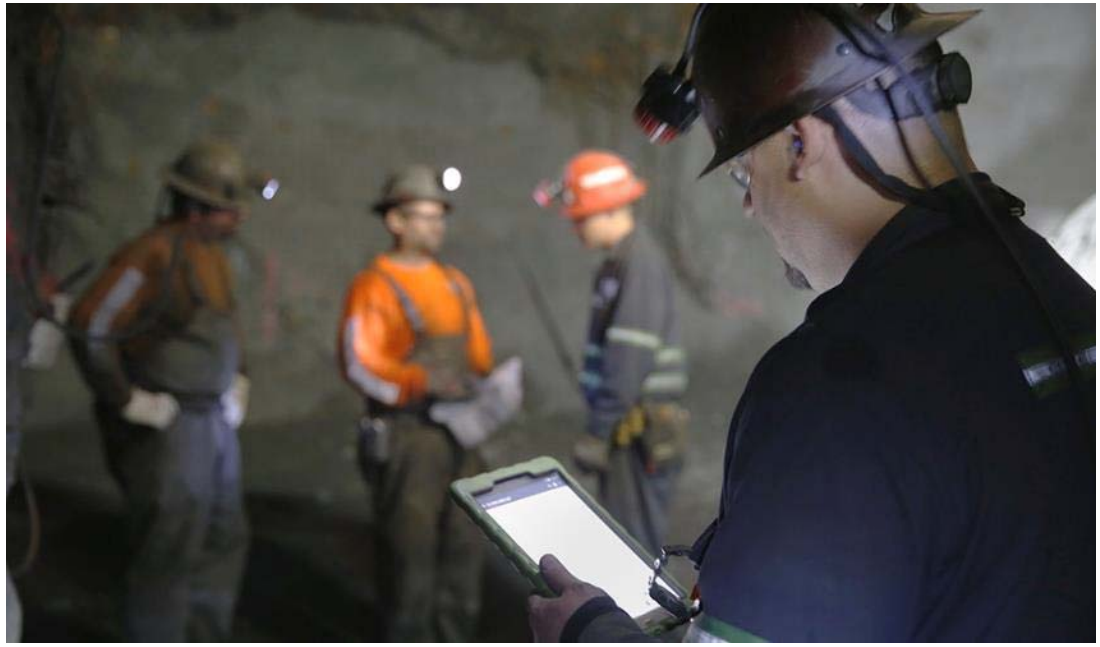
COMPANY OVERVIEW

CREATING VALUE THROUGH INNOVATIVE MINING

May 2019



RESPONSIBLE. SAFE. INNOVATIVE.

CAUTIONARY STATEMENTS

Cautionary Statement Regarding Forward Looking Statements,

This presentation contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, which are intended to be covered by the safe harbor created by such sections and other applicable laws, including Canadian securities laws. Such forward-looking statements may include, without limitation: (i) estimates of future production and sales; (ii) estimates of future costs and cash cost, after by-product credits per ounce of silver/gold; (iii) estimates for 2019, including the impact of the Lucky Friday strike on silver production; silver equivalent production; cash cost and all in sustaining cost ("AISC"), after by-product credits; capital and pre-development; exploration and research and development expenditures (which assume metal prices of gold at $1,250/oz., silver at $16.00/oz., zinc at $1.25/lb. and lead at $1.00/lb. and U.S. dollar to Canadian (USD/CAD) assumed to be $0.79, and U.S. Dollar to Mexican Peso (USD/MXN) assumed to be $0.06); (iv) expectations regarding the development, growth and exploration potential of the Company's projects; (v) expectations of adding reserves and resources; (vi) the possibility of increasing production due to accessing higher grade material and potentially new surface pits at Casa Berardi; (vii) possible strike extensions of veins, potential for new discoveries, and ability to extend mine life through 2020 at San Sebastian; (viii) expectations of grade increases at depth at Lucky Friday; and (ix) integration of the Nevada operations into Hecla and the ability to improve their operating characteristics. Estimates or expectations of future events or results are based upon certain assumptions, which may prove to be incorrect. Such assumptions, include, but are not limited to: (i) there being no significant change to current geotechnical, metallurgical, hydrological and other physical conditions; (ii) permitting, development, operations and expansion of the Company's projects being consistent with current expectations and mine plans; (iii) political/regulatory developments in any jurisdiction in which the Company operates being consistent with its current expectations; (iv) the exchange rate for the USD/CAD and USD/MXN, being approximately consistent with current levels; (v) certain price assumptions for gold, silver, lead and zinc; (vi) prices for key supplies being approximately consistent with current levels; (vii) the accuracy of our current mineral reserve and mineral resource estimates; and (viii) the Company's plans for development and production will proceed as expected and will not require revision as a result of risks or uncertainties, whether known, unknown or unanticipated. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, such statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by the "forward-looking statements." Such risks include, but are not limited to gold, silver and other metals price volatility, operating risks, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, community relations, conflict resolution and outcome of projects or oppositions, litigation, political, regulatory, labor and environmental risks, and exploration risks and results, including that mineral resources are not mineral reserves, they do not have demonstrated economic viability and there is no certainty that they can be upgraded to mineral reserves through continued exploration. For a more detailed discussion of such risks and other factors, see the Company's 2018 Form 10-K, filed on February 22, 2019, with the Securities and Exchange Commission (SEC), as well as the Company's other SEC filings. The Company does not undertake any obligation to release publicly revisions to any "forward-looking statement," including, without limitation, outlook, to reflect events or circumstances after the date of this presentation, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws. Investors should not assume that any lack of update to a previously issued "forward-looking statement" constitutes a reaffirmation of that statement. Continued reliance on "forward-looking statements" is at investors' own risk.

Cautionary Note Regarding Estimates of Measured, Indicated and Inferred Resources

The SEC permits mining companies, in their filings with the SEC, to disclose only those mineral deposits that a company can economically and legally extract or produce. We use certain terms in this presentation, such as "resource," "measured resources," "indicated resources," and "inferred resources" that are recognized by Canadian regulations, but that SEC guidelines generally prohibit U.S. registered companies from including in their filings with the SEC, except in certain circumstances. U.S. investors are urged to consider closely the disclosure in our most recent Form 10-K and Form 10-Q. You can review and obtain copies of these filings from the SEC's website at www.sec.gov.

Qualified Person (QP) Pursuant to Canadian National Instrument 43-101

Dean McDonald, PhD. P.Geo., Senior Vice President - Exploration of Hecla Mining Company, who serves as a Qualified Person under National Instrument 43-101("NI 43-101"), supervised the preparation of the scientific and technical information concerning Hecla's mineral projects in this presentation, including with respect to the newly acquired Nevada projects. Information regarding data verification, surveys and investigations, quality assurance program and quality control measures and a summary of analytical or testing procedures for the Greens Creek Mine are contained in a technical report titled "Technical Report for the Greens Creek Mine" effective date December 31, 2018, and for the Lucky Friday Mine are contained in a technical report titled "Technical Report for the Lucky Friday Mine Shoshone County, Idaho, USA" effective date April 2, 2014, for Casa Berardi are contained in a technical report titled "Technical Report on the mineral resource and mineral reserve estimate for Casa Berardi Mine, Northwestern Quebec, Canada" effective date December 31, 2018 (the "Casa Berardi Technical Report"), and for the San Sebastian Mine, Mexico, are contained in a technical report prepared for Hecla titled "Technical Report for the San Sebastian Ag-Au Property, Durango, Mexico" effective date September 8, 2015 . Also included in these four technical reports is a description of the key assumptions, parameters and methods used to estimate mineral reserves and resources and a general discussion of the extent to which the estimates may be affected by any known environmental, permitting, legal, title, taxation, socio-political, marketing or other relevant factors. Information regarding data verification, surveys and investigations, quality assurance program and quality control measures and a summary of sample, analytical or testing procedures for the Fire Creek Mine are contained in a technical report prepared for Klondex Mines, dated March 31, 2018; the Hollister Mine dated May 31, 2017, amended August 9, 2017; and the Midas Mine dated August 31, 2014, amended April 2, 2015. Copies of these technical reports are available under Hecla's and Klondex's profiles on SEDAR at www.sedar.com.

Dr. McDonald reviewed and verified information regarding drill sampling, data verification of all digitally-collected data, drill surveys and specific gravity determinations relating to the Casa Berardi mine. The review encompassed quality assurance programs and quality control measures including analytical or testing practice, chain-of-custody procedures, sample storage procedures and included independent sample collection and analysis. This review found the information and procedures meet industry standards and are adequate for Mineral Resource and Mineral Reserve estimation and mine planning purposes.

Cautionary Note Regarding Non-GAAP measures

Cash cost per ounce of silver and gold, net of by-product credits, EBITDA, adjusted EBITDA, AISC, after by-product credits, and free cash flow represent non-U.S. Generally Accepted Accounting Principles (GAAP) measurements. A reconciliation of these non-GAAP measures to the most comparable GAAP measurements can be found in the Appendix.

HECLA MINING OVERVIEW

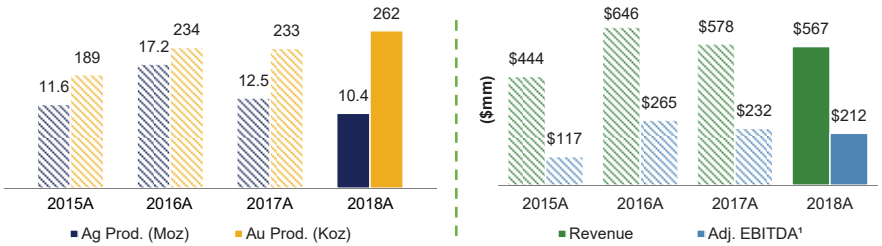
Positioned for Continued Strong Performance

- Largest primary silver producer in the US, third largest producer of lead and zinc
- Good mining jurisdictions: Alaska, Idaho, Nevada, Quebec, and Durango (Mexico)
- Focus is long-lived, low cost mines that can be extended and improved
- Proven and probable reserves totaling ~191 Moz of silver and 2.85 Moz of gold as of 12/31/2018
- Strong silver and growing gold production
- Recently acquired 110 square miles of prospective land with a history of high grade gold mines in Nevada
- Robust financial position with strong margins
- Solid balance sheet and liquidity
- Strong, experienced management team

Asset Overview



Key Operating and Financial Highlights



Established miner, proven operational track record, with assets in mining friendly jurisdictions in North America

Source: Company disclosures

[1] Adjusted EBITDA is a non-GAAP measure; please refer to appendix for reconciliation to GAAP.

DIVERSE ASSET PORTFOLIO IN MINING FRIENDLY JURISDICTIONS

	Core Operations		Growth / Transformation		
	Greens Creek	Casa Berardi	San Sebastian	Nevada	Lucky Friday
					
Location/ Risk Score[1]	Alaska, USA (76.9)	Quebec, Canada (87.5)	Durango, Mexico (65.1)	Nevada, USA (90.5)	Idaho, USA (84.5)
Primary Product	Silver	Gold	Silver	Gold	Silver / Zinc
2018 % Revenue Contribution	47 %	37 %	9 %	5 %	2 %
2018 Reserves	107.1 Moz silver	1.9 Moz gold	2.8 Moz silver	77 Koz gold	81 Moz silver
2019E Production[2]	24.0 Moz AgEq.	11.7 Moz AgEq.	3.0 Moz AgEq.	Suspended	0.2 Moz AgEq.
2019E AISC[3]	$ 5.50 / oz Ag	$ 1,150 / oz Au	$ 12.00 / oz Ag	Suspended	N/A
2019E Sustaining Capex	$ 42 M	$ 43 M	$ 1.5 M	–	–
2018 FCF[3]	$ 84 M	$ 43 M	$ (0.8) M	–	–
Start-Up Year	1989	1989	2015	2012 / 2005	1942
Mine Life at Start-up	7 years	6 years	18 months	3 years / 2 years	2 years
Remaining Reserve Life	11 years	15 years	2 years	3 years / 1 year	17 years
	Hecla's flagship mine: ~$1bn in cumulative free cash flow over last 10 years	*Doubled tonnage for economies of scale with open pit supplementing underground*	*Production diversification with attractive upside*	*Large land package with high-grade prospectivity*	*Historic mine with higher grades and new technology in the future*

[1] Political Risk Score based on Fraser Institute of Mining 2017 Report (Higher is Better).
[2] Please refer to footnote 3 on the Endnotes slide in the Appendix.
[3] AISC, after by-product credits, per produced silver/gold ounce. AISC and FCF are non-GAAP measures; please refer to appendix for reconciliation to GAAP.

OUR STRATEGY WORKS IN EVERY PRICE ENVIRONMENT

- **To invest in long-lived, low-cost (both operating and capital) assets in favorable jurisdiction where we see the potential to improve the operations, making them safer, lowering the cost or extending the life further**
  - Invest in jurisdictions where a long-life is feasible
  - Each mine is expected to have consistent, safe operations that are net cashflow positive
  - Find more ounces so Hecla can produce more for longer
  - Low-capital, high-return investments improve throughput & recoveries, automate tasks requiring fewer new employees
  - Diversify revenue sources and hedge base metals when prices are higher and monetize when prices fall
- **The strategy works well in the current price environment**
  - Only company with silver reserves calculated at $14.50/oz, generating $3+ more margin per ounce than peers
  - Greens Creek has generated substantial free cash flow every year for over two decades
  - Casa Berardi and San Sebastian are consistently generating free cash flow
  - Nevada and Lucky Friday are cash flow neutral to slightly negative
  - Nevada acquisition is about a great jurisdiction with large land packages with the geology that has been mined at +/- 1% per tonne

Long-term goals: Investment grade and S&P 500 listed

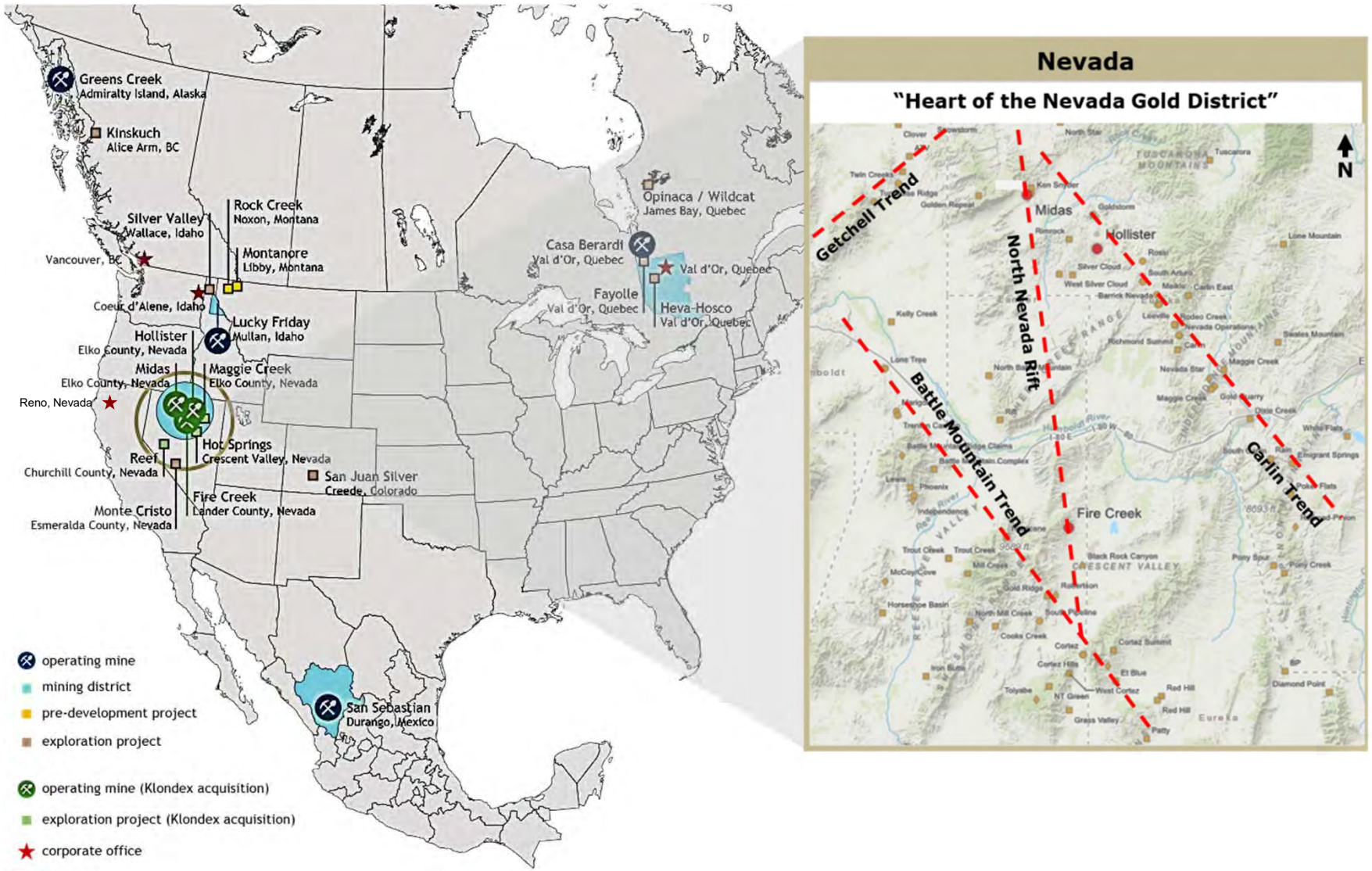
WHY INVEST IN HECLA?

IMPROVING THE FUNDAMENTALS INCREASES VALUE

Key Value Drivers	Improvements In 2018/19
Jurisdiction	Added Nevada
Reserve Quality	Growing reserves at industry low price assumptions
Mine Life	Mine life at our most important mines are long and getting longer
Social License	Injuries are materially lower; frequency rate is half
Access to Capital	Increased undrawn revolving credit to $250 million
Capital & Operating Costs	Throughput higher, driving down unit cost with reducing capital
High IRR Projects	Many technology investments pay back within 12-18 months
Best Mines Getting Better	Increasing cash flows at Greens Creek and Casa

PORTFOLIO OF LONG-LIVED QUALITY ASSETS

GROWING PRESCENCE IN NEVADA

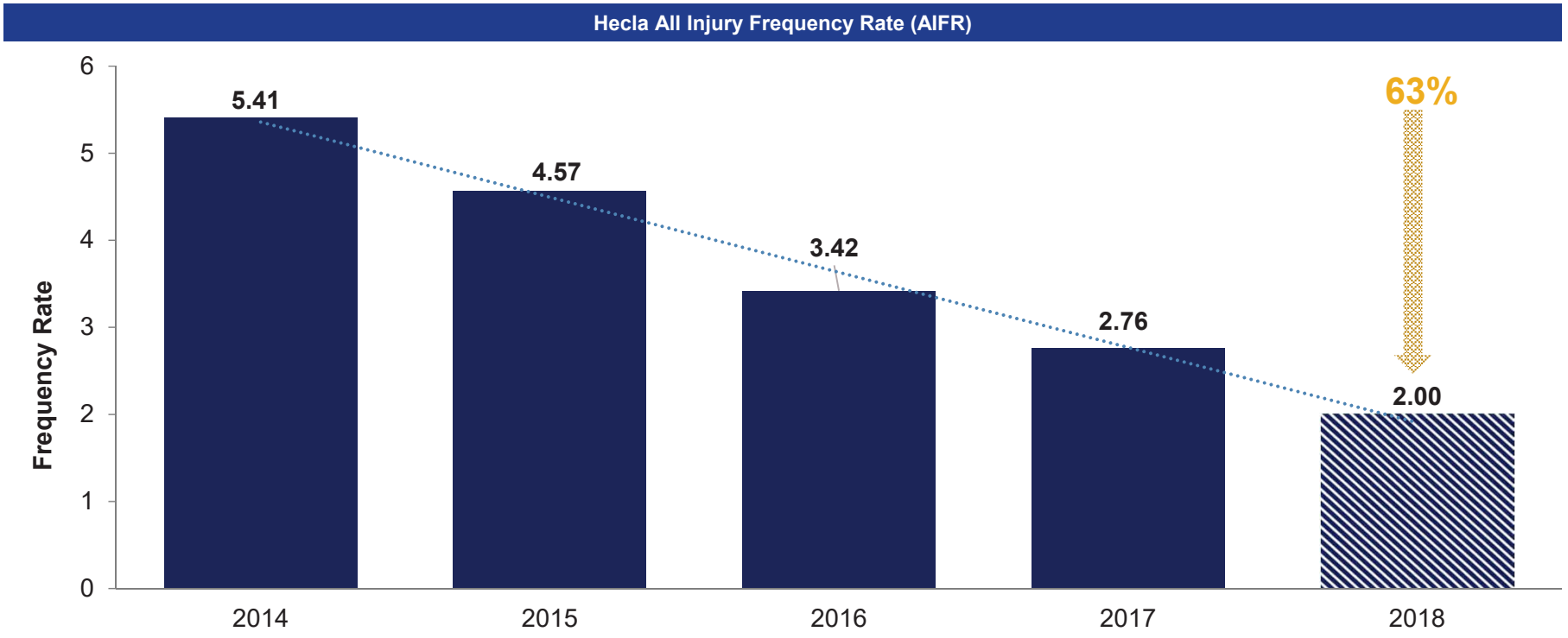


NYSE: HL

Source: Company disclosures.

SAFETY FIRST

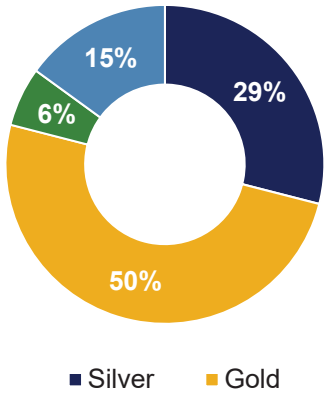
FIRST HARDROCK MINING COMPANY TO COMPLETE NMA CORESAFETY PROGRAM



LEADING PRECIOUS METAL, LEAD AND ZINC PRODUCER WITH DIVERSE ASSETS AND COMMODITY MIX

#1 SILVER AND #3 LEAD AND ZINC PRODUCER IN THE U.S.

Q1 2019 Margins
Silver Margin: **$13.44/oz**
Gold Margin: **$31.00/oz**



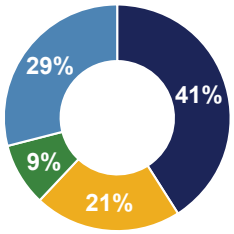
Silver Production: **2.9 Moz**
Cost of Sales[2]: **$68.6 M**
Cash Costs, after by-product credits[3]: **$2.26/oz**
Realized Price: **$15.70/oz**

Gold Production: **60 Koz**
Cost of Sales[2]: **$80.5 M**
Cash Costs, after by-product credits[3]: **$1,277/oz**
Realized Price: **$1,308/oz**

Lead Production: **5.8 Ktons**
Realized Price: **$0.93/lb**

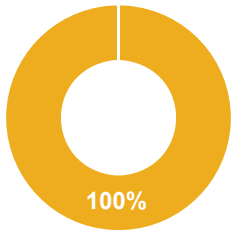
Zinc Production: **13.9 Ktons**
Realized Price: **$1.30/lb**

Greens Creek



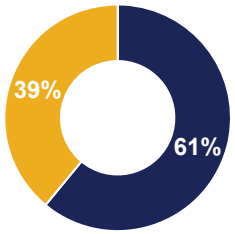
53% of Total Revenue

Casa Berardi



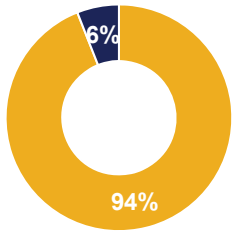
26% of Total Revenue

San Sebastian



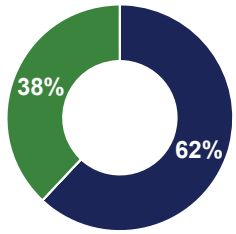
8% of Total Revenue

Nevada



12% of Total Revenue

Lucky Friday



1% of Total Revenue

Note: Based on Q1/2019 Revenue.

OUR BEST MINES KEEP GETTING BETTER

NEW TECHNICAL REPORTS SHOW INCREASED MINE LIVES; HIGHER CASH FLOW

Greens Creek

- **107.1 million** oz P+P silver reserves. [1]
- Life of Mine Plan (LOM) extends to **2030**.
- **97.4 million** oz M&I silver resources.
- Significant exploration potential.
- Generate **$802 million** of free cash flow over the LOM with an after-tax Net Present Value (NPV) of **$638 million** at a 5% discount rate. [2]
- Expect about **20% more cash flow** in the next five years than the $72 million averaged in the past five years.

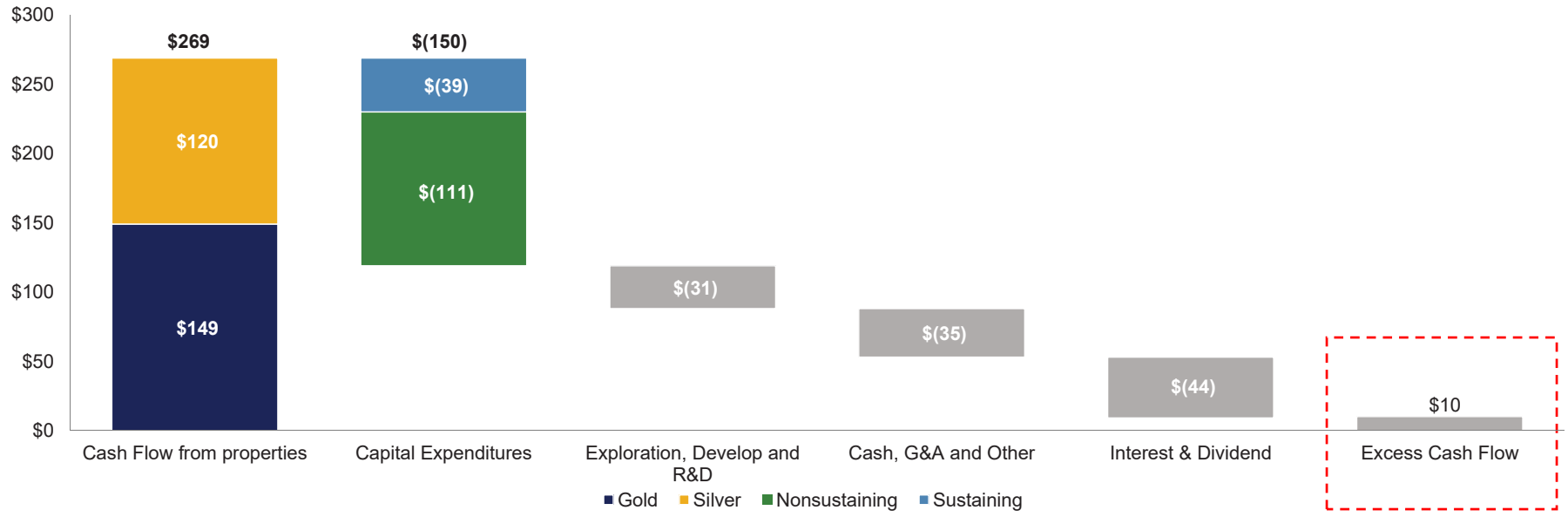
Casa Berardi

- **1.91 million** oz P+P gold reserves. [1]
- LOM extends to 2034.
- **1.2 million oz** M&I gold resources.
- Substantial reserve increases in the proposed West Mine Crown Pillar and Principal pits, Casa Berardi's highest-grade pits.
- Significant exploration potential.
- Generate **$535 million** (CAN$712 million) of free cash flow over the LOM with an after-tax NPV of **$325 million** (CAN$432 million) at a 5% discount rate.[3]

[1] Silver reserves calculated at $14.50/oz; gold reserves calculated at $1,200/oz.
[2] $1,303.70/oz gold, $15.32/oz silver, $0.91/lb lead and $1.30/lb zinc price assumptions for Greens Creek Technical Report.
[3] $1,300/oz gold and $15.50/oz silver price assumptions for Casa Berardi Technical Report.

