

Spectra Systems Corporation

Preliminary results for the twelve months ended 31 December 2018

Spectra Systems Corporation, a leading provider of advanced technology solutions for banknote and product authentication and gaming security, is pleased to announce its preliminary results for the twelve months ended 31 December 2018.

This announcement contains inside information for the purposes of Article 7 of Regulation 596/2014.

Financial highlights:

- Revenue up 3% for the year at US\$12,494k (2017: US\$12,170k)
- Adjusted EBITDA¹ up 16% at US\$5,045k (2017: US\$4,349k)
- Adjusted PBTA¹ up 19% to US\$4,782k (2017: US\$4,010k)
- Adjusted earnings² per share up 11% to US\$9.8 cents (2017: US\$8.8 cents)
- Net income up 24% at US\$4,055k (2017: US\$3,280k)
- Cash generated from operations of US\$4,740k (2017: US\$4,669k)
- Strong, debt-free balance sheet, with cash³ of US\$12,662k (2017: US\$11,181k)
- Declaring annual dividend up 17% to US\$0.07 per share to be paid in June

¹ Before stock compensation expense and 2017 exceptional items related to inventory writedowns

² Before amortization, stock compensation expense and 2017 exceptional items related to inventory writedowns

³ Does not include US\$1,099k (2017: US\$1,099k) of restricted cash and investments

Operational highlights:

- Large orders for covert materials which we were able to fulfill due to increased manufacturing capacity resulting from our 2017 facility consolidation and staffing redirection
- Over \$2.0M of royalties resulting from the exclusive licensing agreement executed in January 2018 for one of our existing products which is in use by 18 central banks through an existing licensee, a major supplier of banknotes worldwide
- Decreased operating expenses by \$0.5M due to reduced royalties related to covert materials
- QC readers for TruBrand delivered to customer in preparation for production of cigarette packs in 2019 and first orders received for 6-10 million boxes
- Engaged by a G20 central bank to commence Phase I of a four-phase funded sensor development for use with polymer banknotes

Commenting on the results, Nabil Lawandy, Chief Executive Officer, said:

"The Company's revenues have increased by 3% and PBTA is up 19% over 2017 driven by large orders of covert materials by our G7 customer, increased covert technology royalty payments flowing in from our renewal of the license agreement with a major worldwide supplier of banknotes, and the inline performance of all other operating business lines."

"The delivery of two quality control devices to a tobacco manufacturer and the adoption of TruBrand smartphone authentication technology to protect a top cigarette brand in China has increased our chances of expanding the use of this product to the billions of packs in the market over time."

"We continue to make significant headway on the polymer banknote side of the industry with the initiation of a G20 central bank funded four phase program to qualify a new ink based covert feature as well as by forging a relationship with a global supplier of polymer which is expected to eventually allow us to sell specialty covert banknote substrates and drive up our revenues significantly over time."

"The Board therefore believes that the Company, by achieving key business milestones, will continue to perform well and has excellent prospects for maintaining strong earnings in 2019."

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Chief Executive Officer's statement

Introduction

Through achieving key commercial milestones, as described in the Review of Operations below, Spectra Systems has delivered an excellent performance for the 2018 financial year.

Revenue for the year was US\$12,494k (2017: US\$12,170k) due to large orders of covert materials by our G7 customer as well as increased royalties resulting from the exclusive licensing agreement executed in January 2018 for one of our existing products which is in use by 18 central banks through an existing licensee, a major supplier of banknotes worldwide. Adjusted EBITDA (before stock compensation expense and exceptional items) for the year increased 16% to US\$5,045k compared to the prior year of US\$4,349k, which resulted in net income up over 24% at US\$4,055k (2017: US\$3,280k).

Having generated cash from operations of US\$4,740k (2017: US\$4,669k), cash at the period end amounted to US\$12,662k (2017: US\$11,181k), excluding US\$1,099k of restricted cash and investments as of both December 31, 2018 and 2017. This is notwithstanding US\$2,728k paid to shareholders during June in the form of the Company's dividend of US\$0.06 per share.

The Company is therefore declaring an annual dividend up 17% at \$0.07 per share to be paid in June. The Company will continue to have sufficient cash resources thereafter to execute on its growth plans.

