

Member FINRA/SIPC

Toll-Free: 561-391-5555 ♦ www.DawsonJames.com ♦ 1 North Federal Highway - Suite 500 ♦ Boca Raton, FL 33432

**MYnd Analytics, Inc. (NASDAQ/MYND) now Emmaus (EMMA)**

July 23, 2019

**BUY: MYnd Shareholders Get the Benefit of Both Worlds**

*MYnd Analytics shareholders now own 5.9% of Emmaus (E-May-Us, ticker EMMA). EMMA with 47M shares outstanding sports a market capitalization of \$267 and 5.9% of that equates to a \$16M plus the value of 100% ownership in Tele-Mynd.*

**Jason H. Kolbert**  
 Head of Healthcare Research  
 646-465-6891  
 jkolbert@dawsonjames.com

**Investment Highlights**

MYnd has now completed the transaction with Emmaus Life Sciences, Inc. which is now trading under the ticker EMMA. Mynd Shareholders did see a 6 for 1 reverse stock split and picked up a 5.9% ownership in EMMA. As we stated, that value, as of today is close to \$16M, which is close to where MYND was trading prior to the transaction. We expect to see the value of EMMA fluctuate as the company works to establish itself as both a NASDAQ listed company and as management works to commercialize the sickle cell drug. In terms of Mynd shares, yes, they still exist, and we expect they should begin trading on their own, soon.

**Our interest and focus remains on following Mynd and Behavioral Health (BH).** We expect that Mynd is likely to continue to pioneer both Mynd Analytics and TeleBehavioral Health. Our models assume such and are unchanged.

**How Should We Value Mynd today?** Mynd shareholders received the dividend and now we estimate there are approximately 14M shares in MYND outstanding. As MYND now moves to list on the NASDAQ (\$1 pending), we expect the company is likely to raise a year's worth of operating capital, or between \$12-\$15M. This capital should enable the company to drive market penetration in both of its key verticals (Mynd Analytics EEG test and TeleBehavioral Health services).

**Valuation:** We have previously provided market models for both Tele-Medicine and PEER reports. To these models we have applied a probability of success factor in our Tele-Medicine model of 70% which is in addition to our 30% discount rate used in our FCFE, discounted EPS, and Sum of the Parts models. The result of which is equally weighted and averaged, and rounded to the nearest whole number to determine our price target. Our valuation assumes a year-end outstanding share count of 20M shares out and a year's worth of operating capital. As similar assumptions were already present in our model, our valuation is unchanged.

Current Price **\$1.32**  
 Price Target **\$4.00**

Estimates	F2019E	F2020E	F2021E
<b>Expenses (\$000s)</b>	\$ 13,274	\$ 14,671	\$ 14,301
1Q March	\$ 3,069	\$ 3,374	\$ 3,289
2Q June	\$ 3,144	\$ 3,521	\$ 3,432
3Q September	\$ 3,375	\$ 3,787	\$ 3,658
4Q December	\$ 3,687	\$ 3,988	\$ 3,921
	F2019E	F2020E	F2021E
<b>EPS (diluted)</b>	\$ (0.93)	\$ (0.48)	\$ (0.03)
1Q March	\$ (0.32)	\$ (0.11)	\$ (0.01)
2Q June	\$ (0.27)	\$ (0.11)	\$ (0.01)
3Q September	\$ (0.20)	\$ (0.13)	\$ (0.01)
4Q December	\$ (0.14)	\$ (0.13)	\$ (0.00)

EBITDA/Share **(\$0.54)** **(\$0.48)** **(\$0.03)**  
 EV/EBITDA (x) **0.0** **0.0** **0.0**

Stock Data		
52-Week Range	\$0.62	\$4.08
Shares Outstanding (mil.)	8.4	
Market Capitalization (mil.)	\$11	
Enterprise Value (mil.)	\$10	
Debt to Capital	5%	
Book Value/Share	\$1.06	
Price/Book	2.9	
Average Three Months Trading Volume (K)	163	
Insider Ownership	42.8%	
Institutional Ownership	1.4%	
Short interest (mil.)	2.4%	
Dividend / Yield	\$0.00/0.0%	