HECLA HAS FINANCIAL DISCIPLINE

Estimated Free Cash Flow Generation at $16.00 Ag/$1,350 Au (in millions)



Expect to generate free cash flow in 2019

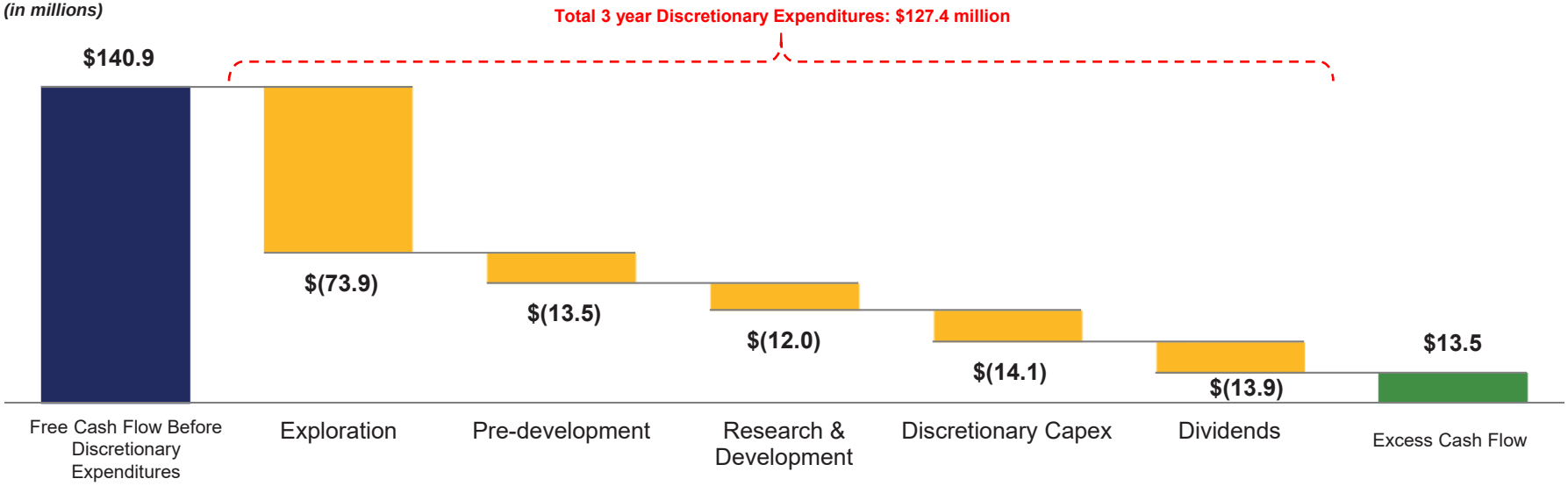
* Based on 2019 Guidance and 2018 Actuals

CAPITAL ALLOCATION PRIORITIES (AFTER DEBT SERVICE

STRONG CASH FLOW FROM OPERATIONS INVESTED IN DISCRETIONARY PROJECTS

Investment in exploration, technology and innovation has generated robust double digit returns: Much higher than dividends, share buybacks, debt repayment

(in millions)

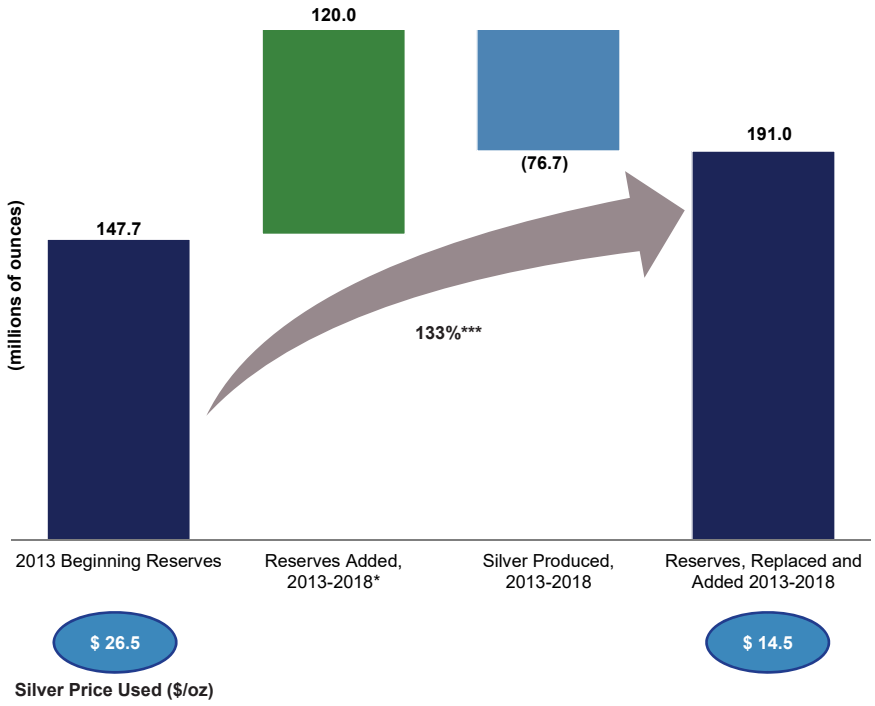


Robust 3 year free cash flow generation, with excess cash reinvested in the business as a first priority

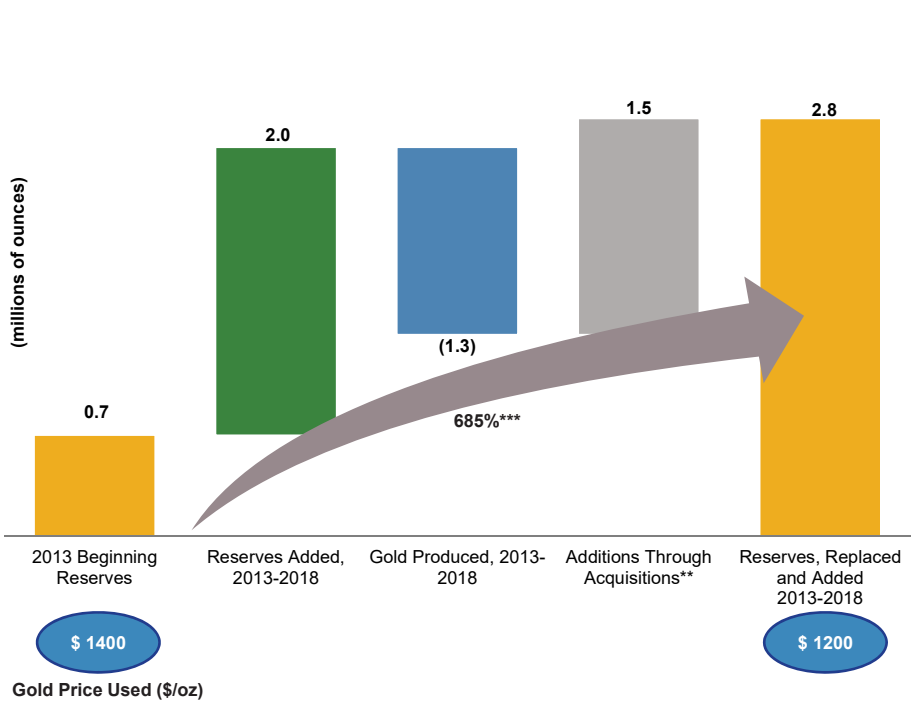
RECORD OF GROWING RESERVES

SIGNIFICANT INCREASES AT MUCH LOWER PRICES

Silver Reserves Growth



Gold Reserves Growth



RECORD RESERVES/RESOURCES

RECORD SILVER, GOLD AND LEAD RESERVES

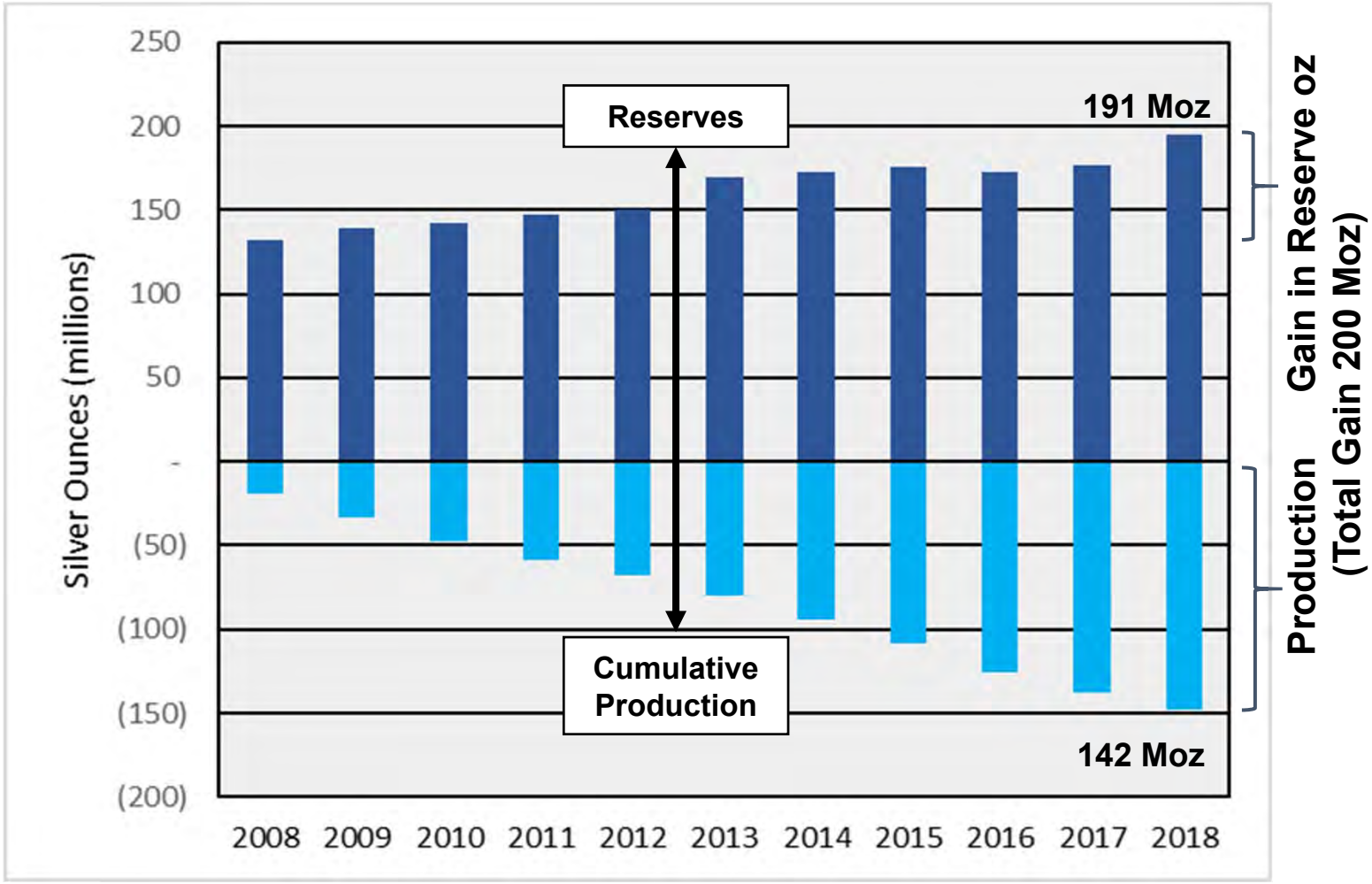
	Reserves	Increase
Silver	191 Moz	**8%**
Gold	2.8 Moz	**26%**
Lead	773,740 Tons	**5%**
Zinc	931,730 Tons	**11%**

	Measures & Indicated Resources	Increase
Silver	208 Moz	**65%**
Gold	7 Moz	**47%**
Lead	837,880 Tons	**27%**
Zinc	771,070 Tons	**73%**

	Inferred Resources	Increase/ (Decrease)
Silver	465 Moz	**4%**
Gold	3.6 Moz	**96%**
Lead	487360 Tons	**(2)%**
Zinc	482700 Tons	**(4)%**

SILVER RESERVES & CUMULATIVE OUNCES MINED

200 MILLION SILVER RESERVE OUNCES ADDED; NO OUNCES FROM ACQUISITIONS

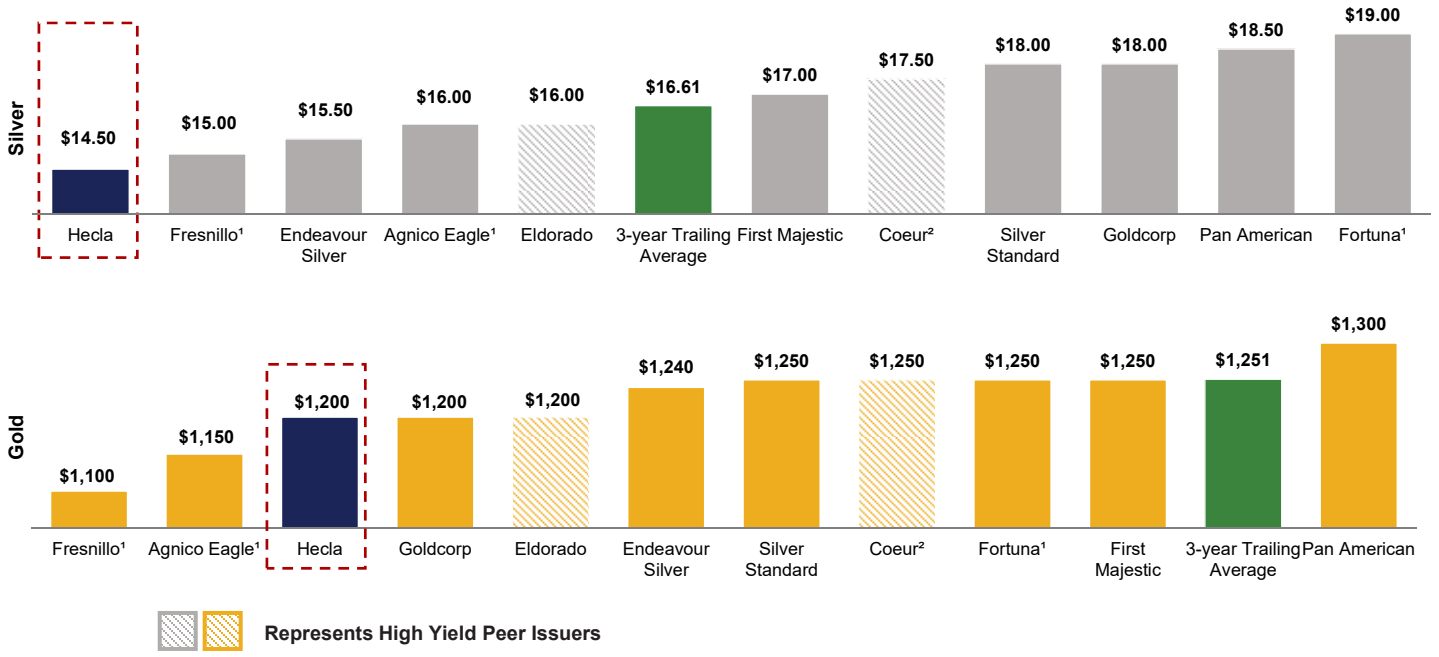


NYSE: HL

THE MOST CONSERVATIVE SILVER PRICE ASSUMPTION IN THE INDUSTRY

RESERVES ARE THE BASIS FOR VALUE CREATION

Price Assumption is at the discretion of management



Year	HL Reserve Prices
2012	$26.50
2013	$20.00
2014	$17.25
2015	$14.50
2016	$14.50
2017	$14.50
2018	$14.50

Year	HL Reserve Prices
2012	$1,400
2013	$1,300
2014	$1,225
2015	$1,100
2016	$1,200
2017	$1,200
2018	$1,200

SOLID RETURNS FROM DISCRETIONARY EXPENSES

RETURNS QUANTITATIVE/FOUNDATIONS FOR SAFETY AND EFFICIENCY

Discretionary Item	Returns
Recovery Improvements driven by PH control using CO2 & Lead scalping process - GC	Increased Silver recoveries 6% to 7% per year, has returned $50M cash to date and another estimated $200M is expected over the remaining reserve and resource life.
Autonomous UG Haulage – CB (GC H1/18)	30% lower maintenance costs, totaling savings of $3m per year
Ventilation on Demand – GC (CB H2/18, LF H2/19)	Cost savings $23k per fan, expected 1-year payback
Automated Stope Drilling – CB	Adds one hole/shift on average
Automated Drill Jumbo – CB (GC H2/18)	Roughly 3% reduction in overbreak that can translate into similar development advance gain
Tele-remote UG Mucking – GC (CB H1/10)	Proven as concept but limited so far in utilization for various reasons; new higher utilization target set
UG Wi-Fi Communication Network – GC (CB, LF &SS H2/18)	Significant and foundational, enabling step for future communications-based improvement including VOD and other automation
Tablets in Daily UG – GC (CB H2/18, LF & SS H1/19)	Provides convenient access to network data, eliminates written record input
RFID Tracking - GC	Improves safety; required for VOD and all levels of autonomous machine operation

HECLA'S TRACK RECORD OF ADDING VALUE

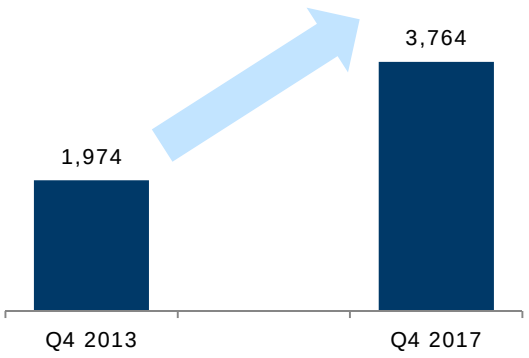
AN EXTENSIVE HISTORY OF OPTIMIZING ASSETS

Casa Berardi

Operational enhancements and mill optimization

- Throughput has increased by 91% since Q4 2013
- Open pit mining increased operational flexibility providing ability to keep the mill full
- Investing in productivity improvements and automation
- Strong exploration results since Q4 2013, reserves have increased by 7.2% to 1,494 Koz Au

+91% throughput (Tons per day)

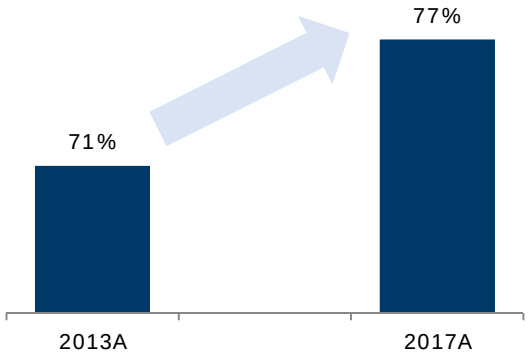


Greens Creek

Increased recoveries/ low cost production

- Increased average silver recovery by 6%
- Consistent low-cost production
- Tele-remote mucking has increased productivity
- Adding shallow mineralization to enhance economics
- Maintained reserves over 10 years of ownership

+6% silver recoveries

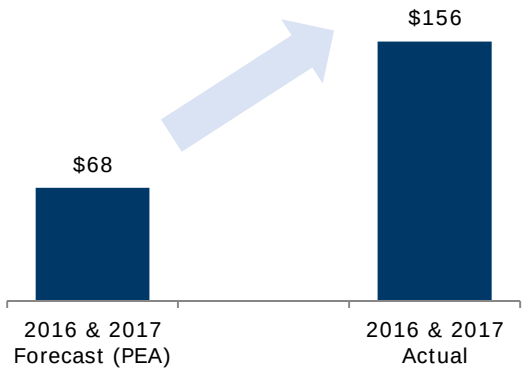


San Sebastian

Prudent, high impact capital differentiated mining model

- Only $4 million in capital required to restart the mine with a forecasted IRR of 1,000%+
- Reduced costs by renting third party mill and using contract mining (secured through 2020)
- ~$156 million in operating cash flow after years 1 & 2 (2016 & 2017) which exceeded PEA expectations of $68 million by +129%
- Increased mine life from 1.5 years to more than 5. Likely to increase another 5 years with sulphide deposit

+129% operating cash flow



Source: Company disclosure.

CULTURE OF INNOVATION DRIVES PRODUCTIVITY IMPROVEMENTS

TECHNOLOGY AND BEST PRACTICES TO BE LEVERAGED ACROSS KLONDEX' ASSETS

Autonomous Haulage in Operation at Casa Berardi

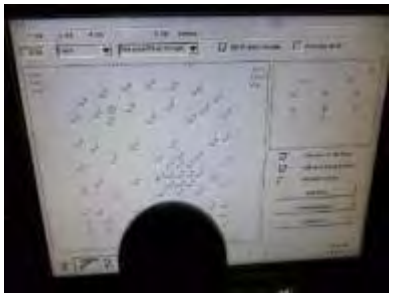
- 2- 24 hour trucks operation drives cost savings
- Increases utilization
- Increases safety
- Expect ~$3mm per year in cost savings from 2 trucks



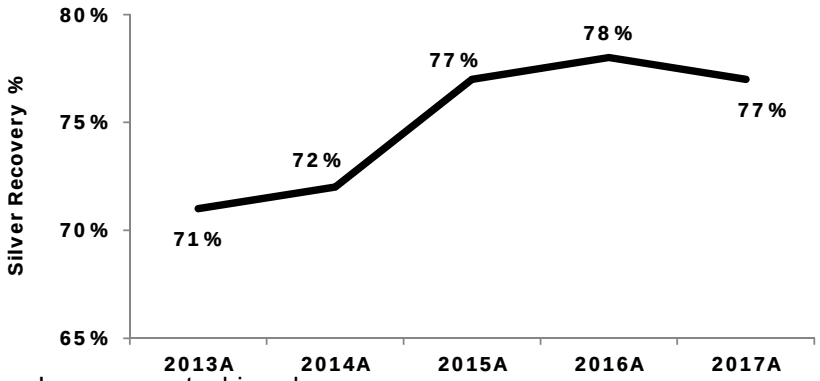


Jumbo/Stope Drill Automation: Drilling During Shift Change

- Adds 15 meters/day
- Increased drift stability
- Increased drilling accuracy
- 2 automated drills in operation
- 1 stope drill



Recovery Improvements at Greens Creek



Improvements driven by:

- CO2 used to control PH in mill
- Lead scalping process

Ventilation on Demand and Teleremote LHD

- Ventilation system drives expected ~$1mm/year in cost savings at Greens Creek
- One operator can run up to 3 machines from the same station

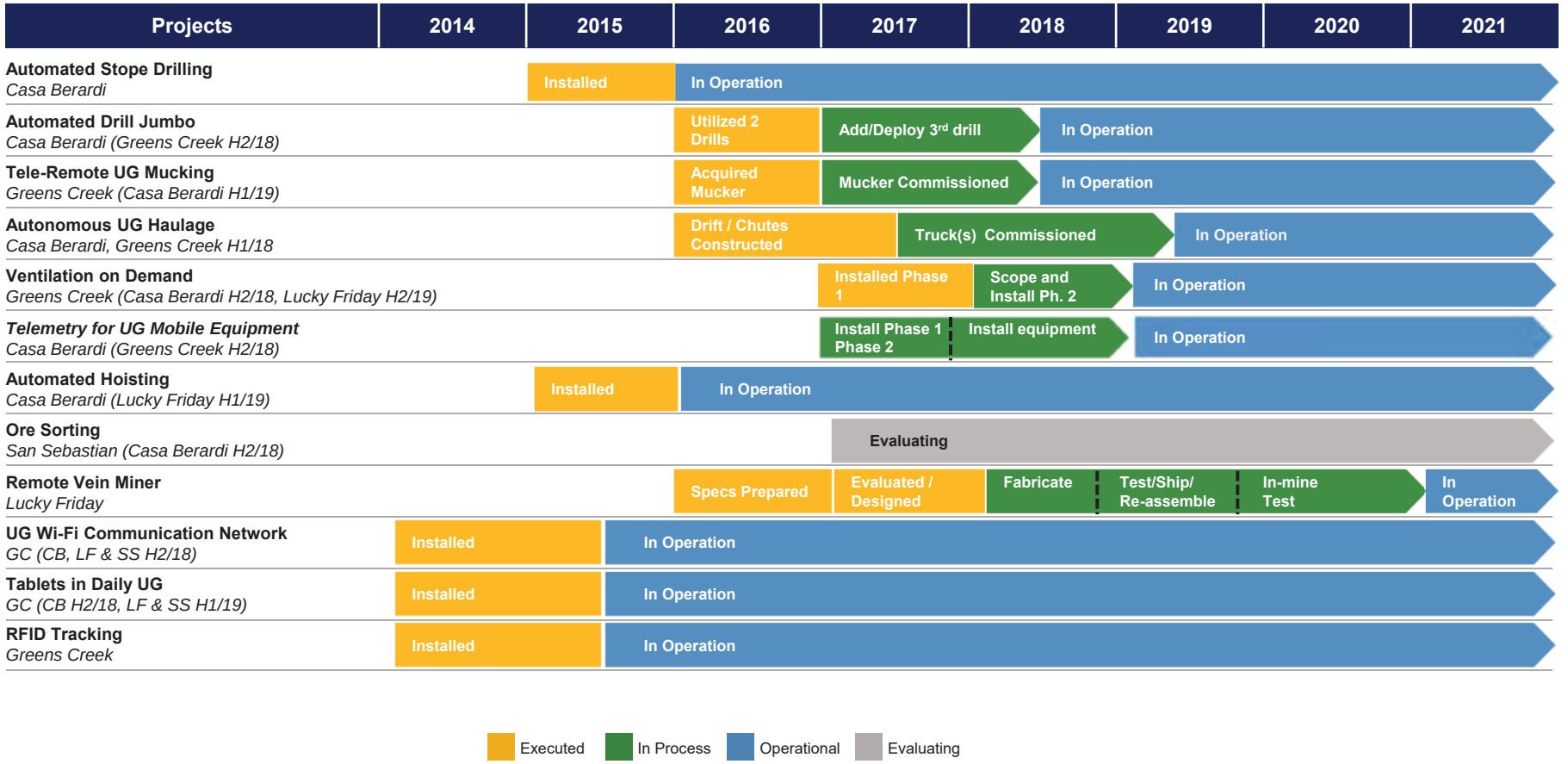




Source: Company disclosures.

CULTURE OF INNOVATION DRIVES PRODUCTIVITY IMPROVEMENTS

INNOVATING ACROSS THE PORTFOLIO



ROADMAP FOR FURTHER GROWTH AND VALUE CREATION

Strong Operating Portfolio

Mine Portfolio

- Portfolio of high quality, producing, precious metals mines in mining friendly jurisdictions
- Growing reserves & production
- Strong cash flow with investment options
- Expected production of 45m Ageq or 572k AuEq ounces in 2019
- Operate the Nevada operations as one cohesive unit

Robust Near Term Growth

New Open Pits at Casa Berardi

- Production continues to increase from the open pits with significant extensions to mine life possible

Polymetallic Zone at San Sebastian

- Middle and Francine veins could extend mine life by 5-10 years
- Third-party mill secured, could allow concurrent oxide and sulphide production, boosting production and cash flow. Bulk sample in late 2018.

