



# Premium Resources – digging up dirt

Distorted grades, involvement of SEC sanctioned entities, and high turnover of mineral consultants – Premium flies many red flags. (PVG:TSX / PVG:NYSE)

SEPTEMBER 6, 2018 -- Premium Resources owns and operates the purportedly high-grade Brucejack gold mine in Northwest British Columbia in Canada. Viceroy is short Premium Resources, as our research suggests its mining results have been distorted and the equity likely worthless as the overindebted company bleeds cash over the next 12 months:

- **Strathcona Mineral Services Limited (Strathcona)**, the mining consultancy that famously declared Bre-X to be a fraud, resigned from Premium's 2013 bulk sample program later stating, "...they will not have a mine producing 425,000 oz. a year for the next 20 years, as they have been advertising so far". The entire Premium investment thesis rests on the validity of the 2013 bulk sample program.
- After Strathcona's resignation, Premium hired **Strategic Minerals LLC (Strategic Minerals)**, an entity owned and managed by disgraced investment manager Serofim "Sima" Muroff to handle the testing of its bulk sample program. Muroff was charged by the SEC for securities fraud after misappropriating millions of dollars of investor funds and siphoning away millions more. Our research suggests that Muroff has knowingly assisted Premium in overselling the quality of Brucejack Mine to investors.
- The funds embezzled by Muroff were partially invested in numerous early-stage gold mining assets which to date have produced no gold. We believe Muroff's entity was created to similarly distort gold grades for these gold mining assets. Muroff's investors funds were also used to invest in equities and derivatives of other gold mining assets which we believe included Premium.
- The overwhelming majority of our research indicates Premium manipulated the results of its bulk sample program through an overreliance on samples taken from the Cleopatra vein, thereby artificially inflating Premium's grades and reserve projections for the Brucejack Mine.
- The manipulated bulk sampling test performed by Strategic Minerals was used by the courts in Wong v. Premium Resources, 2017 as the basis of their decision that the Strathcona analysis was incorrect. This did not exempt the company from withholding Strathcona's preliminary analysis from investors.
- Government documents indicate Premium is moving approximately double the tonnage from the underground mine than disclosed to investors. This suggests reported grades and reserves are significantly inflated, a much greater amount of waste is being dumped into local lakes, and more explosives are being utilized. Premium's operational plan has experienced dramatic changes in a short amount of time, leading us to believe that management is scrambling to find consistent, high-grade ore to maintain the charade that its debt and equity are viable.
- Premium founder and chairman, Robert Quartermain's only mine operating experience at Pirquitas, an Argentinian silver mine owned by Silver Standard, resulted in a ~53% reserve cut and subsequent shutdown. A number of Quartermain's management team left Silver Standard to operate Premium.
- As of Q2 2018, Premium has ~\$700M of debt (excl. convertible notes) with an effective interest rate of ~15%. If Premium can't make or re-negotiate the payment, then Premium may be unable to remain a going concern. We believe this deadline has provided an incentive for Premium to inflate its results through the near-term depletion of the Cleopatra vein and take more rock out of the ground than disclosed and planned.

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***The implications of our findings on grade, tonnage and life of mine are damning and lead us to believe that Premium's equity is highly likely to be worthless in its current state, and its credit significantly impaired.***

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Viceroy believe Premium bears striking resemblance to Rubicon Minerals, now operating as a shadow of its former self after revising mineral reserve estimates down ~90%.

**We believe the most likely scenario is that Premium's assets are seized by its secured creditors as collateral.**



### **Attention: Whistleblowers**

Viceroy encourage any parties with information pertaining to misconduct within Pretium or any other entity to file a report with the appropriate regulatory body.

We also understand first-hand the retaliation whistleblowers sometimes face for championing these issues. Where possible, Viceroy is happy act as intermediaries in providing information to regulators and reporting information in the public interest in order to protect the identities of whistleblowers.

You can contact the Viceroy team via email on [viceroyresearch@gmail.com](mailto:viceroyresearch@gmail.com).

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## 1. Background

Pretium's Chairman and founder Robert Quartermain acquired the Brucejack Project (**Brucejack**) in British Columbia from Silver Standard Resources for \$450M on October 28, 2010 and formed Pretium Resources Inc. Quartermain had previously served as President of Silver Standard Resources from 1985 to 2010. This appears to have been a spin-off from Silver Standard as they took 52% of the consideration in equity.

While the Brucejack covers several mineralization zones the two most important are the Valley of Kings zone (**VOK**) and West zone.

Snowden Mining Industry Consultants (**Snowden**) was retained by Pretium in November 2012 to provide a mineral resource estimate for the West zone and VOK of the Brucejack Project. The November 2012 Resource Report estimated that the VOK contained indicated gold resources of 16.1 million tonnes at a grade of 16.4 g/t and inferred gold resources of 5.4 million tonnes at a grade of 17.0 g/t.

To substantiate Snowden's resource model, Pretium retained expert mining consultant Strathcona Mineral Services Ltd. (**Strathcona**) in late 2012 to oversee a 10,000 tonne bulk sample and sample tower program.

In October 2013, Strathcona determined that Pretium was unlikely to be able to mine more than 2.08 g/t and resigned before completing its work. Pretium subsequently retained Snowden to complete the bulk sample and sample tower program, effectively giving Snowden the opportunity to verify their own resource model.

Snowden's Feasibility Study and Technical Report dated June 19, 2014 asserted it believed Pretium could recover 7.27m ounces of gold over 18 years with a proven and probable grade of 16.1 g/t.

Snowden's bulk sample program's milling results were handled by Strategic Minerals, an entity owned and operated by disgraced, SEC-sanctioned investment manager Sima Muroff.

This is not the first time that much of Pretium's management would be taking investors for a ride. The Pirquitas mine in Argentina owned by Silver Standard under Quartermain and much of Pretium's current management experienced a ~53% reserve cut following their departure.

Our research suggests that Strathcona got it right and Snowden got it wrong.

## 2. A timeline of the Brucejack bulk sample program

"[Pretium] will not have a mine producing 425,000 oz a year for the next 20 years"

### 2.1. 28th October 2010

Pretium acquires 100% interest in the Brucejack project and other assets from Silver Standard Resources Inc for a total consideration of \$450m comprising of \$233m in cash and the remainder in equity<sup>1</sup>.

### 2.2. 3<sup>rd</sup> June 2011

Wardrop and P&E Mining Consultants release their Technical Report and Preliminary Economic Assessment of the Brucejack Project.

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<sup>1</sup> <https://www.pretivm.com/news/news-details/2010/Pretium-Resources-Inc-Announces-Initial-Public-Offering/default.aspx>



**Table 1.2 Brucejack 5.00 g/t AuEq Mineral Resource Grade and Tonnage Estimate<sup>(1)(2)(3)(4)</sup>**

Category	Tonnes (M)	Au (g/t)	Ag (g/t)	Contained <sup>(3)</sup>	
				Au (oz x '000)	Ag (oz x '000)
Measured	1.947	7.95	241.25	498	15,102
Indicated	1.722	7.33	123.19	406	6,820
M+I	3.669	7.66	185.84	903	21,922
Inferred	4.707	12.54	49.24	1,898	7,452

Figure 1 Table 1.2 Brucejack 5.00 g/t AuEq Mineral Resource Grade and Tonnage Estimate<sup>2</sup>

Note that at this time, Brucejack refers to nine mineralization zones: the West Zone, West Zone Footwall Zone, Shore Zone, Gossan Hill Zone, Galena Hill Zone, SG Zone, VOK Zone, Bridge Zone and Bridge Zone Halo.

### 2.3. 28<sup>th</sup> November 2011

P&E Mining consultants releases their Technical Report and Resource Estimate on the Brucejack Project.

TABLE 14.19 COMBINED WEST ZONE AND VOK 5.00 G/T AUEQ UNDERGROUND MINERAL RESOURCE GRADE & TONNAGE SENSITIVITY <sup>(1)(2)(3)(4)</sup>					
Category	Tonnes (millions)	Gold (g/t)	Silver (g/t)	Contained	
				Gold (million oz)	Silver (million oz)
Measured	2.4	7.29	241.2	0.57	18.9
Indicated	6.1	24.13	53.3	4.76	10.5
Mea+Ind	8.6	19.35	106.7	5.33	29.4
Inferred	4.0	25.73	22.0	3.29	2.8

Figure 2 Table 14.19 Combined West Zone and VOK 5.00 g/t AuEq Underground Mineral Resource Grade and Tonnage Sensitivity<sup>3</sup>

Combined measured and indicated resource tonnes increase from **3.7m tonnes** to **8.6m tonnes** and grade increases from **7.66 g/t** to **19.35 g/t** from the prior report.

### 2.4. 3<sup>rd</sup> April 2012

Snowden Mining Industry consultants releases their Mineral Resources Update Technical Report. The VOK and West zone are combined in analysis. According to the report, there was insufficient exploration in the VOK zone to ascertain measured resources.

Table 1.3 Mineral Resource estimate: VOK Zone and West Zone based on a cut-off grade of 5 g/t AuEq – April 2012 <sup>(1)(4)</sup>					
Area	Tonnes (millions)	Gold (g/t)	Silver (g/t)	Contained <sup>(3)</sup>	
				Gold (Moz)	Silver (Moz)
<b>Measured Resources</b>					
West Zone	2.4	5.85	347	0.5	26.8
<b>Indicated Resources</b>					
West Zone	2.5	5.86	190	0.5	15.1
VOK Zone	8.9	17.3	14.5	4.9	4.1
<b>Total – Measured and Indicated Resources</b>					
Total	13.7	13.2	104	5.8	46.0
<b>Inferred<sup>(2)</sup> Resources</b>					
VOK Zone	12.7	25.5	11.6	10.4	4.7
West Zone	4.0	6.44	82	0.8	10.6
Total	16.7	20.9	28	11.3	15.3

Figure 3 Table 1.3 Mineral Resource estimate: VOK Zone and West Zone based on a cut-off grade of 5 g/t AuEq – April 2012<sup>4</sup>

<sup>2</sup> Technical Report and Preliminary Economic Assessment of the Brucejack Project – June 3, 2011 – page 23

<sup>3</sup> Technical Report and Resource Estimate on the Brucejack Project – November 28, 2011 – page 110

<sup>4</sup> Mineral Resources Update Technical Report – April 3, 2012 – page 14



Combined measured and indicated resource tonnes increase from **8.6m tonnes to 13.7m tonnes** and grade decreases from **19.35 g/t to 13.2 g/t** from the prior report.

This report is also the first mention of the multiple indicator kriging method as opposed to the ordinary kriging method in previous technical reports. This change was remarked upon later by an expert witness in a class action against Pretium which we discuss later in section 3.4.

## 2.5. 18<sup>th</sup> September 2012

Snowden release their Mineral Resources Update Technical Report. West zone estimates are dated April 2012 and new results for the VOK zone is presented. A total Brucejack mineral resource estimate consists mostly of the VOK and West Zone.

Table 1.3      Brucejack (total) Mineral Resource estimate (including VOK and West Zone) based on a cut-off grade of 5 g/t AuEq – September 2012 <sup>(1)(4)(5)</sup>					
Category	Tonnes (millions)	Gold (g/t)	Silver (g/t)	Contained <sup>(3)</sup>	
				Gold (Moz)	Silver (Moz)
Measured	2.4	5.85	347	0.5	26.8
Indicated	13.2	13.8	48.7	5.9	20.6
M+I	15.6	12.6	94.7	6.3	47.4
Inferred <sup>(2)</sup>	9.7	20.3	43.2	6.3	13.5

Figure 4 Table 1.3 Brucejack (total) Mineral Resource estimate (including VOK and West Zone) based on a cut-off grade of 5 g/t AuEq – September 2012<sup>5</sup>

Combined measured and indicated resource tonnes increase from **13.7m tonnes to 15.6m tonnes** and grade decreases from **13.2 g/t to 12.6 g/t** from the prior report.

## 2.6. 20<sup>th</sup> November 2012

Snowden releases their Mineral Resources Update Technical Report. West zone estimates are still dated April 2012.

Table 1.1      VOK Mineral Resource estimate based on a cut-off grade of 5 g/t AuEq – November 2012 <sup>(1)(4)(5)</sup>					
Category	Tonnes (millions)	Gold (g/t)	Silver (g/t)	Contained <sup>(3)</sup>	
				Gold (million oz)	Silver (million oz)
Indicated	16.1	16.4	14.1	8.5	7.3
Inferred <sup>(2)</sup>	5.4	17.0	15.7	2.9	2.7

Table 1.2      West Zone Mineral Resource estimate based on a cut-off grade of 5 g/t AuEq – April 2012 <sup>(1)(4)(5)</sup>					
Category	Tonnes (millions)	Gold (g/t)	Silver (g/t)	Contained <sup>(3)</sup>	
				Gold (Moz)	Silver (Moz)
Measured	2.4	5.85	347	0.5	26.8
Indicated	2.5	5.86	190	0.5	15.1
M+I	4.9	5.85	267	0.9	41.9
Inferred <sup>(2)</sup>	4.0	6.44	82	0.8	10.6

Figures 5 & 6 Tables 1.1 & 1.2 VOK and West Zone Mineral Resource estimated based on a cut-off grade of 5g/t AuEq – November & April 2012<sup>6</sup>

Combined measured and indicated resource tonnes increase from **15.6m tonnes to 21.0m tonnes** and grade increases from **13.2 g/t to 13.64 g/t** from the prior report.

<sup>5</sup> Mineral Resources Update Technical Report – September 18, 2012 – page 14

<sup>6</sup> Mineral Resources Update Technical Report – November 20, 2012 – page 13



## 2.7. 9<sup>th</sup> October 2013: Strathcona resigns from the bulk sample program

In late 2012, Pretium hired Strathcona as an independent consultant to oversee a 10,000 tonne bulk sample and sample tower program<sup>7</sup> for the Brucejack Mine. The purpose of this program was to verify Snowden's mineral resource estimate and model.

Strathcona is the mining consultancy that accurately declared Bre-X to be a fraud in May 1997<sup>8</sup>. Strathcona founder, Graham Farquharson, has worked in the mining industry for over 50 years and is a member of the Canadian Mining Hall of Fame.

*"People have a lot of faith in Strathcona because they're very blue chip and they're very conservative. When they get worked up, it's a big thing"*

- Greg Ho Yuen, former partner at Fasken Martineau<sup>9</sup>.

On October 9, 2013, Pretium announced Strathcona had resigned from the program, however, the initial press release failed to explain why.

Strathcona Mineral Services Ltd. ("Strathcona"), which had been engaged as the independent Qualified Person to oversee and report on the 10,000-tonne bulk sample for the Program, has resigned from the Project.

Figure 7 PRETUM RESOURCES INC.: BULK SAMPLE UPDATE<sup>10</sup>

## 2.8. 22<sup>nd</sup> October 2013: Strathcona's resignation letter: no mineral resources

On October 22, 2013, Pretium disclosed the results from the first cross-cuts of the bulk sample and more information on Strathcona's departure.

### Sample Tower Results for 426585E Cross-Cut

Prior to resigning from the Program, Strathcona Mineral Services Ltd ("Strathcona") provided to Pretivm preliminary assay results from the sample tower that included those for the 426585E cross-cut, which averaged 2.08 grams per tonne gold. The assay results from the sample tower

Figure 8 PRETUM RESOURCES INC.: FIRST BULK SAMPLE CROSS-CUT PROCESSING RESULTS

Strathcona's preliminary identified grade of 2.08 g/t was 87% lower than the 16.4 g/t grade indicated in Snowden's November 2012 Mineral Resources Update Technical Report. In the press release, Pretium disclosed only parts of Strathcona's resignation letter:

Strathcona withdrew from the Program on October 8, 2013 before any results from the processing of the bulk sample were available. In withdrawing from the Program, Strathcona advised Pretivm that "...there are no valid gold mineral resources for the VOK Zone, and without mineral resources there can be no mineral reserves, and without mineral reserves there can be no basis for a Feasibility Study." They also advised that "...statements included in all recent press releases [by Pretivm] about probable mineral reserves and future gold production [from the Valley of the Kings zone] over a 22-year mine life are erroneous and misleading." Snowden maintains its stance that the November 2012 Mineral Resource Estimate remains valid, and has taken steps to involve a third party peer review in its up-coming mineral resource update.

Figure 9 PRETUM RESOURCES INC.: FIRST BULK SAMPLE CROSS-CUT PROCESSING RESULTS

The distinction between mineral reserves and resources is important: reserves represent economical viable ore

<sup>7</sup><https://www.pretivm.com/news/news-details/2013/Pretium-Resources-Inc-First-Bulk-Sample-Cross-Cut-Processing-Results/default.aspx>

<sup>8</sup><https://money.cnn.com/1997/05/05/companies/brex/>

<sup>9</sup><https://business.financialpost.com/commodities/mining/pretium-shares-plunge-30-5-as-independent-consultant-resigns>

<sup>10</sup><https://www.pretivm.com/news/news-details/2013/Pretium-Resources-Inc-Bulk-Sample-Update/default.aspx>



In the 2017 case Wong v. Pretium Resources<sup>11</sup> more parts of Strathcona's resignation letter were disclosed as evidence. These excerpts include comments by Strathcona that allege overestimation of gold grade in the bulk sample area and Pretium's refusal to disclose material information to their investors.

[13] Starting in mid-July, 2013 Strathcona, who had considerable experience in the use of the sample tower, began to voice concerns. These concerns were reiterated as the weeks went by. Over the three months of the proposed class period, from July 23 to October 21, 2013 Strathcona repeatedly advised Pretium that the sample tower test results were failing to confirm the validity of the Mineral Resource Estimate and by extension the validity of the Feasibility Study. Also, Strathcona repeatedly urged Pretium's executive team in emails and letters to publicly disclose these facts to the market. Here is one example:

[T]he results of sufficient drill-hole and bulk-sample assay data that show that the resource block model developed and reported on in the Snowden [November 2102 Mineral Resource Estimate], and used for the recent Feasibility Study...is not reliable. The resource model greatly over-estimates the gold grade of the bulk-sample area ...

... the Feasibility Study, issued just two months ago, is no longer valid, and since this represents a material change for Pretium, we strongly recommend that Pretium make these findings known to the public so that investors are no longer relying on the invalid results of the Brucejack Feasibility Study and the November 2012 mineral resources technical report.

It has become apparent that there is a substantial difference between what information on the VOK program that Pretium believes should be disseminated to public markets, and what emphasis there should be on the interpretation of results, as compared with that which Strathcona believes to be appropriate. As a consequence, we at Strathcona find ourselves in an increasingly uncomfortable position given that Pretium has chosen not to follow any of the recommendations for public disclosure that we made in July, August and September ...

