



# WV JOBS INVESTMENT TRUST BOARD ANNUAL INVESTMENT ANALYSES JUNE 30, 2017



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## Message from WVJIT Executive Director

To our WVJIT Board of Directors and State Legislators:

Since our inception in 1992, the WV Jobs Investment Trust Board (WVJIT) has played an instrumental role in our state's economic development. WVJIT was created to develop, promote and expand our state's economy by direct investment in West Virginia's enterprises to create jobs, sustain growth, and provide new opportunities. Our investments touch major sectors within this state's economy such as manufacturing and energy, yet we have also been able to invest in emerging sectors that will play a role for our state's future growth such as healthcare, biotechnology, software and engineering.

As of June 2017, WVJIT has invested nearly \$11 million dollars across 20 companies in a broad array of industry sectors such as information and financial technology, healthcare, manufacturing, life sciences, educational services, to name a few. Total equity investment and loans provided are \$6.3 million dollars and \$4.4 million dollars, respectively. A total of 318 jobs have been supported from the WVJIT investments which equates to \$33,688 of WVJIT investment for each job supported. State-backed Venture Capital programs have a proven record of providing not only significant financial returns but also high quality, sustainable job creation. The WVJIT, with the support of a dedicated staff and Board of Directors, has developed a proven model and is a significant contributor to the state's economic development efforts.

In January 2012, the State of West Virginia received the State Small Business Credit Initiative (SSBCI) funding to give the state's small businesses access to new capital. This new funding has given West Virginia enterprises access to \$13.1 million dollars, all of which is administered through the West Virginia Capital Access Program (WVCAP). We have had the pleasure to partner with many of our fellow state economic developers to provide capital to small enterprises across West Virginia. The SSBCI program formally concluded its program on March 31, 2017 but the effects on West Virginia remain; throughout the program, an additional \$93 million in private sector financing was deployed in over 67 new transactions. To date, the WVCAP has had success in attaining the objective of having retained and created over 990 new jobs. WVCAP was one of the first state programs to receive a clean audit from the Office of Inspector General and has been recognized nationally as one of the most effective, professionally managed programs under the SSBCI. We are very proud of this distinction.

The next few years will continue to be challenging for WVJIT as concerns about the state and national economy persist. While we are aware of the challenges that lay ahead, I could not be prouder of our accomplishments this past year and could not be more optimistic for our state's economic future. On behalf of the WVJIT staff, I thank you for your assistance and continued support in us to fulfill our economic and entrepreneurial mission to this great state.

Yours Truly,

A handwritten signature in blue ink, appearing to read "Andrew Zulauf".

Andrew Zulauf,  
Executive Director

## Methodology of Current Evaluation of the Investment

Factors that may be considered in the evaluation of investments in equity and debt securities of startup companies and other securities for which market quotations are not readily available are:

- the amount that might reasonably be expected to be received upon current sale of the securities;
- the fundamental analytical data relating to the investment;
- the nature and duration of restrictions on disposition of the securities;
- an evaluation of the forces that influence the market in which these securities are purchased and sold;
- type of security;
- cost at date of purchase;
- size of holding;
- discount from market value of unrestricted securities of the same class at the time of purchase;
- financial statements;
- special reports prepared by analysts;
- information as to any transactions or offers with respect to the security;
- existence of merger proposals or tender offers affecting the securities;
- price and extent of public trading in similar securities of the issuer or comparable companies;
- the nature of the business and history of the enterprise from its inception;
- the general economic outlook and the condition of and outlook for the specific industry;
- an evaluation of the securities and economic condition of the portfolio company;
- the portfolio company's capacity for earnings;
- the portfolio company's market position;
- competition;
- the portfolio company's goodwill and other intangible values;
- recent sales of securities by the portfolio company;
- market prices of publicly traded securities of corporations of comparable size and earnings in the, or similar lines of, business;
- likelihood of exercise of conversion privileges of convertible securities;
- actual performance compared to expected performance; and
- other relevant matters.

The American Institute of Certified Public Accountants (AICPA) Audit and Accounting Guide, *Audits of Investment Companies*, requires venture capital companies to record their investment portfolios at quoted market prices or, in the absence of quoted prices, at amounts representing estimates of fair value using methods determined in good faith by the board of directors or general partner.

Financial Accounting Standards Board (FASB) Statement No. 114, *Accounting by Creditors for Impairment of a Loan*, excludes all companies that record investments at fair value, in accordance with specialized practice, from the requirements to report loan loss contingencies. In any event, the FASB requires that loan loss provisions be accrued only when it is *probable* that an asset has been impaired and that the amount of the loss be *reasonably* estimable.

The AICPA Investment Companies Special Committee states in its report, *Accounting for Venture Capital Investment Companies*, that "Startup companies generally do not have a record of earnings or operating information. Startup and other early-stage companies generally report losses in the early years, and portfolio companies seeking second-stage financing may not yet be showing profits. An operating loss reported by a portfolio company does not necessarily mean that the venture capital investment company should reduce the carrying amount of its investment. In determining value, the board of directors should also consider such factors as the cost of the investment, actual performance compared to expected performance, and earning potential."

The Investment Companies Special Committee believes that investments in startup companies should be presented at value. Value is usually assumed to be the same as cost during the early stages of such investments unless there is persuasive evidence of a quantifiable increase or decrease in the value of the investment based on consideration of such factors as those discussed above.

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**Snapshot:**

Company: **Aither Chemicals, LLC**  
Website: aitherchem.com  
Location: South Charleston, WV  
Total Employees: FT/0; PT/0  
WV Employees: FT/0; PT/0

**WVJIT Investment: \$550,000**  
**WVJIT Loan reserve: \$500,000**  
**WVJIT Ownership: 17.56%**  
**Subject to GASB 62: NO**

**Background**

The genesis of Aither Chemicals began in 2010 as an effort by the Mid-Atlantic Technology, Research & Innovation Center (MATRIC) to evaluate the utilization of unique, demonstrated technologies to create value added chemicals from ethane. Throughout 2010, MATRIC's team of highly experienced technical and management staff worked to evaluate the opportunity created by tremendous supplies of ethane coming from the wet natural gas in shale plays. As a result of this valuation and additional technical work, Aither was officially formed in 2010 by MATRIC. Aither Chemicals technology is based upon a proven, proprietary, patent-pending chemical process that converts a natural gas feedstock (ethane) into higher value chemical products (petrochemicals) in a cost-effective manner. Aither's manufacturing process is the lowest cost production method to make petrochemicals. Using Aither's proprietary process, their facilities have advantages over traditional ethane cracking technologies.

**WVJIT Investment History**

**July 2011:**

\$250,000 Convertible Debenture; 10% Interest; Maturity Date of June 26, 2014  
Loan put on non-accrual, 100% reserved against outstanding principal

**June 2012:**

\$300,000 Convertible Debenture; 10% Interest; Maturity date of June 26, 2014

**December 2014:**

MAH granted 1,756,325 shares to WVJIT – resulting in 17.56% ownership

**WVJIT FY2017 Revenue:** \$0

**Total WVJIT Investment:** \$550,000 (\$300,000 funded through WVCAP)

**Warrant Coverage:**

**July 2011:** 200% Warrant Coverage into Preferred A Units, 7-year term, strike price at the initial Series A Preferred Price.

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**June 2012:** 100% warrant coverage into Preferred A Units, 7-year term, strike price at a 20% discount of the Series A Preferred price.

**Co-Investors/Lenders:**

INNOVA  
MAH

**Board of Directors**

**Patrick Bond, Mid-Atlantic Holding**

Pat Bond brings a wealth of experience in finance, administration, strategic planning, general management and management information systems. Previously, Mr. Bond owned/operated an independent consulting practice, Growth Management Group that specialized in the areas of Business Environment Assessments, new product development, investment and financial analysis and strategic planning. Prior to that, he was President of a natural gas marketing company and was President and CEO of Atlantic Financial Federal, a \$750 million savings and loan institution and all its business units. He graduated from WVU where he received both Master's and Bachelor's Degrees in Industrial Engineering.

**C. Andrew Zulauf, Executive Director, WV Jobs Investment Trust**

Andy Zulauf has extensive experience in finance and venture capital, having served as Executive Director and Senior Loan Officer for the West Virginia Capital Corporation, as a Partner and Managing Director of West Virginia operations for Adena Ventures, and as Vice President and Upper Middle Market Commercial Relationship Officer for Fifth Third Bank. Mr. Zulauf is a graduate of Marshall University and the University of Charleston's Executive MBA program.

**Guy Peduto, INNOVA Commercialization Group**

Guy Peduto joined the INNOVA Commercialization Group in April 2006. Prior to joining INNOVA, he held the position of Director of Commercial Programs at the Institute for Scientific Research, Inc. While there, he developed strategies for the commercial utilization of ISR's technology and research applications in such areas as biomedical research, education, software development, mining safety and communication, VTOL aerial vehicles, and automotive controls and diagnostics. Mr. Peduto's background includes 20 years of strategic planning experience. Mr. Peduto received a Bachelor's degree in Business Administration with a major in Marketing from West Virginia University. In addition, he is a graduate of the Competitive Strategy program at the Kellogg School, Northwestern University, the Commercialization and Technology Transfer program at Carnegie Mellon University, the National Association of Seed and Venture Funds Professional Development Program and the Venture Capital Institute.

**Products**

Aither Chemicals technology is based upon a proven, proprietary, patented chemical process that converts a natural gas feedstock (ethane) into higher value chemical products (petrochemicals) in a cost effective manner. Aither's manufacturing process is the lowest cost production method to make petrochemicals. Using Aither's proprietary process, their facilities will have the following advantages over traditional ethane cracking technologies:

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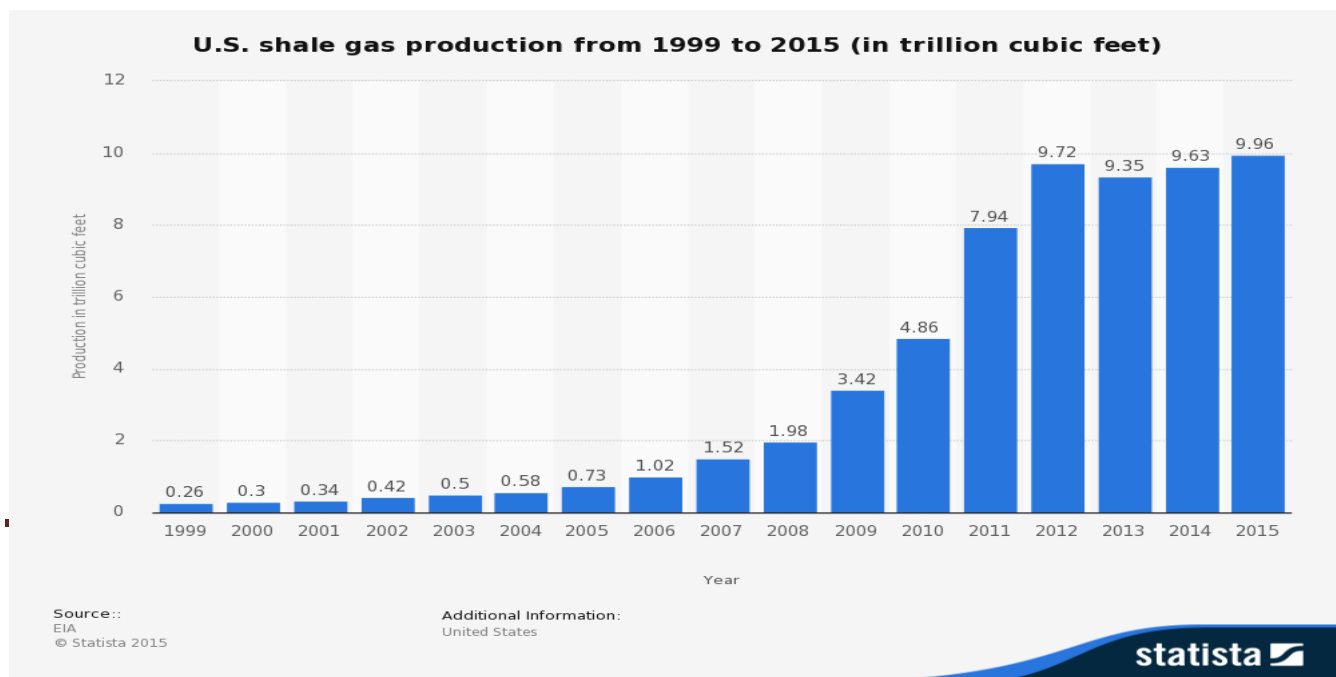
1. Lower capital cost
2. Lower operating cost
3. Shorter time to commercial operations
4. Lower energy input
5. Lower CO2 output
6. Smaller plant footprint
7. Simpler process to product higher-value products

### Market/Industry Summary

Ethane, a feedstock used by the petrochemical industry, is facing stiffer competition from naphtha, a petroleum byproduct, which is cheaper due to falling oil prices. Since 2010, prices for oil and natural gas liquids have been higher than those for natural gas. This has given drillers an incentive to target liquids-rich shale plays. But the gap between natural gas and NGLs has been shrinking which could pose a challenge for the U.S. petrochemical industry

The chart below shows shale gas production in the U.S. from 1999 through 2015. Although production remained steady over the past four years with very little increase, companies continue to pursue the idea of constructing cracker plants. According to Tom Gellrich, TopLine Analytics, during the Utica Summit III at Kent State in October 2015, he stated there should be three or four world class cracker plants by 2020 in the Appalachian Basin.

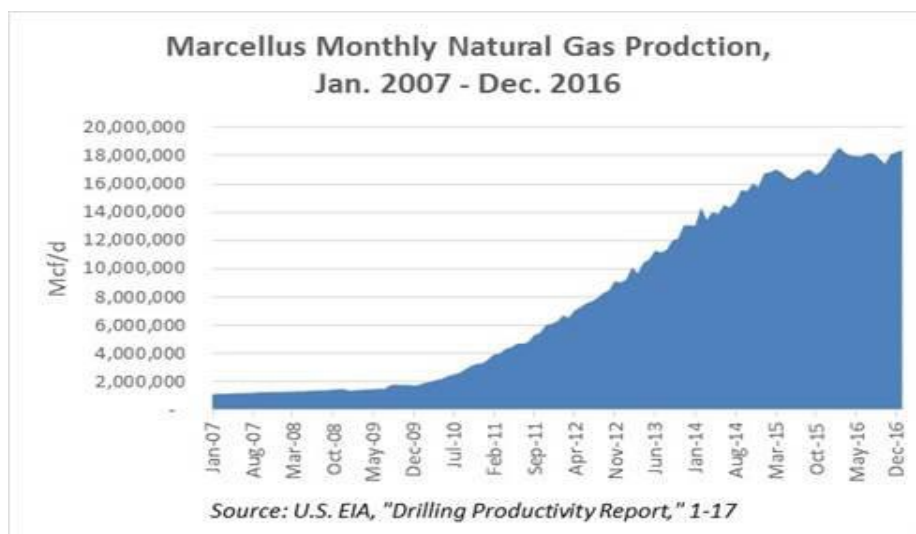
It should be noted that currently, ethane from the Utica and Marcellus are being piped to the Gulf Coast for processing and then returned back to the Northeast as ethylene. Northeast Ohio is considered the center of the plastics processing industry and is expected to grow over the next 24 months. Given this demand for ethylene, regional crackers will provide a positive impact on the area. This should provide opportunities for smaller “less than world class crackers” to move into the area, creating jobs and ethylene. The completion of at least one cracker plant should encourage current shale producers to increase production as their ethane would no longer be piped to the Gulf Coast, but processed locally.





Map depicting Unconventional Shale Plays in the Northeast

This map above depicts the shale plays in the Northeast and their proximity to potential cracker projects.



Natural gas production has significantly increased from January 2007 through December 2016. The Marcellus is the largest shale production region in the United States. The production is based in Pennsylvania and West Virginia. Pipeline infrastructure projects are being completed which will bring the feedstock to market. According to the US EIA “continued development of the Marcellus and Utica plays in the East is the main driver of growth in total US shale gas production and the main source of total US dry natural gas product”.

### **Regional Cracker Projects**

Shell Chemical, a unit of Royal Dutch Shell is building a \$6 billion ethylene refinery just north of Pittsburgh. Shell chose the location because it provides immediate access to liquids-rich natural gas found in the Utica and Marcellus shale fields. It also places the facility along the Ohio River. This location is within the circle that generates 70% of North American polyethylene demand. PTT Global is in early engineering phases of a \$5 billion project in Eastern Ohio.

### **Significant Events**

**June 2017:** Company receives notice the official Patent award for its application of “Methods for Integrated Natural Gas Purification and Products Produced” would be issued under USP Number 9,676,695. This patent is only for the U.S. The Company is working to expand the patent to include all of North America.

**June 2016:** WVJIT and INNOVA continue to work with the IP attorney on outstanding filing issues. Additionally, a consultant will review the technology and determine the next steps for the Company.

**June 2016:** Shell announces it will move forward with building a cracker plant in Pennsylvania.

**May 2015:** MATRIC COO, Greg Clutter, resigns from Aither Board.

**January 2015:** MAH holdings received a request from INNOVA and WVJIT for information pertaining to the due diligence process for the evaluation conducted by a new investor.

**December 2014:** MAH grants 1,756,325 shares to WVJIT. The shares represent 17.56% ownership in Aither.

**September 2014:** RMG offered to divest its stake in Aither to WVJIT and INNOVA.

**June 2014:** Aither Board of directors submit a draft agreement to a regional energy holding company for a potential investment into the Company.

**March 2014:** Company meets with a Taiwanese Petrochemical Company looking to negotiate a joint venture/M&A for rights to the catalyst for their cracker plant.

**October 2013:** A mutual confidentiality agreement was signed by a regional energy holding company and the Aither Board of Directors and management team for a potential interest in the Company.

**September 2013:** WVJIT recommends to its board of directors to reserve 100% of the outstanding principal balance on the existing debentures (\$250,000 and \$300,000) and put the loan on non-accrual. The recommendation was approved.

**August 2013:** MATRIC and Aither put together a plan for a small production plant located at the technology park. The budget for the project was \$2.5M; \$1.56M for the commercial tube, \$350K for the catalyst, \$210K for IP, and another \$200+ in soft costs. WVJIT prepared a \$2.5M term sheet for the Company under the condition that the first domestic plant is built in WV. The Aither board voted to pass on the financing proposal.

**May 2013:** Aither submits a grant application to Tech Connect WV in partnership with the Chemical Alliance Zone for a preliminary study for a potential small scale plant in the Kanawha Valley.

**July 2012:** A late July press release from Aither indicates they were very “pleased” with the responses they received about the products their catalytic ethane cracking technology can deliver. These responses include

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technology licensors, engineering procurement and construction (EPCs) companies, as well as organizations looking to relocate to the Kanawha Valley.

**January 2012:** Aither closes on a financing transaction with Renewable Manufacturing Gateway (RMG).

**Overall Conclusion**

Based on the foregoing, the WV Jobs Investment Trust Board finds it most appropriate to record its investment in Aither Chemicals, LLC at value, which is currently presumed to be **\$0.00**, due to a 100% reserve against the loan.

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**Snapshot:**

Company: **American Benefit Corp.**  
Website: abcwv.com  
Location: Ona, WV  
Total Employees: FT/60; PT/0  
WV Employees: FT/60; PT/0

**WVJIT Investment: \$699,650**  
**WVJIT Ownership: 12.47%**  
**Subject to GASB62: NO**

**Leadership**

C. Ryan Jones, Chief Executive Officer  
John Galloway, Chief Financial Officer  
Jim Kirk, Chief Information Officer  
Kimberly A. Wood, Chief Administration Officer

**Background**

American Benefit Corporation has been in existence for over 60 years having been formed in 1948 as the Raymond Hage Company and was renamed American Benefit Corporation (ABC) in 1976. The Company specializes in managing health plans for hard working Americans and provides best-in-class service to teamsters, plumbers, pipe fitters, steel workers, carpenters, electrical workers, operating engineers, miners and laborers, among others. Following a succession of owner-operators, the Company was purchased by Charles W. (Bill) Eastwood, Jr. in 2007. ABC is the only third-party administrator (TPA) in West Virginia that handles Taft Hartley plans. Its principal offices are located in Ona, WV and Charleston, WV with satellite offices in Cincinnati, OH and Chicago, IL. ABC has developed relationships that provide competitive advantages, specifically being able to offer discounts on medical procedures through a relationship with Anthem Blue Cross and Blue Shield. The Company has also established additional advantages such as state of the art information management, wellness program offerings, and consumer-driven healthcare.

**WVJIT Investment History**

**December 2009:**

699,650 Series A Preferred Unit Investment  
8% Cumulative Monthly Dividend  
825 Shares

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**Warrants:**

<u>Company</u>	<u>Date Iss.</u>	<u>Equity Inv.</u>	<u>Debt Inv.</u>	<u>Coverage %</u>	<u>Type</u>	<u>Term (Yrs)</u>	<u>Exp. Date</u>	<u># Warrants</u>	<u>Cost to Exercise</u>
ABC	Feb - 10	\$700K	-	10%	Pref. A	7	Feb 24	70K	\$63K
ABC	Aug - 11	-	\$100K	10%	Pref. A	7	Aug 18	10K	\$9K

**Dividends Received FY2017: \$55,971.96**

**Co-Investors/Lenders: Fifth Third Bank**

**Management Team**

**Charles W. Eastwood, Board of Directors Chairman**

With more than 25 years of experience in the sales and service of employee benefit programs, Charles Eastwood was appointed as American Benefit Corporation's CEO in 2007. Over his considerable career, he has performed a variety of roles at such notable companies as Prudential and John Hancock Insurance. Mr. Eastwood served 13 years with Blue Cross and Blue Shield of West Virginia prior to becoming a National Account Executive with Cigna. While at Cigna, Mr. Eastwood and his sales team received the Superior Achievement Award for delivering the highest level of sales and service to their client base. After a 10-year stint with Cigna, Mr. Eastwood took the knowledge and expertise he had gained and opened Eastwood Consulting. Mr. Eastwood holds a Bachelor's degree in Political Theory and Philosophy from West Virginia State University.

**C. Ryan Jones, Chief Executive Officer**

Ryan Jones joined American Benefit Corporation in 2007. Mr. Jones is a CPA who has an extensive background in public practice including a regional firm that concentrated its practice in the healthcare field. Mr. Jones works closely with the IT and Sales departments to achieve the financial goals of the organization. Mr. Jones holds a Bachelor's degree in Business Administration with a concentration in Accounting from West Virginia State University.

**Jim Kirk, Chief Information Officer**

Mr. Kirk joined American Benefit in 2008, after spending 20 years with Dow Chemical Company as their International Infrastructure Architect. Mr. Kirk is responsible for the design and implementation of information systems and operations. Mr. Kirk earned his Associate's degree in Chemical Technology from West Virginia State University in 1990 and his Bachelor of Science in Business Information Systems from Bellevue University in 1999. Mr. Kirk also holds a MCSE and numerous other certifications.

**Kimberly A. Wood, Chief Operations Officer**

Ms. Wood joined American Benefit Corporation in 1998 as Assistant Actuary, and was named Director of the Actuarial Department in 2005. She now serves the company as an actuary and consultant. She has extensive experience in working with both health and pension funds, including administration, plan design, benefit studies, and federal compliance. Ms. Wood's holds a Bachelor of Arts and Master of Arts degrees in Mathematics from Marshall University. She earned the designation of Enrolled Actuary in 2009.



**John D. Galloway, Chief Financial Officer**

Mr. Galloway joined American Benefit Corporation in 2012, bringing over 17 years of experience in public accounting. Mr. Galloway is a Certified Public Accountant licensed in West Virginia. Mr. Galloway is responsible for coordinating accounting and finance functions as well as identifying opportunities to improve financial and operational systems through internal control evaluations.

Prior to joining American Benefit Corporation, Mr. Galloway served as a Partner at Gibbons & Kawash, A.C. He gained extensive experience addressing complex financial reporting, accounting, internal control, and auditing matters for closely-held businesses, governmental entities, nonprofit organizations, and employee benefit plans. Mr. Galloway holds a Bachelor's degree in Business Administration from the University of Charleston. Mr. Galloway is a member of the American Institute of Certified Public Accountants and the West Virginia Society of Certified Public Accounts. Additionally, he is a graduate of the 2011 class of Leadership West Virginia Program in conjunction with the West Virginia Chamber of Commerce.

**Board of Directors**

**Charles W. Eastwood, Board of Directors Chairman**

With more than 25 years of experience in the sales and service of employee benefit programs, Charles Eastwood was appointed as American Benefit Corporation's CEO in 2007. (See **Management Team**)

**C. Ryan Jones, Chief Executive Officer**

Ryan Jones joined American Benefit Corporation in 2007. Mr. Jones is a CPA who has an extensive background in public practice including a regional firm that concentrated its practice in the healthcare field. (See **Management Team**)

**C. Andrew Zulauf, Executive Director, West Virginia Jobs Investment Trust**

Andy Zulauf has extensive experience in finance and venture capital, having served as Executive Director and Senior Loan Officer for the West Virginia Capital Corporation, as a Partner and Managing Director of West Virginia operations for Adena Ventures, and as Vice President and Upper Middle Market Commercial Relationship Officer for Fifth Third Bank. Mr. Zulauf is a graduate of Marshall University and the University of Charleston's Executive MBA program.

**Products**

American Benefit Corporation provides intelligent planning and management on employee health plans. ABC also provides administrative support to ensure efficiency in the life of the benefit plan. Other services include:

1. Benefit plan design assistance
2. Medical, dental and vision claim processing and adjudication
3. Pharmacy Benefits Manager evaluation, implementation and integration
4. COBRA/HIPAA administration
5. Consumer Directed Health Plans:
  - FSA
  - HRA



HAS  
VEBA

6. Comprehensive care management suite of services
7. Network analysis and optimization
8. Claims re-pricing
9. Disability/loss of time processing
10. Coordination of benefits, including Medicare Part D
11. Claim Subrogation

Over the past year, the Company has not introduced any new products or services into the market.

### **Competition/Market Summary**

#### **Aetna**

Founded in 1853 in Hartford, CT, Aetna is committed to providing individuals, employers, health care professionals, producers and others with innovative benefits, products and services. Aetna is one of the largest healthcare benefit providers in the country and is constantly growing with many M&A's over recent years. Their latest acquisition, Humana, is an example of their continued desire to grow. In 2013, Aetna acquired Coventry Health Care, Inc., making the combined organization the third-largest health care benefits company in America, based on membership.

#### **Benefit Assistance Corporation (BAC)**

Established in 1992 in Hurricane, WV, BAC has become one of the largest independent regional TPAs servicing the eastern United States. Their client base ranges from 50 to 3,000 employees and the company prides itself for not being tied to the large "national" claim paying systems, and thereby having the flexibility to customize the claims processing service.

#### **Blue Cross Blue Shield**

The Blue Cross Blue Shield Association (BCBSA) is a federation of 39 separate health insurance organizations and companies in the United States. Combined, they directly or indirectly provide health insurance to over 100 million Americans. The company is headquartered in Chicago, IL.

#### **Cigna**

Cigna is a global health services company providing health care plans as well as administrative services. In addition, Cigna has an expanding international footprint in the health services arena. The company is headquartered in Philadelphia, Pennsylvania.

### **Industry Summary**

In 2017, there are many main points that will continue to keep health care in the public eye, ranging from a continued shortage of primary care physicians in the United States, to concerns about the sustainability of Medicare, to the strain that health care puts on the budgets of the states as well as employers. Costs are expected to increase in 2017 for many companies, so continuing to explore any and every solution will be critical to managing those costs while still attracting the key talent every organization needs to be successful.

