

# Silver One Resources

## Candelaria shining brightly

On 18 August, Silver One Resources announced an updated mineral resource on its heap leach pads at its flagship, past producing Candelaria silver project in Nevada. The update promotes a significant portion of the resource from the inferred to the indicated category. While there is a slight reduction in overall size of the previous (May 2001) estimate, the difference may be explained by a conservative methodology, including capping high silver values and low estimated densities. The majority of the global, in-situ historical hard-rock resource remains unchanged. Drilling with the goal of upgrading it was undertaken in early 2020, but was interrupted in March by the onset of COVID-19. However, the potential to upgrade it in due course looks promising, especially within the context of higher-grade intercepts down-dip from the past producing pits and higher silver prices.

Year end	Revenue (C\$m)	PBT* (C\$m)	EPS* (c)	DPS (c)	P/E (x)	Yield (%)
12/16	0.0	(1.1)	(2.1)	0.0	N/A	N/A
12/17	0.0	(2.0)	(2.3)	0.0	N/A	N/A
12/18	0.0	(1.6)	(1.7)	0.0	N/A	N/A
12/19	0.0	(1.7)	(1.3)	0.0	N/A	N/A

Note: \*PBT and EPS are normalised, excluding amortisation of acquired intangibles and exceptional items.

## Updated resource reconciles well with historical

The updated global resource at Candelaria amounts to 45.4Moz silver for the leach pads and compares with a historical resource of 48.2Moz within a larger, property-wide 126.9Moz resource. Silver One is embarking on extensive exploration and metallurgical testing to determine the extent to which the resources on the property may be extracted economically. To date, drilling has shown that the mineralisation is consistent in average grade and width, persists at depth and continues exhibiting potential for high silver grades with significant gold values. Subject to test results, management believes it has four options for the exploitation of Candelaria:

- 1) crushing heap leach pad material and leaching on the existing heap leach pads,
- 2) short-term mining of oxide ores to supplement production from the leach pads,
- 3) fine grinding and processing by direct cyanidation and microbubbles for higher-grade, in-situ ores, and
- 4) a combination of the above.

## Valuation: Potential for meaningful re-rating

In broad terms, the following conclusions can be drawn about Silver One's current market capitalisation of c US\$120m: 1) it approximates the lower end of the range of potential valuations for its total historical resources, with little premium being afforded either for the recent, sharp rise in the silver price or the fact that its resources are located in Nevada or higher than average prospects for eventual profitable production; and/or 2) it approximates the top end of the range of potential valuations for its heap leach resources only (which may be justified by the fact that they are in a premium jurisdiction). All other things being equal, therefore, if the final resource at Candelaria is close to its historical resource and/or a mine plan is developed to exploit any of the resources on the property, then we believe that there is scope for a meaningful re-rating of Silver One's shares.

Mining prospects initiation

### Metals & mining

28 August 2020

**Price** **C\$0.77**

**Market cap** **C\$153m**

C\$1.3163/US\$

Net cash\* (C\$m) at end-June 2020 5.1

\*Since raised C\$9.5m in July equity fund-raising

Shares in issue 198.3m

Free float 80.7%

Code SVE

Primary exchange TSX-V

Secondary exchange OTCQX

### Share price performance



% 1m 3m 12m

Abs (11.8) 85.2 74.4

Rel (local) (14.8) 69.0 68.7

52-week high/low C\$0.86 C\$0.17

### Business description

Silver One Resources is focused on the exploration and development of quality silver projects. Its flagship asset is the past-producing Candelaria Mine in Nevada. It also has options over a number of other silver assets, including the Silver Phoenix project in Arizona and the Cherokee project in Nevada.

### Next events

Leach tests and results 2020

In-fill reverse circulation drilling 2020/21

Candelaria updated resource estimate Late 2020/early 2021

Fine milling test results evaluation 2021

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**Silver One Resources is a research client of Edison Investment Research Limited**

## Company description: Illuminating Candelaria

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Silver One Resources is focused on the exploration and development of quality silver projects. Its flagship asset is the past-producing Candelaria Mine in Nevada, in relation to which the company has recently released an NI 43-101 technical report and updated resource estimate, based on a recent series of metallurgical test-work and drilling campaigns. In addition, it is also testing the potential for a down-dip high-grade zone of silver mineralisation as indicated by previous drilling completed by Silver Standard in 2001. Additional opportunities lie in potentially increasing the substantive silver mineralisation along strike from the two past-producing open pits.

Secondary projects include:

- Silver One holds an option to acquire a 100% interest in the Silver Phoenix Project – a very high-grade, native silver prospect that lies within the Arizona Silver Belt, immediately adjacent to the prolific copper producing area of Globe, Arizona. Not only prospective for high-grade native silver bearing veins and precious metal bearing polymetallic veins, Silver Phoenix also has the potential for porphyry related copper and precious metal mineralisation at depth.
- The company has staked 636 lode claims and entered into a lease/purchase agreement to acquire five patented claims on its Cherokee project located in Lincoln County, Nevada, host to multiple silver-copper-gold vein systems, traced to date for over 16km along strike.

In addition, Silver One also holds a 100% interest in three significant silver assets located in Mexico, namely Peñasco Quemado (Sonora), La Frazada (Nayarit) and Pluton (Durango).

## Candelaria

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### Geography and location

The Candelaria property is situated within the Candelaria Mining District and lies approximately halfway between Carson City and Las Vegas close to Nevada's south-western border with California.

The property covers an area of approximately 5,443ha (13,451 acres) and comprises 33 patented and 799 unpatented federal mining claims covering most of the immediate Northern Belle and Mount Diablo deposit areas.

### History

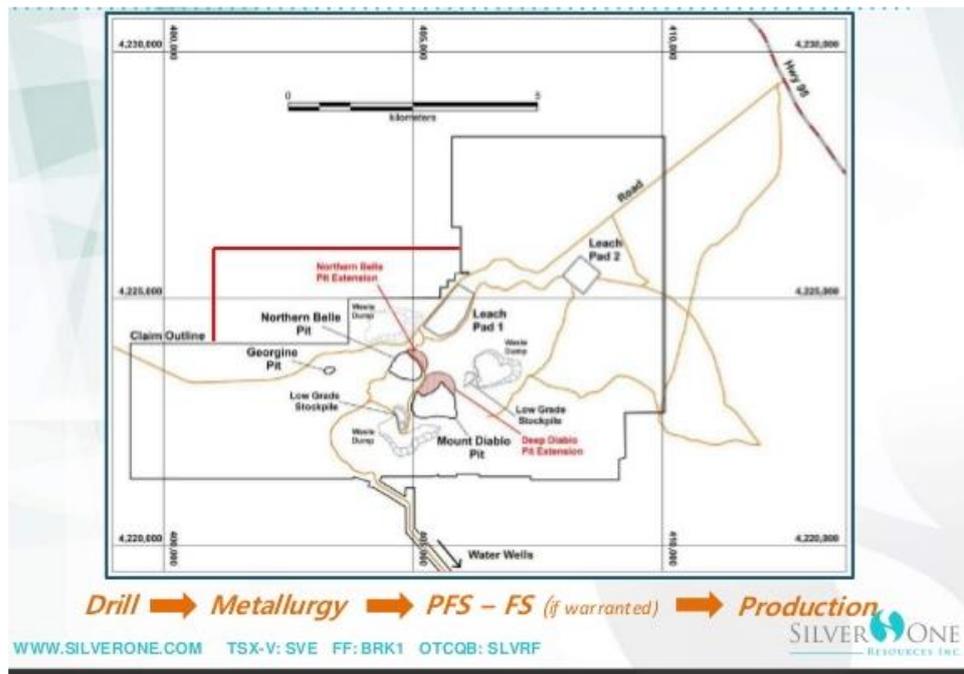
Silver-bearing vein mineralisation was discovered in the Candelaria Mountains in 1863 and a mining district formed the following year, becoming one of the richest silver districts in the state, although at a relatively slow pace owing to the complex mineralogy of the oxide ores. The earliest producer was the Northern Belle mine, which began production in 1865 and was later owned by the Northern Belle Mill and Mining Company, which operated the underground mine for the next nine years. Mineralisation was mined from narrow, oxidised, high-grade lodes averaging 50–60 ounces of silver per (short) ton and ore production rates in the order of 20,000 tons per year. In 1884, the mine was purchased by the Holmes Mining Company, but failed to achieve the previous production levels and was closed in 1891.

The Mount Diablo mine started production in 1873 and became an important producer in 1884. Several other prospects and small operations were also active during this time, but with only limited production. By the late 1880s to early 1890s, the bonanza oxide deposits were becoming exhausted as the deeper workings increasingly encountered sulphide mineralisation not amenable

to milling. As a result, the district went into rapid decline and, from the 1880s to the mid-1960s, mining activity at Candelaria was intermittent and on a small scale.