Update - July 23, 2019 - Buy - Price Target \$4.00

### Modeling Assumptions: Behavioral Medicine

1. A typical national managed care company may cover up to 25M covered lives. Conservatively, we know that 10% or 2.5M of those lives are likely to be treated at some point for a mental health disorder. The actual number could be much higher, 20% or more. Regardless, if just 10% of the 10% are treated with a telebehavioral medicine product it suggests one national plan represents 250,000 treated patients annually or \$250M in revenues. We view the market opportunity by segments, each with their own numbers of covered lives.
2. We assume an average price point of \$1,000 for the first six treatments.
3. Fixed COGS rate of 65%.
4. We model market penetration by target segments (EAP's or managed care), Staffing (Hospitals and clinics) and PCP's.
  - a. Employment Admin. Programs (EAP).
  - b. Staffing Model – Prepaid Facility based revenues.
  - c. Primary Care Physicians (PCP).

### Exhibit 1. Product Model: Services

TeleBehavioral (Arcadian) Services	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
<b>EAP Employment Admin. Programs</b>	320	650	1,500	2,250	3,938	9,844	19,688	34,453	51,680	56,848	59,690	60,287
Growth Rate			25%	50%	75%	150%	100%	75%	50%	10%	5%	1%
<b>Staffing Model (PrePaid Facility Based Revenues)</b>	520	1,100	3,000	4,500	10,125	22,781	45,563	79,734	119,602	131,562	138,140	139,521
Growth rate			25%	50%	125%	100%	100%	75%	50%	10%	5%	1%
<b>PCP (Primary Care Physicians - Office Terminal)</b>	180	300	1,000	1,500	3,375	7,425	14,850	25,988	38,981	42,879	45,023	45,474
Growth rate			25%	50%	125%	120%	100%	75%	50%	10%	5%	1%
<b>Total Services</b>	1,020	2,050	5,500	8,250	17,438	40,050	80,100	140,175	210,263	231,289	242,853	245,282
Assume an Average ASP \$1,000	\$ 1,000	\$ 1,010	\$ 1,010	\$ 1,020	\$ 1,030	\$ 1,041	\$ 1,051	\$ 1,062	\$ 1,072	\$ 1,083	\$ 1,094	\$ 1,105
<b>Behavioral Health Revenues (M)</b>	\$ 1.0	\$ 2.1	\$ 5.6	\$ 8.4	\$ 18.0	\$ 41.7	\$ 84.2	\$ 148.8	\$ 225.4	\$ 250.5	\$ 265.6	\$ 203.2

Source: Dawson James estimates

### Modeling Assumptions: PEER Reports

1. Managed Care – Payers: In just one managed care insurer which we evaluated, the company covered 4 million lives and 400-600k were on some form of a mental health medication. Just a 1% market penetration would equate to 5,000 tests, which would represent \$4M in revenues.
2. Provider Direct Revenues: There are estimated to be 38,000 practicing psychiatrists in the U.S. alone with 500 patients per doctor or 19M patients. One percent market share penetration equates to 190k tests or \$152M in revenues.
3. Patient Direct Revenues: Today it's virtually impossible to turn on the TV or listen to the radio in the car without hearing an advertisement for a depression drug. The company plans to launch a commercial marketing campaign raising patients awareness of the availability of this powerful tool. Parents concerned for their children (or the opposite, adults concerned for aging parents) represent a significant market opportunity.
4. Government: The numbers here are quite large with large potential:
  - a. Centers for Medicare & Medicaid Services (CMS), which is part of the Department of Health and Human Services (HHS), which administers programs including Medicare and Medicaid, is moving 50% of reimbursement to become value-based by 2018. With this trend and growing enforcement of Mental Health Parity, the payer market has changed in ways that favor value-based diagnostics. The first MYnd Center received CMS certification as an Independent Diagnostic Testing Facility (IDTF) in September 2016, and management intends to proceed with submission to CMS for a national coverage determination.
  - b. The Veterans Administration (VA) represents 6M lives, and interestingly enough U.S. special forces represent 72k lives. Special forces tend to be early adopters of new technology and it is our understanding that the company is talking with the U.S. military about creating a baseline EEG database as part of the routine medical process for these elite forces.
5. Industry: Pharmaceutical companies today are spending billions to develop the next generation of mental health drugs. The company is in talks with multiple companies to use PEER reports as a predictive tool to determine which patients stand to benefit from a therapeutic class. As such, the pharma companies could enrich response rates and save millions and years in time in developing new therapeutics.
6. Commercial growth strategy outside of the U.S.: The company is working with other governments such as in Canada with the Canadian Armed Forces where a trial has commenced. The target is both NATO and Health Canada (single payer system).
7. ASP of \$800 per test with 1-2% price declines over-time.

