

Past conflict of interest: On June 3, 2008 Galway Resources engaged our advisory affiliate John Tumazos Very Independent Opinions, LLC to commercialize its Victorio, New Mexico molybdenum-tungsten deposit containing up to 300 mm pounds of each mineral in situ (see www.galwayresources.com June 3, 2008 press release). We received compensation from Galway Resources, as we exercised warrants for 250,000 shares issued on June 2, 2009 at C\$0.15. On April 19, 2011 we received warrants for 100,000 more Galway Resources common shares exercisable at C\$1.24 that were exercised prior to the December 20, 2012 merger. No transactions were generated from the Victorio, New Mexico molybdenum-tungsten advisory later dropped. We own 509,500 shares of Galway Gold (GAYGF US \$0.075) and 605,987 shares of Galway Metals (GAYMF US \$0.22)

GALWAY METALS DEFINES MORE GOLD AT “CLARENCE STREAM” IN NEW BRUNSWICK THAT WE VISITED AUGUST 8TH

GAYMF US \$0.252, without a price target or financial models

Highlights:

- Galway Metals documents 667,000 oz of 43-101 compliant gold resources at Clarence Stream, New Brunswick which were not updated since August 21, 2017 and 3.7 mmt at Estrades in Quebec containing 307,315 oz Au, 11 mm oz Ag, 466 mm lbs Zn, 84 mm lbs Cu, and 34 mm lbs Pb last updated September 10, 2018.
- We estimate that next 43-101 compliant reports at each of the properties will roughly double the gold resources at Clarence Stream and increase resources by at least 25% for Estrades to increase the total mineralizations to 1.7 mm oz of gold plus Estrades byproducts for the entire company.
- The Clarence Stream project in New Brunswick is a 65 km district long trend consolidated by Galway Metals. It is a big family of many targets, where there are dozens of gold-in-soil strong anomalies often 0.1 to 0.4 g/t yet untested.
- Galway Metals may require two or three years to evaluate Clarence Stream's many targets. The geologist favors “step out” drilling to evaluate most of its targets, because it is possible it has not found the best zones yet in its 6.6 mmt grading near 2.2 g/t.
- “Infill drilling” to document NI 43-101 resources or later a definitive feasibility study to include reserves may follow after Galway Metals believes it has found the best zones. Something like 4 km of drilling at surface at C\$100/meter may cost US \$0.3 mm to document 100,000 oz, while it may cost five times as much to drill out 100,000 oz of gold that is 500 meters deep requiring deeper holes.
- Galway Metals will need to raise funds to do its work. It presently has two rigs running at Clarence Stream, where the geologist wishes he had 10 to 12 rigs to document 3 to 5 million oz of gold.
- Considerable practical infrastructure exists regionally. A Mt. Pleasant former mill and tailings site exists within 15 km northeast, which could be a “brownfield” processing site. The paved asphalt road and power line come up to the property, and the town St. Andrews only 15 or 20 km away with full services. At last four

U.S. border crossings near the Atlantic Coast are near St. Andrews or St. Stephen. It is just over a one hour drive from the Houlton crossing on the U.S. border to Interstate 95. No mining camp is needed, but improvements to logging roads or infrastructure linkups will be needed.

- Clarence Stream enjoys 61.7 km of historic and over 30 km of Galway drilling.
- Galway targets 12 km of Clarence Stream drilling, 10,000 soil samples and an updated NI 43-101 compliant resource in 2019.
- Galway targets 6 km of Estrades drilling, more geophysics, a gravity survey and a preliminary economic assessment for 2019.
- Shares outstanding have increased from 50 mm in 2013 to 120 mm in mid-2019 plus 22 mm of warrants and options.

Table 1: Galway Metals Balance Sheet (\$ mm)								
Year Ended	2013	2014	2015	9/30/2016	2016	2017	2018	3/31/2019
Cash	11.1	11.1	10.0	7.4	6.5	7.5	7.1	5.7
Prepays+Deposits	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1
HST Receivable						0.4	0.4	0.4
Due from Galway Gold	0.1							
Restricted Cash	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Resource Property Costs				1.8	2.0	3.6	4.8	4.9
Total Assets	11.3	11.3	10.2	9.4	8.6	11.6	12.4	11.1
Accounts Payable + Accr. Liabs	0.1	0.1	0.1	0.2	0.2	0.5	0.3	0.6
Flow-through premium liability						0.4	0.3	
Due to Galway Gold		0.1	-					
Deferred Tax Liabs			0.2	0.2				
Total Liabilities	0.1	0.2	0.3	0.3	0.2	1.0	0.6	0.6
Equity	11.2	11.1	9.9	9.1	8.5	10.6	11.8	10.6
Shares Outstanding (mm)	49.89	55.21	57.20	58.00	57.50	62.38	83.26	106.63
Book Value Per Share	\$0.23	\$0.20	\$0.17	\$ 0.16	\$0.15	\$0.17	\$0.14	\$ 0.10
Cash Per Share	\$0.22	\$0.20	\$0.18	\$ 0.13	\$0.11	\$0.12	\$0.08	\$ 0.05
Sources: Galway Metals Financial Reports and John Tumazos Very Independent Research LLC Estimates								

SEVEN INDICATORS OF GOLD MINERALIZATION AT CLARENCE STREAM

Galway Metals' business problem at Clarence Stream is one of prosperity. It has many possible places where it may drill. Its maiden August 2017 NI 43-101 report expanded upon the North and South Zones drilled by Freewest and other previous owners. Subsequently it has found other new zones. We do not dwell on the several "named" zones, as it is possible that they will end up "interconnected" or joining up into larger open pits. Galway Metals has not established many places without gold or unsuccessful holes.

Figure 1: Large Lengths of Visible Surface Alteration; director and geologist Mike Sutton



Favorable indicators of gold mineralization include:

- #1 Gold in boulders traced by glacial displacement geology
- #2 Gold-in-soil often sampled from logging roadsides
- #3 Antimony in soil samples that is an “indicator mineral” for gold
- #4 Arsenic in soil samples that also is an “indicator mineral” for gold
- #5 Outcropping sulfide mineralization that indicates the alteration needed for gold
- #6 Fault systems such as the Sawyer Brook Fault trending northeasterly
- #7 Magnetic surveys as gold may have precipitated out of solution with iron present

Thus, Galway Metals considers several new targets even though it has explored at Clarence Stream for three years already. It may continue to evaluate new drill targets because it suspects it has not found the best zones yet. Naturally the company wants to test most of its property or its best gold-in-soil targets before later detailed infill drilling for resources or before contemplating any future sale of the company or any property joint ventures.

Figure 2: Soil Sampling or Trenching from sides of Logging Roads



FINANCING ALTERNATIVES

Galway Metals has raised nearly C\$8 mm in three self-brokered private placements in December 2018, June 2019 and July 2019. It has several possible ways to raise money:

- It could move slowly and delay activity until after its share price rises. Our interpretation is that in the 2012 to 2018 bear market in gold stocks many resource funds closed down or many institutions eliminated gold or metals specialists to focus on technology, cannabis or other sectors. It is difficult for successful new companies to get recognition outside of the geological community.

- It may continue to issue something like 4 million shares each 1 or 2 months to spend US \$1 mm each 1 or 2 months to find more gold.
- It will offer “flow through shares” at premiums each year on favorable terms
- It could merge with Galway Gold, which has about US \$6 mm in cash balances and does not have a major property as its Vetaz gold deposit in Colombia at 3,400 meter elevation has been blocked by “Paramo” laws. Separately, the Galway Gold stock may depress Galway Metals valuation due to “name confusion” or as some fans of the company own both stocks. In 2013 to 2015 Galway Gold appeared more attractive before Galway Metals owned Clarence Stream or Estrades and prior to 2017 unfavorable Constitutional Court rulings in Colombia. It is possible that the management team has another strategy to “fix” Galway Gold, such as finding a new property for Galway Gold, or that Galway Gold will be its next project after it sells Galway Metals to a major gold miner.