In the mid-1960s to the mid-1970s, a number of mining companies explored the property for large tonnage, low-grade silver mineralisation. In 1976, a partnership of Congdon and Carey and Occidental Minerals (Oxymin) defined shallow low-grade deposits at Lucky Hill and Mount Diablo that were amenable to treatment by cyanide leaching. Plant construction began in 1979 and the first doré bullion was poured in 1980. Initial mine production was planned at 2m tons per year. However, operations were suspended in 1982 owing to the post-Hunt brothers' collapse in the silver price. In 1982 and 1983, NERCO Minerals acquired both partners' interests in the mine and restarted mining operations on additional reserves defined at the Mount Diablo and Lucky Hill pits. In 1985, NERCO also began mining the Northern Belle pit and, by 1987, combined production from the Northern Belle and Mount Diablo pits reached 5.5m tons of ore per year. Mine production continued until 1989 for Northern Belle and 1990 for Mount Diablo, when once again low silver prices forced the suspension of all mining operations. In 1992, NERCO completed a sonic drill programme on leach pad 1 (LP1), comprising 36 sonic holes over for 2,510 feet (765m), which were marked with metal pins. No holes were drilled on the other leach pad, LP2, because it was still in active use. NERCO was subsequently acquired by AMAX Minerals, which was, in turn, acquired by Kinross.

#### Exhibit 1: Candelaria project map



Source: Silver One

In January 1994, Kinross defined additional reserves below the Northern Belle pit and mining was resumed. Mine production was primarily from the Northern Belle pit with lesser production from the Mount Diablo and the small J and Georgine pits. Annual production reached 4.3m tons of ore pa in 1996, before mining once again ceased in 1997, albeit leaching continued until February 1999. Over the entire course of Kinross's operatorship, mine production was reported to be 12.7m tons averaging 1.42 ounces of soluble silver and 0.005 ounces of soluble gold per ton, containing a total of 18.0Moz of (soluble) silver and 65,000oz (soluble) gold.

Silver Standard acquired the property from Kinross in May 2001 and, thereafter, it maintained it on a care and maintenance basis. In January 2017, SSR Mining entered into an option agreement with Silver One, whereby the latter was granted an option to acquire 100% of Candelaria in return for four payments of US\$1.0m in shares plus assuming the US\$2.0m reclamation bond liability. The

agreement has been amended on a number of occasions since. In essence though, Silver One has met all of its option exercise payments to date, albeit its 2020 payment has been deferred into the future, based on commercial production of not less than 2.5Moz silver per year, and its assumption of the property's reclamation bond liability has been deferred until January 2023. Note that certain claims are subject to royalty obligations and payments in the form of a 3% net smelter return payable to Teck Resources USA; other claims are subject to a charge of US\$0.01 per ton for waste rock dumped on the claims. During this period, SSR commissioned Pincock, Allen & Holt (PAH) to prepare an NI 43-101 technical report, including a resource estimate. According to the PAH technical report, the historical mineral resources at Candelaria included the remaining down-dip mineral resources for both the Mount Diablo and Northern Belle deposits, the remaining resources in two leach pads and resources contained in two low-grade stockpiles. In a report dated May 2001, measured and indicated resources were estimated at 13.6m tons averaging 3.23 ounces factored total silver per ton (opt Ag total) and 0.003 ounces soluble gold per ton (opt Au soluble), containing 44.1Moz silver or 46.6Moz silver equivalent (AgE). Additionally, there was an inferred resource of 55.7m tons averaging 1.49oz per ton (Ag total) and 0.002oz per ton (Au soluble), containing 82.8Moz silver or 84.8Moz AgE (see Exhibit 3).

### **Recent exploration**

Since the 1960s there have been multiple exploration programmes on the property by several mining companies to investigate its large tonnage, low-grade potential. In 1976, the shallow low-grade deposits at Lucky Hill and Mount Diablo were drill tested over a four-year period to assess their amenability for treatment by cyanide leaching. This work was followed by various exploration drilling campaigns by Oxymin, NERCO and Kinross.

Prior to selling the property, Kinross drill tested the deeper portions of the Mount Diablo and Northern Belle deposits below their pit limits. As part of its due diligence process prior to purchasing the property, in late 1999 and early 2000, Silver Standard carried out twin drilling and sample re-analysis.

More recently, in August 2019, Silver One contracted SHA Geophysics to carry out Heli-GT helicopter-towed aeromagnetic three-axis gradient surveys over the property. The survey was conducted in north-south oriented lines, with a 100m spacing and 40m terrain clearance (sensors) and east-west oriented control lines spaced 1,800m.

Importantly, the geophysical survey was successful in identifying new targets not previously identified as well as in mapping structures that may be important controls to the silver mineralisation. Preliminary results illustrate that mineralised structures present at the Diablo, Northern Belle and (very small) Georgine mines continue 4km to the east and west of the Diablo and Georgine pits respectively. Results also revealed a large magnetic high with a geophysical signature consistent with an iron oxide copper-gold deposit. This feature constitutes a major target 5km long and 1.5km wide to the north of the Georgine pit.

Silver One completed a sonic drill programme on the property in December 2017, including 17 holes on LP1, 10 holes on LP2, 16 holes on the stockpiles and two holes on dump material left over from previous operations. A total of 1,112m were drilled in 45 vertical holes (an average of 24.7m per hole). Drilling was conducted on a 200m spacing rectangular grid with a hole in the centre of each square (providing a nominal spacing of 141m to 200m between drill holes) on LP1, a 100m grid on LP2 and a 50–75m spacing grid on the stockpiles.

Subsequently, between December 2019 and March 2020, Silver One completed a 2,861m programme of PQ and HQ diamond core on the property, comprising seven holes to the north of the Mount Diablo open pit and two holes to the north of the Northern Belle pit.

## Geology

A more detailed description of the deposit types in the Candelaria Mining District and their geological setting is provided in the Geology Appendix, on page 20.

## Mineralisation

There are several types of vein mineralisation within the Candelaria district but only the fault and fracture-controlled vein mineralisation is of economic importance. Primary economic mineralisation consists of mainly pyrite and sphalerite with lesser galena, chalcopyrite and arsenopyrite in a gangue of altered country rock, quartz and dolomite. The early high-grade oxidised ores were recognisable in outcrop as limonitic and manganese-stained fault breccias with minor amounts of bindheimite, anglesite, smithsonite and cerussite.

The remaining Mount Diablo deposit peripheral to and beneath the open pit occurs primarily in the Lower Candelaria Shear as mixed oxide/sulphide transitional and sulphide-rich mineralisation. The remaining Northern Belle mixed oxide/sulphide transitional and sulphide rich mineralisation occurs peripheral to and beneath its open pit hosted by the Pickhandle Gulch Thrust.

It is from this material that the leach pads that are the principal subject of this report are composed.

## Resources

Silver One has recently updated its resource at Candelaria. The original object of this exercise was to bring resources that had previously been estimated in May 2001 by PAH for Silver Standard Resources, up to contemporary standards. Among other things, this involved drilling confirmatory holes close to historical holes. However, drilling was only c 70% complete by mid-March, when it was interrupted by the coronavirus crisis. As a result, the recent update only covers resources contained in the heap leach pads at Candelaria, albeit these potentially represent a low intensity way to generate positive cash flow at Candelaria to facilitate development of a broader operation also encompassing hard rock mining and processing.

Resources according to Silver One's recent update are therefore as follows:

<b>Exhibit 2: Updated Candelaria resource, heaps only (August 2020)</b>									
Category	Leach pad	Thousand tonnes (kt)	Ag grade (oz per tonne)	Contained silver (koz)	Contained gold (koz)	Ag grade via fire assay (g/t)	Au grade via fire assay (g/t)	Soluble Ag (g/t)	Soluble Au (g/t)
Measured		0	0.00	0	0	0.0	0.000	0.0	0.000
Indicated	LP1	22,184	1.35	30,017	52.0	42.1	0.074	15.6	0.022
Inferred	LP2	11,451	1.34	15,397	36.7	41.8	0.100	23.3	0.032
<b>Total</b>		<b>33,635</b>	<b>1.35</b>	<b>45,414</b>	<b>88.7</b>	<b>42.0</b>	<b>0.083</b>	<b>18.2</b>	<b>0.015</b>

Source: Silver One, Edison Investment Research. Note: Reported according to CIM Definition Standards (2014). Reported ppm reflected as g/t.

These resources may be compared to the historical resources estimated by SSR and PAH, as follows (note the use of short tons in the historical resource estimate, each comprising 20cwt of 100lbs apiece, rather than metric tonnes in the updated mineral resource estimate of 1,000kg apiece):

**Exhibit 3: Historical Candelaria resource (May 2001)**

Asset	Category	Thousand tons	Grade (oz per ton)	Contained silver (koz)
Mount Diablo	Measured	3,391	4.44	15,054
	Indicated	10,231	2.84	29,005
	Inferred	5,191	2.12	11,015
	<b>Total</b>	<b>18,813</b>	<b>2.93</b>	<b>55,074</b>
Northern Belle	Measured	0	0.00	0
	Indicated	0	0.00	0
	Inferred	9,162	2.26	20,661
	<b>Total</b>	<b>9,162</b>	<b>2.26</b>	<b>20,661</b>
Leach pads	Measured	0	0.00	0
	Indicated	0	0.00	0
	Inferred	37,328	1.29	48,153
	<b>Total</b>	<b>37,328</b>	<b>1.29</b>	<b>48,153</b>
LG stockpiles	Measured	0	0.00	0
	Indicated	0	0.00	0
	Inferred	4,000	0.75	3,000
	<b>Total</b>	<b>4,000</b>	<b>0.75</b>	<b>3,000</b>
<b>Total</b>	<b>Measured</b>	<b>3,391</b>	<b>4.44</b>	<b>15,054</b>
	<b>Indicated</b>	<b>10,231</b>	<b>2.83</b>	<b>29,005</b>
	<b>Inferred</b>	<b>55,681</b>	<b>1.49</b>	<b>82,829</b>
	<b>Total</b>	<b>69,303</b>	<b>1.83</b>	<b>126,888</b>

Source: PAH, Silver Standard Resources. Note: 0.5oz per ton cut-off applied to lode resources; leach pad and low-grade stockpile resources tabulated for entire accumulation of material. In the opinion of PAH, the classification of lode resources included in this estimate met the standards of NI 43-101 and the definitions of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM, 2000).