Lucky Friday Remote Vein Miner

- Arriving early 2020, commissioning to take place in 2020
- Will improve safety and has the opportunity to increase productivity

Longer Term Development

Rock Creek & Montanore

- Attractive opportunities that should come into focus as they move into feasibility stage

Hollister's Hatter Graben

- Potential to extend mine life and improve costs through the Hatter Graben deposit

Heva-Hosco

- Hosts >3 Moz of M&I Resources along the Cadillac break

Exploration Portfolio

- Existing mines
- Kinskuch, Little Baldy, San Juan, Monte Cristo, Opinaca/Wildcat, Lac Germain, Republic

Hecla has an industry leading platform of operating assets and a robust pipeline of future growth prospects

Source: Company disclosures

EXPERIENCED MANAGEMENT TEAM

WITH EXCELLENT TRACK RECORD OF DEVELOPING AND OPERATING ORGANIC PROJECTS

Phillips S. Baker, Jr. *President and CEO*	• Currently serving as Hecla's Director since 2001, CEO since May 2003 and President since November 2001 • Served as a Director of QEP Resources, Inc. since May 2010, and Director for Questar Corporation from February 2004 through June 2010
Lindsay A. Hall *Senior VP and CFO*	• Currently serving as Senior VP and CFO since July, 2016 • Served as Executive VP, CFO of Goldcorp Inc. from March / April 2006 to March 2016 • Previously, served in several senior management positions within Placer Dome and Duke Energy Corporation
Lawrence P. Radford Senior VP and *COO*	• Appointed COO in May 2018 and prior to that, held the position of Senior VP – Operations from July 2013 to April 2018 and VP – Operations from October 2011 to June 2013 • Prior to joining Hecla, served as VP of South American Operations for Kinross from April 2010 to September 2011 • Held several key positons within Barrick Gold between 1990 and 2007 including General Manager of the Cowal operations in Australia
Dr. Dean W. A. McDonald *Senior VP – Exploration*	• Appointed Senior VP – Exploration in July 2013 and prior to that, served as VP – Exploration from August 2006 to June 2013 • Prior to joining Hecla, held the position of Vice President Exploration and Business Development for Committee Bay Resource Ltd. (a Canadian-based exploration and development company) from 2003 to August 2006 • Served as Exploration Manager at Miramar Mining Company/Northern Orion Explorations (an exploration company) from 1996 to 2003

2019 OUTLOOK

LOWERING CASH COST AND AISC, AFTER BY-PRODUCT CREDITS, PER SILVER OUNCE

Production Outlook

	Silver Production (Moz)		Gold Production (Koz)		Silver Equivalent[1] (Moz)		Gold Equivalent[1] (Koz)	
	Original (if revised)	Current	Original (if revised)	Current	Original (if revised)	Current	Original (if revised)	Current
Greens Creek	7.7	7.7	50	50	24.0	24.0	305	305
Lucky Friday	0.2	0.2	N/A	N/A	0.2	0.2	N/A	N/A
San Sebastian	2.0	2.0	14	14	3.0	3.0	40	40
Casa Berardi	N/A	N/A	150	150	11.7	11.7	150	150
Nevada Operations	0.1	Suspended	76	Suspended	6.1	Suspended	77	Suspended
Total	10.0	9.9	290	N/A	45.0	N/A	572	N/A

Cost Outlook

	Costs of Sales[2] (million)		Cash cost, after by-product credits, per silver/gold ounce[3]		AISC, after by-product credits, per produced silver/gold ounce[4]	
	Original (if revised)	Current	Original (if revised)	Current	Original (if revised)	Current
Greens Creek	$202	$202	$0	$0	$5.50	$5.50
Lucky Friday	N/A	N/A	N/A	N/A	N/A	N/A
San Sebastian	$41	$41	$9.00	$9.00	$12.00	$12.00
Total Silver	$243	$243	$1.10	$1.10	$11.00	$11.00
Casa Berardi	$210	$210	$850	$850	$1,150	$1,150
Nevada Operations	$90	Suspended	$900	Suspended	$1,325	Suspended
Total Gold	$300	N/A	$875	N/A	$1,250	N/A

Capital and Exploration Outlook

	Original (if revised)	Current
2019E Capital expenditures (excluding capitalized interest)	$150 million	$150 million
2019E Exploration expenditures (includes Corporate Development)	$25 million	$25 million
2019E Pre-development expenditures	$2.5 million	$2.5 million
2019E Research and Development expenditures	$3.5 million	$3.5 million

Note: Please see endnotes in the appendix for footnote references.
* AISC is a non-GAAP measure; please refer to appendix for reconciliation to GAAP.

GOLD SILVER RATIO ABOVE 80 HAD LED TO STRONG INCREASES

US MINT SOLD OUT OF SILVER EAGLE COINS IN JANUARY WITH ALMOST NO SALES IN FEBRUARY & MARCH

Gold | Silver



Gold / Silver Ratio



Gold / Silver Ratio | Gold | Silver | 20 Year Avg Ratio

Operations Overview

GREENS CREEK

CONSISTENT LOW-COST PRODUCTION IN A WILDERNESS AREA / NATIONAL MONUMENT





	2018	Q1 2018	Q1 2019	2019E[5]
Silver Production (Moz)	8.0	1.9	**2.2**	7.7
Gold Production (Koz)	51.5	13.1	**14.3**	50.0
Cost of Sales[2]	$190.1 M	$41.9 M	**$54.1 M**	$202 M
Cash cost, after by-product credits, per silver oz[3]	$(1.13)/oz	$(4.99)/oz	**$0.49/oz**	$0.00/oz
AISC, after by-product Credits, per silver oz[4]	$5.58/oz	$0.59/oz	**$3.24/oz**	$5.50/oz

2019E[5] Sustaining Capital	$42 M
FCF 2018[6]	CF from operating activities of $125.1 M (GAAP) less capital expenditures of $40.8 M resulted in **$84.3 M FCF** (non-GAAP).
FCF 1987 To YE 2018	CF from operating activities of $2.11 billion (GAAP) less capital expenditures of $864.6 M resulted in **~$1.25 billion FCF** (non-GAAP) from 1987 to YE 2018. (Note: Capital additions exclude leased equipment.)

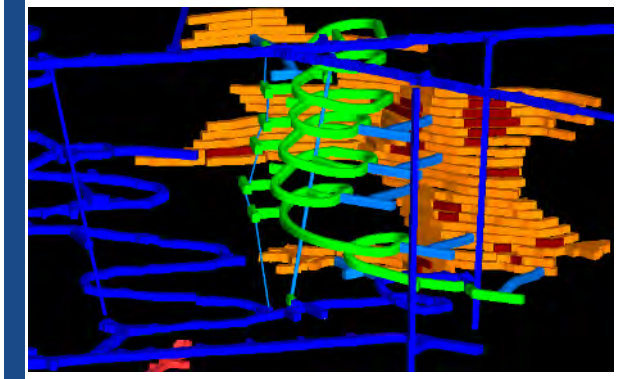
Note: Please see endnotes in the appendix for footnote references.
AISC and FCF are non-GAAP measures; please refer to appendix for reconciliation to GAAP.

GREENS CREEK: OUR BEST MINE IS GETTING BETTER

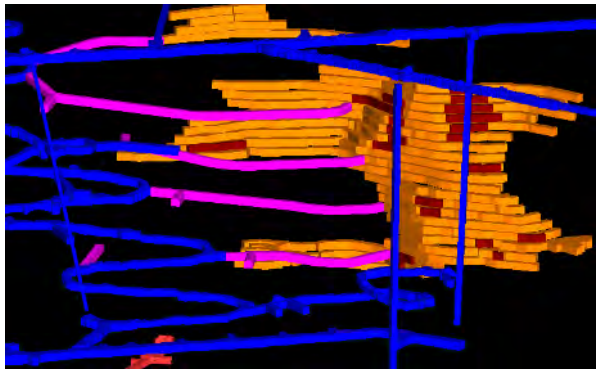
LONGER LIFE, MOVING REVENUE FORWARD, REDUCED DEVELOPMENT EXPECTED

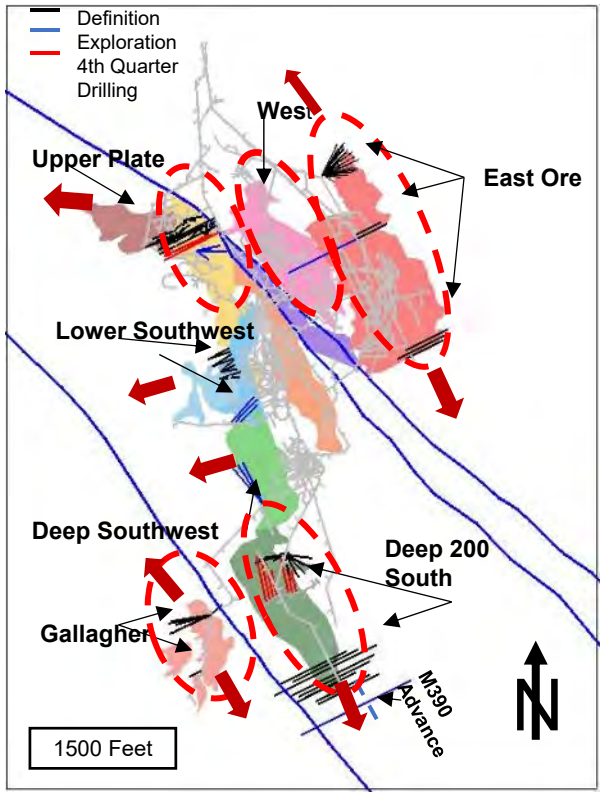
- 15 to 20% increase in silver, gold, lead and zinc reserves from drilling and more data
- Improved plan has 8% higher grades over the next four years, almost $80 million more revenue
- Development plan spends $13m less over the next four years
  - 20% less development or a reduction of 14,000 feet
  - New plan provides a 2.7% reduction in total Greens Creek expenditures in 2019
  - Over the life of mine offsets the added development of the new zones
- $100 million of additional value from the new plan plus extension of the mine life

Old Design



New Design
Utilize existing workings

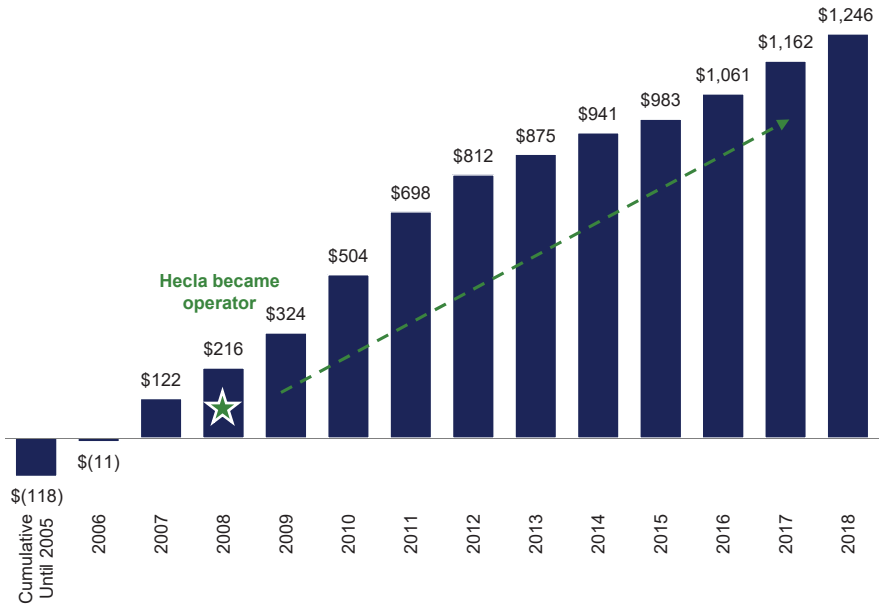




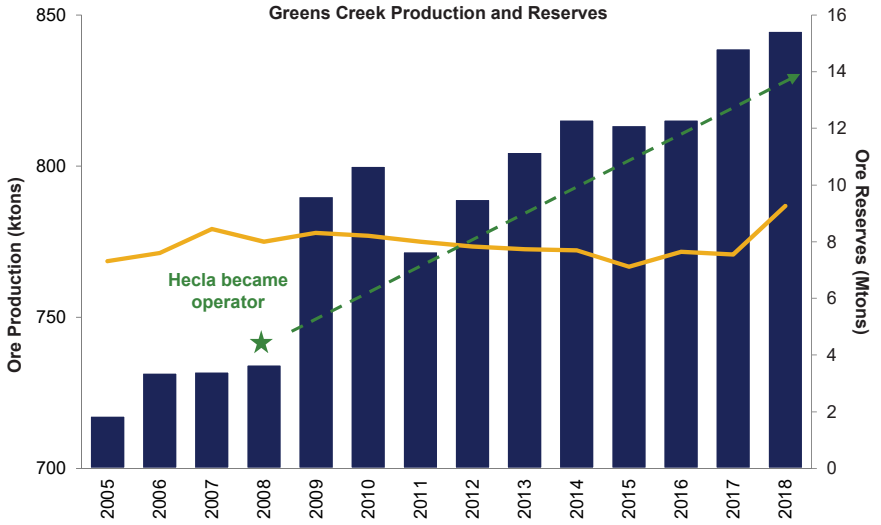
GREENS CREEK HAS GENERATED OVER $1B OF NET CASH FLOW

SIGNIFICANT IMPROVEMENT IN PERFORMANCE SINCE HECLA BECAME OPERATOR

Cumulative Net Cash Flow



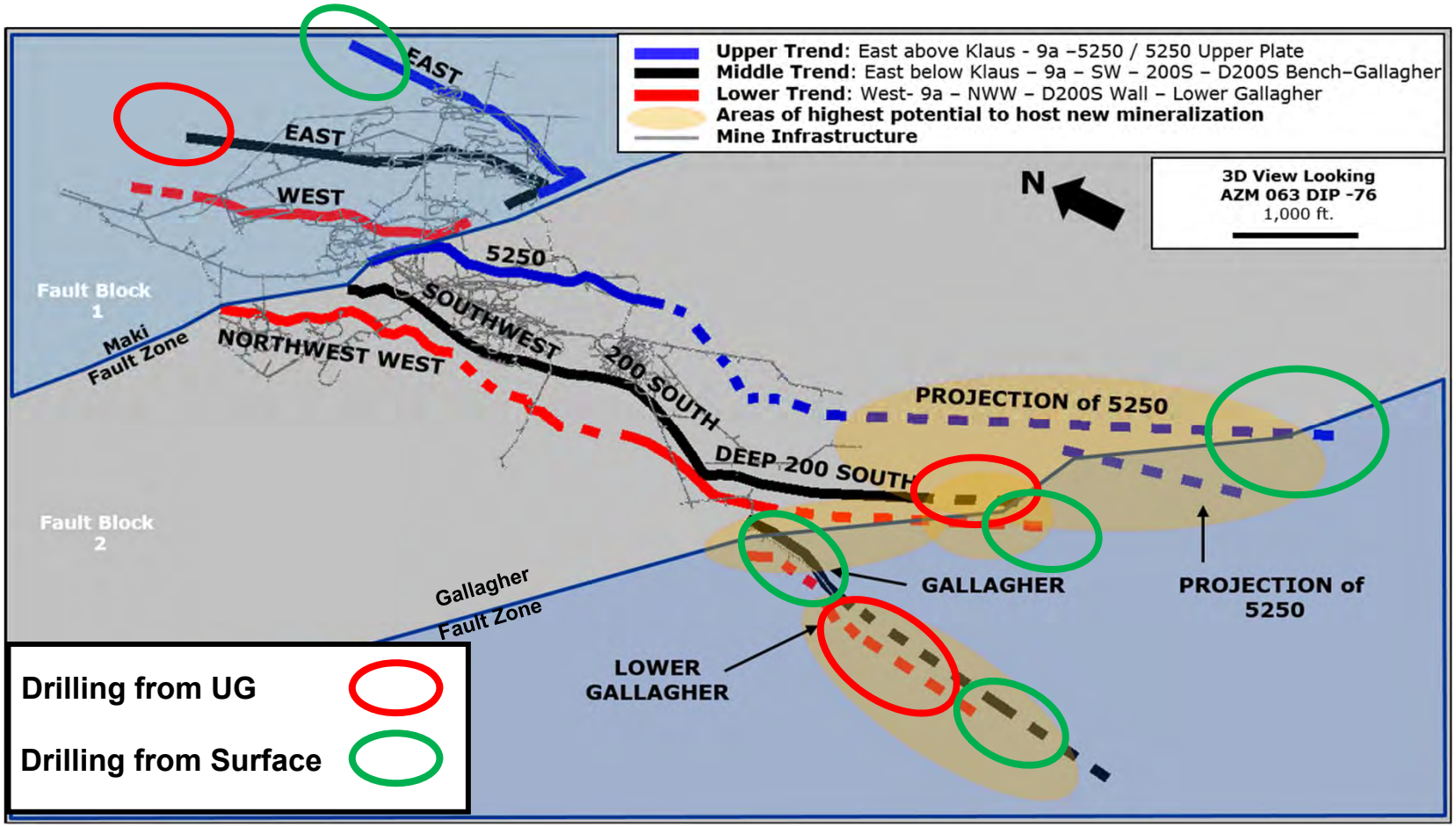
Greens Creek Throughput has Grown 15% Since Purchase in 2008



- Automation drive beginning in 2017 leads to further efficiencies
- Consistent exploration success enables reserves to be maintained

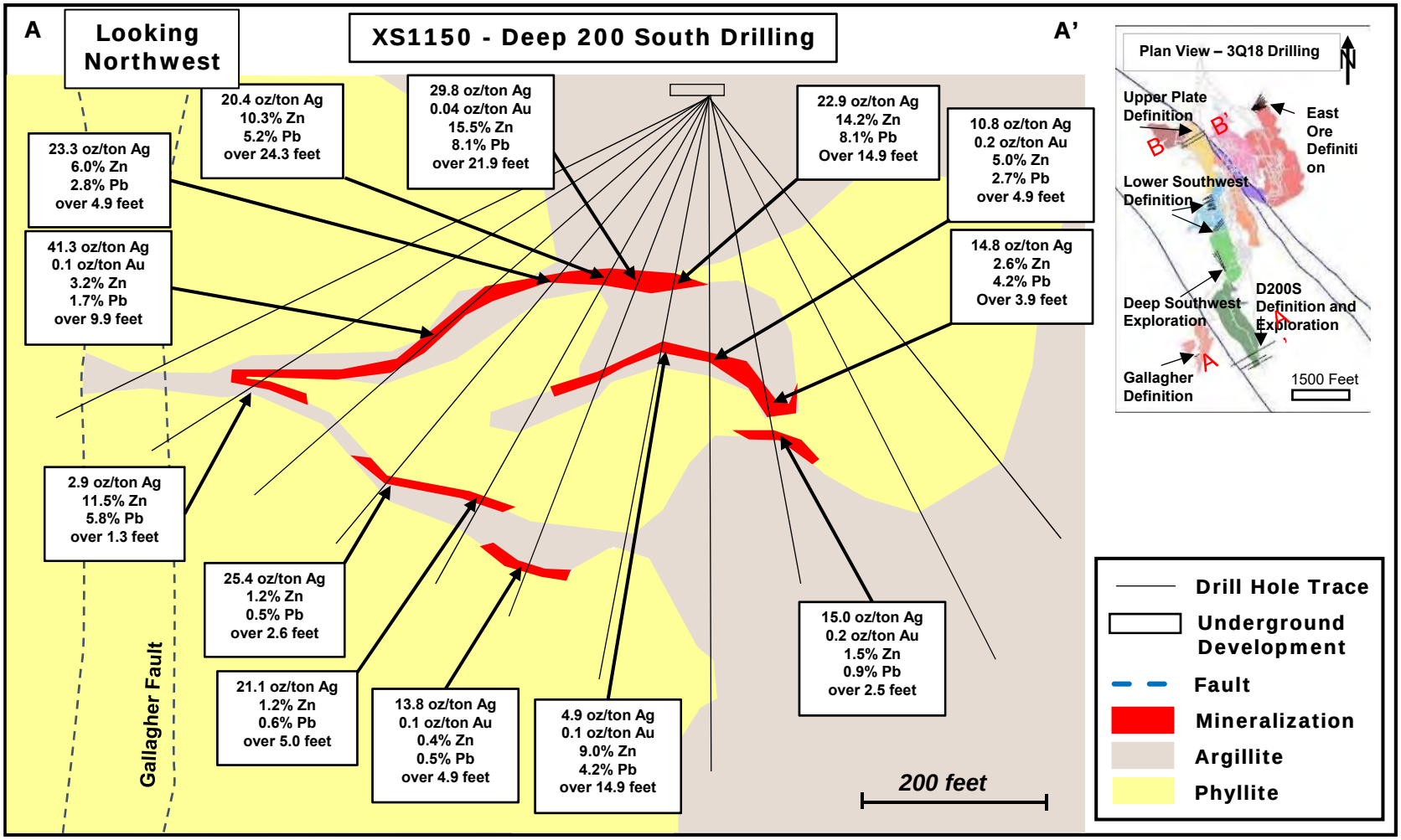
GREENS CREEK – THREE EXPLORATION TRENDS

SYSTEMATICALLY EVALUATED WITH DRILLING FROM UNDERGROUND AND THE SURFACE



ROBUST DEEP 200 SOUTH MINERALIZATION

DEFINING A SERIES OF HIGH-GRADE MINERALIZE BENCHES



CASA BERARDI

MAKING A GOOD MINE GREAT



	2018	Q1 2018	Q1 2019	2019E[5]
Gold Production (Koz)	162.7	40.2	**31.8**	150.0
Cost of Sales[2]	$199.4 M	$49.2 M	**$49.1 M**	$210 M
Cash cost, after by-product credits, per gold oz[3]	$800/oz	$827/oz	**$1,113/oz**	$850/oz
AISC, after by-product credits, per gold oz[4]	$1,080/oz	$1,086/oz	**$1,338/oz**	$1,150/oz



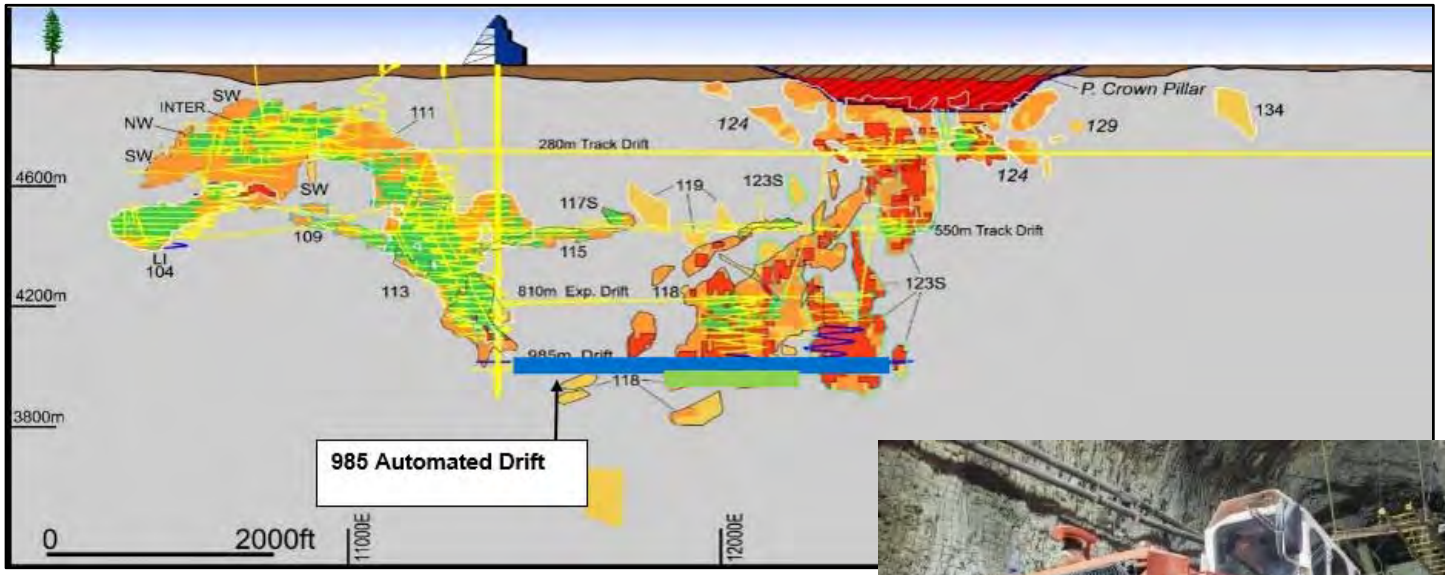
2019E[5] Sustaining Capital	$43 M
FCF 2018[5]	CF from operating activities of $82.9 M (GAAP) less capital expenditures of $39.7 M resulted in **$43.2 M FCF** (non-GAAP).
2P Reserves	1.9 Moz gold @ 0.08 oz/t gold
M+I Resources	1.2 Moz gold @ 0.09 oz/t gold

Q1 2019	Underground	Open Pit
Tons Milled	189,352	140,399
Gold Grade (oz/t)	0.130	0.05
Gold Production (oz)	25,264	6,535

Note: Please see endnotes in the appendix for footnote references.
AISC and FCF are non-GAAP measures; please refer to appendix for reconciliation to GAAP.