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Some emerging employee benefits trends for 2017 include:

1. Tailoring benefits packages to attract and retain millennials
2. Improving work-life balance and flexibility for families
3. Enrollment technologies for employers and their workforce
4. Wellness technologies helping to cut inefficiencies
5. Outsourcing benefits administration and resources
6. Rising demand for voluntary insurance
7. Lower-value plans requiring more benefits education
8. Year-round benefits communication

According to a recent Aflac WorkForces Report, 68 percent of employers are interested in outsourcing at least one benefits administration service to a third party. When using a third party, companies found employee turnover was reduced by 80 percent compared to 66 percent who did not use a third party.

### **TPA/Healthcare Industry**

The overall U.S. M&A activity in 2016 fluctuated throughout the year but rebounded in Q4 of 2016. This was due to an 11.6% increase in the number of deals completed in Q4 compared to the same period in 2015. Quarter over Quarter activity increased significantly with the biggest contributor to the increase being those in the >\$100M range. The third-party administrator's industry has been continuing to grow and is forecasted to continue that theme growing in the low to mid digits, according to various reports carried out in 2016. The consolidation of numerous TPA companies in the aftermath of the recession has reduced the amount of smaller companies underpricing accounts in order to gain business. As the economy has strengthened and unemployment has reduced, a larger demand for employees and claims for TPA to administer has been created. The number of TPA M&A's taking place in 2017 and beyond is supposed to be limited with medical management activity increasing with many Private Equity backed companies receiving investment heavily.

In order to understand the current market, valuation multiples are often used when projecting a company's valuation. Although these multiples cannot be applied for accurate valuations, it provided an insight to other companies in the industry. Both EBITDA and Revenue multiples for the last twelve months were examined and averages for each quarter taken. These multiples were specifically directed towards the TPA sector but also included care management as a portion of that. The average 2016 Revenue multiple came out at 1.35x, however, the first and second quarter average came out 1.58x and 1.50x respectively. The EBITDA multiples fluctuated significantly over the twelve month period with the twelve month average at 12.92x and the last quarter increasing from the previous quarters in 2016. If one compares the TPA sector multiples with the overall health care services it is actually below the current average during 2016. The average revenue multiple stood at 2.3x while EBITDA came in at 14x. Sectors in the health care industry that had the highest valuation multiples were pharmacy management, clinical laboratories and health care REIT's. These multiples are all driven by 3 general factors: risk, growth and leverage of the overall market. During 2016, the Care Management/TPA sector often posted significant growth on a macro level. During the month of May, the TPA sector was the best performing, up 7.7% from the previous month. The demand for TPAs are forecasted to increase over the next four years. This is not only due to a higher demand caused by fuller employment but with new financial regulations for companies coming into effect, it makes Third

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Party Administration systems more appealing. Customers are also looking for a more complete service from TPAs in order to reduce the number of vendors they do business with. By bundling these services, it will allow the TPA to sell more price sensitive services at a lower margin while making up the profit on services that don't have such a cost sensitive appetite.

**Union Membership**

The Union Membership rate for 2016 was 10.7% which was slightly lower than the previous year. This rate, which is defined as the percent of wage and salary workers who were members of unions by the Bureau of Labor Statistics, has fallen significantly since the first recorded union data in 1983. Around 14.6 million workers belonged to unions in 2016. Of those union members in 2016, around 35% of workers were in the public sector, which was more than five times that of the private sector. And of those who belong to a union from private or public, men had a slightly higher rate.

**Significant Events**

**June 2017:** ABC continues to be the only "mom and pop" option as competitors are all owned by investment firms.

**February 2016:** ABC is looking to coordinate an investment firm to work with retirees and active employees considering retirement. Currently, ABC is unable to convert on this market and generate ongoing revenue. ABC can sponsor retirement and financial planning workshops at the local union hall.

**December 2015:** ABC loses one of its biggest clients, Steel of WV. The company continues to pursue new business relations in wake of this loss.

**March 2015:** Negotiations between ABCH and its acquirer were terminated.

**December 2014:** ABC's holding company, ABCH, completed a Letter of Intent to be acquired by an out-of-state strategic partner.

**September 2014:** ABC entered into negotiations with a strategic partner for potential acquisition.

**January 2014:** ABC closed on the acquisition of Stoner & Associates. Company utilizes operational assistance through WVCAP for marketing and website development for the newly formed company.

**December 2013:** WVJIT and WVCAP Board of Directors approve an investment, which is a closely held company similar to ABC to assist in the asset purchase of Stoner & Associates and for working capital.

**September 2013:** ABC announces it will acquire Stoner & Associates, a leading provider of custom benefit plan administration headquartered in Cincinnati. Stoner was founded in 1934 to administer health insurance policies at the local level and has become a sophisticated TPA specializing in complex plans requiring high client and participant levels. The company has 13 employees and administers 14 plans with 100 to 6,000 participants with over \$400 million in assets.

**April 2013:** ABC relocates its Trust Department from Chesapeake, Ohio to their main office in Ona, WV.

**January 2012:** ABC named one of two TPA's that can offer JAA to commercial (non-union) clients in the state of Ohio. The initial scope of the project will be school systems and hospitals.

**Overall Conclusion**

Based on the foregoing, WV Jobs Investment Trust finds it most appropriate to record its investment in American Benefit Corporation at value, which is currently presumed to be the same as cost or **\$699,650**.

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Company: **ABC Holding Company**  
Website: abcwv.com  
Location: Ona, WV  
Total Employees: FT/10; PT/0  
WV Employees: FT/1; PT/0

**WVJIT Investment: \$499,230**  
**WVJIT Ownership: 8.20%**  
**Subject to GASB 62: NO**

#### **Leadership**

Charles W. Eastwood, Board Chairman  
C. Ryan Jones, Chief Executive Officer  
Jim Kirk, Chief Information Officer  
Kimberly A. Wood, Chief Compliance Officer  
John D. Galloway, Chief Financial Officer

#### **Background**

ABC Holding Company formed in December 2013 following ABC's acquisition of Cincinnati-based TPA, Stoner & Associates. The \$500,000 transaction allowed ABC to have an entry into the Ohio market. Stoner & Associates in comparison to ABC is much smaller in headcount as well as clientele. Stoner provides administration solutions for benefit plan management for defined contribution and defined retirement plans, long-term and short-term disability plans, medical, dental, cafeteria and medical reimbursement plans.

#### **WVJIT Investment History**

##### **January 2014**

\$299,404 Convertible Debenture Investment, 8% interest rate. (\$199,826 from WVCAP)  
Converted in April 2014  
517 shares of Common Stock

**Dividends FY2017: \$16,408.80**

#### **Products**

American Benefit Corporation provides intelligent planning and management on employee health plans. The Company also provides administrative support to ensure efficiency in the life of the benefit plan. Other services include:

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1. Benefit plan design assistance
2. Medical, dental and vision claim processing and adjudication
3. Pharmacy Benefits Manager evaluation, implementation and integration
4. COBRA/HIPAA administration
5. Consumer directed health plans:
  - FSA
  - HRA
  - HAS
  - VEBA
6. Comprehensive care management suite of services
7. Network analysis and optimization
8. Claims repricing
9. Disability/loss time processing
10. Coordination of benefits, including Medicare Part D
11. Claim Subrogation



Over the past year, the Company has not introduced any new products or services into the market.

**Management Team**

**Charles W. Eastwood, Board of Directors Chairman**

With more than 25 years of experience in the sales and service of employee benefit programs, Charles Eastwood was appointed as American Benefit Corporation's CEO in 2007. Over his considerable career, he has performed a variety of roles at such notable companies as Prudential and John Hancock Insurance. Mr. Eastwood served 13 years with Blue Cross and Blue Shield of West Virginia prior to becoming a National Account Executive with Cigna. While at Cigna, Mr. Eastwood and his sales team received the Superior Achievement Award for delivering the highest level of sales and service to their client base. After a 10 year stint with Cigna, Mr. Eastwood took the knowledge and expertise he had gained and opened Eastwood Consulting. Mr. Eastwood holds a Bachelor's degree in Political Theory and Philosophy from West Virginia State University.

**C. Ryan Jones, Chief Executive Officer**

Ryan Jones joined American Benefit Corporation in 2007. Mr. Jones is a CPA who has an extensive background in public practice including a regional firm that concentrated its practice in the healthcare field. Mr. Jones works closely with the IT and Sales departments to achieve the financial goals of the organization. Mr. Jones holds a Bachelor's degree in Business Administration with a concentration in Accounting from West Virginia State University.

**Jim Kirk, Chief Information Officer**

Mr. Kirk joined American Benefit in 2008, after spending 20 years with Dow Chemical Company as their International Infrastructure Architect. Mr. Kirk is responsible for the design and implementation of information systems and operations. Mr. Kirk earned his Associate's degree in Chemical Technology from West Virginia State University in 1990 and his Bachelor of Science in Business Information Systems from Bellevue University in 1999. Mr. Kirk also holds a MCSE and numerous other certifications.

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**Kimberly A. Wood, Chief Compliance Officer**

Ms. Wood joined American Benefit Corporation in 1998 as Assistant Actuary, and was named Director of the Actuarial Department in 2005. She now also serves the Company as an actuary and consultant. She has extensive experience in working with both health and pension funds, including administration, plan design, benefit studies, and federal compliance. Ms. Wood holds a Bachelor of Arts and Master of Arts degree in Mathematics from Marshall University. She earned the designation of Enrolled Actuary in 2009.

**John D. Galloway, Chief Financial Officer**

Mr. Galloway joined American Benefit Corporation in 2012, bringing over 17 years of experience in public accounting. Mr. Galloway is a Certified Public Accountant licensed in West Virginia. Mr. Galloway is responsible for coordinating accounting and finance functions as well as identifying opportunities to improve financial and operational systems through internal control evaluations. Prior to joining American Benefit Corporation, Mr. Galloway served as a Partner at Gibbons & Kawash, A.C. He gained extensive experience addressing complex financial reporting, accounting, internal control, and auditing matters for closely-held businesses, governmental entities, nonprofit organizations, and employee benefit plans. Mr. Galloway holds a Bachelor's degree in Business Administration from the University of Charleston. Mr. Galloway is a member of the American Institute of Certified Public Accountants and the West Virginia Society of Certified Public Accounts. Additionally, he is a graduate of the 2011 class of Leadership West Virginia Program in conjunction with the West Virginia Chamber of Commerce.

**Board of Directors**

**Charles W. Eastwood, Board of Directors Chairman** (See Management Team)

**C. Ryan Jones, Chief Executive Officer** (See Management Team)

**C. Andrew Zulauf, Executive Director, West Virginia Jobs Investment Trust**

Andy Zulauf has extensive experience in finance and venture capital, having served as Executive Director and Senior Loan Officer for the West Virginia Capital Corporation, as a Partner and Managing Director of West Virginia operations for Adena Ventures and, as Vice President and Upper Middle Market Commercial Relationship Officer for Fifth Third Bank. Mr. Zulauf is a graduate of Marshall University and the University of Charleston's Executive MBA program.

**Healthcare Payment Outlook**

The U.S. health care payments market is growing at a rapid pace, estimated at \$3.3 trillion in 2015. During Open Enrollment 2016 alone, 12.7 million consumers enrolled in a health plan through public and private exchanges – an increase of one million enrollees over 2015. As of 2015 to date, 67% of Americans are satisfied, compared with 66% in November 2014. Gallup began tracking Americans' satisfaction with the health care system in March 2014, at the end of the first Affordable Care Act (ACA) enrollment period.

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Americans' satisfaction appears to be influenced by the nature of their health plans, particularly how much they have to contribute to the cost. Those who receive health insurance through a union are slightly more likely to be satisfied than those who receive it through an employer, while those who pay for their own plan are the least satisfied of those who have some type of insurance. This last group includes Americans who purchased their own health insurance through the exchanges set up as part of the ACA.

### **Industry Summary**

The Union Membership rate for 2016 was 10.7% which was slightly lower than the previous year. This rate, which is defined as the percent of wage and salary workers who were members of unions by the Bureau of Labor Statistics, has fallen significantly since the first recorded union data in 1983. Around 14.6 million workers belonged to unions in 2016. Of those union members in 2016, around 35% of workers were in the public sector, which was more than five times that of the private sector. And of those who belong to a union from private or public, men had a slightly higher rate.

### **Significant Events**

**June 2017:** ABCH continues to be a strategic partner of Anthem Blue Cross Blue Shield. The Company is being considered to “private label” products in the mid-west. ABCH is also developing BICC (administration software) using modern infrastructure such as Microsoft SQL Server and .Net platforms.

**March 2016:** ABCH closed on the agreement and acquired the full service management information systems company

**February 2016:** ABCH entered into agreement to acquire a full service management information systems company located in Chicago, Il providing total software solutions.

**April 2015:** ABCH had discussions to acquire and add a local business consulting company within ABCH. The consulting company specialized in health care and insurance.

**March 2015:** ABCH and its strategic partner terminated acquisition negotiations.

**December 2014:** ABCH signed LOI for acquisition by a strategic partner. Terms of the agreement were undisclosed and negotiations continued.

**May 2014:** ABCH reported strong financial 1Q14 performance following the acquisition of Stoner & Associates. Management team announced several prospects the Company was hoping to close by mid-year.

**March 2014:** ABCH engaged Malone Consulting, Kick-it, LLC and Wolfe Design for marketing and website development. Funds were provided through WVCAP’s Operational Assistance Fund.

**December 2013:** WVJIT Board of Directors approves an investment of up to \$500,000 in ABC Holding Company.

### **Overall Conclusion**

Based on the foregoing, WV Jobs Investment Trust finds it most appropriate to record its investment in American Benefit Holding Company at value, which is currently presumed to be the same as cost or **\$499,230**.

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**Snapshot:**

Company: **Billow Global, Inc.**  
Website: BillowGlobal.com  
Location: Charleston, WV  
Total Employees: FT/1; PT/0  
WV Employees: FT/1; PT/0

**WVJIT Investment: \$50,000**  
**WVJIT Ownership: 0.0%**  
**Subject to GASB 62: NO**

**Leadership**

Marnie Rustemeyer – CEO & Founder

**Background**

Billow Global, Inc. (“BGI”) is the first premium breast support pillow company for women who have trouble sleeping due to discomfort resulting from surgery, nursing and breast size. It has a patent-pending ergonomic design that can embrace the individual and assist with comfortable sleep. The pillow addresses each element of a woman’s need for perfect breast, back, underarm and neck support.

**WVJIT Investment History**

**February 2016**

\$50,000 Promissory Note; 6% Interest Rate  
Warrants: 10% coverage; expiring in seven years.  
Maturity: August 2017

**FY2017 Accrued Interest:** \$4,150.68

**Co-Investors/Lenders/Board Members**

INNOVA  
Michael Kalogris

**Products and Services**

The main product produced by BGI is the high-quality pillow. The Billow Pillow is an all-natural breast support pillow for women who have trouble lying on their stomach due to breast pain and discomfort resulting from surgery, nursing, breast size or mastalgia. The Billow Pillow is ergonomically designed to fit to each woman’s body shape resulting in an enhanced experience whether she is resting or sleeping. The product is made into two parts. The lower portion is raised and firmer to provide support for the lower back while also supporting the breasts. The

underarms have a medium fill to provide underarm support and cushioning.

The product is 100% organic, chemical and cruelty free. The outer shell is organic cotton and the Billow is filled with eco-pure wool, which is naturally lightweight, breathable, flame, dust mite and bug resistant. The Billow Pillow retails for \$200 and at a cost of production, stands at \$85. The manufacturer holds the inventory and ships the order directly from their location.



### **Competition/Market Summary**

In 2017, an estimated 315,000 new cases of invasive and non-invasive breast cancer are expected to be diagnosed in women located in the U.S. As of March 2017, there are more 3.1 million women in the U.S. with a history of breast cancer. That is including women currently treating the disease. Overall, about one in eight women will contract breast cancer at some point in their lives.

Women also have breast surgery for cosmetic reasons. Breast surgery was reported to be the most popular form of cosmetic surgery with an increase of 4% in operations since 2015. The demand for a higher specialty pillow is very apparent within this group, along with mothers with newborn babies who breast feed and can also experience extreme sensitivities, especially while lying on their stomach during sleep or a massage. According to the American Society of Plastic Surgeons, over 1.8 million cosmetic surgeries took place in 2016. Of these surgeries, more than 290,000 were related mainly to breast augmentation.

Post diagnosis, cancer treatment involves various methods depending upon type and severity of cancer. The cancer treatment market is growing at a significant rate due to increase in the incidence of cancer cases with the growing awareness among people about various stages and availability of treatment of cancer. In addition, government initiatives and improvement in the healthcare facilities is driving the global market for cancer treatment. Breast cancer refers to the uncontrolled growth of malignant cells in the breast tissue. Rising prevalence of breast cancer and growing number of awareness programs such as the Breast Reconstructive Awareness Campaign, are expected to encourage women to undergo reconstructive surgeries. The breast cancer therapeutics market is a huge industry that targets women who have endured either surgery for cosmetic enhancement or for medical reasons. The industry was valued at over 7.5 billion in 2016 and expected to grow to \$16 billion by 2023.

The physical therapy industry is also a targeted industry for the Company. In 2014, around 18% of women in the U.S. received at least one massage. Billow Global has created several strong relationships with massage therapy and has recently signed a contract with a Spanish massage clinic for a two-year order to supply the organization with all Billow products. Being able to sell the Billow Pillow to therapy clinics will provide the Company with



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another target market as well as developing a strong link within this industry.

**Significant Events**

**July 2017:** Billow is currently working with an accountant to verify and discuss the financial reports for the past 18 months.

**June 2017:** Billow secured a two-year contract with a Spanish Therapy Center to provide Billows and other related products over the period.

**January 2016:** Billow secured \$6,000 in a Kiva Loan which is an online based lending platform that bears 0% interest. Repayments started in February 2017.

**June 2016:** Billow continues its marketing effort to medical and spa customers. Company received solid press from Vogue, Vanity Fair, Self and WV Living. Company seeks a new manufacturer and hired a part-time employee.

**February 2016:** Billow Global receives funding from WVJIT and other investors.

**Conclusion**

Based on the foregoing, the WV Jobs Investment Trust finds it most appropriate to record its investment in Billow Global, Inc. at value, which is currently presumed to be the same as cost or **\$50,000**.

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**Snapshot:**

Company: **CampaignR, LLC**  
Website: omnipledge.com  
Location: Morgantown, WV  
Total Employees: FT/0; PT/0  
WV Employees: FT/0; PT/0

**WVJIT Investment: \$55,000**  
**WVJIT Ownership: 0.0%**  
**Subject to GASB 62: NO**

**Leadership**

Ricky Kirkendall, Co-President  
Sam McLaughlin, Co- President

**Background**

CampaignR, LLC is a newly formed application Software Company set to launch its initial software product called Raisin. Raisin provides cloud-based software solutions for non-profit organizations, family foundations, religious institutions and political campaigns. These solutions include donor registry, database management and predictive analytics. Though in its infancy, CampaignR plans to expand its solution capability to connect to social media networks such as Facebook and Twitter. In addition, the Company offers professional services, including consulting, support and training services to its customers to facilitate the adoption of its cloud solutions. CampaignR sells and markets its services on subscription basis. The Company was founded in 2013 by West Virginia natives Ricky Kirkendall and Sam McLaughlin. It is headquartered in Morgantown, WV.

**WVJIT Investment History**

**October 2013**

\$110,000 Promissory Note; 7% Interest Rate

Initial disbursement: \$55,000; Follow-on Disbursement to occur after Company achieved \$10,000 in gross sales in six months following initial disbursement. Company failed to achieve gross sales milestone. WVJIT ownership changed from 5% to 10%.

**Warrants:** 10% priced at \$10.00 with no expiration date.

**Maturity:** May 30, 2016

**Co-Investors/Lenders/Board Members**

Lawrence Fine	Andrew Zulauf
Mike Green	Paul Gabriel

### **Products and Services**

**Raisin** - Cloud-based fund raising CRM platform for nonprofits primarily leading through its mobile application for both the iPhone and Android devices.

**OmniPledge** - SMS based donation service that can be used by individuals, organizations and politicians to take donations. This will be the Company's primary operating product line.

**Legacy**- Nonprofit Social Media platform for nonprofit organizations and donors.

### **Competition**

**Mobile Cause** - Mobile Cause is an integrated fundraising and communication platform designed to do three things: 1—Gain New Donors, 2—Increase Recurring Gifts and 3—Engage Supporters. This cloud based platform works to transform charities, churches, universities, nonprofit organizations, political groups, socially responsible corporations, and philanthropists into mobile fundraising experts. Customers gain access to powerful and easy to use tools for compelling mobile and social campaigns.

**Give By Cell** - Launched in 2008, Give by Cell is a trusted Mobile fund raising solution provider with more than four years experience in providing unique, affordable and effective mobile technology services to more than 2,000 organizations. It offers three main Mobile fund raising platforms: Mobile Give, Mobile Donate and Mobile Pledge, all of which allow organizations to accept donations via text message and expand fund raising capabilities through mobile technology.

### **Philanthropic Market Summary**

Overall, the U.S. should expect continued philanthropic growth for the years 2017 and 2018. The total giving rate is expected to rise above the five-year annualized average for total giving. Giving by foundations will see the largest increases in both years, followed by giving by bequest. Increases in contributions from individuals/households will be higher than the increases for gifts made by corporations. Among the recipient sub sectors, giving to health will increase the most in both years. Total giving is predicted to increase by 3.6% in 2017 and by 3.8% in 2018, while giving by American individuals/households is predicted to increase by 3.0% in 2017 and by 3.2% in 2018.

### **Significant Events**

**January 2017**: CampaignR technology was evaluated by a third party to understand the value and if it could be monetized.

**June 2016**: CampaignR negotiated with an interested management team to take over operations of the Company.

**May 2015**: CampaignR set to launch Legacy platform in Summer 2015.

**March 2015**: CampaignR continued to work on the Software development of the Legacy Platform and provided the Board of Directors a 2015 Budget forecast.

**December 2014**: CampaignR provides user-based milestones for its Legacy product. To obtain \$27.5K of the second disbursement, the Company needed to achieve 5,000 users. The second half of the disbursement was to be triggered upon the Company achieving a total revenue milestone determined by the Company and the Board of Directors.

**June 2014**: CampaignR introduces Omnipledge, the SMS donation platform to work in conjunction with existing online platforms.

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**March 2014:** CampaignR continued business development for the Raisin Platform and met with nonprofit and political organizations within WV. The Company participated in Innovation Day at the State Capital.

**December 2013:** CampaignR developed the mobile application software for both iPhone and Android devices. The Company also became one of the first tenants at WVU's Launchpad, the University's entrepreneurial incubator.

**October 2013:** CampaignR closed a \$110,000 promissory note investment from WVJIT with only 50%, or \$55,000 advanced at closing.

**Conclusion**

Based on the foregoing, the WV Jobs Investment Trust finds it most appropriate to write off the investment and record its investment in CampaignR, LLC at **\$0.00**.

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Formerly



**Snapshot:**

Company: **Valtari Bio, Inc. (CereDx, Inc)**  
Website :www.valtaribio.com  
Location: Morgantown, WV  
Total Employees: FT/3; PT/3  
WV Employees: FT/3; PT/3

**WVJIT Investment:** \$250,000  
**WVJIT Ownership:** 0.00%  
**Subject to GASB 62:** No

**Leadership**

Tara L. Barr, PhD, RN, FAHA, Co-Founder & Chief Scientific Officer  
Richard Giersch MS, Co-Founder & Chief Executive Officer  
Valerie M. Gionis, Co-Founder & Chief Operating Officer  
Dietrich A. Stephan, PhD, Board & SAB Member

**Background Information**

Valtari Bio™ Inc. is focused on advancing the treatment of stroke through the development of next-generation precision diagnostics and therapeutics. Currently, there is no simple test to diagnose stroke or time of onset. Patients rely on physician/patient assessment and neuroimaging. Approximately 2.2 million people each year are having unnecessary stroke workups, costing the U.S. Healthcare system at least \$5.5 billion a year. More serious are the patients being misdiagnosed with other conditions that mimic a stroke. Time of stroke is important. Hospitals take, on average, 60-80 minutes to diagnose a stroke. Delay decreases or eliminates a patient's chance to receive lifesaving clot-busting drugs as they cannot be administered past 4 ½ hours of onset. It is estimated only 3-8% of eligible patients receive these drugs due to physicians being unable to determine the time of onset.

**WVJIT Investment History**

In 2016, WVJIT invested \$250,000 as a senior secured convertible note at a fixed 8% interest rate. The note will accrue simple interest and the maturity date of the note is 24 months from disbursement. Valtari Bio does have the option to extend the note for an additional 12 months, but the interest rate will increase to 10% during the extension period beyond the maturity date. The Company is currently in negotiations for the matching funds to trigger the initial investment from WVJIT.

**Warrants:** 20% Warrant coverage, redeemable at 20% discount of preferred shares in a qualified financing, expiring in five years.

**Total WVJIT Investment:** \$250,000 investment from WVJIT through the WVCAP.

**Accrued Interest 2017:** \$20,054.41

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**Co-Investors/Lenders:** INNOVA, WVU Research Group, WV Growth Investment Fund

**Board of Directors**

**Richard F. Giersch** (See Bio Below)

**Tara L. Barr** (See Bio Below)

**Valerie M. Gionis** (See Bio Below)

**Dietrich A. Stephen** (See Bio Below)

**Guy Peduto (Innova Commercialization Group)**

Guy Peduto joined the INNOVA Commercialization Group in April 2006. Prior to joining INNOVA, he held the position of Director, Commercial Programs at the Institute for Scientific Research, Inc. While there, he developed strategies for the commercial utilization of ISR's technology and research applications in such areas as biomedical research, education, software development, mining safety and communication, VTOL aerial vehicles, and automotive controls and diagnostics. Mr. Peduto's background includes 20 years of strategic planning experience with an emphasis on product introduction, leadership for early stage and start-up companies as well as market and business development. This experience includes business formation, product development, go-to-market and market development strategies for industrial and commercial manufacturers, consumer goods, advanced research and development, healthcare, financial institutions, Internet start-ups and retail chains. Mr. Peduto received a Bachelor's degree in Business Administration with a major in Marketing from West Virginia University.

**Michele O'Connor (WVJIT)**

Michele O'Connor has more than 25 years of experience in the finance and banking industry. She attained her Certified Financial Planner designation along with the Accredited Investment Fiduciary Manager designation. She was the Portfolio Manager for the Trust Department at First United Bank and managed over \$600 million for the department. Currently, Ms. O'Connor is the Investment Manager for the West Virginia Jobs Investment Trust, a leading venture capital firm focused on turning the innovation of new ideas into successful world-class companies. Ms. O'Connor graduated Magna Cum Laude with a BA in Finance from the University of Maryland College.

**Management Team**

**Tara L. Barr, PhD, RN, FAHA, Co-Founder & Chief Scientific Officer**



Dr. Barr is Valtari Bio's Chief Scientific Officer and has an adjunct appointment at the University of Pittsburgh School of Nursing. She is a 2012 inductee to the Robert Wood Johnson Foundation Faculty Nurse Scholars Program and serves on the Chair of the American Heart Association's Cardiovascular and Stroke Nursing Council. Dr. Barr's work has spanned from basic preclinical models of neurological disease mechanism to qualitative research methods to understand the human response to disease and the application of genetics and genomics in clinical research. Her program of research is centered on the use of genomic methodologies to identify biomarkers of cardiovascular disease, understand their relationship with post-stroke inflammation and immunity, and define the contributing

environmental factors related to health disparity in underserved populations. Dr. Barr began her career as a neuro-trauma nurse at the University of Pittsburgh. She received her PhD in Translational Neuroscience Nursing Research from the University of Pittsburgh and the Graduate Partnership Program of the National Institutes of Nursing Research. Her doctoral work established the use of gene expression profiling as a novel method for the study of ischemic stroke recovery. She discovered a novel genomic profile that can be used for triaging stroke in the acute care setting. As a post-doctoral fellow and Nurse Specialist in the intramural programs of the National Institute of Nursing Research (NINR) and the National Institute of Neurological Disorders and Stroke (NINDS), she developed and established a study examining novel biomarkers and the effects of traumatic brain injury and post-traumatic stress disorder on post-deployment military personnel.