The reconciliation for resources that may be compared directly (ie the heap leach pads) is within 6% of the earlier estimate of contained silver (note that, for the purposes of the direct comparison in Exhibit 4, below, the previous resource has been rendered from short tons into metric tonnes):

**Exhibit 4: Updated vs previous Candelaria resource, heaps only (August 2020 and May 2001)**

Version	Category	Thousand tonnes	Grade (ppm)	Grade (oz per tonne)	Contained silver (koz)
Updated	Measured	0	0.0	0.00	0
	Indicated (LP1)	22,184	42.1	1.35	30,017
	Inferred (LP2)	11,451	41.8	1.34	15,397
	<b>Total</b>	<b>33,635</b>	<b>42.0</b>	<b>1.35</b>	<b>45,414</b>
Previous	LP1 (Inferred)	22,347		1.38	30,732
	LP2 (Inferred)	11,517		1.51	17,446
	<b>Total inferred</b>	<b>33,863</b>		<b>1.42</b>	<b>48,153</b>

Source: PAH, Silver Standard Resources, Silver One, Edison Investment Research. Note: Updated resource reported using 0.01g/t silver fire assay cut-off grade.

In terms of the individual leach pads, the largest variance between the previous and updated resource estimates exists in the grade of the LP2 pad, which has reduced by almost 12%, from 1.51oz per tonne to 1.34oz per tonne. While the mineral resource estimate of LP1 is almost unchanged in terms of both grade and tonnage however (variances in each are less than 2%), the categorisation of the resource has improved from the 'inferred' to the 'indicated' category, which allows it to be included in future reserve estimates and confers upon it a much greater level of confidence and, therefore, much less risk compared to previously.

Perhaps more significantly, the relatively low variance in mineral resource estimates for those assets that may be compared directly, in combination with the recent, sharp increase in the silver price, engenders confidence in the original resource estimates and methodology of 2001 and confidence that the updated resource estimates for those assets for which evaluation has yet to be completed – not least on account of the coronavirus crisis – will exhibit small levels of variance relative to the original estimates once the relevant work has been completed.

## Resources within the context of prospects for economic extraction

Canada's regulatory regime requires that resources are reported within the context of certain economic thresholds for a given development scenario, such that there is deemed to be a reasonable prospect for economic extraction. To fulfil this requirement, Silver One developed a conceptual crushing and leaching scenario using the Merrill-Crowe process (ie cyanidation) based on the results of high-pressure grinding roll (HPGR) and column leach tests. Within this context, a conceptual cash flow for a loading and crushing operation was developed based on operational throughputs of 5,000tpd, 10,000tpd and 15,000tpd. The base case was the 15,000tpd option with a silver recovery of 35% and a silver price of US\$20/oz. The crushing and process plant costs were obtained from InfoMine. A summary of some of the main economic and operational parameters used in fulfilling this test is as follows:

<b>Exhibit 5: Assumptions considered for conceptual heap leach reprocessing</b>	
<b>Parameter</b>	<b>Assumption</b>
Throughput rates	5,000tpd, 10,000tpd and 15,000tpd
Mining costs	US\$0.41/tonne mined
Operating cost	US\$6.12/tonne feed
General and administrative costs	US\$0.74/tonne
Silver recovery	35%
Gold recovery	20%
Silver price	US\$20.00/oz
Gold price	US\$1,500/oz
Refining cost	US\$0.25/oz

Source: Silver One. Note: Crushing and process plant costs obtained from InfoMine.

The results from the conceptual milling operation are used solely to fulfil the requirement for testing the 'reasonable prospects for economic extraction' for the leach pads and do not represent an attempt to estimate mineral reserves. Note that no mining cut-off grade was applied to the heap leach pads as it is assumed the material would be processed in its entirety.

## Further conclusions from exploration drilling completed to date

Apart from the size of the resource itself, initial conclusions derived from the exploration work conducted at Silver One's other assets at Candelaria to date are as follows:

- The mineralisation is not of exceptionally high grade, however (importantly):
  - It is not 'nuggety'
  - It is consistent
  - It does not terminate at depth
  - The grade does not decrease with depth

In consequence of these characteristics, Silver One is continuing exploration and development work on its other assets at Candelaria in the reasonable expectation that they will prove to be amenable to eventual economic extraction.

## Options for the development of Candelaria

A Kappes, Cassidy & Associates (KCA) report to Silver Standard in 2000 provided a scoping level study of capital costs, operating costs and silver production estimates for heap leaching additional lode material, as well as the further leaching of Leach Pad 2 via grinding, flotation, roasting and cyanide leaching at a rate of 2m tons per year.

Silver One is now evaluating potential processing techniques and scenarios for the processing of additional lode and stockpile material, as well as the further processing of the leach pads. The company perceives that it has three discrete options for the development of the deposits:

- In-situ leaching of the existing leach pads. This is the easiest of all three options, as the permitting and processing are simple. Permitting involves only amending the existing permits and closure plans of previous operators. Processing entails a single stage of high pressure grinding roll (HPGR) crushing followed by leaching on the same leach pads. This scenario represents a low intensity way to potentially generate positive cash flow which could then be utilised to facilitate development of a broader operation encompassing hard rock mining and processing.
- Short-term mining of oxide ore for heap leach treatment to supplement in-situ leaching of the existing leach pads. This option would involve mining near-surface hard-rock material located at the bottom of the pits in order to combine it with leach pad material. Heap leach material would be finely crushed, agglomerated and placed on the existing leach pads and then leached.
- Fine grinding and processing by direct cyanidation and microbubbles. This is the most involved of the three options and requires both a new process flow route to those used in the past and also new tailings storage facilities.

Silver One is conducting a series of tests to investigate the viability of all three options, including tests on metallurgical recoveries and also costs. Among other things, this has included testing the ore's amenability to fine grinding by a proprietary Outotec HIGmill and processing by leaching methods and microbubbles for higher grade, hard-rock resources. NB: This method of processing could also potentially increase recoveries of lower grade leach pad material.

Currently, Silver One's preference is to develop Candelaria via a combination of two of the above options; for example, by developing a heap leach operation to the point of profitability, by which time it would then be in a position to begin exploiting easy to mine, high-grade mineralisation (eg at the bottom of the existing pits).

## Ongoing exploration and development at Candelaria

To achieve its development goals, there are three ongoing exploration and test-work programmes underway at Candelaria. These include:

- Metallurgical test work to determine a possible processing route for, initially, the leach pads, followed by near-surface oxide material and then deeper sulphide material.
- Second phase (reverse circulation as opposed to previous diamond) grade control drilling to:
  - Investigate continuity down-dip from the existing, identified pits and ore bodies, among other things, by gaining a better understanding regarding the geology and structural controls relating to the mineralisation.
  - Contribute to an updated mineral resource estimate.
- Exploration to establish the continuity of mineralisation along strike between the existing pits.

## Metallurgical test work results to date

The Candelaria deposits consist of complex ores – in some cases with a refractory component – but have nevertheless been mined and processed by heap leaching over approximately two decades and by underground methods for longer. During this time, additional test work has been conducted. More importantly, there is now also actual heap leach production experience for the operation on which to draw.

In 2018, Silver One supplemented this historical knowledge by initiating two metallurgical studies by McClelland Laboratories, which conducted leach testing of composites from leach pads and low-grade stockpiles, and KCA, which performed bottle roll and column leach tests on material from the leach pads only.