As we have summarized in earlier sections of this letter, we have expressed our views on the implications of the various phases of the bulk sample program on the Snowden resource model. The underground diamond drilling, the assays from the bulk sample derived from the underground mine development, and the new interpretation of the geological constraints on the distribution of gold mineralization have made it clear that the Snowden resource model is no longer valid ...

As a consequence, at this time, there are no valid gold mineral resources for the VOK Zone, and without mineral resources there can be no mineral reserves, and without mineral reserves there can be no basis for a Feasibility Study. Therefore, the above statements included in all recent press releases, about probable mineral reserves and future gold production over a 22-year mine life are erroneous and misleading ...

In the 40 years that Strathcona has been providing services to the mining industry, we have had some unusual assignments, including the Bre-X saga, etc., but never one such as this assignment with Pretium, whereby we are having to make a plea to Pretium to follow the basic principle to which we have always adhered, which is to tell it like it is and not to hold back on any material facts that should be in the public domain...

We do not think it appropriate and in accordance with good governance standards in the mining industry in the post-Bre-X era that investors should be trading Pretium shares in Toronto and New York without knowledge of the material changes that have occurred as a result of the bulk sample program.

<sup>11</sup> Wong v. Pretium Resources, 2017 ONSC 3361



[H]ad the differences between the Snowden block model and the bulk sample results been relatively minor, publication of the results following the completion of the bulk sampling program as planned by Pretium would have been appropriate. Since the results of the bulk sample program are drastically different from the Feasibility Study, Pretium should make public, without further delay, this very material change of the gold grade and gold content of the VOK deposit as a result of the very obvious conclusions to be drawn from the bulk sample program

[T]he results are reliable within the sample error and are not in need of further confirmation by processing of the bagged bulk sample material at a mill in Montana ... We have used sampling towers and sampling protocols comparable to the one applied to the VOK bulk sampling program in several similar gold-ore sampling programs with good results. In one case, the crushed rejects of a coarse-gold project were subsequently custom milled with the mill head grade being within the variance predicted by the FSE calculation for this material (mill-head grade: 15.1 g/t; bulk sample grade: 15.5 g/t).

Figures 10, 11, 12, 13 & 14 Extracts from Wong v. Pretium Resources

Pretium has never released Strathcona's resignation letter in full to stakeholders. The excerpts above contain further explanations about Strathcona's conclusions, warnings about Pretium's inability to mine and produce gold - Pretium's investors have been deprived of material information.

Ultimately the court ruled that Pretium was right based on the mill results of Snowden's bulk sample<sup>12</sup>.

the entire 10,000 ton bulk sample and assessing the results. As it turned out, Pretium was proven right. The mill results were positive and confirmed the validity of the Mineral Resources Estimate with room to spare.

Figure 15 Extract from Wong v. Pretium Resources

The circumstances of the mill results are highly suspect: the October 2013 press release identified Strategic Minerals as the operator of the mill, an entity associated with disgraced investment manager Serofim "Sima" Muroff. Strategic Minerals and its background are discussed in more detail below.

We attempted to obtain further information from Strathcona and were only able to learn that it does not wish to become involved again with Pretium. We believe that Strathcona may be bound by a confidentiality agreement.

As a result of Strathcona's resignation, Snowden took over Strathcona's remaining responsibilities for the bulk sample program. This essentially left Snowden in a position to confirm the validity of their own mineral resource model.

### 2.8.1. Dr Dominy's brief cameo

On the same date the reason for Strathcona's resignation was announced, Pretium also introduced new consultant, Dr. Simon Dominy, stating he would analyze:

*"...the sample theory underlying Strathcona's sampling protocols for the sample tower and will be providing a formal expert opinion to Pretivm".*

Pretium touted Dr. Dominy's credibility in the press release and its language seemed to imply that Dr. Dominy's assessment would support Snowden's sampling methods over Strathcona's:

<sup>12</sup> <https://www.lexology.com/library/detail.aspx?g=2e0a69b5-360b-44d7-a0c7-00d8bddc3588>



#### Snowden's Response

Given the heterogeneous nature of the Valley of the Kings mineralization, Snowden has consistently advised Pretivm that the entire 10,000-tonne bulk sample needs to be processed prior to completing a reconciliation that can be considered robust. Dr. Simon Dominy of Snowden is reviewing the sample theory underlying Strathcona's sampling protocols for the sample tower and will be providing a formal expert opinion to Pretivm. Dr. Dominy has noted that he concurs with the current approach of submitting the entire bulk sample (as batches) for full processing through the Montana plant, and has advised that such an approach is always the best route to fully evaluate bulk samples and/or trial mining parcels.

Dr. Dominy has provided a preliminary report to Pretivm that covers several areas of consideration for the evaluation of the design of the sampling Program. This includes the appropriate application of mineralisation characterization study, and the difficulties in achieving representative samples in a high-nugget coarse gold environment.

Dr. Dominy is a dual qualified mining geologist-engineer with 25 years of experience, across mine operations, academic research and consulting. He has an extensive global track-record of auditing, designing and managing gold sampling and assaying programmes. He is a leader in the sampling of coarse gold deposits, and consulted, lectured and published widely on the topic. Recent sampling assignments have included: audits and reviews; integrated studies of ore characterisation, gold deportment and metallurgical testing; sample size determination; sample protocol design and optimisation; the application of the Theory of Sampling; metallurgical plant sampling; metallurgical sampling; and grade control systems. He also has extensive practical experience in surface and underground bulk sampling/trial mining programme design, planning, management and interpretation.

Figure 16 PRETIUM RESOURCES INC.: FIRST BULK SAMPLE CROSS-CUT PROCESSING RESULTS

Dr. Dominy was never mentioned again in any Pretium press release, conference call, filing, or presentation nor was his "formal expert opinion" was never disclosed to the street. We believe Dr. Dominy's conclusion regarding Brucejack's resource model was not in line with Snowden's.

In his May 2017 paper "*Underground bulk sampling, uniform conditioning and conditional simulation - unrealistic expectations?*"<sup>13</sup> Dr. Dominy published a case study on Brucejack.

The results were heavily influenced by the ultra-high grade Cleopatra and E-W veins (Figure 3). Bulk samples along a 55 m section of Cleopatra yielded a grade of 80 g/t Au (range 5-218 g/t Au) and along the 30 m E-W vein a grade of 30 g/t Au (range 6-119 g/t Au). Accepting the limitations of individual bulk sample grades from the tower, it is interesting to note that out of 95 individual bulk sample grades, 34 were above 5 g/t Au but contained 94 per cent of the gold. Of the 34, 26 were attributable to either the Cleopatra or E-W veins.

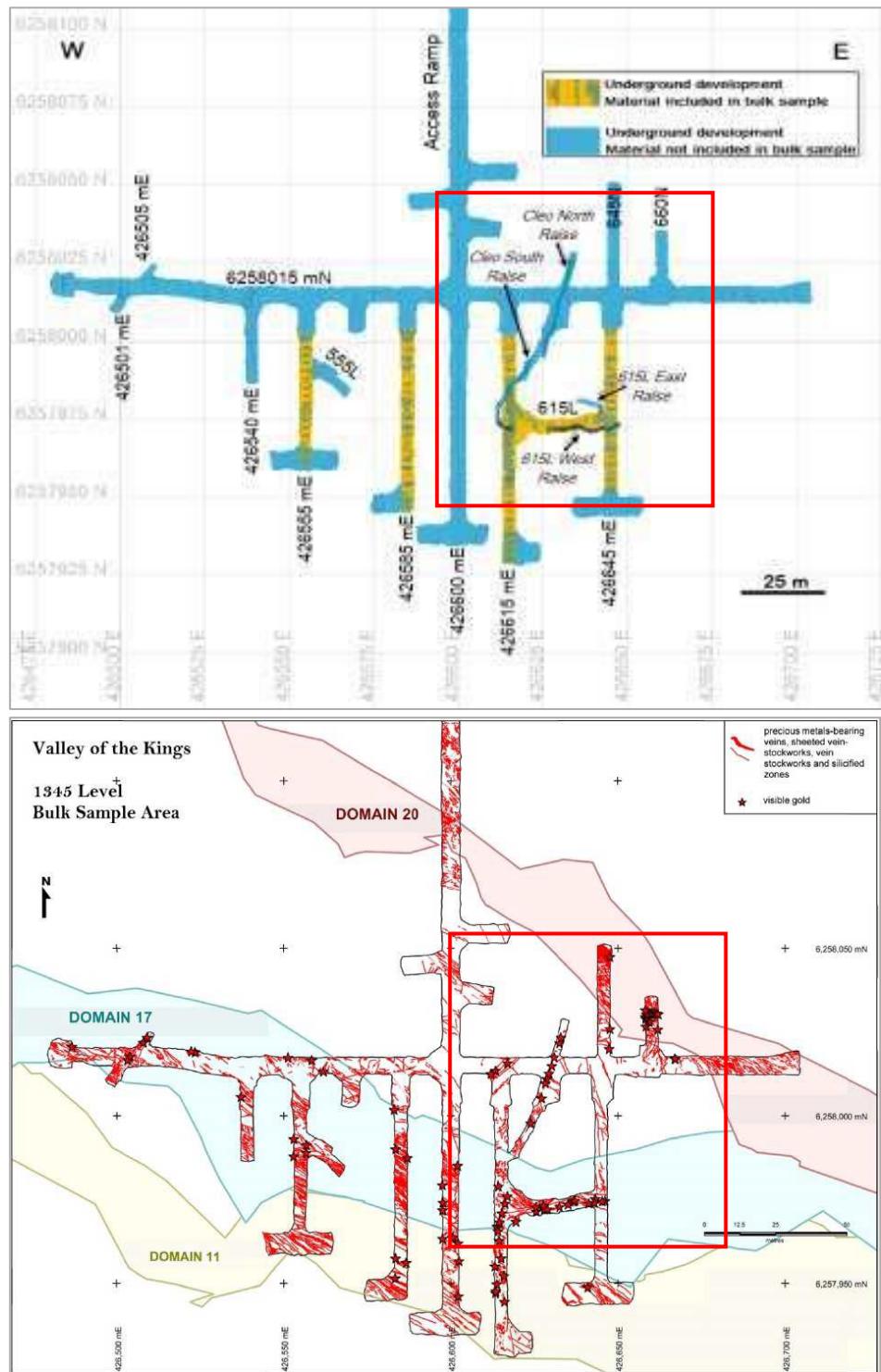
Figure 17 Reconciliation - Underground bulk sampling, uniform conditioning and conditional simulation - unrealistic expectations?

Following Dr. Dominy's reference, we see 2 images which indicate that the bulk sample relied heavily on the Cleopatra vein.

In the first image, the thin blue line (the Cleopatra vein) progresses south before turning east at 6257975 N. The yellow shaded bulk sample area seems to follow this path: progressing south from 6258000 N and also wrapping east at 6257975 N.

In the second image, red stars denote "visible gold". More gold appears to be visible in the image (higher density of red stars) along the same path where the Cleopatra vein is outlined in the image above.

<sup>13</sup>[https://www.researchgate.net/publication/316285936\\_Underground\\_bulk\\_sampling\\_uniform\\_conditioning\\_and\\_conditional\\_simulation\\_-unrealistic\\_expectations](https://www.researchgate.net/publication/316285936_Underground_bulk_sampling_uniform_conditioning_and_conditional_simulation_-unrealistic_expectations)



Figures 18 & 19 FIG 3 - Underground development for the VOK BSP: location of bulk sample development, Geological

The Dominy case study further substantiates our assertion that Snowden oversampled the 615L and 615E areas as evidenced by the outsized composite assay masses in the table below compared to the relevant area's total composite mass.



TABLE 4  
FSE for BSP sample composite lots at a range of  $d_L$  values.

BS lot	BS tower grade (g/t Au)	Total composite mass (t)	Composite assay mass (kg)	$d_L$ ( $\mu\text{m}$ )	FSE (%)
645E	1.8	1,935	228	1,000	$\pm 9$
				2,500	$\pm 19$
585E	2.1	2,250	256	1,000	$\pm 12$
				2,500	$\pm 24$
555E	5.0	1,440	180	1,000	$\pm 9$
				2,500	$\pm 18$
615L	29.2	1,480	488	2,500	$\pm 5$
				5,000	$\pm 9$
615E	35.3	2,945	520	2,500	$\pm 5$
				5,000	$\pm 8$
All	16.2	10 050	1,672	2,500	$\pm 4$
				5,000	$\pm 6$
				10 000	$\pm 10$

Figure 20 TABLE 4 FSE for BSP sample composite lots at a range of  $d_L$  values.<sup>14</sup>

The fact that Dr. Dominy's formal expert opinion was not publicly disclosed is strange but predictable given management's proclivity for marketing Brucejack as a high-grade, high-output, high-yield mine.

### 2.9. 22<sup>nd</sup> November 2013: Snowden claims it found much more gold than Strathcona

One month after the October 2013 press release, Pretium disclosed the results of Snowden's bulk sample program. 5,865 oz of gold were said to have been produced from 10,302 tonnes of milled material, resulting in a grade of 17.7 g/t, 8.5x better than Strathcona's 2.08 g/t sample tower grade and in line with Pretium's 2012 Resource Report grade of 16.4 g/t<sup>15</sup>. Pretium's stock appreciated 82% following the announcement.

Octupling your mineral resource grade from the same sample over the space of a month defies reason.

The difference of opinion between Strathcona and Snowden/Pretium now appears to be based on sampling method.

Strathcona used a small sample for analysis (called a sample tower) while Snowden and Pretium used the results from the entire 10,000 tonne bulk sample. Strathcona apparently disagreed with the Snowden approach because as it relied very heavily on a thin and rare high-grade vein in the VOK called the Cleopatra vein.

In addition, Strathcona advised that "The infrequent high-grade intercepts reported in the press releases have been shown in the underground exposures of the bulk sample program to usually be of very narrow width (0.5 meters) and associated with narrow geological structures that occasionally have mineable continuity as in the case of the Cleopatra Vein." The results from Valley of the Kings Program drilling have been, from the outset, consistent with results from prior exploration drilling in the Valley of the Kings. Drilling has frequently intersected extreme grade mineralization over narrow widths, with 47 intersections grading greater than 1,000 grams of gold per tonne from underground drilling (on average there is one in every 550 meters of 2013 drilling) and 125 intersections in total to date grading greater than 1,000 grams of gold per tonne for the Valley of the Kings. The Program was initiated, amongst other reasons, to determine the bulk mineability of the Valley of the Kings mineralization. These reasons and the form of mineralization were discussed with Strathcona prior to their engagement.

When it withdrew, Strathcona advised Pretium that it had previously asserted similar views critiquing the Snowden resource model for the Valley of the Kings, accompanied with "recommendations" for public disclosure of the preliminary bulk sample data supporting their conclusions. At one point, these assertions, conclusions and "recommendations" were made on the basis of approximately 20% of the underground drilling results, no assay results from the sample tower and no results from production.

Figure 21 PRETIUM RESOURCES INC.: FIRST BULK SAMPLE CROSS-CUT PROCESSING RESULTS

If a producer claims that the amount of gold in the high-grade vein is indicative of the amount of gold in the entire deposit, then investors are misled into believing the company will be producing much more gold in the

<sup>14</sup> Underground bulk sampling, uniform conditioning and conditional simulation - unrealistic expectations? - I Clark and S C Dominy

<sup>15</sup> <https://www.pretivm.com/news/news-details/2013/Pretium-Resources-Inc-Bulk-Sample-Processing-Totals-5865-Ounces-of-Gold/default.aspx>



future. Including a significant part of the Cleopatra vein in the sample tested effectively inflated the bulk sample's result.

Strathcona defended its extensive use of the sample tower in estimating mineral resources in its resignation letter, asserting that the sample tower consistently reflected results within a reasonable margin of error to the bulk sample tests.

[T]he results are reliable within the sample error and are not in need of further confirmation by processing of the bagged bulk sample material at a mill in Montana ... We have used sampling towers and sampling protocols comparable to the one applied to the VOK bulk sampling program in several similar gold-ore sampling programs with good results. In one case, the crushed rejects of a coarse-gold project were subsequently custom milled with the mill head grade being within the variance predicted by the FSE calculation for this material (mill-head grade: 15.1 g/t; bulk sample grade: 15.5 g/t) .

Figure 22 Extract from Wong v. Pretium Resources

To test Strathcona's criticism of the Snowden approach, we reviewed Pretium's own map of the area tested. The map of the bulk sample area reprinted below, shows the bulk sample area (yellow with hash lines) intersecting directly with the cleopatra vein (red – added by us).

It is clear that the Cleopatra vein was drilled and emphasized in the crosscuts. The yellow intersection striking the Cleopatra vein in the purple square (added by us) is much wider:

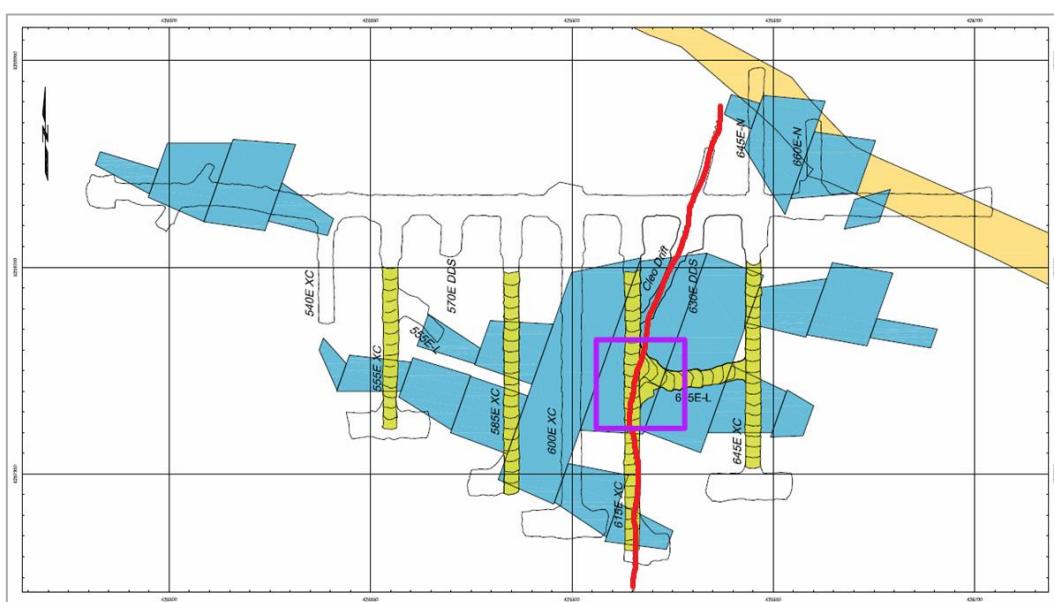


Figure 23 VOK 1345L bulk sample with stopes

Page 155 of the 2014 Feasibility Study illustrates the grade of these crosscuts<sup>16</sup> under different names as detailed in figure 24 below. The 615E XC cut is named as 426615E and 615L remains the same. Thus, the overemphasis on the Cleopatra vein accounts for the significant "increase" in gold claimed by Snowden.