### Exhibit 2. Product Model: Diagnostics

MYND PEER Report Model	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
<b>Managed Care - Insurance (no. of reports)</b>	200	200	600	5,000	8,000	12,000	20,400	42,840	68,544	102,816	143,942	194,322
Growth Rate						50%	70%	110%	60%	50%	40%	35%
<b>Patient Direct Reports</b>	50	50	300	400	600	1,200	1,800	2,520	3,402	4,253	4,890	5,379
Growth rate						100%	50%	40%	35%	25%	15%	10%
<b>Government VA Reports</b>	0	0	0	300	1,000	2,000	2,200	2,420	2,662	2,928	3,221	3,543
Growth rate						80%	10%	10%	10%	10%	10%	10%
<b>Physician Driven Reports</b>	100	100	250	500	1,000	2,000	2,200	2,310	2,402	2,474	2,499	2,499
Growth rate						100%	10%	5%	4%	3%	1%	0%
<b>Ex-US (International reports)</b>	0	0	200	200	700	3,000	5,000	7,750	10,463	13,078	15,040	15,792
Growth rate						329%	67%	55%	35%	25%	15%	5%
<b>Academia &amp; Industry: Reports</b>	0	0	0	250	500	1,000	1,500	2,100	2,310	2,426	2,450	2,450
Growth rate						100%	50%	40%	10%	5%	1%	0%
<b>Total Reports</b>	350	350	1,350	6,650	11,800	21,200	33,100	59,940	89,783	127,975	172,043	223,986
Assume an Average ASP \$800	\$ 800	\$ 808	\$ 800	\$ 784	\$ 768	\$ 753	\$ 738	\$ 723	\$ 709	\$ 695	\$ 681	\$ 667
<b>Peer Report Revenues (M)</b>	\$ 0	\$ 0.3	\$ 1.1	\$ 5.2	\$ 9.1	\$ 16.0	\$ 24.4	\$ 43.3	\$ 63.6	\$ 88.9	\$ 117.1	\$ 149.4

Source: Dawson James estimates

Valuation: Our models are driven by our product assumptions for both Tele-Behavioral Health and PEER reports. We project costs and operational expenses through the year 2027 and assume the company will raise capital in 2019 and 2020. Our valuation is based on a fully diluted projected share count. We combine these with our assumptions for cost of goods, R&D and SG&A projected out 10 years. We use a 30% discount rate in our FCF, discounted EPS, and sum of the parts models which are equally weighted and averaged to determine our \$4.00 price target.

**Exhibit 3. FCF Model**

Average	
Price Target	3
Year	2019

**DCF Valuation Using FCF (mIn):**

units ('000)	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E
EBIT	(10,752)	(9,591)	(538)	4,739	15,684	37,860	77,679	122,976	138,286
Tax Rate	0%	0%	0%	5%	10%	15%	20%	25%	30%
EBIT (1-t)	(10,752)	(9,591)	(538)	4,502	14,116	32,181	62,143	92,232	96,800
CapEx	(9)	(5)	(5)	(6)	(6)	(7)	(8)	(8)	(9)
Depreciation	-	-	-	-	-	-	-	-	-
Change in NWC	-	-	-	-	-	-	-	-	-
FCF	(10,761)	(9,595)	(543)	4,496	14,110	32,174	62,135	92,223	96,791
PV of FCF	(10,761)	(7,381)	(322)	2,047	4,940	8,665	12,873	14,697	11,866
Discount Rate	30%								
Long Term Growth Rate	1%								
Terminal Cash Flow	337,098								
Terminal Value YE2027	41,325								
NPV	77,949								
NPV-Debt									
Shares out ('000)	26,375	2027E							
NPV Per Share	3								