## 2018 McClelland Laboratories' tests

In 2018, Silver One engaged McClelland Laboratories to conduct preliminary cyanide and ammonium thiosulphate leach testing on composites of leach pad material and of low-grade stockpile from the Candelaria Mine. Some of the findings of McClelland's subsequent report are reproduced below:

- Composite samples from the Candelaria leach pads were subjected to cyanidation leach testing and ammonium thiosulphate leach testing. In both cases, tests were conducted at feed sizes of 80% <1.7mm, <212µm and <75µm. Composite average silver grades ranged from 35–47g/t Ag. Average gold grades ranged from 0.07–0.24g/t Au.
- Summary cyanidation testing results indicated that none of the Candelaria leach pad composites tested were readily amenable to agitated cyanidation treatment. At the finest grind size tested (80% <75µm), silver recoveries ranged from 42.9% to 60.4% and averaged 51.1% after 96 hours of leaching. Gold recoveries at this feed size varied widely and ranged from <5.9–57.1%.
- None of the leach pad composites were readily amenable to agitated leaching with ammonium thiosulphate. Silver and gold recoveries by ammonium thiosulphate leaching were similar to those for cyanidation for a given composite. Silver recoveries ranged from 20.9% to 56.3% after 96 hours of leaching. Gold recoveries were 33.3% or less.
- The Candelaria leach pad composites did not respond particularly well to milling cyanidation treatment at feed sizes of 80% <1.7mm to <75µm. Silver recoveries at these sizes ranged from 20.9% to 60.4% and gold recoveries were generally 25.0% or less.
- Results indicate that very fine grinding would be required to maximise leaching recoveries.
- Extending leach cycles beyond 96 hours would not result in substantially higher recoveries.
- Cyanide consumption and lime requirements were generally low during cyanidation treatment.
- Recovery by ammonium thiosulphate leaching may be slightly improved by maintaining a higher thiosulphate concentration during leaching.

A summary of these findings is as follows:

<b>Exhibit 6: Candelaria leach test summary by solvent (extraction rates, %)</b>						
Material size	Solvent	Silver extraction (%)			Gold extraction (%)	
		Low	Average	High	Low	High
P80 75µm	Cyanide	42.9	51.1	60.4	<5.9	57.1
P80 75µm	Ammonium thiosulphate	20.9		56.3		<33.3
All other	Both	20.9		60.4		<25.0

Source: McClelland Laboratories, Silver One, Edison Investment Research

In the same suite of tests, McClelland also found that the low-grade stockpile composite was not readily amenable to simulated heap leach cyanidation treatment, with column test silver and gold recoveries of only 29.6% and 50.0%, respectively, after 80 days of leaching and rinsing. In addition, cyanide consumption was high.

McClelland finished its report by recommending that mineralogical and/or diagnostic leach testing be conducted on the leach pad composite material to determine the causes of the refractory nature of the material and to determine an optimum strategy for improving recovery.

## 2018 KCA tests

In October 2018, KCA conducted bottle roll leach tests and column leach tests on two individual composite samples from LP1 and LP2. The relevant sections of the executive summary from the subsequent report are summarised below.

### Bottle roll tests

- Two 1,000g portions of head material from each sample were pulverised to a target size of 100% passing 0.15mm and leached over 96 hours at two different sodium cyanide concentrations of 1.0g/l and 2.0g/l sodium cyanide.
- LP1 exhibited an increased extraction of silver from 41% to 45% at the higher concentration sodium cyanide solution, but a lower extraction of gold (32% vs 37%). By contrast, LP2 demonstrated a higher extraction for both silver (60% vs 54%) and gold (26% vs 20%) at the increased sodium cyanide concentration.

A summary of the bottle roll tests is as follows:

<b>Exhibit 7: Candelaria bottle roll test summary (extraction rates, %)</b>				
Sodium cyanide concentration (g/l)	Silver		Gold	
	2.0	1.0	2.0	1.0
LP1	45	41	32	37
LP2	60	54	26	20

Source: KCA, Silver One, Edison Investment Research

### Column leach tests

Column leach tests on leach pad material were conducted using HPGR product stage crushed material (P80 4.0mm and 1.7mm). During testing, the material was leached for 120 days with a sodium cyanide solution.

- Gold extraction for the column leach test using P80 4.0mm material from LP1 was 22% for the 120-day period, based on a calculated head grade of 0.106g/t Au. Silver extraction was 25% based on a calculated head grade of 41.7g/t. Sodium cyanide consumption was 1.31kg/t. The material used in leaching was agglomerated with 2.09kg of cement per tonne of dry ore.
- In comparison, gold extraction for the column leach test using P80 1.7mm material from LP1 material was 21% for the 120-day period, based on a calculated head grade of 0.098g/t. Silver extraction was 29% based on a calculated head grade of 42.9g/t. Sodium cyanide consumption was 1.61kg/t. The material used in leaching was agglomerated with 2.11kg of cement per tonne of dry ore.
- Gold extraction for the column leach test using P80 4.0mm material from LP2 was 20% for the 120-day period, based on a calculated head grade of 0.106g/t. Silver extraction was 34% based on a calculated head grade of 42.1g/t. Sodium cyanide consumption was 1.39kg/t. The material used in leaching was agglomerated with 1.97kg of cement per tonne of dry ore.
- In comparison, gold extraction for the column leach test using P80 1.7mm material from LP2 was 27% for the 120-day period, based on a calculated head grade of 0.106g/t. Silver extraction was 40% based on a calculated head grade of 45.6g/t. Sodium cyanide consumption was 1.77kg/t. The material used in leaching was agglomerated with 2.02kg of cement per tonne of dry ore.

A summary of the column leach test results is as follows:

<b>Exhibit 8: Candelaria column leach test summary (extraction rates, %)</b>					
Leach pad	Material size	Silver extraction rate	Gold extraction rate	Sodium cyanide consumption (kg/t)	Cement agglomeration (kg/t)
LP1	P80 4.0mm	25% at 41.7g/t	22% at 0.106g/t	1.31	2.09
LP1	P80 1.7mm	29% at 42.9g/t	21% at 0.098g/t	1.61	2.11
LP2	P80 4.0mm	34% at 42.1g/t	20% at 0.106g/t	1.39	1.97
LP2	P80 1.7mm	40% at 45.6g/t	27% at 0.106g/t	1.77	2.02

Source: KCA, Silver One, Edison Investment Research

### Metallurgical test-work conclusions

Both McClelland’s cyanidation tests and KCA’s bottle roll tests demonstrated the best metallurgical recoveries of the heap leach pad material were achieved from LP2, which supports an exploitation scenario for the leach pads that starts with this material. Importantly however, neither could identify any other known processing factors or deleterious elements that could have a significant adverse effect on the potential economic extraction of the material tested.

### Timelines and milestones

While the future timing of the development of Candelaria is dependent on test-work results, to date Silver One reports that it has received no negative surprises from those results that it has received. That being the case, an estimate of its timelines and milestones to production may be postulated as follows:

<b>Exhibit 9: Silver One milestones and timelines to possible production at Candelaria</b>	
<b>Milestone</b>	<b>Timing</b>
Leach tests and results	2020
In-fill reverse circulation drilling	2020/2021
Updated mineral resource estimate	Late 2020/early 2021
Evaluate results of fine milling tests	2021
Feasibility study	Late 2021/early 2022
Raise finance	2022
Project construction	+2yrs
Production	2025
Source: Edison Investment Research	

## Cherokee (Nevada)

### Background

Mineralisation identified at Cherokee to date may best be described as epithermal in nature – a geological system associated with many of the silver and gold precious metal deposits and mines in Nevada and also around the world. Regionally, the area also hosts large tonnage limestone replacement styles of mineralisation, such as at the nearby past-producing Ag-Au-Zn-Pb Pioche historic mining camp. Of specific interest at Cherokee are a number of north-west trending, high-grade, epithermal-style precious and base metal bearing vein systems (called Cherokee, Hidden Treasure, Mojoto, and Johnnie and, more recently, Garden Mountain, Viola and Blue Nose) that occur within a structural corridor that can be traced over 12km along strike. A third type of mineralisation may also be present, as evidenced by past exploration in the 1980s that targeted a porphyry molybdenum deposit associated with an interpreted buried intrusive in the southern portion of the claims that exhibited a strong magnetic high in Silver One’s 2019 airborne magnetometer survey.

To date, approximately 70% of the exposed area of the property has been mapped to various levels of detail and subjected to preliminary sampling. In-fill sampling has also been conducted in areas previously mapped and preliminary drilling targets at some of the high-grade areas identified. Selected sampling results, to date, have revealed grades as high as 953g/t Ag in combination with 4.8% Cu at the historic Cherokee mine-site and, at Hidden Treasure, up to 1,800g/t Ag and 2g/t Au. However, assay results in larger areas of hydrothermal alteration reveal that several targets remain open and will require additional in-fill mapping and sampling.

Taken together, the amount (and wide distribution) of high-grade vein samples exposed on surface to date, in combination with the multi-faceted styles of other potential mineralised systems render Cherokee a very highly prospective silver, gold and base metal property, in Silver One’s opinion, as a result of which, it is pursuing further work to better outline and rank additional drilling targets. In

the immediate future, this will take the form of further exploration to evaluate large areas of the property that remain untested and to prioritise drill targets to potentially extend known mineralisation from exposed veins.

## Recent developments

In its announcement of 10 June, Silver One reported the discovery of several areas outside the previously sampled vein systems characterised by high-grade select rock samples. These new areas were called Garden Mountain, Viola and Blue Nose, and are located in the south-eastern portion of the property, marginal to the interpreted buried intrusive complex confirmed in 2019.