None of this was planned, or so Pretium claims. However the "Cleo North" and "Cleo South" raises (denoted by a slim dark blue line), indicate the presence of the high-grade Cleopatra vein, were not included in planned drilling for the bulk sample area layout as laid out in a December 2013 Mineral Resources update. We have highlighted the oversampled 426615E and 615L area in black in the figure below.

<sup>16</sup> Feasibility Study and Technical Report Update on the Brucejack Project, Stewart, BC JUNE 19, 2014 – page 155



Figure 9.1 Planned (top) versus actual completed (bottom) bulk sample area layout on the 1345 m level, VOK deposit

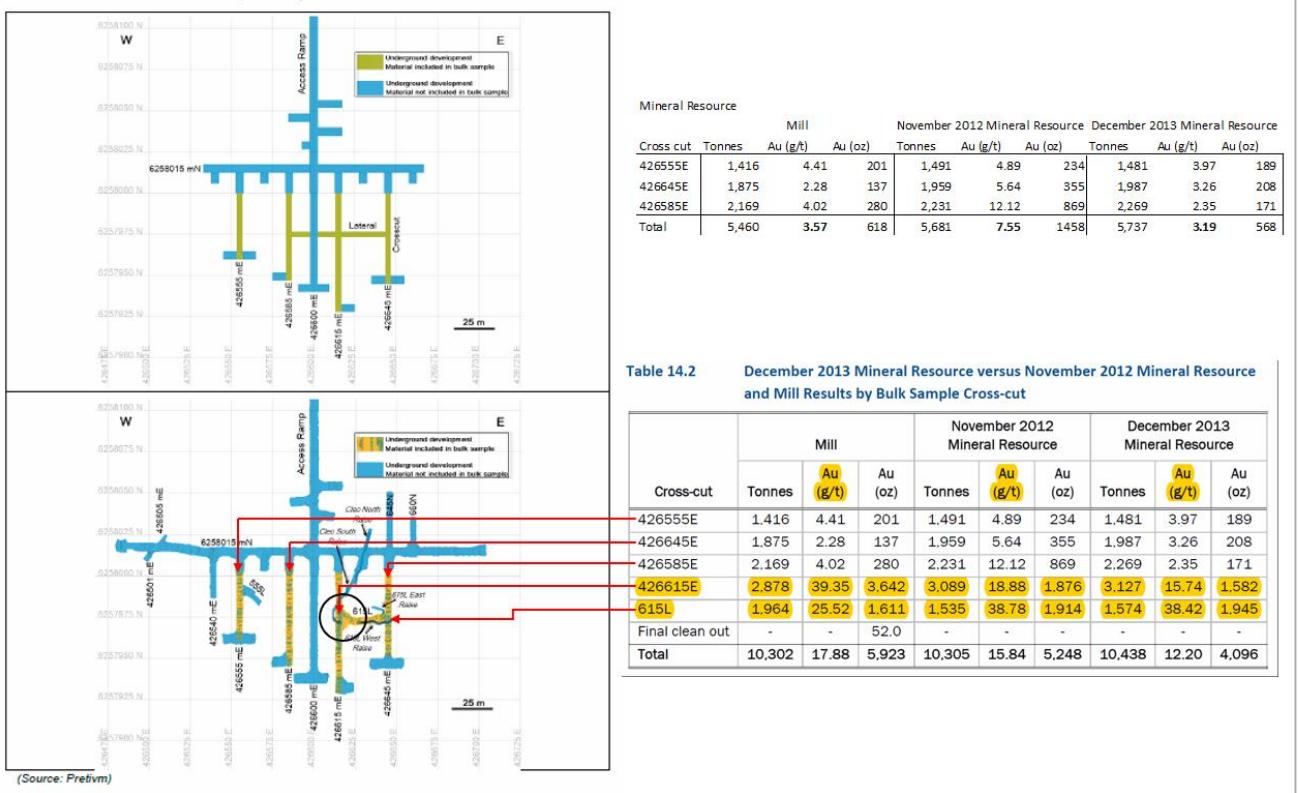


Figure 24 Planned (top) versus actual completed (bottom) bulk sample area layout on the 1345 m level, VOK deposit<sup>17</sup>

Once the location of the vein was known it would be fairly simple to oversample that area and report a higher average grade for the Brucejack area. For illustration, removing the 426615-E and 615L samples results in an average gold grade of just 3.19 g/t from the other cross-cuts.

This high variance of gold grades in the Brucejack zone was evidenced in a 2011 preliminary economic assessment performed by Wardrop and P&E Mining consultants. Unlike the Snowden and Strathcona studies, the 2011 Wardrop assessment evaluated the entire Brucejack area, not just the Valley of Kings zone.

Table 17.6 Brucejack Summary Composite Statistics by Domain										
	Total	WZ	WZFW	SZ	G0	F4	SG	BZ	BZLG	VOK
<b>Ag Composites</b>										
Mean	46.37	82.89	9.30	24.84	8.52	14.80	4.43	8.34	6.58	12.98
CV	5.64	4.39	2.06	3.28	5.65	2.96	1.48	2.43	3.49	9.72
Median	7.57	18.83	4.55	7.97	3.91	6.44	2.61	3.95	2.57	3.90
Mode	0.00	0.00	0.66	0.00	0.00	0.00	0.25	1.60	0.25	2.00
Standard Deviation	261.55	364.17	19.20	81.49	48.12	43.85	6.55	19.76	22.94	126.23
Sample Variance	68,410.32	132,619.88	368.49	6,641.13	2,315.98	1,922.44	42.96	390.44	526.02	15,932.86
Kurtosis	554.13	289.46	49.32	164.05	3,254.63	272.44	36.24	265.00	653.94	1,089.78
Skewness	20.07	14.58	6.38	11.22	53.18	13.90	4.73	12.87	21.40	31.82
Range	11,517.18	11,517.18	189.41	1,612.38	2,982.86	1185.73	85.23	651.17	822.94	4574.37
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum	11,517.18	11,517.18	189.41	1,612.38	2,982.86	1,185.73	85.23	651.17	822.94	4,574.62
Count	48,990	24,193	333	2322	4491	3,202	1,059	6,592	4,183	2615
<b>Au Composites</b>										
Mean	2.32	2.41	1.28	2.26	1.03	2.17	0.70	0.83	0.43	11.62
CV	27.56	9.04	3.25	8.62	6.85	17.98	1.76	3.17	3.70	22.79
Median	0.51	0.65	0.66	0.47	0.35	0.46	0.31	0.54	0.23	0.41
Mode	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.54	0.00	0.17
Standard Deviation	64.07	21.75	4.16	19.48	7.02	39.09	1.23	2.63	1.61	264.81
Sample Variance	4,104.50	473.30	17.31	379.48	49.29	1527.66	1.51	6.90	2.58	70,125.53
Kurtosis	14,199.99	2421.59	156.20	810.73	365.29	1923.97	30.37	1,192.18	733.47	904.49
Skewness	112.98	42.57	11.64	25.69	18.17	41.70	4.64	29.36	23.67	29.51
Range	8,909.85	1676.35	62.80	705.80	173.32	1928.79	14.01	134.40	57.02	8,909.85
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Maximum	8,909.85	1676.35	62.80	705.80	173.32	1928.79	14.01	134.40	57.02	8,909.85
Count	48,990	241.93	333	2322	4491	3202	10.59	6,592	4,183	2615

Figure 25 Brucejack Summary Composite Statistics by Domain<sup>18</sup>

<sup>17</sup> Mineral Resources Update Technical Report December 19 2013 – page 54

<sup>18</sup> Technical Report and Preliminary Economic Assessment of the Brucejack Project JUNE 3, 2011 – page 154



The VOK scores extremely highly compared to the other areas in sample variance of gold composites, range between the minimum and maximum figures and mean gold grade.

From the evidence presented so far, the Cleopatra vein's results should not be extrapolated to the entire area.

Given the evidence above we believe Pretium's strong Q2 2018 performance and the company's assertions of this performance as "steady-state production" to be highly questionable. Keep in mind Pretium will need to actively seek investment in order to meet repayments within 6 months, we believe the company is doing its best to groom the performance of the Brucejack mine in a way that disagrees completely with several studies of the deposit.

In light of this information, Viceroy believe Strathcona's resignation appears well justified given Pretium's non-disclosure of this data to the market.

## 2.10. 27<sup>th</sup> November 2013: Graham Farquharson defends Strathcona in Northern Miner interview

Five days after Snowden's bulk sample results were released, Graham Farquharson of Strathcona gave an interview with mining news website Northern Miner wherein he shared more information about Strathcona's conclusions<sup>19</sup>.

In the interview, Farquharson stated that:

- The bulk sample was skewed by the presence of the Cleopatra vein.
- Pretium repeatedly refused to disclose material information (negative sample tower results) to its investors.
- "...they will not have a mine producing 425,000 oz. a year for the next 20 years, as they have been advertising so far".

The implication of this is significant: Farquharson believed there may be far less gold at Brucejack than what Pretium is advertising. [Emphasis added]

<i>The Northern Miner</i>	<i>To start, do you have any comments about the bulk-sample results?</i>
Graham Farquharson	Those results were what we were anticipating: 4,000 oz. gold production from the bulk sample, based on the tower sampling results. It's not any surprise. All the sample rounds that we took out of the development workings and so on — those were up to the grades that would work out to in excess of 4,000 oz. in the bulk sample.
<i>The Northern Miner</i>	<i>If you were in agreement on that, why did you leave the project?</i>
Graham Farquharson	We gave a lengthy letter to Pretium with our reasons for withdrawing. I think some of the lines from that letter were made public. But the main item was that we found the bulk-sample program, which was composed of [underground drilling, underground geological mapping and the results of the sample tower]. <b>The main objective of that was validation of the resource model that Snowden had prepared in November 2012.</b> That was the basis the feasibility study that Pretium did in June of this year, which suggested it was going to a big mine producing 425,000 oz gold a year for the next 10 years, within a 22-year mine life. <b>All that was based on the Snowden model, which had 16 million tonnes with a grade of 16 grams per tonne in the indicated category and a further quantity in the inferred category — and we didn't find that.</b> And Pretium didn't find that — when they did all the underground drilling and geological mapping and the results from the sample tower, and so on — so <b>we told them on several</b>

<sup>19</sup> <http://www.northernminer.com/news/strathconas-farquharson-responds-to-pretiums-bulk-sample-result/1002752061/>



	<p>occasions that they should be alerting the world that the resource model was not panning out. The whole objective of the bulk-sample program was to confirm whether or not the resource model was valid, and we said it wasn't.</p>
The Northern Miner	<p><i>If the resource model had been valid, how many ounces should there have been in the bulk sample? Is it correct to say you believed 4,000 oz. was a low number?</i></p>
Graham Farquharson	<p>Not quite, because what did happen in the bulk-sample program is that <b>a new vein was discovered called the "Cleopatra" vein</b>. It's a narrow vein but high grade, and a different geological occurrence than what was anticipated. <b>The Cleopatra vein is not something that would be mined using bulk-mining methods, at 2,700 tonnes a day and so on. It's high-grade material, but it's a narrow vein that you could only mine at a slow rate.</b> <b>The good grades in that vein do not substantiate or corroborate the initial resource model, which was based on big dimensions, big stopes and the grade of 16 grams per tonne.</b></p>
The Northern Miner	<p><i>So, you don't think there are enough veins similar to Cleopatra to make what happened in the bulk sample normal in terms of a mine at Brucejack?</i></p>
Graham Farquharson	<p>No, because they planned for 16 million tonnes. Which is a lot of tonnes at that high grade of 16 grams per tonne in the indicated category in the resource model. The drilling and the mapping and the bulk sample and so on did not find that.</p>
The Northern Miner	<p><i>Where did the error come from? We know that this is a very heterolithic deposit with lots of nugget effect — do you have an idea of how Snowden came up with those numbers that you think are so incorrect? Is it the nature of the deposit? Is it the methodology that they're using?</i></p>
Graham Farquharson	<p>It's the methodology, and we pointed that out. It's the interpolation method that they use, and of course they disagree with us. <b>The big challenge with that project has always how far do you extract the latent values from the high-grade assays that are scattered throughout the deposit.</b> It's a difficult assignment, knowing how far to extrapolate those spectacular assay results. <b>We told Pretium that, from all the drilling they've done — and it's a heck of a lot of drilling — and with the sample-tower results and so on, none of those come anywhere close to finding a grade of 16 grams per tonne,</b> which is what allows bulk-mining methods.</p>
The Northern Miner	<p><i>One would assume that the overall grade of a bulk sample would be a more comprehensive test than a sample tower, but what you're saying is that the bulk sample happened in this instance to get skewed by the presence of the Cleopatra vein.</i></p>
Graham Farquharson	<p>The [sample tower and bulk sample] will agree in the end, and they agree with the underground drilling that they did and that we agreed on, but it is not representative of the rest.</p>
The Northern Miner	<p><i>If you were suddenly in charge of the project, what would you think is the correct path forward from here? It's obviously an interesting gold occurrence.</i></p>
Graham Farquharson	<p>Yes, and <b>we told them that it has an excellent chance of being a small-tonnage, high-grade mine in the Cleopatra vein, and a couple of other similar occurrences that they found in the last drilling program.</b> If they lined all those up, there's an excellent chance that they could have a small-tonnage, high-grade gold mine. <b>But they will not have a mine producing 425,000 oz. a year for the next 20 years, as they have been advertising so far.</b> We're not saying there's no gold there — this is not Bre-X or anything like that. There is gold there, but <b>the project needs a much different geological model now, based on the work that's been done and the bulk-sample program being different than what they anticipated before they went underground.</b></p>



And they've been slow to accept that, because it does make a big change from what they've been telling the markets. **But we're absolutely convinced that if this is what the results indicate, then you should tell the world.**

As a key takeaway, note that Farquharson does not dispute (and in fact, anticipated) the significant grades obtained in the bulk sample program. The major issue to note that these results cannot be duplicated to the extent advertised, as the Cleopatra vein is non-heterogenous.

## 2.11. 24<sup>th</sup> March 2014: Witness in class action lawsuit agrees with Strathcona's conclusion

In March 2014, a putative class action was filed in federal court in the Southern District of New York alleging that Pretium misrepresented the value and amount of gold in its property. In that document, expert witness Dr. Robert Cameron shared Strathcona's conclusions:

The results (gold content) of the bulk sample were positively skewed by Pretivm in what appears to be an intentional oversampling of the Cleopatra vein. By August 1, 2013 Pretivm announced they were revising the sampling program to increase tonnage along the high grade Cleopatra vein and reduce the quantity of low grade tonnage to the west. These modifications would result in increasing the amount of gold they would be able to announce after processing in the bulk sample in full at the Montana mill.

Despite the fact that the mined results from the sample exceeded expectations from the November 2012 report, Snowden revised both the grade and quantities downward in the bulk sample area in their December 2013 report, so that the resource model does not match the milled results from the bulk sample. Basically, it can be implied that they made adjustments to the resource model because they recognized that gold content of the Bulk Sample was skewed by Cleopatra Vein and the design/execution of the bulk sampling program by Pretium.

The underground drilling direction was used to explain why investors needed to wait for the final milling for any information, yet they would release "good" drilling results completed along strike as significant intercepts. Drilling either along strike or down-dip of a vein is considered unreliable and as potentially misleading to investors in the industry.

*Figures 26, 27 & 28 Yeo et al v. Pretium Resources Inc<sup>20</sup>*

Cameron also took issue with Snowden's use of multiple indicator kriging to model the VOK zone.

42. In the case of the VOK, the data was considered "highly skewed," meaning that high grade mineralization and the majority of the metal were located in less than 5 percent of the data. To address the variances in the data, Snowden separated the lower grade and higher grade populations and then employed an estimation technique known as Multiple Indicator Kriging in order to calculate resource estimates for the VOK as a whole. This statistical methodology is considered non-standard and challenging to apply, and as a result, has been utilized with less frequency in the industry to perform estimates for operating mines.

*Figure 29 Yeo et al v. Pretium Resources Inc*

<sup>20</sup> Case 1:13cv-07552-VSB Document 54 Filed 07/23/14



We believe that the overwhelming evidence against Pretium and Snowden's resource model speaks for itself especially when viewed in the context of Strathcona's resignation.

## 2.12. 19<sup>th</sup> June 2014 – Revised Feasibility Study

Tetra tech releases its Feasibility Study and Technical Report with mineral resource estimates by Snowden using VOK data dated December 2013 and West Zone data dated April 2012.

Table 1.1 VOK Mineral Resource Estimate Based on a Cut-off Grade of 5 g/t AuEq – December 2013<sup>(1)(4)(5)</sup>

Category	Tonnes (million)	Gold (g/t)	Silver (g/t)	Contained <sup>(3)</sup>	
				Gold (Moz)	Silver (Moz)
Measured	2.0	19.3	14.4	1.2	0.9
Indicated	13.4	17.4	14.3	7.5	6.1
M + I	15.3	17.6	14.3	8.7	7.0
Inferred <sup>(2)</sup>	5.9	25.6	20.6	4.9	3.9

Table 1.2 West Zone Mineral Resource Estimate Based on a Cut-off Grade of 5 g/t AuEq – April 2012<sup>(1)(4)(5)</sup>

Category	Tonnes (millions)	Gold (g/t)	Silver (g/t)	Contained <sup>(3)</sup>	
				Gold (Moz)	Silver (Moz)
Measured	2.4	5.85	347	0.5	26.8
Indicated	2.5	5.86	190	0.5	15.1
M+I	4.9	5.85	267	0.9	41.9
Inferred <sup>(2)</sup>	4.0	6.44	82	0.8	10.6

Figures 30 & 31 VOK and West Zone Mineral Resource Estimate<sup>21</sup>

This was the last mineral resource estimate and no mention was made of Strathcona's objection in the document.

Combined measured and indicated resource tonnes increase from **21.0m tonnes to 23.5m** tonnes and grade increases from **13.64g/t to 14.75g/t** from the prior report.

Since the June 2011 mineral resources estimate, measured and indicated grades increased 93%, tonnage increased 451%, and gold contained increased 17%. The majority of this increase occurred within the VOK estimate under Snowden's tenure as mining consultant.

## 2.13. Key Takeaways

Premium clearly wants to communicate Brucejack as a high-grade, high-yield, high-output mine. Strathcona disagreed with management's characterization of the project and Snowden's resource model, which relied upon the high-grade Cleopatra vein to be indicative of the entire mine area. Premium's current valuation is based entirely upon the accuracy of the Snowden resource model.