Source: Dawson James

**Exhibit 4. Discounted EPS Model**

Current Year	2019
Year of EPS	2027
Earnings Multiple	10
Discount Factor	30%
Selected Year EPS	\$ 3.67
NPV	4

Discount Rate and Earnings Multiple Varies, Year is Constant							
Earnings Multiple	4.50	5%	10%	15%	20%	25%	30%
0	0	0	0	0	0	0	0
5	12.42	8.56	6.00	4.27	3.08	2.25	
10	24.84	17.12	12.00	8.54	6.16	4.50	
15	37.26	25.68	18.00	12.80	9.24	6.75	
20	49.68	34.24	24.00	17.07	12.31	9.00	
25	62.10	42.80	29.99	21.34	15.39	11.25	
30	74.52	51.36	35.99	25.61	18.47	13.50	
35	86.94	59.92	41.99	29.87	21.55	15.75	

Source: Dawson James

**Exhibit 5. Sum of the Parts Model**

MYnd Analytics, Inc.	LT Gr	Discount Rate	Yrs to Peak	% Success	Peak Sales (MM's)	Term Val)
<b>Peer Report</b>	1%	30%	5	85%	\$149	\$515
NPV						\$3.4
<b>PGx</b>	1%	30%	5	85%	\$1	\$2
NPV						\$0.0
<b>Behavioral Tele-Medicine</b>	1%	30%	5	85%	\$271	\$934
NPV						\$6.1
Net Margin						75%
MM Shrs OS (2027E)						26
<b>Total</b>						<b>\$3</b>

Source: Dawson James

## Risk Analysis

**Investment Risk:** The company faces multiple investment risks from product management, market share adoption and commercialization to regulatory and competitive environment associated risks.

**IPO Risk.** We assume that MYnd will be NASDAQ listed and traded and in the process a year of capital will be raised. We can provide no assurances that the IPO will be successful or that our assumptions here are correct.

**Market Share Risk for PEER reports and Behavioral Health.** We can provide no assurances that our market model is correct and that MYnd will be able to successfully achieve our estimates for market share for either PEER reports or Tele-behavioral health projections.

**Regulatory Risk:** There may be certain regulatory risks related to product approval.

**Commercial Risk:** The company's product represents a new paradigm in the treatment of mental disease. Adoption may take longer than expected. These risks may be divided by market segments.

**Financial Risk:** The company should be expected to raise capital in the near term. We assume a raise and dilution, but there is no guarantee that market conditions will be favorable.