**Richard Giersch MS, Co-Founder & Chief Executive Officer**



Mr. Giersch currently serves as the Director of Venture Development for West Virginia University. He graduated with a BS from WVU and a received a graduate degree from UNC Chapel Hill. He is a seasoned biotechnology and venture capital executive. After attending UNC Chapel Hill, he became Director of Information at Fusion Ventures, a venture capital firm where he led technology evaluation and due diligence. He then accepted the Chief Operating Officer position with ZenBio, a regenerative medicine company and research tool provider. In that role, he led licensing, manufacturing operations, university partnerships, grant development and sales operations. He then became Director of Grants and Development for 21 Ventures, at the time the third largest green and renewable energy venture firm in the world. In that position, he ran a team that secured over \$65M dollars in funding and assisted with investment portfolio evaluation. Just prior to joining WVU, Giersch was the Chief Science Officer and corporate liaison for the New Jersey Center for Biomaterials and served on the Rutgers/Cleveland Clinic Executive Committee of the Armed Forces Institute for Regenerative Medicine, a \$50-million-dollar initiative to develop advanced treatment options for wounded warriors. In his career, he has taught classes and seminars on entrepreneurship and technology evaluation at UNC Chapel Hill, NY Academy of Sciences, the NYU Stern School of Business, and TechCoire, a Sacramento Entrepreneur's group.

**Valerie M. Gionis, Co-Founder & Chief Operating Officer**



Ms. Gionis has served a broad range of leadership roles in multiple disciplines, including marketing, operations, and grant administration. As most of her career has been spent with small innovation firms in technology and biotechnology spaces, the challenges she faced demanded cross-functional expertise and an ability to do more with less. Ms. Gionis currently serves as the Marketing Programs Manager for Optivia Biotechnology, where she has revamped the firm's brand, market presence, and go-to-market strategy. Her work has resulted in Optivia now being the most widely-recognized brand in molecular transporters. Ms. Gionis previously served as VP of Marketing and Corporate Communications for TV Magic where she positioned this video systems integrator into its most successful new vertical market. Her previous biotech experience includes Director of Operations for Vala Sciences Inc., a biotechnology company in San Diego, CA that develops and markets cell-based image analysis software and reagents to researchers and pharmaceutical companies. Prior to her role with Vala Sciences, Ms. Gionis served as Marketing Communications and Patent Manager at Q3DM Inc., a life-sciences start-up that



brought to market a high content imaging and analysis systems for life science research and diagnostics before it was sold to Beckman Coulter, Inc. in 2003.

**Dietrich A. Stephan, PhD, Board & SAB Member**

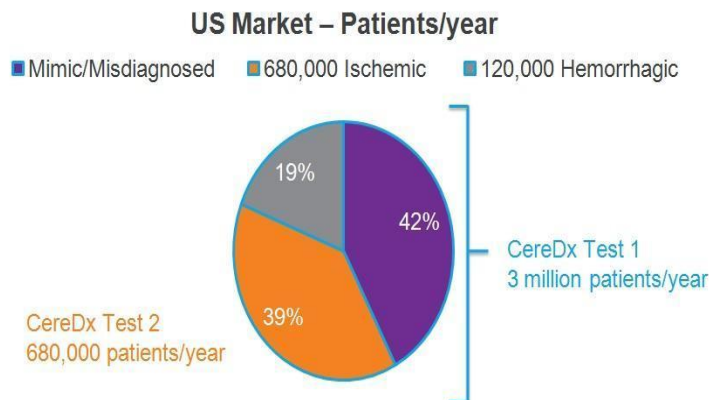


Dr. Stephan has been involved with over 10 start-up companies, two of which had successful exits totaling \$460M. Dr. Stephan has helped these companies raise over \$80M with his involvement. He is a Valtari Bio shareholder committed to the success of bringing its highly innovative stroke diagnostics to market. Dr. Stephan is a human geneticist and entrepreneur who works to positively disrupt the health care system to improve patient outcomes. He is credited with being one of the fathers of the field of Personalized Medicine based on both his work in deeply sub-classifying common diseases using molecular scanning technologies and subsequently putting in place the diagnostic testing infrastructure and paradigms to enable personalization. Dr. Stephan's academic career includes his current role as Professor and Chairman of Human Genetics at the University of Pittsburgh. He previously served as the founding Chairman of the Neurogenomics Department at the Translational Genomics Research Institute. Dr. Stephan has been featured twice on the front page of the Wall Street Journal for his game-changing contributions to healthcare and publishes on the business of science in journals such as the Harvard Business Review.

**Products**

Valtari Bio's first product will focus on stroke vs. no-stroke diagnostic test. The test has the potential to serve over 3 million people annually, significantly improve patient outcomes, and save billions of dollars in health care system costs. The Company's second product will focus on time of stroke onset test. These diagnostic tests should easily be integrated into current diagnostic treatment paths in ER's, EMS vehicles, urgent cares and primary care offices. These tests are expected to provide a clear diagnosis in 20 minutes or less.

In the U.S. market alone, 3 million people are treated to determine if they are having a stroke. Of those patients, 680,000 test positive. The first test being developed by Valtari Bio would specifically assist medical personnel to determine if the patient was having a stroke without waiting for neuroimaging results. Worldwide, this number is closer to 15 million annually.





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Preliminary data indicates that the Valtari Bio (CereDx) stroke profile performs better than the current standard of care.

	<b>CURRENT STANDARD</b>	<b>Valtari Bio PRELIMINARY DATA</b>
<b>Sensitivity</b> true positive- STROKE	83%	93%
<b>Specificity</b> true negative - NO STROKE	44%	96%

The first step towards commercialization is an expanded trial. The University of Cincinnati will be the contract research partner for the validation study. Valtari Bio will file an FDA molecular diagnostic pre-submission in parallel with the start of its validation study to optimize the approval process.

The University of Cincinnati will provide the following for the expanded trial:

<b><u>Project Management</u></b>	<b><u>Regulatory Oversight</u></b>	<b><u>Monitoring</u></b>	<b><u>Data Coordinating Center</u></b>	<b><u>Site Management</u></b>	<b><u>Site Costs</u></b>
PI Scientific advisory committee/publication ( <i>Valtari Bio already has an SAB established</i> ) Project manager Clinicaltrials.gov Manual of Procedure Development Investigator meetings	FDA submission and maintain IND AE/SAE tracking and reporting IRB packet preparation (protocol, forms etc.)	Monitoring Plan Site initiation visits Verification of data Site closeout	Statistical analysis plan Source document development Case report form creation Randomization <i>(Valtari Bio's SAB members Drs. Huang &amp; Halperin will manage the biostatistical analysis)</i> Data collection system Cleaning and coding analysis Implementation and reporting Site training and setup	Site selection Performance tracking Accounting and payment Contracting and budget negotiation	Start up Care costs PI Coordinator IRB

The data collected through this UC validation study will be used to raise Series A funds of \$9 - \$11 million in funding. The Series A round will fund a larger clinical trial and FDA clearance. Valtari Bio is in discussions with VC firms to fund the Series A.

### **Industry and Market Size**

Stroke is the third most frequent cause of mortality after ischemic heart disease and cancer, and the first cause of disability in adults worldwide. In 2005, there were an estimated 15 million strokes per year. One third of these strokes were fatal and another one third of these patients were permanently disabled. Care for stroke survivors in the United States cost an estimated \$18.6 billion in 2008, and lost productivity and premature mortality cost an additional \$15.5 billion. In 2003, only 4% of ischemic stroke patients received TPA. In 2011, this had increased only to 7%. Therefore, there is a significant market need for a biomarker or other additional test that would identify more patients that could benefit from treatment. Although a biomarker for ischemic stroke is currently not used in clinical practice, efforts to develop diagnostic and prognostic indicators for stroke are ongoing.

Each year, around 795,000 Americans experience a stroke and there are approximately 610,000 new stroke cases. The American Heart Association has predicted that the prevalence of strokes is expected to increase by 20.5% by 2030. Around 85% of those patients will suffer an acute ischemic stroke in which bleeding does not occur and treatment can substantially alter disease prognosis. Increases in the number of cases of acute ischemic stroke and technical advancements in medical devices have led to the growth of the global acute ischemic stroke diagnosis and treatment market. The major factor for this is that more patients are surviving the initial injury following stroke and are living with significant disabilities. According to a recent report, the global acute ischemic stroke diagnosis and treatment market will grow at a 6.3% CAGR for the period 2014-2020. The report states that the global acute ischemic stroke diagnosis and treatment market was valued at \$1.2 billion in 2013, and is estimated to hit \$1.9 billion by 2020.

### **Competitive Analysis**

Valtari Bio indicates there are no competing products on the market or in development. According to the Company “diagnosis of stroke depends upon expert clinical evaluation and neuroimaging”. These resources are rarely available in the field and are both time consuming and expensive. Even skilled stroke certified centers have difficulty making a definitive diagnosis. In resource-poor geographic areas, diagnosis and treatment times are much longer.”

There have been a number of companies who have tried to develop a similar technology. No company as of yet has been able to effectively and accurately identify the time of stroke onset. A clinical trial at the University of Geneva found that they could only produce an accurate diagnosis 50% of the time using their technology. The current data available from clinical trials is only from a small number of patients. The average time of the first measurement was only within the first 10 hours of the reported onset of symptoms. Further research, specifically for the period within the first 4.5 hours of the onset of symptoms, will be necessary to establish efficacy. The competitive advantage from this technology being developed is a more accurate and thorough assessment of patients who experience a stroke. This technology is also a much lower cost compared to current treatment systems and therefore a more viable effective option for healthcare institutions. This technology requires minimally invasive techniques which involve only a very small sample size. And finally, point-of-care information can be obtained quickly and used to triage treatment and monitor recovery in stroke patients.

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	In Development			Commercially Available	
	CereDx Inc. Proteomic focus (also combines genomic, other biomolecules, & cell-based methods)	Ischemia Care genomic only	Roche	Neurologica CereTom "Portable" CT ~5'x5' weighing ~800 lbs. installed in limited EMS vehicles	Siemens SOMATOM "Portable" CT - Not available in the US
Predictive		X	X		
Stroke v. No Stroke	X			X	X
TIA v. Mimic	X				
TIA v. Stroke	X				
Time of Onset	pipeline				
Ischemic v. Hemorrhagic Differentiation	pipeline				

**Significant Events**

**April 2017:** 50+ patients are enrolled in the clinical trial; the analysis is on track for 2017.

**January 2017:** Company changed name in January due to a conflict. New name is Valatri Bio, Inc.

**November 2016:** CereDx held its first meeting with the FDA. Presentation was very well received with compliments going to the clarity and logical format of the pitch.

**June 2016:** CereDx achieved \$250,000 in matching funds from INNOVA. WVJIT matched the \$250,000 with WVCAP funds. On June 30, 2016 funds were deployed to CereDx.

**May 2016:** WVCAP Committee and WVJIT Board of Directors approves an investment in CereDx Inc. for up to \$250,000 with a 20% warrant coverage pending achievement of matching funds.

**Overall Conclusion**

Based on the foregoing, WV Jobs Investment Trust finds it most appropriate to record its investment in Valtari Bio, Inc. (formerly CereDx, Inc.) at value, which is currently presumed to be the same as cost or **\$250,000**.



**Snapshot:**

Company: **Core10**  
Website: [www.core10.io](http://www.core10.io)  
Location: Huntington, WV  
Total Employees: FT/24; PT/0  
WV Employees: FT/10; PT/0

**WVJIT Investment:** \$500,000  
**WVJIT Ownership:** 0.00%  
**Subject to GASB 62:** No

**Background**

Core10, Inc. is a 100% U.S. based Software Development Company that creates financial technology solutions for the banking, healthcare, insurance and retail sectors, among others. Shared between Tennessee and West Virginia, the talent base provided by Core10 is very highly regarded while mitigating problems associated with offshoring. The Company is headquartered in Nashville, TN with an innovation center in Huntington, WV. The new innovation center enables the Company to compete with traditional IT outsourcing by offering high level product design on a very competitive pricing model.

**WVJIT Investment History**

**October 2016**

WVJIT invested \$500,000 as part of a \$1,000,000 Series A Preferred Equity round. Company raised additional 500K via private investors mainly located in Huntington, West Virginia.

**Warrant Coverage:**

10% Warrant coverage (62,500 Series A Preferred Units). Warrants good for 3 years and exercised at a \$8 per unit strike price

**Total WVJIT Investment:** \$500,000 (\$250,000 funded through WVCAP)

**Products and Services**

The Core10 team manages the end-to-end software cycle providing an all-around service for their customers. The products and services provided by the Core10 team are of the highest quality built by U.S. developers. The products are built by the developers and integrate with existing company systems to provide seamless technology solutions to the companies. The Core10 service continues after the original software creation and implementation with ongoing services to maintain, support and enhance the applications that have been developed with all this being done at an attractive rate competitive with any existing companies located in the U.S. or abroad. Core10's employees include expert leadership from the existing Nashville team while combining this with local highly skilled software developers who are educated and based in the U.S. This combination allows for a well-rounded

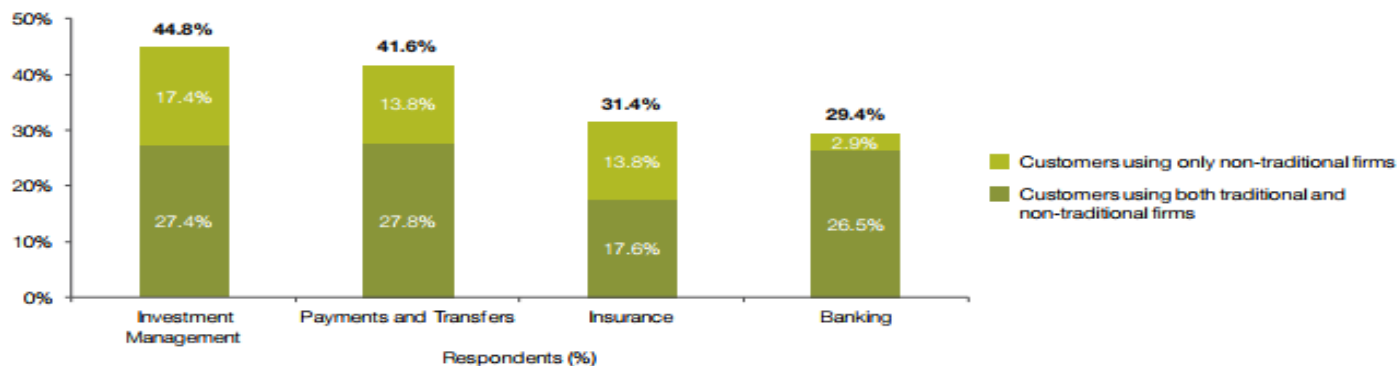
service that caters to all of a customer’s demands and needs.

Companies who are utilizing this type of software application within their company have been forced to outsource this work to countries that can provide the services at a much lower, affordable rate. Countries such as the Ukraine and India have benefitted from the high prices charged by developers in the tech hubs of the U.S. The need for these types of services provided by Core10 is evident. The growth in the software industry has been dramatic over the past decade. Software drives productivity and innovation in almost every economic sector, helping businesses of all sizes perform better in good times and bad. The solutions offered by Core10 are innovative and in high demand in 2016 in the U.S. Core10 has existing relationships with a number of companies through their previous entity, Synergy Systems. Ingram Barge, IPREO, Iron Solutions and Jack Henry & Associates, who are just a few of their current and former clients that have formally expressed interest in working with Core10.

**Market/Industry**

Currently, there are a number of large software development companies operating in the U.S. Some of the services provided by these companies are software support, computer systems design and application building. The rise of FinTech has been aided by a perfect storm created by customer demands with higher expectations, the ability for younger companies to secure early stage investing, reduced barriers to entry, and increased technological evolution. VC funding in FinTech has increased exponentially over the last few years with worldwide investment reaching close to \$25B in 2015, and although deal activity fell in Q2 2016, the industry is still very appealing for investment. FinTech firms provide a real unique value proposition as they are able to move quickly to meet customer demands and by tailoring their solutions specific to the customer needs. Just over 50% of global customers say they use financial services from at least one non-traditional firm for banking, insurance or investment management, according to a study carried out in 2016 by Capgemini.

**Figure 1.2: Customers Using At Least One Non-Traditional Firm for Financial Services, by Domain (%), 2016**



### **Management Team**

#### **Jeff Martin - CEO/ Co-Founder**

Jeff Martin is a founding partner in Core10 and has worked closely with other influential market leaders to develop and bring the long term technical delivery solution to market. For over 17 years, he has been a successful leader in Technical Recruitment, Talent Management and Organizational Leadership. He was the founder of Synergy Systems, a technical recruiting and staffing company that emerged into a rapidly growing Technical and Management Consulting Firm based in Nashville, TN. Mr. Martin served as CEO of Synergy Systems from 2008 until its merger with Core10. He is currently the co-founder and CEO at Core10, where he is responsible for visionary leadership across all aspects of the business.

#### **Lee Farabaugh - COO**

Lee Farabaugh has served in delivery and operations roles in technology for over 15 years, and was a founder of the successful health care software development firm, PointClear Solutions. She now serves as co-founder and COO at Core10, responsible for sales and marketing, delivery, recruitment and client retention. Ms. Farabaugh's background in user experience design enables her to focus on the details of Core10's delivery operations, office environments, recruitment, employee relations and customer experience. She understands deep market focus, having spent the past 10 years focused in the health care sector.

#### **Rob Elliott - Corporate Controller**

Rob Elliott is an individual who truly enjoys the numbers side of business. A Michigan native, he moved to Nashville in 2009 following the completion of his Bachelor's degree in Business Administration with a focus in Accounting from Campbellsville University. With eight years of Professional Accounting experience, Mr. Elliott is passionate about utilizing his skills in Accounting and Finance to assist in Core 10's growth.

### **Core10 Software Development Team**

Core10 plans to hire a team of highly skilled software developers to be based in the West Virginia area. Pulling from a large pool of graduates from well-known Universities in the Tri-State region, Core10 hopes to promote job growth as well as retain talent based in WV by offering competitive salaries for employees in this area. Core10 will look to hire technology experts and will marry the talent in WV with the senior staff in Nashville, TN. Through this model, the Core10 team believes it can deliver an excellent quality product/service at a price that is affordable for clients and enables a viable option for companies who are currently outsourcing. In their inception year (2016), Core10 anticipates adding 10 employees, with that number growing to 20 total employees by the end of 2017. The Company anticipates their employee base growing to 60 total employees by the end of 2019, with wage estimates being \$48,000 per year for developers and \$45,000 per year for data analysts.

### **Board of Directors**

#### **Joe Maxwell – Partner**

Joe Maxwell is the Managing Partner of the FinTech Growth Fund at Cultivation Capital. He was most recently the EVP and MD of IPreo Inc. where he led the Private Capital Markets, acquiring Clear Momentum Inc. in December 2015, and Ilevel Inc. in August 2015. Prior to its 2014 acquisition by Ipreo, he was Chairman and CEO of Shareholder InSite. He was also founder and CEO of CapControls, Inc., and founder, CEO and Chairman of Investment SCorecard, Inc. Investment SCorecard was the first online performance reporting and analytics technology provider, monitoring over 1,100 investment advisory firms, \$4T in assets and over \$1.8M investment

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accounts. Investment SCorecard sold to Informa PLC in April 2007.

**Patrick Bond – Representative of Series A Preferred**

Managing Director of McCabe-Henley Properties LP since 1998, Pat Bond brings a wealth of experience in finance, administration, strategic planning, general management and management information systems. Previously, Mr. Bond owned/operated an independent consulting practice, Growth Management Group that specialized in the areas of Business Environment Assessments, new product development, investment and financial analysis and strategic planning. Prior to that, he was President of a natural gas marketing company and was President and CEO of Atlantic Financial Federal, a \$750 million savings and loan institution and all its business units. He graduated from WVU where he received both Master and Bachelor Degrees in Industrial Engineering.

**Sarah Biller- Board Member**

Sarah Biller is very active in the FinTech community. She is an Entrepreneur, Advisor, Investor and teaches a graduate level course on the evolution of Financial Technology at Brandeis University. She is the Co-Founder of the FinTech Sandbox and currently sits on its Advisory Board. Ms. Biller was also most recently the Head of Innovation Ventures at State Street Bank's Global Exchange division and its Chief Operating Officer for Innovation. Prior to joining State Street, Ms. Biller had been a Principal in the launch of several successful venture-backed start-ups in the FinTech and Life Sciences sectors. Most recently, she was the Co-Founder and President of Capital Market Exchange (CMX), a venture-backed predictive analytics platform utilizing investor sentiment to help bond investors anticipate near-term changes in spreads. Ms. Biller has also held roles at Fidelity Investments, worked on MCI's corporate venture team, and launched and led research divisions for Fortune 500 CFO's and treasurers at the Corporate Executive Board. She is also supportive of the arts and plays tennis competitively. Ms. Biller studied Finance at West Virginia University and George Washington University

**Jeff Martin** - See Management Team

**Lee Farabaugh** - See Management Team

**Significant Events**

**June 2017:** Core10 hired six new employees for their Huntington location. Currently at 10 new hires since inception in November 2016.

**March 2017:** Core10 won TechConnect Start-Up of the year award at the WV Spirit of Innovation Awards.

**February 2017:** Core10 closed large service contract with national company worth \$2.1M.

**November 2016:** Core10 closed \$1M Series A round by raising \$500K from private investors to match the \$500K equity investment from WVJIT.

due to the early stage of the Company and round of funding raised. Core10's cash position for year end 2016 was approximately \$495,000 and the Company has a favorable current ratio of 2.07.

**Overall Conclusion**

Based on the foregoing, WV Jobs Investment Trust finds it most appropriate to record its investment in Core10 at value, which is currently presumed to be the same as cost or **\$500,000**.

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**Snapshot:**

Company: **Cross Cutting Concepts, LLC**  
Website: CrosscuttingConcepts.com  
Location: Huntington, WV  
Total Employees: FT/4; PT/2  
WV Employees: FT/4; PT/2

**WVJIT Investment: \$150,000**  
**WVJIT Ownership: 37.50%**  
**Subject to GASB 62: YES**

**Leadership**

Derek Gregg - Founder  
Darryl Jones- COO

**Background Information**

Crosscutting Concepts, LLC formerly known as Vandalia Science Education, was founded as a division of Vandalia Research in 2006. It started with one hands-on laboratory kit on DNA typing. Through a distribution partnership with Fisher, the product line grew to six kits on forensic science and launched in January 2007. In January 2010, an additional six kits were slated for development and were launched in January 2011. Also in 2011, distribution was dramatically expanded, resulting in substantial sales growth. The final two Lyle & Louise modules were launched in the fall of 2011. In 2013, the Company partnered up with EMC Publishing to develop a series of engaging, hands-on laboratory kits.

**WVJIT Investment History**

**October 2012**

WVJIT invested \$150,000, following the Company achieving matching funds from First Sentry Bank and a private investor. (\$150,000 funded through WVCAP).

**Warrants:** 10% Warrant Coverage (50,000 units: Series A Preferred Units). Warrants good for 7 years and exercised at a \$1.00 per unit strike price.

**Total WVJIT Investment:** \$150,000 (\$150,000 funded through WVCAP)

**Co-Investors/Lenders:**

First Sentry Bank  
Joan Weisburg

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### **Management Team**

#### **Darryl Jones, Chief Operating Officer**

Darryl Jones is one of the senior employees of Crosscutting Concepts who has been with the Company since 2008. Darryl is responsible for the day to day oversight of the Company and the staff who are on site in the Huntington location. Mr. Jones has a firm understanding of the operations and has worked with the staff to implement production and inventory systems. In addition, he manages customer relations and distribution partners Crosscutting Concepts. Mr. Jones graduated from Marshall University in 2013 with a BA in Health Science.

### **Board of Directors**

#### **Derek Gregg, Founder**

Derek Gregg is responsible for the financial reporting of the Company. He is also currently directing the sales and marketing activities of the Company. As part of the consulting arrangement between Mr. Gregg and Crosscutting Concepts he is creating partnerships with Marshall University Research Corp as well as leading the recruiting process for a GM. Mr. Gregg is a graduate of Marshall University and serves as Chair of the BioScience Association of WV.

#### **Patrick Bond, Mountaineer Capital**

Pat Bond brings a wealth of experience in finance, administration, strategic planning, general management and management information systems. Previously, Mr. Bond owned/operated an independent consulting practice, Growth Management Group that specialized in the areas of Business Environment Assessments, new product development, investment and financial analysis and strategic planning. Prior to that, he was President of a natural gas marketing company and was President and CEO of Atlantic Financial Federal, a \$750 million savings and loan institution and all its business units. He graduated from WVU where he received both Master's and Bachelor's Degrees in Industrial Engineering.

#### **C. Andrew Zulauf, Executive Director, WV Jobs Investment Trust Board**

Andy Zulauf is the Executive Director of the West Virginia Jobs Investment Trust, a public seed investment fund. He has extensive experience in finance and venture capital, having served as Executive Director and Senior Loan Officer for the West Virginia Capital Corporation, as a Partner and Managing Director of West Virginia operations for Adena Ventures, and as Vice President and Upper Middle Market Commercial Relationship Officer for Fifth Third Bank.

### **Products**

**The Mystery of Lyle and Louis** - Premier forensic science curriculum designed for high school and introductory undergraduate education. Comprised of independent hands-on laboratory modules, Lyle and Louise introduces students to a broad range of techniques in forensic analysis, including DNA Typing, Questioned Document Examination, Forensic Entomology, Bite Mark Analysis, Blood Spatter Analysis, Hair and Fiber Analysis, and more.

**Desolation: STEM** - The latest product from Crosscutting that compels students to solve problems involving

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design, development, evaluation and improvement. Students are exposed to the subjects of astronomy, engineering, chemistry, and physics in this unique four-moduled product.

**Biotech by Ellyn** - Crosscutting has partnered with EMC Publishing and author Ellyn Daugherty to develop and market *Biotechnology by Ellyn Daugherty™*, a series of engaging, hands-on laboratory kits to accompany the best-selling textbook and laboratory manual *Biotechnology: Science for the New Millennium*. Designed for introductory courses, this program teaches the concepts and hands-on lab procedures required for entry-level careers in the rapidly growing biotechnology industry.



### **Competition/Market Summary**

**Carolina Biological Supply Company (Burlington, NC):** Supplier of hands-on science and math education products and services that help students of all ages learn and understand science and math.