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*Viceroy's analysis of the mine's feasibility, supported by that of Strathcona, shows management's characterization of the Brucejack mine is heavily flawed.*

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For reasons we will outline below, we believe that Strathcona was correct and that Premium is now dealing with the fallout of using a flawed resource model and having to deliver the corresponding results. Viceroy further believes that management were aware of the aggressive modelling used in the 2014 feasibility study and are now actively attempting to continue the Brucejack illusion for as long as possible.

<sup>21</sup> Mineral Resources Update Technical Report – December 19, 2013 – page 31



### 3. Strategic Minerals and Sima Muroff: SEC-sanctioned individual managed mill to support Snowden's resource model

After Strathcona's resignation, Pretium hired an entity owned and managed by Serofim "Sima" Muroff to handle the testing of its bulk sample program; Muroff was sued by the SEC for misappropriating millions of dollars of investor funds. Our research indicates that Sima Muroff scammed investors and Strategic Minerals does not appear to have a reputable background in testing gold.

Strategic Minerals LLC first appeared in Pretium's October 22, 2013 press release when Strathcona's sample tower results and parts of its resignation letter were released.

Table 1: Cross-cut 426585E Preliminary Mill Results

Tonnes Milled (Dry)	Gold Ounces Gravity Concentrate	Gold Ounces Flotation Concentrate	Gold Ounces Tailings	Total Contained Gold Ounces	Total Contained Silver Ounces
2,167	94	174	13	281	532

Notes: Preliminary mill results are provided by Strategic Minerals LLC, operator of the mill, and are subject to final establishment of weights and assays and settlement.

Figure 32 Cross-cut 426585E Preliminary Mill Results<sup>22</sup>

The company appears again when Pretium released Snowden's bulk sample results on November 22, 2013:

Table 1: Preliminary Mill Results from Processing (at November 20, 2013)

Tonnes Milled (Dry)	Gold Ounces Gravity Concentrate	Gold Ounces Flotation Concentrate	Gold Ounces Tailings	Total Contained Gold Ounces	Total Contained Silver Ounces
8,090	2,542	1,588	85	4,215	3,593

Notes: Preliminary mill results are provided by Strategic Minerals LLC, operator of the mill, and are subject to final establishment of weights and assays and settlement.

Figure 33 Preliminary Mill Results from Processing<sup>23</sup>

To summarize this series of events:

1. Grade results were a disappointing 2.1 g/t
2. Strathcona resigns from the bulk sample program over Pretium's lack of disclosure to the market
3. Strategic Minerals LLC is introduced in the press release as the processing mill
4. Milling results from the same sample are an impressive 16.2 g/t, in line with Snowden's resource model

Strategic Minerals LLC appears to be a company that operated out of Contact Mill and Mining Co's Phillipsburg facility, which is mentioned in the 2014 Montana Mining magazine as processing ore from Brucejack in late 2013.

#### Contact Mining Mill

Contact Mining's mill in Phillipsburg processed Drumlummon's ore until mid-year, and late in 2013, processed custom ore from Montana and a bulk sample from Pretium's Brucejack mine in northern British Columbia.

Figure 34 2014 Montana Mining Magazine<sup>24</sup>

<sup>22</sup> <https://www.pretivm.com/news/news-details/2013/Pretium-Resources-Inc-First-Bulk-Sample-Cross-Cut-Processing-Results/default.aspx>

<sup>23</sup> <https://www.pretivm.com/news/news-details/2013/Pretium-Resources-Inc-Bulk-Sample-Surpasses-Target-of-4000-Ounces-of-Gold-Processing-Continues/default.aspx>

<sup>24</sup> [http://www.montanamining.org/wp-content/uploads/2015/02/2014\\_mining\\_magazine.pdf](http://www.montanamining.org/wp-content/uploads/2015/02/2014_mining_magazine.pdf)



A Freedom of Information Act request to the Department of Labour/Mine Safety and Health Administration uncovered that Serofim "Sima" Muroff owned and ran Strategic Minerals LLC in 2014:

Mine Information	
Effective Date	2/25/2014
Mine ID	24-01648
Mine Name	Contact Concentrator
Mine Location Address	77 Red Mill Road Philipsburg, MT 59858
Mine Location County	Granite
Directions to Mine	1 1/2 mile South of Philipsburg
Phone Number of Mine	(406) 859-3827
Mine Operator Name	Strategic Minerals
Mine Operator Address	77 Red Mill Rd Philipsburg, MT 59858
Type of Commodity (product)	Metal - Gold Ore
Type of Operation	Facility
Mine Health and Safety Information	
Person at Mine in Charge of Health and Safety	
Name	Ryan McDermott
Title	Director of Mining Operations
Email Address	Sima Muroff
Address	Managing Member
P.O. Box 726 Philipsburg, MT 59858	

Figure 35 Strategic Mineral LLC company information

### 3.1. Charges relating to Sima Muroff

On April 28, 2017, the SEC charged Sima Muroff with securities fraud for raising \$140.5M and misappropriating investor funds from his affiliated entities: Blackhawk Manager LLC (**Blackhawk**) and ISR Capital LLC (**ISR**), between 2010 and 2014<sup>25</sup>.

These funds were part of an EB-5 immigrant investor visa program. The funds in these investment vehicles were to be invested in gold mining companies<sup>26</sup>.

Note that Ryan McDermott, Director of Mining Operations in figure 35 above was the senior geologist at ISR and his presence at Strategic Minerals LLC further affirms our view that Muroff used Strategic Minerals for fraudulent purposes.

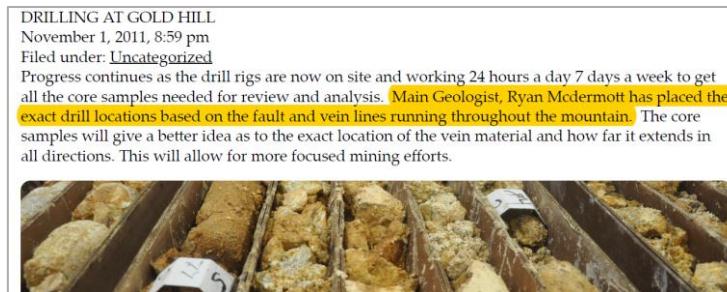


Figure 36 Drilling at Gold Hill – Idaho State Register<sup>27</sup>

This is not the only overlap between Muroff's ISR Capital entity and Strategic materials: several ISR employees were involved in the operation and incorporation of Strategic Minerals.

<sup>25</sup> <https://www.sec.gov/litigation/complaints/2017/comp-pr2017-87.pdf>

<sup>26</sup> From court filings: the Yellowjacket mine, Belshazzar mine, Thunder Mountain mine and the Monarch Mountain mine to name a few

<sup>27</sup> <https://idahostateregionalcenter.wordpress.com/2011/11/01/drilling-at-gold-hill/>

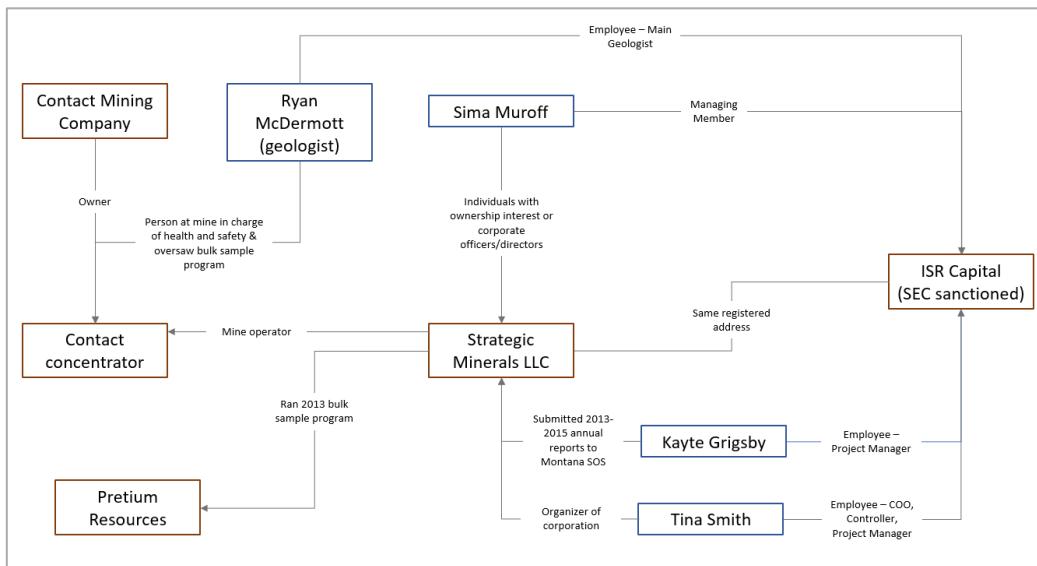


Figure 37 Strategic Minerals LLC links

It is not clear how Muroff and Pretium came into contact but we suspect that the motive for milling at Strategic Minerals was to produce the desired grades from the Brucejack mine bulk sample program.

A person affiliated with the testing facility, Contact Mill & Mining Co., stated in a conversation that it was:

*"...strange that Strategic Minerals insisted they handle the testing themselves. That has never happened before. They also had us sign an NDA."*

Additionally, they stated it was unusual that the Contact Mill & Mining facility was used to process Pretium's >10,000 tonne sample, as their facility specialized in small 500-1,000 tonne samples.

The facts surrounding Strategic Minerals LLC are as follows:

- Strategic Minerals LLC was owned by SEC-sanctioned individual Sima Muroff for the relevant period.
- Strategic Minerals was incorporated and run by employees and management of SEC-sanctioned ISR Capital which raised funds from investors to invest in mining-related companies in Idaho and Montana from 2012 to 2014.
- ISR Capital further invested funds in various equity and derivative products of listed mining operators throughout the time period, however we have been unable to confirm if Pretium was one such investment
- Strategic Minerals LLC operated the Contact Mill Mining and Mill concentrator during late 2013 during which time it processed "...custom ore from Montana and a bulk sample from Pretium's Brucejack mine...".
- Grade results for the Brucejack mine from Strategic Minerals LLC were far higher than those reported by Strathcona's tower sample.

We believe great efforts were to be taken to mask the individual behind Strategic Minerals LLC from Pretium investors. The bulk sample program's results were inferred across the entire project. These results are the basis for Pretium's current market value.

Multi-billion-dollar mining companies do not routinely engage an entity led by an individual who was later charged with fraud, with exceptional consideration to Muroff who further managed a multi-million-dollar investment vehicle – the opportunity for fraud is immense.



### 3.2. Timeline of events – Sima Muroff, ISR Capital & Strategic Minerals

Year	Date	Event
2010	October 28	Pretium acquired the project from Silver Standard. Quartermain served as President of Silver Standard from 1985 to 2010.
	December 21	Sima Muroff is charged with "driving reckless" and "weapon -carry concealed while under the influence."
2012	August 27	Strategic Minerals LLC is formed.
2013	May 31	Sima Muroff is charged with "driving under the influence" and "weapon — carry"
	July 10	Sima Muroff is charged with "drivers license - failed to purchase or invalid."
	September 30	MHSA Legal ID report for Contact Concentrator is updated to reflect Strategic Minerals as the "Mine Operator", Ryan McDermott as the "Person at Mine in Charge of Health and Safety" and Sima Muroff (Managing Member) as the "Individuals with ownership interest or corporate officers/directors as well as Individual principal organization officials or members"
	October 9	Pretium issues a press release highlighting Strathcona's resignation from the bulk sample program.
	October 22	Pretium issues a press release containing results from the first cross cuts of the bulk sample and more information on Strathcona's departure. Strathcona's assay results from the sample tower averaged 2.08 g/t. Strathcona's grade is 87% lower than the 16.4 g/t grade indicated in Snowden's 2012 Resource Report. Strategic Minerals is mentioned for the first time as the "operator of the mill".
	November 22	Pretium issued a press release containing results from Snowden's bulk sample program. The reported grade of 16.2 g/t is nearly 8x better than Strathcona's grade of 2.08 g/t. Strategic Minerals is mentioned again as the "operator of the mill"
	November 27	Graham Farquharson of Strathcona) gives a negative interview in Northern Miner stating "...the Snowden model, which had 16 million tonnes with a grade of 16 grams per tonne in the indicated category and a further quantity in the inferred category — and we didn't find that. And Pretium didn't find that."
	December 12	Pretium issued a press release containing updated results from Snowden's bulk sample program. The reported grade is 17.7 g/t and Strategic Minerals is mentioned again as the "operator of the mill".
2014	January 29	Inspection of Contact Concentrator by the MHSA leads to 12 "significant" citations.
	February 25	MHSA Legal ID report for Contact Concentrator is updated to replace Ryan McDermott with Sima Muroff as the "Person at Mine in Charge of Health and Safety."
	March 24	Class action lawsuit document filed against Pretium with negative expert commentary corroborating Strathcona's views.
	July 4	MHSA Legal ID report for Contact Concentrator is updated to remove Strategic Minerals and Sima Muroff.
2015	April 14	Strategic Minerals files its last annual report with the Montana Secretary of State and is subsequently dissolved.



## 4. Compensatory measures: how Pretium keeps the illusion going

Recent developments and government filings lead us to believe the 2014 feasibility study – in particular the resources model – is not playing out as expected. While Pretium does have access to the high-quality Cleopatra vein, the surrounding rock appears to have a low gold content. Pretium also appears to have trouble with reliably mining high-grade ore.

As at the date of writing, Pretium has been able to compensate for this through:

- Milling development rock
- Almost doubling mine development in order to find higher grade ores
- Narrowing their drill core sample spacings to better define the area.
- Attempting to build a stope inventory by building out mine infrastructure so that more stopes are available.

**Our analysis suggests Pretium is a textbook case of selective grading, substantiated by unsustainable results acquired through selective mining and milling. The obvious incentive to undertake this activity is so that Pretium can refinance its extremely expensive debt book.**

**Due to the complex nature of the following section, below is a summary of its contents.**

Pretium's disclosed tonnage of ore mined and projected ore-to-waste ratios for the relevant period disagree with filings made by the company with the British Columbia mines authority. We have analyzed both sets of figures using three separate methods to calculate the tonnage of excavation implied for the sake of completeness. In all three cases this tonnage far exceeds that claimed by the company to the market.

Given the annual nature of the government filings used, only data for 2017 is available, during which Brucejack operated commercially for roughly half the year. Expert consultants have informed us that excavation from the first half of the year would be stockpiled for the mill. Accordingly, we present two separate tonnages: an annual figure which includes all 2017 excavation, and a pro-rata figure which only includes the excavation from the months Brucejack was in commercial production.

Using the most forgiving (for Pretium) of these calculated tonnages and Pretium's reported gold production, the actual grade of the excavation can be found. Again, due to the two excavation figures mentioned above, this results in two separate calculated grades.

### 4.1. Government documents indicate Pretium is moving approximately double the amount of rock from the underground mine than disclosed to investors,

In its financial filings, Pretium disclosed 552,205 tonnes of ore mined in Q3 and Q4 of 2017. However publicly available environmental filings indicate actual ore excavation of 1,168,456 tonnes, 139% higher.

The Ministry of Energy, Mines and Petroleum Resources, Ministry of Environment and Climate Change Strategy, and Environmental Assessment Office of British Columbia requires mine operators in the province to submit Annual Reclamation Reports (**ARR**).



## Annual Reclamation Reports

Permittees are required to submit annual reclamation reports in compliance with their Mines Act permits and the Health, Safety and Reclamation Code for Mines in British Columbia (Code). The intent of the Annual Reclamation Report is to provide a summary of all activities conducted on the mine property over the previous year. Specifically, the report must outline the following:

- Mine development, including surface disturbance, stripping, stockpiling, disposal and storage of all materials.
- Activities, research and monitoring results associated with the development and implementation of the environmental protection program.
- Activities, research and monitoring results associated with the development and implementation of the reclamation program.

Figure 38 Annual Reclamation Reports – British Columbia website<sup>28</sup>

The Brucejack mine's 2017 ARR<sup>29</sup> details the volume of material displaced at the Brucejack mine in 2017 as 773,000m<sup>3</sup> consisting of 595,000m<sup>3</sup> (1,654,100 tonnes) for development (tunnels and drifts) and 178,000m<sup>3</sup> (494,840 tonnes) for production (stopes).

Excavation within the underground mine during 2017 increased the size of the underground void by approximately 773,000 m<sup>3</sup>. The volume of the underground void was then reduced by approximately 95,500 m<sup>3</sup> through cemented paste backfilling, resulting in a total net underground mine void volume of approximately 1,123,500 m<sup>3</sup> on December 31<sup>st</sup>, 2017.

Figure 39 2017 Brucejack ARR – 2017 Construction and Mining Operations Overview

From these figures we can work out the implied total excavation of the Brucejack mine in 2017. Applying the bulk density factor of 2.78 tonnes per m<sup>3</sup> calculated by ALS Chemex results in 2,148,940 tonnes of excavation in 2017.

### 14.4.2 Bulk Density

A total of 1,038 bulk density measurements were provided by Pretivm, with an average bulk density of 2.78 t/m<sup>3</sup> (Table 14.5). Bulk density measurements were measured from core samples by ALS Minerals, and were used to create a bulk density model for the mineral resource estimate.

Figure 40 Section 14.4.2 – Bulk Density<sup>30</sup>

### Annual Reclamation Report (ARR) figures

Total excavation in 2017 (m <sup>3</sup> )	773,000
Bulk density (t/m <sup>3</sup> )	2.78
Total excavation in 2017 (t)	2,148,940

Figure 41 Viceroy Analysis

This excavation is detailed in part later in the ARR wherein mining and milling production is broken down by month.

<sup>28</sup> <https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/permitting/reclamation-closure/annual-reclamation-reports>

<sup>29</sup> To view Brucejack's filings, visit <https://mines.empr.gov.bc.ca/> and search for "Brucejack"

<sup>30</sup> Technical Report and Resource Estimate on the Brucejack project by P&E Mining Consultants – November 28, 2011 – page 82



Table 2.1-1. Monthly Mining and Milling Production as of December 31<sup>st</sup>, 2017

COMPANY: Pretium Resources Inc.

PERMIT NO.: M-243

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	Mining Production (tonnes)												
NPAG Quarry	330	988	720	1,580	6,612	4,690	14,745	6,472	9,032	644	0	0	45,813
Surface – Waste	784	474	0	0	419	0	697	504	442	56	0	0	3,376
Underground – Waste	22,247	38,648	40,650	17,524	28,685	40,745	47,417	52,517	51,034	47,944	49,525	47,055	483,992
Underground – Ore	41,718	23,412	19,789	33,089	32,019	70,646	79,413	100,229	57,442	68,214	68,330	90,164	684,464
Mining Total	65,079	63,522	61,159	52,193	67,735	116,081	142,272	159,722	117,950	116,858	117,855	137,219	1,217,645
	Milling Production (tonnes)												
Mill Total	0	0	0	0	24,825	70,805	83,667	90,604	86,992	92,201	92,705	86,595	628,394
Milling Capacity (avg tonnes per day)	2,700												

Figure 42 2017 Brucejack ARR Monthly Mining and Milling Production as of December 31<sup>st</sup> 2017<sup>31</sup>

Comparing the mass of “Underground – Ore” to the mass implied by the production stope volume shows a 189,624 tonne shortfall.