985 DRIFT AUTONOMOUS HAULAGE IN OPERATION

TWO TRUCKS RUN 24 HOURS A DAY; COST SAVINGS EXPECTED





Loading 40-tonne autonomous Sandvik truck

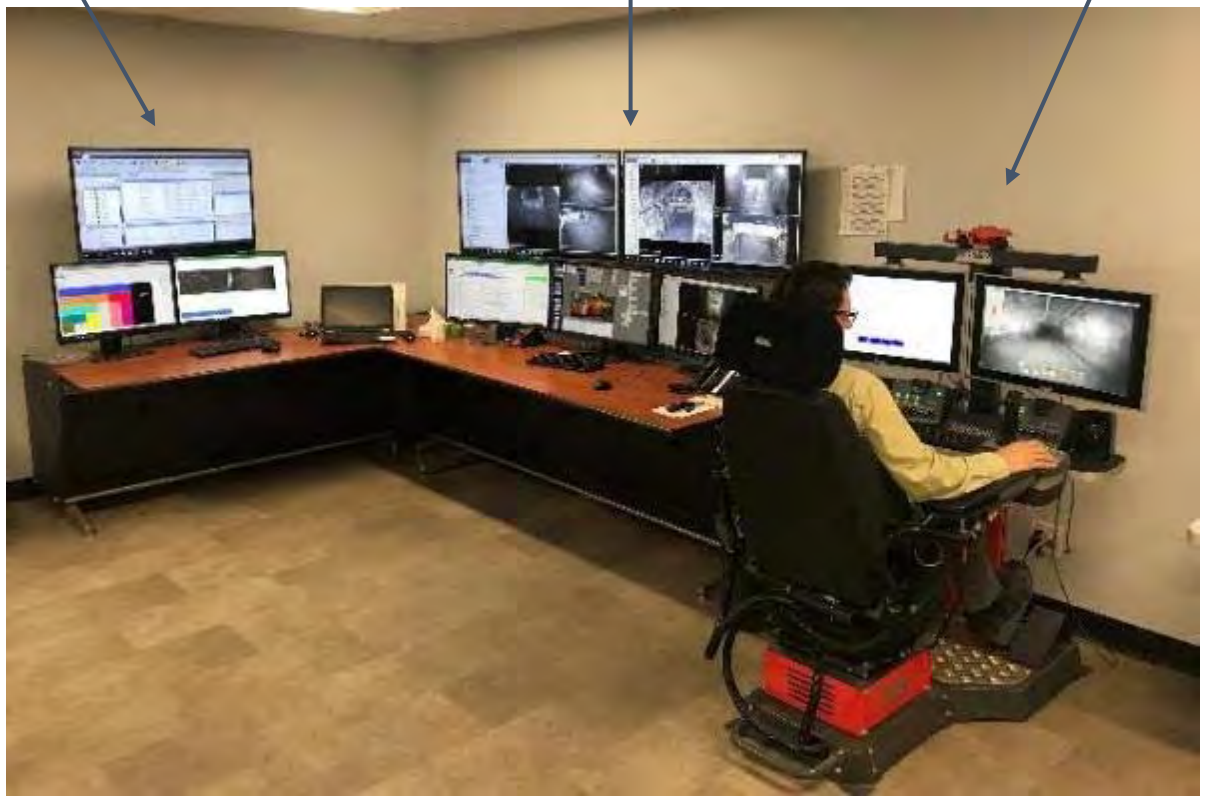
CASA BERARDI CONTROL ROOM

ADDING TELEMETRY AND HYDRAULIC ROCKBREAKER

Telemetry data collection

Autonomous truck monitoring station

Truck manual operation station

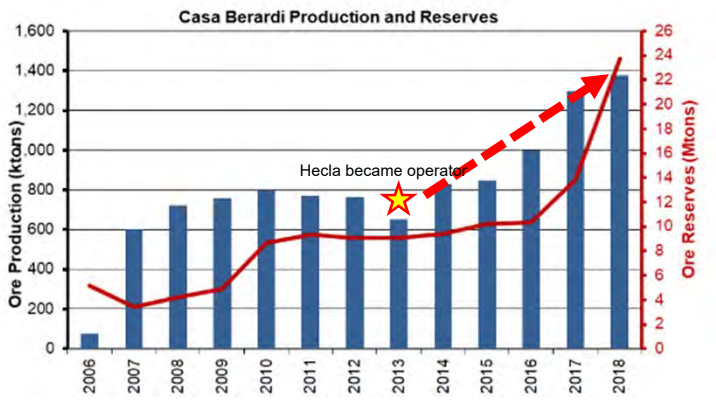




GROWING PRODUCTION AND RESERVES

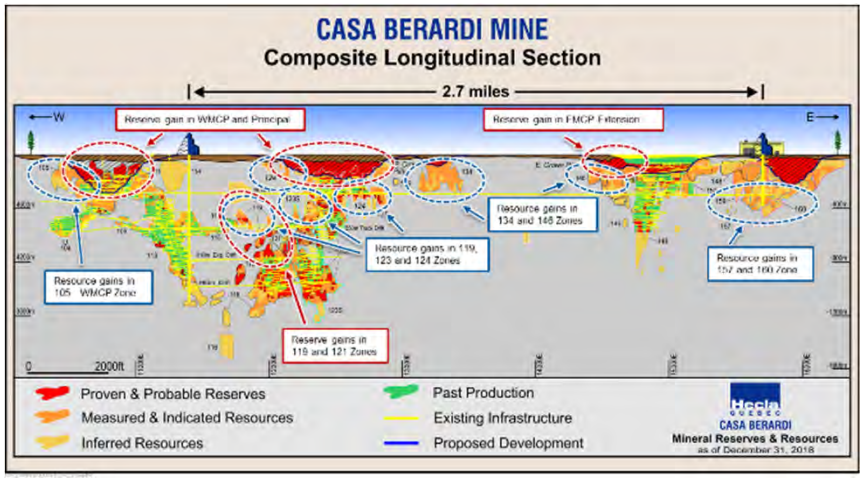
AGGRESSIVE EXPLORATION ADDS TO RESERVE AND RESOURCE BASE

Casa Berardi throughput and reserves have grown 111% and 163% since purchase in 2013



- Successfully stabilized, then increased throughput rates since becoming operator
- Began surface open-pit mining in 2016
- Consistent exploration success enables reserves to increase

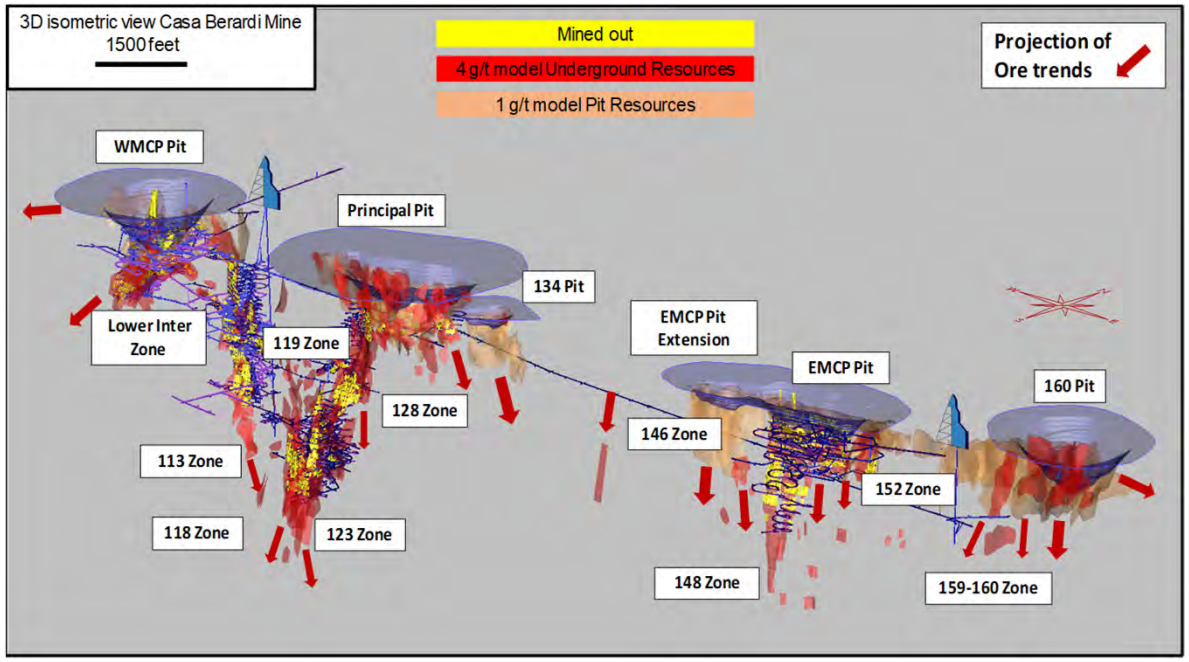
Casa Berardi Longitudinal Section



SERIES OF OPEN PITS AT CASA BERARDI

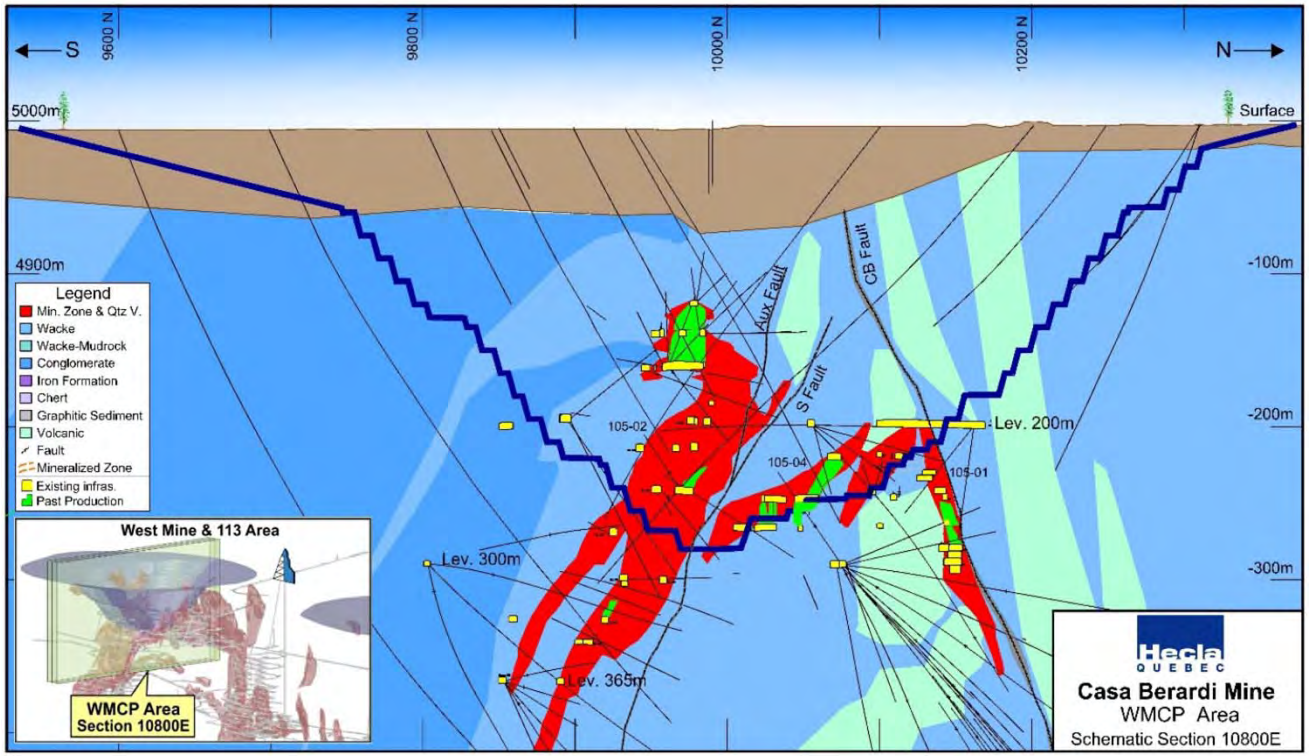
WEST MINE CROWN PILLAR (WMCP) LATEST ADDITION TO THE PITS

- 28% increase in gold reserves
- WMCP pit is the 2nd largest and 2nd highest grade
- Infilling on the WMCP and data to steepen the pit walls
- Advancing underground exploration on the East portion of the mine
- 30 kilometers along the Casa Berardi break



PROPOSED WEST MINE CROWN PILLAR PIT

CONVERGENCE OF LOWER INTER AND 105 ZONES



NEVADA OPERATIONS

MINES AND MILL TO OPERATE AS A COHESIVE UNIT, EMPHASIS ON CASH FLOW



	2018*	Q1 2019
Gold Production (Koz)	32.9	**10.4**
Silver Production (Koz)	172.3	**67.4**
Cost of Sales[2]	$47.0 M	**$31.4 M**
Cash cost, after by-product credits, per gold oz[3]	$1,221/oz	**$1,782/oz**
AISC, after by-product credits, per gold oz[4]	$1,950/oz	**$3,056/oz**

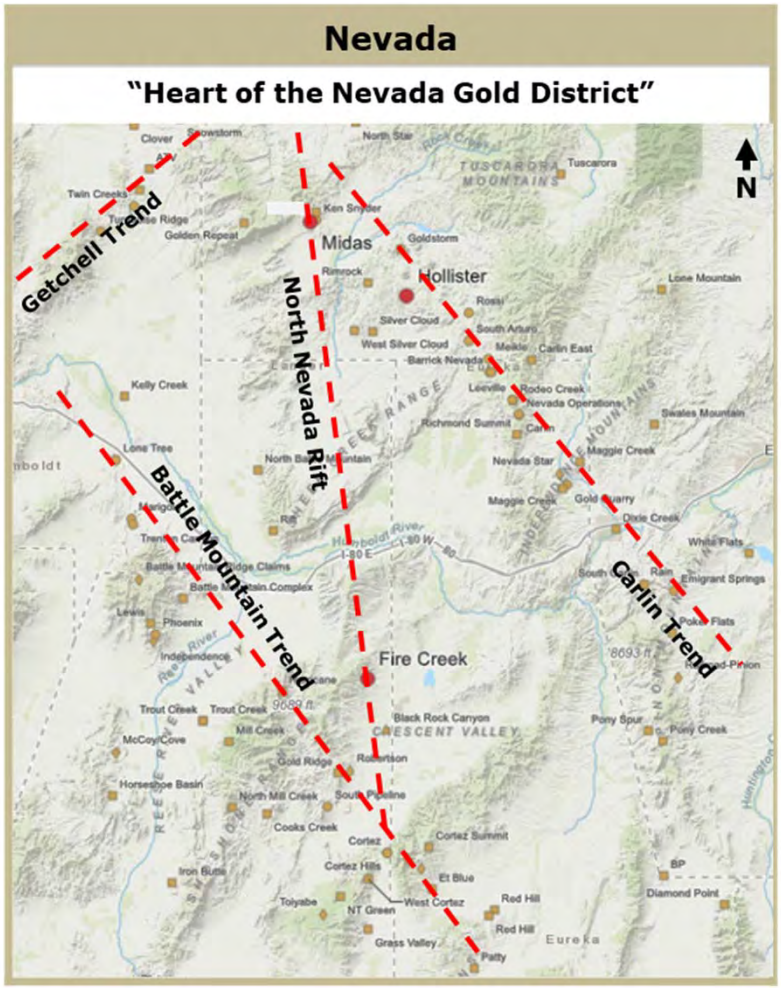
2P Reserves	77 Koz gold @ 0.63 oz/t gold
M+I Resources	1.8 Moz gold @ 0.45 oz/t gold



Note: Please see endnotes in the appendix for footnote references.
AISC is a non-GAAP measure; please refer to appendix for reconciliation to GAAP.
*Hecla acquisition of Klondex Mines completed July 20, 2018..

WHY WE INVESTED IN NEVADA

1. The 110-square mile land position with three, one-ounce headgrade mines.
2. Hatter Graben, part of Hollister, that has 1.4 oz headgrades, the potential for a million ounce orebody and will be drill-ready by year end.
3. Improve Fire Creek operations to lower the cut-off grade and increase throughput.



NEVADA ASSETS: 2018 ACTIVITIES AND 2019 PLAN

FOCUS ON IMPROVING OPERATIONS, INVESTING IN THE MINES

2018 Activities:

- Reorganized assets, put Midas on care and maintenance, moved men and equipment to Fire Creek and Hollister.
- Completed installation of the CIL circuit to improve recoveries for processing Hollister ore.
- Installation of new sampling equipment to better reconcile mill and mine reporting.
- Installed Geotech fabric to improve ground conditions in main haulageways.
- Constructed new tailings facility.
- Significantly downsized Reno office.
- Began driving development to Hatter Graben.

2019 Plan:

- Development rate (January) exceeded the 35 fpd goal. Focus is now to maintain and increase development.
- Adding two 6 yard scooptrams, 2 haul trucks, one jumbo and one bolter at Fire Creek through equipment transfers and purchases.
- Drive Spiral 3, Spiral 4 and Spiral 9/Haulage 9 to provide additional drill platforms, to expand reserves and provide more operating zones.
- Roadheaders being tested to evaluate potential to speed up development further.

Midas Mill

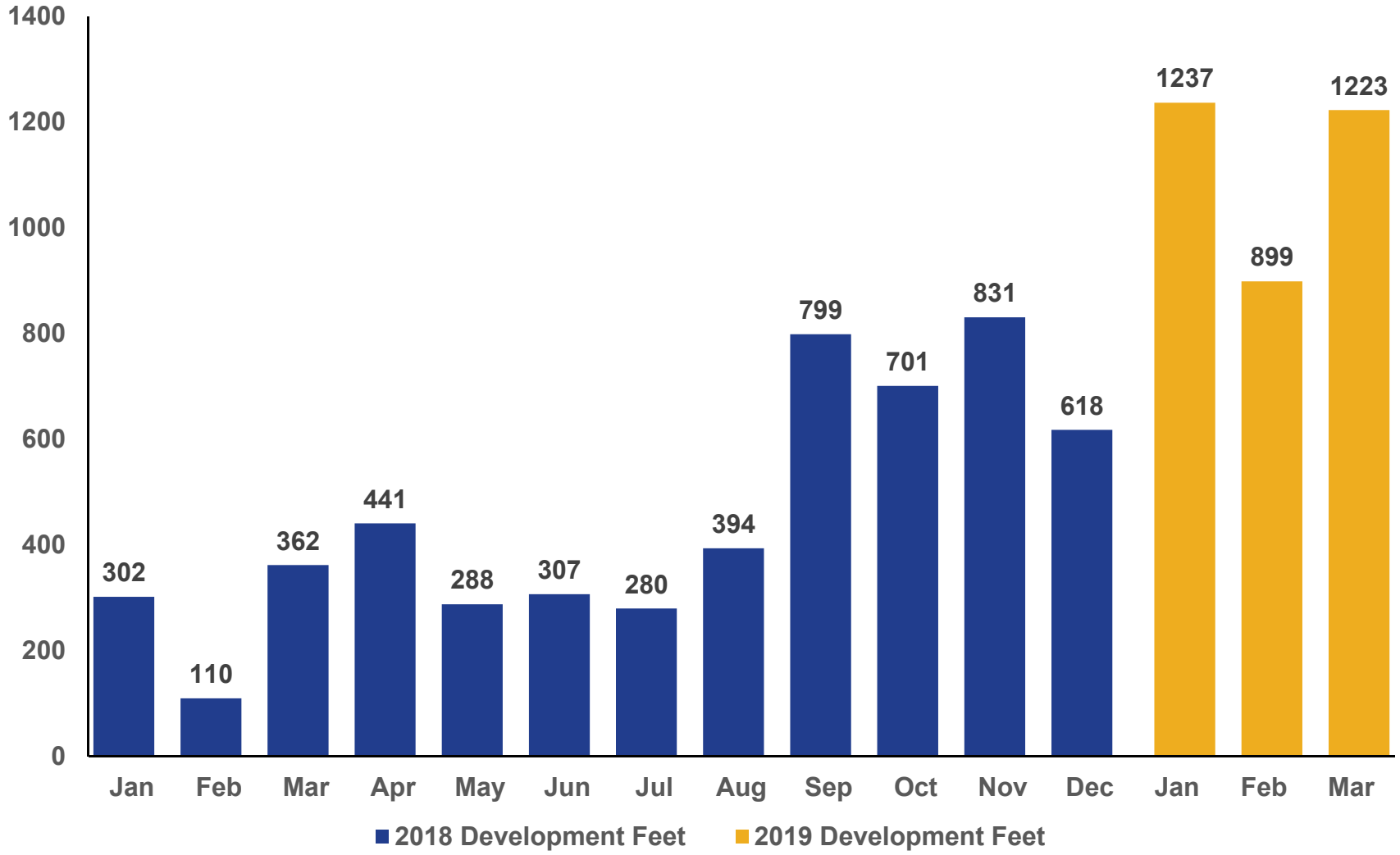


Fire Creek



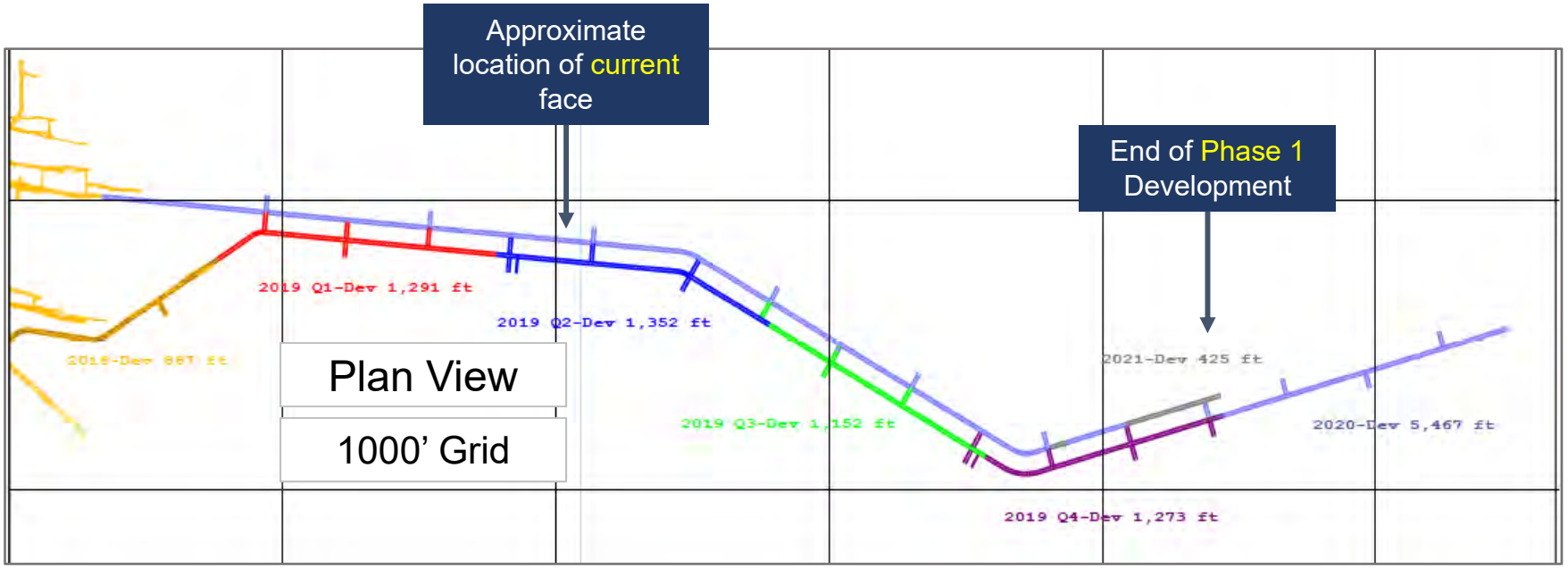
FIRE CREEK DEVELOPMENT INCREASING

DEVELOPMENT FEET BY MONTH



HATTER GRABEN PROJECT

YEAR-TO-DATE ADVANCE AVERAGES 12 FT/DAY

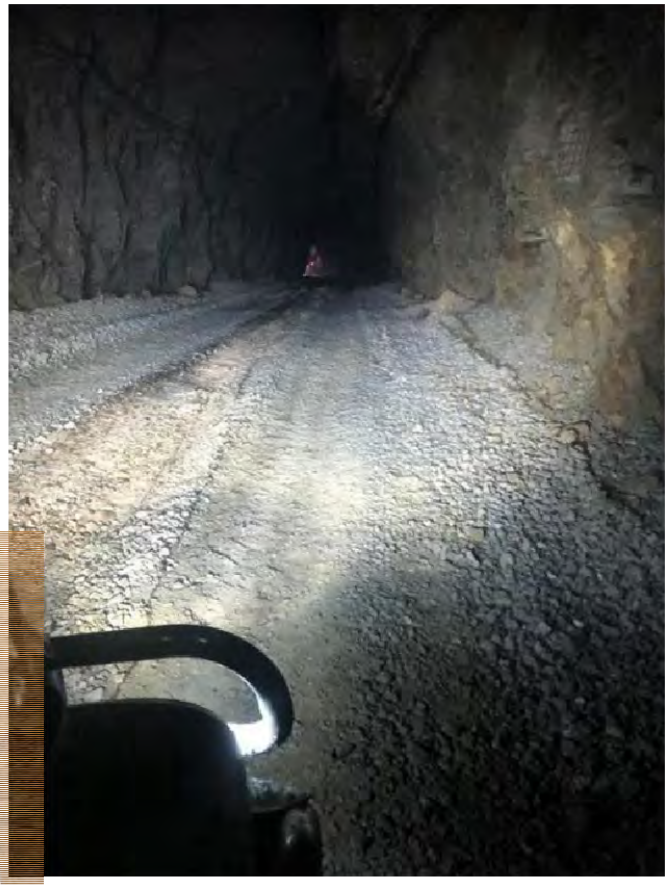


GEOTEXTILE FABRIC IMPROVES ROADWAY

IMPORTANT FOR INCREASING DEVELOPMENT/THROUGHPUT AT FIRE CREEK







Before (4 Haulage drift)

After (Spiral 3)

Self-wicking fabric removes water

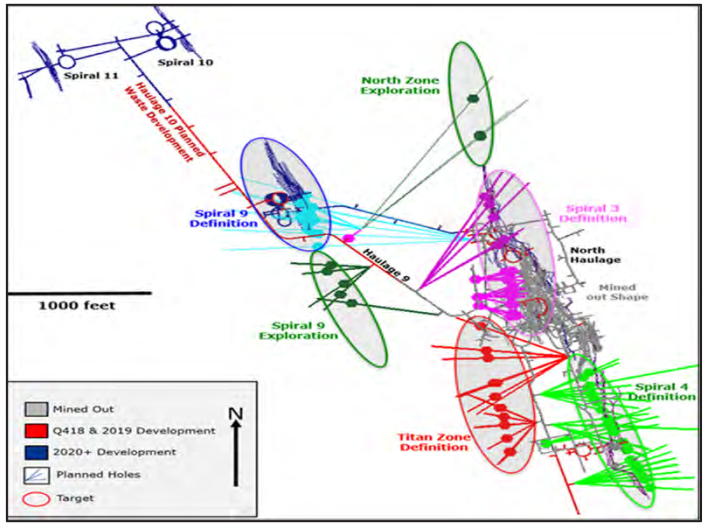
RAMP-UP NEVADA EXPLORATION IN 2019

EMPASIS ON UPGRADING RESOURCE TO RESERVES; NEW REOURCES ANTICIPATED

2018 Activities:

- Reorganized and prioritized exploration assets.
- Limited drilling of Fire Creek, Midas and Hollister due to lack of drill platforms underground.
- Completed small surface exploration drill programs at Fire Creek, Midas and Hollister.

Fire Creek



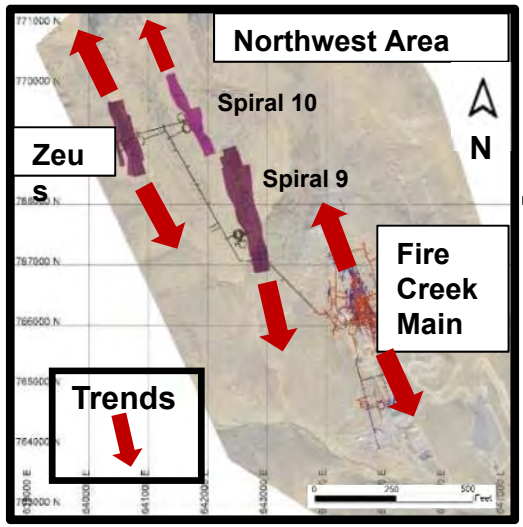
2019 Plan:

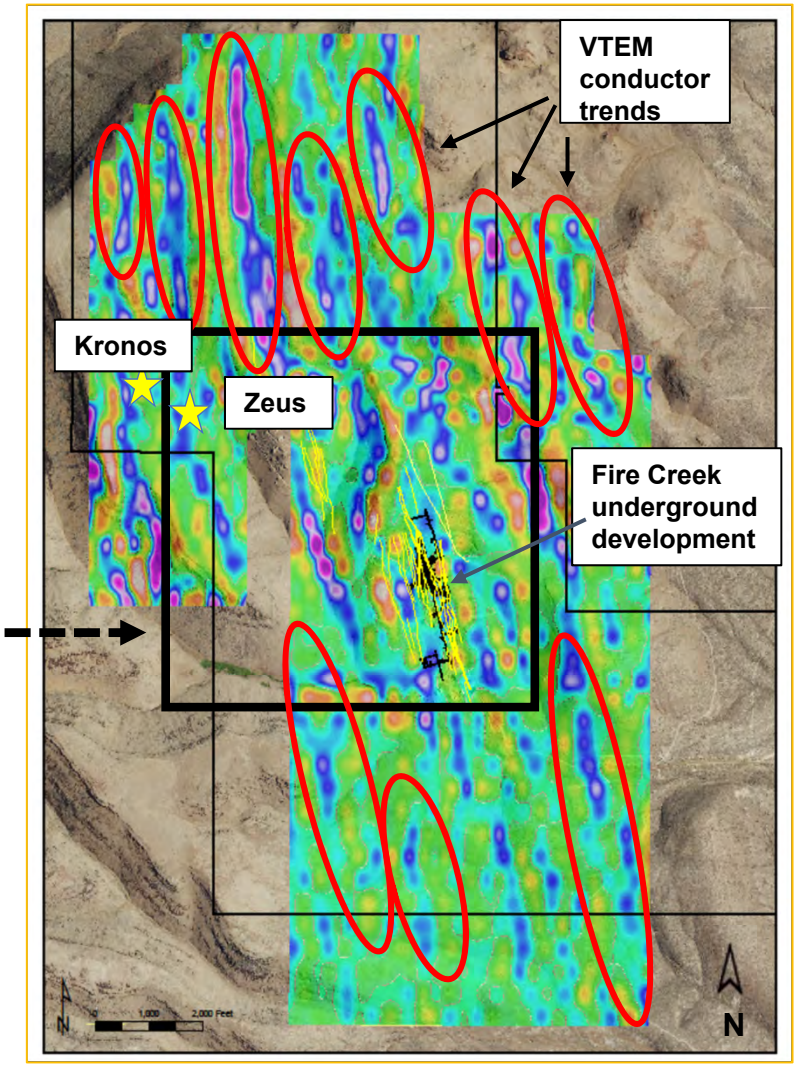
- 5 drills operating at Fire Creek. Over 54,000 feet of definition and exploration drilling.
- 3 exploration drills at Hollister. Over 40,000 ft of combined underground and surface exploration drilling at Hollister/Hatter Graben.
- Conduct internal multi-discipline GeoSummit to improve exploration targeting.
- Geophysical surveys to delineate high priority drill targets.
- Clay distribution and speciation study to provide additional vectoring.