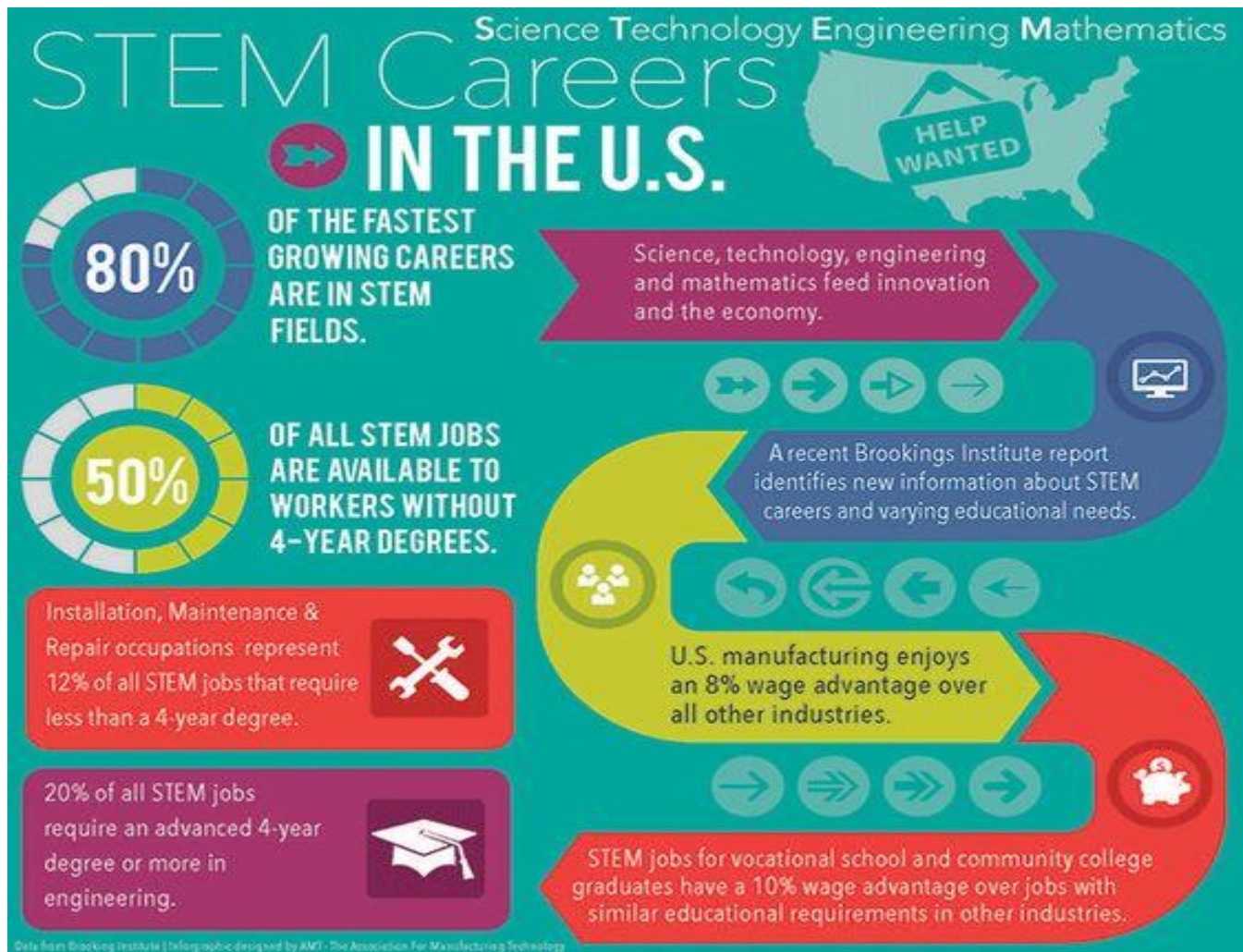
**Edvotek (Washington, D.C.):** Supplier of biotechnology kits and equipment designed specifically for education.

**Aldon (Hanover Park, IL):** Manufactures educational kits for its own Innovating Science brand. Aldon is a subsidiary of Thermo Fisher Scientific.

### **Industry**

The United States has developed as a global leader, in large part, through the genius and hard work of its scientists, engineers, and innovators. In a world that's becoming increasingly complex, where success is driven not only by *what* you know, but by what you *can do* with what you know, it's more important than ever for our youth to be equipped with the knowledge and skills to solve tough problems, gather and evaluate evidence, and make sense of information. These are the types of skills that students learn by studying science, technology, engineering, and math—subjects collectively known as STEM.

Yet today, few American students pursue expertise in STEM fields—and we have an inadequate pipeline of teachers skilled in those subjects.

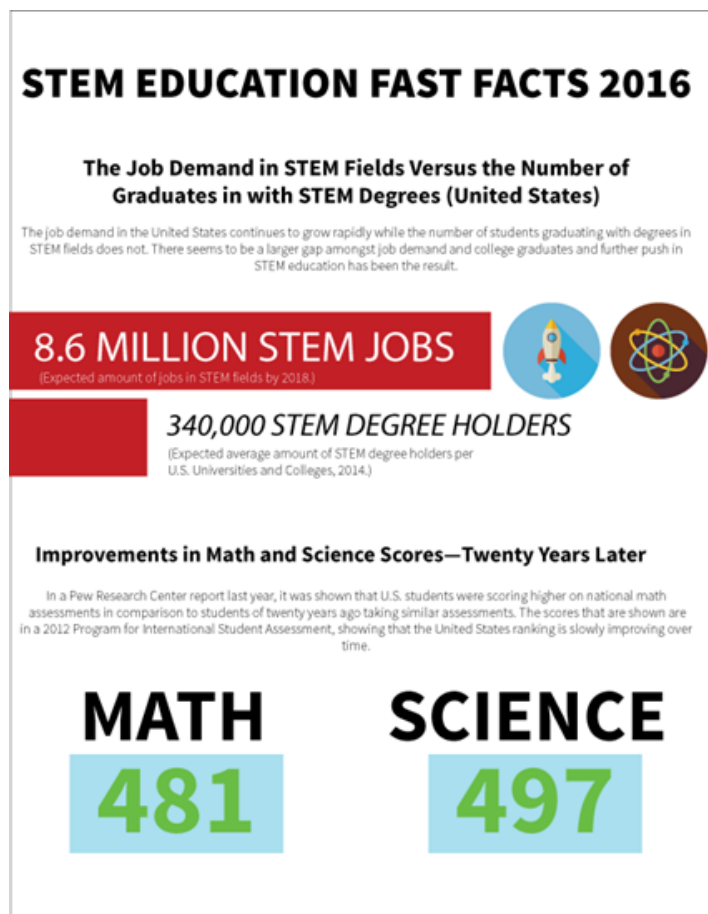


### STEM Funding in the U.S.

The future of STEM funding is uncertain under President Trump’s proposed budget. Several Federal programs that support STEM may be cut. One of the initiatives to be cut is a \$1.6 billion-dollar pool of funding created under Every Student Succeeds Act. This program allowed state and local school districts to access high-quality STEM courses, increased access to STEM in underserved population areas, science fairs and specialty STEM schools and afterschool programs. Teacher preparation may cost up to \$2.4B. These monies would have been used to recruit STEM teachers and restructure pay scales. The overall budget plan is expected to cut \$9B from the Department of Education.

“A lot of the decisions about what kids will be learning will be driven more by governors and state officials. That’s a really big change and it reflects the way policy is drifting in the country”, said Lindsey Gardner, director of external relations for the STEM Education Coalition.

There is some positive news with the new administration. In February, President Trump signed two laws that are aimed to increase the number of women in STEM jobs. Congress is also set to reauthorize the \$1.2B Carl D. Perkins Center and Technical Education Act which sends money to school districts for vocational educational programs.



**Significant Events**

**April 2017:** Entered into a consulting agreement with Derek Gregg to identify and hire a GM. A transition strategy is also being delivered in order to grow the Company.

**June 2016:** Crosscutting Concepts has relocated to a new office in Huntington and is currently being managed by Derek Gregg under a management contract negotiated and approved by the company board of directors.

**December 2014:** Executive team introduced 2015 budget to the Board. Revenues were expected to rise compared to a year ago based upon more projects by existing customers. Company discussed possible new products to be developed. Derek Gregg announced to the board his departure to pursue business school. His expected departure was during 3Q of 2015. Justin Swick also departed from the Company.

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**December 2013:** Crosscutting Concepts was in preliminary collaboration discussions with NASA Outreach, AquaPhoenix and Texas Instruments.

**September 2013:** Crosscutting Concepts partnered with EMC Publishing and author Ellyn Daugherty to develop and market, “*Biotechnology by Ellyn Daugherty*,” a series of engaging, hands-on laboratory kits.

**August 2013:** Crosscutting Concepts announces new bundles available for its *Desolation: STEM Series*. The new bundles are Earthbound and Down Mass Driver (astronomy) and High and Dry Solar Water Heating (geology and environment).

**February 2013:** Two new desolation kits launched; Larry Nitardy was hired as part-time marketing consultant to assist with business marketing. Crosscutting Concepts also hired its first salesperson for business development.

**October 2012:** Crosscutting Concepts achieved \$150,000 in matching funds from First Sentry Bank and a private investor. WVJIT matched the \$150,000 with WVCAP funds.

**July 2012:** WVCAP Committee and WVJIT Board of Directors approved an investment in Crosscutting Concepts for up to \$300,000 with a 10% warrant coverage pending achievement of matching funds.

**Overall Conclusion**

Due to GASB 62 valuation, a write-up of \$3,794 will increase the book value of the investment.

Based on the foregoing, WV Jobs Investment Trust finds it most appropriate to record its investment in Crosscutting Concepts, LLC at value, which is currently presumed to be the same as cost or **\$153,794**.





Dr. Tom McClellan, Founder and CEO  
Brian Miller, Operations Manager

**Leadership**

**Background**

Figure 8 Surgical, Inc. is a Delaware Corporation that was founded in 2009. The Company has developed a medical device that has been FDA cleared. The Flatware Sternal Closure System is a simple, cost effective alternative to traditional cerclage used in the primary closure of sternums following heart surgery. This specific technology can reduce the pain experienced by patients following this type of surgery as well as reducing the length of hospital stay. Ultimately the Flatware Sternal Closure System will look to create a stronger more durable method of closure while reducing patient costs.

A median sternotomy involves separating the sternum longitudinally to allow surgical access to the thoracic cavity and associated organs (heart, lungs, aorta). Upon closure, the sternum must be held together to promote bone healing and reduce pain. The wire is susceptible to fracture upon twisting and to metal fatigue during patient movement or the action of breathing or coughing. If the wire breaks, the tissue/bone can separate and results in sternal non-union and/or wound infection. These preventable complications result in longer hospital stays, further surgeries, and in the case of deep infection, a lethality rate of 48 % with very high associated costs.

**WVJIT Investment History**

**January 2016**

\$250,000 Series D Preferred. Shares priced at \$.19/share with an 8% annual non-cumulative dividend.

**Total WVJIT Investment:** \$250,000 (\$250,000 funded through WVCAP)

**Dividend Income FY 2017:** \$0.00

**Co-Investors/Lenders:**

WV Growth Fund  
INNOVA Commercialization

**Snapshot:**

Company: **Figure 8 Surgical, Inc.**  
Website: figure8surgical.com  
Location: Morgantown, WV  
Total Employees: FT/1; PT/1  
WV Employees: FT/1; PT/1

**WVJIT Investment: \$250,000**  
**WVJIT Ownership: 8.7%**  
**Subject to GASB 62: NO**

**Board of Directors/Management**

**Dr. Tom McClellan- Founder & CEO**

Dr. McClellan is Board Certified by the American Board of Plastic Surgery and a Fellow in the American College of Surgeons. He specializes in reconstructive and cosmetic surgery including, breast augmentation. Dr. McClellan completed medical school at the University of Alabama at Birmingham, his internship and residency in Internal Medicine at the Hospital of the University of Pennsylvania in Philadelphia and his fellowship in renal medicine at the University of California in San Francisco. He received a MPH degree from Emory University in Atlanta. He is currently a certified plastic surgeon in Morgantown, West Virginia. He is currently licensed to practice medicine in West Virginia, Maryland, and Pennsylvania. He is affiliated with Monongalia General Hospital.

**Brian Miller – Operations Manager**

Mr. Miller has an extensive background in manufacturing and management. He most recently worked for Mylan Pharmaceuticals. Based on his background, Dr. McClellan hired him to be Operations Manager for the WV headquarters.

**Catherine Mott – President/CEO Blue Tree Angels**

Catherine Mott is the founder and CEO of BlueTree Capital Group and BlueTree Allied Angels. Ms. Mott is the past Chairman of the Angel Capital Education Foundation, an organization that researches angel capital, tracks angel capital, and provides education to bring professionalism and ethics to the industry. In July 2010, she was named Chairman of the Board of the Angel Capital Association, the professional trade association for Angel Networks and Angel Funds in the U.S. In September 2011, Ms. Mott was one of 21 individuals selected for the SEC Advisory Committee on Small and Emerging Companies. Previously, Ms. Mott had founded Synergetic Sales Performance Group, and Indigo Capital Development, LLC. In 2002, she was recognized as one of Pennsylvania's 50 Best Women in Business. Prior to forming her own businesses, she worked 17 years in corporate banking management where she served in senior management roles. Today, she uses these experiences and her education to bring together capital and prime investment opportunities. Ms. Mott holds an MBA in Finance.

**Michael Green**

Michael Green, a retired businessman with a background in technology, was appointed to the West Virginia Board of Education in 2009 to a nine-year term. He was elected vice president in 2013 and president in 2015. Mr. Green is a current resident of Morgantown in Monongalia County. He serves as an adviser, investor and board member for several privately held technology companies, earned a bachelor's degree in mathematics from Boston University and a master's degree in numerical science from Johns Hopkins University. Mr. Green began his career in 1969 as a mathematician, cryptanalyst and software developer at the National Security Agency. In 1979, he began his career in the private sector when he joined Network Systems Corp., a developer and manufacturer of high-speed networking equipment, as a sales manager. After 10 years at Network Systems, he held a similar job at California-based Ultra Network Technologies. He moved to FORE Systems Inc. in 1992, serving as senior vice president and general manager of worldwide sales. FORE Systems was sold to Marconi in 1999. Green was recruited to join Loudcloud Inc., a technology company, and served as its president of field operations from May 2000 through May 2001. He is a board member of the West Virginia High Technology Consortium Foundation, the West Virginia Angel Investment Network, and several boards at West Virginia University. He also dedicates much of his time to working with early stage companies, angel investment groups, and coaching entrepreneurs.

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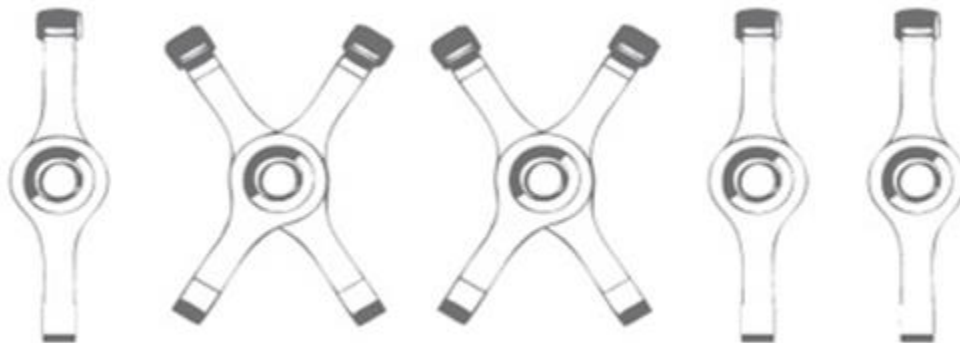


**Michele O'Connor (WVJIT)**

Michele O'Connor has more than 30 years of experience in the finance and banking industry. She attained her Certified Financial Planner designation along with the Accredited Investment Fiduciary Manager designation. She was the Portfolio Manager for the Trust Department at First United Bank and managed over \$600 million for the department. Currently, Ms. O'Connor is the Investment Manager for the West Virginia Jobs Investment Trust, a leading venture capital firm focused on turning the innovation of new ideas into successful world-class companies. Ms. O'Connor graduated Magna Cum Laude with a BA in Finance from the University of Maryland College.

**Products**

Figure 8 surgical has developed patented technology to address the sternal closure market. By modifying existing techniques and eliminating the twisting steel wire cerclage the Company has solved many of the problems associated with failure. The Figure 8 FlatWire is made of stainless steel. The Figure 8 FlatWire Sternal Closure System has been specifically developed to replace steel wire in primary sternal closure. It comes as a peel pack unit which contains 6 single stainless steel devices and 2X devices. A reusable aluminum-tensioning device is provided to the surgeon at no additional cost. A standard needle driver and wire cutters are also used on the application or removal of the devices.



FlatWire is not only stronger but also more rigid in its resistance to lateral separation of the sternal halves. Each device is placed in a similar fashion to steel wire. The devices are reversible until the ends are twisted. Removal is very fast, simple and uses standard wire cutters. There have currently been over 500 patients across the U.S. who have been closed with the FlatWire system. The first FlatWire implantation was at Mon General Hospital in Morgantown. Figure 8 has four issued U.S. Patents that also allow claims in the EU. These patents cover both the implanted device and tool.

**Market/Industry**

In the U.S. today, there are more than 600,000 sternotomies performed every year, with this figure rising by 2% each year. The European market has also been analyzed and the findings are that the U.S and E.U. are somewhat similar. The E.U. is estimated to conduct over 300,000 surgeries per year. Data suggests that the typical patient who would receive this type of operation would be the older generation. Additionally, of the 600,000 operations up to

5%, or 20,000 patients with traditional wire closures, may require another surgery and extended hospital stay due to instability, infection, and or pain. Medicare has determined that no reimbursement will be provided for treatment after sternotomy complication which typically costs \$40,000 – \$100,000.

Currently, the U.S. accounts for about 60% of the sternotomies worldwide which leads us to believe the total market is close to one million surgeries per year. As of today, there are over 500 patients who have been closed with the Figure 8 technology. There is significant growth expected in this mark in the next three years. Advances in technologies as well as other companies entering this environment are expected to increase demand for sternal closure products. The overall market will demonstrate stable growth at a moderate level throughout the forecast period, driven by shifts in product preference in key market segments. The market and industry competition will determine exactly how the products can be positioned as well as how much can be charged for each product.

The potential market size for Figure8 will be affected by price in relationship to wire and other competitive closure options. A quote from the Chief of CT surgery at the Cleveland Clinic can sum this up easily. When asked about the new technology and how it can help advance the sternal closure procedure, “If the device is \$1 more than wire then we will not use it.” The market will definitely react to the Figure8 and an introduction of an innovative competitive product from a big player could significantly change volume projections and market price.

### Competition

The Sternal closure market has entered a growth phase in recent years due primarily to the unreliable, inconsistent nature of the current products on the market. Customers have long complained about pain after procedure as well as extended hospital stays due to instability, infection, and or pain. Alternative devices have been developed in an attempt to replace traditional twisted wire closure. None of these devices has been widely adapted as a primary closure method due to altered surgical technique, additional training and installation time, and very high cost. Current competitive systems may cost from \$800-\$5,000 per patient and are typically used only in failure cases or in cases of large, obese, or otherwise compromised patients clearly at risk if closed with twisted wire in the standard way.



**Significant Events**

**April 2017:** Figure 8 cleared all regulatory reviews and engaged a sales rep to begin selling products.

**November 2016:** Figure 8 closed on funding transaction with WVJIT.

**Overall Conclusion**

Based on the foregoing, the WV Jobs Investment Trust finds it most appropriate to record its investment in Figure 8 Surgical, Inc. at value, which is **\$250,000**.

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Joe McGraw, President/CEO  
Tawana Martin, VP/CFO  
David Canterbury, VP of Sales & New Development

#### **Leadership**

#### **Background**

Founded in 1989, Greenbrier Technical Services (GTS) provides engineering solutions to the banking, elevator equipment and mining industries. The Company has two major components: manufacturing and repair. GTS manufactures replacement parts, repairs printed circuit boards and modules, provides parts sourcing services, engineering, and reverse engineering services. GTS has a flexible manufacturing facility capable of fulfilling orders in quantities from one to thousands. The Company is headquartered in Ronceverte, WV.

#### **WVJIT Investment History**

##### **May 2015**

\$250,000, 8% Convertible Note. The Convertible disbursed in two tranches upon meeting predetermined milestones.

**Warrant Coverage:** 10% priced at \$.01 expiring in five years (April 2020).

**Total WVJIT Investment as of June 30, 2016:** \$250,000 (\$250,000 funded through WVCAP)

**FY2017 Accrued Interest Balance:** \$13,868.61

##### **Co-Investors**

Joseph and Susan McGraw  
Edward Knight  
Vissac, LLC  
Angus Peyton

Patrick McGraw  
INNOVA Commercialization  
Bonnie Brae Farm, LLC

##### **Snapshot:**

Company: **Greenbrier Technical Services, Inc.**

Website: <http://www.greenbrier-tech.com/>

Location: Ronceverte, WV

Total Employees: FT/28; PT/1

WV Employees: FT/28; PT/1

**WVJIT Investment: \$250,000**

**WVJIT Ownership: 0%**

**Subject to GASB 62: NO**

### **Management Team**

#### **Joe McGraw, President/Chief Executive Officer**

Joe McGraw began his career as a software engineer for Bendix Corporation, immersing himself in the development of microprocessor software and continuous analyzers to monitor the exposure of toxic substances and control gas chromatographs. He oversaw many projects related to those developments from research and development to execution. In 1983, Mr. McGraw recruited several engineers and raised approximately \$2M to establish Greenbrier Electronics to manufacture and develop the 4400 Portable Universal Tester (PUT) portable electronic tester to troubleshoot technical issues related to industrial electronics. In 1986, the assets were acquired by Temco Instruments, Inc. and Mr. McGraw held roles in Marketing, Sales, and Product Definition for Temco, where he participated in many trade shows and seminars showcasing the company's products to prospective end-market users.

In 1989, Mr. McGraw left Temco to start GTS where he currently serves as President/Chief Executive Officer for the company. Mr. McGraw is also 100% owner of Greenbrier River Trading company, which is a dormant company since 2011, and a 90% owner of Greenbrier Floor Care, LLC, which is a ServiceMaster Franchise run by his son, Jonathan McGraw. Mr. McGraw received his B.S. Magna Cum Laude in Electrical Engineering from WVU and M.S. in Electrical Engineering from Virginia Tech.

#### **David Canterbury, VP of Sales/New Product Development**

David Canterbury started his career with Appalachian Electronic Instruments as a draftsman and was later promoted to Head Mechanical Designer for textile defect detection equipment, where he worked closely with internal engineers to enhance the mechanical aspect of the design process. In 2003, Mr. Canterbury accepted a Mechanical Engineering role with GTS handling all engineering related responsibilities within the company and eventually was promoted to Engineering Manager. During his initial role with GTS, the company's product line doubled.

After several years with an engineering role at America in Motion (AIM) in Charlotte, Mr. Canterbury returned to GTS in August 2010 where he currently serves as VP of Sales/New Product Development. Mr. Canterbury received his Associate of Science in Mechanical Engineering Technology from WVU Institute of Technology and a B.S. in Mechanical Engineering from Kennedy Western University.

#### **Tawana Martin, VP/Chief Financial Officer**

Tawana Martin began her career with GTS in 1999 serving as the Marketing and Public Relations Director. In 2004, she was promoted to General Manager where she oversaw both business development as well as business operations. In 2009, Ms. Martin was promoted to VP and Chief Financial Officer, where she implements and defines the long/short-term company objectives, policy implementation, and strategic direction. Ms. Martin also administers the company budget and internal cost controls for the company. Ms. Martin received her B.S. in Health Care Administration and Business Administration from the College of WV as well as an MBA from WVU concentrating in Management and Technology.

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**Board of Directors**

**Guy Peduto, INNOVA Commercialization Group**

Guy Peduto joined the INNOVA Commercialization Group in April 2006. Prior to joining INNOVA, he held the position of Director, Commercial Programs at the Institute for Scientific Research, Inc. While there, he developed strategies for the commercial utilization of ISR's technology and research applications in such areas as biomedical research, education, software development, mining safety and communication, VTOL aerial vehicles, and automotive controls and diagnostics. Mr. Peduto's background includes 20 years of strategic planning experience with an emphasis on product introduction, leadership for early stage and start-up companies as well as market and business development. This experience includes business formation, product development, go-to-market and market development strategies for industrial and commercial manufacturers, consumer goods, advanced research and development, health care, financial institutions, Internet start-ups and retail chains. Mr. Peduto received a Bachelor's degree in Business Administration with a major in Marketing from West Virginia University.

**Michele O'Connor, West Virginia Jobs Investment Trust**

Michele O'Connor has more than 25 years of experience in the finance and banking industry. She attained her Certified Financial Planner designation along with the Accredited Investment Fiduciary Manager designation. She was the Portfolio Manager for the Trust Department at First United Bank and managed over \$600 million for the department. Currently, Ms. O'Connor is the Investment Manager for the West Virginia Jobs Investment Trust, a leading venture capital firm focused on turning the innovation of new ideas into successful world-class companies. Ms. O'Connor graduated Magna Cum Laude with a BA in Finance from the University of Maryland College.

**Joe McGraw, President/ CEO**

(See Bio Above)

**Ron Magruder**

Ron Magruder spent his entire career in the hospitality business. His first job was as a dishwasher in a Big Boy restaurant while in high school. After a number of jobs managing different types of restaurants he joined the Darden group as an Assistant Manager for Red Lobster. He worked his way up to the position of Vice President of Operations for that brand and was sent to Japan to develop the brand there. In 1985, he was appointed President of The Olive Garden. At that time there were four restaurants. During the next ten years he led the team in growing the chain to over 500 restaurants. His last position with Darden was Vice Chairman and in 1995 he changed categories and joined Cracker Barrel as its President. In 1999, he was named Chairman of the National Restaurant Association. He then moved to Canada and was President of the Swiss Chalet and Harvey's brands for Cara Operations. Mr. Magruder has since retired and has happily chosen Greenbrier County, West Virginia as his home. He has served on a number of University and Community Boards over the years. He currently is President of the Greenbrier Valley Theatre in Lewisburg, WV.

**Product/Services**

GTS manufactures parts and components for companies within the defense/military, elevator/escalator, financial, HVAC, instrumentation, pharmacy, petroleum, mining, food service and vending. Examples of OEM replacement parts include the electronic components found in ATMs, freight elevators and industrial machinery. GTS has staff engineers and technicians to develop OEM microelectronic parts such as card readers, industrial printers, blower

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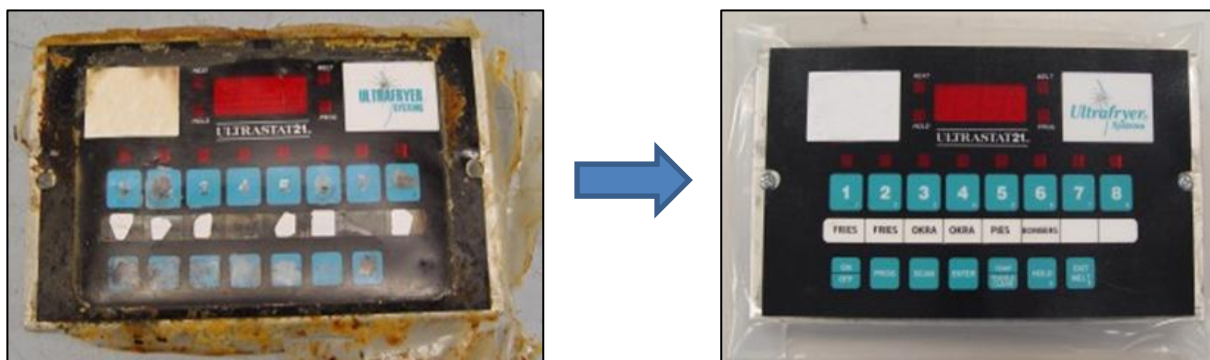


assemblies and printed circuit boards (PCBs) that are more durable and offer a longer useful life.