Previous sampling completed in 2018 identified strong silver and copper values at the historic Cherokee Mine workings and strong silver and gold values at Hidden Treasure. Highlights of SVE's more recent exploration work on the new areas include:

- Generally, strong silver and gold and elevated copper, lead and zinc values. Samples collected in the Garden Mountain area, for example yielded grades up to as high as 418g/t silver and 1.05% copper, while the Viola–Blue Nose areas returned values as high as 647g/t silver and 2.47% copper and 253 g/t silver, 2.05 g/t gold and 0.72% copper. Lead and zinc values were reported to vary from background to 9.3% and 39% respectively.
- The Cherokee, Mojoto and Hidden Treasure veins are covered by alluvium and post-mineral volcanic rocks to the north-west and are overlain by pre- and post-mineral volcanics to the south-east; however, soil geochemistry and magnetometry indicate that the veins may continue both to the north-west and to the south-east under cover.
- Cherokee veins occur within the same aged limestones as those that host high-grade silver and gold veins as well as copper-lead-zinc-silver-gold limestone replacement deposits historically mined at the Pioche mining camp, located approximately 70km to the north of Cherokee.

SVE's interpretation of the exploration work concluded so far is that, in addition to the significant high-grade epithermal vein mineralisation exposed on surface to date, the project could also host skarn and limestone replacement polymetallic mineralisation rich in gold and silver and similar to that carbonate replacement mineralisation occurring at Pioche or to some of the large Mexican producers such as Santa Eulalia, Chihuahua, Mapimi-Ojuela and Velardeña.

## Silver Phoenix (Arizona)

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### Background

The Silver Phoenix Project is located within the 'Arizona Silver Belt', which occurs on the margins of the prolific copper producing area near Globe, Arizona, where diversified majors, such as BHP, Rio Tinto and Freeport McMoran all have producing mines. The Arizona Silver Belt is characterised by native silver bearing minerals and hosts several small historic silver producers, including the McMorris, Buckeye and Stonewall Jackson mines, which lie to the east of Silver Phoenix.

Several vein structures are partially exposed on the property, some of which have been sampled, with assays returning grades as high as 149g/t silver, while several native silver vein fragments have been uncovered from beneath the Silver Phoenix overburden, which are interpreted as being derived from nearby vein structures as determined by both the intergrowth of the quartz and carbonate with native silver and other silver minerals and by the non-abraded (ie non-scratched and scuffed) physical nature of the fragments, which indicates that they have not been transported very far. Most of the veins trend east-west (similar to mineralised structures in the historic McMorris and Buckeye mines) and the projection of some of the veins occurs just upslope from the areas where

the large silver bearing vein fragments were located. One such fragment recovered from the property weighed as much as 417lb and was interpreted to have a high native silver content (as much as 70%) by virtue of specific gravity calculations in combination with the visual presence of abundant native silver. Another 18.7lb sample was assayed by concentrate sampling techniques at Skyline Assayers & Laboratories in Tucson, Arizona, and found to contain 459,000g/t (14,688oz/t, or slightly less than 50%) silver.

Silver One is in the process of conducting detailed mapping and sampling along with soil and bio-geochemical and geophysical surveys at Silver Phoenix to explore for covered areas of the vein structures that may be the source of some of these very high-grade vein fragments.

## Recent developments

The focus of the work undertaken since March 2020 has been to identify the upslope source of the two vein fragments alluded to above. This consists of prospecting, geological mapping and rock and soil sampling, as well as a ground supported self-potential (SP) geophysical survey and a soil geochemistry survey along a 1.1km east-west by 300m north-south grid covering the area in the vicinity of the 417 Vein (the presumed source of the 417lb vein fragment). In total 1,279 soil samples have been collected. To date, company geologists have identified five vein systems (including the 417 Vein and the Mexican Mine Vein) in the northern portion of the property and six silver rich polymetallic veins in the southern portion. The SP and soil geochemistry surveys, in particular, revealed strong anomalies upslope and to the north-west of the area of the vein fragments and Silver One's immediate plan for Silver Phoenix is therefore to undertake a ground electromagnetic survey around the 417 Vein and a drone-borne magnetic survey of the entire property, with a target of drill testing some of the most prospective anomalies as soon as surface exploration has been completed. In principle, these would be similar to the surveys completed at both its Cherokee and Candelaria projects that were successful in outlining potential structural and lithological hosts to mineralised systems. In the meantime, the company has initiated archaeological and biological surveys that will be required for the necessary drilling permits.

In addition to identifying the vein fragment extensions, several new exposed quartz-carbonate vein structures have also been identified in the northern portion of the property. These vary in width from a few centimetres to over a metre and can be traced for several hundred metres along strike. Select surface sampling of these veins has returned silver values, in some cases, in excess of 650g/t Ag. Perhaps more significantly, these new veins are commonly hosted within Precambrian–Proterozoic aged diabase and thus have the potential to be more regional in scale similar to the Cobalt-Gowganda silver camp in northern Ontario, which is estimated to have produced a total of over 500Moz Ag from high-grade underground vein mining.

Finally, also of interest is the southern area of the property, where veins have also been identified that have returned strongly elevated copper, lead, zinc and molybdenum values in addition to silver ones. Rock samples collected from these veins ranged in value up to 2,550g/t silver, 11.5% zinc, 12.89% lead and 1.58% copper and veins of this type were mined at the historic Silver King and Silver Queen Mines and occur above and peripheral to nearby porphyry copper deposits at Super Arizona, 50km south-west of Globe. As such, the veins on Silver One's Silver Phoenix property may be similarly indicative of porphyry related mineralisation at depth. This may prove significant in that there are a number of major producing copper mines to the south-west of Silver Phoenix that are operated by, for example, mining majors such as Rio Tinto, Freeport McMoran and BHP. These mines are typically underlain by Late Cretaceous–Tertiary aged intrusives that are host to their own porphyry mineralisation and it has been speculated that the southern portion of the Silver Phoenix project may be similarly overprinted by these more recent porphyry copper events.

Note that any one, or all, of the above surveys may be expanded should it be merited by results.

## Base case valuation

Edison's Mining Prospects notes are not intended to include detailed financial modelling or valuations and it is within that context that the following indications of value are provided.

In our report [Gold stars and black holes](#) published in January 2019, we calculated in-situ values for undeveloped silver resources of: negative US\$0.65 for each ounce of silver in the measured category; positive US\$0.25 for each ounce of silver in the indicated category; and positive US\$1.29 for each ounce of silver in the inferred category. The blended average value of a resource ounce of silver (including co-products) was (positive) US\$0.44/oz. Note that the negative valuation of 'measured' ounces, on average, reflects the likelihood that the benefit to companies' valuations from upgrading, for example, 'indicated' ounces into the 'measured' category is unlikely to match to the cost incurred in doing so (hence the negative marginal value of 'measured' resources of 'indicated' ones). Applying these benchmarks, valuations of both Silver One's updated and historical resources are as follows:

Exhibit 10: Silver One updated and historical resource valuations (US\$m)							
Category	In-situ valuation (US\$/oz)	Updated resource		Historical resource			
		Silver resource (koz)	Resource valuation (US\$m)	Leach pad resource (koz)	Leach pad resource valuation (US\$m)	Total resource (koz)	Total resource valuation (US\$m)
Measured	(0.65)	0	0.0	0	0.0	15,054	(9.8)
Indicated	0.25	30,017	7.5	0	0.0	29,005	7.3
Inferred	1.29	15,397	19.9	48,153	62.1	82,829	106.8
<b>Sum</b>		<b>45,414</b>	<b>27.4</b>	<b>48,153</b>	<b>62.1</b>	<b>126,888</b>	<b>104.3</b>
<b>Total</b>	<b>0.44</b>	<b>45,414</b>	<b>20.0</b>	<b>48,153</b>	<b>21.2</b>	<b>126,888</b>	<b>55.8</b>

Source: Edison Investment Research, Silver One, PAH, Silver Standard Resources

Silver One's current enterprise value of c US\$118m (c C\$155m) may be directly compared with these valuations, of US\$20.0–27.4m for Candelaria's updated leach pads resource and US\$55.8–104.3m for its total historical resource, which included the leach pads, as well as low-grade stockpiles and lode silver resources. Taken at face value, they may be interpreted in any one of the following ways (among others):

- Silver One's EV being at a premium to the valuation of its updated resource at Candelaria could be interpreted in any one of three ways, including:
  - The market is discounting an eventual increase in the ultimate global resource at Candelaria of approximately four to six times at the same in-situ valuation per ounce (eg  $6 \times 45.4 = 272.4$  Moz at US\$0.44/oz approximately equals the company's current enterprise value).
  - Alternatively the market is conferring a premium valuation on the updated resource for the leach pads at Candelaria to reflect higher than average prospects for their eventual profitable production and simultaneously discounting the value of the balance of the historical resources (eg it could be conferring a premium valuation of US\$2.59 per updated resource ounce and zero for the balance of the historical global resource ounces;  $2.59 \times 45.4 \approx \text{EV}$ ).
  - A combination of the above two points (eg the market could be conferring a premium valuation of, say, US\$1.30/oz for the updated heap leach pad resource on account of its higher than average prospects for eventual profitable exploitation plus US\$0.72/oz for the balance of Candelaria's historical global resource, for which upgrade to modern NI 43-101 standards is pending). Note that, in Edison's opinion, this is likely to be the most appropriate rationalisation of Silver One's current enterprise value (subject to the modifying factors described below).
- Silver's One's EV being at a premium to the valuation of its historical resource may similarly be interpreted in one of four ways:

- The market accepting that the final global resource at Candelaria is likely to be the same order of magnitude or slightly larger than the historical resource with approximately the same proportion of resources in each category; in this case, US\$104.3m is close to SVE's current EV of US\$117.7m.
- The market accepting that the final global resource at Candelaria is likely to be the same order of magnitude as the historical resource, but valuing all categories of resources equally and conferring upon those resources an additional premium of up to 110.9% for above average prospects for achieving eventual profitable production (US\$0.44/oz x 210.9% ≈ US\$0.93/oz; US\$0.93/oz x 126.9Moz ≈ EV). Subject to the modifying factors, below, Edison believes that this is likely to prove the most appropriate rationalisation for Silver One's current EV (within the context of its historical resource).
- The market valuing all categories of resource ounces equally, but discounting the ultimate updated global resource at Candelaria being up to 110.9% larger than the historical global resource (US\$55.8m x 210.9% ≈ EV).
- A combination of points 2 and 3 – for example, the ultimate updated global resource at Candelaria being 45.2% higher than the historical global resource (ie 184.3Moz) and market is affording each ounce a premium valuation of US\$0.64/oz (1.452 x US\$0.44/oz).