Monthly Mining and Milling Production
Underground - ore (t)
Less: Excavation - production
Shortfall from volume calculations

Figure 43 Viceroy Analysis

Pretium’s ARR shows a total mill production of 628,394 tonnes, in excess of the calculated stope tonnage for the year. This implies some development tonnage has been milled. Waste ore was specifically not milled. Using this ARR data, we use three distinct methods to illustrate Pretium’s dramatic understatement of tonnage mined.

The implication on grade is dramatic. In Q3 and Q4, Pretium reported a head grade of 9.4 g/t. Factoring in the undisclosed tonnage would have resulted in a grade of 4.04 g/t and 5.37g/t for the annual and pro-rata grades, respectively. At both these grades, our research indicates the mine is uneconomic and Pretium’s equity value is worthless.

The only way these volume ( $m^3$ ) figures can reconcile to Pretium’s reported tonnage is assuming a much lower and entirely unrealistic bulk density factor ( $t/m^3$ ).

#### 4.1.1. Method A: comparing ARR ore & waste tonnage

Pretium disclosed only 1,168,456 tonnes of underground waste and ore excavation in their 2017 ARR. For clarity, page 88 of the ARR claims that this figure includes development tonnage and is classified as “Underground – Waste”.

Table 2.1-1. Monthly Mining and Milling Production as of December 31 <sup>st</sup> , 2017													
COMPANY: Pretium Resources Inc.	PERMIT NO.: M-243												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	Mining Production (tonnes)												
NPAG Quarry	330	988	720	1,580	6,612	4,690	14,745	6,472	9,032	644	0	0	45,813
Surface – Waste	784	474	0	0	419	0	697	504	442	56	0	0	3,376
Underground – Waste	22,247	38,648	40,650	17,524	28,685	40,745	47,417	52,517	51,034	47,944	49,525	47,055	483,992
Underground – Ore	41,718	23,412	19,789	33,089	32,019	70,646	79,413	100,229	57,442	68,214	68,330	90,164	684,464
Mining Total	65,079	63,522	61,159	52,193	67,735	116,081	142,272	159,722	117,950	116,858	117,855	137,219	1,217,645
	Milling Production (tonnes)												
Mill Total	0	0	0	0	24,825	70,805	83,667	90,604	86,992	92,201	92,705	86,595	628,394
Milling Capacity (avg tonnes per day)	2,700												

Figure 44 2017 Brucejack ARR Monthly Mining and Milling Production as of December 31<sup>st</sup> 2017

Comparing this figure to the calculated excavation mass results in undisclosed ore and waste tonnage of 1,150,544 tonnes, almost doubling the tonnage.

<sup>31</sup> Pretium 2017 Brucejack gold mine Annual Reclamation Report – page 46

<sup>27</sup> Pretium 2017 Brucejack gold mine Annual Reclamation Report – pages 47 & 88



Method A: Total excavation	
Total 2017 excavation from ARR	2,148,940
Reported underground ore + waste tonnage	1,168,456
Unreported ore + waste tonnage	980,484
Ratio of calculated ARR excavation to reported excavation	184%

Figure 45 Viceroy Analysis

#### 4.1.2. Method B: comparing company ratio of waste to ore mined to ARR tonnage

In its Q4 2017 press release, Pretium disclosed 552,205 tonnes of ore mined in Q3 & Q4 2017.

Mining
During the six months ended December 31, 2017, 552,205 tonnes of ore were mined, equivalent to a mining rate of 3,001 tonnes per day.

Figure 46 PRETIVM REPORTS FOURTH QUARTER AND YEAR END 2017 RESULTS<sup>32</sup>

According to the June 2014 feasibility study update, Pretium expected to mine 839,000 tonnes of ore and 303,000 tonnes of waste in year 1, for a 36.11% ratio of waste-to-ore tonnage.

Table 16.5 LOM Backfilling – Waste Rock and Mill Tailings							
Year	Ore Tonnes ('000 t)	Total Tailings ('000 t)	Waste Tonnes ('000 t)	Waste Fill Volume ('000 m³)	Paste Fill Volume ('000 m³)	Tailings Underground ('000 t)	Waste to Surface ('000 t)
-2	0	0	324	0	0	0	324
-1	81	0	343	0	0	0	343
1	839	876	303	0	332	471	303

Figure 47 Table 16.5 LOM Backfilling – Waste Rock and Mill Tailings<sup>33</sup>

Applying this 36.11% to the 552,205 tonnes of ore mined results in 199,426 tonnes of waste mined and 751,631 tonnes of total material mined. Total excavation implied by the ARR is 2,148,940 tonnes, 286% higher than what was disclosed to stakeholders.

Method B: Ore mined	
Reported ore mined	552,205
Year 1 ratio of waste to ore: planned	36%
Implied waste mined	198,794
Total material mined	750,999
Total 2017 excavation from ARR	2,148,940
Undisclosed excavation	1,397,941
Ratio of calculated ARR excavation to reported excavation	286%

Figure 48 Viceroy Analysis

Investors should note that the June 26, 2013 Feasibility Study has a far more accurate expected waste rock estimate but a far lower ore yield<sup>34</sup>.

<sup>32</sup> <https://www.pretivm.com/news/news-details/2018/Pretivm-Reports-Fourth-Quarter-and-Year-End-2017-Results/default.aspx>

<sup>33</sup> Feasibility Study and Technical Report Update on the Brucejack Project, Stewart, BC by Tetra Tech – June 19, 2014 – page 186

<sup>34</sup> Feasibility Study and Technical Report on the Brucejack Project, Stewart, BC by Tetra Tech – June 21, 2013 – page 232



### 4.1.3. Method C: comparing company ore and ARR waste tonnage

In the Q4 2017 press release referenced in Method B above Pretium disclosed 552,205 tonnes of ore mined in 2017. In the ARR Pretium disclosed 483,992 tonnes of waste in 2017. The sum of ore and waste gets us to 1,036,196 tonnes of material mined. However, total excavation implied by the ARR is 2,148,940 tonnes, over 2x higher than what was disclosed to the street.

Method C: Waste mined from ARR	
Reported ore mined	552,205
Waste mined from ARR	483,992
Total mineral mined	1,036,197
Total 2017 excavation from ARR	2,148,940
Undisclosed ore + waste tonnage	1,112,743
Ratio of calculated ARR excavation to reported excavation	207%

Figure 49 Viceroy Analysis

### 4.2. Implication on grade

To be conservative, we use the lowest of our 3 methods (Method A) to determine the implication on grade. The results are incredibly negative for Pretium's grade. Below we solve for grade in grams per tonne. We have completed two sets of calculations: pro-rata excavation which excludes ore mined and gold production for Q1 and Q2 2017 and a full-year excavation.

We have done this as we believe Pretium was conducting assays and selectively milling for the full-year 2017 but believe had we not included pro-rata figures the company would use this as a basis to discredit this report.

#### 4.2.1. Numerator

Pro-rata	Full-year
Pretium reported production of 152,484 oz of gold in Q3 and Q4. Applying a 96.2% recovery rate <sup>35</sup> results in 158,507 oz or 4,930,131g of gold at the mill for the pro-rata calculation.	Pretium reported production of 152,484 oz of gold in Q3 and Q4 and 8,510 oz produced in the pre-commercial production period. Applying a 96.2% recovery rate results in 160,994 oz or 5,007,474g of gold at the mill for the pro-rata calculation.

#### 4.2.2. Denominator

Pro-rata	Full-year
Total Q3 and Q4 excavation implied by the ARR is 1,396,811 tonnes. Applying the 36.11% waste-to-ore ratio results in full year ore excavation of 892,361 tonnes. Adding the full-year change in Pretium's 2017 Q3 and Q4 stockpiles of 58,868 tonnes results in total ore excavation of 951,229 tonnes. Applying a 96.47% of mined ore milled as was the case in 2017 according to the financial filings, ore milled would have been 917,697 tonnes.	Total full-year excavation implied by the ARR is 2,148,940 tonnes. Applying the 36.11% waste-to-ore ratio results in full year ore excavation of 1,372,863 tonnes. Adding the full-year change in Pretium's 2017 stockpiles of -36,262 tonnes results in total ore excavation of 1,336,601 tonnes. Applying a 96.47% of mined ore milled as was the case in 2017 according to the financial filings, ore milled would have been 1,289,485 tonnes.

#### 4.2.3. Results Summary

This is substantially lower than 9.4 g/t Pretium reported to the street implying a pro-rata grade of 5.37 g/t and a full year grade 4.04 g/t. If Pretium disclosed their tonnage in line with what is coming out of the ground, Pretium would be reconciling at 25% - 33%, significantly below the 2012 proven and probable grade of 16.4 g/t.

<sup>35</sup> <https://www.pretivm.com/news/news-details/2018/Pretivm-Reports-Fourth-Quarter-and-Year-End-2017-Results/default.aspx>



<b>Implication on tonnage</b>		<b>Pro-rata</b>	<b>Full year</b>
<b>Tonnage</b>			
Gold production (oz t)	152,484	160,994	
Recovery rate	96.20%	96.20%	
Gold at mill (oz t)	158,507	167,353	
Grams per oz	31.10348	31.10348	
Gold at mill (g)	4,930,127	5,205,274	
Ore mined: financials	552,205	552,205	
Ore milled: financials	532,763	532,763	
% of mined ore milled	96.5%	96.5%	
<b>Implication on grade of ARR excavation (including development)</b>			
% of yearly excavation tonnes	65%	100%	
Excavation: Q3 & Q4	1,396,811	2,148,940	
% Year 1 waste-to-ore: planned	36.11%	36.11%	
Ore excavation: Q3 & Q4	892,361	1,372,863	
add: stockpiles at period end	161,738	161,738	
less: stockpiles at period start	102,870	198,000	
Ore excavation: Q3 and Q4 net of stockpiles	951,229	1,336,601	
Ore milled: financials	532,763	532,763	
<b>Implied % of mined ore milled from ARR excavation</b>	<b>56%</b>	<b>40%</b>	
% reported ore milled: reported	96%	96%	
Ore milled if reported % of ore milled applied to ARR excavation	917,697	1,289,485	
<b>Calculated grade (g/t)</b>	<b>5.37</b>	<b>4.04</b>	
Head grade: reported (g/t)	9.40	9.40	
<b>% overstatement</b>	<b>75%</b>	<b>133%</b>	
Reserve Proven-and-Probable grade (g/t)	16.10	16.10	
% overstatement on LOM grade	200%	299%	

Figure 50 Viceroy Analysis

#### 4.3. Implication on tonnage

In their financial filings, Pretium disclosed 552,205 tonnes of ore mined in 2017. Our math above calculated 1,168,456 tonnes of ore mined in 2017 as per the ARR, and 759,496 tonnes on a pro-rata basis. This results in 616,251 tonnes of undisclosed ore excavation and 207,291 tonnes on a pro-rata basis. Pretium appears to be pulling far more rock out of the ground than they are disclosing to investors

<b>Implication on tonnage (including development)</b>		<b>Pro-rata</b>	<b>Full year</b>
Ore mined: financials	552,205	552,205	
Ore excavation in Q3 and Q4: ARR	759,496	1,168,456	
Undisclosed ore excavation	207,291	616,251	
% undisclosed	27%	53%	
As multiple of ore mined: financials	1.38	2.12	

Figure 51 Viceroy Analysis

Taking substantially more rock out of the ground in search of gold might signal far less gold underground than what was originally planned.

#### 4.4. Counting Stopes: Pretium is developing the mine at a far quicker rate than anticipated.

All the evidence above leads us to believe that Pretium is selectively mining high-grade stopes. We believe it is doing so by developing the mine a far higher rate than the rate projected by the 2014 feasibility study, frantically searching for small, high grade deposits.



In its Q4 2017 announcement Pretium released its lowest head grade yet, and less gold produced than forecast. According to the company this was due to operational issues regarding high-grade stopes and equipment breakdowns. In response Pretium announced increases in stope inventory and development rate, budgeting for a development rate of 700m/mo.

During the fourth quarter, gold production was lower than expected as higher-grade stopes scheduled to be mined in December encountered operational issues (equipment down-time and mining execution), that prevented them from being mined and delivering higher grade ore to the mill. Both long-hole drills went down and the stopes could not be drilled off in time. Mining also encountered a hang-up when blasting a long-hole slot. These issues, combined with the limited stope inventory (no other high-grade stopes were accessible in the quarter) contributed to the lower than expected gold production.

Pretivm has taken a number of steps to address these operational issues. To improve access and build stope inventory, the rate of underground development has been increased to 700 meters per month for 2018, up from the 420 meters originally contemplated in the Brucejack Feasibility Study. In addition, a third long-hole drill is now on site to provide back-up and contribute to the build-up of stope inventory.

During the third and fourth quarter of 2017, two sills were established to open up two mining horizons for 2018, the 1200-meter Level to the 1320-meter Level and the 1320-meter Level to the 1440-meter Level. With the continued extension of the mining levels to the east and west within the two mining horizons and the increase in rate of development, stope inventory is expected to increase to 10 to 12 stopes with a range of grades by mid-year 2018. The availability of stopes representing a range of grades, including multiple higher grade stopes, will allow mining operations to optimize stope blending and provide alternative stopes with comparable grades for mining if required. The increased stope inventory is expected to improve the management of production grades as the ramp-up continues.

Figure 39 Pretivm Reports Fourth Quarter and Year End 2017 Results

Page 191 of the feasibility study projects an average development rate of 605m/mo and an average rate of 460m/mo in years 1 and 2 respectively. Ongoing development to sustain 2700 tonnes per day of ore production was forecast as 420m/mo for the first 12 years of mine operation.

A pre-production development program that attains approximately 600 m/mo of advance will be required to establish the mine infrastructure and provide access to the initial stoning levels during the first two years of underground activity. Ongoing development to sustain 2,700 t/d of ore production will average approximately 420 m/mo during the first 12 years of production, and will decrease considerably in the latter years of mine life following completion of West Zone infrastructure development.

12,728 lateral meters and 947 vertical meters is planned in the first 24 months. Up to 627 m/mo of development advance will be required at the peak activity level with an average rate of 460 m/mo and 605 m/mo in years -2 and -1 respectively.

Figures 52 & 53 Section 16.4.2 Pre-production Development<sup>36</sup>

This was confirmed in the Q1 2018 earnings release showing the development rate had at times exceeded 800m/mo during this period.

Brucejack Feasibility Study. The development rate increase began in January and has exceeded 800 meters per month during the quarter; however, we expect to average 700 meters per month over the course of 2018. A third long-hole drill is now on site to support development and provide

Figure 54 Pretivm Reports First Quarter 2018 Results<sup>37</sup>

This was continued in Q2 2018 with a development rate of 700m/mo.

According to Pretium's presentation at the 2014 Vancouver Resource Investment Conference, Pretium's average stope is 15m wide by 28m long and according to page 182 of the feasibility study, the average stope is 30m high. Therefore, the average stope should have a dimension of 10,313 m<sup>3</sup>. At a density factor of 2.78 tonnes per m<sup>3</sup>, the average stope mass is 35,028 t.

<sup>36</sup> Feasibility Study and Technical Report Update on the Brucejack Project, Stewart, BC by Tetra Tech – June 19, 2014 – page 188

<sup>37</sup> <https://www.pretivm.com/news/news-details/2018/Pretivm-Reports-First-Quarter-2018-Results/default.aspx>



Pretium's mill permit calls for a maximum of 2,700 tonnes per day or 985,500 tonnes per year. At an average stope mass of 35,028 tonnes, it implies Pretium would require 39.6 stopes per year to reach the current maximum mill permit. In the past year, Pretium already exceeded its mill permit by 4.6%.

*Figure 55 Viceroy Analysis*

Despite this, Pretium called for a target stope inventory of 10-12 stopes by mid-2018. Note that stopes in inventory refers to stopes accessible with existing mine infrastructure: otherwise Pretium would be showing a blowout of ore mined relative to ore milled.

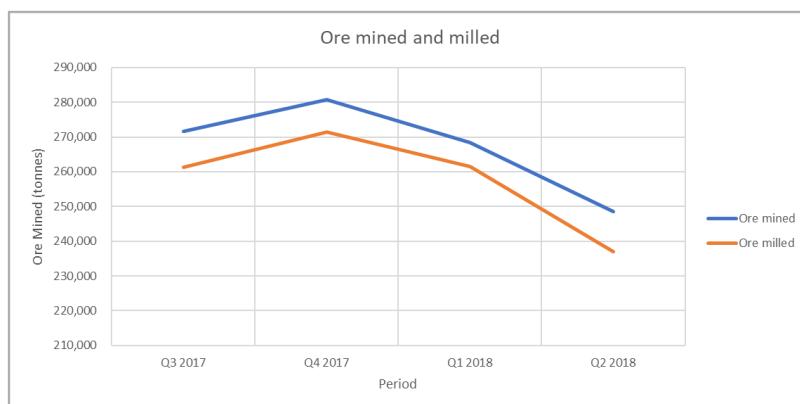
- ✓ Underground development rate increased to 700 meters per month
- Target 10-12 stopes for mining by mid-2018

Figure 56 Q4 and Year-End 2017 Conference Call slides<sup>38</sup>

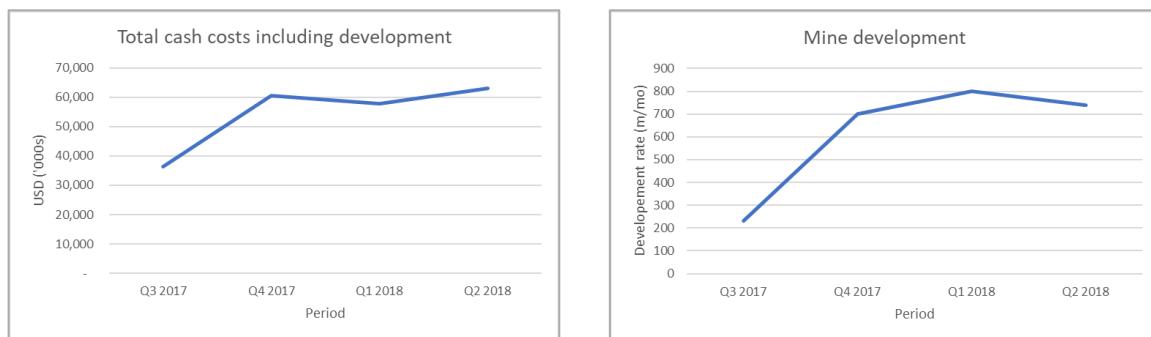
Our interpretation of events is as follows. Pretrium is following the feasibility study based around the Snowden resources model yielding middling grade results. In Q4 2017 the company loses the high-grade vein resulting in having to mine the surrounding mass resulting in its lowest grades yet.