Figure 3: One of Two Diamond Core Drill Rigs Running



Figure 4:: Visible Gold in Drill Core; sulfides above and quartz below



Figure 5: Visible Sulfides in Drill Core



- It could sell the Estrades deposit to a larger gold or base metals mining company both to raise funds or to reduce its drilling budgets. It may command US \$10 mm or \$20 mm.
- It could sell a royalty on the Clarence Stream project. Recently FNV or Royal Gold bought royalties for \$2 to \$10 mm for Paramount Gold Nevada's Sleeper heap leach project in Nevada or for Tri Star Gold or Amarillo Gold in Brazil.

- It could subdivide Clarence Stream's 65 km strike length into 5 or 10 subsectors, and offer parts of it for joint ventures as Galway Metals does not have resources to drill across the entire length.
- It could seek a joint venture partner for Estrades as well.

Figure 6: Galway Metals has 5 or 6 rows of outdoor core sheds including drilling of Freewest and other prior owners; CLF acquisition for chrome stopped prior work



Figure 7: Mt. Pleasant standing mill processed 990,000 tonnes of tungsten ore in 1983-84; ball mill removed but remainder of infrastructure, froth floatation cells and tanks remain



Geological Map of Galway's Clarence Stream Project



St. Barbara Gold from Australia recently bought out Atlantic Gold in May 2019, which had proven and probable fully engineered gold reserves of 1.4 mm oz in three separate deposits grading between 1.04 and 1.49 g/t each. St. Barbara paid C\$802 mm or about US \$610 mm or over US \$400/oz for proven and probable reserves in a producing mine. Atlantic Gold had produced 19,614 oz of gold in the March 2019 quarter to earn C\$5.3 mm, and guided to a midpoint of 95,000 oz of 2019 gold output.

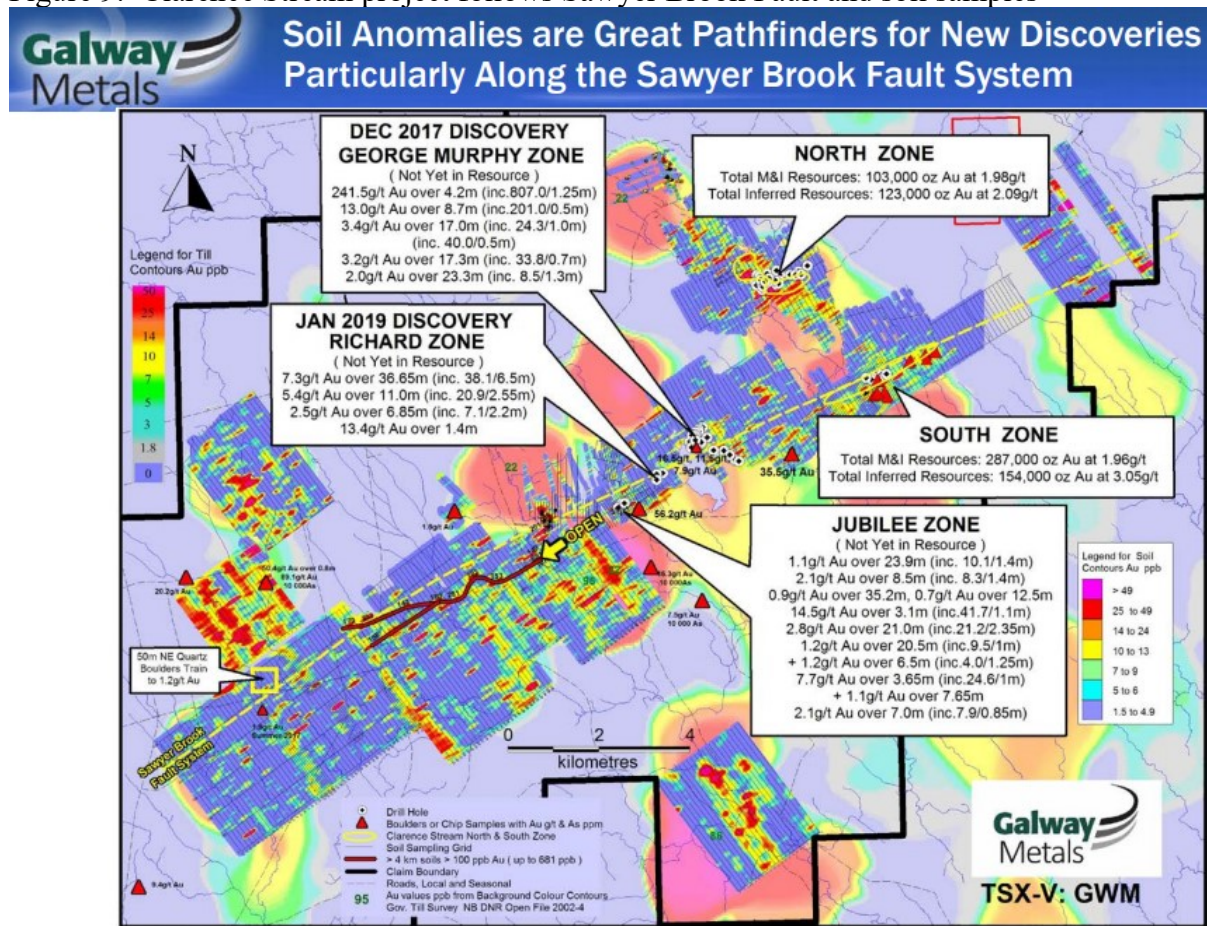
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\$162.5 mm market value. Marathon Gold appears to have more gold at higher grades worth more than Atlantic Gold, and Galway Metals'

Clarence Stream reported grades in 2017 were 667,000 oz at 2.2 g/t with 1.87 g/t for open pits, which is similar to the Marathon Gold grades and better than Atlantic Gold. Galway Metals has not updated its Clarence Stream resources for two years since August 21, 2017 and has found more zones and likely exceeds 1 mm oz there by now. Separately, it owns the Estrades polymetallic deposit in Quebec too.

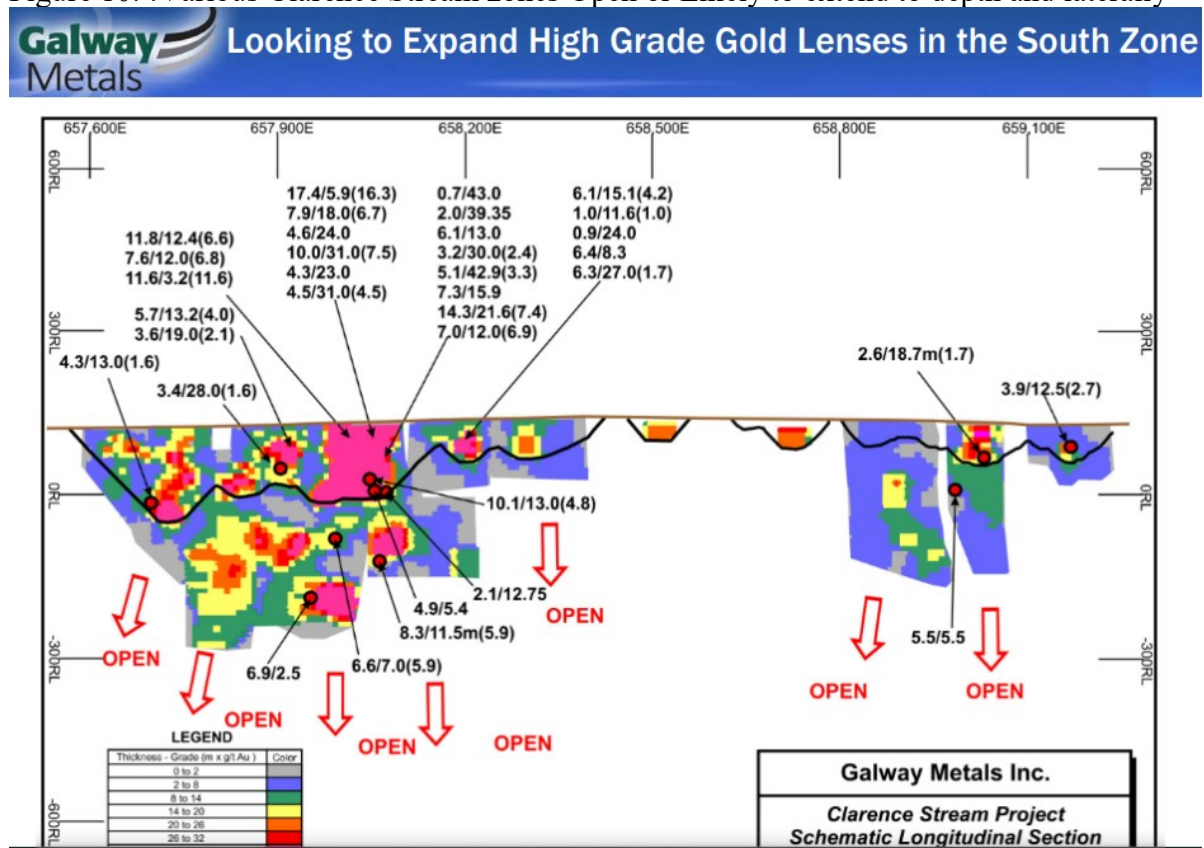
Atlantic Gold and Marathon Gold both exist on the Appalachian Trend to the north of Clarence Stream. They are comparables, and we expect that after Galway Metals publishes updated resources in the 1 to 2 mm oz range it will have comparable valuations or attention.