## Modifying factors

At least two additional modifying factors that we believe should be taken into consideration in our valuation of SVE's resources are:

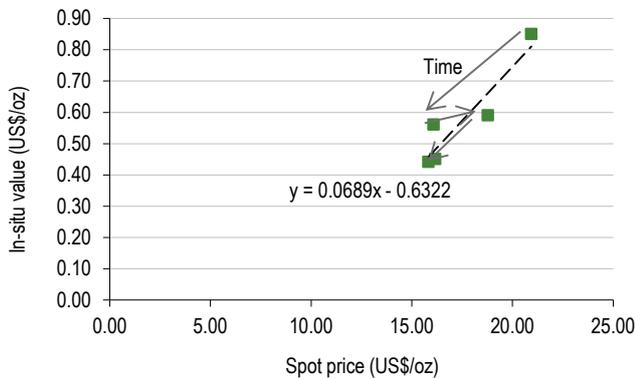
- Edison's average in-situ value of US\$0.44/oz was calculated at a time when the silver price was US\$15.84/oz (ie a ratio of 2.8%) compared with a silver price, at the time of writing, of US\$28.18/oz.
- Silver One's resources are located in Nevada, which was rated the best destination for mining investment in the world by the Fraser Institute in its survey of Investment Attractiveness in 2018.

The effect that each of these might have on the valuation of Silver One's resources is considered in turn, below.

## Silver price

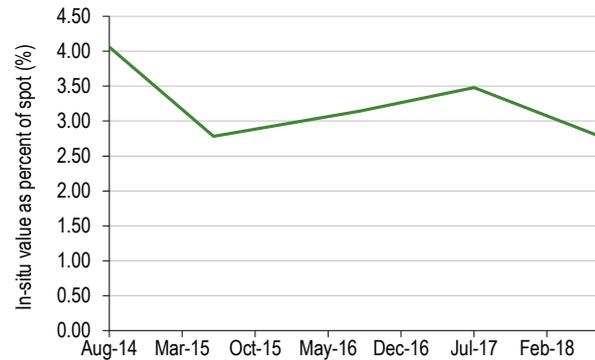
The ratio of the average in-situ value calculated in our report in January 2019 (US\$0.44/oz) to the current price of silver is 1.6%, which is well below the bottom end of the historical range of 2.8–4.1% over the course of the past six years (see Exhibit 12). Alternatively, the empirical relationship between the in-situ value of silver resources and silver metal may be derived from a regression analysis between the two, as depicted in Exhibit 11 (note that, notwithstanding there being only five data points, with a Pearson product moment correlation coefficient of 0.93, the analysis may still be said to be statistically significant at the 5% level; that is to say, there is less than a 5% chance that the observed correlation between in-situ silver values and the silver price occurred by chance):

**Exhibit 11: In-situ value of total silver resources vs spot price of silver, 2014–18**



Source: Edison Investment Research

**Exhibit 12: In-situ value of total silver resources as percentage of silver spot price, 2014–18**



Source: Edison Investment Research

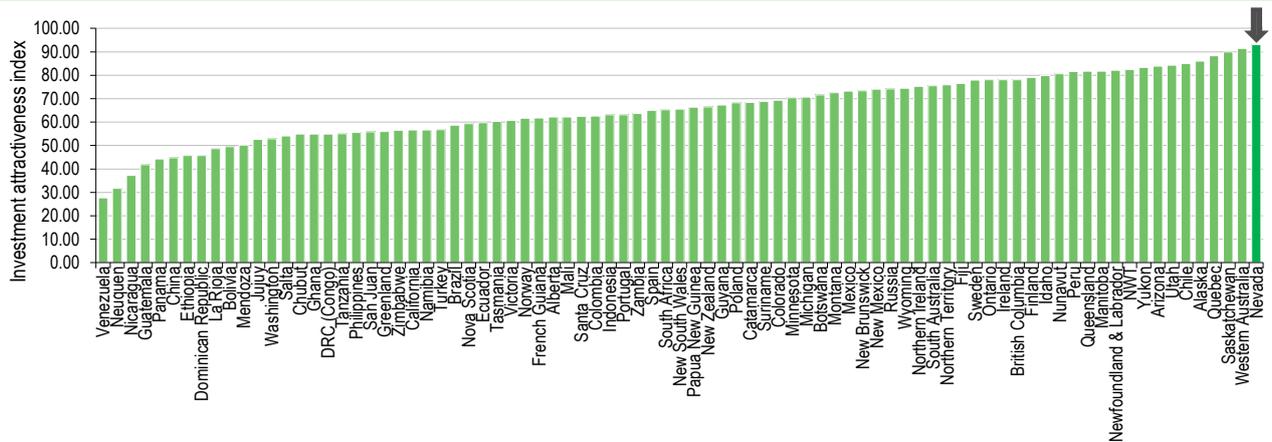
There are two potential methods to address the rise in the price of silver:

- Applying the average percentage ratio of 3.25% observed over the four year period (see Exhibit 12) to the silver price at the time of writing would imply a blended average value of in-situ resources of US\$0.92/oz (a 108.1% premium cf US\$0.44/oz). Applied to the resources shown in Exhibit 10, this would, in turn, imply a valuation of:
  - US\$41.6m (cf US\$20.0m) for the updated resource,
  - US\$44.1m (cf US\$21.2m) for the historical heap leach pad resource, and
  - US\$116.2m (cf US\$55.8m) for the total historical resource.
- The (linear) best-fit line of the regression analysis between the in-situ valuation of resources and the spot price of silver (the dashed line in Exhibit 11) indicates that the value of in-situ resources at a spot price of silver of US\$28.18/oz should be US\$1.31/oz. On this basis, the resources shown in Exhibit 10 would have a value of:
  - US\$59.5m (cf US\$20.0) for the updated resource,
  - US\$63.0m (cf US\$21.2m) for the historical heap leach resource, and
  - US\$166.1m (cf US\$55.8m).

### The value of Nevada as a jurisdiction

In its 2018 survey of Investment Attractiveness, the Fraser Institute ranked Nevada the top jurisdiction for mining investment, worldwide – a rating that slipped to just third place (out of 76) in 2019.

**Exhibit 13: Fraser Institute index of Investment Attractiveness, 2018 (Nevada highlighted)**



Source: Fraser Institute

On this basis, it might be expected that Silver One’s resources should command a premium rating. In the case of our analysis of in-situ silver values in [Gold stars and black holes](#), the highest value ratings accorded to different categories of resources were US\$0.07/oz, US\$3.27/oz and US\$1.29/oz for ‘measured’, ‘indicated’ and ‘inferred’ resources, respectively (note the continued valuation discount of ‘measured’ resource ounces relative to ‘indicated’ and, in this case, ‘inferred’ ounces, as well). The highest, blended average in-situ resource value was US\$2.67/oz. Applying these values results in the following valuation of Silver One’s resource base (cf Exhibit 10):

**Exhibit 14: Silver One historical resource valuation reflecting Nevada premium (US\$m)**

Category	Maximum in-situ valuation (US\$/oz)	Updated resource		Historical heap leach resource		Total historical resource	
		(koz)	Valuation (US\$m)	(koz)	Valuation (US\$m)	(koz)	Valuation (US\$m)
Measured	0.07	0	0.0	0	0.0	15,054	1.1
Indicated	3.27	30,017	98.2	0	0.0	29,005	94.8
Inferred	1.29	15,397	19.9	48,153	62.1	82,829	106.8
<b>Sum</b>		<b>45,414</b>	<b>118.0</b>	<b>48,153</b>	<b>62.1</b>	<b>126,888</b>	<b>202.7</b>
<b>Total</b>	<b>2.67</b>	<b>45,414</b>	<b>121.3</b>	<b>48,153</b>	<b>128.6</b>	<b>126,888</b>	<b>338.8</b>

Source: Edison Investment Research, Silver One, PAH, Silver Standard Resources

In this case, it is notable that the valuation of the updated resource closely resembles Silver One’s current enterprise value – while the top of the range valuation of the historical resource is at a material (up to 187.9%) premium to the EV of the company currently.