FIRE CREEK VEIN NETWORKS OFFER EXTENSIVE OPPORTUNITIES

PRODUCTION CENTERS AND VEIN NETWORKS ARE OPEN IN ALL DIRECTIONS

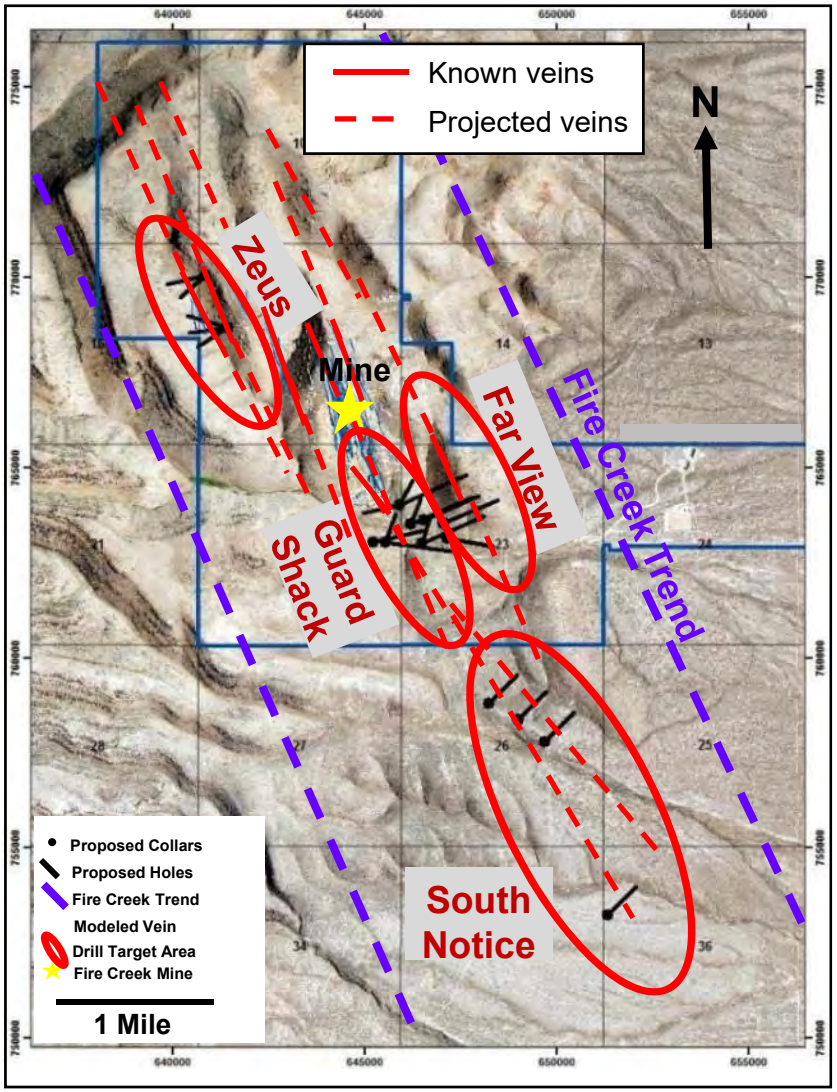
- Mineralized structures have predictive sigmoid pattern
- Current reserves and resources provide mining inventory out to 2023
- Identified veins are open and untested in all directions both locally and regionally
- Geophysical work has identified potential vein extensions (red outlines)
- Very good, near-term exploration potential





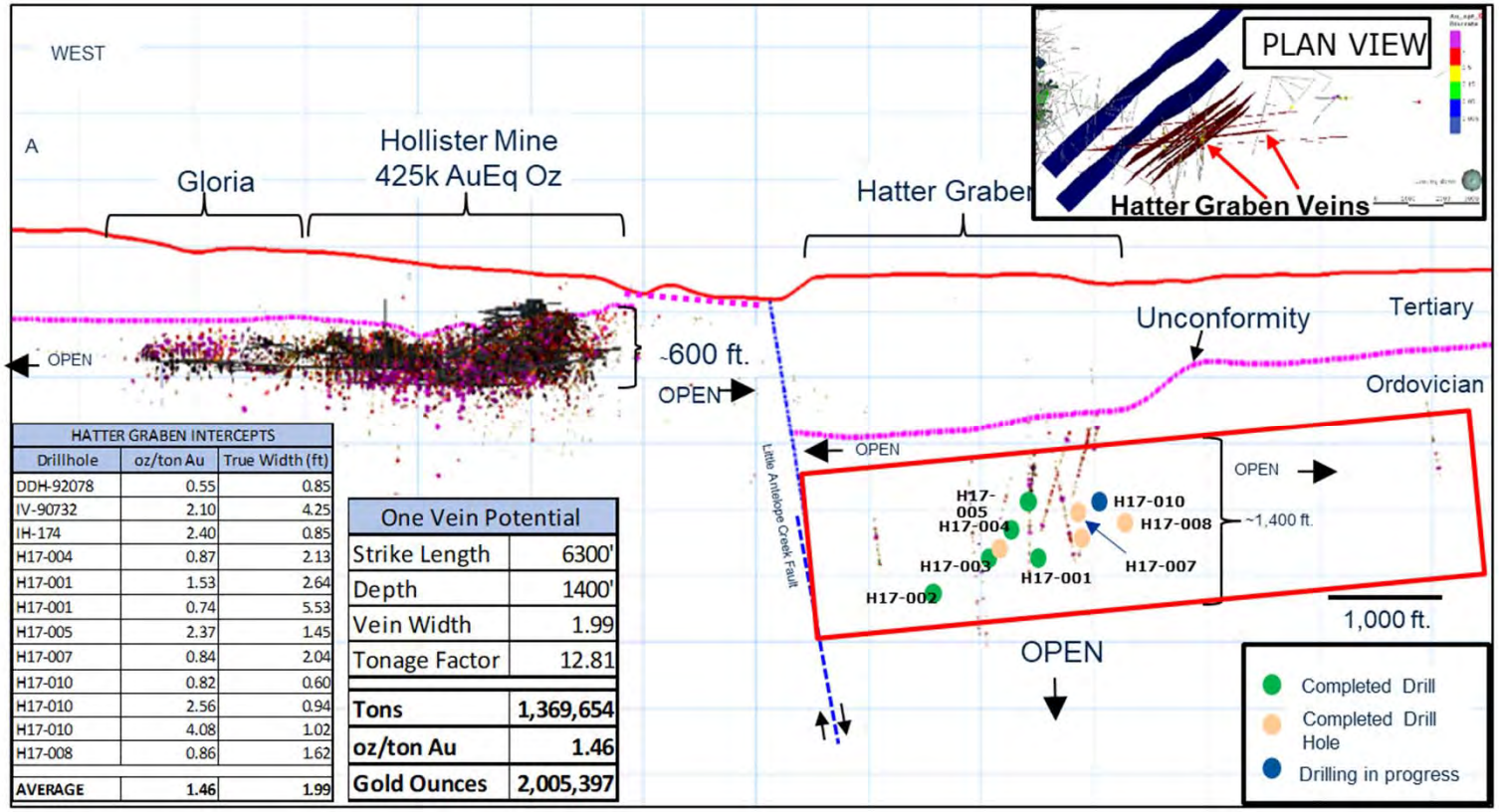
FIRE CREEK – SURFACE DRILLING

EVALUATING FOUR TARGET AREAS THAT HAVE MULTIPLE VEINS



HOLLISTER – UPSIDE AT HATTER GRABEN

POTENTIAL OF THE VEIN = 1.1 MILLION GOLD OUNCES; MULTIPLE VEINS IDENTIFIED



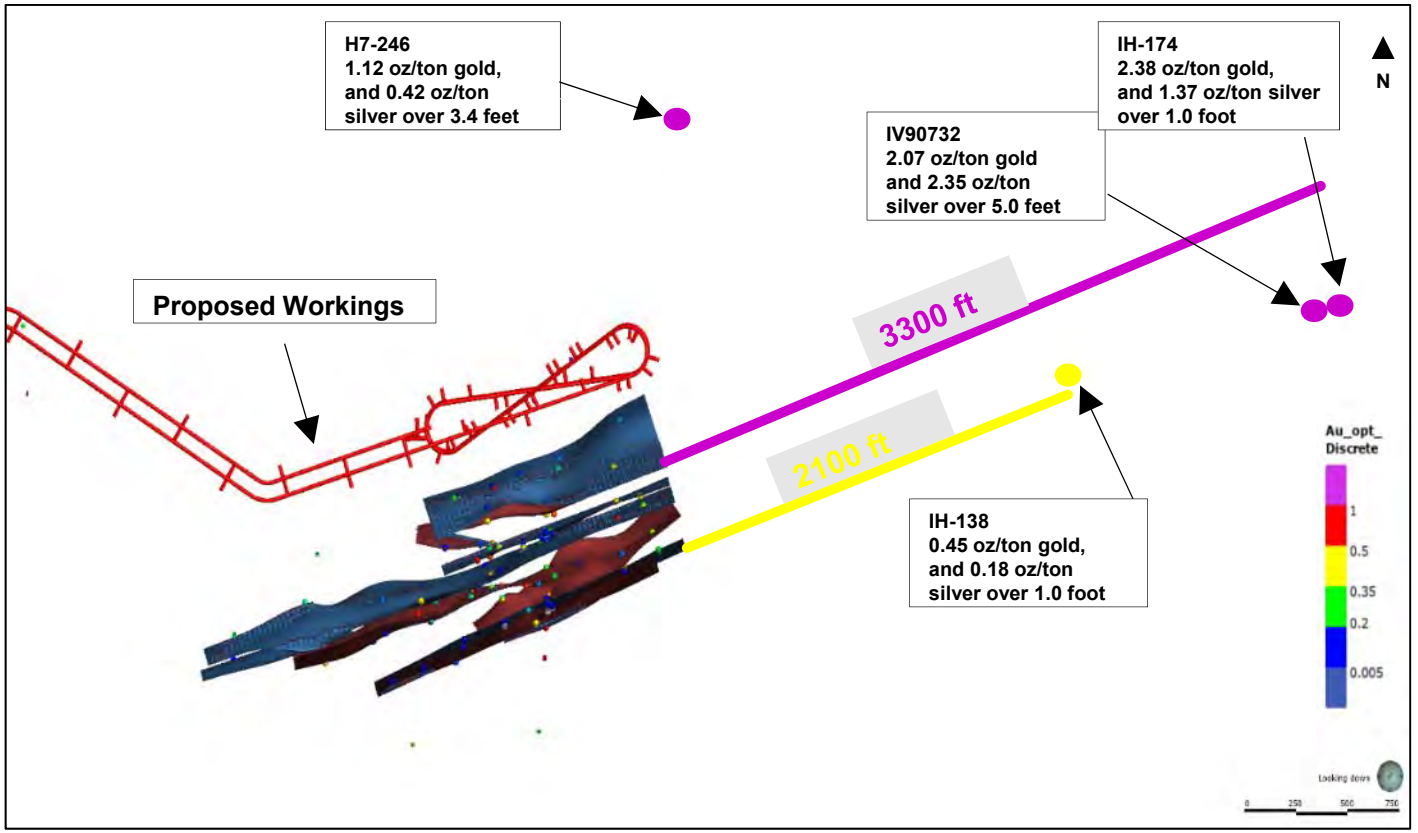
HATTER GRABEN INTERCEPTS		
Drillhole	oz/ton Au	True Width (ft)
DDH-92078	0.55	0.85
IV-90732	2.10	4.25
IH-174	2.40	0.85
H17-004	0.87	2.13
H17-001	1.53	2.64
H17-001	0.74	5.53
H17-005	2.37	1.45
H17-007	0.84	2.04
H17-010	0.82	0.60
H17-010	2.56	0.94
H17-010	4.08	1.02
H17-008	0.86	1.62
AVERAGE	1.46	1.99

One Vein Potential	
Strike Length	6300'
Depth	1400'
Vein Width	1.99
Tonage Factor	12.81
Tons	**1,369,654**
oz/ton Au	**1.46**
Gold Ounces	**2,005,397**

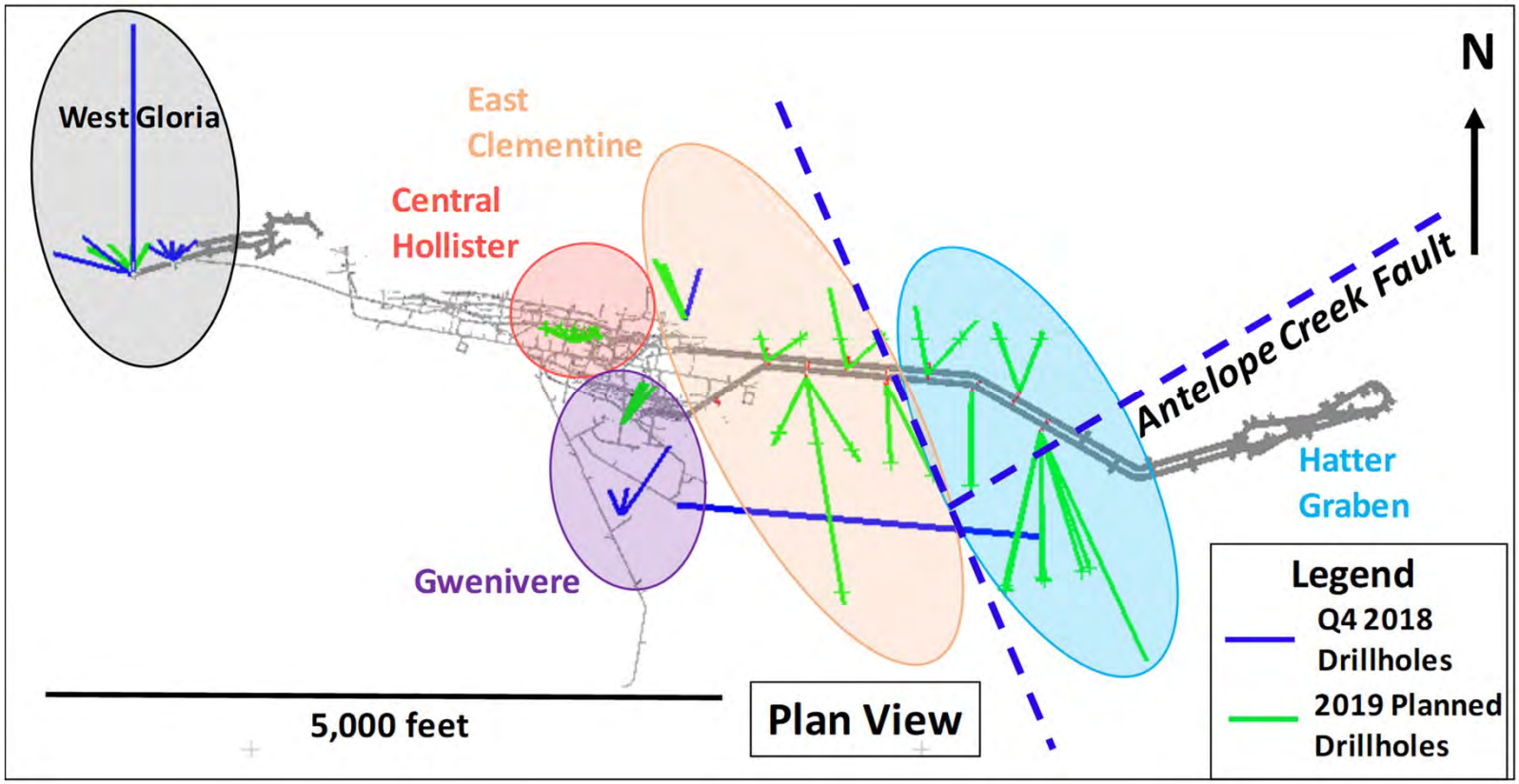
- Vertical dimension of mineralization at Hatter Graben over 1,200 feet

HATTER GRABEN – ROOM TO GROW

INTERCEPTS TO THE EAST OF THE PRINCIPAL RESOURCE



HATTER GRABEN DRILLING IN 2019



SAN SEBASTIAN

JUST-IN-TIME MINING; LOOKING TO MAKE IT A LONG-LIFE MINE





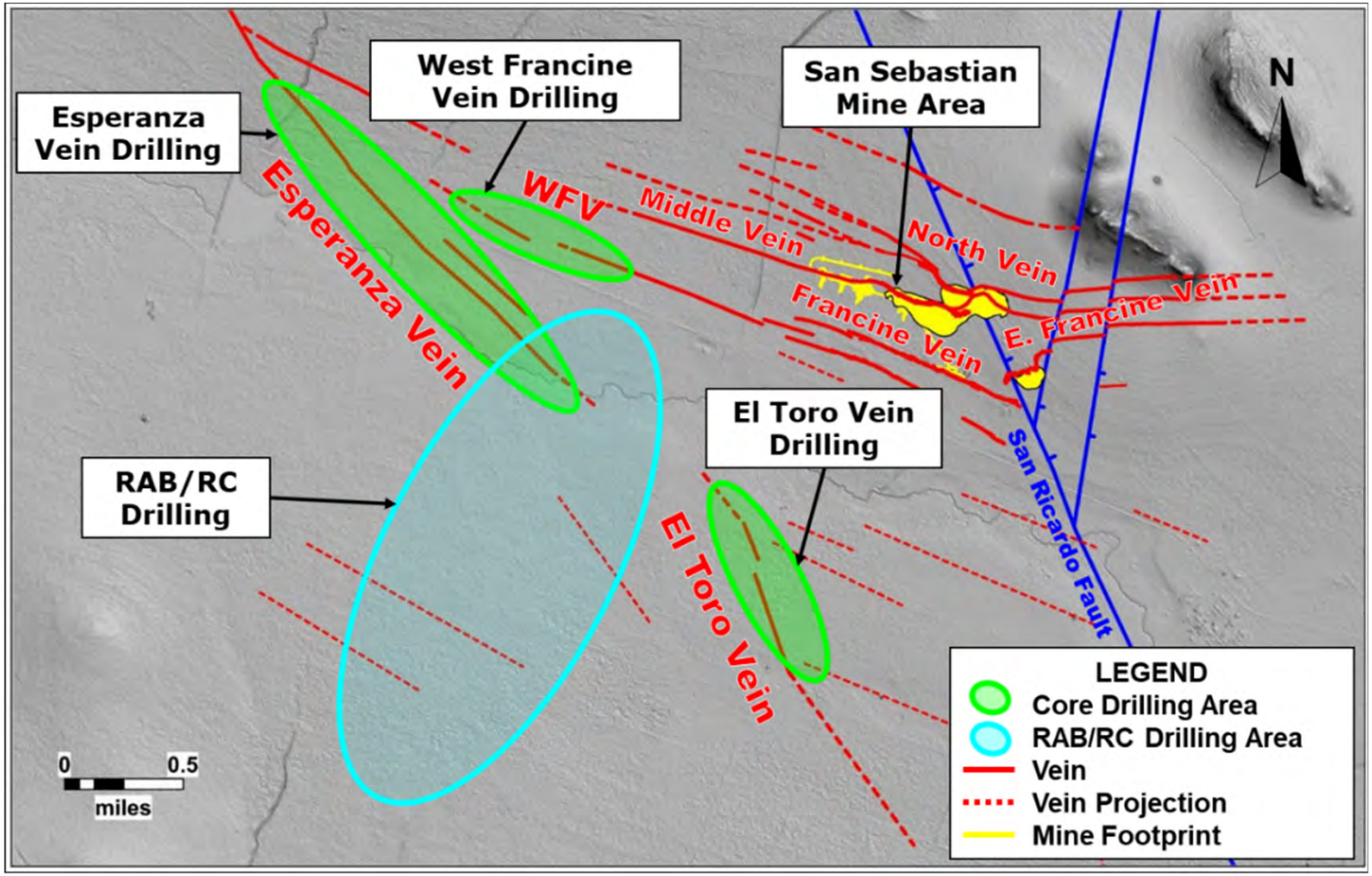
	2018	Q1 2018	**Q1 2019**	2019E[5]
Silver Production (Moz)	2.0	0.512	**0.441**	2.0
Gold Production (Koz)	15.0	4.5	**3.5**	14.0
Cost of Sales[2]	$41.8 M	$5.8 M	**$12.4 M**	$41.0 M
Cash cost, after by-product credits, per silver oz[3]	$9.69/oz	$2.81/oz	**$11.23/oz**	$9.00/oz
AISC, after by-product credits, per silver oz[4]	$14.68/oz	$8.37/oz	**$16.55/oz**	$12.00/oz

2019E[5] Sustaining Capital	$1.5 M
FCF 2018[6]	CF from operating activities of $5.4 M (GAAP) less capital expenditures of $6.2 M resulted in **$0.8 M negative FCF** (non-GAAP).
2P Reserves	2.8 Moz silver @ 12.3 oz/t Ag
M+I Resources	14.7 Moz silver @ 6.5 oz/t Ag

Note: Please see endnotes in the appendix for footnote references.
* AISC and FCF are non-GAAP measures; please refer to appendix for reconciliation to GAAP..

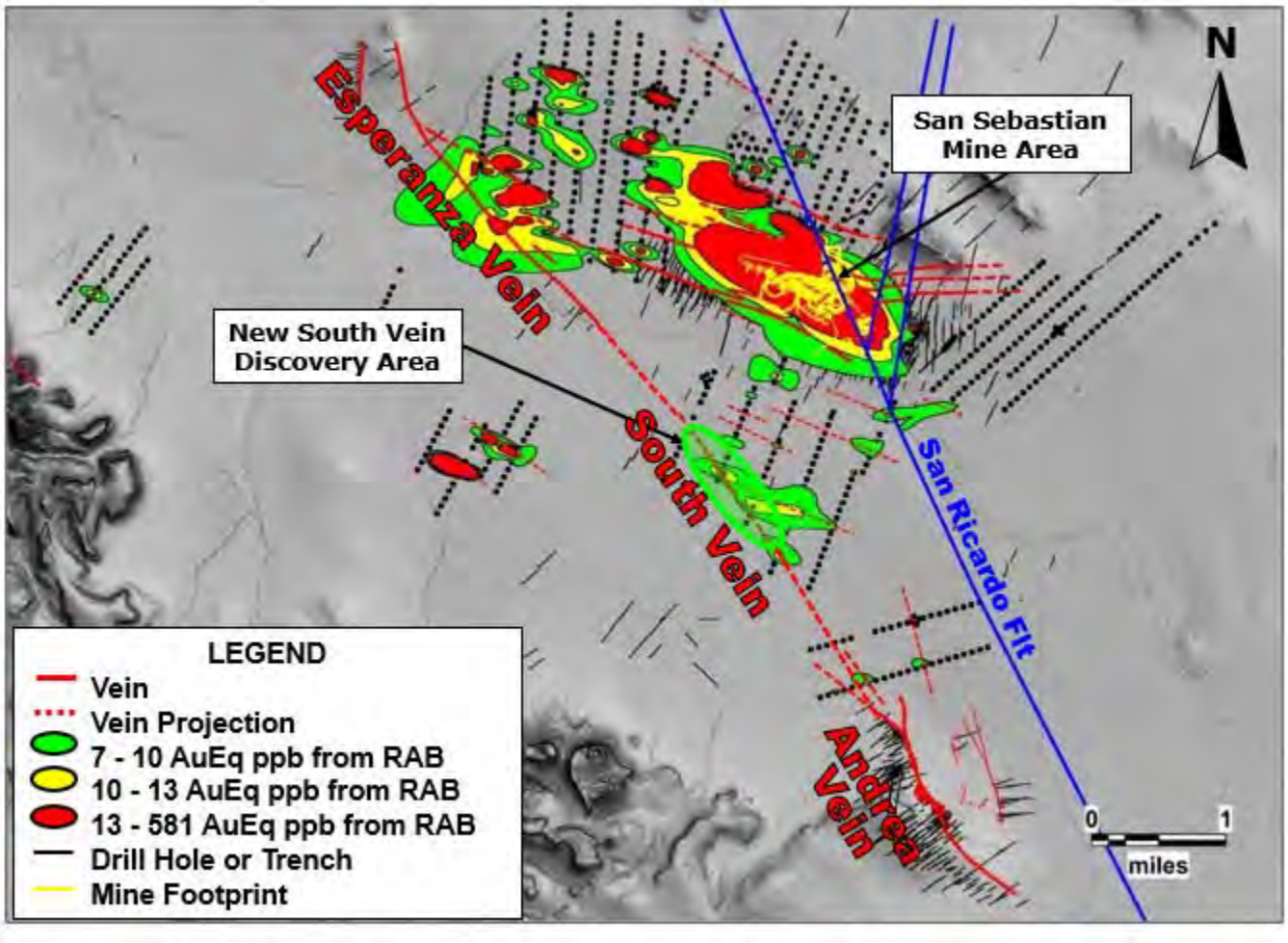
SAN SEBASTIAN – STRONG EXPLORATION POTENTIAL