Figure 9: Clarence Stream project follows Sawyer Brook Fault and soil samples



Source: <https://galwaymetalsinc.com/wp-content/uploads/2019/07/Clarence-and-Estrades-July-2019-2.pdf> Slide 11

Figure 10: :Various Clarence Stream zones Open or Likely to extend to depth and laterally



Source: <https://galwaymetalsinc.com/wp-content/uploads/2019/07/Clarence-and-Estrades-July-2019-2.pdf> Slide 12

POTENTIAL FINANCIAL OUTCOME OR “POT OF GOLD AT END OF RAINBOW”

Galway Metals hopes to define resources similar to Atlantic Gold and Marathon Gold, and sell out on terms similar to their valuations. In fact, it is a similar gold deposit at Clarence Stream further to the south on the same Appalachian Trend. If Galway Metals were to sell out for US \$300 to \$500 mm similar to their valuations and issue fewer than 300 to 500 mm shares, then an eventual outcome 2 or 3 years from now could be at least US \$1 per share.

We have not attempted to construct a net present value, income statement, underlying dynamics, cash flow or balance sheet model for Galway Metals. There is not enough information available to put down reasonable estimates. Information on capital costs or operating costs will be necessary to make reasonable estimates.

MARCH 19, 2019 PRESS RELEASE REPEATS ANTIMONY DISCLOSURES

The Ontario Securities Commission determined that the antimony content of Clarence Stream to be material. It required Galway Metals on March 19th to elaborate on its January

21, 2019 press release for several details or added explanations, including the antimony content. We quote from the March 19th press release below:

The Company is also clearly defining the amount of antimony resources in the South and North Zones, as antimony exists as a subset within the gold resource in each zone. As a result, Galway is providing the following disclosure: On [September 26, 2017](#), Galway issued a resource update on the South and North Zones at Clarence Stream, prepared by SRK Consulting (U.S.) Inc., with total Measured and Indicated resources of 6.178 mm tonnes grading 2.0 g/t, representing 390,000 oz of gold and additional Inferred resources of 3.409 mm tonnes grading 2.5 g/t, representing 277,000 oz of gold, in addition to Inferred antimony resources of 2.736 mm tonnes grading 0.37%, representing 22.0 mm lbs of antimony. Antimony resources are fully contained within gold resources in the South Zone (1.583 mm tonnes grading 0.27%, representing 9.3 mm lbs) and the North Zone (1.153 mm tonnes grading 0.5%, representing 12.7 mm lbs), and are a subset of each zone. For complete details, refer to: "NI 43-101 Technical Report on Resources, Clarence Stream Gold Project, Charlotte County, New Brunswick, Canada" with an effective date of August 21, 2017,

The August 2017 NI 43-101 maiden resource report for Clarence Stream described past metallurgical testwork in its Chapter 13 on pages 56 and 57 and left Chapter 17 "recovery methods" blank on page 92. SRK Consulting on page 56 of its August 2017 NI 43-101 report quoted a prior 2012 report done by Roscoe Postle Associates for the prior owner Freewest. SRK quoted Cabri consulting to Freewest as early as 2001 and Deschenes as early as 2007 who found gravity separation, fine grinding and cyanidation that found gold recoveries as high as 90.4% for particular samples in the North Zone and the South Zone. Test work in 2007 also suggested recoveries of 92% for antimony, where the author indicated the antimony and gold had similar floatations and cited the "impossibility" of recovering one without the other separately. SRK concluded on page 57 based on the much earlier test work, "For the purposes of calculating (Cost of Goods sold) and open pit optimization, SRK used a gold recovery assumption of 90% and an antimony recovery assumption of 90%. Further, SRK assumed that any material shipped as a gold concentrate that also has an antimony grade greater than 0.1% Sb, could be processed through a second circuit to produce a saleable Sb concentrate, with an approximate 50% Sb concentrate grade...SRK is not aware of any processing factors that would have a significant effect on eventual economic extraction. Similar gold-antimony mineralization is being process at commercial scale at other operating mines, such as MidasGold's Stibnite Mine, located in Idaho, USA.]" https://galwaymetalsinc.com/wp-content/uploads/2018/10/ClarenceStream_NI43-101_TRR_506900-010_Rev06_MLM.pdf

CLARENCE STREAM ENTRY INTO NEW BRUNSWICK

On August 3, 2016 Galway Metals entered into an Option Agreement to acquire a 100% undivided interest in Wolfdan Resources Corporation's Clarence Stream property located in south-western New Brunswick, Canada. In conjunction with this acquisition Galway also acquired Jubilee Gold Exploration LTD.'s Birneys Lake property, adjacent to the south side of Clarence Stream, and staked a significant number of additional claims both to the east and west of Clarence Stream. For the right to obtain 100% of the Clarence Stream Project, Galway Metals must make total cash payments of C\$3.5 mm plus 1% NSR royalties on portions of the project. Galway Metals retains the rights to buyback most of the NSRs. So far Galway Metals has made the first payment of C\$0.75 mm to Wolfdan and

C\$0.30 mm to Jubilee and for claims staking. To complete the acquisition of Clarence Stream Galway Metals will have to make additional payments of C\$0.75 mm on the first anniversary of closing, C\$1 mm on the second anniversary of closing, and C\$0.75 mm on the third anniversary of closing.