## Modified valuations

A summary of all of the possible, modified valuations of Silver One’s resources is provided in the table below:

**Exhibit 15: Silver One resource valuation summary table (US\$m)**

Scenario/modifying factor	Base case		Silver price		Nevada		Average
	Undifferentiated	Differentiated	Percent of spot	Regression	Undifferentiated	Differentiated	
Updated resource	20.0	27.4	41.6	59.5	121.3	118.0	64.6
Historical heap leach resource	21.2	62.1	44.1	63.0	128.6	62.1	63.5
Total historical resource	55.8	104.3	116.2	166.1	338.8	202.7	164.0

Source: Edison Investment Research. Note: Differentiated or undifferentiated with respect to categorisation of resources.

In broad terms, the following conclusions could be made about Silver One’s current market capitalisation of c US\$120m:

- It approximates the top end of the range of potential valuations for its heap leach resources, but which may be justified by the fact that its resources are located in Nevada, which is a premium jurisdiction.

- It approximates the lower end of the range of potential valuations for its total historical resources; however, little premium appears to be conferred upon the company either on account of the recent rises in the silver price or the fact that its resources are located in one of the world's premium destinations for mining investment.

Note that, in this case, we would not add the value of Silver One's net cash and short-term investment position (estimated at C\$11.5m as at end-Q320) to the company's valuation, as we believe that this is the approximate amount of funding that will be required to bring Silver One's historical resource up to contemporary NI 43-101 standards.

## Financials

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Silver One had net cash on its balance sheet of C\$5.1m at end-June 2020, including C\$5.0m in short-term investments (and C\$0.4m in lease liabilities). Since then, in July, it announced a C\$9.0m fund-raising, which it subsequently expanded to C\$9.5m via the sale of 21.1m new units of one share plus one half warrant each in the company at a price of C\$0.45/unit.

Within the context of this fundraising, we understand that the noted mining financier, Mr Eric Sprott (via a subsidiary company), acquired an additional 11.1m units in the company (ie 52.6% of the placing) for a total consideration C\$5m. Mr Sprott has been a regular supporter of Silver One and the July 2020 equity raising will be the third occasion on which he has invested in the company. Together with his initial position of 22.0m shares in the company, this increases his beneficial ownership of the company to 33.1m shares (c 16.7% of the total) plus 16.6m warrants.

Excluding investments in short-term securities, Silver One's pre-financing cash flow was C\$2.2m in Q120 and C\$3.1m in Q220.

**Exhibit 16: Financial summary**

	C\$'000s	2016	2017	2018	2019
Year end 31 December		IFRS	IFRS	IFRS	IFRS
<b>PROFIT &amp; LOSS</b>					
Revenue		0	0	0	0
Cost of Sales		0	0	0	0
Gross Profit		0	0	0	0
EBITDA		(1,074)	(1,994)	(1,616)	(1,565)
Operating Profit (before amort. and except.)		(1,074)	(1,999)	(1,631)	(1,710)
Intangible Amortisation		0	0	0	0
Exceptionals		(25)	(1,070)	0	0
Other		(3)	(9)	(15)	105
Operating Profit		(1,102)	(3,078)	(1,647)	(1,605)
Net Interest		0	15	27	(9)
Profit Before Tax (norm)		(1,074)	(1,984)	(1,605)	(1,719)
Profit Before Tax (FRS 3)		(1,102)	(3,063)	(1,620)	(1,614)
Tax		0	0	0	0
Profit After Tax (norm)		(1,077)	(1,993)	(1,620)	(1,614)
Profit After Tax (FRS 3)		(1,102)	(3,063)	(1,620)	(1,614)
Average Number of Shares Outstanding (m)		52.3	85.2	97.0	126.9
EPS - normalised (c)		(2.1)	(2.3)	(1.7)	(1.3)
EPS - normalised and fully diluted (c)		(2.1)	(2.3)	(1.7)	(1.3)
EPS - (IFRS) (c)		(2.1)	(3.6)	(1.7)	(1.3)
Dividend per share (c)		0.0	0.0	0.0	0.0
Gross Margin (%)		N/A/N/A	N/A	N/A	N/A
EBITDA Margin (%)		N/A	N/A	N/A	N/A
Operating Margin (before GW and except.) (%)		N/A	N/A	N/A	N/A
<b>BALANCE SHEET</b>					
Fixed Assets		6,506	7,705	11,511	14,947
Intangible Assets		20	53	76	105
Tangible Assets		6,486	7,653	11,435	14,842
Investments		0	0	0	0
Current Assets		2,474	4,271	1,224	3,299
Stocks		0	0	0	0
Debtors		51	370	195	254
Cash		2,423	301	329	445
Other		0	3,600	700	2,600
Current Liabilities		(65)	(583)	(550)	(647)
Creditors		(65)	(583)	(550)	(532)
Short term borrowings		0	0	0	(115)
Long Term Liabilities		0	0	0	(311)
Long term borrowings		0	0	0	(311)
Other long term liabilities		0	0	0	0
Net Assets		8,915	11,393	12,185	17,288
<b>CASH FLOW</b>					
Operating Cash Flow		(497)	(1,816)	(1,266)	(863)
Net Interest		0	15	27	(9)
Tax		0	0	0	0
Capex		(38)	(4,586)	961	(4,370)
Acquisitions/disposals		(20)	0	0	0
Financing		2,947	4,264	306	5,474
Dividends		0	0	0	0
Net Cash Flow		2,392	(2,122)	28	232
Opening net debt/(cash)		(31)	(2,423)	(301)	(329)
HP finance leases initiated		0	0	0	0
Other		0	0	0	(541)
Closing net debt/(cash)		(2,423)	(301)	(329)	(19)

Source: Company data

## Appendix: Geology

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### Geological setting

Candelaria is situated within a zone of disrupted structure that forms the transition between the north-west trending Sierra Nevada province to the west and the north-northeast trending Basin and Range province to the east. The region is underlain by about 30,000 feet of structurally complex calcareous, clastic and volcanic rocks of Triassic and Jurassic age, flanked on the south by a few thousand feet of calcareous and clastic rocks of Cambrian, Ordovician and Permian age. Granitic rocks, mainly as quartz monzonitic satellite bodies related to the composite Sierra Nevada batholith of Cretaceous age, intrude into the metasedimentary and metavolcanic sequences. Cenozoic volcanic rocks, ranging in composition from basalt to rhyolitic welded tuffs, overlie the Paleozoic and Mesozoic rocks that characterise west-central Nevada and reflect multiple episodes of large-scale thrust faulting and tectonic stacking, magmatism and normal faulting. Five Paleozoic and Mesozoic thrust sheets, in particular, are recognised. From the lowest upwards, these are the Roberts Mountain allochthon (in structural geology, an allochthon is a large block of rock that has been moved from its original site of formation, usually by low angle thrust faulting), the Golconda allochthon, the Sonoma volcanic arc, the Luning allochthon and the Pamlico allochthon. In this area, the northerly structural trend typical of most of Nevada abruptly changes to an easterly trend, known as the Mina deflection, which is the dominant structural trend in the Candelaria Hills.

The Roberts Mountain allochthon consists of the Palmetto Formation, which is an Ordovician age, deep water deposition chert-argillite-dolomite sequence that is tectonically interleaved with stratigraphic slices of Devonian age limestone and calcarenite and is the oldest rock unit in the district. A younger sequence of Permian and Triassic age marine sediments, the Diablo and Candelaria Formations, was deposited unconformably on the Roberts Mountain allochthon. The Diablo Formation is a coarse-grained siliciclastic unit generally less than 30 feet thick. It, in turn, is overlain conformably by the early Triassic Candelaria Formation, an upward coarsening marine sequence, with a thickness of up to 3,000 feet. The Candelaria Formation has been divided into four members, the first of which (the basal unit) is the principal host to mineralisation at Candelaria, comprising 200–250 feet of thin-bedded carbonaceous, calcareous mudstones, with thin limestone beds in the lower part and a thin chert fragmental bed in the upper part.

The Golconda allochthon was structurally emplaced on the Candelaria Formation during the lower Triassic Sonoma Orogeny. The Golconda allochthon in the Candelaria Hills consists of the Pickhandle Gulch Complex, a Mississippian- to early Triassic-age tectonic *mélange* that comprises the sole plate of the Golconda allochthon. The Pickhandle Gulch Complex consists of a 1,600 foot thick structurally disrupted sequence with slices and blocks of Mississippian to early Triassic sediments within a serpentinite complex, and represents the emplacement from the north of the Sonoma volcanic arc. The structural base of the complex is marked by the Pickhandle Gulch Thrust fault, while the structural top is marked by the Golconda Thrust. A related structural zone, the Lower Candelaria Shear zone, occurs in the lower part of Member 1 of the Candelaria Formation and is the main host for mineralisation in the district. Above the Golconda Thrust is a sequence of Mississippian to Permian age sedimentary and volcanic rocks that are exposed elsewhere, but have been eroded from the Candelaria Hills.