CONTINUED FOCUS ON FINDING MORE OXIDE MINERALIZATION NEAR SURFACE



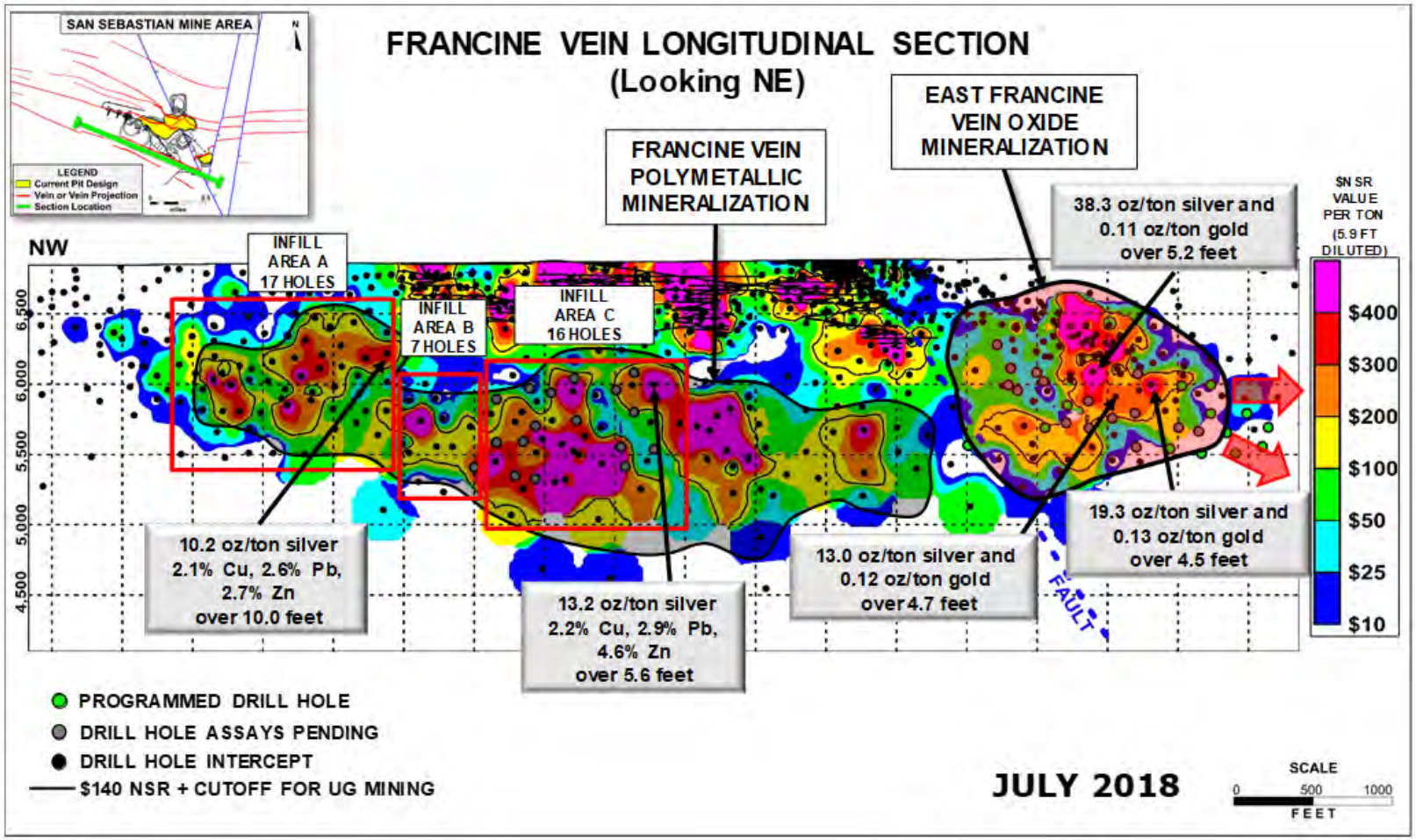
NEW OXIDE VEIN TREND AT SAN SEBASTIAN

10 MILES OF VEIN TREND INCLUDING ESPERANZA AND ANDREA



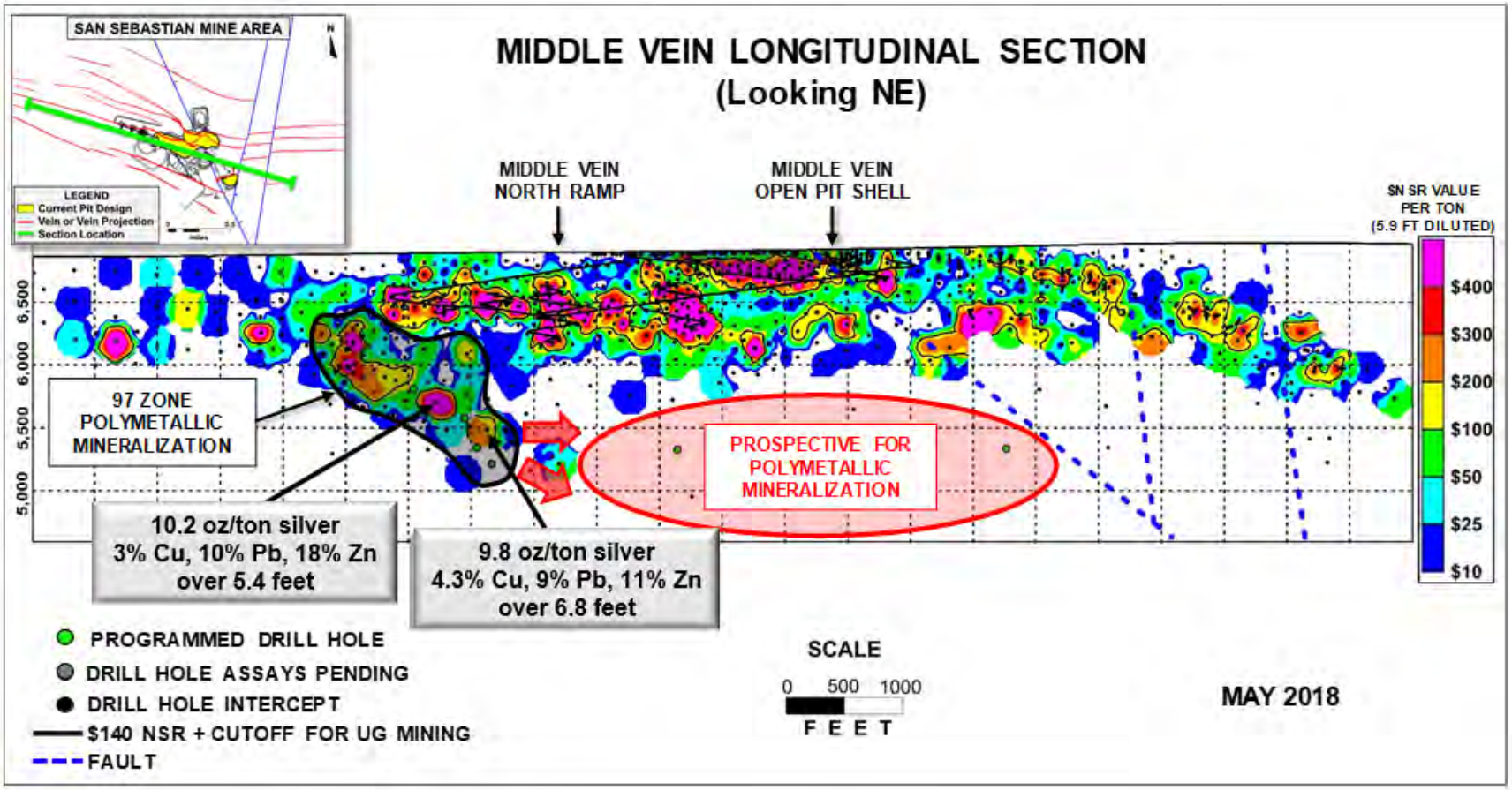
FRANCINE VEIN – POLYMETALLIC AND OXIDE POTENTIAL

POLYMETALLIC ZONE TRACED OVER 8,000 FEET OF STRIKE LENGTH



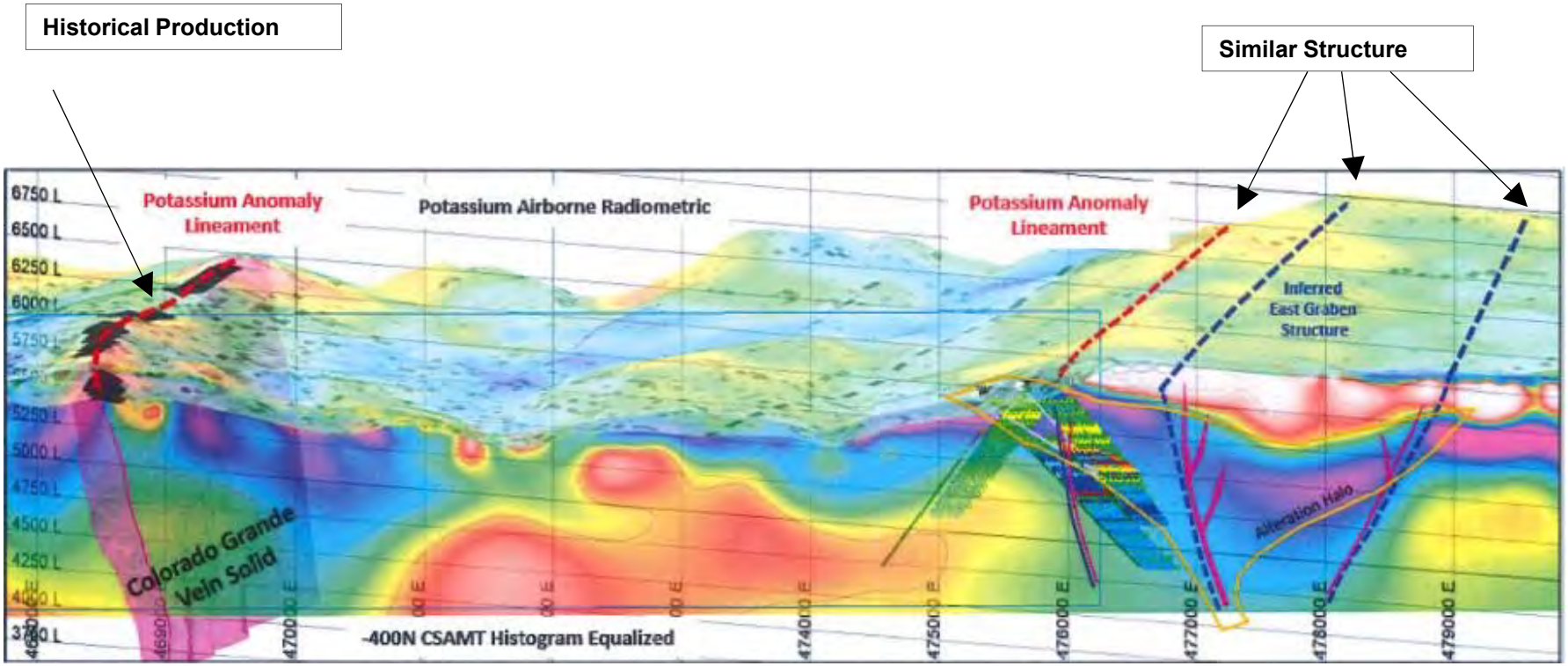
MIDDLE VEIN – POLYMETALLIC POTENTIAL

PREDICTING A HORIZONTAL POLYMETALLIC ZONE BELOW THE OXIDE RESERVE



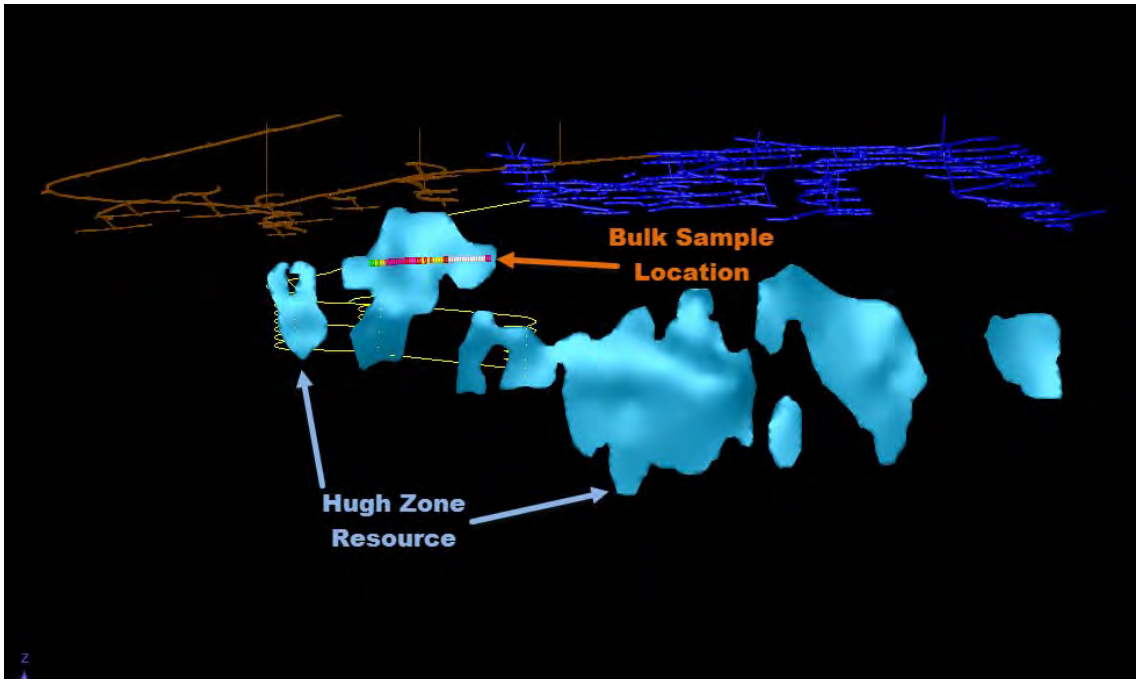
MIDAS – EAST BASIN OPPORTUNITY

SIMILAR K-ANOMALIES AND CSAMT ANOMALIES AS COLORADO GRANDE (HISTORICAL MINE)



SAN SEBASTIAN TESTING THE HUGH ZONE

- Mine restarted in 2016 with an 18 month mine life
- Great return on $15 million of capital invested by using leased mill and contract miners
- Oxide production into 2020
- Continuing to explore for oxide mineralization
- Starting the test of the Hugh Zone sulfides with a 35,000 ton bulk sample – results in Q2 & Q3
- 1.2 million ton potential or five more years of mine life



LUCKY FRIDAY

POSITIONING FOR GROWTH AND LONGEVITY



	2018	Q1 2018	**Q1 2019**
Silver Production (Koz)	169	100	**173**
Cost of Sales[2]	$9.8 M	$4.1 M	**$2.2 M**
Cash cost, after by-product credits, per silver oz[3]	N/A	N/A	N/A
AISC, after by-product credits, per silver oz[4]	N/A	N/A	N/A

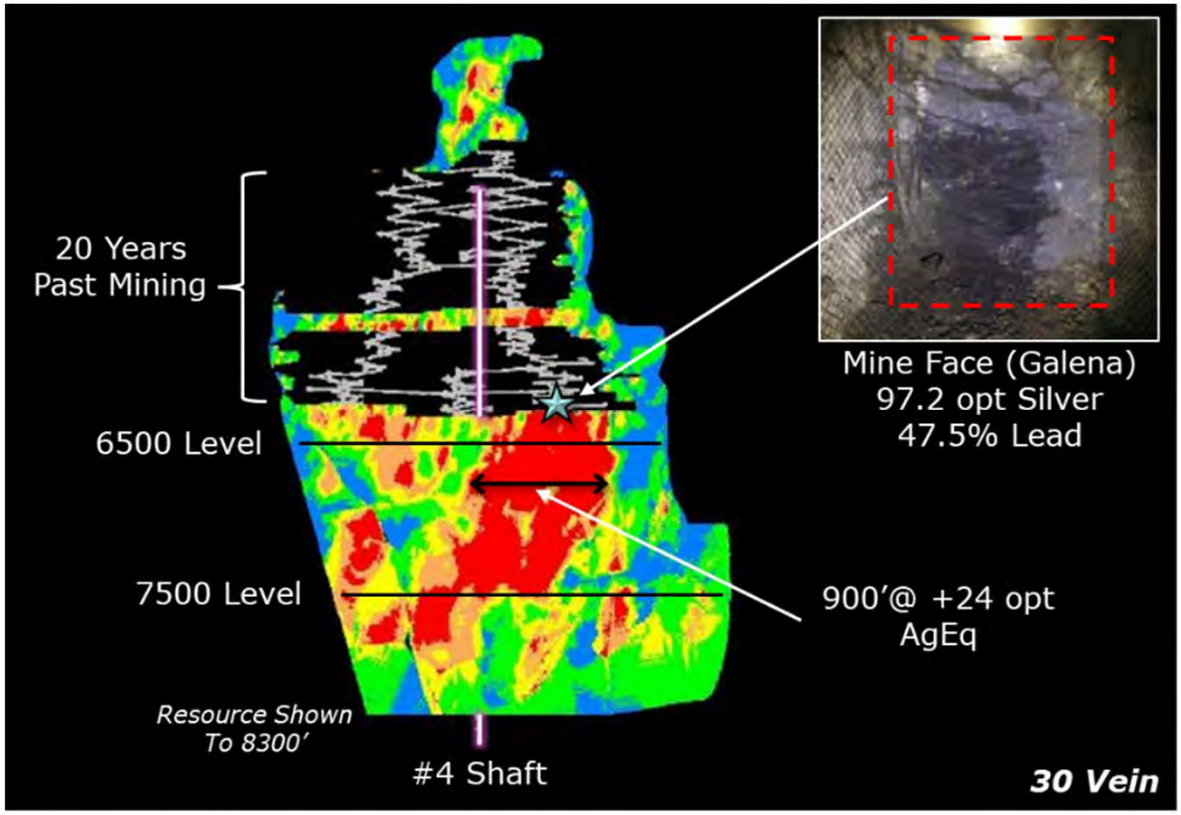
2P Reserves	81 Moz silver @ 14.4 oz/t Ag
M+I Resources	77.4 Moz silver @ 7.7 oz/t Ag



Union workers currently on strike.

#4 SHAFT GIVES ACCESS TO THE HIGH-GRADE ZONE

AT LEAST 30 MORE YEARS OF MINE LIFE EXPECTED



ORE GRADE VALUES
*AgEq Grade (opt)

- > 24
- 18 - 24
- 12 - 18
- 6 - 12
- < 6

Dec. 31, 2015

*Ag Equivalent Values Based Upon: Resource Prices $20.00/oz Ag, $0.90/lb Pb, $0.90/lb Zn

LUCKY FRIDAY: CONTINUOUS MECHANICAL CUTTING IS COMING

DELIVERY 2020: COULD REPLACE DRILL AND BLAST

Hecla MINING COMPANY

Remote Vein Miner Fabrication Underway in Sweden



Cutter Head and Machine

ROCK CREEK & MONTANORE

FINAL STAGES OF PERMITTING, EXPECTING TO ADVANCE IN 2018

Mine overview

- Montanore, a silver-copper mine located in Libby, Montana, was acquired from Mines Management in 2016
- Rock Creek, a silver-copper mine located in Noxon, Montana, was acquired from Revett in 2015
- Both projects are in the final stages of permitting, and are expected to advance to exploration upon approval

Impact on Resources

- Although assigned nominal value today, these projects represent meaningful upside for Hecla as they progress through feasibility

Combined, the projects are as large as Hecla's current reserves

Rock Creek Site Overview



Project Overview

Metric	Rock Creek	Montanore
Potential Mine Life	20 – 30 Years each	
Hecla Stock Acquisition Cost	$19 M	$54 M
Advanced Permitting	ROD	Final SEIS**
Well Located	50 miles from Lucky Friday	
Land Position	Great Exploration Potential	

*Record of Decision – Phase | U.G. data collection
**Supplemental Environmental Impact Statement

A FURTHER TRANSFORMATION OF HECLA

CONSISTENT WITH STRATEGY AND EXPERTISE

- Now with seven large land positions located in Alaska, Quebec, Nevada, Mexico and Idaho which are some of the safest and most prolific mining jurisdictions in the world
- Proven operational excellence to be leveraged across expanded portfolio of high-grade mines
- Well capitalized pro-forma company with strong cash flow and solid balance sheet
- Significant production base with significant growth opportunities and cost reduction potential
- Attractive commodity diversification with a focus on precious metals

Other Supporting Information

RESPONSIBLE. SAFE. INNOVATIVE.

BELIEVE IN EARNING AND MAINTAINING OUR SOCIAL LICENSE TO OPERATE

- We must be responsible operators in the communities where we live and work
  - We provide career jobs for our 1,800 employees
  - Create a culture where safety is non-negotiable
  - Protect and partner with the community
  - Generate shareholder return
  - Work every day to safeguard the environment
- Our goal is to be responsible, safe and innovative in everything we do and everywhere we operate



OUR PRIORITY: ESG

IMPLEMENT SASB STANDARDS ON ESG

- Our core values of being responsible, safe and innovative are reflected in our commitment to operating as a responsible, ethical and sustainable business
- Utilize the industry-specific SASB standards to report on the ESG aspects of our company
- Continue to integrate ESG factors into Hecla that will bring value and positively impact environmental, social and governance areas



OUR COMMITMENT: ENVIRONMENT

REDUCING GREENHOUSE GAS EMISSIONS AND CONSERVING ENERGY

- 60% less diesel fuel consumption at Greens Creek through the use of interruptible hydropower
- The biomass heating project installed at the Casa Berardi Mine is expected to reduce 2,732 tonnes of greenhouse gas emissions per year by using biomass instead of propane
- More than $1 million in annual energy savings at Greens Creek due to on-demand ventilation
- Autonomous haulage at Casa Berardi increased payloads by 8% and decreased energy use 17% per vehicle
- Track on-site consumption of carbon-based fuels at all operating properties

Autonomous haulage increased payloads by 8%



OUR COMMITMENT: TAILINGS MANAGEMENT

EMPHASIS ON SAFETY AND STABILITY

- Design, construct, operate, decommission and close our tailings facilities to ensure stability
- Approximately half of the tailings produced is used as backfill at Greens Creek, Lucky Friday, and Casa Berardi
- Early adopter of the dry-stack method of tailings management at the Greens Creek Mine
- Dry-stack method minimizes tailings surface footprint, reduces amount of water retained in the tailings and lessens consequences for any potential failure
- Completed independent tailings stewardship reviews at both Casa Berardi and Midas Mines in 2018



OUR COMMITMENT: RECLAMATION

EVERY MINE BEGINS WITH A RECLAMATION PLAN

- Begin each mine with a reclamation plan to restore the land to its natural state for productive uses
- More than $175 million committed to ensuring mined lands are successfully reclaimed following operations
- Completed reclamation of the 570-acre Grouse Creek Mine in 2013 and saw the return of the financial assurance demonstrating governmental agencies' acceptance of the site reclamation works
- Reclamation on track at the former Troy Mine in Montana, where more than 90% of tailings have been covered or top soiled and seeded
- Partnered with the Western Shoshone Tribe in concurrent reclamation at Hollister Mine – and in siting exploration pads to minimize disturbance

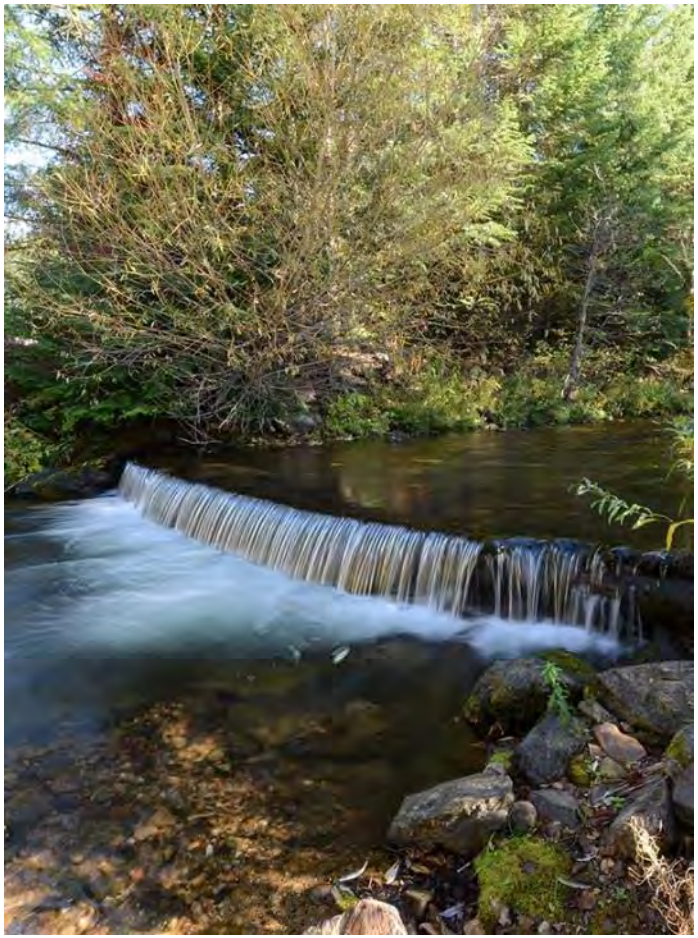




OUR COMMITMENT: WATER MANAGEMENT

ROBUST PROGRAM OF SAMPLING, QUALITY ANALYSIS AND AUDITS

- All water output must meet applicable federal and state (or provincial) water quality permit conditions
- More than 95 percent of the process plant water needs at our Casa Berardi Mine are met by recycling water from the tailings pond
- Conduct water audits to understand usage, find opportunities to reduce consumption, and reduce the associated volume of treated water to ensure that natural waters are protected



OUR COMMITMENT: SAFETY

SAFETY IS NON-NEGOTIABLE AT HECLA

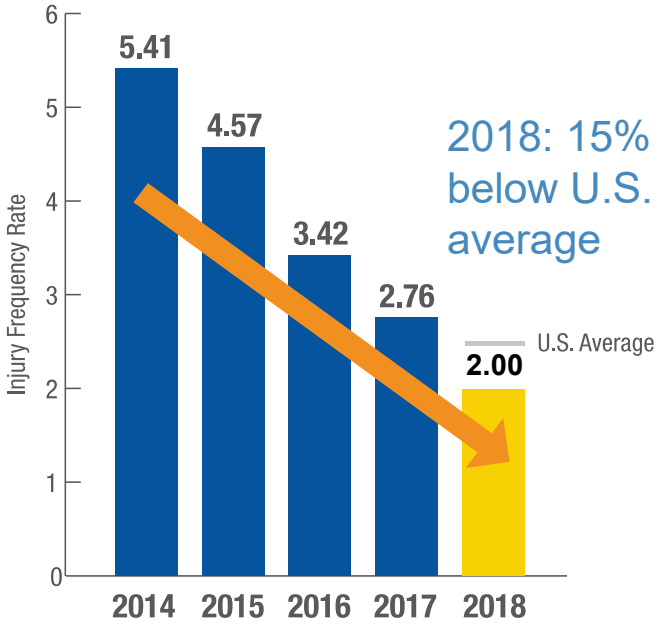
- Practice continuous improvement where we adapt/change to minimize risks of injury or an accident
- Goal is always 0 injuries/fatalities
- First hardrock mining company to achieve NMA's CoreSafety certification (2016)
- Casa Berardi Mine in Quebec was the first international mine to receive certification under the CORESafety system (2018)
- Workers received a minimum of 53,000 hours—or 40 hours per person--of safety and health training in 2017
- Lucky Friday Mine Rescue Team earned first place in the 2018 Central Mine Rescue Competition and the Greens Creek's Mine Rescue Team took second

SAFETY IS EMBEDDED IN OUR CULTURE



OUR COMMITMENT: SAFETY

ALL INJURY FREQUENCY RATE IS 15% BELOW THE U.S. AVERAGE





Injury frequency rates have been on a **steady decline since 2014**

2019 goal is a **10% reduction** from the 2018 target rate

OUR COMMITMENT: COMMUNITIES AND EDUCATION

INVESTING IN FUTURE GENERATIONS AND COMMUNITIES

Charitable Donations and Volunteerism

- More than $2.9 million in Hecla Charitable Foundation contributions since 2009
- Foundation is focused on four areas: education, community programs, youth activities, and health services
- Culture of Volunteerism—our employees volunteer as firefighters, coaches, school board members
- Sponsoring youth programs





OUR COMMITMENT: COMMUNITIES AND EDUCATION

INVESTING IN FUTURE GENERATIONS AND COMMUNITIES

Education and Training

- $900,000 toward sustainable career development programs at Greens Creek Mine since 2011
- More than $1 million in donations toward student scholarships by the Hecla UQAT Foundation in Quebec since 2009
- Pathways in Alaska program begins with middle school tours and runs through high school with job shadowing and instruction
- In 2014, we hired the first two successful certification graduates, both of whom started in our Pathway program in middle school





OUR COMMITMENT: INDIGENOUS PEOPLES

WE PARTNER WITH FIRST NATIONS IN THE LOCAL COMMUNITIES

- Hecla Quebec and the Gitanyow Band in upper British Columbia have entered into an exploration agreement that addresses mutual benefits from future exploration activity in the area – including employment, contracting, environment, and permitting
- Hecla Quebec has signed a Memorandum of Understanding with the Pikogan First Nations that could guide development of a collaboration agreement
- Working with the Western Shoshone Tribe and the Te-Moak Council in Nevada on cultural and environmental matters, including siting and reclamation of exploration drill sites
- Our Greens Creek Mine, in partnership with the University of Alaska, hosted community workshops to educate and address questions on sustenance fisheries and the impacts of global mercury releases to the environment



OUR COMMITMENT: GOVERNANCE

YOU SPOKE, WE LISTENED



	2014	2015	2016	2017	2018	2019
Eliminated tax gross-ups		✓				✓
Amended guidelines for succession of CEO/Chairman	✓					✓
Increased Diversity– added female director to the Board				✓		✓
Shortened Board tenure			✓			✓
Added Director Resignation Policy				✓		✓
Increased disclosure on ESG					✓	✓
Increased transparency of LTIP and AIP metrics and goals in proxy	✓					✓
Made AIP more formulaic, less discretionary	✓					✓
Implemented CIC double trigger for equity vesting	✓					✓

ADUSTED EBITDA RECONCILLIATION TO GAAP

Reconciliation of Net (Loss) Income (GAAP) to Adjusted EBITDA (non-GAAP)

Dollars in thousands (USD)