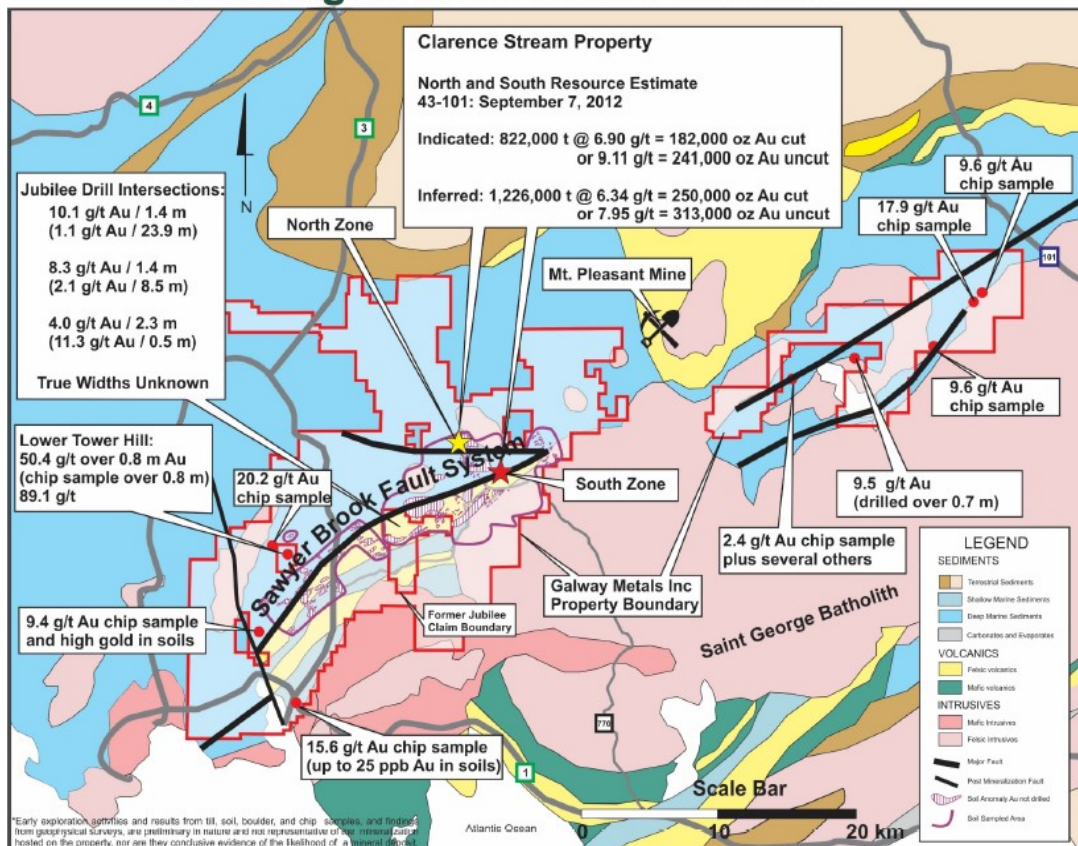
ESTRADES ENTRY INTO NORTHWESTERN QUEBEC

On August 18, 2016 Galway acquired an undivided 100% ownership interest in the former producing high grade Estrades mine, related Newiska concessions, and adjacent Casa Berardi claims in western Quebec. In order to consolidate the claim blocks Galway completed deals with Mistango River Resources Inc., CR Capital Corporation, First Quantum Minerals LTD., Globex Mining Enterprises Inc. and a private company, plus Galway staked additional claims. Total cash payments made by Galway Metals were C\$ 1.35 mm. In addition to the cash payments Galway Metals issued 800,000 units with each unit comprise of a share valued at C\$0.25 and a three year warrant exercisable at C\$ 0.52.

The Base Metals recovery rates are higher than the precious metals recovery rates for Estrades.

Figure 11: Clarence Stream Acquisition and Surrounding Area

Acquisition View: Obtain Large 65 Km Belt With Existing Resources and Strong Indications for New Discoveries

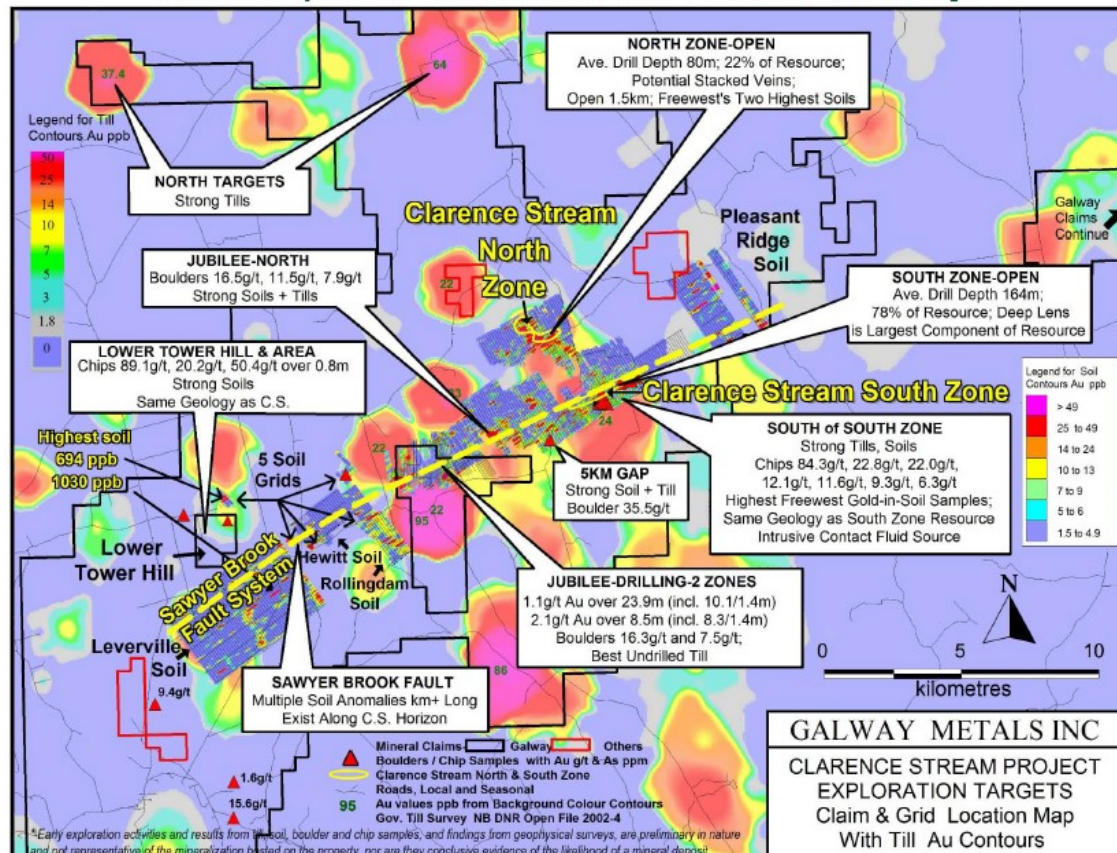


Source: Slide 9 of Galway Metals' March 2017 Slideshow

The Estrades project has historical infrastructure built by Breakwater Resources. In 1990 Breakwater spent C\$ 20 mm on development of a 200 meter deep by 150 meter along strike decline and ventilation raise. In 1990 and 1991 Breakwater produced 174,946 tonnes grading 6.4 g/t gold, 172.3 g/t silver, 12.9% zinc, and 1.1% copper. Breakwater ceased production due to low metal prices.

Figure 12: Regional Potential Around Clarence Stream

Regional Potential Coming Into Focus: Claims, Soil Grid and Till Location Map



Source: Slide 10 of Galway Metals' March 2017 Slideshow

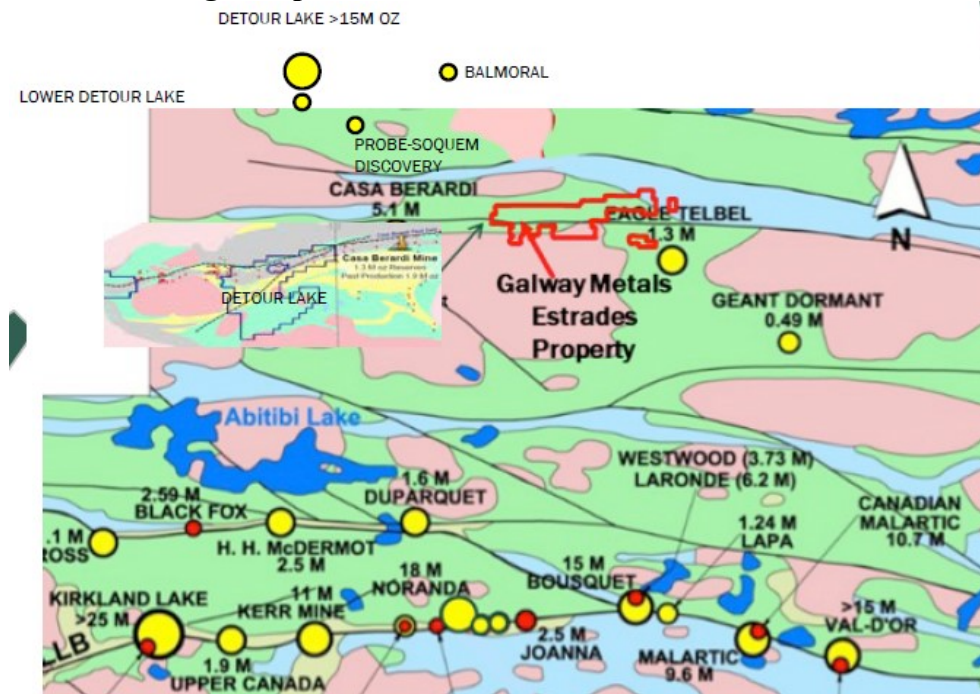
PROCESS PLANT DESIGN FOR CLARENCE STREAM