The second operating segment for GTS is in repair and support. Currently, the Company provides depot repair, electronic/electromechanical repair services, end of life machinery support services and other custom services. The Company commenced its penetration in the commercial food equipment market in 2013. Soon after forming relationships with notable restaurant operators and food equipment providers, the Company pursued and was later awarded the ISO 9001-2008 quality system management certification.

GTS prides itself on being the only ISO 9001-2008 certified commercial food service repair Company in the country. The ISO 9001 is a policy that assures proper and safe quality controls and tests those products upon its completion for accuracy and excellence. The management team stresses the importance of holding a high standard of quality and accountability on all its new and senior employees. Unlike its competitors, the Company's 14,000 square foot facility gives the capacity to handle both the repairing of circuit boards as well as the manufacturing of overlays and membrane switches typically used in commercial food equipment. GTS utilized the funds it received from the Newtek loan to purchase additional equipment to expand its operating repair capacity. The picture below shows the before-and-after repair of malfunctioned and poorly maintained circuit boards for QSRs and commercial equipment companies. Turnaround time for the Company is usually two weeks upon receipt. The Company can minimize that time upon the hiring of additional employees.



GTS worked in conjunction with Stan Muschweck of StandOut Marketing and Advertising as well as Red House Consulting to develop a marketing plan to enter the Commercial Restaurant repair market. GTS team has attended numerous trade shows and conferences showcasing their solutions and services. Through this collaboration, the



Company identified 15 initial prospective client targets and once funding is obtained, will pursue the larger accounts with restaurant chains such as McDonalds, Wendy's, Burger King, Taco Bell, and Ecolab. Given the large number of locations of these restaurant chains, the projected market opportunity for equipment replacement and/or repair is over \$73M.

### **Industry/Market Summary**

Greenbrier Technical Services covers a wide variety of industries with their electronic repair service. The global outlook for this industry is currently experiencing an upward swing driven by the large number of innovative electronic equipment that is now becoming more and more integrated within businesses and households across the U.S. and the rest of the world. The dependency for electronic equipment is fueling the demand for repair services that allow organizations to keep costs at a minimum. The demand for refurbished products is growing at a faster rate as companies battle with cost effectiveness. As more and more electronic equipment becomes installed in organizations, this will only grow this industry to continue on its upward momentum. In the U.S. the global electronic repair service market is expected to reach \$147.24 B by 2024 with the CAGR of 8.5% during the period from 2016 - 2024.

In 2017, one of the GTS customers, Panera Bread, was involved in a mega \$7.5B takeover by European investment firm JAB. Panera has since indicated a keen desire to focus on repairing electrical equipment used in Panera stores in place of purchasing new equipment. This cost saving measure will serve to benefit the electronic repair industry and companies like GTS. Diebold Nixdorf, one of GTS's other main customers, leads the way in drive up ATM's. Over the last seven months, GTS has seen a huge demand in using their services to replace and repair parts of the tube carriers that are integral to the drive-up ATM system. Again, the desire to repair current products in place of buying new ones is driving the growth in this industry.

### **Significant Events**

**February 2017:** GTS landed a sizable contract which has increased sales and production significantly. Due to the increase, the Company will begin hiring additional employees.

**June 2016:** GTS Sales Manager shifted to more outside sales efforts and with the new push increased sales in the restaurant sector. Additionally, the sales mix continues to shift to more repair versus manufacturing.

**December 2015:** GTS sold a condo and net sale proceeds were used to pay down the Newtek loan.

**June 2015:** GTS closed on its loan from WVJIT and INNOVA to expand its commercial food equipment service repair segment.

### **Overall Conclusion**

Based on the foregoing, the WV Jobs Investment Trust finds it most appropriate to record its investment in Greenbrier Technical Services, Inc., at value, which is currently presumed to be the same as cost or **\$250,000**.

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**Snapshot:**

Company: **Liberty Hydro, Inc.**  
Website: libertyhydro.com  
Location: South Charleston, WV  
Total Employees: FT/3; PT/0  
WV Employees: FT/3; PT/0

**WVJIT Investment: \$0**  
**WVJIT Inv. write down: \$514,500**  
**WVJIT Loan: \$425,000**  
**Loan reserve: \$425,000**  
**WVJIT Ownership: 35.9%**  
**Subject to GASB 62: YES**

**Leadership**

Mark Kropilak, Chief Executive Officer  
Dr. John Taylor, Chief Technology Officer  
Phil Farina, Sales Executive

**Background**

Liberty Hydro, Inc. is a Delaware C Corporation formed in 2009 based on the application of technology developed by MATRIC that was engineered to remove selenium and other contaminants from coal mine discharge water. The Company also engaged in additional product developments, the most promising of which is an aspect of the ZVI technology that involves the brine concentrator, which is based on a new technology that the Company calls the CounterFlow ROTM Process. In addition, the Company has made progress on its pH Controller for acid mine drainage and its Dissolved Air Flootation (DAF) units. Liberty Hydro has developed additional products for contaminant removal in water supply and has completed several case studies both domestically and internationally such as the John Amos Power Plant in West Virginia, the Ambatovy Mine in Madagascar and the Tannery Market in India. The Company has several strategic partnerships with Meidlinger Partners, LLP, and MATRIC.

**WVJIT Investment History**

**2011:**

\$500,000 Series A-2 Preferred Units Investment.

**February 2012:**

Exercised Warrants for 400,000 shares of common equity at \$0.01 per share.

**June 2012:**

\$100,000 Convertible Debenture; WVCAP; Maturity Date: June 30, 2016.

\$250,000 Convertible Debenture; WVCAP; 14% interest; Maturity Date: June 30, 2016

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**October 2012:**

Exercised Warrants for 1,050,000 shares of common equity at \$0.01 per share

**July 2013:**

\$75,000 investment, convertible debenture, 10% interest rate

Maturity date: June 30, 2016/ Funded using WVCAP Seed Co-Investment Fund

**Warrant Coverage:**

75,000 shares of common equity at \$0.01 per share

**Total WVJIT Investment: \$425,000 (WVCAP) Due to previous GASB adjustment**

**Valuation based on GASB 62: \$0**

**Equity Investment Balance: \$0.00**

**Accrued Interest Balance as of June 30, 2017: \$231,795.62**

**Co-Investors/Lenders**

Meidlinger Partners

Kennington

MAH

John Sawyer

Mark Kropilak

Marty Weirick

Vic Sprouse

Jon Pauley

Marc Weintraub

Germaine Kropilak

Robert & Carlene West

**Board of Directors**

**Mark Kropilak, Chief Executive Officer**

Mark Kropilak holds degrees in Economics and Accounting from Saint Vincent College, a JD from Columbia University and an Executive MBA from Villanova University and is a lecturer at their business school. He worked for Aqua America (a publicly-traded water utility holding company) for 23 years serving in various roles, including Senior VP of Corporate Development for the entire company and General Counsel for the regulated water and

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wastewater division. Mr. Kropilak was a consultant and one of Meidlinger Partners Part-time Principals. He was on assignment to fill the CEO vacancy at Liberty and stabilize the Company prior to becoming CEO in March 2012.

**Karen Meidlinger, Meidlinger Partners**

Dr. Meidlinger is a Founder and Managing Principal of Meidlinger Partners, LLC. Based on her advanced scientific training, along with her ten years of experience sourcing deals, assessing technology and advising high growth companies, Dr. Meidlinger brings a strong and diverse skill set to Meidlinger Partners. She shares responsibility for all major functional operations of the firm, which include transaction sourcing, structuring, negotiating and divesting, working with Portfolio Companies and handling relationships with Limited Partners. Her deep innovation management and business development experience, combined with her passion for the development and protection of the planet's limited resources, brings a strong sustainable investment focus to Meidlinger Partners. Dr. Meidlinger received both her BSc and Ph.D. in the UK and her MBA from South Africa.

**Bill Goode, Representative of Mid-Atlantic Holdings**

Bill Goode currently occupies a Common Shareholder seat. He is President of the financial services group HL Goode & Son located in Hurricane, WV providing surety bonding, insurance and offtake financing to U.S. coal producers. He previously served in economic development as President of the Charleston Area Alliance (BIDCO) and as Manager, National Accounts, for the WV Development Office. Mr. Goode holds a BS in Accounting from the University of Kentucky and is a licensed insurance and real estate agent. He serves on the Boards of MATRIC, MAH Holdings, Liberty Hydro and SGA Polymers.

**C. Andrew Zulauf, Executive Director, WV Jobs Investment Trust**

Andy Zulauf has extensive experience in finance and venture capital, having served as Executive Director and Senior Loan Officer for the West Virginia Capital Corporation, as a Partner and Managing Director of West Virginia operations for Adena Ventures, and as Vice President and Upper Middle Market Commercial Relationship Officer for Fifth Third Bank. Mr. Zulauf is a graduate of Marshall University and the University of Charleston's Executive MBA program.

**Products**

**pH2O Controller**

The pH2O Controller works very similarly to the way a thermostat does. The Controller automatically adjusts the chemical feed system to achieve the desired set point for the pH of a downstream flow. Liberty describes this product as perfect for acid mine drainage in a number of ways. Some of which are:

1. Eliminates overfeeding (wasting chemicals)
2. Eliminates underfeeding which can cause permit violations
3. Ability to store data and read it remotely via satellite

**Zero Valent Iron Technology (ZVI)**

This technology allows the selenium (and arsenic) to adhere to the media in the container units which thereby is removed. There are several industrial and rural applications for ZVI media such as being placed in large tanks and constructed drum systems. Additional market applications for the ZVI media include municipal systems, point-of-use devices, agriculture, and other areas of the development world. The media can effectively remove more than 90% of minerals such as selenium, mercury, thallium, lead, cadmium and chromium. In addition, the product is highly cost-effective relative to other products by competitors in the market.



The Selenium Remover system is a patent-pending system in which finely-divided zero-valent iron (ZVI) is attached to an open-pore polymer foam. The foam media allows easy flow of the water while enabling adequate contact and reaction time with the ZVI. The selenium in solution is reduced by the ZVI to elemental selenium which is permanently absorbed by the foam media.

### **Competition/Market Summary**

The market industry for global water treatment equipment went through a growth stage in the early part of 2016 and 2015. Last year, the global residential water treatment market was valued at over \$11B. The market is expected to see a growth rate of over 9 percent over the next five to seven years. Some of the largest markets in 2014 were China, India, the U.S. and South Korea. The reason for this growth includes rising customer awareness, growing health concerns, rising disposable incomes and the rise in China's middle class and evolving technologies. As corporate sustainability initiatives and energy efficiency become more important, intelligent building solutions vendors are beginning to showcase more comprehensive tools, including those created especially for water conservation and management. According to a report from Navigant Research, global investment in water management technologies and solutions is expected to grow from \$2 Billion to \$2.8 Billion by 2025.

General Electric announced in October 2016 they would be exploring options for selling their Water and Process Technology business. The plan to divest is a strategic decision that provides opportunity to reposition the business for growth and further investment for long-term success. Currently, GE has the ABMet for selenium removal. Their technology is for customers in the power flue-gas desulfurization (FGD), mining and other industries to meet the discharge limits in one step. It also removes nitrate and metals including mercury and arsenic.

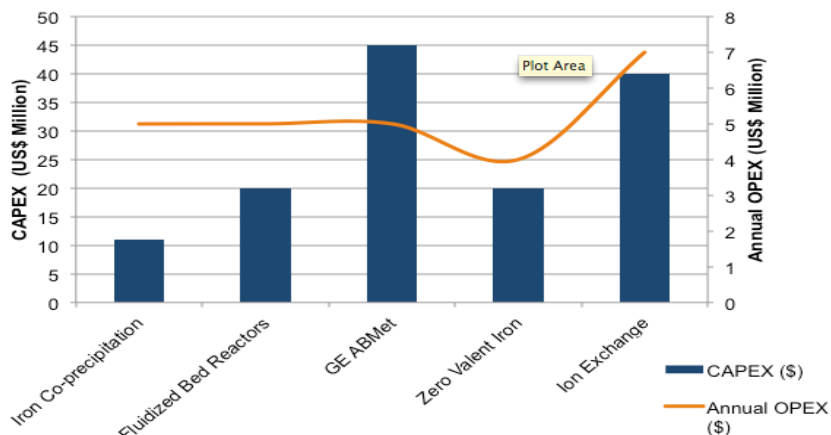
### **Industry Summary**

Iron Co-precipitation is widely used in the mining industry and is regarded by the U.S. EPA as the "best demonstrated" technology for selenium removal, due to low capital cost and ease of operation. However, iron coprecipitation cannot effectively remove the anion selenate and struggles to remove selenium concentrations below 5 µg/l (current U.S. discharge target). It also produces large volumes of sludge that can significantly increase operational cost.

Demand for water treatment equipment in the U.S.B is forecast to grow to 5.9 percent per year to \$13B in 2017. Gains will be supported by increasing concerns about the health risks and environmental impacts of biological contaminants, chemicals, and disinfection byproducts in supply water. Resource extraction and the commercial and residential markets are expected to be among the fastest growing markets for water treatment equipment. Municipal and manufacturing markets are projected to also expand at healthy rates.

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**Selenium Treatment Costs (2.5 MGD)**



**Significant Events**

**June 2017:** Liberty enters into a MOU with private company granting it a non-exclusive license to promote ZVI Media as a selenium solution to its customers.

**December 2016:** Liberty reviews feedback received on pilot units and moves forward with interested companies.

**June 2016:** Liberty projects converting four pilot units into revenue producing projects by year-end.

**January 2016:** Liberty pilot unit does well at solar panel manufacturing company. Liberty anticipates converting it to a paying pilot unit within the year.

**December 2015:** Liberty continued with pilot unit testing at TVA power plants.

**October 2015:** Liberty explored environmental remediation relationships with coal companies.

**September 2015:** The LOI submitted by the regional energy company was pulled and did not result in an acquisition. Pilot unit placed with a large solar panel manufacturing company. A test unit was also sent to a large energy company to remediate coal ash pond.

**March 2015:** Regional energy company submitted an LOI to Liberty with contingencies to be met by Liberty. The Company continued to maintain its current projects and technology development.

**September 2014:** Liberty continued to build its pipeline and gathered interest from several companies. The pilot plant at John Amos planned to proceed. It will be part of an EPRI contract extension. In addition, another pilot project was underway at Wateree, SC. The Company was also in discussions with a regional energy company to acquire Liberty.

**February 2014:** Liberty was awarded a \$20,000 CAM Grant for a portable water-filtration pilot unit needed for customer-site demonstrations of Liberty Hydro’s clean-water technology.

**December 2013:** Liberty received notice of allowance for the ZVI product/technology from the U.S. Patent and trademark office.

**July 2013:** WVJIT Board of Directors approved a \$75,000 convertible debenture investment in Liberty Hydro with a 10% interest rate. The Government Accounting Standards Board (“GASB”) came out with a ruling in 2012 – GASB 62 – which requires state or federal venture capital funds that have 20% or more of the total voting stock in

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a portfolio to value its holdings according to the equity method. This applied to Liberty Hydro, where WVJIT has 36% of the voting stock. Therefore, WVJIT recognized its proportionate share of operating losses of the Liberty Hydro and reflected the adjusted value on its internal and external financial statements.

**June 2013:** The Patent Security Agreement was amended. The Secured Creditors were given a security interest in any patents currently owned and any acquired in the future.

**June 2013:** ZVI Blue pilot unit installed at ATI and John Amos power plant in West Virginia arranged for a pilot unit to be installed. Company also received a grant from CAM to build a trailer unit.

**December 2012:** Liberty had a successful micro-pilot unit installed at Ambatovy mine in Madagascar.

**May 2012:** Liberty hired Mark Kropilak as new CEO.

**Overall Conclusion**

Based on the foregoing, the WV Jobs Investment Trust Board finds it most appropriate to record its investment in Liberty Hydro, Inc. at value, which is currently presumed to be **\$0.00**, due to previous year's write-downs and loan loss provisions.

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**Snapshot:**

Company: **MATRIC**  
Website: [Matricinnovates.com](http://Matricinnovates.com)  
Location: South Charleston, WV  
Total Employees: FT/48; PT/45  
WV Employees: FT/48; PT/39

**WVJIT Investment: Balance: \$1,400,000**  
**WVJIT Ownership: 0.0%**  
**Subject to GASB 62: NO**

**Leadership**

Steve Hedrick, President and CEO  
Greg Clutter, Chief Operating Officer  
Dr. John P. “Jack” Dever, Vice President & Chief Technical Officer  
Parvez Wadia, VP of Strategic Initiatives  
Dr. George Keller, Director Chief Engineer  
Dr. B. Duane Dombek, Director of Process and Product R&D  
Mark Dehlin, Director of Advanced Software Technologies

**Background**

MATRIC is a West Virginia non-profit organization headquartered in South Charleston, West Virginia. MATRIC has three wholly owned subsidiaries performing various services. Mid-Atlantic Commercial Research, LLC (MCR), which provides for-profit commercial R&D; Mid-Atlantic Technical Engineering, LLC, which is a full service professional engineering firm; and, Mid-Atlantic Technical Consulting, LLC, (MATC). MATRIC also has a majority interest in Mid-Atlantic Holding, Inc. (MAH) which holds and commercializes the intellectual property portfolio of MATRIC through licensing and the creation of technology-based companies.

MATRIC is focused on conducting life-changing research and development and commercializing related products and services. The Company currently employs over 40 people, a bulk of whom have doctorates in the fields of science and technology. MATRIC’s scientific staff performs research and development in chemical and environmental technologies, advanced engineering and health and life sciences.

MATRIC develops its own intellectual property through internally funded research as well as prenegotiates “field of use” agreements with customers to allow the Company to advance discoveries in domains that are not of interest to the customer organization and further exploring commercialization opportunities.

MATRIC is managed by individuals with extensive research and development experience. The Company is headquartered within a 650-acre site that includes research and development buildings, engineering buildings, a data center, and laboratories that house other companies such as Dow Chemical, Bayer, and the laboratories of West Virginia State University. The location and experience of the Company’s scientists and engineers provide a

substantial long term-term competitive advantage.

**Investment/Loan History**

The WV Legislature authorized \$2M in funds to be made available to MATRIC. It was determined that the most appropriate method to invest those funds was through WVJIT. WVJIT negotiated with MATRIC a transaction whereby WVJIT would loan \$2 million to MATRIC. In turn, WVJIT secured its loan with accounts receivable, inventory, fixtures and equipment. In addition, WVJIT secured its loan with “reserved” shares in MAH. WVJIT has the option to convert its loan into shares of MAH. If the full loan proceeds were converted at WVJIT’s option, it would convert to 20,000 or 20% of MAH. If MATRIC is unable to meet its debt obligations then WVJIT, in a default circumstance, may convert its loan in up to 40,000 shares of common stock, or 40%. MAH is currently authorized to issue up to 100,000 shares and initially issued all 100,000 shares to MATRIC. MATRIC sold 1,000 shares to American Electric Power; 5,000 shares to the Clay Foundation; and, 2,000 shares were issued to the Charleston Area Alliance in exchange for previously issued debt.

**May 2009:**

Convertible Loan: \$2,000,000  
Current Loan Balance: \$1,400,000

**Warrant Coverage:**

None

**FY2017 WVJIT Interest Received:** \$68,821.06

**Board of Directors**

**Thomas A. Heywood, Chairman**

Bowls Rice, Managing Director

**Stephen A. Kawash, Treasurer**

Gibbons & Kawash

**William B. Goode**

HL Goode & Son

**Dr. George Keller**

MATRIC, Chief Engineer

**Kevin DiGregorio**

Chemical Alliance Zone

**Joe W. Gollehon**

TSG Solutions

**Dr. John Dever**

CTO

**Greg Clutter**

MATRIC, COO

**John Miesner**

MATRIC, General Counsel

**Bob Welty**

Fifth Third Bank

**Steve Hedrick**

President, CEO

**Parvez Wadia**

MATRIC

**L.Newton Thomas Jr.**

ITT Carbon Industries, SVP

## **Products**

MATRIC offers research and development support and services in the following specialties: Chemical Process Technologies, Technical Engineering and Software Technologies.

**Chemical Process Technologies:** Provides R&D support as well as Catalysis, Scale-up and Technology Verification, Solids Processing, Green Technologies, Techno-Economic Assessments and Emerging Technology Evaluations, Safety Engineering Services, Environmental Services, and other strategic programs.

**Technical Engineering:** Provides mechanical, civil, electrical engineering, instrumentation control systems design and programming personnel, as well as other project services areas of expertise including: project management, detailed engineering, procurement and operations training. The staff specializes in Natural Gas, Water, and Chemical Industry.

**Advanced Software Technologies:** Provides customers with unique offerings such as GIS Applications, Modeling Simulation, Software Engineering and Development Servers to specifically meet their needs to their market offerings.

## **Industry Summary**

Global Health and Life Sciences Research in 2016:

1. **Navigating Market Dynamics:** Fluctuating economic conditions continue to challenge many of the regions in which life sciences companies operate. Sanctions and falling oil prices, stagnating economies, significant growth slow-down, rising debt levels, currency devaluation, recession and inflation, and political uncertainty may impact parts of the world. At the same time, aging populations, the growing prevalence of chronic diseases, rising consumer wealth and other changing demographics are expected to boost health care spending and the demand for life sciences products in 2017 and beyond.
  2. **Countering Pricing and Cost Pressures:** Amid the reform-driven shift to outcomes-focused, value-based payment and reimbursement systems, pharma companies may continue to bear the brunt of efforts to control costs. Companion diagnostics should continue to rapidly increase in number and application though. Organizations of all sizes are also struggling with issues that span development, manufacturing, and distribution – pressure to reduce the cost of early-stage research and development without reducing output, reduce clinical development risks while also producing high-quality data, need to reduce asset bases, optimization of outsourcing strategies, difficulty operationalizing and optimizing acquisitions, talent and leadership issues, and supply chain risks.
  3. **Promoting Innovation:** Companies are facing dual imperatives to deliver innovative therapies that address unmet patient needs and treat life-threatening conditions but also deliver profitable growth. Achieving these often-conflicting objectives is likely to require that companies transform their business and operating models and embrace disruptive technology advancements that can concurrently reduce costs and speed time to market for new products and services. From product development through manufacturing and distribution, life sciences companies are evolving their business models to engage more fully with providers and patients. Personalized medicine also continues to drive business model transformation.
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### Significant Events

**June 2017:** MATRIC note was refinanced beginning July 2017 with a maturity of date of June 30, 2024. Interest rate is a variable rate based upon WSJ rate + 1%.

**January 2017:** MATRIC announces Thomas A. Heywood to succeed Gregory Babe as Chairman of the Board of Directors effective January 1, 2017. Heywood brings more than 30 years of experience in corporate, finance and commercial law.

**June 2016:** WVJIT Board approved MATRIC loan extension of the note from June 30, 2016 to June 30, 2017.

**May 2016:** MATRIC expanded its social media targeting campaign to lift its brand. Business development continued to bring in new customers and expand existing relationships.

**November 2015:** MATRIC University is created. Recruitment of team members resulted in three new hires at the Morgantown location.

**April 2014:** Chemical Alliance Zone launched Chemception, the nation's only incubator focused solely on commercializing chemistry-based technologies and helping entrepreneurs, start-ups, and small companies launch their businesses. MATRIC is a strategic partner for the incubator and hoped to attract entrepreneurs in starting their chemistry-based businesses in Charleston. Tenants included Liberty Hydro and Polyplexx, LLC.

**February 2014:** MATRIC announced Gregory S. Babe replaced Paul E. Arbogast as Chairman of the Board of Directors. Mr. Babe brings more than 30 years of experience in the chemical and manufacturing industries.

**November 2013:** Charleston Area Alliance announced MATRIC to be the recipient of the "Forward to the Future" award. The award is presented monthly to a business, individual, or community group whose innovative work is propelling the Alliance's vision 2030 plan forward.

**February 2013:** Steven Hedrick joins MATRIC as President and CEO.

**August 2012:** Board of Directors approved a motion to enter into a \$350K 60 month-term loan at a rate not greater than 4.75% for the purchase of boilers for the pilot plant activities. MAH fully divested from Europa ownership with projected final expense approximating \$143,500. Expense treated as a note from MAH to MATRIC and as 2013 WVJIT seed fund obligation payment.

**July 2012:** MATRIC executives authorized the dissolving of a European subsidiary, MATRIC Europa, at a cost of €68,500 which translates to about \$84,000.

**June 2012:** President and CEO of MATRIC, Keith Pauley, resigned from his position to take a job overseas with ChemChina. Greg Clutter is named interim-CEO.

### Overall Conclusion

Based on the foregoing, WV Jobs Investment Trust finds it most appropriate to record its investment in MATRIC, Inc. at value, which is currently presumed to be the same as cost or **\$1,400,000**.

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**Snapshot:**

Company: **MightyTykes, LLC**  
Website: mightytykes.com  
Location: Safety Harbor, FL  
Total Employees: FT/1; PT/0  
WV Employees: FT/0; PT/0

**WVJIT Investment: \$100,000**  
**WVJIT Ownership: 0.0%**  
**Subject to GASB 62: NO**

**Leadership**

Isabella Yosunico, President

**Background**

Poor muscle tone (hypotonia) or muscle weakness are impairments common to several physical conditions found in children, including Down Syndrome, prematurity, Autism-spectrum disorders, Cerebral Palsy and Muscular Dystrophy. These physical limitations impair a child's timely mobility and the ability to fully explore their environment and in turn, learn and socialize. With input from parents, physical therapists and occupational therapists from some of the nation's leading children's hospitals, Down Syndrome mom, Isabella Yosunico, developed MightyTykes™ Infant and Child Weights to meet this important unmet need. MightyTykes, LLC estimates that nearly three million children from birth to age five in the United States alone are affected by these conditions, many of which are on the rise. Worldwide, the incidence and prevalence of these conditions is comparable.

Carefully and thoroughly researched, MightyTykes™ weights are designed to be visually aesthetic, affordable, user-friendly and easy to manufacture. They are made in the USA from high quality materials, meeting the high standards of institutional settings while still being affordable to parents, caregivers and independent therapists in a home setting.

For children with Down Syndrome, a weight training program using ankle weights in progressive resistance exercises for lower limbs and balance training is an effective treatment to improve strength and balance. In addition, children with certain conditions may also have other impediments that can be effectively treated by ankle or wrist weights including tremors, poor coordination, or simple sensory issues. According to the Company and INNOVA's research, there is currently not a wrist or ankle weight designed for the early intervention market and the Company's product—MightyTykes™ Infant and Child Weights—fill that gap.

**WVJIT Investment History**

**March 2014**

\$100,000 - 9% Convertible Note accruing 9%. The Convertible Note will be disbursed in two tranches upon meeting pre-determined milestones. No Warrant Coverage.

**Total WVJIT Investment as of June 30, 2016:** \$100,000 (\$50,000 funded through WVCAP)

**FY2017 Interest Accrued:** \$14,907.73

**Co-Investors/Lenders:**

Isabella Yosuico  
Raymond Yosuico  
INNOVA Commercialization

**Board of Directors**

**Guy Peduto, INNOVA Commercialization Group**

Guy Peduto joined INNOVA Commercialization Group in April 2006. Prior to joining INNOVA, he held the position of Director of Commercial Programs at the Institute for Scientific Research, Inc. While there, he developed strategies for the commercial utilization of ISR's technology and research applications in such areas as biomedical research, education, software development, mining safety and communication, VTOL aerial vehicles, and automotive controls and diagnostics. Mr. Peduto's background includes 20 years of strategic planning experience with an emphasis on product introduction, leadership for early stage and start-up companies as well as market and business development. This experience includes business formation, product development, go-to-market and market development strategies for industrial and commercial manufacturers, consumer goods, advanced research and development, healthcare, financial institutions, Internet start-ups and retail chains. Mr. Peduto received a Bachelor's degree in Business Administration with a major in Marketing from West Virginia University.

