187.65%	205.35%	202.54%	n/a
<b>Quick ratio</b>	<b>0.52</b>	<b>0.52</b>	<b>0.56</b>	<b>0.56</b>	<b>0.79</b>
% change	0.00%	-7.87%	-0.16%	-29.08%	4.11%
<b>Current ratio</b>	<b>0.78</b>	<b>0.78</b>	<b>0.82</b>	<b>0.83</b>	<b>1.17</b>
% change	0.98%	-5.08%	-1.60%	-29.19%	0.68%
Source:	10-Q 11/9/2017	10-Q 8/9/2017	10-K 6/1/2017	10-Q 2/3/2017	10-Q 11/4/2016

Unable to generate any positive returns

## Rate of Return - Sequential Quarters

(Thousands of U.S. Dollars)

Period Ended	3 mos 9/30/2017	3 mos 6/30/2017	3 mos 3/31/2017	3 mos 12/31/2016	3 mos 9/30/2016
<b>Return on total assets</b>	<b>-3.71%</b>	<b>-1.68%</b>	<b>-0.84%</b>	<b>2.22%</b>	<b>1.90%</b>
% change	-121.02%	-99.33%	-137.87%	17.23%	218.29%
<b>Return on tangible assets</b>	<b>-3.71%</b>	<b>-1.68%</b>	<b>-0.84%</b>	<b>2.23%</b>	<b>1.90%</b>
% change	-120.88%	-99.23%	-137.86%	17.19%	218.27%
Source:	10-Q 11/9/2017	10-Q 8/9/2017	10-K 6/1/2017	10-Q 2/3/2017	10-Q 11/9/2017

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