Galway Metals will experience extra costs due to the presence of antimony, arsenic and sulfides in the ores. It is possible that salable antimony could be a source of revenue opportunities. On August 9th the American Metal Market estimated antimony metal prices at \$5,950 to \$6,200 per metric tonne or about US \$2.50 to \$2.70/lb. If Galway Metals sold 1 or 2 mm lbs of antimony concentrates annually, it may add \$1 to \$4 mm of revenues from it to defray other expenses.

We expect that Galway Metals will have extra costs for metallurgical consultants, testing, for an NI 43-101 preliminary economic assessment, for a definitive feasibility study, extra

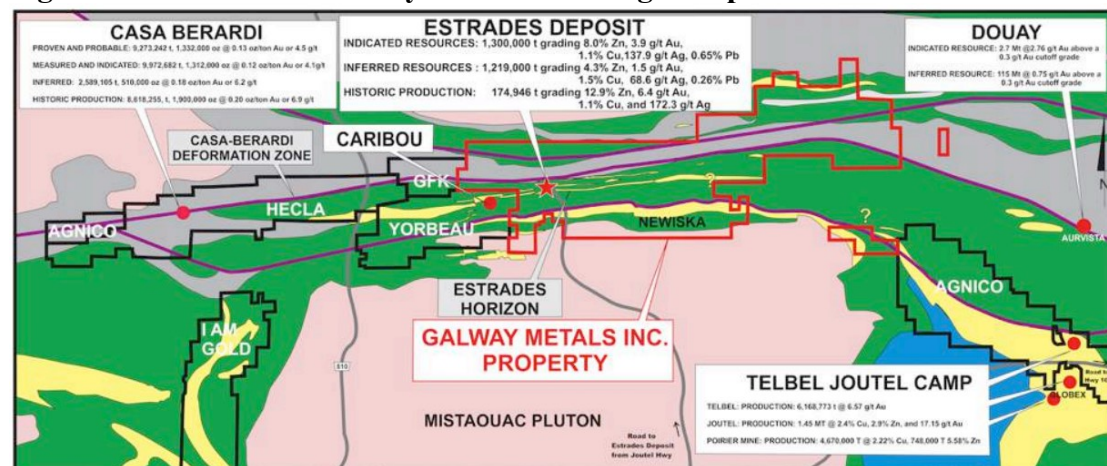
mill circuits to be installed and operated, more stern tailings dam construction and perpetual water treatment due to the presence of antimony, arsenic and sulfides in the ores.

Figure 13: Map Showing the Proximity of the Estrades Project to Several Other Quebec Mining Camps



Source: Slide 14 of Galway Metals' March 2017 Slideshow

Figure 14: Estrades Proximity to Other Mining Camps



Source: Slide 17 of Galway Metals' March 2017 Slideshow

We do not expect that a large, meticulous publicly traded mining company like Agnico-Eagle, Kirkland Lake or some others will rely on the 2001 or 2007 metallurgical consultants of Freewest as SRK Consulting quoted in its August 21, 2017 NI 43-101 maiden resource on Clarence Stream for Galway Metals. Some conservative companies

may ask an emerging mining company to document process design, future capital costs and future operating costs related to such minerals present in the ores.

In this context it may be easier for Galway Metals to “sell out” to an entrepreneurial partnership or individual that may not require as much technical due diligence. For example, Orion funds own almost ½ of Victoria Gold in the Yukon or Electrum Fund owns a large stake in NovaGold or Trilogy Metals. Eric Sprott, Eike Batista that bought out Ventana Gold and Galway Resources, Mubudala Corp. of UAE that bought out Eike Batista in Colombia or the Mexican billionaire Carlos Slim that paid US ¾ billion for the Ocampo mine in Chihuahua of the former Gammon Gold are examples of such buyers who may not dwell as much on ore chemistry, metallurgical or environmental factors.

Several years ago we introduced a 3 mm oz NI 43-101 compliant open pit gold resource to Agnico-Eagle Mines directly west of its 50%-owned Canadian Malartic mine whose 60,000 mtpd mill has eight years of reserves to carry to 2026. Afterwards it will need new ores. The 3 mm oz project was borderline acid rock generating, and was classified as acid tailings in Quebec but not in Ontario. Agnico-Eagle Mines visited and declined the project and was concerned about Community and Social Relations issues

COMMUNITY AND SOCIAL RELATIONS

On August 8th officer Scott Mackenzie of the Royal Canadian Mounted Police phoned my office as we toured the Clarence Stream mine. My personal auto was parked along a gravel driveway along an unpaved logging road on the property. Someone phoned in a complaint that my car “was parked on private property.” Galway Metals owns or has options to buy 100% of mineral rights, but does not have surface rights in every instance.

We never experienced such a complaint or police report visiting a remote mineral property over the past 40 years. We did not notice any house, building or structure where we parked at the host’s direction as my 2009 Pontiac did not have four wheel drive. The spot where I parked my car perhaps for four hours was on the edge of untended wild blueberry fields that had not been farmed commercially for over 5 years. We wonder if the landowner was cranky or did not like sounds of drill rigs, future heavy equipment or development.

In the U.S. such a “cranky neighbor” or environmental groups could cause considerable opposition. Further, in the U.S. the antimony, arsenic or sulfides in the Clarence Stream mineralization would have considerable regulatory scrutiny in mine design, tailings and water treatment. Further, the Clarence Stream project is not too far from the towns of St. Andrews or St. Stephens, tourist districts or the Atlantic Ocean.

Even though we observed sensitivities concerning a gold property near Rouyn-Noranda in Quebec as noted above for acid rock drainage, in general Canada is a “pro mining” nation much like Australia, Mexico or Chile and we do not expect a “cranky neighbor” to block or delay a project. We simply wrote these paragraphs as we never had anyone call the police to complain when we made a property visit.

BUSINESS RISKS

Galway Metals is subject to the same commodities “macro” dynamics as other mining companies involving fluctuations in gold, silver, zinc, copper, and lead prices. Fluctuations in currencies, interest rates, prospective capital costs, prospective operating costs and the global economy impact Galway Gold as well.

Galway Metals is a company without revenues and without any technical studies disclosing CAPEX, OPEX, throughput rates, recovery rate, production levels, or any financial metrics such as IRR, NPV, or payback period. They have NI 43-101 resources on Clarence Stream and Estrades, where they plan on continuing to drill to expand and more further delineate the mineralization at both projects. The results of this future drilling are unknown and obviously present a major risk and also opportunity.