**Exhibit 6. Income Statement**

MYAN: Income Statement (\$000)	9.2018	Oct-Dec	Jan-March	Apr-Jun	July-Sep	9.2019	Oct-Dec	Jan-March	Apr-Jun	July-Sep	9.2020	9.2021	9.2022	9.2023	9.2024	9.2025	9.2026	9.2027
9.2018	1Q19A	2Q19A	3Q19E	4Q19E	2019E	1Q20E	2Q20E	3Q20E	4Q20E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	
<b>Revenue:</b>																		
Peer Report Revenues	262	79	45	71	88	283	248	259	270	302	1,080	5,214	9,066	15,963	24,424	43,345	63,627	88,879
PGx Report Revenues	-	-	-	-	-	-	-	-	-	-	-	133	23	415	642	1,163	1,722	2,483
Arcadian TeleBehavioral Health Services	1,054	308	415	500	777	2,000	920	960	1,000	1,120	4,000	8,416	17,966	41,676	84,186	148,799	225,430	203,208
<b>Total Product Sales</b>	<b>1,316</b>	<b>387</b>	<b>460</b>	<b>571</b>	<b>865</b>	<b>2,283</b>	<b>1,168</b>	<b>1,219</b>	<b>1,270</b>	<b>1,422</b>	<b>5,080</b>	<b>13,762</b>	<b>27,055</b>	<b>58,054</b>	<b>109,252</b>	<b>193,306</b>	<b>290,799</b>	<b>294,569</b>
<b>Total royalties, collaborative revenue</b>																		
<b>Total Revenue</b>	<b>1,316</b>	<b>387</b>	<b>460</b>	<b>571</b>	<b>865</b>	<b>2,283</b>	<b>1,168</b>	<b>1,219</b>	<b>1,270</b>	<b>1,422</b>	<b>5,080</b>	<b>13,762</b>	<b>27,055</b>	<b>58,054</b>	<b>109,252</b>	<b>193,306</b>	<b>290,799</b>	<b>294,569</b>
<b>Expenses:</b>																		
Costs of Goods Sold	827	6	5	8	10	30	25	26	27	30	108	535	909	1,638	2,507	4,451	6,537	9,136
<b>%COGS</b>	<b>63%</b>	<b>8%</b>	<b>11%</b>	<b>11%</b>	<b>11%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>
Costs of Goods Sold	219	291	351	545	1,405	598	624	650	728	2,600	5,470	11,678	27,090	54,721	96,719	146,529	132,085	
<b>%COGS</b>	<b>71%</b>	<b>70%</b>	<b>70%</b>	<b>70%</b>	<b>70%</b>	<b>65%</b>	<b>65%</b>	<b>65%</b>	<b>65%</b>	<b>65%</b>	<b>65%</b>	<b>65%</b>	<b>65%</b>	<b>65%</b>	<b>65%</b>	<b>65%</b>	<b>65%</b>	<b>65%</b>
Research	232	81	61	65	68	250	60	63	68	71	263	276	289	304	319	335	352	369
Product Development	1,146	237	237	221	230	850	115	120	130	135	500	510	520	531	541	552	563	574
Sales and Marketing	1,618	152	199	260	270	1,000	506	528	572	594	2,200	2,310	3,200	4,800	4,896	4,994	5,094	5,196
<b>% S&amp;M (of Revenues)</b>	<b>39%</b>	<b>43%</b>	<b>43%</b>	<b>46%</b>	<b>31%</b>	<b>44%</b>	<b>43%</b>	<b>43%</b>	<b>45%</b>	<b>42%</b>	<b>43%</b>	<b>17%</b>	<b>12%</b>	<b>8%</b>	<b>4%</b>	<b>3%</b>	<b>2%</b>	<b>2%</b>
General and Administrative	7,738	2,374	2,350	2,470	2,565	9,500	2,070	2,160	2,340	2,430	9,000	5,200	5,720	8,008	8,408	8,577	8,748	8,923
<b>%SG&amp;A (of Revenues)</b>	<b>613%</b>	<b>511%</b>	<b>433%</b>	<b>297%</b>	<b>416%</b>	<b>177%</b>	<b>177%</b>	<b>184%</b>	<b>171%</b>	<b>177%</b>	<b>38%</b>	<b>21%</b>	<b>14%</b>	<b>8%</b>	<b>4%</b>	<b>3%</b>	<b>3%</b>	<b>3%</b>