What follows is a massive rush to develop the Brucejack mine's underground infrastructure to build up a stope inventory far beyond what can be processed under the company's current permit. We believe Pretium intends to deliver grade results expected by the street based on Snowden's wildly optimistic resource model and can only achieve this by mining and milling only the highest-grade deposits.

This is evident when comparing all the above variables.



<sup>38</sup> [https://s1.q4cdn.com/222336918/files/doc\\_financials/2017/q4/Premium-Resources-Q4-2017-Conference-Call-Mar-9-2018.pdf](https://s1.q4cdn.com/222336918/files/doc_financials/2017/q4/Premium-Resources-Q4-2017-Conference-Call-Mar-9-2018.pdf)



#### 4.5. Sudden grade control program and narrower drill spacing

On June 4, 2015 Pretium reported the initial results of its underground infill drilling program, the purpose of which was to optimize stope definition by obtaining drill samples from the mine. According to the release, the drill hole centers would be spaced approximately 10m apart for years 1 to 3 of the mine plan.

Hole VU-416 was drilled from the 1320-meter level as part of the first fan of infill drilling targeting the stope areas for years 1-3 of the current mine plan for the Valley of the Kings. The infill drill program will comprise approximately 40,000 meters of fan drilling from three drill stations with drill holes centres spaced at approximately 10 meters vertically and horizontally.

Figure 57 Valley of the Kings Underground Infill Drilling Underway<sup>39</sup>

This drill spacing was consistent in Pretium releases about the infill drilling program until March 8, 2016 when the spacing was stated as “7.5 to 10-meter[s]” apart. This implies the spacing was not adequate to provide a definition of the deposit or that the deposit formed no continuous mass.

progress and is expected to be completed in the second-quarter of 2016. When completed, roughly 200 vertical meters over a strike length of 250 meters will have been drilled at 7.5 to 10-meter centers. Assay results from drilling will continue to be reported as they are received.

Figure 58 Valley of the Kings Infill Drilling Continues

This spacing was reduced again following poor Q4 2017 results to “5 to 7-meter centers”

#### Reverse Circulation Drilling for Stope Definition

- Underway
- Infill drilling to 5 to 7-meter centers
- Replaces planned infill diamond drilling
- Lower cost, quicker, and bigger sample size than diamond drilling

Figure 59 Pretium Resources Q4 and year-end 2017 Conference Call Presentation<sup>40</sup>

The tightening of drill core spacings becomes apparent when reviewing the results of the program. See the image below.

<sup>39</sup> [https://s1.q4cdn.com/222336918/files/Press%20Releases/NR-2015-06-04\\_v001\\_i305md.pdf](https://s1.q4cdn.com/222336918/files/Press%20Releases/NR-2015-06-04_v001_i305md.pdf)

<sup>40</sup> [https://s1.q4cdn.com/222336918/files/doc\\_financials/2017/q4/Pretium-Resources-Q4-2017-Conference-Call-Mar-9-2018.pdf](https://s1.q4cdn.com/222336918/files/doc_financials/2017/q4/Pretium-Resources-Q4-2017-Conference-Call-Mar-9-2018.pdf)



MARCH 8, 2016 UNDERGROUND DRILLING RESULTS:  
SECTION VIEW - 15M WIDE: 1320 DRILL BAY, AZIMUTH 189

PRETIVM

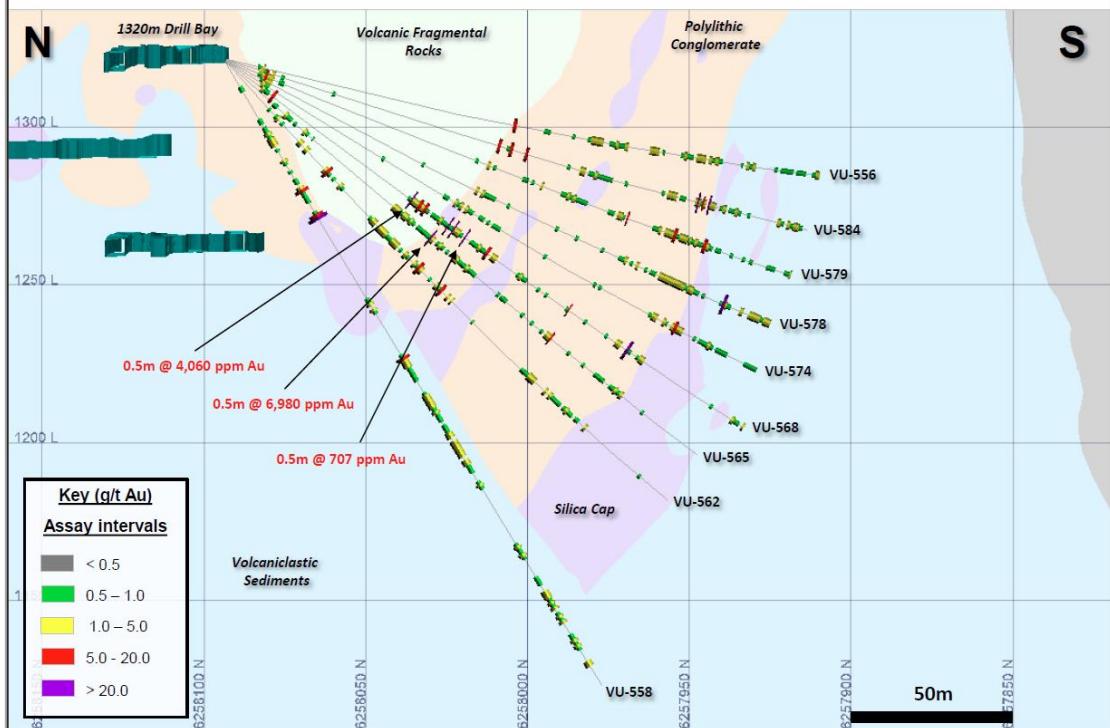


Figure 60 March 8, 2016 drilling results

The sections in purple and red are gold grades above 20 g/t and 5 g/t respectively. Unfortunately for Pretium there is no discernible continuous body of high-grade ore in the majority of its drilling results. This is a reality that reared its head during Q4 2017: not only were previous infill drilling programs insufficient to map the ore body, but there may not be a large continuous ore body in the first place.

Section views of Pretium's underground drilling results are appended to each of the company's press releases about the drilling program. We encourage readers to review the data for themselves for a better understanding of how scattered the deposit actually is.

This corroborates our view of the increased pace of development to reach economically viable ore, as well as the company's newfound focus for amassing more stope inventory than can be currently mined.

#### 4.6. Explosives consumption rates tell a similar story

According to page 218 of the June 2014 feasibility study update:

**EXPLOSIVES VEHICLES**

At full production, explosives consumption is estimated to be 2.7 t/d of bulk emulsion. This will be delivered to the mine in six custom-made ISO tanks, each with a capacity of 6,000 L or 7 t. A boom truck will transport the full tanks to the emulsion bays. Two

Figure 61 Explosives Vehicles<sup>41</sup>

On page 90 the 2017 ARR states "Explosives use from January through December totaled 1,032,863 kg for development blasting and 346,206 kg for longhole Blasting".

<sup>41</sup> Feasibility Study and Technical Report Update on the Brucejack Project, Stewart, BC by Tetra Tech – June 19, 2014 – page 218



development and long hole blasting. Explosives use from January through December totaled 1,032,863 kg for development blasting and 346,206 kg for longhole blasting. This quantity of explosive contains 340,630 kg of T-N distributed almost equally as NH<sub>3</sub> and NO<sub>3</sub>.

Figure 62 4.5.2.2 Underground Mine Water<sup>42</sup>

This equates to 40% more than was anticipated by the feasibility study.

Explosive use	
Development blasting explosive use (tonnes)	1,033
Longhole blasting explosive use (tonnes)	346
Total explosive use (tonnes)	1,379
Daily explosive use (tonnes/day)	3.78
Explosive use estimate (tonnes/day)	2.70
% explosive over estimate	39.94%

Figure 63 Viceroy Analysis

This increase in explosive use is consistent with Viceroy's overproduction thesis.

#### 4.7. Waste rock blowouts not consistent with feasibility study

According to page 313 of the June 2014 feasibility study update:

##### 18.11 WASTE ROCK DISPOSAL

It is anticipated that waste rock generated from construction of the mine site and general mining activities will be disposed of in Brucejack Lake. Waste rock not disposed of in the

Figure 64 Section 18.11 Waste Disposal<sup>43</sup>

Year 1 waste tonnage was expected to be 303,000 tonnes according to pg. 186 of the feasibility study.

Table 16.5 LOM Backfilling – Waste Rock and Mill Tailings							
Year	Ore Tonnes ('000 t)	Total Tailings ('000 t)	Waste Tonnes ('000 t)	Waste Fill Volume ('000 m <sup>3</sup> )	Paste Fill Volume ('000 m <sup>3</sup> )	Tailings Underground ('000 t)	Waste to Surface ('000 t)
-2	0	0	324	0	0	0	324
-1	81	0	343	0	0	0	343
1	839	876	303	0	332	471	303

Figure 65 Table 16.5 LOM Backfilling – Waste Rock and Mill Tailings

According to the ARR, 172,854 m<sup>3</sup> of underground rock was deposited into the lake in 2017. At a density factor of 2.78 t/m<sup>3</sup>, this works out to 480,534 tonnes of waste rock. This implies that Pretium has deposited 44.9% more waste rock into Brucejack Lake than total waste generated in year 1. This does not account for any waste used to backfill stopes.

Waste rock	
ARR waste rock volume (m <sup>3</sup> )	172,854
Density (tonnes/m <sup>3</sup> )	2.78
ARR waste rock (tonnes)	480,534
Expected waste rock (tonnes)	303,000
% waste rock over estimate	59%

Figure 66 Viceroy Analysis

<sup>42</sup> Pretium 2017 Brucejack gold mine Annual Reclamation Report – page 90

<sup>43</sup> Feasibility Study and Technical Report Update on the Brucejack Project, Stewart, BC by Tetra Tech – June 19, 2014 – page 313



The table in figure 66 shows us that Pretium was expecting a 36% ratio of waste-to-ore in year 1. However, the ARR illustrated something very different in 2017. The ARR showed 483,991 tonnes of waste and 684,465 tonnes of ore, amounting to 71%.

Investors should note that the June 26, 2013 feasibility study has a far more accurate expected waste rock estimate but a far lower ore yield.

Table 16.5 LOM Backfilling – Waste Rock and Mill Tailings							
Year	Ore Tonnes ('000 t)	Total Tailings ('000 t)	Waste Tonnes ('000 t)	Waste Fill Volume (m³)	Paste Fill Volume (m³)	Tailings Underground ('000 t)	Waste to Surface ('000 t)
-2	5	-	575	-	-	-	575
-1	241	-	492	-	-	-	492
1	566	771	442	6,000	192,000	272	430

Figure 67 Table 16.5 LOM Backfilling – Waste Rock and Mill Tailings<sup>44</sup>

Bad ore as waste	
Year 1 waste tonnes: planned	303,000
Year 1 ore tonnes: planned	839,000
Year 1 ratio of waste to ore: planned	36%
2017 waste tonnes: ARR	483,991
2017 ore tonnes: ARR	684,465
2017 ratio of waste to ore: reported to gov't	71%
Difference %	96%

Figure 68 Viceroy Analysis

Why is Pretium generating far more waste relative to ore than originally planned? Planning for a 36% waste to ore ratio and then executing at a 71 % ratio is almost a 2x increase in relative waste production.

Is Pretium having trouble finding viable ore and then classifying the result as waste?

#### 4.8. Key Takeaways

There are several discrepancies between the figures Pretium has disclosed to the market and those found in its environmental reports.

Pretium is also far ahead of its development schedule for underground works, attributable to a weak Q4 2017 grade, and is now at roughly double the 2014 feasibility study development rate. We believe the company is trying to deliver the results projected by the Snowden resource model by selectively mining high-grade stopes through unsustainably accelerated mine development.

Obviously, this practice would be entirely unsustainable, however it does play to Pretium's benefit in the short term given we believe they are actively trying to refinance their high-interest loan book.

<sup>44</sup> Feasibility Study and Technical Report on the Brucejack Project, Stewart, BC by Tetra Tech – June 21, 2013 – page 232



## 5. Robert Quartermain: Same jockey, different horse

Robert Quartermain's (Pretium's founder and chairman) only mine operating experience resulted in a ~53% reserve cut and earlier than planned shutdown at Pirquitas, an Argentinian silver mine owned by Silver Standard Resources.

Quartermain served as the President of Silver Standard Resources (now SSR Mining) from 1985 - 2010 and as CEO from 2004 - 2010.

Robert Quartermain is generally regarded as the architect of Silver Standard and now Pretium. His management team at Pretium include the President/CEO Joe Ovsenek, CFO Tom Yip, VP/Chief Exploration Officer Kenneth McNaughton, and Chief Geologist Warwick Board. All worked directly with Quartermain at Silver Standard. This is a concerning overlap of "talent" when considering the issues experienced at Pirquitas.

In June 2009, Silver Standard forecasted that Pirquitas would produce 6m oz of silver in 2009 and 10m oz of silver per year for the next 14 years. In 2010, the year Quartermain left Silver Standard, Pirquitas produced 6.3m oz of silver, almost 40% below his forecast. Furthermore, the open pit operation at Pirquitas was completely shut down in January 2017, approximately six years earlier than Quartermain's forecast.

### 5.1. Pirquitas: Don't get your hopes up

On June 27, 2002 Silver Standard acquired a 43.4% interest in Pirquitas, an Argentinian silver project. The remaining stake was acquired on October 20, 2004. The decision to produce at Pirquitas was made on October 18, 2006 off the back of 2 feasibility study updates in April 2006. What followed was a series of press releases that doubled the mine's reserve over the space of less than a year.

<b>November 26, 2007</b>	Silver Standard announced it had increased Pirquitas' reserves by 27% from 107.1m ag oz to 136m ag oz.
<b>May 14, 2014</b>	Silver Standard announced it had increased Pirquitas' silver reserves by 43% from 136m ag oz to 195.1m ag oz.
<b>September 29, 2008</b>	2008 Silver Standard announced it had increased Pirquitas' silver reserves by 13% from 195.1m ag oz to 221.2m ag oz.

In total from November 26, 2007 to September 29, 2008 Pirquitas' silver reserves had increased 106%.

Table 3-3: Pirquitas Mineral Resources – May 2008

Class	Tonnes (million)	Silver (g/tonne)	Tin (%)	Zinc (%)	Contained Silver (oz. in millions)
<b>Measured</b>	15.1	152.8	0.20	0.69	<b>74.2</b>
<b>Indicated *</b>	30.1	152.1	0.16	0.82	<b>147.0</b>
<b>Total M&amp;I</b>	<b>45.2</b>	<b>152.3</b>	<b>0.17</b>	<b>0.78</b>	<b>221.2</b>
<b>Inferred</b>	2.4	247.8	0.07	0.78	<b>18.8</b>

\* includes 400,000 tonnes of jig tails from prior mining operations

Figure 69 Silver Standard Increases Pirquitas Reserves by 27% and Updates Capex<sup>45</sup>

After many issues, Silver Standard's Q3 2011 earnings release revised this estimate downward, reporting a new estimate of 172.6m oz of contained silver:

<sup>45</sup> <http://www.marketwired.com/press-release/silver-standard-increases-pirquitas-reserves-by-27-and-updates-capex-tsx-sso-795974.htm>



Table 1-1 Mineral Resources Estimate for the Pirquitas Property, as of September 30, 2011

Cut-off Ag (g/t)	Resource Category	Tonnes (Mt)	Ag (g/t)	Zn (%)	Sn (%)	Contained Ag (Moz)	Contained Zn (Mlbs)	Contained Sn (Mlbs)
<b>Resource</b>								
40	Measured	15.3	143.4	0.50	0.23	70.5	167.2	76.9
50		13.5	156.2	0.49	0.24	68.0	144.9	72.2
60		11.9	169.7	0.48	0.25	65.2	126.1	67.0
40	Indicated	19.3	127.0	0.89	0.19	79.0	380.7	78.9
50		16.3	142.3	0.91	0.20	74.6	328.4	70.3
60		13.9	157.4	0.93	0.21	70.4	283.8	63.1

Figure 70 Table 1-1 Mineral Resources Estimate for the Pirquitas Property, as of September 30, 2011<sup>46</sup>

Reserves were reduced by 53% and reserves and resources were reduced by 28%.

Exhibit 2. Pirquitas Reserves and Resources: Now And Then					
Classification	Tonnage (Mt)	Ag Grade (g/t)	Zn Grade (%)	Contained Ag (Moz)	Contained Zn (Mlbs)
<b>Current: 2011</b>					
Reserves	16.7	173.7	0.71	93.1	262.6
M&I (Excluding Reserves)	16.1	110.8	0.87	57.0	308.8
Inferred	7.0	99.8	2.3	22.5	360.1
<b>Previous: 2008</b>					
Reserves	30.4	199.6	0.82	195.1	549.6
M&I (Excluding Reserves)	14.8	55.2	0.70	26.1	227.7
Inferred	2.4	247.8	0.78	18.8	41.3
<b>Variance: 2011 vs. 2008</b>					
Reserves	(13.7)	(25.9)	(0.1)	(102.0)	(287.0)
M&I (Excluding Reserves)	1.3	55.6	0.2	30.9	81.1
Inferred	4.6	(148.0)	1.5	3.7	318.8
Total Reserves and Resources	(7.8)			(67.4)	113.0

Source: Company reports and CIBC World Markets Inc.

Figure 71 CIBC Analyst Report Extract

A CIBC analyst at the time wrote that these changes dropped the NPV of the Pirquitas mine from \$1.7b to \$1b, a 41% reduction. According to Reuters:

Late on Wednesday, Silver Standard reduced the proven and probably reserve estimate at the Pirquitas mine by 52 percent to 93.1 million ounces of contained silver. That compared with proven and probable reserves of 195.1 million ounces reported in a 2008 technical report.

Silver Standard blamed the reduction on a geological reinterpretation that lowered the amount of recoverable silver, along with higher operating costs.

Figure 72 UPDATE 2-Silver Standard shares plunge on reserve cut<sup>47</sup>

The parallels between Silver Standard and Pretium are very interesting: a controversial geological interpretation during the bulk sample program and higher operating costs being experienced today.

We believe Quartermain was effectively "fired" from Silver Standard. In a 2010 interview, he:

- Admits to having a difference of opinion with the board,
- Admits the board and he "agreed" it was time for him to step down,
- Spoke (surprisingly) negatively of his replacement, John Smith.

An excerpt from the interview including Quartermain's Parthian shot at his successor.