**Michele O'Connor, West Virginia Jobs Investment Trust**

Michele O'Connor has more than 25 years of experience in the finance and banking industry. She attained her Certified Financial Planner designation along with the Accredited Investment Fiduciary Manager designation. She was the Portfolio Manager for the Trust Department at First United Bank and managed over \$600M for the department. Currently, Ms. O'Connor is the Investment Manager for the West Virginia Jobs Investment Trust, a leading venture capital firm focused on turning the innovation of new ideas into successful world-class companies. Ms. O'Connor graduated Magna Cum Laude with a BA in Finance from the University of Maryland College.

**Isabella Yosuico, Founder**

Isabella Yosuico is the mother of a child with Down Syndrome. Isabella is an accomplished communications professional with an extensive background in health care-related marketing and communications in a variety of settings including Fortune 1000 healthcare companies, hospital systems, biotech companies, management consulting firms and non-profits. At different times in her career, Isabella has also played a key role in organizational development and administration. Isabella is a communications consultant for MedImmune, Inc. and Bon Secours Health System.

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### Products and Services

MightyTykes, LLC, based on feedback, developed a ½ lb., ¼ lb. and ⅛ lb. weight.



### Industry/Market Overview

What can be done about low muscle tone? Outside of neurological events (like a traumatic brain injury or seizure) the actual length of the muscle at rest cannot be changed. However, strengthening the muscles around the joint increases stability and the number of muscle fibers, which will decrease the effects of low muscle tone over time. Pediatric occupational and physical therapists are trained to recognize low muscle tone and treat the negative effects in a fun and motivating way for children.

Individuals with Down Syndrome are at risk for foot alignment problems due to hypotonia. The ligaments do not hold the bones together tightly for optimal alignment and function. The individual cannot use their strength effectively. The goal of physical therapy for an individual with Down Syndrome is to achieve maximal physical potential and to build a body that is fit and functional.

### Physical Therapy for Children

The physical therapist will design an individualized treatment program that may include:

- **Improving strength.** The physical therapist may teach the parent and the child exercises to increase muscle strength. The therapist will identify games and fun tasks that improve strength and adjust them as the child grows, identifying new fitness activities to reduce the risk of obesity and increase and maintain heart health.
- **Improving developmental skills.** The physical therapist will help the child learn to master motor skills such as crawling, pulling up from sitting to standing, and walking. Research has shown that infants with Down Syndrome can benefit from activities like walking on a treadmill. Physical therapists can help caregivers support their child's movement development by providing hands-on training for positioning, movement, feeding, and play. The physical therapist also may suggest changes at home to encourage movement development, communication, hearing, vision, and play skills.
- **Improving balance, coordination, and postural control.** The physical therapist may use equipment such as a firm, round pillow or an exercise ball to improve the child's ability to hold the head erect or to maintain a sitting position. Other skills such as jumping, skipping, and dribbling a ball may be incorporated into a fun physical therapy regimen.
- **Improving physical fitness.** The physical therapist will help determine the specific exercises, diet, and



community involvement that can promote healthy living choices for the child and prevent complications of Down Syndrome, such as activity limitations and decreased participation with siblings or peers.

Physical therapy may be provided in the home or at another location like a community center, school, or a physical therapy outpatient clinic. Physical therapists work with other health care professionals to address the needs of individuals with DS, as treatment priorities shift throughout their lifespans.

The ability for a parent or caregiver to provide ongoing treatment at home increases the child's strength and motor skills. Part of these home treatments include access the necessary equipment such as weights.

### **Significant Events**

**March 2017:** Lenders continue to work with MightyTykes on moving the Company forward. The Company relocated to Florida.

**June 2016:** MightyTykes and Lenders explore options on how to move the Company forward; including conversion of debt.

**January 2016:** Dario Campolattaro steps down from the Board. MightyTykes launches on Amazon International which includes five European markets. The Company was approved to sell on WalMart.com.

**November 2015:** MightyTykes signed an agreement with its first reseller “Explore Your Senses” (sensamart.com)

**October 2015:** With input from a media consultant, MightyTykes expanded its social media campaign and updated its website.

**June 2015:** MightyTykes used all of its cash and started exploring potential investment options with a WWSBDC coach. As such, the Company stopped all new paid marketing campaigns until the cash flow situation could be addressed.

**March 2015:** MightyTykes received funding from INNOVA to solicit consultants for marketing and social media campaigns. Company updated its products on Amazon to offer free shipping. With the change, Company tripled its sales. Comparing May, June and July of 2014 with the first quarter of 2015, MightyTykes sold 175 units versus 358 respectively.

**December 2014:** MightyTykes received its second disbursement of funding.

**September 2014:** MightyTykes reviewed SEO campaign by marketing consultant as well as potential application to “Shark Tank.” WVJIT finalized the second tranche distribution and loan modification. The Company, based on feedback, was developing a ¾ and 1lb. weight. Sales doubled as of September 2014 and the Company continued to push with an aggressive marketing campaign and approved the Phase 2 textile and manufacturing prototype.

**June 2014:** MightyTykes products were sold directly through its website as well as Amazon.com and another separate distributor. The Company completed most of Phase 1 of production and began the process of Phase 2. A significant cost savings was created during Phase 1 that helped offset any unexpected costs which the Company encountered during Phase 2.

**May 2014:** MightyTykes was featured in the WV State Journal. The Company also received a \$3K in grant funding from TechConnect to attend the New York Metro Abilities EXPO.

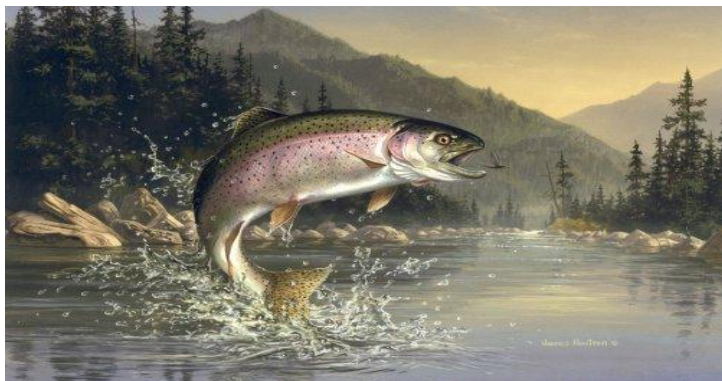
**March 2014:** WVJIT Board of Directors approved a \$100,000 convertible debenture investment in MightyTykes.

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**Conclusion**

Based on the foregoing, the WV Jobs Investment Trust finds it most appropriate to reserve 50% against the outstanding principal and record its loan to MightyTykes, LLC at **\$48,550**.

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## **MOUNTAINEER TROUT FARM**

### **Snapshot:**

Company: **Mountaineer Trout Farm, LLC**  
Website: N/A  
Location: Josephine, WV  
Total Employees: FT/3; PT/0  
WV Employees: FT/3; PT/0

**WVJIT Investment: N/A**  
**WVJIT Ownership: 0.0%**  
**Subject to GASB 62: NO**

### **Leadership**

S.E. Thompson, Owner  
Colleen Miller, Owner

### **Background**

Mountaineer Trout Farm, LLC is an aquaculture business formed in March 2007 as a joint partnership run by the late Ted Miller of Birch Creek Deer Farms located in Pennsylvania and S.E. Thompson, Jr., of Gainesville, Florida. Operations are located at the Lillybrook Aquafarm site located in Josephine, West Virginia. The site uses water from the former Lillybrook Mine. The water is ideal in temperature, chemistry, and is free of water-borne disease. The site is gravity-fed, thus eliminating redundant pumping systems, which significantly reduces operating costs and gives the Company a major cost advantage. Mountaineer Trout Farm leases the property by Lillybrook Mine and pays a leasehold payment based on a percentage of gross sales. The lease began after the assets reverted back to WVJIT in 2007.

Mountaineer Trout Farm was formed to take advantage of a natural resource – mine water used to supply an aquaculture project. The Company now has two parallel raceways each measuring 100 feet by 20 feet width. The raceways were constructed with Company funds and borrowed funds from Farm Credit. The raceways are estimated to have a maximum capacity of 400,000 in future years. The lease gives Mountaineer Trout Farm the right of first refusal on any future lease for the McAlpin Farm site.

The project was initially funded as Minaqua in 1995, with the goal of becoming a major supplier of Arctic Char to the Mid-Atlantic and South-Central regions of the United States. At the date of the formation of Mountaineer Trout Farm, WVJIT has a depreciated value of \$573,387 to its lease household interest in the facility which in turn is subleased to Mountaineer Trout. WVJIT wrote off the 2007 investment in Mountaineer Trout Farm.

### **WVJIT Investment History**

#### **2007:**

\$1,573,794 Debt Investment  
\$ 280,000 Equity Investment

**Royalty:** 5% on gross sales

**FY2017 WVJIT Royalty Received:** \$40,656.70

### **Management**

**Paul Rowe** -Acting General Manager

### **Products**

Mountaineer Trout sells a variety of trout on their trout farm in Josephine, WV. During the past year, no new products or services were created by Mountaineer Trout. Their continued growth and sales numbers continue to retain unprecedented status and Mountaineer Trout will continue on their same path as their future looks bright.

### **Competition/Market Summary**

Rainbow Trout are produced in more than 16 states across the U.S. however, certain states are known for their high level of production. For example, Idaho is responsible for over 65% of all production in the U.S. North Carolina, Pennsylvania, California and West Virginia are some other big producers of this popular fish. The U.S. is not a large exporter of fish due to the high demand at a domestic level. In recent years the exports have remained in line with previous production levels in the U.S. Imports of trout are much more significant than exports and have been increasing steadily, reaching a value of over \$104M in 2015, surpassing the value of domestic production (\$96.4M). The majority of these imports are from Chile, and secondarily from Norway, accounting for USD \$65.2 and \$19.4M, respectively, in 2015.

### **Industry Summary**

Rainbow Trout is a fast growing, cold water fish that typically grows to sizes of 3-6lbs however, there are many trout that exceed this sizing and reach weights of up to 20lbs. Rainbow Trout is very popular for sporting purposes as well as a food. Rainbow Trout has been introduced all over the world and can be found in all continents bar Antarctica. In North America, Rainbow Trout can be found throughout the country in many fish farms as well as being common in Canada. In the U.S. the most common method for trout production is to grow them in raceways for which about 90% of the production occurs in this way. By aligning a series of raceways one after another it allows you to monitor the growth of fish while continuing to bring new eggs into the production system. The scale of a farm's production is limited by

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the amount of freshwater available and the source of water depends on the geography of the farm site. In Idaho, the largest producer state, responsible for approximately 67% of production, groundwater is used, while in North Carolina, the second-largest producer, responsible for approximately 6% of production, surface water is diverted from nearby water bodies. Global annual production had consistently increased from 2004 to 2013 and peaked at 580,066 MT in 2013 before falling to 2014 levels. This production occurs in over 70 countries but is dominated by a few large producers. In 2014, the top three—Iran, Turkey, and Italy—produced 126,515, 107,533, and 34,400 MT, respectively, accounting for approximately 47% of global production. In that same year, the U.S. produced 21,979 MT, or just under 4% of global production, making it the eighth-largest producer of Rainbow Trout in freshwater systems.

### **Significant Events**

**July 2017:** Maintenance work to begin on Raceway 2b and Water Tower #1. Improvements are being made to several other areas of the farm such as the workshop and the repurchase of the stocking truck.

**June 2017:** MTF opens a new bank account that is controlled and operated by WVJIT. Site visits are carried out and deferred maintenance is evaluated. The relationship between WVJIT and MTF employees continues to strengthen.

**May 2017:** WVJIT is appointed special receiver of MTF by the circuit court of Raleigh County, WV. This role has no defined time period and will go on until the ownership dispute is resolved. In the receiver capacity WVJIT can manage the operations of MTF, collect receivables, operate and open bank accounts, pay AP, manage sales and employment matters.

**March 2017:** WVJIT files subsequent motion to intervene and appoint a receiver in this case.

**February 2017:** On February 21, 2017, owner initiated civil action seeks temporary restraining order and further injunctive relief.

**February 2017:** General Manager of MTF is fired and leaves the farm in possession of the stocking truck.

**June 2016:** Fiscal year 2016, Mountaineer Trout sold 439,878 pounds of trout, an increase of over 9% year over year.

**December 2015:** During 2015, Mountaineer Trout changed oxygen distributors which decreased their cost by 50%. The Company also bought a new stocking truck. The local trout processor continued to increase orders which they provide to Tamarack, The Greenbrier and other local restaurants. The Company is in the planning stage of expanding production capacity with additional raceways.

**December 2014:** During 2014, Mountaineer Trout Farm sold 400,599 pounds of rainbow trout with the overall production cost remaining constant at \$1.42 per pound. These costs were expected to increase during 2015. The lease payment percentage reverted back to the original 5%. The Company planned to expand its production capabilities during the Spring/Summer of 2015, maybe looking for funding for the project.

**June 2014:** Mountaineer Trout Farms requested the lease be amended to reflect the 3% royalty lease payment which it has been sending in lieu of the 5% royalty lease payment. Also, the Company planned to add two new raceways and requested a \$35,000 loan to cover the costs of the expansion.

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**April 2013:** Mountaineer Trout Farm plans to upgrade the property by installing a new roof to the feed room and various other leasehold improvements.

**Conclusion**

Based on the foregoing, the WV Jobs Investment Trust finds it most appropriate to record its investment in Mountaineer Trout Farm, LLC at value, which is currently presumed to be \$95,155 which is the net asset value of the property per the WVJIT financial reports as of June 30, 2017.

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Company: **PolyPlexx, LLC**  
Website: PolyPlexx.biz  
Location: South Charleston, WV  
Total Employees: FT/2; PT/1  
WV Employees: FT/2; PT/1

**WVJIT Investment: \$271,560**  
**WVJIT Ownership: 11.37%**  
**Subject to GASB 62: NO**

### Leadership

Jon C. Pauley, President/Chief Commercialization Officer  
Dr. Edmond J. Derderian, Chief Technology Officer  
Dr. Richard M. Gerkin, Sr. Technical Advisor

### Company

Formerly known as Transparent Armor, LLC (a MATRIC spin-off), it was renamed PolyPlexx, LLC in 2005. The Company was founded by former Union Carbide scientists: Jon C. Pauley, Edmond J. Derderian and Richard Gerkin. Scientists are developing new chemistry for making high-performance polyurethane and/or urethane hybrid polymers which are easier to process relative to the existing polymers such as polycarbonate. In addition, these polymers are well-known for their extremely broad formulation latitude and can be designed to meet a wide variety of application needs in industries such as Ophthalmic, Safety and Defense. The Company is located at the Research Technology Park in South Charleston, WV.

### Investment History

#### May 2014

\$271,560 Series C Equity Investment. (Funded through WVCAP).  
No Warrant Coverage

#### Co-Investors/ Lenders in Series C Round

Crimson Hill  
INNOVA Commercialization Group

### Management Team

#### Jon C. Pauley, President and Chief Commercialization Officer

Jon Pauley's responsibilities focus on leading the commercialization efforts of the organization. Mr. Pauley also provides the interface between commercial activities and the Research and Development activities. He received B.S. degrees in Biology and Chemistry from West Virginia State College in 1983 and has spent the largest portion of his career working as a small business start-up specialist.



**Dr. Edmond J. Derderian, Chief Technology Officer**

Dr. Derderian is responsible for the definition of the R&D program and its technical focus. He received an A.B. degree in Chemistry from Colby College (Waterville, Maine) in 1966 and a Ph.D. in Chemistry from Pennsylvania State University in 1974. After two years as a Post-Doctoral Fellow in the Ames Laboratory at Iowa State University, Dr. Derderian joined Union Carbide Corporation at the South Charleston Technical Center in 1976. He continued in research and development activities for OSi Specialties, Witco, and Crompton Corporation, attaining the position of Senior Research Scientist/Global Technology Manager. Dr. Derderian's responsibilities over his career have included new product and process development, global technology management and new business development. His technical expertise includes polyurethane technology, structure-property relationships of polymers, fuel and lubricating oil additives, micro emulsions, and interfacial chemistry and physics. He has numerous publications and patents.

**Dr. Richard M. Gerkin, Sr. Technical Adviser**

Dr. Gerkin is the co-inventor (with Dr. Derderian) of the technology. Dr. Gerkin received a Ph.D. in Chemistry from the University of California at Santa Barbara in 1968 and a B.S. in Chemistry from Wheeling Jesuit College in 1965. He began his technical career in industrial research with Union Carbide Corporation at the South Charleston Technical Center in 1969. His work continued with OSi Specialties when it was spun off from Union Carbide in 1993, and with the successor companies Witco Corporation and Crompton Corporation. He retired in June 2002 as a Corporate Research Fellow. Dr. Gerkin's technical focus throughout his career has been the development of new products for use in polyurethane systems, including polyols, catalysts and silicone surfactants. He has authored numerous technical papers and holds 22 patents.

**Board of Directors**

Tim Appleberry	Crimson Hill, LLC
Jon Pauley	PolyPlexx
Doug Malcolm	Board Member
Eric Nelson Jr.	Nelson Enterprises
Michele O'Connor	WVJIT
Dr. Richard Gerkin	Polyplexx
Tim Fogarty	Crimson Hill, LLC

**Products**

*Vizipllex* is a developed and patented net urethane-based technology platform that provides industries with new high-performance optical/impact resistant materials.

PolyPlexx has developed and patented three products through the technology platform. Primary business model will be through licensing the technologies with private and public entities and institutions.

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**WV JOBS INVESTMENT TRUST BOARD**  
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<u>Patent/Trademark</u>	<u>U.S. Patent Number/Serial Number</u>	<u>Issue Date</u>	<u>European/World Patent Number</u>
Impact Resistance Polyurethanes	US8178644 B2	February 2012	EP2227500 B1, WO2009088456A2
Transparent Polyurethanes	US8372939 B1	February 2013	International patents to be filed.
Viziplexx (Safety & Security)	8584788	February 2013	N/A
Viziplexx (Ophthalmic Lense)	77652104	January 2009	N/A



**Competition**

<u>Company</u>	<u>Public/Private</u>	<u>Location</u>	<u>Most Recent Revenue</u>
Chemtura Corp.	Public (NYSE: CHMT)	Philadelphia, PA	\$414M (3/31/16)
PPG Industries	Public (NYSE: PPG)	Pittsburgh, PA	\$3.67B (3/31/16)
Dow Chemical	Public (NYSE: DOW)	Midland, MI	\$10.7B (3/31/16)

**Market Summary**

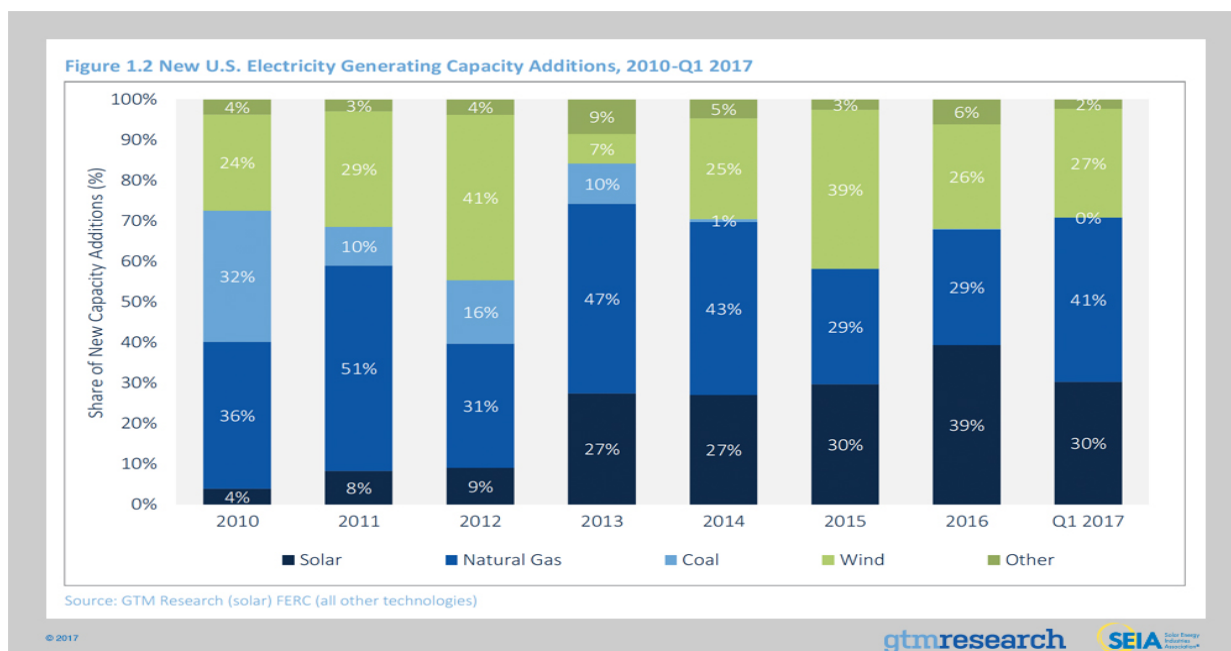
The global eyewear market is expected to grow at a CAGR of 7.18% during the period 2016-2020. The market is driven by the high prevalence of eyesight disorders and increase in demand for discretionary eyewear. Approximately 75% of the population in Asia Pacific and 35% in Europe have some form of visual impairment. Changing dietary habits and increased amounts of time spent playing video games, watching television, and in front of computers at work can affect eyesight. In developed markets such as the U.S., Germany, the UK, France, Italy, Spain and Japan, the consumption of discretionary items is increasing because of the availability of a wide variety of styles, colors, and features in products, and the influence of celebrity styles. Based on the product offerings of the major global eyewear retail players, the products in the market can be categorized into three: eyeglasses, sunglasses and contact lenses. Eyeglasses can be categorized into the following sub-segments: frames and lenses.

**Ophthalmic Instrumentation**

The value of the global market for ophthalmic devices, diagnostics, and surgical equipment was an estimated \$15.2B in 2011. It was expected to increase to more than \$19B in 2016, for a five-year compound annual growth rate CAGR of 4.6%. The aging of the population worldwide will result in a rapid increase in the 65-and-over population by 2030, a population that accounts for the highest incidence and prevalence of eye conditions and diseases. According to the report, this sets the stage for increased research and development activities, speedy market approvals and higher awareness through education. The industry is likely to experience a burst of new products and heavy competition as the ophthalmic market advances. Consolidation in the eye care industry highlights the trend towards vertical and horizontal integration at manufacturing, distribution, and managed care levels. One of the major factors driving consolidation trend is mounting price competitiveness. Key players profiled in the report include Abbott Medical Optics, Inc., Alcon, Inc., Bausch & Lomb, Inc., Carl Zeiss Meditec AG, Ellex Medical Lasers Limited, Iridex Corp., Lumenis Ltd., Nidek Co. Ltd., Topcon Corp., and Topcon Medical Systems, Inc.

**Solar**

2017 is expected to be a great year for solar deployment and expansion. Worldwide capacity is expected to top 70 gigawatts. Analysts estimate delivery of solar to be below \$.40 in 2017. The United States remains the second largest growth market in the world followed by Africa, the Middle East, China and Mexico. Solar panel module makers are focusing on improving module efficiency to offer advanced technology that can deliver the lower cost. The United States installed over 2 megawatts of solar in the first quarter of 2017 which increased total capacity to over 44 gigawatts.



**Ballistics**

The global bulletproof glass market is projected to grow at a CAGR of 13.6 % from 2017 to 2022. The major reasons for the growth of the bulletproof glass market include increasing incidences of security threats, political disputes, civil unrest, armed conflicts and terrorism, globally.

The automotive segment led the bulletproof glass market in 2016. In the automotive segment, armored vehicles are used by governments, embassies, banks, VIPs, and others for protection from ballistic or blast attacks. Bulletproof glass is commonly used in windscreens, side and rear windows, and glass panel roofs on a vehicle to protect from ballistic attacks.

The defense and VIP vehicles application segment is projected to witness the highest growth from 2017 to 2022. The increasing use of bulletproof glass to ensure safety and security of VIPs, and officials of various embassies and governments, among others, is expected to contribute towards the growth of the bulletproof glass market. North America led the global bulletproof glass market in 2016.

### **Significant Events**

**June 2017:** Jon Pauley and Crimson Hill continue to look for replacement COO.

**April 2017:** Small purchase order received from solar panel company. Jon Pauley notified the Board he would be stepping down from his role as soon as a replacement could be found.

**January 2017:** New technician hired to work on Quality Control.

**December 2016:** PolyPlexx is reviewing manufacturing options which would allow it to meet expected demand.

**August 2016:** PolyPlexx completed milestone for next round of funding in Series C. Company is also negotiating a 50,000-lb. order of ViziPlexx II to a European solar panel company.

**June 2016:** Updates to the Board indicate sample manufacturing capabilities have been expanded by engaging a contract-casting partner. PolyPlexx continues to close the expanded Series C round. The second tranche of funding has been secured with only the third tranche left. Each tranche was milestone based; either sales revenue or additional capital injection. The Company is in the final negotiating rounds of its first commercial order of 50,000 pounds of ViziPlexx II with shipments of product beginning in September 2016.

**June 2015:** Jon Pauley provided the Board updates relating to the business development evaluations with major companies PolyPlexx has been in negotiations with for the past few months. PolyPlexx also gained the interest of a potential outside investment as well.

**December 2014:** PolyPlexx was working with Crimson Hill and INNOVA to transfer financials to an accounting firm and were working with the South Charleston Technology Park to secure a build out to begin manufacturing.

**September 2014:** PolyPlexx satisfied the requirements for the third closing of the Series C round. WVJIT and INNOVA finalized the documents to close and disburse.

**June 2014:** PolyPlexx updated their Board on recent developments surrounding ViziPlexx I and ViziPlexx II Formulation, laboratory operations, and its opportunities with several Japanese companies.

**April 2014:** PolyPlexx closes Series C Investment Round.

**December 2013:** WVJIT Board of Directors approves \$271,500 Series C investment in PolyPlexx, LLC.

### **Conclusion**

Based on the foregoing, the WV Jobs Investment Trust finds it most appropriate to record its investment in PolyPlexx, LLC at value, which is currently presumed to be the same as cost or **\$271,560**.

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**Snapshot:**

Company: **Protea BioSciences Inc.**  
Website: proteabio.com  
Location: Morgantown, WV  
Total Employees: FT/35; PT/1  
WV Employees: FT/35; PT/1

**WVJIT Investment: \$2,993,438**  
**WVJIT Loans: \$590,000**  
**WVJIT Ownership: 1.56%**  
**Subject to GASB 62: NO**

**Leadership**

Steve Turner, Chairman/CEO  
David Halverson, President  
Matthew Powell, Chief Science Officer/ Head of R&D  
Gregory W. Kilby, Ph.D., Chief Bioanalytics Officer

**Background**

Protea Biosciences Group, Inc., located in Morgantown, West Virginia, began as a Delaware corporation in July 2001 and has become an emerging biotechnology Company. Protea is engaged in developing and commercializing proprietary life science technologies, products and services that are used to recover and identify proteins in biological samples. Protea applies its expertise to the development of products, instruments and services that seek to improve the discovery and identification of proteins, metabolites and other biomolecules. The Company's products and services are purchased primarily by pharmaceutical and academic/clinical research laboratories.