<b>Total Expenses</b>	<b>10,733</b>	<b>3,069</b>	<b>3,144</b>	<b>3,375</b>	<b>3,687</b>	<b>13,035</b>	<b>3,374</b>	<b>3,521</b>	<b>3,787</b>	<b>3,988</b>	<b>14,671</b>	<b>14,301</b>	<b>22,316</b>	<b>42,370</b>	<b>71,392</b>	<b>115,627</b>	<b>167,823</b>	<b>156,284</b>
Operating Income (Loss)	(10,245)	(2,682)	(2,684)	(2,804)	(2,822)	(10,752)	(2,206)	(2,302)	(2,517)	(2,566)	(9,591)	(538)	4,739	15,684	37,860	77,679	122,976	138,286
Interest income (expense), net	(86)	(23)	(23)															
Financing expenses																		
Loss on extinguishment of debt																		
Gain on extinguishment of debt																		
Gain (Loss) on derivative liabilities																		
Legal settlement accrual																		
Other miscellaneous income																		
Net Losses (non controlling interest)	(734)																	
<b>Total Other Income</b>	<b>(821)</b>	<b>(2,705)</b>	<b>(2,707)</b>	<b>(2,804)</b>	<b>(2,822)</b>	<b>(11,037)</b>	<b>(2,206)</b>	<b>(2,302)</b>	<b>(2,517)</b>	<b>(2,566)</b>	<b>(9,591)</b>	<b>(538)</b>	<b>4,739</b>	<b>15,684</b>	<b>37,860</b>	<b>77,679</b>	<b>122,976</b>	<b>138,286</b>
<b>Pretax Income</b>	<b>(9,599)</b>	<b>(2,705)</b>	<b>(2,707)</b>	<b>(2,804)</b>	<b>(2,822)</b>	<b>(10,752)</b>	<b>(2,206)</b>	<b>(2,302)</b>	<b>(2,517)</b>	<b>(2,566)</b>	<b>(9,591)</b>	<b>(538)</b>	<b>4,739</b>	<b>15,684</b>	<b>37,860</b>	<b>77,679</b>	<b>122,976</b>	<b>138,286</b>
Income Tax Benefit (Provision)	-	2	2	-	-	-	-	-	-	-	-	237	1,568	5,679	15,536	30,744	41,486	
<b>Tax Rate</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>5%</b>	<b>10%</b>	<b>15%</b>	<b>20%</b>	<b>25%</b>	<b>30%</b>	
Gain (Loss) from discontinued operations		(327)	(451)															
<b>GAAP Net Income (Loss)</b>	<b>(9,599)</b>	<b>(2,380)</b>	<b>(2,258)</b>	<b>(2,804)</b>	<b>(2,822)</b>	<b>(10,264)</b>	<b>(2,206)</b>	<b>(2,302)</b>	<b>(2,517)</b>	<b>(2,566)</b>	<b>(9,591)</b>	<b>(538)</b>	<b>4,502</b>	<b>14,116</b>	<b>32,181</b>	<b>62,143</b>	<b>92,232</b>	<b>96,800</b>
<b>GAAP-EPS</b>	<b>(1.85)</b>	<b>(0.32)</b>	<b>(0.27)</b>	<b>(0.20)</b>	<b>(0.14)</b>	<b>(0.93)</b>	<b>(0.11)</b>	<b>(0.11)</b>	<b>(0.13)</b>	<b>(0.13)</b>	<b>(0.48)</b>	<b>(0.03)</b>	<b>0.22</b>	<b>0.70</b>	<b>1.58</b>	<b>3.04</b>	<b>4.49</b>	<b>4.69</b>
GAAP-EPS (Dil)	(1.85)	(0.16)	(0.13)	(0.20)	(0.14)	(0.63)	(0.11)	(0.11)	(0.13)	(0.13)	(0.48)	(0.03)	0.21	0.63	1.37	2.55	3.64	3.67
Wgtd Avg Shrs (Bas) - '000s	5,200	7,543	8,399	14,000	20,000	12,486	20,020	20,040	20,060	20,080	20,050	20,130	20,211	20,292	20,373	20,455	20,537	20,619
Wgtd Avg Shrs (Dil) - '000s	5,200	15,000	17,000	14,000	20,000	12,486	20,020	20,040	20,060	20,261	20,050	20,772	21,616	22,493	23,407	24,357	25,346	26,375