Review of Operations

Authentication Systems

The Authentication Systems business, which includes the security phosphor materials, generated revenue of US\$11,204k (2017: US\$10,823k) and adjusted EBITDA of US\$4,584k (2017: US\$3,794k). Authentication Systems revenues are driven by covert material sales and royalties. We sell covert materials directly to one G7 central bank and indirectly to another G7 central bank and 17 other central banks through our supply and licensing agreements with a major banknote supplier and printer who pays a licence royalty for the exclusive rights to our technology. We are pleased to report that we continue to sustain a margin increase from using our in-house manufacturing facility.

The strong earnings from our covert materials business has been complemented with continued strong sales of high margin brand authentication materials.

The TruBrand authentication business is performing on track in spite of strained trade relations with China and continues to have significant prospects bolstered by the adoption of the technology for approximately 10 million packages annually of a high profile Chinese Yunduan brand commencing in early 2019.

Our optical materials based product which allows k-cups to be compatible and functional with Keurig coffee makers was a success and is expected to double its sales in 2019.

Secure Transactions Group

The Secure Transactions Group performed in line with management expectations, generating adjusted EBITDA of US\$461k (2017: US\$555k) on revenue of US\$1,290k (2017: US\$1,347k).

This segment of the business is producing solid stable revenues and earnings. During 2018, the Secure Transactions Group won three new US state lottery contracts and converted an existing customer to our 64-bit Premier Integrity. The incremental revenue from the contracts is estimated at over US\$1,300k over the full term of the contracts which range from five to eight years with additional potential from software work plans of up to US\$400k. The performance of these contracts will not require significant additional costs and will therefore have a positive impact on profits from 2019 through 2026.

In spite of delays relating to the release of new lottery industry regulations which have stalled additional revenue during 2018 from the usual software development related to the introduction of new games, revenues of the group were maintained at 2017 levels showing the success of the newly introduced 64-bit processor products in the Premier Integrity offering. With these regulations nearing finalization, we expect a strong increase in performance in 2019.

Strategy

The Company's strategy for increasing revenue and earnings is focused on brand authentication and specialty optical materials for security applications while maintaining a robust effort to commercialize our covert security technologies, particularly in the area of polymer notes. The brand authentication sector offers significant short term growth and some very large opportunities for smartphone based technology while the covert banknote security area provides long term, multi-decade revenues once new contracts are executed.

Through our close, multi-decade relationship with our direct G7 customer, we have become a trusted supplier of technology and have been asked to bid on several sensor upgrades, including our own sensors which are currently in use. We are confident that this will result in additional business and underpins our strategy of growing our business with existing customers in banknote security.

The Company's newest products are primarily targeted towards polymer banknotes where growth across denominations is outpacing annual increases in paper banknote production. In addition to providing taggants for ink based polymer note security, we believe that moving up in the supply chain in this area by partnering with a global plastics supplier to provide secure polymer substrates could be transformative to our business. We believe that the ability to provide a polymer substrate with high level security features will provide that leverage. If successful, our revenues per polymer note would experience a substantial increase over just supplying the security features alone.

The banknote industry continues to show resilience with a modulated response to macro-economic realities such as lower interest rates in Europe and Japan and a general level of uncertainty about the stability of the US economy. Recent Deutsche Bank research, supported by US Federal Reserve Bank data, has shown that there are more \$100 bills in circulation than \$1 bills for the first time in history. This reflects that these high value denominations are finding their way into mattresses rather than being invested due to the economic climate of interest rates and anxiety over the stability of world markets, both of which are expected to continue for at least the next few years when viewed in the context of political and economic circumstances in the US, the Brexit ripple, and China.

Higher denomination notes are the drivers for our covert products and hence this current trend is positive for the Company and further underpins our strategy of continuing to provide new technology to our existing central bank customers as well as continuing to use partnerships to penetrate the less electronic transaction driven parts of the world.

With regards to the brand authentication business, we are focusing on large markets for our products as a means of growth which reflects the scale of our sales structure. As tangible progress has been made on the tobacco TruBrand opportunity with first sales to a high profile brand in China, our strategy is to support this first customer with the goal of including TruBrand products in their other brands which have significantly higher volumes. Specifically we expect the current adoption in the Yunduan brand to be in the market beginning April of 2019 through Q2 of 2020 with the subsequent adoption of the technology in larger volume, high value brands offered by Zhejiang Tobacco beginning late 2020. With the tangible progress in tobacco and a plan to grow it initially through one supplier, we are now able focus more on other applications from automotive to luxury as well as banknotes through the TruNote set of higher security smartphone taggants we have developed.