DISCLOSURES

John Tumazos Advisory and Compensated Research, LLC (JTACR) is a separate investment advisor registered with the State of New Jersey Bureau of Securities on June 27, 2011 as CRD # 157,606. **Under no circumstances** will JTACR be commissioned by a mining or other publicly traded company simply to write a “paid” research report. Its purpose is to remedy a “blackout” within John Tumazos Very Independent Research, LLC to include research reports after separate compensation has been received for an advisory service such as a fairness opinion, mergers & acquisitions advice, introductions of investors in a capital raising or other advisory services. Regulators presume that any “compensation” or potential compensation biases research reports, however small, and outside counsel advises us that we should not write about a company as “John Tumazos Very Independent Research, LLC” if compensated or seeking compensation

We have created a separate web site, www.advisoryandcompensatedresearch.com to support JTACR. It is separate from our normal research investment advisor site, www.veryindependentresearch.com.

We are strict in disclosing our past advisory to Galway Resources in 2008 to 2011, as securities laws require disclosures of relationships back only three years. We sold our Galway Resources shares in its December 2012 takeover, but retain our spinoff Galway Metals and Galway Gold shares and have bought much more of each.

McEwen Mining, Paramount Gold and Silver, Galway Resources and Texas Rare Earth Resources and their spinoff companies Paramount Gold Nevada, Galway Gold and Galway Metals have published favorable results from mineral properties, and their shares appreciated significantly after we received compensation. The purpose of JTACR is to remedy a “regulatory blackout,” where we cannot publish research as “independent” under JTVIR after accepting compensation. The creation of JTACR remedies such a “regulatory gag,” while openly communicating that we were compensated. It is possible that some institutional investors may consider it to be a “feather in the cap” of a small company that it engaged us to advise them in a transaction owing to our experience.

After receiving compensation from Paramount Gold and Silver in June 2010 for a fairness opinion in its acquisition of X-Cal Resources or Galway Resources, Tara Gold Resources, Appia Energy, Focus Gold, Texas Rare Earth Resources in 2010 or potentially other companies in the future, John Tumazos Very Independent Research, LLC (JTVIR) refrains from publishing research reports on such companies.

We define “compensation” as any consideration that creates direct pretax income for any of our businesses, research or advisory or any of our employees personally. However, we do permit companies to defray expenses, and large companies’ policies vary. Rio Tinto or Teck have invoiced us for charter aircraft. In contrast, we have accepted free air travel to mine sites from Vale within Brazil, Canada or Mozambique, from Agnico-Eagle to Finland, Chihuahua or Nunavut, Stonegate Agricom to Idaho, Fortescue Metals to its mines, HudBay Mineral to Manitoba, Peru or Michigan, Goldcorp, Brigus and VG Gold each to Timmons, Augen Gold to Swayze, Paramount Gold and Silver to Chihuahua, Goldcorp to Zacatecas, and many others. We do not define as “compensation” if Barrick Gold, Duluth Metals, Wits Gold or some other company picks up a group client lunch tab or buys us lunch alone. We do not define as “compensation” if a company charters an airplane to facilitate a research visit to a mine location without convenient commercial air service. We routinely invoice companies participating in our investor conferences \$1,000 to \$2,000 each to cover their pro rata expenses of the conference on a “Dutch Treat” basis, where we send each company a full expense accounting of our conferences as well.

The nature of the advisory services we have provided for compensation include (1) fairness opinions to the boards of directors of Paramount Gold and Silver, Tara Gold Resources, Tara Minerals Corp., and Augen Gold, (2) introductions to capital raising for Texas Rare Earth Resources and Appia Energy and (3) advisory on joint venture, strategy or capital raising for Galway Resources Victorio tungsten-molybdenum property. We also represented private landowners who sold mineralized claims to FCX or MUX. We have also delivered written critiques of NI 43-101 technical studies for McEwen Mining and for Sprott Resource Holdings.

We will distribute JTACR reports to JTVIR paid subscribers free, the particular mining companies may distribute JTACR reports from time-to-time and eventually we may sell JTACR to its own subscribers for \$5,000 annually after building up a coverage list.

We will monitor the financial returns of JTACR investment recommendations over time, and compare them to JTVIR returns. We expect that JTACR recommendations will provide much more volatile returns than the larger, more established companies JTVIR covers as large as BHP Billiton, Vale or Rio Tinto. Under previous employment at Donaldson, Lufkin & Jenrette, John Tumazos participated in the sole managed IPOs of Huntco in 1993 and Reliance Steel & Aluminum in September 1994 at \$3.225. Huntco subsequently went bankrupt after speculating on inventory and operating at low utilization rates. Reliance Steel & Aluminum, however, appreciated 16-fold to \$51.32 as of May 20, 2011. It is inevitable that some companies will make better decisions than others.

CERTIFICATION OF OUR RESEARCH OPINIONS

I, John Tumazos, certify that the opinions written in all research reports are my own. I believe what we write, and from time to time I may buy or sell the shares we recommend after a 48 hour delay after publishing our reports following the advice we give. Further, I personally proofread and “click the pdf button” on virtually every report we publish except sometimes when I am abroad.

Our team or employees is encouraged to disagree with me at any time. We have active and vigorous internal debates concerning appropriate discount rates or long-term terminal growth rates to use in net present value valuations or other analytical issues. My team realizes that customers want to pay for my 30+ years of experience, but I encourage them to disagree, correct or provoke debate to improve our work.

DEFINITION OF A RESEARCH OPINION

We have target prices, investment ratings, earnings estimates and financial models for 47 companies upon which we maintain regular research coverage.

The legal or regulatory definition of research, however, is more broad. Regulators consider any written or editorial commentary about a stock or publicly traded company to be “research.” However, a “recommendation” or “opinion” is not rendered unless there is a price target and specific buy or sell recommendation.

From time-to-time we visit very large, important global companies outside our research coverage. Our objective may be to be well informed about industry events, predict future mine output or “supply” in a particular market or to begin to learn about a complex company to begin future full research. We may need to learn and become familiar to provide inputs to our financial models. In May 2008 we published a partial report on Xstrata after visiting two of its mines in South America. In November 2008 we published a partial report summarizing our visits to the London headquarters of Xstrata and Anglo-American outside our coverage as well as Rio Tinto and Antofagasta PLC within our full coverage. In August 2009 we published two research reports on Severstal after visiting its Columbus, MS newest steel plant a second time. These “partial” reports contained no price target, investment rating, earnings estimates or financial models. Instead, they provided detailed descriptions of the important locations we visited or meetings in headquarters.

We provide research about commodities markets in general, “seminar highlights” on up to another 75 or more companies we host annually at our conferences outside our regular full research coverage and “partial reports.” We have no price target, written investment opinion, earnings estimates or financial models (production, incomes statement, cash flow or balance sheet simulations) of such companies outside our coverage that speak at our March or November conferences. Any viewpoint we have without complete financial models or careful financial analysis is “winging it.”

Our intent in writing Seminar Highlights is to provide a one page written summary of each seminar participant company's presentation. We provide live open, public, unrestricted webcasts of each such corporate presentation at our conferences as a courtesy to each participating company, and archive each webcast under the "conferences" tab of www.veryindependentresearch.com.

Our clients should not automatically consider our invitation of a company to speak at our future conferences as a "Buy Recommendation" or complete endorsement. We may not have visited the mines or assets of some of these companies. Occasionally we invite a company to speak to learn more about them as a stage in our learning process.

ORGANIZATION OF JTVIR

John Tumazos Very Independent Research, LLC (JTVIR) is organized as an investment advisor in the State of New Jersey and regulated by the NJ Bureau of Securities. We publish about 20 research reports each month covering about 40 to 50 stocks in the metals commodities markets, forest products, aluminum, steel, gold, copper and other mining sectors. We travel abroad or domestically typically each month visiting companies. We host Conferences each year in which companies make presentations, which are archived for roughly one year at www.veryindependentresearch.com under the "conferences" tab.

Currently we have over 30 paid clients in the U.S., Canada, Switzerland and U.K. Three of our clients have engaged us to write "custom studies" on pre-production mining stocks without any U.S. or global research coverage, including Skye Resources (an 11 bil lb nickel resource in Guatemala), Mercator Minerals (a copper-moly restart in Arizona) and JSW Steel's 70%-owned Minera Santa Fe (48 sq km undrilled magnetic anomaly and associated iron ore properties in 3rd Region of Chile).