Protea's commercial focus is on its LAESI Instrument platform and proprietary software. The focus remains on either the sale of the LAESI Instrument to the end user or providing access to the LAESI technology through a services unit lab recently opened. The LAESI unit allows the researcher to study the biochemical landscape of a sample without destroying the sample. The sample is studied in its natural form. In addition, the Company offers an expanding line of consumable products that are used in bio-analytical mass spectrometry. These consumable products include Progenta surfactants that can rapidly remove proteins out of samples to prepare them for analysis by mass spectrometry; single use products including pipette tips; and, an extensive line of protein mass spectrometry standards.

**WVJIT Investment History**

**September 2011**

Outstanding Convertible Debt Converted

**January 2012**

\$100,000 investment in Common Stock. (Funded through WVCAP)

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**March 2012**

\$290,000 Convertible Debenture, 6% monthly payment maturing 8/29/14. Loan was extended to 12/31/15.

**April 2012:**

\$400,000 Convertible Debenture (\$200,000 was funded through WVCAP), 10% Interest, monthly payments maturing 5/15/13. The maturity date was extended to 12/31/15.

**Warrants/Warrant Coverage**

<b>Date Issued</b>	<b>Expiration Date</b>	<b>Type</b>	<b>Price</b>
1/31/2012	1/31/2017	Common	\$2.25
3/15/2012	3/15/2017	Common	\$2.25
4/18/2012	4/18/2017	Common	\$2.25
2/3/2016	2/3/2021	Common	\$.40

**Total WVJIT Investment:** \$3,583,438 (\$200,000 Funded from WVCAP)

**WVJIT FY2017 Revenue:** \$86,900.00

**Accrued Interest FY2017:** \$47,400.00

**Total Outside Investment:** \$81,123,483 (Paid-in Capital – Common Stock)

**Sales and Issuances of Securities:** As of May 13, 2016, Protea has 136,058,595 shares of Common Stock outstanding.

**Management Team**

**David Halverson, President**

Prior to his appointment as President, David Halverson served as Protea's Vice President and Chief Business Officer. Before joining Protea, Mr. Halverson was employed by Huntingdon Life Sciences in various capacities, including Head of European and U.S. Sales. He has over 20 years of management experience in the pharmaceutical services industry, including serving as a Director of Sales for PPD Discovery and the Quintiles Preclinical Groups.

**Stephen Turner, Chief Executive Officer and Chairman of the Board**

Steve Turner has held executive positions since founding Protea in July, 2001. From 1999 to 2001 he served as President and CEO of Quorum Sciences, Inc. From 1984 to 1997 he was President and CEO of Oncor, Inc. He founded Bethesda Research Laboratories, Inc. in 1975 and served as its Chairman and CEO from 1975 to 1983, at which time BRL became the molecular biology division of Life Technologies, Inc. Prior to commencing his career in biotechnology, Mr. Turner held the position of Director of Marketing for the Clinical Microbiology Division of Becton, Dickinson & Co. He received his B.A. from Stanford University in 1967. In 1994, he received the Ernst & Young Entrepreneur of the Year Award in Life Sciences for the Washington D.C. Region.

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**Matthew Powell, Ph.D. Research & Development and Chief Science Officer.**

Dr. Powell received his Ph.D. in Analytical Chemistry from West Virginia University in 2005. His expertise is in the field of biological mass spectrometry and is co-inventor of certain technologies developed by Protea. Dr. Powell has presented several scientific talks and seminars to international audiences.

**Greg W. Kilby, Ph.D., Chief Bioanalytics Officer.**

Dr. Kilby has over 18 years of experience in applying advanced biological mass spectrometry to areas of research including structural biology, protein characterization and proteomics to support drug discovery and development and to support the sales of liquid chromatography mass spectrometry (LCMS) analytical equipment into the life sciences, government, academic, and applied markets in the Americas. Prior to joining Protea, Dr. Kilby held a position as Director in Thermo Fisher Scientific, North America Life Sciences Mass Spectrometry Application and Demonstration Laboratories, leading a team responsible for providing product demonstrations and application services to support quota performance and business growth of the Thermo Scientific life sciences mass spectrometry portfolio in North America. Before joining Thermo Fisher Scientific in 2012, He held several positions in Agilent Technologies, starting as a senior Proteomics and BioPharma applications scientist as well as being responsible for developing and implementing two state of the art Demonstration Centers of Excellences (COE) in Wilmington DE and Santa Clara CA, showcasing Agilent's entire breadth of analytical technologies portfolio. In 2007, Dr. Kilby moved to a management position within Agilent responsible for managing the two COE facilities and two satellite laboratories across North America and the respective mass spectrometry applications scientist, administrative and logistics staff. Prior to his work at Agilent, Dr. Kilby held, from 1998 to 2004, several senior positions in the Discovery Technologies Department with Pfizer Global Research & Development, culminating in Research Associate, responsible for leading a team of scientists to provide advanced mass spectrometry support for structural biology and therapeutic area projects and as part of Pfizer's global proteomics center of emphasis (COE). Dr. Kilby received his Ph.D. in Analytical Chemistry from the University of Wollongong, Australia in 1996.

**Board of Directors**

**Stephen Turner, CEO and Chairman of the Board of Directors** (See Management Team)

**Leonard Harris**

Leonard Harris has been on Protea's Board of Directors since April 2003. Since 1977, he has been the founder and CEO of Southern Computer Consultants, Inc., located in Frederick, Maryland. This company provides products and services to the United States government and Fortune 500 corporations. Mr. Harris was appointed to serve based on his extensive experience in technology-based corporate development.

**Ed Roberson**

Ed Roberson has been on Protea's Board of Directors since September 2009. From July 2006 to June 2010, Mr. Roberson served as Chairman of the Board of Directors of Methodist Healthcare System. He received his MBA in accounting in 1972 from the University of Georgia. From 2006 to 2011 he was President of Beacon Financial, in Memphis, Tennessee, and from 2006 to 2007 he was President of Conwood, LLC. He has been Director of Paragon National Bank from 2004 to present. From 1972 to 1992, Mr. Roberson was employed by KPMG as a partner. Mr. Roberson was asked to serve based on his experience with KPMG, as a partner and then CEO.

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**Scott Segal**

Scott Segal has been on Protea's Board of Directors since February 2008. Mr. Segal is a practicing attorney, specializing in the fields of personal injury, product liability and related matters, and is the President of the Segal Law Firm in Charleston, West Virginia. He received his JD from the West Virginia University School of Law in 1981, and has been a member of the American Bar Association since that date. Mr. Segal was asked to serve based on his relationships within the State of West Virginia, and is considered, by the Company, to be an expert in several areas, including forensics and occupational health.

**Patrick Gallagher, CFA**

Patrick Gallagher is an accomplished Capital Markets executive, advisor and investor with a distinguished record of success in both the public and private markets with a focus on healthcare, agriculture and industrials. He has over two decades of experience on Wall Street and extensive experience in alternative investments, research and marketing. He is a Managing Director and Head of Institutional Sales for Laidlaw & Company (UK) Ltd., a healthcare focused investment bank. Mr. Gallagher co-founded Black Diamond Research, LLC ("BDR"), an independent sell-side research firm specializing in healthcare and industrial investing, financing and operations, serving the institutional investing community at large. As Chief Executive Officer of BDR, Mr. Gallagher oversaw institutional research and sales. Prior, he held various sales positions at Kidder Peabody, Paine Webber, New Vernon Associates and Concept Capital. He served as VP of Business Development and Investor Relations as well as a strategic consultant for Kinex Pharmaceuticals, a biotechnology firm focused on next-generation therapies in oncology and immunology. He also serves as an advisor to CHD Biosciences, a novel antimicrobial company and sits on the board of directors for BioSig Technologies, Inc., a medical technology company that is developing a proprietary platform in the electrophysiology space. Mr. Gallagher received his B.S. from the University of Vermont, his M.B.A. from Pennsylvania State University and is a CFA charter holder.

**Josiah T. Austin**

Josiah Austin has been on Protea's Board of Directors since 2013. Mr. Austin serves as the managing member of El Coronado Holdings, LLC. He and his family own and operate agricultural properties in the states of Arizona, Montana, and northern Sonora, Mexico through El Coronado Ranch & Cattle Company, LLC and other entities. Mr. Austin previously served on the Board of Directors of New York Bancorp, Inc. and North Fork Bancorporation. He has served as Director of Goodrich Petroleum, Inc. since April 2002 and Novogen Limited since September 2010. Mr. Austin serves as trustee of the Cuenca Los Ojos Foundation Trust. Mr. Austin graduated from the University of Denver with a Bachelor of Science in Finance in 1971.

**Steven Antoline**

Mr. Antoline joined the Board of Directors in April 2010. He is a successful owner, developer and manager of coal and natural resource properties and inventor of new equipment for coal mining. From 1996 to 2006, he was President and owner of Superior Highwall Mining, Inc., which was sold to a partnership comprised of Lehman Bros. (60%) and Tennessee Valley Ventures (40%). Mr. Antoline was appointed to serve as a director of the company because of his prior experience in the development and sale of companies, and in working with investment bankers.

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### Products/Services

Protea's principal product is a bio-analytical instrument platform known as, "LAESI" (laser ablation electrospray ionization). This technology enables the direct identification of proteins, lipids and metabolites in tissue, cells and bio-fluids, such as serum and urine, without any sample preparation prior to analysis. LAESI is intended to meet the broad need of the biologist for the direct, unbiased identification and characterization of biomolecules in biological samples, which can remain untouched prior to their analysis.



Protea also has a bio-analytical services unit that specializes in services including biomarker discovery, absolute quantitation of large molecules, MRM-based assays, and global proteome characterization. In March 2012, the Company expanded its facility into an 11,000-square foot state-of-the-art facility. In October 2012, Protea opened a mass spectrometry imaging center, which offers access to the most advanced bio-molecular imaging capabilities including ultra-high-resolution mass spectrometry coupled with Protea's LAESI Platform.

Protea entered into a MOU with Agilent Technologies to develop new bioanalytical workflows in order to meet the emerging needs of the growing biopharmaceutical industry. The Company has also announced new workflows to support the bioanalytical needs of immuno-oncology, an emerging frontier of cancer treatment that utilizes the body's own immune system to fight diseases. The Company has commercialized a consumable product out of the DARPA research grant that is currently being sold to research labs performing small molecule analysis. This product, called REDIchip, enables researchers to rapidly profile small molecules and metabolites utilizing a MALDI platform. This product does not require the addition of a traditional chemical matrix, but is able to detect and quantitate small molecules due to the highly structured nanopost array. These products are being used with researchers investigating metabolites and small molecule drugs, and they have potential application within clinical mass spectrometry pain panel management operations.

### Competition/Market Summary

Eurofins Scientific, the global leader in bio-analytical testing, and one of the world leaders in genomic services, has opened a \$12.5M state-of-the-art manufacturing and services facility in Louisville, KY, that will include up to 110 new employees, including lab technicians, chemists and biologists as well as positions in customer service, logistics, information technology, administration, finance and accounting.

The 65,800 square foot facility functions as the Eurofin's central genomics laboratory in North America, focusing on the custom production of DNA and RNA oligonucleotides synthetic gene synthesis, and genomics services including DNA sequencing, synthetic biology, and next generation sequencing.

1. **Life Technologies (Carlsbad, CA)** – Life Technologies is a publicly traded company and a broad-based supplier of products for protein research.
2. **Advion (Ithaca, NY)** – Advion is a private company, a supplier of mass spectrometry-related instrumentation.
3. **Bruker Corporation (Billerica, MA)** – Publicly traded company focused on mass spectrometry and magnetic resonance technology. The company has strong business focus on molecular mapping done with

- mass spectrometry.
4. **JEOL Ltd (Tokyo, Japan)** – Public company that developed mass spectrometry systems for direct analysis of samples.
  5. **Prosolia (Indianapolis, IN)** – Private Company and a supplier of mass spectrometry-related instrumentation.

### **Industry Summary**

New product development, mergers and acquisitions along with venture capital investments owing to challenging economic conditions of the developed and developing nations are some major strategies adopted by these players. The global molecular diagnostics market is projected to grow at a CAGR of 10.38% during the period 2016-2020. Factors such as high prevalence of infectious diseases and various types of cancer; increasing awareness and acceptance of personalized medicine and companion diagnostics; development of biomarkers; and, advancements in molecular techniques, proteomics, and reformations in the reimbursement system are driving the growth of the market. However, increased cost of molecular diagnostics tools, dearth of skilled labor to handle new and complex platforms, and the complex regulatory framework are the major factors restraining the growth of the molecular diagnostics market.

Molecular diagnostics (MDx) has emerged as one of the largest and fastest growing segments in the In Vitro Diagnostic (IVD) industry. In the span of few years, molecular diagnostics has prospered from a non-existent market to a significant market. PCR tests such as the one from Roche for CT/NG and other tests such as HIV qualitative and HIV quantitative (viral load) are the key factors driving the expansion of the molecular diagnostics market. The private reference laboratories developed tests for infectious diseases and cancer mutations due to the rising incidences and the non-availability of FDA approved assays. The market began to expand due to the existence of different diagnostic kits for genetic diseases and the blood screening for various infectious diseases. The demand for molecular testing increased and the FDA approved molecular diagnostic tests for determining genetic variation responses against cancer drugs. As a result, molecular diagnostic testing is growing at a rapid rate due to the rising adoption of rapid and quick diagnosis.

### **Significant Events**

**June 2017** : Stan Hostler passed away. Mr. Hostler served as Vice President, Secretary and Director. He was a Director of the Company in January 2006 and Vice President and Secretary in June 2006.

**June 2017**: On June 9, 2017, Maged Shenouda resigned as a Director of Protea Biosciences Group, Inc.

**January 2017**: Protea announced that the Company signed a renewal of its collaboration with California-based Protein Metrics Inc. for further applications development of their advanced analytical software for Protea's molecular information services. Protea and Protein Metrics plan to create co-authored presentations this year to highlight the benefit of the combined analytical workflows with data processing and reporting capabilities.

**November 2016**: Protea announced the company appointed David Halverson as its President.

**April 2016**: Protea announced that it had entered into an exclusive license agreement with Yale University for new technology to improve the differential diagnosis of malignant melanoma. The Company announced the use of its proprietary bioanalytical technology to achieve the molecular profiling of live tumor cells while they are under treatment. A common problem in the treatment of cancer is that the tumors become resistant to the drug with which they are being treated. The earlier the resistance is detected, the sooner the patient can be switched to a different therapy, thus increasing their chances of treatment success and cure.

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**February 2016:** Protea collaborated with Protein Metrics, Inc., a premier provider of software solutions for the comprehensive characterization of proteins, to advance new analytical capabilities for use in the development of protein biotherapeutics.

**December 2015:** Protea obtained shareholder approval to seek discretionary authority to affect a reverse stock split of the outstanding Common Shares within a range of between 1:15 to 1:25.

**May 2015:** Steven O' Loughlin resigned as VP, Corporate Finance.

**April 2015:** Maged Shenouda and Patrick Gallagher were appointed to the Protea Board of Directors, replacing Andy Zulauf and Thjis Spoor. In addition, Protea entered into an employment agreement with Stephen Turner for a three-year term.

**March 2015:** Protea entered into a share repurchase agreement to acquire VivoPharm Pty. Ltd., an Australian company. The purchase price for the shares were \$11,153,000.

**January 2015:** Protea announced it had developed a new software platform called the "Histology Guided Mass Spec Imaging (HG-MSI)" which enables pathologists to combine traditional microscopy and histology with high resolution mass spectrometry molecular imaging.

**December 2014:** A loan modification agreement was submitted to Protea for signature to extend their loans to December 2015.

**June 2014:** Protea announced that it would be expanding its existing mass spectrometry based molecular imaging by offering Ion Mobility on a Waters Synapt® G2S High Definition Mass Spectrometer as a powerful extension to Protea's portfolio of mass spectrometry based molecular imaging services. In addition, the Company would also offer High Resolution and Accurate Mass Analysis as well as a service to enhance the ability for rapid processing of microbial samples with the LAESI DP-1000 system, coupled with new software that enables the processing of large, complex LAESI-MS data files with downstream statistics programs, provided by Gubbs, Inc.

**May 2014:** Protea announced that it had received approval from the Depository Trust Corporation (DTC), providing the Company with DTC eligibility, permitting stockholders to hold Company securities in electronic form on the books of its transfer agent. In addition, the DTC approved its Common Stock for DWAC/FAST transfer through Island Stock Transfer, the Company's transfer agent.

**April 2014:** Greg Kilby, Ph.D. joined Protea as its Chief Bio-analytics Officer (CBO) and Director of Bio-molecular Information Services.

**March 2014:** Protea entered into an Option Agreement among ProteaBio Europe and BioPharma d'Azur, Inc. in which BioPharma was granted a 90-day option to acquire the business of Protea Europe in exchange for a non-refundable fee of \$300,000. BioPharma was to provide evidence of raising an additional \$300,000.

**January 2014:** Protea announced that it is a part of a team led by George Washington University (GWU) that was awarded up to \$14.6 million for a cooperative agreement spanning five years from the Defense Advanced Research Projects Agency (DARPA).

**September 2013:** University of Oklahoma's Institute for Natural Products Applications and Research Technologies (INPART) acquired the LAESI DP1000 bio-molecular imaging system. The instrument will be used for the Institute's natural products-based drug discovery operations. It entered into a Collaborative Research Agreement with Virginia Commonwealth University ("VCU") and its Center for Molecular Imaging. Focusing on the combination of LAESI, Protea's ex vivo molecular imaging mass spectrometry technology platform, with VCU's in vivo molecular PET, SPECT and MRI/MRS imaging capabilities, in hopes of developing new methods to better elucidate the molecular basis of cancer, Alzheimer's and other human disease. The Company planned on marketing and selling additional LAESI units to pharmaceuticals as well as educational institutions throughout North America in the fourth quarter as well as 1Q14. The Company had a LAESI backlog for 1Q14, with pending LAESI sales with Dow Agrosciences, George Washington University, Monsanto and University of Prince Edward Island.

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**July 2013:** Protea received issuance of two patents. The first patent is titled “Laser Ablation Electrospray Ionization (LAESI) for Atmospheric Pressure, In Vivo, and Imaging Mass Spectrometry” (U.S. Patent #8,487,244) and the second patent is titled “Three-Dimensional Molecular Imaging by Infrared Laser Ablation Electrospray Ionization Mass Spectrometry” (U.S. Patent # 8,487,246).

**March 2013:** LAESI production started. Two units were completed. Four additional units were in production. The first unit shipped in March.

**February 2013:** Protea adds Thijs Spoor and Josiah T. Austin to its Board of Directors.

**January 2013:** Daniel Flynn resigned as Board Director of the Company.

**November 2012:** Protea entered into a Patent License Agreement with George Washington University.

**June 2012:** Protea Biosciences LAESI DP-1000 product received an R&D 100 Award and was recognized as one of the most technologically significant products for the year.

**June 2012:** The LAESI instrument was showcased at Analytical in Munich (April) and at the American Society of Mass Spectrometry (ASMS) Conference in Vancouver (May). Protea noted at their June 1<sup>st</sup> Board of Directors meeting that there was interest and contact from between 15-18 dealers after these conferences.

**May 2012:** The Lipase Valuation Report was published by Protea with the end of Phase I being valued at \$64 Million.

**March 2012:** Protea received the PittCon Editors’ 2012 Bronze Award for their new LAESI DP-1000 Instrument.

**September 2012:** Protea completed a reverse merger and became a publicly reporting company.

**January 2012:** Awarded by “The Scientist” publication as a “Top Ten” Technology Award for 2011 for their LAESI-1000 Instrument. Protea expanded to a new facility. WVJIT used money to fund the leasehold improvement. Also, a second WVCAP program participant used funds for the purchase of a mass spectrometer for the facility.

**Overall Conclusion**

Based on the foregoing, the WV Jobs Investment Trust finds it most appropriate to record its investment in Protea Biosciences Group, Inc. with a reserve of 50% of the outstanding principal balance of the loans and a 50% write down of the investment, resulting in a portfolio value of **\$1,791,719**.

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# SIOX

**Snapshot:**

Company: **Siox, LLC**  
Website: N/A  
Location: Morgantown, WV  
Total Employees: FT/1; PT/0  
WV Employees: FT/1; PT/0

**WVJIT Investment: \$100,000**  
**WVJIT Ownership: NA**  
**Subject to GASB 62: NO**

**Leadership Team**

Tim Fogarty, Crimson Hill  
Tim Appleberry, Crimson Hill

**Background**

SIOX, LLC is a newly formed Delaware Limited Liability Corp. that is developing a simple low-cost process for acquiring manufacturing high purity synthetic magnetite. Magnetite is one three common naturally occurring iron oxides and is the most magnetic of all the naturally occurring minerals on earth. Applications for magnetite include, but are not limited to, automotive brakes, batteries, fertilizer and paints. The Company will be working closely with the National Energy Technology Laboratory (NETL) in Morgantown to develop the manufacturing process.

**WVJIT Investment History**

**April 2016:** \$200,000 Investment

\$100,000 disbursed on the first tranche; second \$100,000 tranche is milestone-based, expected to be July 2017.  
Convertible Debenture, 8% interest maturing March 2019.

**Warrant Coverage:** Up to 10% of the Company at \$.01 a unit.

**Total WVJIT Loan Balance:** \$100,000 (\$50,000 from WVCAP)

**Accrued Interest FY2017:** \$9,021.96

**Co-Investors/Lenders:** INNOVA Commercialization

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**Board of Directors**

**Tim Fogarty**

Tim Fogarty was Vice President of Energy Programs at Innovation Works (“IW”) in Pittsburgh, PA where he managed a pool of over \$10M dedicated to energy technology investments. There he reviewed over 150 opportunities over a three-year period and closed on over 30 investments across a broad cross-section of energy sectors. Those investments include existing seed stage companies and newly formed entities. Mr. Fogarty was a managing director of MHI Energy Partners, a venture capital firm focused on energy technology seed stage investing in North America. Mr. Fogarty also served as Vice President of Finance for INI Power Systems, a fuel cell company in Cary, North Carolina developing portable power solutions for military applications. Previously, Mr. Fogarty was the Power Technologies Equity Research Analyst at Thomas Weisel Partners, LLC in New York City. Prior to entering the financial sector, Mr. Fogarty spent four years in the U.S. Marine Corps as an infantry officer. Mr. Fogarty received an A.B. from Harvard University.

**Tim Appleberry**

Tim Appleberry founded Omega Holding Company, a company that specializes in industrial facilities decommissioning and commercial recycling. The company does business under the name Omega Industrial Decommissioning and Recycling and in its first year of operation is expected to generate nearly \$5M in sales revenue. Prior to Clover Technologies, Mr. Appleberry was the COO, CEO, co-founder of Thoroughbred Technologies, a recycling and remanufacturing company. Thoroughbred Technologies was twice named to Entrepreneur Magazine’s “Hot 100” fastest-growing companies in the U.S. Under Mr. Appleberry’s direction, the company quickly became the industry leader in quality and reliability. Mr. Appleberry was responsible for much of the design of the production equipment and processes and built a product/engineering team that initiated industry-changing processes and proprietary intellectual property and was a regular contributor to industry publications and standardization committees. Thoroughbred Technologies was acquired by Clover Technologies as a result of the company’s dynamic growth and reputation for quality. Mr. Appleberry holds a M.A. from the University of Wisconsin – Madison.

**Guy Peduto, INNOVA Commercialization Group**

Guy Peduto joined the INNOVA Commercialization Group in April 2006. Prior to joining INNOVA, he held the position of Director, Commercial Programs at the Institute for Scientific Research, Inc. While there, he developed strategies for the commercial utilization of ISR’s technology and research applications in such areas as biomedical research, education, software development, mining safety and communication, VTOL aerial vehicles, and automotive controls and diagnostics. Mr. Peduto’s background includes 20 years of strategic planning experience with an emphasis on product introduction, leadership for early stage and start-up companies as well as market and business development. This experience includes business formation, product development, go-to-market and market development strategies for industrial and commercial manufacturers, consumer goods, advanced research and development, healthcare, financial institutions, Internet start-ups and retail chains. Mr. Peduto received a Bachelor’s degree in Business Administration with a major in Marketing from West Virginia University.

**Michele O’Connor, West Virginia Jobs Investment Trust**

Michele O’Connor has more than 25 years of experience in the finance and banking industry. She attained her Certified Financial Planner designation along with the Accredited Investment Fiduciary Manager designation. She

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was the Portfolio Manager for the Trust Department at First United Bank and managed over \$600 million for the department. Currently, Ms. O'Connor is the Investment Manager for the West Virginia Jobs Investment Trust, a leading venture capital firm focused on turning the innovation of new ideas into successful world-class companies. Ms. O'Connor graduated Magna Cum Laude with a BA in Finance from the University of Maryland College.

### **Products**

Magnetite is a common mineral that is also one of the three common naturally occurring iron oxides and a member of the spinel group. It is a black, opaque, submetallic to metallic mineral. Magnetite is sometimes found in large quantities in beach sands in various places ranging from the West Coast of the United States to the North Island of New Zealand. Most recently, larger deposits have been found in Chile, Sweden, and Western Australia.

### **Applications**

Magnetite is a leading material used in scrubbing of H<sub>2</sub>S (Sulfur) removal from streams near the Marcellus Shale gas reserve. Magnetite (iron oxide) is a leading material used in the scrubbing of H<sub>2</sub>S from these streams. The Company's discussion with one customer has indicated that their demand alone for the H<sub>2</sub>S application should grow to 4,000 tons per year by 2020. Magnetite also offers several consumer applications as well such as paints, coatings, water filtration, iron phosphates, semi-metallic brakes, food additives and fertilizer. Magnetite is also a compound found in the manufacturing of audio recording tapes and is a catalyst for the industrial synthesis of ammonia. Its properties have been able to serve as a sorbent to remove arsenic from drinking water.

### **Competition/Market Summary**

#### **PIROX**-Pittsburgh, PA

PIROX, who was founded in 2005, is a manufacturer of high purity synthetic magnetite as Pirox LLC, a distributor of natural mined magnetite and synthetic red iron oxides. Synthetic iron oxides are produced in the facility in New Brighton, PA., while the natural magnetite sources are located in various places throughout the U.S.

Competition stems from three sources:

1. Synthetic manufacturers using a chemical process: The biggest player in this market is *Lanxess*. This company manufactures material that has high purity and small particle size though their product is sold at about \$1.50/lbs., which is roughly four times the projected price sold to SIOX's customers. The Laux Magnetite process has been known to be environmentally destructive with low quality control.



## Laux Magnetite



- Environmentally hazardous & energy intensive chemical reduction process
- High quality control
- Highest price
- Smallest particle size
- Cost prohibitive for almost all applications

## SIOX

2. Mined Magnetite: Magnetite is naturally occurring in nature and is mined by many mining companies. Reiss Viking is an example of a mined magnetite supplier. Mined Magnetite is typically of lower purity compared to SIOX material and as a result it is sold at between \$0.20 and \$0.50/lbs. Mined Magnetite is not suitable for all applications due to the presence of mineral impurities and the generally coarser product size.

## Natural Magnetite



- Environmentally destructive mining process
- Low quality control
- Low cost
- Unusable in many applications

## SIOX

3. Synthetic manufacturers using a heat treatment process: There are some magnetite manufacturers that use a heat treatment process to manufacture synthetic magnetite. However, it's believed that those processes use higher heat which can result in coarser particles and are more expensive than the proposed SIOX process. The Pirox magnetite process, though environmentally sound, at producing a refined byproduct of steel manufacturing, it can be quite cost prohibitive for some applications.