<sup>46</sup> Technical Report on the Pirquitas Mine, December 23, 2011 – page 18

<sup>47</sup> <https://af.reuters.com/article/metalsNews/idAFNL3E7MA0XP20111110>



**Bob Quartermain:** What I can say is that the board of directors and I agreed it would be an appropriate time for me to step down. The board at the time was made up of eight directors, of which I was only one, and as a company develops, sometimes there can be a difference of opinion as to how best to proceed. Many of the board members are engineers, and I, of course, am a geologist, so we got to a point where the board wanted new leadership.

Now, I think it's fair to say that the board has taken its time to find a new president, since they decided to go outside of current senior management. I see they have appointed a new president, a Mr. John Smith, who has a Commerce degree and comes from BHP. It will be interesting to see whether or not Mr. Smith can keep the kind of momentum that Silver Standard has had in the past and needs going forward, as it is a development company and has only one startup operation at this time, the Pirquitas mine in Argentina. So we have some time to see whether or not the board was right in its determination to seek new leadership.

Figure 73 Casey Research – Robert Quartermain interview extract<sup>48</sup>

When asked about Quartermain a senior management team member at Silver Standard said the following:

"It took us a few years to fix what he did."

"Robert did not leave us with any cash. The balance sheet was in rough shape and we needed capital."

"The modelling and mathematics they used was very aggressive."

"When the issues at Pirquitas became apparent and he left, he said 'I have no idea how anyone is going to let me run another mine again'"

Pirquitas may have been just one of a portfolio of assets at Silver Standard however it was the only asset that Silver Standard chose to actively operate during Quartermain's tenure.

Therefore, by investing in Pretium, one is backing a management team whose only operating experience resulted in a ~53% reserve reduction.

Name	Premium position	Silver Standard position	Date left Silver Standard
Robert A. Quartermain	Executive Chairman	President	January 19, 2010
George Paspalas	Lead Director	Chief Operating Officer	January 7, 2011
Joseph J. Ovsenek	President, Chief Executive Officer and Director	Senior Vice President Corporate Development	February 15 2011
Tom S.Q. Yip	Executive Vice President and Chief Financial Officer	Chief Financial Officer	August 31, 2011
Michelle Romero	Executive Vice President, Corporate Affairs and Sustainability	Communications Director	February, 2011
Kenneth C. McNaughton	Vice President and Chief Exploration Officer	Senior Vice President, Exploration	February 15, 2011
Warwick Board	Vice President, Geology and Chief Geologist	Senior Resource Geologist	July, 2012
Kevin Torpy	General Manager, Brucejack Mine	Project Mine Engineer	October, 2011

Of note are the twin presences of:

▪ **Kenneth "Ken" McNaughton**

Currently Vice President and Chief Exploration Officer at Premium<sup>49</sup>, McNaughton held a similar role at Silver Standard, Senior Vice President of Exploration. McNaughton was listed as the Qualified Person for exploration in the announcement of Pirquitas' reserve increases.

<sup>48</sup> <https://www.caseyresearch.com/whats-next-bob-quartermain/>

<sup>49</sup> <https://www.pretivm.com/corporate/management/default.aspx>



- **James McCrea**

Geologist and Qualified Person responsible for mineral resources at the Pirquitas Mine, McCrea also contributed significantly to the work done on the Brucejack area while it was still owned by Silver Standard under the name Snowfield. His work is heavily cited in the Brucejack mine technical reports.

Paul MacRae, P.Eng., Project Manager, Pirquitas, Silver Standard Resources Inc. (Silver Standard), is the Qualified Person responsible for process plant and infrastructure, capital and operating costs and proven and probable reserves; James McCrea, P.Geo., Silver Standard, is the Qualified Person responsible for mineral resources; and Ken McNaughton, P.Eng., Vice President, Exploration, Silver Standard, is the Qualified Person responsible for exploration. Exploration samples were sent to the ALS-Chemex sample preparation lab in Mendoza, and analyzed in Antofagasta, Chile by total fusion followed by a 38 element mass spectrometry ICP, including indium. Samples with over 1% lead, zinc or tin were re-analyzed using a four

*Figure 74 Silver Standard Increases Pirquitas Reserves by 27% and Updates Capex*

Two individuals involved in the ill-fated reserve estimate increases at the Pirquitas mine were heavily involved in the Brucejack project. Quartermain and much of management were involved with the Pirquitas mine and are now at Brucejack where events seem to be following a similar pattern.

We further believe that the sale of the Brucejack Mine to Quartermain was a forced sale given that Quartermain had left Silver Standard on the verge of bankruptcy.

## 5.2. Quartermain resigns as Pretium CEO

On May 7, 2015, Pretium announced that Robert Quartermain would be appointed as Chairman and CEO. Additionally, Joe Ovsenek would be appointed to President. Quartermain's tenure as CEO would be short lived.

On December 15, 2016, Pretium announced that Quartermain would step down as CEO and become Executive Chair while Ovsenek would become President and CEO effective January 1, 2017.

It is curious that Robert Quartermain would relinquish the CEO title of his crown jewel asset months before commissioning.

Perhaps it is because Quartermain knew that the mine would experience significant issues and would grade poorly once commissioned. The first 2 months of Pretium's commissioning resulted in a grade of 3.7 g/t in June and 6.3 g/t in July, both significantly below the 16.4 g/t proven and probable grade.

Or perhaps Quartermain knew that the mine was experiencing significant issues and the original mine plan would need to change dramatically?

It is our view that such significant deviations from plan should not be occurring if the mine was performing as expected. Higher all-in sustaining costs (**AISC**), tighter drill spacing, faster underground development, more stopes, change in stoping method, and unexpected need for a grade control system collectively suggest to us that management is scrambling to find gold. Finally, the asset output change (more dore than planned) is peculiar to us.

*"Some of the red flags are more significant or more obvious than others. Some of them, on their own, might not create any doubt or questions to the casual observer but collectively, they all point in the same direction."*

- October 20, 1997 letter from Strathcona Mineral Services Ltd. to Bre-X Minerals Ltd



## 6. Financial irregularities supports aggressive mining thesis

### 6.1. COGS mismatch

A comparison of Pretium's expected and actual cost of sales corroborates our already extensive evidence that the company is taking more ore out of the ground than disclosed to investors.

The follow extract from Pretium's 2014 feasibility study forecasts operating costs of CAD 163/tonne of ore mined and processed. For ore not processed a cost of CAD 93/tonne is forecast. In consultation with industry experts, we believe this figure is conservative.

A NSR cut-off grade of \$180/t of ore was used to define the Mineral Reserves, which is unchanged from the value used for previous studies, including the June 2011 PEA (Ghaffari et al. 2011), the February 2012 Updated PEA (Ghaffari et al. 2012) and the June 2013 Feasibility Study (Ireland et al. 2013). In the 2013 Feasibility Study, site operating costs were ultimately estimated at approximately \$156/t based on a 2,700 t/d operation, of which \$93/t was attributable to mining. The cut-off grade thus provided a minimum margin of \$24/t of ore mined.

This feasibility study update provides a platform for increasing the accuracy of cost estimations relative to previous studies. The design production rate has not changed for the current study. Estimates of average site operating costs over the LOM have been updated as follows:

- Mining: \$91.34/t
- Processing: \$19.69/t
- Surface Services and Others: \$21.15/t
- G&A: \$30.87/t
- Total: \$163.05/t

Figure 75 Section 15.2 Cut-off grade<sup>50</sup>

We have used this data to derive an estimate cost of sales based on Brucejack's first 12 months of commercial, ramped production:

COGS Analysis (Quarterly)		Q3 2017	Q4 2017	Q1 2018	Q2 2018	First 12 months	Implied tonnage calc
Expected ore COS/tonne	CAD/tonne	163.05	163.05	163.05	163.05	163.05	163.05
Implied expected waste COS/tonne	CAD/tonne	93.00	93.00	93.00	93.00	93.00	93.00
USD/CAD period start	USD/CAD	1.2491	1.2466	1.2627	1.2893	1.2491	1.2491
USD/CAD period end	USD/CAD	1.2468	1.2573	1.2896	1.3141	1.3141	1.3141
USD/CAD period average	USD/CAD	1.2480	1.2520	1.2762	1.3017	1.2816	1.2816
Expected ore COS/tonne	USD/tonne	130.65	130.24	127.76	125.26	127.22	127.22
Implied expected waste COS/tonne	USD/tonne	74.52	74.28	72.87	71.45	72.57	72.57
Ore mined	tonnes	271,534	280,671	268,339	248,506	1,069,050	1,851,547
Year 1 waste-to-ore ratio	%	36.11%	36.11%	36.11%	36.11%	36.11%	36.11%
Waste mined	tonnes	98,051	101,350	96,897	89,736	386,034	668,594
Ore cost	USD 000's	35,477	36,553	34,284	31,128	137,442	235,559
Waste cost	USD 000's	7,307	7,529	7,061	6,411	28,308	48,517
Calculated cost of sales		42,784	44,082	41,345	37,539	165,750	284,076
Reported cost of sales	USD 000's	44,912	80,168	72,588	86,408	284,076	284,076
Difference	USD 000's	2,128	36,086	31,243	48,869	118,326	-
Difference	%	4.97%	81.86%	75.57%	130.18%	71.39%	0.00%

Figure 76 Viceroy Analysis

Note that, outside of Q3 2017, costs have blown out significantly on a relative basis, up to 130% over expectation in Q2 2018 and averaged 71% over expectation for the first year of commercial production. If we were to take actual costs and reverse the equation, we would have expected Pretium to have mined ~73% more ore relative to waste – a figure closer to what we have seen through Pretium's environmental reports.

This analysis further supports our belief that Pretium has overmined and is selectively milling high-grade ore in order to keep up appearances while a new financing deal is taking place.

<sup>50</sup> Feasibility Study and Technical Report Update on the Brucejack Project, Stewart, BC by Tetra Tech – June 19, 2014 – page 158



## 6.2. Overcapitalization of mine development

Premium's 2014 feasibility study indicates that an initial capital outlay of ~US\$746m would be required to bring the mine up to commercialization, ~US\$289m of which would be required to develop the Brucejack mineral property (i.e. not including PPE or indirect costs).

Per discussions with our mineral consultants, we have highlighted these relevant costs below:

Table 1.4 Summary of Initial Capital Cost		
Major Area	Area Description	Cap. (US\$)
<b>Direct Costs</b>		
11	Mine Site	
21	Mine Underground	
31	Mine Site Process	
32	Mine Site Utilities	
33	Mine Site Facilities	
34	Mine Site Tailings	
35	Mine Site Temporary Facilities	
36	Mine Site (Surface) Mobile Equipment	
84	Off Site Infrastructure	
<b>Subtotal Direct Costs</b>		
91	Indirect Costs	
98	Owner's Costs	

Figure 77 Table 1.4 Summary of Initial Capital Cost<sup>51</sup>

In 2017 alone, over US\$420m of construction capex was attributed to Premium's mineral property account:

8. MINERAL PROPERTIES, PLANT AND EQUIPMENT						
	Mineral properties	Construction in progress	Plant and equipment	Exploration and evaluation assets	Total	
<b>Year ended December 31, 2016</b>						
<b>Cost</b>						
Balance, January 1, 2016	\$ 370,886	\$ 126,623	\$ 14,695	\$ 230,647	\$ 742,851	
Additions	-	505,568	3,013	5,046	513,627	
Foreign exchange differences	11,408	3,895	451	7,095	22,849	
Transfer from construction in progress to plant and equipment	-	(2,905)	2,905	-	-	
Balance, December 31, 2016	\$ 382,294	\$ 633,181	\$ 21,064	\$ 242,788	\$ 1,279,327	
<b>Accumulated depreciation and depletion</b>						
Balance, January 1, 2016	\$ -	\$ -	\$ 4,835	\$ -	\$ 4,835	
Depreciation and depletion	-	-	3,943	-	3,943	
Foreign exchange differences	-	-	92	-	92	
Balance, December 31, 2016	\$ -	\$ -	\$ 8,870	\$ -	\$ 8,870	
<b>Net book value - December 31, 2016</b>	<b>\$ 382,294</b>	<b>\$ 633,181</b>	<b>\$ 12,194</b>	<b>\$ 242,788</b>	<b>\$ 1,270,457</b>	
<b>Year ended December 31, 2017</b>						
<b>Cost</b>						
Balance, January 1, 2017	\$ 382,294	\$ 633,181	\$ 21,064	\$ 242,788	\$ 1,279,327	
Additions	-	324,641	297	3,928	328,866	
Transfer from construction in progress to inventory	-	(8,192)	-	-	(8,192)	
Transfer from construction in progress to plant and equipment	-	(523,488)	523,488	-	-	
Transfer from construction in progress to mineral properties	420,419	(420,419)	-	-	-	
Reversal (recoveries) of BCMETC	4,806	-	-	(253)	4,553	
Balance, December 31, 2017	\$ 807,519	\$ 5,723	\$ 544,849	\$ 246,463	\$ 1,604,554	
<b>Accumulated depreciation and depletion</b>						
Balance, January 1, 2017	\$ -	\$ -	\$ 8,870	\$ -	\$ 8,870	
Depreciation and depletion	14,924	-	15,900	-	30,824	
Balance, December 31, 2017	\$ 14,924	\$ -	\$ 24,770	\$ -	\$ 39,694	
<b>Net book value - December 31, 2017</b>	<b>\$ 792,595</b>	<b>\$ 5,723</b>	<b>\$ 520,079</b>	<b>\$ 246,463</b>	<b>\$ 1,564,860</b>	

Figure 78 Premium 2017 Annual Financial Report – Note 8 Mineral Properties, Plant and Equipment

<sup>51</sup> Feasibility Study and Technical Report Update on the Brucejack Project, Stewart, BC by Tetra Tech – June 19, 2014 – page 42



This follows a CAD 513m transfer to mineral properties from “Exploration and evaluation assets” in 2015, bringing the Mineral Properties asset balance to >US\$800m, or ~US\$670m when excluding the purchase price for the mine of ~\$138m.

Simply put, the real capital outlay for the development of Pretium’s mineral properties is over 2x the expected capital outlay in the 2014 feasibility study, likely a major factor in Pretium’s over-indebtedness.

The remaining ~\$458m feasibility budgeted outlay attributed to PPE or other indirect, capitalized fixed asset outlays also appears to have been overblown, with pre-depreciation PPE balances at \$544m at Q4 2017.

In Q2 2018, Pretium reported free cash flows of \$72m, partially driven by lower than expected AISC per ounce of gold sold of \$648 relative to previous quarters (\$1,009/oz in Q1 2018) and limited sustaining capex, which management advised will be significantly higher in the second half of 2018<sup>52</sup>.

Given the quantum of evidence suggesting Pretium has overmined in 2017, Viceroy believe Pretium have been capitalizing operational costs in the 2017 financial year to bump 2018 results. In other words, Pretium have taken a capitalized earnings bath to push favorable results during a debt refinance period.

## 7. Valuation

### 7.1. Pretium has a significant debt payment coming due; if it can't make the payment, then Pretium may be unable to remain a going concern

As of Q2 2018, Pretium has ~\$700M of debt (excl. convertible notes) and \$142M of cash on their balance sheet. The company’s net debt represents ~35% of its current market cap. This is one of the highest net debt-to-market cap ratios we have seen in the gold mining industry. In fact, the top 10 North American gold mining companies by market cap are levered approximately 12% on average. Pretium’s leverage represents almost 3x this amount. We believe Pretium is a high-risk credit.

According to page 8 of Pretium’s Q2 2018 financial statements, Pretium’s creditors would seem to agree with us: **“the effective interest rate on the credit facility is 15.0%”**. The effect of this rate has not previously been seen as interest expenses have been capitalized.

As a result of the impact of the offtake obligation, the arrangement fees and the prepayment and extension options, the effective interest rate on the credit facility is 15.0%. For the six months ended June 30, 2018, the Company expensed \$27,641 (2017 - nil) of interest on the credit facility to the statement of earnings (loss) and capitalized nil (2017 - \$22,157) to mineral properties, plant and equipment.

Figure 79 Pretium Q1 2018 Financial Statements – Note 7 (a) Senior secured term credit facility

On December 31, 2018, Pretium is due to pay a \$423M credit facility. Pretium has the option to extend this for 1 year for a 2.5% extension fee plus 7.5% payment-in-kind interest. This would result in a \$455M liability by December 31, 2019.

As at March 31, 2018, the Company has cash and cash equivalents of \$70,540 and working capital of \$63,389 excluding the current portion of long-term debt. The current portion of long-term debt includes the senior secured term credit facility including accumulated interest totaling \$379,383 due at maturity on December 31, 2018. The Company’s intention is to re-finance the credit facility within 2018; however, if necessary, the Company has the option to extend the maturity date to December 31, 2019 upon payment of an extension fee of 2.5% of the principal amount including accumulated interest.

Figure 80 Pretium Q1 2018 Financial Statements – Note 2 (a) Statement of compliance

In addition to the credit facility, Pretium has the option to repurchase its stream obligation for \$237M on December 31, 2018. If they do not exercise this option, the stream obligation rises to \$272M on December 31, 2019. It is worth noting that this stream contract changed hands *before* commencement of mineral production.

<sup>52</sup> <https://seekingalpha.com/article/4197685-premium-resources-inc-pvg-ceo-joseph-ovsenek-q2-2018-results-earnings-call-transcript>



The Company has the option to repurchase the stream obligation for \$237,000 on December 31, 2018 or \$272,000 on December 31, 2019. Alternatively, the Company may reduce the stream obligation to (a) 3% on December 31, 2018 (and accelerate deliveries under the stream to January 1, 2019) or (b) 4% on December 31, 2019 (in which case deliveries will commence on January 1, 2020) on payment of \$150,000.

Figure 81 Pretium 2017 Annual Financial Report – Note 10 (c) Stream obligation

This means that Pretium will have a \$660M liability by December 31, 2018 or a \$727M liability, excluding converted notes, by December 31, 2019.

***It is our belief that Pretium have distorted its operations in order to influence a refinancing these expensive commitments.***

Pretium has expressed that they intend to repurchase their stream obligation in their Q4 2017 conference call slides.

- Buy Back Precious Metals Stream<sup>(1,2)</sup>
  - 1<sup>st</sup> opportunity US\$237M on Dec 31, 2018

Figure 82 Pretium Resources Q4 and year-end 2017 Conference Call Presentation

The terms of the stream agreement are laid out in Pretium's annual reports.

**(c) Stream obligation**

Pursuant to the stream, the Company is obligated to deliver, subject to prepayment options, 8% of up to 7,067,000 ounces of refined gold and 8% of up to 26,297,000 ounces of refined silver commencing on January 1, 2020 (less gold and silver sold to that date) and a payment of \$20,000. Upon delivery, the Company is entitled to (a) for gold, the lesser of \$400 per ounce and the gold market price and (b) for silver, the lesser of \$4 per ounce and the silver market price. Any excess of market over the fixed prices above are credited against the deposit. Any remaining uncredited balance of the deposit is repayable, without interest, upon the earlier of the date (i) the aggregate stated gold and silver quantities have been delivered and (ii) 40 years.