JTVIR DISCLOSURES

"John Tumazos Very Independent Research, LLC" (JTVIR) is a Delaware Corporation formed July 6, 2007 with registration effective on August 27, 2007 as an investment advisor in the state of New Jersey owing to our place of business in New Jersey.

JTVIR is not a broker-dealer, and conducts no trades. Its primary business is to provide "unbundled" metals, paper and fertilizer industry securities and market research to institutions or corporations in a zero commission, electronic execution, electronic dissemination, unbundled format for a specified annual fee structure.

Our investment rating system for securities recommendations is Overweight, Neutral Weight or Underweight. Overweight or Underweight recommendations are estimated to vary from the relative performance of the S&P 500 by more than 10% annually, and the intended time horizon is up to 24 months. Our securities research is intended for institutional investors that might buy up to 10% of a given company, and as such focuses

more towards longer-term dynamics impacting the net present value of future cash flows rather than “day trading” sorts of near-term issues.

Except for Weyerhaeuser, WestRock, Packaging Corp., Graphic Packaging, Domtar, PotlatchDeltic, South32, Cameco, Alcoa, Glencore, First Quantum, Grupo Mexico, Southern Copper, Worthington Industries, Pan American Silver, Vale, Fortescue Metals, Allegheny Technologies, Pan American Silver Escobal mine contingent value right, Sandstorm Gold, Premier Gold, Guyana Goldfields, Kirkland Lake Gold, Continental Gold, Granada Gold Mine, Appia Energy, Texas Minerals Resources Corp., Galway Gold, Galway Metals, and TriMetals A, neither JTVIR, its members or its employees own or have a financial interest in any securities discussed in this report or any reports we have published recently. Our policy is full disclosure.

As of mid-2018, my son Charles Tumazos took full control of accounts in his name after age 30. He elected to become a paid subscriber to my research, where he controls his accounts and makes his own decisions. Going forward, we will disclose John Tumazos’ personal holdings and exclude “family accounts.” Our positions will be a little smaller.

Our policy permits personal trading in the metals or paper industries. Our policy is that any personal trading must be consistent with our recommendation, made two business days or more AFTER a recommendation or change in recommendation and held for a minimum of 30 days or one month. We believe it is virtuous for a securities analyst to “put his or her money where his mouth is” to invest consistent with the recommendation to clients after such recommendation has been made, and we disagree with some restrictions made upon broker-dealer employees after 2000 era scandals.

However, our policy permits up to one directorships and up to five consulting projects, advisory assignments or financial advice to corporations. Our policy is full disclosure of any advisory relationship or conflict going back three years.

Numerous prior investment banking relationships existed prior to three years history to the pre-1997 time frame under the employment of Donaldson, Lufkin and Jenrette or Oppenheimer & Co., Inc. Some of these we can recollect included 14 different gold mine valuations or sales for Barrick Gold, LAC Minerals (later acquired by Barrick), Addington Resources (gold assets in Montana acquired by Canyon Resources), Westworld Industries (Bolivian assets acquired by Battle Mountain Gold later acquired by Newmont Mining), Coeur d’Alene Mines, Crown Resources (acquired by Kinross Gold), Freeport-McMoRan Gold (acquired by Minorco later AngloGold later Queenstake Resources), FMC Gold (later renamed Meridian Gold) and others. Sole managed initial public offerings included Reliance Steel & Aluminum and Huntco. Lead-managed initial public offerings included American Steel & Wire (later acquired by Birmingham Steel) and lead-managed underwritings included Quanex. Co-managed underwritings included the IPO of Century Aluminum and Grupo Imsa and offerings for AK Steel, Kaiser Aluminum, Agnico-Eagle Mines, Cameco and others. Asset sales or purchase advisories, fairness opinion or trusteeships were done for Thypin Steel (sold to Ryerson Tull), Cyclops Corp. (sold to Armco later sold to AK Steel), Allegheny Corp., Bethlehem Steel,

the U.S. Dept. of Justice pursuant to the June 1984 merger of LTV and Republic Steel to sell the Gadsden, AL integrated flat-rolled mill, Cobre Copper, and others. Some examples we can recall of incomplete transactions for which a prospectus was either drafted or partly drafted indicating much work included stock underwritings not completed for Wheeling-Pittsburgh Steel, Steel Dynamics, Atlas Corp., Webco, Sharon Steel, IPSCO, Co-Steel Inc., and others.

ANALYST UNIVERSE COVERAGE:

John C. Tumazos, CFA as of June 2007: Rio Tinto, Louisiana-Pacific, Nucor Corp., Newmont Mining, U.S. Steel, International Paper, BHP Billiton, MeadWestvaco Corp., Antofagasta PLC, Allegheny Technologies, Alcoa Inc., Inco Limited, Bowater, Temple-Inland, Barrick Gold, Abitibi-Consolidated, Weyerhaeuser Co., Alcan Inc., Smurfit-Stone Container, Plum Creek Timber, Worthington Industries, Goldcorp Inc., AngloGold Ashanti, Freeport-McMoRan Copper & Gold, and FNX Mining. Dynatec, Alcan and Bowater are companies not continued in the research coverage of JTVIR, LLC that was previously included in the prior June 6, 2007 Prudential Equities Group universe owing to takeovers. Smurfit-Stone Container and AbitibiBowater were dropped from JTVIR research coverage after they entered bankruptcy. Skye Resources, FNX Mining, QuadraFNX Mining, Duluth Metals, Xstrata, MeadWestvaco, Smurfit-Stone Container (new) were dropped after full coverage initiation due to takeover.

Subsequently, since September 2007 JTVIR, LLC has initiated regular coverage of new companies not previously covered in the former universe at the former Prudential Equities Group. These new companies include CF Industries, Mosaic, Franco-Nevada, Silver Wheaton, Royal Gold, Osisko Gold Royalties, Sandstorm Gold, South32, Teck, Agnico-Eagle Mines, Mercator Minerals, Skye Resources, General Moly, Inc., Thompson Creek Metals, Duluth Metals, Polymet Mining, Greystar Resources, Vale, GlencoreXstrata, Glencore, Xstraa, Anglo American, Packaging Corp. of America, Norbord, Rock Tenn, HudBay Minerals, Alumina Ltd., Fortescue Metals, and Century Aluminum.

In accordance with applicable rules and regulations, we note above parenthetically that our stock ratings of “Overweight,” “Neutral Weight,” and “Underweight” most closely correspond with the more traditional ratings of “Buy,” “Hold,” and “Sell,” respectively; however, please note that their meanings are not the same. (See the definitions above.) We believe that an investor’s decision to buy or sell a security should always take into account, among other things, that the investor’s particular investment objectives and experience, risk tolerance, and financial circumstances. Rather than being based on an expected deviation from a given benchmark (as buy, hold and sell recommendations often are), our stock ratings are determined on a relative basis (see the foregoing definitions).

There is no intention to “balance” the number of Overweight or Underweight ratings, as instances of broad over- or under-performance among basic industrials may occur. JTVIR makes each investment judgment in a “bottoms up” manner based on the assets of each individual company.

Price Target – Methods/Risks

The methods used to determine the price target generally are based on future earning estimates, product performance expectations, cash flow methodology, historical and/or relative valuation multiples. The risks associated with achieving the price target generally include customer spending, industry competition and overall market conditions.

Additional risk factors as they pertain to the analyst's specific investment thesis can be found within the report.

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There are risks inherent in international investments, which may make such investments unsuitable for certain clients. These include, for example, economic, political, currency exchange rate fluctuations, and limited availability of information on international securities. John Tumazos Very Independent Research, LLC, and its affiliates, make no representation that the companies which issue securities that are the subject of their research reports are in compliance with certain informational reporting requirements imposed by the Securities Exchange Act of 1934.