	Twelve Months Ended					
	31-Dec-13	31-Dec-14	31-Dec-15	31-Dec-16	31-Dec-17	31-Dec-18
Net (loss) income	$ (25,130)	$ 17,824	$ (94,738)	$ 61,569	$ (28,520)	$ (26,563)
Plus: Interest expense, net of amount capitalized	21,689	26,775	25,389	21,796	38,012	40,944
Plus/(Less): Income taxes	(9,795)	(5,240)	56,999	28,090	20,963	(6,701)
Plus: Depreciation, depletion and amortization	81,127	111,134	119,386	123,631	120,599	134,044
Plus: Exploration expense	23,502	17,698	17,745	14,720	23,510	35,695
Plus: Pre-development expense	14,148	1,969	4,213	3,137	5,448	4,887
Plus: Acquisition costs	26,947	0	2,162	-	25	10,045
Plus: Suspension costs	(1,401)	0	-	-	21,301	20,693
Less: Gain on dispostion of properties, plants, equipment and mineral interests			404	(147)	(6,042)	(2,793)
Plus: Stock-based compensation	4,574	9,494	5,425	5,932	6,331	6,242
Plus: Provision for closed operations	1,788	10,215	12,036	4,813	4,508	6,090
Plus/(Less): Foreign exchange (gain) loss	(2,959)	(11,535)	(24,178)	2,737	9,680	(10,310)
Plus/(Less): Loss (gain) on derivative contracts	(17,979)	(9,134)	10,520	(4,423)	18,063	(7,936)
Plus/(Less): Provisional price (loss) gain	16,955	2,277	(634)	918	(742)	3,803
Plus: Unrealized loss on investments	2,639	3,224	3,333	177	247	2,816
Plus/(Less): Other	(859)	(286)	(468)	(507)	(1,526)	941
Adjusted EBITDA	**$ 135,246**	**$ 174,415**	**$ 137,594**	**$ 265,138**	**$ 231,857**	**$ 211,897**

CASH COST AND AISC RECONCILIATION TO GAAP

2019 ESTIMATES

Reconciliation of Cost of Sales and Other Direct Production Costs and Depreciation, Depletion and Amortization (GAAP) to Cash Cost, Before By-product Credits and Cash Cost, After By-product Credits (non-GAAP) and All-In Sustaining Costs, Before By-product Credits, per Ounce and All-In Sustaining Costs, After By-product Credits, per Ounce (non-GAAP)

In thousands (except per ounce amounts)	Estimated Twelve Months Ended December 31, 2019					
	Greens Creek	Lucky Friday[2]	San Sebastian	Corporate[3]	Total Silver	Casa Berardi (Gold)
Cost of sales and other direct production costs and depreciation, depletion and amortization	$ 202,000		$ 41,000		$ 243,000	$ 210.000
Depreciation, depletion and amortization	(45,000)		(4,000)		(49,000)	(80,000)
Treatment costs	38,000		1,000		39,000	
Change in product inventory	(1,000)		—		(1,000)	(2,000)
Reclamation and other costs	(1,000)		(1,000)		(2,000)	1,000
Cash Cost, Before By-product Credits [1]	193,000		37,000		230,000	129,000
Reclamation and other costs	1,000		1,000		2,000	1,000
Exploration	2,000		3,500		5,500	4,000
Sustaining capital	42,000		1,500		43,500	43,000
General and administrative	—		—	40,000	40,000	—
AISC, Before By-product Credits [1]	238,000		43,000		321,000	177,000
By-product credits:						
Zinc	(109,000)		—		(109,000)	—
Gold	(55,000)		(19,000)		(74,000)	—
Lead	(34,000)		—		(34,000)	—
Silver	—		—			(2,000)
Total By-product credits	(198,000)		(19,000)		(217,000)	(2,000)
Cash Cost, After By-product Credits	$ (5,000)		$ 18,000		$ 13,000	$ 127,000
AISC, After By-product Credits	$ 40,000		$ 24,000		$ 104,000	$ 175,000
Divided by ounces produced	7,700		2,000		9,700	150
Cash Cost, Before By-product Credits, per Ounce	$ 25.06		$ 18.50		$ 23.71	$ 860
By-product credits per ounce	(25.71)		(9.50)		(22.37)	(13)
Cash Cost, After By-product Credits, per Ounce	$ (0.65)		$ 9.00		$ 1.34	$ 847
AISC, Before By-product Credits, per Ounce	$ 30.91		$ 21.50		$ 33.09	$ 1,180
By-product credits per ounce	(25.71)		(9.50)		(22.37)	(13)
AISC, After By-product Credits, per Ounce	$ 5.20		$ 12.00		$ 10.72	$ 1,167

1. Includes all direct and indirect operating cash costs related directly to the physical activities of producing metals, including mining, processing and other plant costs, third-party refining and marketing expense, on-site general and administrative costs, royalties and mining production taxes, before by-product revenues earned from all metals other than the primary metal produced at each unit. AISC, Before By-product Credits also includes on-site exploration, reclamation, and sustaining capital costs.
2. The unionized employees at Lucky Friday have been on strike since March 13, 2017, and production at Lucky Friday has been limited since that time. As a result, for the first quarter of 2018 Cash Cost, Before By-product Credits, Cash Cost, After By-product Credits, AISC, Before By-product Credits, and AISC, After By-product Credits are not presented for Lucky Friday, and costs related to the limited production at Lucky Friday are excluded from the calculation of Cash Cost, Before By-product Credits, Cash Cost, After By-product Credits, AISC, Before By-product Credits, and AISC, After By-product Credits for our combined silver operations.

CASH COST RECONCILIATION TO GAAP

SILVER OPERATIONS

Reconciliation of Cost of Sales and Other Direct Production Costs and Depreciation, Depletion and Amortization (GAAP) to Cash Cost, Before By-product Credits and Cash Cost, After By-product Credits (non-GAAP) and All-In Sustaining Costs, Before By-product Credits, per Ounce and All-In Sustaining Costs, After By-product Credits, per Ounce (non-GAAP)

	2018	2017	2016	2015	2014	2013
Costs of sales and other direct production costs and depreciation, depletion and amortization	$ 241,631	$ 240,610	$ 298,740	$ 260,498	$ 267,536	$ 242,588
Depreciation, depletion and amortization	(52,125)	(61,468)	(68,156)	(67,815)	(72,936)	(63,098)
Treatment costs	39,820	53,718	84,535	80,239	82,639	76,824
Change in product inventory	3,142	(449)	(1,429)	(1,632)	1,649	246
Reclamation and other costs	(4,470)	(4,298)	(5,406)	(1,319)	(2,046)	(2,100)
Cash costs, before by-product credits[1]	220,751	228,113	308,284	269,971	276,842	254,460
By-product credits	(210,024)	(228,267)	(255,171)	(202,357)	(223,654)	(193,496)
Cash cost, after by-product credits	$ 10,727	$ (154)	$ 53,113	$ 67,614	$ 53,188	$ 60,964
Divided by silver ounces produced	9,990	12,449	17,144	11,562	11,065	8,907
Cash cost, before by-product credits, per silver ounce	$ 22.10	$ 18.33	$ 17.98	$ 23.35	$ 25.02	$ 28.56
By-product credits per silver ounce	$ (21.02)	$ (18.34)	$ (14.88)	$ (17.50)	$ (20.21)	$ (21.72)
Cash cost, after by-product credits, per silver ounce	$ 1.08	$ (0.01)	$ 3.10	$ 5.85	$ 4.81	$ 6.84

1. Includes all direct and indirect operating cash costs related directly to the physical activities of producing metals, including mining, processing and other plant costs, third-party refining and marketing expense, on-site general and administrative costs, royalties and mining production taxes, before by-product revenues earned from all metals other than the primary metal produced at each unit.

CASH COST RECONCILIATION TO GAAP

CASA BERARDI

Reconciliation of Cost of Sales and Other Direct Production Costs and Depreciation, Depletion and Amortization (GAAP) to Cash Cost, Before By-product Credits and Cash Cost, After By-product Credits (non-GAAP) and All-In Sustaining Costs, Before By-product Credits, per Ounce and All-In Sustaining Costs, After By-product Credits, per Ounce (non-GAAP)

In thousands (except per ounce amounts)	Casa Berardi [1]					
	2018	**2017**	**2016**	**2015**	**2014**	**2013**
Cost of sales and other direct production costs and depreciation, depletion and amortization (GAAP)	$ 199,402	$184,716	$155,711	$144,558	$148,043	$ 73,855
Depreciation, depletion and amortization	(71,302)	(59,131)	(47,312)	(43,674)	(38,198)	(18,030)
Treatment costs	2,068	2,432	1,264	670	564	268
Change in product inventory	1,205	1,466	2,890	(1,970)	(3,151)	3,766
Reclamation and other costs	(558)	(476)	(459)	(455)	(820)	(142)
Cash cost, before by-product credits [2]	130,815	129,007	112,094	99,129	106,438	59,717
By-products credits	(597)	(614)	(572)	(457)	(464)	(262)
Cash cost, after by-product credits	$ 130,218	$128,393	$111,522	$ 98,672	$105,974	$ 59,455
Divided by gold ounces produced	163	157	146	128	128	63
Cash cost, before by-product credits, per gold ounce	$ 800	$ 824	$ 768	$ 775	$ 830	$ 955
By-products credits per gold ounce	$ (4)	$ (4)	$ (4)	$ (3)	$ (4)	$ (4)
Cash cost, after by-product credits, per gold ounce	$ 800	$ 820	$ 764	$ 772	$ 826	$ 951

1. On June 1, 2013, we completed the acquisition of Aurizon, which gave us 100% ownership of the Casa Berardi mine in Quebec, Canada. The information presented reflects our ownership of Casa Berardi commencing as of that date. The primary metal produced at Casa Berardi is gold, with a by-product credit for the value of silver production.
2. Includes all direct and indirect operating cash costs related directly to the physical activities of producing metals, including mining, processing and other plant costs, third-party refining and marketing expense, on-site general and administrative costs, royalties and mining production taxes, before by-product revenues earned from all metals other than the primary metal produced at each unit.

CASH COST AND AISC RECONCILIATION TO GAAP

SILVER OPERATIONS

Reconciliation of Cost of Sales and Other Direct Production Costs and Depreciation, Depletion and Amortization (GAAP) to Cash Cost, Before By-product Credits and Cash Cost, After By-product Credits (non-GAAP) and All-In Sustaining Costs, Before By-product Credits, per Ounce and All-In Sustaining Costs, After By-product Credits, per Ounce (non-GAAP)

In thousands (except per ounce amounts)

	Q1 2019	Q1 2018
Cost of sales and other direct production costs and depreciation, depletion and amortization (GAAP)	$ 68,645	$ 51,736
Depreciation, depletion and amortization	(14,299)	(11,944)
Treatment costs	11,293	12,164
Change in product inventory	(3,234)	6,770
Reclamation and other costs	(727)	(1,451)
Exclusion of Lucky Friday costs	(4,305)	(2,984)
Cash Cost, Before By-product Credits(1)	57,372	54,291
Reclamation and other costs	860	955
Exploration	2,239	3,116
Sustaining capital	5,879	10,029
General and administrative	9,959	7,735
AISC, Before By-product Credits(1,2)	76,309	76,126
Total By-product credits	(51,322)	(62,406)
Cash Cost, After By-product Credits, per Silver Ounce	$ 6,050	$ (8,115)
AISC, After By-product Credits	$ 24,987	$ 13,720
Divided by ounces produced	2,674	2,425
Cash Cost, Before By-product Credits, per Silver Ounce	$ 21.45	$ 22.38
By-products credits per Silver Ounce	(19.19)	(25.73)
Cash Cost, After By-product Credits, per Silver Ounce	$ 2.26	$ (3.35)
AISC, Before By-product Credits, per Silver Ounce	$ 28.53	$ 31.39
By-products credits per Silver Ounce	(19.19)	(25.73)
AISC, After By-product Credits, per Silver Ounce	$ 9.34	$ 5.66

1. Includes all direct and indirect operating cash costs related directly to the physical activities of producing metals, including mining, processing and other plant costs, third-party refining and marketing expense, on-site general and administrative costs, royalties and mining production taxes, before by-product revenues earned from all metals other than the primary metal produced at each unit.
2. All-in sustaining costs, before by-product credits for our consolidated silver properties includes corporate costs for all general and administrative expenses and exploration and sustaining capital which support the operating properties.

CASH COST AND AISC RECONCILIATION TO GAAP

GOLD OPERATIONS

Reconciliation of Cost of Sales and Other Direct Production Costs and Depreciation, Depletion and Amortization (GAAP) to Cash Cost, Before By-product Credits and Cash Cost, After By-product Credits (non-GAAP) and All-In Sustaining Costs, Before By-product Credits, per Ounce and All-In Sustaining Costs, After By-product Credits, per Ounce (non-GAAP)

In thousands (except per ounce amounts)

	Q1 2019	Q1 2018
Cost of sales and other direct production costs and depreciation, depletion and amortization (GAAP)	$80,528	$49,187
Depreciation, depletion and amortization	(24,488)	(16,110)
Treatment costs	480	535
Change in product inventory	(978)	(101)
Reclamation and other costs	(508)	(142)
Cash Cost, Before By-product Credits(1)	55,034	33,369
Reclamation and other costs	507	143
Exploration	1,464	1,190
Sustaining capital	18,399	9,067
General and administrative	-	-
AISC, Before By-product Credits(1,2)	75,404	43,769
Total By-product credits	(1,183)	(148)
Cash Cost, After By-product Credits, per Gold Ounce	$53,851	$33,221
AISC, After By-product Credits	$74,221	$43,621
Divided by ounces produced	42	40
Cash Cost, Before By-product Credits, per Gold Ounce	$ 1,305	$ 831
By-products credits per Gold Ounce	(28)	(4)
Cash Cost, After By-product Credits, per Gold Ounce	$ 1,277	$ 827
AISC, Before By-product Credits, per Gold Ounce	$ 1,788	$ 1,090
By-products credits per Gold Ounce	(28)	(4)
AISC, After By-product Credits, per Gold Ounce	$ 1,760	$ 1,086

1. Includes all direct and indirect operating cash costs related directly to the physical activities of producing metals, including mining, processing and other plant costs, third-party refining and marketing expense, on-site general and administrative costs, royalties and mining production taxes, before by-product revenues earned from all metals other than the primary metal produced at each unit.
2. All-in sustaining costs, before by-product credits for our consolidated silver properties includes corporate costs for all general and administrative expenses and exploration and sustaining capital which support the operating properties.

CASH COST AND AISC RECONCILIATION TO GAAP

NEVADA OPERATIONS

Reconciliation of Cost of Sales and Other Direct Production Costs and Depreciation, Depletion and Amortization (GAAP) to Cash Cost, Before By-product Credits and Cash Cost, After By-product Credits (non-GAAP) and All-In Sustaining Costs, Before By-product Credits, per Ounce and All-In Sustaining Costs, After By-product Credits, per Ounce (non-GAAP)

In thousands (except per ounce amounts)

	2018*	Q1 2019
Cost of sales and other direct production costs and depreciation, depletion and amortization (GAAP)	$ 47,005	$ 31,447
Depreciation, depletion and amortization	(10,617)	(8,333)
Treatment costs	90	38
Change in product inventory	7,138	(3,246)
Reclamation and other costs	(954)	(379)
Cash cost, before by-product credits[1]	42,662	19,527
Reclamation and other costs	567	378
Exploration	6,345	118
Sustaining capital	17,079	12,707
AISC, Before By-product Credits[1,2]	66,653	32,730
Total By-products credits	(2,512)	(1,057)
Cash Cost, After By-product Credits	$ 40,150	$ 18,470
AISC, After By-product Credits	$ 64,141	$ 31,673
Divided by ounces produced	33	10
Cash Cost, Before By-product Credits, per Gold Ounce	$ 1,297	$ 1,884
By-products credits per Ounce	(76)	(102)
Cash Cost, After By-product Credits, per Gold Ounce	$ 1,221	$ 1,782
AISC, Before By-product Credits, per Gold Ounce	$ 2,026	$ 3,158
By-products credits per Gold Ounce	$ (76)	$ (102)
AISC, After By-product Credits, per Gold Ounce	$ 1,950	$ 3,056

*Nevada properties acquired from Klondex Mines on July 20, 2018.

1. Includes all direct and indirect operating cash costs related directly to the physical activities of producing metals, including mining, processing and other plant costs, third-party refining and marketing expense, on-site general and administrative costs, royalties and mining production taxes, before by-product revenues earned from all metals other than the primary metal produced at each unit.
2. All-in sustaining costs, before by-product credits for our consolidated silver properties includes corporate costs for all general and administrative expenses and exploration and sustaining capital which support the operating properties.

CASH COST AND AISC RECONCILIATION TO GAAP

GREENS CREEK

Reconciliation of Cost of Sales and Other Direct Production Costs and Depreciation, Depletion and Amortization (GAAP) to Cash Cost, Before By-product Credits and Cash Cost, After By-product Credits (non-GAAP) and All-In Sustaining Costs, Before By-product Credits, per Ounce and All-In Sustaining Costs, After By-product Credits, per Ounce (non-GAAP)

In thousands (except per ounce amounts)

	Q1 2018	2018	Q1 2019
Cost of sales and other direct production costs and depreciation, depletion and amortization (GAAP)	$ 41,861	$ 190,066	$ 54,113
Depreciation, depletion and amortization	(10,639)	(46,511)	(12,370)
Treatment costs	11,388	38,174	10,352
Change in product inventory	5,154	3,087	(3,865)
Reclamation and other costs	(912)	(2,911)	(415)
Cash Cost, Before By-product Credits[1]	46,852	181,905	47,815
Reclamation and other costs	849	3,397	737
Exploration	360	3,151	81
Sustaining capital	9,482	46,864	5,312
AISC, Before By-product Credits[1,2]	57,543	235,317	53,945
Total By-product credits	(56,408)	(190,924)	(46,720)
Cash Cost, After By-product Credits	$ (9,556)	$ (9,019)	$ 1,095
AISC, After By-product Credits	$ 1,135	$ 44,393	$ 7,225
Divided by ounces produced	1,913	7,953	2,233
Cash Cost, Before By-product Credits, per Silver Ounce	$ 24.49	$ 22.88	$ 21.41
By-products credits per Silver Ounce	(29.48)	(24.01)	(20.92)
Cash Cost, After By-product Credits, per Silver Ounce	$ (4.99)	$ (1.13)	$ 0.49
AISC, Before By-product Credits, per Silver Ounce	$ 30.07	$ 29.59	$ 24.16
By-products credits per Silver Ounce	(29.48)	(24.01)	(20.92)
AISC, After By-product Credits, per Silver Ounce	$ 0.59	$ 5.58	$ 3.24

1. Includes all direct and indirect operating cash costs related directly to the physical activities of producing metals, including mining, processing and other plant costs, third-party refining and marketing expense, on-site general and administrative costs, royalties and mining production taxes, before by-product revenues earned from all metals other than the primary metal produced at each unit.
2. All-in sustaining costs, before by-product credits for our consolidated silver properties includes corporate costs for all general and administrative expenses and exploration and sustaining capital which support the operating properties.

CASH COST AND AISC RECONCILIATION TO GAAP

CASA BERARDI

Reconciliation of Cost of Sales and Other Direct Production Costs and Depreciation, Depletion and Amortization (GAAP) to Cash Cost, Before By-product Credits and Cash Cost, After By-product Credits (non-GAAP) and All-In Sustaining Costs, Before By-product Credits, per Ounce and All-In Sustaining Costs, After By-product Credits, per Ounce (non-GAAP)

In thousands (except per ounce amounts)

	Q1 2018	2018	Q1 2019
Cost of sales and other direct production costs and depreciation, depletion and amortization (GAAP)	$ 49,187	$ 199,402	$ 49,081
Depreciation, depletion and amortization	(16,110)	(71,302)	(16,155)
Treatment costs	535	2,068	442
Change in product inventory	(101)	1,205	2,268
Reclamation and other costs	(142)	(558)	(129)
Cash cost, before by-product credits[1]	33,369	130,815	35,507
Reclamation and other costs	143	558	129
Exploration	1,190	4,277	1,346
Sustaining capital	9,067	40,711	5,692
AISC, Before By-product Credits[1,2]	43,769	176,361	42,674
Total By-products credits	(148)	(597)	(126)
Cash Cost, After By-product Credits	$ 33,221	$ 130,218	$ 35,381
AISC, After By-product Credits	$ 43,621	$ 175,764	$ 42,548
Divided by ounces produced	40	163	32
Cash Cost, Before By-product Credits, per Gold Ounce	$ 834	$ 804	$ 1,117
By-products credits per Gold Ounce	$ (4)	$ (4)	$ (4)
Cash Cost, After By-product Credits, per Gold Ounce	$ 831	$ 800	$ 1,113
AISC, Before By-product Credits, per Gold Ounce	$ 1,094	$ 1,084	$ 1,342
By-products credits per Gold Ounce	$ (4)	$ (4)	$ (4)
AISC, After By-product Credits, per Gold Ounce	$ 1,091	$ 1,080	$ 1,338

1. Includes all direct and indirect operating cash costs related directly to the physical activities of producing metals, including mining, processing and other plant costs, third-party refining and marketing expense, on-site general and administrative costs, royalties and mining production taxes, before by-product revenues earned from all metals other than the primary metal produced at each unit.
2. All-in sustaining costs, before by-product credits for our consolidated silver properties includes corporate costs for all general and administrative expenses and exploration and sustaining capital which support the operating properties.

CASH COST AND AISC RECONCILIATION TO GAAP

SAN SEBASTIAN

Reconciliation of Cost of Sales and Other Direct Production Costs and Depreciation, Depletion and Amortization (GAAP) to Cash Cost, Before By-product Credits and Cash Cost, After By-product Credits (non-GAAP) and All-In Sustaining Costs, Before By-product Credits, per Ounce and All-In Sustaining Costs, After By-product Credits, per Ounce (non-GAAP)

In thousands (except per ounce amounts)

	Q1 2018	2018	Q1 2019
Cost of sales and other direct production costs and depreciation, depletion and amortization (GAAP)	$ 5,775	$ 41,815	$ 12,351
Depreciation, depletion and amortization	(684)	(4,602)	(1,760)
Treatment costs	204	807	131
Change in product inventory	2,638	2,385	$ (853)
Reclamation and other costs	(494)	(1,559)	(312)
Cash Cost, Before By-product Credits[1]	7,439	38,846	9,557
Reclamation and other costs	106	419	123
Exploration	2,312	7,792	1,717
Sustaining capital	430	1,947	506
AISC, Before By-product Credits[1,2]	10,287	49,004	11,903
Total By-product credits	(5,998)	(19,100)	(4,602)
Cash Cost, After By-product Credits, per Silver Ounce	1,441	19,746	4,955
AISC, After By-product Credits	4,289	29,904	7,301
Divided by Ounces Produced	512	2,037	441
Cash Cost, Before By-product Credits, per Silver Ounce	$ 14.52	$ 19.07	$ 21.67
By-products credits per Silver Ounce	(11.71)	(9.38)	(10.44)
Cash Cost, After By-product Credits, per Silver Ounce	2.81	9.69	11.23
AISC, Before By-product Credits, per Silver Ounce	$ 20.08	$ 24.06	$ 26.99
By-products credits per Silver Ounce	(11.71)	(9.38)	(10.44)
AISC, After By-product Credits, per Silver Ounce	$ 8.37	$ 14.68	$ 16.55

1. Includes all direct and indirect operating cash costs related directly to the physical activities of producing metals, including mining, processing and other plant costs, third-party refining and marketing expense, on-site general and administrative costs, royalties and mining production taxes, before by-product revenues earned from all metals other than the primary metal produced at each unit.
2. All-in sustaining costs, before by-product credits for our consolidated silver properties includes corporate costs for all general and administrative expenses and exploration and sustaining capital which support the operating properties.

CASH COST AND AISC RECONCILIATION TO GAAP

LUCKY FRIDAY

Reconciliation of Cost of Sales and Other Direct Production Costs and Depreciation, Depletion and Amortization (GAAP) to Cash Cost, Before By-product Credits and Cash Cost, After By-product Credits (non-GAAP) and All-In Sustaining Costs, Before By-product Credits, per Ounce and All-In Sustaining Costs, After By-product Credits, per Ounce (non-GAAP)

In thousands (except per ounce amounts)

	Q1 2018	2018	Q1 2019
Cost of sales and other direct production costs and depreciation, depletion and amortization (GAAP)	$ 4,100	$ 9,750	$ 2,181
Depreciation, depletion and amortization	(621)	(1,012)	(169)
Treatment costs	572	839	810
Change in product inventory	(1,022)	(2,330)	1,483
Reclamation and other costs	(45)	-	-
Exclusion of Lucky Friday costs	(2,984)	(7,247)	(4,305)
Cash Cost, Before By-product Credits[1]	-	-	-
Reclamation and other costs	-	-	-
Exploration	-	-	-
Sustaining capital	-	-	-
AISC, Before By-product Credits[1,2]	-	-	-
Total By-product credits	-	-	-
Cash Cost, After By-product Credits, per Silver Ounce	-	-	-
AISC, After By-product Credits	-	-	-
Divided by ounces produced	-	-	-
Cash Cost, Before By-product Credits, per Silver Ounce	-	-	-
By-products credits per Silver Ounce	-	-	-
Cash Cost, After By-product Credits, per Silver Ounce[3]	-	-	-
AISC, Before By-product Credits, per Silver Ounce	-	-	-
By-products credits per Silver Ounce	-	-	-
AISC, After By-product Credits, per Silver Ounce	-	-	-

1. Includes all direct and indirect operating cash costs related directly to the physical activities of producing metals, including mining, processing and other plant costs, third-party refining and marketing expense, on-site general and administrative costs, royalties and mining production taxes, before by-product revenues earned from all metals other than the primary metal produced at each unit. In addition, on-site exploration, reclamation, and sustaining capital costs are also included.
2. All-in sustaining costs, before by-product credits for our consolidated silver properties includes corporate costs for all general and administrative expenses and exploration and sustaining capital which support the operating properties.
3. Cash cost, after by-product credits, per silver ounce includes only costs directly related to limited production during the strike and excludes suspension costs, and is not indicative of results under full production.

FREE CASH FLOW RECONCILIATION TO GAAP

Reconciliation of Cash Flow from Operations (GAAP) to Free Cash Flow (Non GAAP)

In thousands

	2014	2015	2016	2017	2018
Cash flow from Operations	$ 83,124	$106,445	$225,328	$115,878	$ 94,221
Capital	(122,537)	(137,443)	(164,788)	(98,038)	(145,221)
Dividends	(4,099)	(4,291)	(4,419)	(4,528)	(4,945)
Cash Flow from Operations Less Capital Less Dividends	**(43,512)**	**(35,289)**	**56,121**	**13,312**	**(55,945)**
Exploration	17,698	17,745	14,720	23,510	35,695
Pre-Development	1,969	4,212	3,137	5,448	4,887
Research & Development	-	-	243	3,276	8,503
Dividends	4,099	4,291	4,419	4,528	4,945
Discretionary Capital	8,541	6,395	1,932	6,131	6,021
Free Cash Flow	**(11,205)**	**(2,646)**	**80,572**	**56,205**	**4,106**

RECONCILIATION TO ADJUSTED EBITDA AND NET DEBT

Reconciliation of Net Loss (GAAP) and Debt (GAAP) to Adjusted EBITDA (non-GAAP) and Net Debt (non-GAAP)

In thousands

	Twelve Months Ended	
	December 31, 2018	December 31, 2017
Net loss	**($26,563)**	($28,520)
Plus: Interest expense, net of amount capitalized	**40,944**	38,012
Plus (Less): Income taxes	**(6,701)**	20,963
Plus: Depreciation, depletion and amortization	**134,044**	120,599
Plus: Exploration expense	**35,695**	23,510
Plus: Pre-development expense	**4,887**	5,448
Plus: Acquisition costs	**10,045**	25
Plus: Lucky Friday suspension-related costs	**20,693**	21,301
Plus/(Less): Loss (gain) on disposition of properties, plants, equipment, and mineral interests	**(2,793)**	(6,042)
Plus/(Less): Foreign exchange (gain) loss	**(10,310)**	9,680
Plus/(Less): Unrealized loss (gain) on derivative contracts	**(7,936)**	18,063
Plus/(Less): Provisional price loss (gain)	**3,803**	(742)
Plus: Provision for closed operations and environmental matters	**6,090**	4,508
Plus: Stock-based compensation	**6,242**	6,331
Plus: Unrealized loss on investments	**2,816**	247
Plus/(Less): Other	**941**	(1,526)
Adjusted EBITDA	**$ 211,897**	$ 231,857
Total debt	**$ 545,934**	$ 514,030
Less: Cash, cash equivalents and short-term investments	**27,389**	219,865
Net debt	**$ 518,545**	$ 294,165
Net debt/LTM adjusted EBITDA (non-GAAP)	**2.4**	1.3

GREENS CREEK FREE CASH FLOW RECONCILIATION

Greens Creek Free Cash Flow Reconciliation

(in thousands)

	2018	1987-2018 [1]
Gross profit	$ 75,288	$ 1,408,990
Non-cash elements in gross profit:		
Depreciation, depletion and amortization	49,908	718,288
Other	(1)	1,339
Working capital changes	(57)	(17,573)
Net cash provided by operating activities	125,138	2,111,044
Additions to properties, plants, equipment and mineral interests[2]	(40,882)	(864,560)
Free cash flow	**$ 84,256**	**$ 1,246,484**

1. 1987 – 2018 amounts reflect results of the Greens Creek mine on a 100% joint-venture basis (Hecla owned 29.7% until 2008).
2. Additions to capital exclude leased equipment.

