

1 AFFIDAVIT OF ROBERT CASSINELLI

2 STATE OF NEVADA)
3) ss.
4 COUNTY OF WASHOE)

5 I, Robert Cassinelli, being first duly sworn, depose and state as follows:

- 6 1. I have 36 years of total mining and construction industry experience specializing in all
- 7 aspects of mine development, construction, and operation, including safety, improving
- 8 the quality of end product, planning, budgeting, and cost controls.
- 9 2. In mining I have experience in overseeing process and heap leach operations, mill
- 10 operations, management of mine and metallurgical labs, fire assaying, wet bench,
- 11 crusher operations and site maintenance, gold refining, gold processing, mine
- 12 reclamation, water purification systems, cement stem walls, flatwork, underground
- 13 utilities, mobile fleet maintenance, and operation of small and large equipment.
- 14 3. My experience in the mining industry includes the following companies, mine sites,
- 15 and job titles.
 - 16 a. Gold Resource Corp, Issabella Pearl, Hawthorne, Project Manager, 2016 to
 - 17 present
 - 18 b. Welsh Hagen LLC, various engineering projects, Reno, Project Manager, 2014
 - 19 to 2016
 - 20 c. Borealis Mining LLC, Borealis Mine, new development, Hawthorne, General
 - 21 Mine Manager, 2011 to 2013
 - 22 d. Telesto-Nevada Inc., Construction Project Manager, Various jobs including
 - 23 Borealis, Reno 2008 to 2011
 - 24 e. First Gold Corp, Lovelock, Relief Canyon, Process Superintendent, 2007 to
 - 25 2008
 - 26 f. Coeur Rochester, Crusher Operations and Maintenance Superintendent,
 - 27 Rochester Mine, 2003 to 2007.
 - 28 g. King Construction, Utilities Foreman, various locations, 2002 to 2003

- 1 h. Harding ESE, Field Superintendent, Reclamation of tungsten tailings, 2000 to
2 2002
- 3 i. Vista Gold, Process/Crusher Maintenance Superintendent, Mineral Ridge
4 Mine, 1997 to 2000.
- 5 j. Amax Gold, Operations Superintendent, Sleeper and Wind Mtn Mines, Process
6 Superintendent, Hayden Hill Mine, 1986 to 1997
- 7 k. Rayrock, Assayer, Refiner, Maintenance, Pinson Mine, 1980 to 1986
- 8 4. As noted above, my employment with Borealis Mining Co was May 2011 to July
9 2013. My initial job title was “Loss Control Manager”, later changed to Mine
10 Manager. My duties were the same throughout my employment, however. I was
11 responsible for all the construction and operation of the mine including heap leach
12 pads, water line and water supply tank, process building, and crusher systems. The
13 mine construction began in early June 2011. The initial work was done after we had
14 finalized the last of the mine permits, located and hired qualified employees to do the
15 work, and retained engineering firms that specialized in certain aspects of
16 construction, and proceeded rapidly. This work was done under a limited budget, and
17 activities were reported to the Gryphon Gold CEO and VP Accounting for approval.
18 Multiple operational challenges were overcome before the first gold/silver bar was
19 poured in March of 2012.
- 20 5. To my knowledge, Waterton Global Value, L.P. (“Waterton”) first provided some
21 interim financing for the mines in or about mid-2012 and, following the bankruptcy of
22 Borealis Mining LLC, and effectively took control of the mine in or about March
23 2013.
- 24 6. I resigned in July 2013, as I was dissatisfied with the direction Waterton was taking
25 the mine. Some of the reasons for my dissatisfaction are listed below.
- 26 a. As part of the original mine plan and as a critical need to put fresh ore on the
27 pad, and in the beginning of April 2013 a blasting contractor had mobbed in
28 and set up to begin drilling and blasting the East Ridge pit for mining new ore.