The Secure Transactions Group continues to innovate within the lottery ICS industry, reducing cost and increasing efficiency with the introduction of Virtualized Machines. We expect the use of VM will allow us to win contracts from our competitors by offering more value to the customer and continues to be an integral part of the strategy of the growth of group revenues.

Banknote Industry

A significant portion of the company's prospects are related to the banknote business which underpins our revenue stability and allows us to pursue new, potentially very large, opportunities in brand authentication and optical materials. Over the past several years, and more recently, there have been a number of publications predicting the elimination of banknotes and the dawn of a cashless society. This makes good press but it does not comprehensively account for the nature of the banknote business which is intertwined with global socio-economic forces. Furthermore, it cannot be blindly applied to the opportunities, growth, and profits of this Company within the banknote business as we currently have a 10% market share of the central bank potential which provides a significant opportunity for growth by a technologically leveraged organization like Spectra Systems.

The totality of facts must be examined while understanding that simplistic technological comparison should not be the guiding light to understanding the future of the banknote industry. The naive view put forth by many of these stories is that banknotes are to credit cards and mobile payments as DVDs are to video streaming. This is a very poor analogy as entertainment is a luxury and financial transactions are a necessity of life.

According to the 2018 “World Cash Report” published by G4S which studied the question in 47 countries which account for 75% of the global population and over 90% of the world GDP, demand for cash continues to rise in spite of all electronic payment options. According to the report, cash in circulation relative to GDP increased to 9.6% in 2018 from 8.1% in 2011. A parallel earlier study by the Bank for International Settlements which covered 80% of the world GDP showed that cash as a percentage of GDP increased from 7.3% in 2007 to 9% in 2016.

What the many years of technological advances in the digital world have proven is that what the world needs and wants is several coexisting options: electronic payments and cash. Irrespective of how much longer the battery life of your smartphone is in ten years or whether or not we include the dangers of credit card and identity fraud, different payment options are required to allow financial transactions to be fluidly executed by different socioeconomic groups. A survey by the FDIC in 2015 revealed that 7% of US households (9 million households) are *unbankable*, meaning they have no banking relationship at all. Nearly 20% were classified as *underbanked*. Meaning that in spite of an account, they obtained financial products and services outside the banking system with cash.

According to ForexBonuses, the top ten most cashless countries are Canada, Sweden, United Kingdom, France, USA, China, Australia, Germany, Japan, and Russia. As a group, with varying degrees of cashless transactions, they constitute approximately one third of the world population. This list of ten countries out of 195 world nations reflects the bankable part of the global financial transactions universe. If over 20% of Americans are either *unbankable* or *underbanked* and the USA is in the middle of the top ten most cashless countries today, it is not a leap to conclude that much of the population in the top ten have a significant way to go, let alone the rest of the world. This year has seen cities and countries throughout that top ten cashless list discussing laws to prevent merchants from denying transactions in cash, from London to New York to Philadelphia.

What this means is that *the poor are disproportionately dependent on banknotes on a global scale and most of the world requires banknotes as a financial transaction option.*

Poverty is well defined within each country as the local governments define the metrics but it is clear that the 7% of “*unbankable*” in the USA is far too small of a number to apply to the world. According to the World Bank, approximately 69% of the global population has a relationship with a financial institution while in the underdeveloped world it is 63%. This implies that 30% of the world is “*unbankable*” and a significantly higher percentage is “*underbanked*”.

The *unbankable* and the *underbanked* provide the bottom line in the calculation of worldwide need for cash and they are together well over half the world population which is expected to grow from 7.7 billion today by another 2.4 billion by 2050, primarily in the *unbankable* slice of the pie.

From the studies of cash usage by G4S and the Bank for International Settlements:

- a significant percentage of the world’s population does not have a credit supporting financial relationship
- a significant increase in world population disproportionately in the underbanked segment of the world population
- central banks such as the ECB and US Federal Reserve Bank are investing hundreds of millions of dollars on standardization of sensors and new sorters for the next 30 or more years, of which Spectra is an important participant.

All of this taken as a whole, suggests that the banknote business will be a critical part of the transaction options required by the global population.

What is expected to happen is that the worldwide demand for banknotes will continue to grow for at least the next two decades with an increasing emphasis on technological innovations and efficiencies in the cash cycle. Until the *underbanked* become a negligible percentage of the world’s populations, central banks will issue banknotes and legal mandates are likely to be implemented to insure inclusiveness of the entire population.