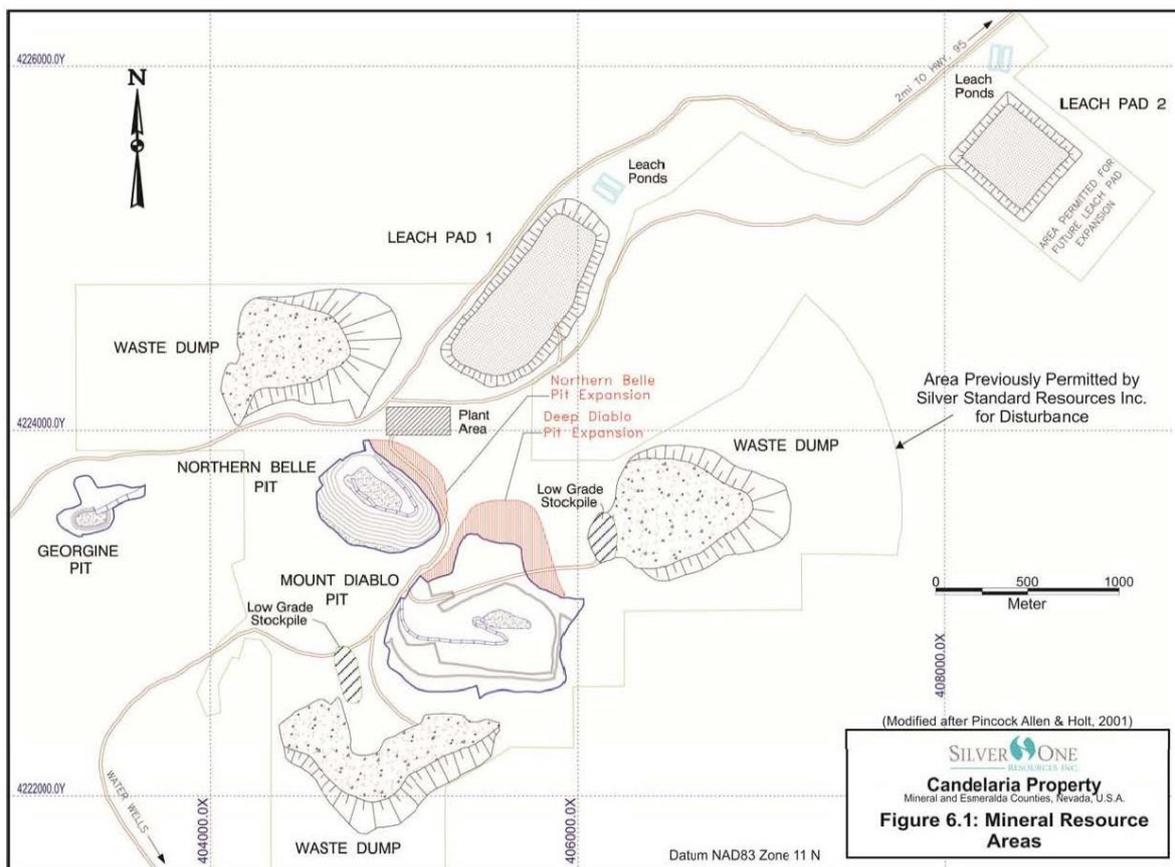
A series of stocks and small plutons were emplaced during Cretaceous time in west-central Nevada. This took the form of folding along an east-west axis accompanied by shearing, faulting, the intrusion of peridotite and dykes and, finally, by the emplacement of mineralised, structurally controlled veins. In the deposit area, these rocks range in composition from granite to diorite, fine grained to porphyritic, and are referred to as 'mine sequence intrusives'. These intrusions occur as individual sills and dykes focused along the east-west striking and north dipping trend of thrust faulting of the lower Candelaria Formation. Sills up to 150 feet thick and 2,500 feet long occur

primarily along the Pickhandle Gulch Thrust at the upper contact of the Candelaria Formation, in the lower Candelaria Formation near the contact with the Diablo Formation and variably within Member 1 and the lower part of Member 2 of the Candelaria Formation. Dykes up to 100 feet wide locally cut the Palmetto and Candelaria Formations and appear to be feeders for the sills. Mine intrusives pre-date mineralisation and are themselves hydrothermally altered and weakly mineralised.

Major uplift occurred during the late Cretaceous to early Oligocene time, with the erosion of all the postulated Jurassic and Cretaceous sediments and volcanics, together with an unknown thickness of the Golconda and Roberts Mountain allochthons. This event allowed for post-mineral shearing along mineralised structural zones and exposed the Candelaria mineralisation to significant surface weathering and oxidation. Subsequently, in Oligocene time, this deeply weathered erosional paleo-surface was buried under voluminous felsic to intermediate composition ash-flow tuffs, with thicknesses up to 2,000 feet. This was followed in Miocene time by the deposition of a sequence of andesitic flows and pyroclastics.

Later faulting in late Tertiary and early Pleistocene time resulted in the Basin and Range topography to the east. The region remains tectonically active.

**Exhibit 17: Mineral resource area**



Source: Technical Report on the Heap Leach Pads within the Candelaria Property, Mineral and Esmeralda Counties, Nevada

**Deposit types**

The deposits of the Candelaria Mining District host epigenetic silver mineralisation of early Cretaceous age, with quartz stock-work mineralisation occurring in faulted and sheared zones related to regional thrusting. Pre-mineral thrusts and thrust-related structures of the Lower

Candelaria Shear and the Pickhandle Gulch Thrust provided ground preparation for the introduction of hydrothermal fluids.

The Lower Candelaria Shear is the main mineralised structure in the Candelaria district and is developed parallel to bedding within the lower half of Member 1 of the Candelaria Formation. The shear zone is present throughout the district and ranges in thickness from 3 feet to a maximum of over 100 feet in the Mount Diablo pit and dips from 20–60° to the north. In some areas, the shear zone is at the base of Member 1 of the Candelaria Formation where deformation was focused immediately above the massive Diablo Formation. In other areas it is as much as 60 feet above the base of Member 1, but is always lower than a cherty fragmental marker bed. Within the shear zone, bedding is thoroughly disrupted and individual lithologies can be difficult to distinguish.

The Pickhandle Gulch Thrust is a lesser mineralised structure in the Candelaria district and occurs where the Pickhandle Gulch Complex was thrust over the Candelaria Formation. The thrust is characterised by a generally sharp break between little-deformed sediments in the footwall of the thrust and strongly sheared serpentinite in the hanging wall of the thrust, with deformation focused within the lower 130 feet of the over-thrusted plate. Many secondary shear zones parallel to the main thrust are present in this sequence. The thrust plane is usually within a few degrees of the bedding plane of the Candelaria sediments and both dip 20–75° degrees to the north. The Pickhandle Gulch Thrust does, however, variably cut downward through the Candelaria Formation sediment sequence and locally, as in the Lucky Hill pit, rests directly on rocks of the Diablo and Palmetto Formations.

Minor mineralisation occurs in the mine intrusives that were emplaced before or possibly around the same time as the early Cretaceous hydrothermal mineralisation event. The intrusive sills were emplaced into the same structural zones that allowed for the introduction of the hydrothermal solutions that formed the mineralisation. As such, there is a close association between mineralisation and intrusives.

The Candelaria mineralisation formed as continuous, tabular-shaped, structural zones with original dimensions of approximately 20,000 feet along strike and 2,500 feet down dip. The north-dipping structural zones were subsequently displaced by faulting, forming structural blocks that were progressively uplifted to the north by several east-northeast trending normal faults. The most significant of these are the East Diablo, Bigfoot, Beta and Alpha faults, which generally trend east-northeast, dip 60–80° to the south-east and have displacements of 50–300 feet. Evidence indicates that these faults were formed during the late Cretaceous to early Tertiary uplift event, with some reactivation during late Tertiary to Recent Basin and Range tectonic activity.

The dipping mineralised zones have been subjected to post-mineral shearing. Subsequent weathering and oxidation of the mineralised zone occurred during two distinct periods of time. The first was during a late Cretaceous to early Tertiary erosional event, after which the paleo-erosional surface was capped by younger volcanic rocks. The second followed the Tertiary to Recent erosional period during which the mineralised zones were again exposed at the surface. Partial to complete oxidation of the deposits extends down to depths of about 650 feet.

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<b>Director and vice president of exploration: Raul Diaz</b> Mr Diaz is an exploration geologist with 35 years of experience, much of it with Penoles where he discovered several mines including the Mezcala/Bermejil deposit in Mexico and Capajorco in Peru. He also spearheaded its internationalisation by opening and managing its Peruvian subsidiary until 1999. More recently, he has served as VP exploration and director of First Mining Finance. He received a geological engineering degree from the University of Mexico and master's degrees from the University of Arizona and Cleveland State University.	<b>Adviser: Chris Osterman</b> Dr Osterman has 30 years' experience in both metal production and exploration in North and South America, Africa, and Asia and is CEO and director of First Mining Finance. Most recently, Dr Osterman played an integral role in the discovery and development of the San Jose silver deposit in Oaxaca, Mexico and the Zuun Mod molybdenum deposit in Mongolia. His specific area of expertise lies in new project reconnaissance and exploration strategy. He completed a PhD at the Colorado School of Mines focusing on sediment-hosted copper deposits in Namibia.
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LA Norman	1.53
Marlborough Fund Managers	0.84
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