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Additional information on the securities discussed herein is available upon request. The applicable disclosures can be obtained by writing to: John Tumazos Very Independent Research, LLC, 11 Yellow Brook Road, Holmdel, NJ 07733 Attn: John C. Tumazos.

BOARD OF TRER AUGUST 6, 2012 TO MAY 27, 2013

On August 6, 2012 we joined the board of Texas Rare Earth Resources, and were elected Non-Executive Chairman. We made an early stage investment in the company after it obtained its core property in the fourth-quarter of 2010, and we and other activist shareholders believed there was room for improvement in its business plan and performance in 2012. We did not expect our participation in TRER to be indefinite, and believed that it will seek a larger mining company to help it complete its projects.

On May 27, 2013 we resigned from the Board of Texas Rare Earth Resources. We were pleased that metallurgical research into sulphuric acid heap leach processes made advances, which determined an alternative process requiring 10% to 20% of the cap ex proposed in the prior June 15, 2012 NI 43-101 study. The 2010 identification and possession of the property and the 2013 metallurgical advances added value, and we thought a larger organization would better develop the production plant.

We declined all other invitation to join Boards of Directors. We do not want distractions or other activities to weaken JTVIR, LLC. Further, we have a “team psychology” and a large commitment to one another within JTVIR, LLC.

JTVIO

John Tumazos Very Independent Opinions, LLC (JTVIO) is a separate company providing various services “other than” investment research sold to institutions in JTVIR. Counsel advised any other activities be organized separately. Such other activities have involved < 5% of our time.

In general, we may provide investment banking or advisory services mostly to sub-\$100 mm mining companies that have defined a “deposit,” but need more capital after a discovery for infill drilling, bulk metallurgical testing, definitive feasibility study or the capital outlays to build a mine. JTVIO envisions merger advisory, “second opinion” critiques of investment banking advice, strategic consulting, valuation opinions, fairness opinions, mine technical services such as “Third Party Reviews” of technical studies or other corporate services. The “research coverage” of JTVIR largely involves very large companies with completed steel, aluminum, forest products or mine plants with market capitalizations usually between \$1 and \$250 billion. Historic companies often over one century old, such as Alcoa or U.S. Steel or BHP Billiton, will use top ten commercial or investment banks for advisory services and we make no attempt to be engaged by them owing to their long historic relationships.

We prefer to advise companies without revenues, which large investment banks like Goldman Sachs, JP Morgan, Morgan Stanley or BMO often avoid. Such mining companies without revenues are not as competitively over-banked, and many of the geologists are quite gifted and have extremely promising projects.

We undertook some platinum market studies for Platinum Group Metals in the past year.

We have accepted compensation from Texas Rare Earth Resources and Appia Energy, a private concern, related to introducing investors to them.

In August 2011 we advised the Board of Directors of Augen Gold that a hostile tender offer from Trelawney Mining. On October 9, 2010 we were engaged by Tara Gold Resources to evaluate the fairness of their September 13, 2010 proposed merger to amalgamate with Tara Minerals, which it terminated on March 7, 2011. We delivered a “structure opinion” to Tara Gold Resources and Tara Minerals on May 20, 2011 that the cancellation of the announced September 13, 2011 merger was “fair.” On June 24, 2010 we delivered a Fairness Opinion to the board of directors of Paramount Gold and Silver for compensation in their acquisition of X-Cal Resources, Ltd concerning the Sleeper gold mine near Winnemucca, NV formerly operated in 1986-1996 by Amax Gold and having past output of 1.66 mm oz gold and 2.3 mm oz silver plus 26,000 oz of placer gold almost one century ago.

On October 6, 2010 we were engaged by Dorado Ocean Resources Limited, a privately held company. That assignment has concluded without success or compensation.

On June 3, 2008 Galway Resources engaged JTVIO to commercialize its Victorio, New Mexico molybdenum-tungsten deposit containing over 200 mm pounds of each mineral in situ, which is JTVIO’s first activity (see www.galwayresources.com June 3, 2008 press release). We have received compensation from Galway Resources.

These past engagements pose no “conflict of interest” with JTVIR research coverage as long as JTVIR does not cover or write on Paramount Gold and Silver, Galway Resources, or other sub-\$250 mm market cap emerging companies. However, subsequently Galway Resources has documented gold occurrences on Galway grounds and begun drilling. After our November 6-12, 2009 trip to the California gold district of Colombia, we published research reports on Greystar Resources and NOT Galway Resources to avoid conflicted research. We omitted Galway Resources from our “Conference Highlights” report even though it spoke at our November 19, 2009 conference in a similar vein to avoid conflicted research.

JTACR

John Tumazos Advisory and Compensated Research, LLC (JTACR) is a separate investment advisor registered with the State of New Jersey Bureau of Securities on June 27, 2011 as CRD # 157,606. **Under no circumstances will JTACR be commissioned by a mining or other publicly traded company simply to write a “paid” research report.** Its purpose is to include research reports after separate compensation has been received for an advisory service such as a fairness opinion, mergers & acquisitions advice, introductions of investors in a capital raising or other advisory services. Regulators presume that any “compensation” or potential compensation biases research reports, however small, and outside counsel advises us that we should not write about a company as “John Tumazos Very Independent Research, LLC” if compensated or seeking compensation.

We have created a separate web site, www.advisoryandcompensatedresearch.com to support JTACR. It is separate from our normal research investment advisor site, www.veryindependentresearch.com. Since the second half of 2011 JTACR has published research reports on Texas Rare Earth Resources, Paramount Gold and Silver, Galway Resources, Galway Gold, Galway Metals and Platinum Group Metals. These represent < 10% of our company research and < 5% of our written research report output.

POTENTIAL MONEY MANAGEMENT ACTIVITIES

We manage my own money and one client account. Our trades conform to our published research and follow publication by a minimum of two business days. Client recommendations have first priority.

In November 2011 we accepted our first customer money management account, and we are beginning to set up an account and legal agreement to manage money for him. We are in the process of completing such paperwork.

Money Management for clients could be another line of business. “Mine Development Fund” is a “current” project to establish a small fund to invest in post-discovery, large resource companies (over \$2 billion in situ mineral value already defined) requiring financing to “build the mine” and grow. The target market cap of the companies in which it would invest would be \$0.1 to \$10 billion. Our detailed studies of emerging mines may prove synergistic across several applications. We have also considered creating sector ETFs, but determined there is more value-added in fund management.

Our published over 2,500 research reports to Since July 7, 2007 has concentrated on the metals commodities themselves, steel, aluminum, forest products and larger capitalization mines like Rio Tinto, BHP, Freeport-McMoRan Copper, Barrick Gold, etc. Only 7%-10% of our written research involves the “sub-\$2 billion mine” size range that would be the focus of either JTVIO or Mine Development Fund. Thus, compliance issues or conflicts of interest would occur in a smaller subset of JTVIR coverage as JTVIR coverage involves larger caps, “established processing companies” or commodities. JTVIO or the buy-side investing may focus on much smaller companies

POTENTIAL MINE SERVICES ACTIVITIES

We delivered a written critique to the owner for an NI 43-101 compliant second preliminary economic assessment for a deposit with approximately 30 billion pounds of copper and 5 mm oz of gold.

As a substantial user of mine feasibility study reports or other technical reports prepared at early stages after first discovery, sometimes we are very dissatisfied. We may from time-to-time provide “Third Party Review,” critique such mine scoping study or prefeasibility study reports. We do not seek to “second guess” scientific issues of mine engineering or metallurgy. However, we may differ with the mathematics of reserve

determination, capital cost estimates, “simultaneity” of price and cost assumptions, various business planning issues, the opportunity to “phase” or subcontract to reduce initial capital costs or other financial issues. The “custom studies” we have provided to several buy-side JTVIR customers may resemble “Mine Services” future products presented as “Third Party Review” of mine technical studies.