Spectra will continue to provide products with more advantages, efficiencies, and value through our technological innovations to take advantage of the opportunities created by central banks as they manoeuvre the complicated sociopolitical landscape which demands the cash option. Our prospects are clearly based on continuing to supply cutting edge products to the G20 such as TruNote and secure polymer substrates while forging partnerships to introduce our products in Africa, most of Asia and Latin America to access the available pool of 176 out of 195 central banks we do not yet provide products to.

Prospects

The Company continues to have numerous long term and shorter term prospects. The shorter term opportunities are expected in the 2019-2021 period and the longer term opportunities are expected in the 2022-2025 time frame.

The important, near-term opportunities are:

- a. Continued polymer technology sensor development and testing phases with a G20 central bank
- b. The commencement of contracted future sensor component subsystem development by a G7 central bank customer
- c. The utilization of our phosphors for use by a supplier of products to a major Asian central bank
- d. The potential selection of our covert technology by a major Asian central bank after the completion of state elections
- e. Introduction of a highly secure polymer substrate to the market both directly as well as through partnerships with printers
- f. Additional TruBrand tobacco orders in China for larger volume brands within our current customer's product offering beginning late in 2020.
- g. Additional growth in the K-cup business with new and existing printers serving the independent coffee market seeking compatibility with Keurig products

The prospect (d) is specifically related to a central bank we have been offering our technology to since our IPO that has cancelled tenders three times since 2010 and where we are in direct competition with six other providers of covert technology.

The longer term opportunities are:

- h. A licensing and supply agreement for polymer based technology developed through external funding with a major central bank
- i. The development and supply of further upgraded sensor capability to a G7 central bank following the contracted development phase
- j. The sale of a secure polymer banknote substrate and sensors

We are pleased that we were able to supplement our sustained and growing profitability with a number of near-term and longer-term prospects of a significant scale. We believe that we have a number of transformative opportunities ahead in several aspects of our business that will sustain and potentially accelerate our earnings for our shareholders.

With the Company having a fourth year of sustainable profits reaching their highest levels since listing and having sufficient resources to execute on its growth plans with its existing cash reserves, the Board is delighted to increase the annual dividend for a second straight year. Its dividend policy takes account of the Group's profitability, underlying growth, and the maintenance of sufficient cash reserves. The Board

therefore intends to pay an annual dividend of US \$0.07 per share on or about June 28, 2019 to shareholders of record as of June 7, 2019.

Nabil M. Lawandy
Chief Executive Officer
March 25, 2019

**Statements of income and other comprehensive income
for the years ended 31 December:**

	Note	2018 Unaudited USD '000	2017 Audited USD '000
Revenue		\$ 12,494	\$ 12,170
Cost of sales		3,527	3,514
Gross profit		8,967	8,656
Operating expenses		5,078	5,625
Operating profit		3,889	3,031
Interest and other income		158	60
Foreign currency gain (loss)		(11)	2
Profit before taxes		4,036	3,093
Income tax benefit		19	187
Net income		\$ 4,055	\$ 3,280
Earnings per share	2		
Basic		\$ 0.09	\$ 0.07
Diluted		\$ 0.08	\$ 0.07
Other comprehensive income (loss)			
Unrealized gain (loss) on currency exchange		(19)	10
Reclassification for realized gain (loss) in net income		11	(2)
Total other comprehensive income (loss)		(8)	8
Comprehensive income		\$ 4,047	\$ 3,288

All of the Group's operations are continuing

Balance sheets
as of 31 December:

	2018 Unaudited USD '000	2017 Audited USD '000
Current assets		
Cash and cash equivalents	\$ 12,662	\$ 11,181
Trade and other receivables	1,214	1,425
Inventory	3,269	3,754
Prepaid expenses	141	116
Total current assets	<u>17,286</u>	<u>16,476</u>
Non-current assets		
Property, plant and equipment, net	1,587	1,795
Intangible assets, net	6,697	6,967
Restricted cash and investments	1,099	1,099
Deferred tax assets	1,400	1,225
Other assets	150	151
Total non-current assets	<u>10,933</u>	<u>11,237</u>
Total assets	<u>\$ 28,219</u>	<u>\$ 27,713</u>
Current liabilities		
Accounts payable	\$ 269	\$ 200
Accrued expenses and other liabilities	827	1,521
Taxes payable	3	8
Deferred revenue	703	1,074
Total current liabilities	<u>1,802</u>	<u>2,803</u>
Non-current liabilities		
Deferred revenue	540	458
Total non-current liabilities	<u>540</u>	<u>458</u>
Total liabilities	<u>2,342</u>	<u>3,261</u>
Stockholders' equity		
Common stock	455	454
Additional paid in capital – common stock	55,390	55,224
Accumulated other comprehensive loss	(114)	(105)
Accumulated deficit	(29,854)	(31,121)
Total stockholders' equity	<u>25,877</u>	<u>24,452</u>
Total liabilities and stockholders' equity	<u>\$ 28,219</u>	<u>\$ 27,713</u>