Source: Dawson James estimates

Companies mentioned in this report

Emmaus (private)

**Important Disclosures:**

**Price Chart:**



Price target and rating changes over the past three years:

- Initiated – Buy – April 12, 2019 – Price Target \$4.00
- Updated – Buy – May 22, 2019 – Price Target \$4.00
- Updated – Buy – July 10, 2019 – Price Target \$4.00
- Updated – Buy – July 23, 2019 – Price Target \$4.00

Dawson James Securities, Inc. (the “Firm”) is a member of the Financial Industry Regulatory Authority (“FINRA”) and the Securities Investor Protection Corporation (“SIPC”).

The Firm does not make a market in the securities of the subject company(s). The Firm has NOT engaged in investment banking relationships with MYND in the prior twelve months, as a manager or co-manager of a public offering and has NOT received compensation resulting from those relationships. The Firm may seek compensation for investment banking services in the future from the subject company(s). The Firm has NOT received any other compensation from the subject company(s) in the last 12 months for services unrelated to managing or co-managing of a public offering.

Neither the research analyst(s) whose name appears on this report nor any member of his (their) household is an officer, director or advisory board member of these companies. The Firm and/or its directors and employees may own securities of the company(s) in this report and may increase or decrease holdings in the future. As of June 30, 2019, the Firm as a whole did not beneficially own 1% or more of any class of common equity securities of the subject company(s) of this report. The Firm, its officers, directors, analysts or employees may effect transactions in and have long or short positions in the securities (or options or warrants related to those securities) of the company(s) subject to this report. The Firm may affect transactions as principal or agent in those securities.

Analysts receive no direct compensation in connection with the Firm's investment banking business. All Firm employees, including the analyst(s) responsible for preparing this report, may be eligible to receive non-product or service specific monetary bonus compensation that is based upon various factors, including total revenues of the Firm and its affiliates as well as a portion of the proceeds from a broad pool of investment vehicles consisting of components of the compensation generated by investment banking activities, including but not limited to shares of stock and/or warrants, which may or may not include the securities referenced in this report.

Although the statements in this report have been obtained from and are based upon recognized statistical services, issuer reports or communications, or other sources that the Firm believes to be reliable, we cannot guarantee their accuracy. All opinions and estimates included in this report constitute the analyst's judgment as of the date of this report and are subject to change without notice.

**Information about valuation methods and risks can be found in the "STOCK VALUATION" and "RISK ANALYSIS" sections of this report.**

The securities of the company discussed in this report may be unsuitable for investors depending on their specific investment objectives and financial position. This report is offered for informational purposes only and does not constitute an offer or solicitation to buy or sell any securities discussed herein in any jurisdiction where such would be prohibited. Additional information is available upon request.

**Rating Definitions:**

- 1) **Buy:** The analyst believes the price of the stock will appreciate and produce a total return of at least 20% over the next 12-18 months;
- 2) **Neutral:** The analyst believes the price of the stock is fairly valued for the next 12-18 months;
- 3) **Sell:** The analyst believes the price of the stock will decline by at least 20% over the next 12-18 months and should be sold.

The following chart reflects the range of current research report ratings for all companies followed by the analysts of the Firm. The chart also reflects the research report ratings relating to those companies for which the Firm has performed investment banking services.

Ratings Distribution	Company Coverage		Investment Banking	
	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	40	85%	12	30%
Market Perform (Neutral)	7	15%	0	0%
Market Underperform (Sell)	0	0%	0	0%
Total	47	100%	12	26%

**Analyst Certification:**

The analyst(s) whose name appears on this research report certifies that 1) all of the views expressed in this report accurately reflect his (their) personal views about any and all of the subject securities or issuers discussed; and 2) no part of the research analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analyst in this research report; and 3) all Dawson James employees, including the analyst(s) responsible for preparing this research report, may be eligible to receive non-product or service specific monetary bonus compensation that is based upon various factors, including total revenues of Dawson James and its affiliates as well as a portion of the proceeds from a broad pool of investment vehicles consisting of components of the compensation generated by investment banking activities, including but not limited to shares of stock and/or warrants, which may or may not include the securities referenced in this report.