1 In the middle of April 2013, Waterton made the decision to increase the feed
2 hopper and loader size at the crusher, which should have never happened as it
3 was an extra cost to Borealis that was not necessary. We started mining limited
4 tonnage in the East Ridge pit, and it was always planned to make the ton
5 difference up with ROM to the pad. We managed to mine three benches, each
6 20 feet high, off the top of East Ridge. The ore that was placed on the pad
7 basically doubled the total monthly ounces from approximately 800 to 1600
8 ounces. Notwithstanding this success, Waterton shut the operation down
9 without explanation. I later learned that Jack McMahon (Water's COO)
10 indicated that, after my resignation, Waterton's reason for ceasing operation
11 was that the rock was too hard. Afterwards, the monthly gold production
12 declined back to 800 ounces.

- 13 b. I did not understand Mr. McMahon's reason that the rock was too hard. I had
14 tested the rock hardness before beginning to crush the rock and found that it
15 was within permissible hardness ranges for the crusher. I understand that Mr.
16 McMahon tested the rock and the results were the same. The crusher used at
17 the mine had previously crushed the very same ore, and I had set up the
18 crusher specifically to crush rock of that hardness. I was in the process of
19 refining the crusher settings to have an efficient operation when I decided to
20 resign.
- 21 c. Waterton pressed the operators to put tonnage through the crusher for
22 increased gold recovery. I expressed my deep concerns and reservations to
23 Mr. McMahon, Jim O'Neil, Isser Elishis, Lisanna Lewis, and a site engineer
24 regarding this tactic, maintaining that by increasing the crush size above minus
25 5/8 inch, recovery would decline.
- 26 d. Senior mine management, under the direction of Waterton, also failed to
27 properly agglomerate this crushed ore properly, which would have also
28 reduced the gold production because the cyanide solution could not recover

1 gold still locked inside a rock fragment nor solution could not flow through the
2 fines that was not made porous by agglomeration through the heap.

- 3 e. During my time at the mine, I continually monitored the profitability of
4 operations. Each month, knowing the approximate costs to operate the mine, I
5 would calculate the profitability for each month. Although my calculations
6 were necessarily approximate, they were always close to the final financial
7 results from accounting. In the period leading up to early 2013, the mine, by
8 still only using previously leached ore, was profitable. This profitability
9 continued in 2013. Once Waterton took control of the mine, I was told that the
10 mine was no longer making money. I did not understand how that could be the
11 case, because based on my profitability calculations the mine continued to be
12 profitable. When I raised this issue with Jim O'Neil and Jack McMahon and
13 began asking questions, I began to notice that I no longer received e-mails
14 from accounting relating to the profitability of the mine, which I had
15 previously regularly received.
- 16 f. This practice of cutting me out continued. I was gradually moved off my
17 position of running weekly staff meetings to being excluded.
- 18 g. Waterton also arranged to have an independent consultant review the crusher's
19 capabilities. That consultant only confirmed my assessment that the crusher
20 was not designed for the high-throughput Waterton wanted to use it for.
- 21 h. I resigned July 19, 2013, believing that the new ownership and senior
22 management did not understand proper mine management and because it
23 became clear that the direction I believed the mine should go was not the
24 direction Waterton wanted.
- 25 i. After I left, I learned that Waterton had laid off all of the employees that I had
26 hired during my time at the mine (including Roy Ismay, Jeanie Smitsen, and
27 Dalton Cassinelli) and had replaced those employees.

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7. I had designed the heap leach and ADR processing system to be a closed system. If done properly, pregnant solution coming off the pad would go directly into the plant through the carbon columns and then immediately pumped back to the pad barren of gold, but still containing cyanide leach solution. The traditional Preg Pond and Barren Pond were designed to be overflow ponds capturing storm event water. I learned later Glenn Kile and Steven Craig that Waterton had modified the circuit to bypass the carbon filter and move any carbon bearing solution into the Preg Pond. (See attached two figures). This would have the effect that any extra gold rich solution would be dumped into the Preg Pond and the gold would attach itself to the carbon. This did not meet industry operating standards and I suspect that they started this practice after all their new people were brought in.

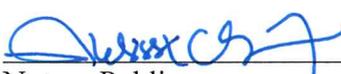
8. The ADR processing system was not designed to be run as an open system, and had never been run that way previously.

I swear under penalty of perjury that the foregoing statements in this affidavit are true.

DATED this 24 day of May 2017.

By: 
Robert Cassinelli

Subscribed and sworn to before me
this 24th day of May 2017.


Notary Public