Statements of cash flows
for the year ended 31 December:

	2018 Unaudited USD '000	2017 Audited USD '000
Cash flows from operating activities		
Net income	\$ 4,055	\$ 3,280
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation and amortization	1,005	1,103
Stock based compensation expense	156	123
Allowance for doubtful accounts	6	36
Deferred taxes	(175)	(236)
Provision for excess and obsolete inventory	250	92
Loss on disposal of assets	1	32
<i>Changes in operating assets and liabilities</i>		
Accounts and other receivables	205	1,246
Inventory	235	(932)
Prepaid expenses	(27)	(9)
Other assets	1	3
Accounts payable	69	(171)
Accrued expenses and other liabilities	(696)	89
Deferred revenue	(345)	13
Net cash provided by operating activities	<u>4,740</u>	<u>4,669</u>
Cash flows from investing activities		
Restricted cash and investments	-	(7)
Payment of patent and trademark costs	(325)	(396)
Payment of software costs	-	(8)
Cash refund on property and equipment	-	405
Purchases of property, plant and equipment	(206)	(71)
Net cash used in investing activities	<u>(531)</u>	<u>(77)</u>
Cash flows from financing activities		
Dividends paid	(2,728)	(2,270)
Proceeds from exercise of stock options	11	42
Net cash used in financing activities	<u>(2,717)</u>	<u>(2,228)</u>
Effect of exchange rate on cash and cash equivalents	<u>(11)</u>	<u>9</u>
Net increase in cash and cash equivalents	1,481	2,373
Cash and cash equivalents , beginning of period	11,181	8,808
Cash and cash equivalents , end of period	<u>\$ 12,662</u>	<u>\$ 11,181</u>

Notes to financial information

1. Basis of preparation

This report was approved by the Directors on 22 March 2019.

This financial information has been prepared using the recognition and measurement principles of US Generally Accepted Accounting Principles.

These principal accounting policies were used in preparing its financial statements for the year ended 31 December 2018 and are unchanged from those disclosed in the Company's Annual Report for the year ended 31 December 2017 except that the Company adopted Accounting Standards Codification 606 "Revenue from Contracts with Customers" ("ASC 606") on January 1, 2018 using the modified retrospective method, which was applied to customer contracts that were not completed as of January 1, 2018. In accordance with the modified retrospective transition method, the results of operations for 2018 are presented in accordance with ASC 606, while prior periods continue to be reported in accordance with the historical revenue recognition guidance.

2. Earnings per share

The calculation of basic earnings per share is based on the net income divided by the weighted average number of common shares outstanding. Diluted earnings per share is calculated by considering the dilutive impact of common stock equivalents under the treasury stock method as if they were converted into common stock as of the beginning of the period or as of the date of grant, if later. Excluded from the calculation of diluted earnings per common share for the years ended December 31, 2018 and 2017 were 95,063 and 400,164 shares, respectively, related to stock options because their exercise prices would render them anti-dilutive. The following table shows the calculation of basic and diluted earnings per common share.

	<u>Full Year to 31 Dec 2018</u>	<u>Full Year to 31 Dec 2017</u>
Numerator:		
Net income	\$ 4,054,949	\$ 3,280,082
Denominator:		
Weighted average common shares	45,463,480	45,369,084
Effect of dilutive securities:		
Stock Options	3,472,948	2,512,699
Diluted weighted average common shares	<u>48,936,428</u>	<u>47,881,783</u>
Earnings per common share:		
Basic:	<u>\$ 0.09</u>	<u>\$ 0.07</u>
Diluted:	<u>\$ 0.08</u>	<u>\$ 0.07</u>

3. Nature of financial information

The Preliminary Announcement set out above is an extract from the forthcoming Annual Report and Accounts and does not represent statutory accounts for Spectra Systems Corporation. The statutory accounts of Spectra Systems Corporation in respect of the period ended 31 December 2018 will be delivered to the Registrars of Companies before the Company's Annual General Meeting.

It is anticipated that the Annual Report and Accounts will be circulated to shareholders of Spectra Systems Corporation by April 2019.