Figure 83 Pretium 2017 Annual Financial Report – Note 10 (c) Stream obligation

Viceroy believe the evidence supported research contained in this report will be taken into serious consideration by possible future creditors. We cannot imagine a rational party would provide Pretium with preferable terms in light of what we believe to be clear evidence of distorting mineral studies, mining results, and financial statements.

As an aside, make note that a provision within Pretium's credit and stream agreements requires Pretium to report *monthly* grades to its creditors. If indeed Pretium has distorted these grades, we believe this would be deemed a significant breach of contract.

1.1.94 “Monthly Production Report” means a written report in relation to a calendar month with respect to the Project that contains, for such month:

- (a) the tonnes and estimated grade of Minerals mined during such month;

Figure 84 Pretium September 15, 2015 Credit Facility Agreement

## 7.2. Rolling over debt – contractual obligations and restrictions

Our research suggests it is unlikely that Pretium will be able to refinance its existing loan structure, leaving it with little option but to roll over its expensive commitments for another year. The question then becomes whether or not Pretium can do so without breaching its contract restrictions.

Unfortunately, Pretium has only made available heavily redacted credit, stream and offtake agreements from which we cannot draw a strong analysis.



Commonly, these agreements have certain performance covenants based on earnings, mineral grade and leverage – we cannot imagine Pretium's agreements being substantially different. If Pretium have similarly marketed the Brucejack Project to its creditors as a high-grade, high-output, high-yield mine, then management will have some explaining to do.

This argument is the basis of conclusion that Pretium's equity is effectively worthless. As our NAV projections below show, the likely scenario in Pretium's situation is that the mine is turned over to creditors as collateral for their loans, which are unlikely to be repaid in full.

### 7.3. Revised NAV

Viceroy have recreated an extremely conservative baseline NAV with which to value Pretium. We back-tested the results of our NAV and consider its assumption optimistic when using operating variables provided by Pretium (output in line with "higher price" post-tax NAV in the 2014 feasibility study).

Note that our model assumes extremely conservative corporate expenses, capex and lower operating costs given movements in the USD/CAD exchange rate.

**Table 22.3 Summary of Post-tax NPV, IRR, and Payback by Metal Price**

Economic Returns	Unit	Base Case	Lower Price	Higher Price
NCF	US\$ million	2,724	1,344	4,134
NPV at 5.0% Discount Rate	US\$ million	1,445	620	2,279
Project IRR	%	28.5	16.5	38.7
Payback	Years	2.8	4.5	2.1
Exchange Rate	US\$:Cdn\$	0.92	0.92	0.92
Gold Price	US\$/oz	1,100	800	1,400
Silver Price	US\$/oz	17.00	15.00	21.00

Figure 85 Table 22.3 Summary of Post-tax NPV, IRR, and Payback by Metal Price<sup>53</sup>

Recall in Section 4.2.3 above the distinction between full year grade and pro-rata: using these two implied grades and substituting them as year 1 to 10 grades allows us to revise Brucejack's NAV for these adjusted grades.

The 2014 feasibility study breaks out a relationship between ore grades for years 1 to 10 of mine operation and for the entire 18-year life of the mine. As discount rates will substantially nullify the effect of a pro-rata adjustment on grades of this nature, we have assumed what we believe to be an optimistic 5.37 au g/t on our NAV model for the remaining life of the mine. This figure is derived from our calculations in **Section 6.3** of this report.

**Table 22.1 Metal Production Quantities**

	Years 1 to 10	LOM
Total Tonnes to Mill ('000)	9,762	16,550
Annual Tonnes to Mill ('000)	976	919
Average Grade		
Gold (g/t)	16.348	14.138
Silver (g/t)	11.250	57.686
Total Production		
Gold ('000 oz)	4,972	7,274
Silver ('000 oz)	2,996	27,626
Average Annual Production		
Gold ('000 oz)	497	404
Silver ('000 oz)	300	1,535

Figure 86 Table 22.1 Metal Production Quantities<sup>54</sup>

<sup>53</sup> Feasibility Study and Technical Report Update on the Brucejack Project, Stewart, BC JUNE 19, 2014 – page 381

<sup>54</sup> Feasibility Study and Technical Report Update on the Brucejack Project, Stewart, BC JUNE 19, 2014 – page 379



**Once grade assumptions of Pretium's NAV have been adjusted to our estimate of 5.37g/t,  
Pretium's NAV falls to USD -1,917m.**

**Pretium would need to achieve 8.52g/t to simply break even, assuming an optimistic  
gold price of \$1300/oz.**

For background, when applying assumptions used in Pretium's feasibility study, our NAV results at ~US\$1.6b, similar to feasibility study model.

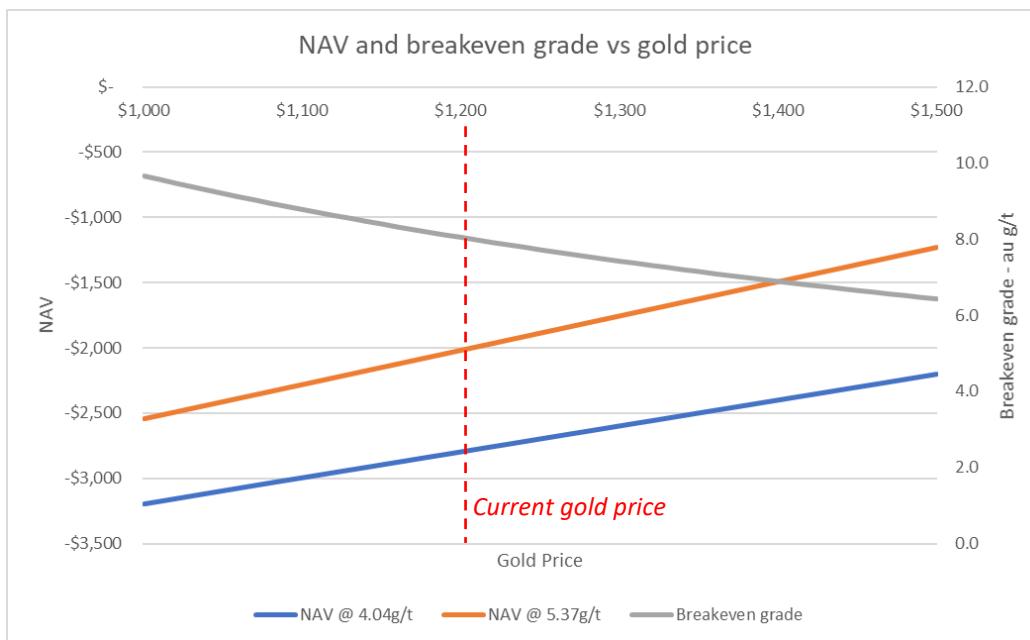


Figure 87 Viceroy analysis

		Gold price (US\$/oz)					
		\$ 1,000	\$ 1,100	\$ 1,200	\$ 1,300	\$ 1,400	\$ 1,500
Gold grade (au g/tonne)	4.0	(2,977)	(2,753)	(2,533)	(2,312)	(2,092)	(1,872)
	4.5	(2,818)	(2,581)	(2,346)	(2,110)	(1,874)	(1,638)
	5.0	(2,661)	(2,410)	(2,158)	(1,907)	(1,655)	(1,404)
	5.5	(2,505)	(2,238)	(1,971)	(1,704)	(1,437)	(1,170)
	6.0	(2,349)	(2,066)	(1,783)	(1,501)	(1,218)	(936)
	6.5	(2,192)	(1,894)	(1,596)	(1,298)	(1,000)	(702)
	7.0	(2,036)	(1,722)	(1,409)	(1,095)	(781)	(468)
	7.5	(1,880)	(1,551)	(1,221)	(892)	(563)	(319)
	8.0	(1,724)	(1,379)	(1,034)	(689)	(422)	(201)
	8.5	(1,567)	(1,207)	(847)	(542)	(312)	(84)
	9.0	(1,411)	(1,035)	(678)	(439)	(203)	33
	9.5	(1,255)	(863)	(581)	(337)	(94)	150
	10.0	(1,099)	(739)	(487)	(236)	16	267

Figure 88 Viceroy analysis



The research presented in the sections above leads us to believe the following:

1. Unless Brucejack can sustain a gold grade of significantly more than 8.98 g/t, the Brucejack mine will not be economically feasible and therefore worthless.
2. Pretium and Snowden disagreed with Strathcona, who believed Brucejack did not exhibit such grades that could be mined in the manner Pretium has inaccurately marketed to shareholders. Our evidence has corroborated Strathcona's findings.
3. Pretium has managed to report such grades through development acceleration, selective stoping and mining above its mandate.

Another major issue we present to investors is the use of a 5% WACC, which is entirely unrealistic given Pretium's high leverage at an incredibly high 15% effective interest rate. In reality, we believe Pretium's WACC would exceed 10%.

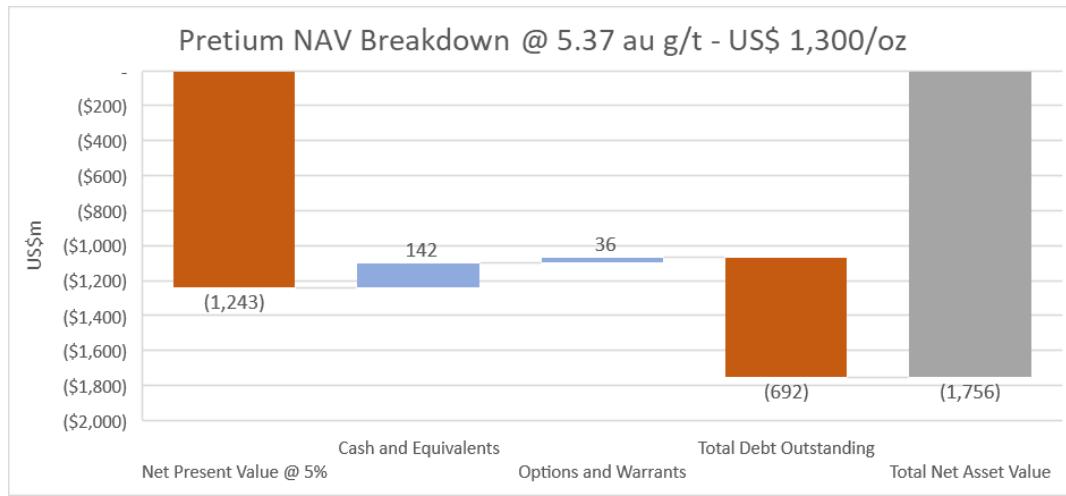
#### 7.4. Impairment of debt

**Our revised Brucejack's NAV, supported by the information contained within this report, suggests Pretium's debt is substantially impaired.**

It would be uneconomic to change Brucejack's mine plan without significant investment, as the mining and milling equipment currently used by Pretium is unsuitable for a low-tonnage high yield mine that would better fit the Cleopatra vein. Significant changes to mine plan would require further investment, as well as disposal of equipment currently in use at Brucejack.

**Our mine valuation – coupled with Pretium's overleveraged balance sheet – lead us to believe Pretium equity is effectively worthless at its current state with a NAV of US -\$1.7b.**

In this scenario, we believe the most likely outcome is that debtholders will exercise their security and take control of the mine as the company becomes progressively, but quickly, unprofitable.





## 8. Conclusion

Viceroy believe that Pretium will soon, or may have already, exhausted the accessible high-grade stopes of the Cleopatra vein in the Brucejack mine. The company's accelerated development schedule and sudden focus on stope inventory and grade control leads us to believe this is the case. The mismatch between the amount of ore mined in environmental filings and company releases further leads us to believe that the overall grade of the mine is far below that projected by the 2014 feasibility study.

The upcoming debt repayments and stream repurchase are the clear motivator for such activities. Viceroy believe it is plausible that Pretium can continue this overmining program in the short term, and would not be put off by Q3 results that, similar to Q2 2018, look great at face value. **Evidence suggests these results are entirely unsustainable.**

We believe Brucejack will experience the same fate as Pirquitas with all its consequences for Pretium's shareholders. Management's track record does not inspire hope, and accordingly we expect more misleading statements to the market.

**We value Pretium's shares at \$0 per share based on a revised estimate of the Brucejack mine's grade, the expectation of further operational issues and managerial incompetence.**

While this valuation may be viewed as inflammatory, we believe the collective research within this report and concerns raised by industry experts regarding the Brucejack mine objectively validates a negative NAV value for the project – we would be doing a disservice to report it otherwise.



## 9. Case Study – Rubicon Minerals

Rubicon Minerals (TSE: RMX) is a Canadian gold-mining company that lives on as a shadow of its former self. The company commenced production in 2015 and did produce some bullion at its flagship Phoenix Gold project located in Red Lake, Ontario.

Phoenix Gold had its first gold pour in July 2015 after a streak of positive news regarding the company. This was not to last.

On October 5, 2015 only 5 months after being reappointed at a company AGM, Rubicon CEO Michael A. Lalonde apparently stepped down without explanation<sup>55</sup>. On November 3, 2015 underground activities at the Phoenix Gold project were announced as “temporarily suspended” to revise resource estimates<sup>56</sup>. On January 11, 2016 Rubicon significantly downgraded its mineral resource estimates both indicated and inferred.

Table 2: Comparison between 2013 and 2016 Quantities and Grades Reported at 4.0 g/t Au<sup>4</sup>

Classification	Quantity (000't)			Grade (g/t Au)			Contained Gold (000'oz)		
	2013	2016	Change	2013	2016	Change	2013	2016	Change
Indicated	4,120	492	-88%	8.52	6.73	-21%	1,129	106	-91%
Inferred	7,452	1,519	-80%	9.26	6.28	-32%	2,219	307	-86%

Figure 90 Rubicon Updates Mineral Resource Statement for the Phoenix Gold Project and Evaluates Strategic Alternatives<sup>57</sup>

The change resulted in a 91% decrease in indicated gold and 86% decrease in inferred resources. Rubicon claims that this error was discovered in the midst of developments in the company’s understanding of the Phoenix Gold F2 deposit’s composition, specifically the spatial distribution of gold within the deposit.

The following figure from its June 2018 corporate presentation illustrates the difference between the two geological interpretations.

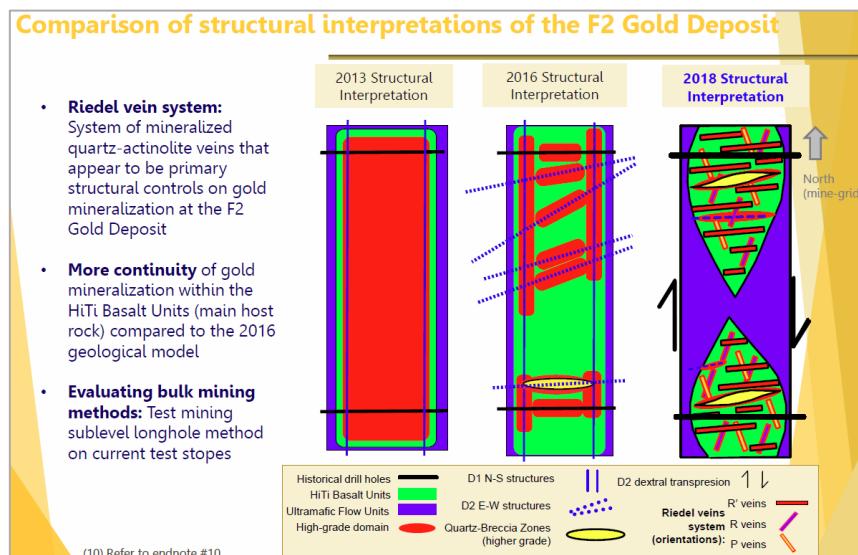


Figure 91 Rubicon Minerals Corporate Presentation – June 2018<sup>58</sup>

<sup>55</sup> <http://rubiconminerals.com/Investor-News/News/Press-release-details/2015/Rubicon-Announces-the-Appointment-of-Bill-Shand-to-Vice-President-Operations/default.aspx>

<sup>56</sup> <http://rubiconminerals.com/Investor-News/News/Press-release-details/2015/Underground-Activities-Temporarily-Suspended-at-the-Phoenix-Gold-Project-Rubicon-to-Enhance-Its-Geological-Model-and-Develop-an-Implementation-Plan/default.aspx>

<sup>57</sup> <http://rubiconminerals.com/Investor-News/News/Press-release-details/2016/Rubicon-Updates-Mineral-Resource-Statement-for-the-Phoenix-Gold-Project-And-Evaluates-Strategic-Alternatives/default.aspx>

<sup>58</sup> [http://s21.q4cdn.com/960886365/files/doc\\_presentations/2018/20180611-June-2018-Corporate-Presentation\\_FINAL.pdf](http://s21.q4cdn.com/960886365/files/doc_presentations/2018/20180611-June-2018-Corporate-Presentation_FINAL.pdf)



The company had completely overestimated the continuity of the F2 gold deposit by applying incorrect methodologies to their drill samples.

The 2018 structural interpretation is clearly more complex than both previous iterations and demonstrates an in-depth understanding. What toppled Rubicon was the willingness to market the 2013 interpretation as fact and plan their mine operations as such.

We present this case study as we believe this is exactly what is happening at Pretium with the Cleopatra vein at Brucejack. While Rubicon now appear to be taking a measured and methodical approach to their deposit, this change came far too late for its stakeholders.

## 10. Independent mineral consultants have expressed discomfort with Pretium's strategy, estimation methodology, project risk, and potential for gold

In order to back test our thesis Viceroy engaged multiple mining firms consisting of experienced and well-regarded mineral consultants to opine on Pretium's bulk sample program and recent operating performance (under NDA). Their quotes are below:

*"We are fairly convinced it will be lower grade. I am not so hopeful about the quality of this mine. This is a bit scary because the continuity is only there on a few sections."*

*"They will make less gold."*

*"There is random scattering of really high-grade hits and this is influencing the entire sample which is overestimating their entire mine."*

*"It is strange that they have not revealed the grade of the stockpile."*

*"Whenever you read a technical report with a bunch of statistical mumbo like in this one, it raises red flags and tells you that they really have no idea what is going on underground."*

*"There is a high degree of risk with this project."*

*"I don't think the estimate is done in a conservative manner. To not put a top cut at all on any of these high grades is an aggressive estimation decision. Additionally, the extreme high grades are likely false because of the assay technique. Combination of no top cut, extending estimate distances and no metallic assay takes conservative elements out of the estimation."*

*"8% of the tonnage holds 96% of the resource of the project. This is highly suspicious to us."*

*"I think they're going to go through stuff quicker and I think they're eventually going to be forced to mine low grade."*