Key purchasing decisions vary by market, yet in general the most common factors are the purity, particle size in choice of materials, and cost. SIOX is developing a simple low-cost process for manufacturing high-purity synthetic magnetite. This process compares extremely favorably with the traditional Laux process that is used to manufacture synthetic magnetite that's both cost effective and environmentally friendly. There are three distinct advantages that SIOX has over its competition:

1. SIOX's manufacturing process is simple and relatively manageable versus the current process used by its competitors.
2. SIOX's magnetite is as pure or of higher purity than the synthetic magnetite manufactured by its competition.
3. SIOX's low manufacturing costs allow it to sell its product at a price that meets the market demand.

### **Industry Summary**

Magnetite is a salt that has a variety of different uses including: building materials, dentistry as a cast or die to being used in the casting phase of operations. It exists in many forms and can be combined with other elements to create different materials.

Key application areas of Magnetite Iron Ore are assessed on the basis of performance in terms of consumption and growth rate. Market predictions along with the statistical nuances presented in the report render an insightful view of the Magnetite Iron Ore market.

The Magnetite Iron Ore market value is provided for 2016 in USD millions, an expected CAGR % as well as USD million worth of industry in 2022. Regionally, the globe is segmented into United States, China, Europe, Japan, Southeast Asia and India to study their market size and local analysis.

### **Significant Events**

**June 2017:** SIOX is finalizing the testing and should have the small pilot plant in Morgantown running and producing product by fourth quarter 2017. The Company has not needed to expand to the WV Tech Park, but if extra space is needed, a lease can be signed.

**June 2016:** SIOX is currently in negotiations with the WV Tech Park about moving into the complex. Although nothing has been signed, they are looking to transition from their Morgantown location to the TechPark within the year.

**May 2016:** NETL is progressing with the cold flow unit using a fluid bed design. SIOX is seeking additional space to manufacture once the unit has been finalized by NETL.

**April 2016:** WVJIT closed its Convertible Debenture and disbursed first tranche of funding to SIOX.

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**Overall Conclusion**

Based on the foregoing, WV Jobs Investment Trust finds it most appropriate to record its investment in SIOX, LLC at value, which is currently presumed to be the same as cost or **\$100,000**.

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**Snapshot:**

Company: **Spectrum Radio, LLC**  
Website: spectrumradiogroup.com  
Location: Fairmont, WV  
Total Employees: FT/8; PT/9  
WV Employees: FT/8; PT/9

**WVJIT Loan - \$160,000**  
**WVJIT Investment: \$142,500 (Write-Down of \$142,500)**  
**WVJIT Total : \$302,500**  
**WVJIT Ownership: 19.03%**  
**Subject to GASB 62: NO**

**Leadership**

Alan J. Michaels, Managing Partner/Robert A. Woodward, Managing Partner/Nick Fantasia, Operator

**Background**

Spectrum Radio Group (SRG) is a media holding Company founded in 2012 to acquire four radio stations within the Morgantown/Fairmont/Clarksburg area. The radio stations looking to be acquired were: WZST (100.9 FM) Westover, WV; WRLF (94.3 FM) Fairmont, WV; WTCS (1490 AM); WMMN (920 AM). SRG strongly believed these radio stations would significantly benefit by new ownership that had experience in a variety of radio markets to bring new sales, promotion and programming techniques to these respective stations.

**WVJIT Investment History**

**September 2013:**

\$285,000 equity investment (all from WVCAP)  
9% Quarterly Dividend; No Warrants; 1x Redemption; 1:1 Conversion Rate

**April 2015:**

\$200,000 Convertible Debenture  
Interest payable monthly at 9%

**August 2015**

Write-down of 50% of the amount invested in Spectrum Radio, \$142,500 (Outstanding balance: \$160,000)

**Debt/Equity Structure**

Newtek Loan/Seller Note/WVJIT/MCDA

**Products and Services**

**WZST-FM: Variety 101**



The West Virginia University Flagship station, WZST-FM, is an Adult Contemporary radio station licensed to Westover, West Virginia, serving the Morgantown/Fairmont/Clarksburg market area. Except when delivering pre-game, game and post-game shows for WVU Sports. Go Mountaineers!

Variety 101 targets Women 18-49 as part of its core demographic audience. Variety 101 airs Elvis Duran in the mornings and Ryan Seacrest in the afternoons.

**WRLF-FM: Rock 94**



WRLF is a Classic Rock formatted broadcast radio station licensed to Fairmont, West Virginia, serving the North-Central West Virginia area.

WRLF simulcasts WVU Sports and targets men 35-64 with its music play lists.

WRLF-FM, Fairmont, WV is its heritage station and its genesis is two generations of the Nick Fantasia family with the third generation being paid homage as RLF stand for Rose and Lou Fantasia, the family patriarchs.

**WTCS-AM: News-Talk 1490**



WTCS-AM is a News/Talk/Sports formatted broadcast radio station licensed to Fairmont, West Virginia, serving the Fairmont/Grafton area. WTCS airs America in the Morning with Jim Bohannon, Imus in the Morning, Dennis Miller, Clark Howard, and Ed Schultz. WTCS is also an affiliate of Bloomberg Business Radio.



### **WMMN-AM: Sports-Talk 920**

WMMN is a News/Talk/Sports formatted broadcast radio station licensed to Fairmont, West Virginia, serving North-Central West Virginia.

### **Market Summary**

Over the past five years, the Radio Broadcasting industry has battled to maintain its relevance and audience because of competition from digital media platforms. In particular, the industry has suffered because of its limited interaction with listeners and heavy reliance on advertising. Prior to the recession, radio stations benefited from being a long-standing part of most advertising budgets. As a result of the recession and its aftermath, companies in many sectors slashed advertising budgets early on in the five years to 2015. The economy is projected to recover over the next five years, with advertising budgets set to follow.

While costs to start a station are relatively low, they can vary depending on the type of radio station. Listeners typically are loyal to preexisting stations and most U.S. markets already benefit from a wide variety of radio content. Many stations, however, broadcast programming that they purchase from a national provider. This syndicated content often helps local stations enter the market and instantly establish a programming schedule that features personalities and shows that local audiences may wish to hear. According to the Radio Advertising Bureau, 2015 ad revenue declined 1% from 2014. Spot revenue was down 3%, network revenue was up 1%, digital was up 5%, and off-air revenue gained 11%. Off-air sales now represent nearly 12% of radio's total revenue.

### **Industry Summary**

#### **2016 Radio Trends – Media Post**

#### **Advertising will drive growth in radio revenue.**

The continued recovery of advertiser confidence since the economic downturn will see radio-advertising revenue extend its share of global total radio revenue from 75.3% in 2014 to 75.8% in 2019. With public radio license fees progressively contributing relatively less, advertising will be the key driver of global growth.

#### **The U.S. remains dominant, but fast-growing international markets are gaining ground.**

The U.S. dominates the global radio market with 44.6% of all revenue, but growth is now occurring more quickly in other markets. The combined effect of the continued maturation of the U.S. market and the accelerating growth of large markets in other regions will see the U.S. lose further global share, dropping to 43.2% by 2019.

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**Connected devices emerge as a mixed blessing.**

By 2019, smartphone connections will have risen to 3.85bn from 1.92bn in 2014, accounting for 56.0% of all mobile phone connections. Such devices will give more consumers greater opportunity to listen to radio on the go, but simultaneously expand opportunity and drive competitor services.

**The digital radio platform will transition to listening on mobile Internet devices.**

Only a handful of radio markets have an established dedicated digital radio platform though some progress is being made and trials are in advanced stages in many markets. But competition from the accelerating use of portable Internet devices—mobile Internet subscribers are forecast to comprise 58.5% of the population in 2019—will give consumers greater access to streaming audio alternatives to radio, as well as more choice in accessing available radio content. Broadcasters must ensure they are making new digital radio platforms available to address changes in audience behavior.

**China and India will surge, but Japan falls back.**

Markets such as China and India will be some of the most significant revenue growth contributors in the five years to come, with total radio revenue CAGRs of 8.7% and 8.9%, respectively. The growing middle classes in these markets and their spending power will be key drivers of radio advertising revenue. By contrast, Japan, known for pioneering technology and one of the most significant music markets in the world, will suffer a -3.5% CAGR fall in total radio revenue to 2019. Key to Japan's decline is a shrinking, aging radio audience, with younger consumers quickly turning to Web and app alternatives such as streaming music services.

**Significant Events**

**June 2017:** Convertible Debenture paid off. Spectrum Radio in the process of winding down as all assets were sold.

**October 2016:** Spectrum Radio entered into an Asset Purchase Agreement with a potential buyer.

**June 2016:** Spectrum Radio continued to increase cash flow and is reviewing a proposed offer to purchase.

**December 2015:** A third tranche of \$30,000 was disbursed on the WVJIT Convertible Debenture.

**October 2015:** A second tranche of \$30,000 was disbursed on the WVJIT Convertible Debenture.

**August 2015:** The Convertible Debenture closed. First tranche of \$100,000 was disbursed.

**June 2015:** A Convertible Debenture was approved by the WVJIT Board in the amount of \$200,000. The Debenture is structured with two tranches, each at \$100,000. The proceeds are to purchase a CD at First Exchange Bank to collateralize a line of credit. The repayment of the Debenture needed to be adjusted to coincide with Newtek's loan conditions. At this time, the loan had not closed.

**March 2015:** Nick Fantasia stepped into the role of acting General Manager of Spectrum Radio Group. Company continued to pursue a LOI with several buyers.

**December 2014:** Mark Thompson resigned as manager of Spectrum Radio Group.

**June 2014:** Spectrum Radio entered into an LOI to explore a buyer's interest in acquiring the assets of Spectrum Radio. A meeting was held the week of July 21, 2014 where the Board met with the Buyer to discuss purchase price and timing of an APA and LMA.

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**September 2013:** Spectrum Radio closed a \$285,000 equity investment from WVJIT.

**Overall Conclusion**

Based on the foregoing, the WV Jobs Investment Trust finds it most appropriate to record its investment in Spectrum Radio Group, LLC at value, which is currently at **\$0.00**.

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**Snapshot:**

Company: **Troy, LLC**  
Website: troyllcwv.com  
Location: Harrisville, WV  
Total Employees: FT/65; PT/0  
WV Employees: FT/65; PT/0

**WVJIT Investment: \$673,039**  
**WVJIT Ownership: 16.67%**  
**Subject to GASB 62: NO**

**Leadership Team**

Martin Ballen, CEO/ Director of Sales  
Richard Kerns, Chief Operating Officer/Chairman BOD  
Linda Golden, Materials Control Manager

**Background**

Troy Mills, Inc., a New Hampshire based Company, was established in 1865. It owns an 85,000-square foot facility located in Harrisville, West Virginia and supplies needle punched textile products to niche markets. The Harrisville facility is a Tier-One and Tier-Two supplier to the automotive industry and is also a supplier to the apparel industry. The facility produces automotive interior fabrics and apparel linings. The Company filed for bankruptcy protection in 2001. Mountaineer Capital, WVJIT, and two individuals purchased the West Virginia operation in March 2002. The Company has been organized as a Limited Liability Company known as Troy, LLC.

**WVJIT Investment History**

**February 2002: \$500,000 Investment**

\$60,000 in Series A Convertible Preferred Membership Units  
\$440,000 in Convertible Subordinated Term Loan

**September 2009:**

Loan was modified and principal increased by the amount of past due interest.

**May 2013:** \$840,000 Investment

Closed June 2013 - convertible 5.5% loan. WVCAP Seed Capital Co-Investment funds accessed for \$420,000 of loan. WVCAP portion was repaid in 2014.

**Total WVJIT Loan Balance:** \$676,495

**Total WVJIT Equity Balance:** \$60,000

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**WVJIT FY2017 Interest Revenue Received:** \$36,525.19

**Co-Investors/Lenders**

WVEDA: \$252,737 – Debt  
MOVRC: \$197,631 – Debt  
WUB: \$358,177 Term Loan; \$515,003.78 LOC

**Warrants**

<b>Date</b>	<b>Equity</b>	<b>Debt</b>	<b>Covg.</b>	<b>Type</b>	<b>Price</b>	<b>Term</b>	<b>Exp.</b>	<b># Warrants</b>	<b>Exer. Cost</b>
May-11	-	\$400K	10%	Pref. A	\$1,000	7	May-18	36	\$36K

**Board of Directors**

**Richard Kerns, Chief Operating Officer, Chairman of the Board of Directors**

Richard Kerns is a military veteran having served from 1965 to 1967. He was the Production Supervisor of FMC Corporation located in Parkersburg, West Virginia from 1968 to 1974. Mr. Kerns has been with Troy since 1974 where he has served in such positions as Production Supervisor and Manager of the Harrisville facility. Since March of 2002, Mr. Kerns has been COO and part owner.

**Martin Ballen, Chief Executive Officer**

Martin Ballen completed a four-year materials engineering program at General Motors Institute. After completion of the program, he joined GM's engineering department staff. Later, he would continue in the automotive field and join Chrysler Corporations' engineering staff. Through the years, Mr. Ballen has held various management positions with both GM and Chrysler. In 1970, he joined Troy Mills Inc. as a sales engineer. Since then, Mr. Ballen helped develop new applications for Troy's capabilities for various automotive customers at OEM, Tier One and Tier Two levels. In 1990, he became the VP of Automotive Business Group with responsibility for marketing, sales, and R&D, customer service and manufacturing. In 2000, he started the Prestwick Group, LLC, a representative for several manufacturers of materials for the automotive industry. In 2002, with Richard Kerns and an investment group, the purchase of Troy Mills was made and the name was changed to Troy, LLC. Mr. Ballen currently serves as CEO.

**Patrick Bond, Mountaineer Capital**

Pat Bond joined McCabe-Henley Properties LP as Managing Director in early 1998, Mr. Bond brings a wealth of experience in finance, administration, strategic planning, general management, and management information systems. Previously, Mr. Bond owned/operated an independent consulting practice, Growth Management Group, that specialized in the areas of business environment assessments, new product development, investment and financial analysis, and strategic planning. Prior to that, he was President of a natural gas marketing company and was President and CEO of Atlantic Financial Federal, a \$750 million savings and loan institution and all its business units. He graduated from WVU where he received both Master's and Bachelor's Degrees in Industrial Engineering.

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**Sam Sommerville, CPA**

Sam Sommerville is currently VP of Northeast Natural Energy and a former partner of the Simpson & Osborne Accounting firm. He is a graduate of Glenville State College, a certified public accountant (CPA), and is active in various professional, trade, and civic organizations.

**C. Andrew Zulauf, Executive Director, WV Jobs Investment Trust**

Andy Zulauf is the Executive Director of the West Virginia Jobs Investment Trust, a public seed investment fund. He has extensive experience in finance and venture capital, having served as Executive Director and Senior Loan officer for the West Virginia Capital Corporation, as a Partner and Managing Director of West Virginia operations for Adena Ventures, and as Vice President and Upper Middle Market Commercial Relationship Officer for Fifth Third Bank.

**Products**

<b>Automotive</b>	Produces needle punch synthetic fabrics for applications that include seating trim, luggage compartments, molded door carpets and inserts, package trays and headliners.
<b>Apparel</b>	Recycle fibers for printed lining materials for work jackets and western theme clothing, saddle pads, gun cases, custom luggage and baseball caps.
<b>Industrial</b>	Produces felts, absorbency and shoddy materials using fine and coarse denier polyester, polypropylene and nylon fibers, coupled with a wide variety of support scrims and backings.



**Competition/Market Summary**

**Formed Fibers (Auburn, Maine)**

Specializes in Polyester Fiber, Fabric, Substrates, and Custom formed parts. The Company has three locations (Auburn, ME; Sydney, OH; Sumter, SC). FFT is the only auto supply Company that is vertically integrated from fiber to fabric to finished part. Each product manufactured is custom designed for its intended use.

**Foss Manufacturing (Hampton, New Hampshire)**

Established in 1954, and has six business units (Automotive, Specialty Fibers, Kunin Group, Technical Products, Eco-Fi, and Ozite). They are a vertically integrated producer of engineered, non-woven fabrics and specialty synthetic fibers.

**IAC (Troy, NC)**

Specializes in plastics, fibers and other manufacturing components.

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**Oxco Incorporated (Charlotte, NC)**

Since 1994, Oxco has built a reliable reputation for delivering quality nonwoven products with the most reliable service in the industry.

**Industry Summary**

The global textile chemicals market was valued at \$21.02B in 2015 and is expected to reach more than \$29.1B by 2024, expanding at a CAGR of 3.7% between 2016 - 2024.

Textile chemicals are used in the process of fabric processing including pretreatment chemicals, textile dyeing chemicals, printing chemicals, finishing chemicals, antistatic agents, and other specialty chemicals. There has been a sustained shift in the geographic location of the world's textile production, from Southeast Asia to China and India since the last 30 years. Sizing chemicals are used increasingly in the apparel applications industry in order to increase the absorption rate of the fabric.

Asia Pacific was the largest consumer of textile chemicals in 2015, led by the high demand for coating and sizing chemicals products in China and India. Asia Pacific accounted for more than 55% share of the global textile chemicals market in 2015. It was also the fastest growing market in the year due to the significant demand for textile chemicals in various applications industries. Europe was the second-largest consumer of textile chemicals in 2015, owing to the rising demand for these chemicals in technical textile applications in Turkey and Germany. The market in North America is anticipated to expand at a modest rate during the forecast period. Concern of regulatory bodies regarding harmful effects of textile chemicals on environment and emergence of bio-based textile chemicals are estimated to hamper market growth, however, technological innovation and development of new textile chemicals is projected to act as the opportunity for the manufacturers of textile chemicals during the forecast period. Growth in the apparel and industrial industry is anticipated to propel the textile chemicals market during the forecast period. Furthermore, rising number of products of textile chemicals in various applications is likely to act as a major opportunity for the textile chemicals market in the near future.

**Significant Events**

**June 2017:** Troy and WVJIT agreed upon a refinance of the existing loan. The annual interest rate was fixed at 7% with a 5-year amortization and a balloon payment at maturity.

**June 2016:** Comptroller resigned. Troy actively seeking a replacement.

**May 2016:** WVJIT modified existing loan. New maturity date was June 2017.

**March 2016:** New labor contract approved.

**February 2016:** Existing labor contract extended until month-end.

**October 2015:** Troy began to renegotiate labor contract expiring January 2016.

**July 2015:** Troy worked with two major automotive manufacturers on trunk and other components.

**April 2015:** Troy picked up new customer with automotive customer, Lear Corporation.

**April 2014:** Mr. Kerns noted the refinancing of the WVJIT loan was complete. The annual interest rate was fixed at 5.5% with a 10-year amortization and a 3–5 year balloon.

**March 2014:** Troy entered into discussions with Oxco, Inc., a Charlotte-based textile manufacturer looking to expand its exposure to the automotive market.

**December 2013:** During a Board of Directors meeting, Mr. Kerns provided an update on the refinancing of Troy's debt with West Union Bank. Troy had hoped to close the loan by December 31, 2013, however, the loan closed

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mid- January 2014. Mr. Kerns communicated this to WVJIT. There were no expected issues with closing the loan. **September 2013:** West Union Bank approved a loan of \$680K (\$420K to pay down the WVJIT loan and \$260K to refinance the equipment loan). The proposed loan was amortized over 9 years with interest at 5.25% for 4 years, and thereafter at prime plus 2.5%, but not less than 5.25%. WVEDA to guarantee the loan for four years and there was a 1% fee on new funds, pending an affirmative at its meeting on September 2013. Mr. Kerns mentioned that United Bank would try to utilize an SBA or some other type of guarantee for the Company's request of a \$1.3M line of credit and a \$680K term loan.

**May 2013:** WVJIT and WVCAP approved an \$840,000 investment into Troy, LLC. Use of Proceeds were used for working capital as well as payment of outstanding debt held by Mountaineer Capital.

**July 2012:** Troy, LLC was featured in the July edition of "55 Good Things About West Virginia," which is a supplement to the "West Virginia State Journal." This article entailed Troy's continued success with car manufacturers and Carhartt apparel.

**Overall Conclusion**

Based on the foregoing, WV Jobs Investment Trust finds it most appropriate to record its investment in Troy, LLC at value, which is currently presumed to be the same as cost or **\$673,039**.

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**Snapshot:**

Company: **USGlass, Inc.**

Website: [Usglss.com](http://Usglss.com)

Location: Williamstown, WV

Total Employees: FT/0; PT:0

WV Employees: FT/0; PT:0

**WVJIT Investment: \$100,000**

**WVJIT Write down: \$100,000**

**WVJIT Ownership: 40.0%**

**Subject to GASB62: YES**

**Leadership**

Gene Bem, Chief Executive Officer

**Background**

USGlass, Inc. formed in 2012, acquired the 107-year-old Fenton Art Glass Company. As part of the acquisition, USGlass acquired the intellectual property, molds, color formulas, and name. The goal for USGlass is to produce new, modern design functional tableware in the “Made in America” tradition that cannot be replicated in China or anywhere else in the world.

**WVJIT Investment History**

**March 2013**

Provided an initial investment of \$100,000 in Series AA Preferred Units.

**Total WVJIT Investment:** \$100,000 funded through WVCA

**GASB 62 Valuation:** \$0.00

**Co-Investors (Shares)**

Interactivity Foundation

Parimal Patel/Kinequity Group

Peter Walsh

Guillame Gauthereau

Jeff Rich

Robert Tanko

Callann Wolff

Bill Maloney

### Management Team

#### Gene Bem, Chief Executive Officer

With over 20 years of experience as a Management Consultant and Investment Advisor to senior executives, Gene Bem has worked with clients of all sizes from the Fortune 500 to start-ups. He has held senior partner positions in two Boston based boutique strategy firms and Oliver Wyman (formerly Mercer Management Consulting), one of the largest consultancies in the world. His expertise is primarily in crafting and implementing winning strategies for corporations using sound customer analysis combined with innovation portfolio valuation.

### Board of Directors

#### Gene Bem, Chief Executive Officer

#### Peter Walsh

### Products

USGlass plans to manufacture housewares, figurines and tabletop items utilizing the Fenton molds with some updated designs from local and national artisans. The Company will distribute the items to major retail outlets such as Williams-Sonoma, Bed Bath & Beyond, Neiman-Marcus, among others. USGlass hopes to be part of the strong consumer trend of being one of the few “Made In America” glass manufacturers.



### Competition/Market Summary

Competitors for USGlass range from local West Virginia glassware companies such as Blenko and Homer-Laughlin to global manufacturers such as Lalique, Baccarat, and Daum. The firm's competitors in the ultra-high-end crystal and glass functional and decorative items are a variety of general home décor manufacturers and distributors. Those ultra-high-end manufacturers are Waterford Wedgwood, Swarovski, and Rogaska.

### Industry Summary

Domestic glass manufacturers will continue to feel the pressure from substitute products replacing glass in many functions, particularly for food packaging. Furthermore, despite economic recovery, demand for glass used in automobiles will be limited by strong import competition in the next five years. On the bright side, a rebound in the residential housing market will boost demand for glass products used in windows, doors and furniture.

Crystalware and glassware are part of the houseware industry, which has a multi-billion dollar market. As demand of crystalware and glassware is dependent on high volume market, its price is expected to be at lower side, especially from Chinese manufacturers. In price sensitive regions such as Asia Pacific and Middle East where demand of crystalware and glassware is on higher side due to already existing and expanding glass and plastic industries, lower price may act as a significant driver of its demand. The crystalware and glassware market has experienced decline in demand in developed regions such as North America and Europe. The market is expected to decline further in the future because of economic crisis combined with increase in market share of cheap imported products from the Asia Pacific region.

In developed regions such as Europe and North America, due to an influx of cheap products from China, retailers are being forced to lower their prices to survive in a competing market. In addition to this, economic crisis resulting in slowing wages and rising living cost has forced European and North American markets to saturate. On the other hand, European and North American manufacturers are more focused on emerging markets such as Asia Pacific and Middle East region where fast growing middle class want to invest in quality crystalware and glassware products from renowned brands. Because of this, in the future, the market is expected to be driven by Asia Pacific and Middle East regions but existing ceramic and plastic products in those regions will hinder its growth.

#### **Significant Events**

**June 2017:** Legal action is pending against USGlass on the WVJIT preferred shares.

**December 2016:** USGlass notifies WVJIT preferred shares issued were not valid. WVJIT reviews with legal validity of claim.

**June 2016:** USGlass continues to negotiate with WalMart for an order of vases to be shipped mid-2017.

**May 2016:** Bill Maloney resigns from the Board.

**February 2016:** Bill Maloney was elected to the Board.

**December 2015:** Michele O'Connor, WVJIT representative, resigns from the US Glass Board.

**November 2015:** Ed White resigns from the Board and sells his shares to a new investor.

**June 2015:** USGlass presented its samples at the Walmart "Made in the USA" Summit Presentation in Bentonville, AR. The Company also announced that Iphimedia Group intends to make a tender offer on preferred shares and debt of USGlass, Inc. on or about August 15, 2015.

**March 2015:** In USGlass March Annual report to shareholders, Company was able to develop its product line for 2015, develop sample pieces for road and tradeshows, as well as start relationships with several target customers including Walmart.

**December 2014:** Denver-based real estate investment firm dropped out from potentially investing in the Williamstown facility. In a conference call, Mr. Bem updated the shareholders and the Board of the notice and requested the hire of Troy Smith to serve as consultant to manage the 12 property and environmental issues needing to be resolved.

**September 2014:** USGlass hired Elizabeth Haggarty as VP of Sales. The Company also continued to work through the Uranium issues at the Fenton Facility. Mr. Bem was in negotiations with the WVDEP to resolve the outstanding issues.

**June 2014:** USGlass Board met to vote the hiring of Jaci Volles, marketing and retail consultant. Ms. Volles laid out in the June board meeting the revised marketing plan for the Company, which the Board decided to implement. USGlass was notified of signed LOI by George Fenton for the Williamstown facility.

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**May 2014:** USGlass met with Walmart to discuss product orders, sourcing, and appropriate product positioning as well as discussions with manufacturers for production.

**March 2014:** It was discovered that the facility contained a number of issues relating to the corrosive natural gas line, storm water permit compliance, landfill and depleted uranium permits compliance. Given the environmental concerns related to the facility site, the Wood County Board of Education voted not to consider the site.

**February 2014:** Wood County Board of Education meets to discuss proposed site for the new elementary school at the Fenton Facility. The Board of Education voted to enter into talks to buy the Fenton Glass property.

**January 2014:** Baceline Investments provided a letter of intent to George Fenton for the acquisition of the Williamstown facility. The investment firm, along with Kinequity Group and US Glass, were in negotiations with George Fenton and his advisors.

**November 2013:** USGlass, in collaboration with Kinequity group and Baceline Investments, started the process to acquire the Williamstown Facility under a new company.

**September 2013:** USGlass was in negotiations with Everware Global Inc., to potentially license the brand for the Company's table top tier chain. This joint venture also contains the possibility of Everware making a Series A investment. Everware Global is partially owned by Monomoy Capital Partners, a NY-based private equity firm specializing in Consumer Retail companies.

**July 2013:** Fenton Glass Society Convention gathered at the Williamstown facility. Mr. Bem updated the collectors on the status of USGlass efforts to rebuild the Fenton brand and to restart full scale glass production at the factory in Williamstown.

**June 2013:** USGlass terminated its relationship with iGNTIATE and continued to solicit investors for the Series A Common Round.

**March 2013:** WVJIT invested \$100,000 through WVCAP for 100,000 Series AA Preferred Units in US Glass.

**November 2012:** USGlass investment approved by WVJIT Board of Directors and WVCAP Committee following term sheet signature and completion of due diligence.

**Overall Conclusion**

Based on the foregoing, WV Jobs Investment Trust finds it most appropriate to record its investment in USGlass, Inc., at **\$0.00**, per GASB 62 adjustment.

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