OPERATIONS FREE CASH FLOW RECONCILIATION

Greens Creek Free Cash Flow Reconciliation

(in thousands)

	2018	1987-2018 [1]
Gross profit	$ 75,288	$ 1,408,990
Non-cash elements in gross profit:		
Depreciation, depletion and amortization	49,908	718,288
Other	(1)	1,339
Working capital changes	(57)	(17,573)
Net cash provided by operating activities	125,138	2,111,044
Additions to properties, plants, equipment and mineral interests [2]	(40,882)	(864,560)
Free cash flow	**$ 84,256**	**$ 1,246,484**

Casa Berardi Free Cash Flow Reconciliation
(in thousands)

	2018
Gross Profit	$ 10,938
Non cash elements in gross profit:	
Depreciation, depletion and amortization	71,302
Other	557
Working capital changes	56
Net cash provided by operating activities	82,853
Additions to properties, plants, equipment and mineral interest	(39,684)
Free cash flow *	**$ 43,169**

San Sebastian Free Cash Flow Reconciliation
(in thousands)

	2018
Gross Profit	$ 8,409
Non cash elements in gross profit:	
Depreciation, depletion and amortization	4,884
Other	1,288
Working capital changes	(9,180)
Net cash provided by operating activities	5,401
Additions to properties, plants, equipment and mineral interest	(6,219)
Free cash flow	**$ (818)**

* Excludes mining duties paid in Quebec.
1. 1987 – 2018 amounts reflect results of the Greens Creek mine on a 100% joint-venture basis (Hecla owned 29.7% until 2008).
2. Additions to capital exclude leased equipment.

PROVEN & PROBABLE MINERAL RESERVES

(ON DECEMBER 31, 2018 UNLESS OTHERWISE NOTED)

Hecla MINING COMPANY

Reserves and Resources – 12/31/18[1]

Proven Reserves											
Asset	Tons (000)	Silver (oz/ton)	Gold (oz/ton)	Lead %	Zinc %	Copper %	Silver (000 oz)	Gold (000 oz)	Lead (Tons)	Zinc (Tons)	Copper (Tons)
Greens Creek [2]	6	13.8	0.10	2.8	7.0	-	86	1	180	440	-
Lucky Friday [2]	4,230	15.4	-	9.6	4.1	-	65,234	-	406,080	174,630	-
Casa Berardi [3]	6,790	-	0.08	-	-	-	-	563	-	-	-
San Sebastian [2]	22	3.9	0.08	-	-	-	85	2	-	-	-
Fire Creek [2,4]	24	1.1	1.21	-	-	-	27	29	-	-	-
Hollister [2,5]	2	7.0	0.73	-	-	-	17	2	-	-	-
Total.....	11,074						65,448	596	406,260	175,070	-

Probable Reserves											
Asset	Tons (000)	Silver (oz/ton)	Gold (oz/ton)	Lead %	Zinc %	Copper %	Silver (000 oz)	Gold (000 oz)	Lead (Tons)	Zinc (Tons)	Copper (Tons)
Greens Creek [2]	9,270	11.5	0.09	2.8	7.6	-	106,972	840	262,760	706,040	-
Lucky Friday [2]	1,387	11.4	-	7.6	3.7	-	15,815	-	104,720	50,640	-
Casa Berardi [3]	16,954	-	0.08	-	-	-	-	1,343	-	-	-
San Sebastian [2]	206	13.1	0.10	-	-	-	2,705	21	-	-	-
Fire Creek [2,4]	91	0.3	0.44	-	-	-	30	40	-	-	-
Hollister [2,5]	9	7.2	0.65	-	-	-	66	6	-	-	-
Total.....	27,917						125,588	2,250	367,480	756,680	-

Proven and Probable Reserves											
Asset	Tons (000)	Silver (oz/ton)	Gold (oz/ton)	Lead %	Zinc %	Copper %	Silver (000 oz)	Gold (000 oz)	Lead (Tons)	Zinc (Tons)	Copper (Tons)
Greens Creek [2]	9,277	11.5	0.09	2.8	7.6	-	107,058	840	262,940	706,470	-
Lucky Friday [2]	5,617	14.4	-	9.1	4.0	-	81,049	-	510,800	225,260	-
Casa Berardi [3]	23,743	-	0.08	-	-	-	-	1,907	-	-	-
San Sebastian [2]	228	12.3	0.10	-	-	-	2,790	23	-	-	-
Fire Creek [2,4]	115	0.5	0.60	-	-	-	57	69	-	-	-
Hollister [2,5]	11	7.2	0.67	-	-	-	82	8	-	-	-
Total.....	38,991						191,036	2,846	773,740	931,730	-

PROVEN & PROBABLE MINERAL RESERVES

(ON DECEMBER 31, 2018 UNLESS OTHERWISE NOTED)

[1] The term "reserve" means that part of a mineral deposit that can be economically and legally extracted or produced at the time of the reserve determination. The term "economically," as used in the definition of reserve, means that profitable extraction or production has been established or analytically demonstrated to be viable and justifiable under reasonable investment and market assumptions. The term "legally," as used in the definition of reserve, does not imply that all permits needed for mining and processing have been obtained or that other legal issues have been completely resolved. However, for a reserve to exist, Hecla must have a justifiable expectation, based on applicable laws and regulations, that issuance of permits or resolution of legal issues necessary for mining and processing at a particular deposit will be accomplished in the ordinary course and in a timeframe consistent with Hecla's current mine plans.
[2] Mineral reserves are based on $1200 gold, $14.50 silver, $0.90 lead, $1.15 zinc, unless otherwise stated.
[3] Mineral reserves are based on $1200 gold and a US$/CAN$ exchange rate of 1:1.33 Reserve diluted to an average of 34.7% to minimum width of 9.8 feet (3 m)
Reserves at Casa Berardi were determined by Jonathan Archambault-Giroux, P. Geo., Que., Real Parent, P.Geo. Que., and Alain Quenneville, P. Eng., Que. unless otherwise stated.
Open pit mineral reserves of the Principal Mine were estimated in September 2018 by Hecla Quebec and Mine Development Associates based on $1225 gold and a US$/CAN$ exchange rate of 1:3.
Hecla Mining Company, Principal Deposit Open Pit Mining Study - 2018
September 1, 2018, by Mine Development Associates, Thomas L. Dyer, P.E.
Open pit mineral reserves of the 160 and 134 Zones were estimated in January 2018 by Hecla Quebec and Mine Development Associates based on $1225 gold and a US$/CAN$ exchange rate of 1.3.
Hecla Mining, Casa Berardi 160 and 134 Zones, Open Pit Mining Study - 2017
January 12, 2018, by Mine Development Associates, Thomas L. Dyer, P.E.
Open pit mineral reserves of the West Mine Crown Pillar were estimated in January 2019 by Hecla Quebec and Mine Development Associates based on $1225 gold and a US$/CAN$ exchange rate of 1.3.
Hecla Mining Company, West Mine Crown Pillar Deposit, Open Pit Mining Study - 2018
January 10, 2019, by Mine Development Associates, Thomas L. Dyer, P.E.
Open pit mineral reserves of the East Mine Crown Pillar Expansion were estimated in August 2018 by Hecla Quebec and Mine Development Associates based on $1225 gold and a US$/CAN$ exchange rate of 1.3.
Hecla Mining Company, East Mine Crown Pillar Expansion, Open Pit Mining Study - 2018
August 22, 2018, by Mine Development Associates, Thomas L. Dyer, P.E.
[4] Recoveries at Fire Creek for gold and silver are 94% and 92%. Cutoff grade of 0.339 Au Equivalent oz/ton and incremental cutoff grade of 0.11 Au Equivalent oz/ton. Unplanned dilution of 10% to 17% included depending on mining method.
[5] Recoveries at Hollister for gold and silver are 87% and 80%. Cutoff grade of 0.396 Au Equivalent oz/ton and incremental cutoff grade of 0.07 Au Equivalent oz/ton. Unplanned dilution of 10% to 17% and 5% mining loss included.

MEASURED AND INDICATED MINERAL RESOURCES

(ON DECEMBER 31, 2018 UNLESS OTHERWISE NOTED)

Hecla MINING COMPANY

Measured and Indicated Resources – 12/31/18

Measured Resources											
Asset	Tons (000)	Silver (oz/ton)	Gold (oz/ton)	Lead %	Zinc %	Copper %	Silver (000 oz)	Gold (000 oz)	Lead (Tons)	Zinc (Tons)	Copper Tons
Greens Creek [6]	339	9.5	0.11	2.6	9.4	-	3,233	36	8,800	31,700	-
Lucky Friday [6,7]	7,587	7.6	-	4.9	2.7	-	57,314	-	370,240	204,490	-
Casa Berardi [8]	1,952	-	0.15	-	-	-	-	299	-	-	-
San Sebastian [6,9]	-	-	-	-	-	-	-	-	-	-	-
Fire Creek [6,10]	64	0.7	0.92	-	-	-	47	58	-	-	-
Hollister [6,11]	104	4.0	0.92	-	-	-	420	96	-	-	-
Midas [6,12]	183	6.7	0.45	-	-	-	1,235	82	-	-	-
Heva [14]	5,480	-	0.06	-	-	-	-	304	-	-	-
Hosco [14]	33,070	-	0.04	-	-	-	-	1,296	-	-	-
Rio Grande Silver [15]	-	-	-	-	-	-	-	-	-	-	
Star [16]	-	-	-	-	-	-	-	-	-	-	-
Total.....	48,778						62,249	2,172	379,040	236,190	-

Indicated Resources											
Asset	Tons (000)	Silver (oz/ton)	Gold (oz/ton)	Lead %	Zinc %	Copper %	Silver (000 oz)	Gold (000 oz)	Lead (Tons)	Zinc (Tons)	Copper Tons
Greens Creek [6]	7,128	13.2	0.10	3.1	8.1	-	94,197	690	218,950	577,650	-
Lucky Friday [6,7]	2,498	8.0	-	5.2	2.5	-	20,049	-	128,830	61,480	-
Casa Berardi [8]	10,797	-	0.08	-	-	-	-	906	-	-	-
San Sebastian [6,9]	2,243	6.5	0.05	2.5	3.5	1.6	14,690	115	30,410	42,710	19,780
Fire Creek [6,10]	307	0.5	0.54	-	-	-	158	164	-	-	-
Fire Creek - Open Pit [13]	42,877	0.1	0.03	-	-	-	2,350	1,093	-	-	
Hollister [6,11]	135	2.6	0.64	-	-	-	350	86	-	-	-
Midas [6,12]	722	4.5	0.37	-	-	-	3,228	267	-	-	-
Heva [14]	5,570	-	0.07	-	-	-	-	369	-	-	-
Hosco [14]	31,620	-	0.04	-	-	-	-	1,151	-	-	-
Rio Grande Silver [15]	516	14.8	-	2.1	1.1	-	7,620	-	10,760	5,820	-
Star [16]	1,126	2.9	-	6.2	7.4	-	3,301	-	69,900	83,410	-
Total.....	105,538						145,944	4,841	458,850	771,070	19,780

Measured & Indicated Resources											
Asset	Tons (000)	Silver (oz/ton)	Gold (oz/ton)	Lead %	Zinc %	Copper %	Silver (000 oz)	Gold (000 oz)	Lead (Tons)	Zinc (Tons)	Copper Tons
Greens Creek [6]	7,467	13.0	0.10	3.1	8.2	-	97,430	726	227,740	609,350	-
Lucky Friday [6,7]	10,084	7.7	-	4.9	2.6	-	77,363	--	499,070	265,970	-
Casa Berardi [8]	12,749	-	0.09	-	-	-	-	1,205	-	-	-
San Sebastian [6,9]	2,243	6.5	0.05	2.5	3.5	1.6	14,690	115	30,410	42,710	19,780
Fire Creek [6,10]	371	0.6	0.60	-	-	-	205	222	-	-	
Fire Creek - Open Pit [13]	42,877	0.1	0.03	-	-	-	2,350	1,093	-	-	-
Hollister [6,11]	239	3.2	0.76	-	-	-	770	182	-	-	-
Midas [6,12]	905	4.9	0.39	-	-	-	4,463	349	-	-	-
Heva [14]	11,050	-	0.06	-	-	-	-	672	-	-	-
Hosco [14]	64,690	-	0.04	-	-	-	-	2,447	-	-	-
Rio Grande Silver [15]	516	14.8	-	2.1	1.1	-	7,620	-	10,760	5,820	-
Star [16]	1,126	2.9	-	6.2	7.4	-	3,301	-	69,900	83,410	
Total.....	154,316						208,193	7,012	837,880	1,007,260	19,780

INFERRED MINERAL RESOURCES

(ON DECEMBER 31, 2018 UNLESS OTHERWISE NOTED)

Inferred Resources												
Asset	Tons (000)	Silver (oz/ton)	Gold (oz/ton)	Lead %	Zinc %	Copper %	Silver (000 oz)	Gold (000 oz)	Lead (Tons)	Zinc (Tons)	Copper Tons
Greens Creek [6]	2,470	14.6	0.09	3.0	7.3	-	35,982	219	74,410	181,400	-
Lucky Friday [6,7]	2,861	8.7	-	6.3	2.6	-	24,809	-	181,180	74,430	-
Casa Berardi [8]	6,222	-	0.10	-	-	-	-	652	-	-	-
San Sebastian [6,17]	3,487	6.6	0.04	1.7	2.5	1.3	22,948	143	12,110	17,440	8,890
Fire Creek [6,10]	565	0.5	0.53	-	-	-	288	299	-	-	-
Fire Creek - Open Pit [13]	31,707	0.1	0.03	-	-	-	2,882	1,085	-	-	-
Hollister [6,11,18]	550	3.1	0.40	-	-	-	1,716	223	-	-	-
Midas [6,12]	573	3.0	0.34	-	-	-	1,723	198	-	-	-
Heva [14]	4,210	-	0.08	-	-	-	-	350	-	-	-
Hosco [14]	7,650	-	0.04	-	-	-	-	314	-	-	-
Rio Grande Silver [19]	3,078	10.7	0.01	1.3	1.1	-	33,097	36	40,990	34,980	-
Star [16]	3,157	2.9	-	5.6	5.5	-	9,432	-	178,670	174,450	-
Monte Cristo [20]	913	0.3	0.14	-	-	-	271	131	-	-	-
Rock Creek [21]	100,086	1.5	-	-	-	0.7	148,736	-	-	-	658,680
Montanore [22]	112,185	1.6	-	-	-	0.7	183,346	-	-	-	759,420
Total……	279,714						465,229	3,648	487,360	482,700	1,426,990

INFERRED MINERAL RESOURCES

(ON DECEMBER 31, 2018 UNLESS OTHERWISE NOTED)

Note: All estimates are in-situ except for the proven reserves at Greens Creek and San Sebastian which are in surface stockpiles. Resources are exclusive of reserves.

(6) Mineral resources are based on $1350 gold, $21 silver, $1.10 lead, $1.20 zinc and $3.00 copper, unless otherwise stated.

(7) Measured and indicated resources from Gold Hunter and Lucky Friday vein systems are diluted and factored for expected mining recovery.

(8) Measured, indicated and inferred resources are based on $1,350 gold and a US$/CAN$ exchange rate of 1:1.33 Underground resources are reported at a minimum mining width of 6.6 to 9.8 feet (2 m to 3 m)
Resources at Casa Berardi were determined by Jonathan Archambault-Giroux, P. Geo., Que., Real Parent, P.Geo. Que., and Alain Quenneville, P. Eng., Que. unless otherwise stated.

(9) Indicated resources reported at a minimum mining width of 5.9 feet (1.8 m) for Hugh Zone, Middle Vein, North Vein, and East Francine Vein and 4.9 feet (1.5 m) for Andrea Vein
San Sebastian lead, zinc and copper grades are for 1,224,900 tons of indicated resource within the Middle Vein and the Hugh Zone of the Francine Vein.

(10) Recoveries at Fire Creek for gold and silver are 94% and 92%. Au equivalent cutoff grade of 0.297 oz/ton. The minimum mining width is defined as four feet or the vein true thickness plus two feet, whichever is greater.

(11) Recoveries at Hollister for gold and silver are 87% and 80%. Au equivalent cutoff grade of 0.352 oz/ton. The minimum mining width is defined as four feet or the vein true thickness plus two feet, whichever is greater.

(12) Recoveries at Midas for gold and silver are 93% and 88% Au equivalent cutoff grade of 0.217 oz/ton. The minimum mining width is defined as four feet or the vein true thickness plus two feet, whichever is greater.

(13) Indicated and inferred open-pit resources for Fire Creek were calculated November 30, 2017 using recoveries for gold and silver of 65% and 30% for oxide material and 60% and 25% for mixed oxide-sulfide material.
Open pit resources are calculated at $1400 gold and $19.83 silver and cut-off grade of 0.01 Au Equivalent oz/ton and is inclusive of 10% mining dilution and 5% ore loss. Open pit mineral resources exclusive of underground mineral resources.
NI43-101 Technical Report for the Fire Creek Project, Lander County, Nevada; Effective Date March 31, 2018; prepared by Practical Mining LLC, Mark Odell, P.E. for Hecla Mining Company, June28, 2018

(14) Measured, indicated and inferred resources were estimated in by Goldminds Geoservices Inc. with effective date 12-July-2013, and are based on $1,300 gold and a US$/CAN$ exchange rate of 1:1.
The resources are in-situ without dilution and material loss.
NI43-101 Technical Report, Mineral Resource Update, Heva-Hosco Gold Projects, Rouyn-Noranda, Quebec, Hecla Quebec, December 2013
Prepared by: Claude Duplessis, Eng. Project Manager - GoldMinds Geoservices Inc.; Maxime Dupéré, P.Geo - SGS Canada Inc. (Geostat)

(15) Indicated resources reported at a minimum mining width of 6.0 feet for Bulldog; resources based on $26.5 Ag, $0.85 Pb, and $0.85 Zn

(16) Indicated and Inferred resources reported using $21 silver, $0.95 lead, $1.10 lead minimum mining width of 4.3 feet.

(17) Inferred resources reported at a minimum mining width of 5.9 feet (1.8 m) for Hugh Zone, Middle Vein, North Vein, and East Francine Vein and 4.9 feet (1.5 m) for Andrea Vein
San Sebastian lead, zinc and copper grades are for 702,600 tons of inferred resource within the Middle Vein and the Hugh Zone of the Francine Vein.

(18) Inferred resources for the Hatter Project at the Hollister Mine calculated using recoveries for gold and silver of 82.7% and 71.8% and an Au equivalent cutoff grade of 0.27 oz/ton

(19) Inferred resources reported at a minimum mining width of 6.0 feet for Bulldog, 5.0 feet for Equity & North Amethyst veins; resources based on $1400 Au, $26.5 Ag, $0.85 Pb, and $0.85 Zn.

(20) Inferred resource reported at a minimum mining width of 5.0 feet; resources based on $1400 Au, $26.5 Ag.

(21) Inferred resource at Rock Creek reported at a minimum thickness of 15 feet and adjusted given mining restrictions as defined by U.S. Forest Service, Kootenai National Forest in the June 2003 'Record of Decision, Rock Creek Project'.

(22) Inferred resource at Montanore reported at a minimum thickness of 15 feet and adjusted given mining restrictions defined by U.S. Forest Service, Kootenai National Forest, Montana DEQ in December 2015 'Joint Final EIS, Montanore Project'
and the February 2016 U.S Forest Service - Kootenai National Forest 'Record of Decision, Montanore Project'.

2008 – 2018 RESERVE TABLE

2008 Proven Reserves	Tons	Silver (oz/ton)	Gold (oz/ton)	Silver (ounces)	Gold (ounces)
Greens Creek	-	-	-	-	-
Lucky Friday	1,270,000	12.40	-	15,800,800	-
Probable Reserves					
Greens Creek	8,064,700	13.70	0.108	110,583,200	870,100
Lucky Friday	523,400	11.60	-	6,046,800	-
2009 Proven Reserves					
Greens Creek	-	-	-	-	-
Lucky Friday	1,358,200	12.30	-	16,640,300	-
Probable Reserves					
Greens Creek	8,314,700	12.10	0.102	100,973,300	847,400
Lucky Friday	1,577,000	13.90	-	21,947,600	-
2010 Proven Reserves					
Greens Creek	-	-	-	-	-
Lucky Friday	1,642,100	12.40	-	20,387,600	-
Probable Reserves					
Greens Creek	8,243,100	12.10	0.092	99,730,000	757,000
Lucky Friday	1,545,100	14.20	-	21,955,000	-
2011 Proven Reserves					
Greens Creek	-	-	-	-	-
Lucky Friday	2,345,500	12.60	-	29,573,900	-
Probable Reserves					
Greens Creek	7,991,000	12.30	0.093	98,383,300	742,400
Lucky Friday	1,345,300	14.70	-	19,746,200	-
2012 Proven Reserves					
Greens Creek	12,000	9.30	0.095	112,500	1,100
Lucky Friday	2,206,600	12.10	-	26,778,900	-
Probable Reserves					
Greens Creek	7,845,600	12.00	0.092	94,481,200	718,400
Lucky Friday	1,931,700	14.80	-	28,676,000	-
2013 Proven Reserves					
Greens Creek	14,000	12.90	0.130	182,000	2,000
Lucky Friday	3,708,000	12.10	-	44,892,000	-
Casa Berardi	1,106,000	-	0.170	-	185,000.00
Probable Reserves					
Greens Creek	7,783,000	11.90	0.090	92,338,000	711,000
Lucky Friday	2,698,000	12.00	-	32,352,000	-
Casa Berardi	7,933,000	-	0.150	-	1,209,000

2014 Proven Reserves	Tons	Silver (oz/ton)	Gold (oz/ton)	Silver (ounces)	Gold (ounces)
Greens Creek	4,700	15.70	0.100	74,000	5,000
Lucky Friday	3,840,000	13.70	-	52,556,000	-
Casa Berardi	1,606,000	-	0.150	-	237,000
Probable Reserves					
Greens Creek	7,691,000	12.20	0.100	93,947,000	738,000
Lucky Friday	2,043,000	12.90	-	26,346,000	-
Casa Berardi	7,806,000	-	0.140	-	1,100,000
2015 Proven Reserves					
Greens Creek	10,000	20.80	0.120	210,000	1,000
Lucky Friday	3,510,000	16.50	-	57,961,000	-
San Sebastian	5,000	14.50	0.210	72,000	1,000
Casa Berardi	2,119,000	-	0.110	-	234,000
Probable Reserves					
Greens Creek	7,204,000	12.30	0.090	88,523,000	676,000
Lucky Friday	1,557,000	13.30	-	20,721,000	-
San Sebastian	284,000	28.00	0.220	7,943,000	63,000
Casa Berardi	8,104,000	-	0.140	-	1,098,000
2016 Proven Reserves					
Greens Creek	9,000	15.50	0.090	140,000	1,000
Lucky Friday	3,308,000	17.50	-	57,925,000	-
San Sebastian	43,000	23.40	0.190	1,008,000	8,000
Casa Berardi	2,575,000	-	0.110	-	272,000
Probable Reserves					
Greens Creek	7,585,000	11.70	0.090	88,729,000	672,000
Lucky Friday	1,542,000	12.90	-	19,912,000	-
San Sebastian	283,000	16.20	0.100	4,593,000	29,000
Casa Berardi	7,752,000	-	0.130	-	1,037,000
2017 Proven Reserves					
Greens Creek	7,000	12.20	0.090	89,000	1,000
Lucky Friday	4,246,000	15.40	-	65,448,000	-
San Sebastian	31,000	23.30	0.190	712,000	6,000
Casa Berardi	2,458,000	-	0.130	-	312,000
Probable Reserves					
Greens Creek	7,543,000	11.90	0.100	90,130,000	725,000
Lucky Friday	1,387,000	11.40	-	15,815,000	-
San Sebastian	368,000	13.10	0.100	4,809,000	37,000
Casa Berardi	11,413,000	-	0.100	-	1,181,000
2018 Proven Reserves					
Greens Creek	6,000	13.80	0.100	86,000	1,000
Lucky Friday	4,230,000	15.40	-	65,234,000	-
San Sebastian	22,000	3.90	0.080	85,000	2,000
Casa Berardi	6,790,000	-	0.080	-	563,000
Fire Creek	24,000	1.10	1.210	27,000	29,000
Hollister	2,000	7.00	0.730	17,000	2,000
Probable Reserves					
Greens Creek	9,270,000	11.50	0.090	106,972,000	840,000
Lucky Friday	1,387,000	11.40	-	15,815,000	-
San Sebastian	206,000	12.30	0.100	2,790,000	23,000
Casa Berardi	16,954,000	-	0.080	-	1,343,000
Fire Creek	91,000	0.30	0.440	30,000	40,000
Hollister	9,000	7.20	0.650	66,000	6,000

ENDNOTES

1. Silver and gold equivalent is calculated using the average market prices for the time period noted.
2. Cost of sales and other direct production costs and depreciation, depletion and amortization.
3. Cash cost, after by-product credits, per silver and gold ounce represents a non-GAAP measurement, a reconciliation of which to cost of sales and other direct production costs and depreciation, depletion and amortization (sometimes referred to as "cost of sales" in this release), can be found in the Appendix. It is an important operating statistic that management utilizes to measure each mine's operating performance. It also allows the benchmarking of performance of each mine versus those of our competitors. As a primary U.S. silver mining company, management also uses the statistic on an aggregate basis - aggregating the Greens Creek, Lucky Friday and San Sebastian mines - to compare performance with that of other primary silver mining companies. With regard to Casa Berardi and Nevada Operations, management uses cash cost, after by- product credits, per gold ounce to compare its performance with other gold mines. Similarly, the statistic is useful in identifying acquisition and investment opportunities as it provides a common tool for measuring the financial performance of other mines with varying geologic, metallurgical and operating characteristics. In addition, the Company may use it when formulating performance goals and targets under its incentive program. The estimated fair value of the stockpile acquired at Hollister has been removed from the cash cost, after by-product credits calculation.
4. All-in sustaining cost (AISC), after by-product credits, is a non-GAAP measurement, a reconciliation of which to cost of sales and other direct production costs and depreciation, depletion and amortization, the closest GAAP measurement, can be found in the appendix. AISC, after by-product credits, includes cost of sales and other direct production costs, expenses for reclamation and exploration, and sustaining capital costs at the mines sites. AISC, after by-product credits for our consolidated silver properties also includes corporate costs for all general and administrative expenses, exploration and sustaining capital which support the operating properties. AISC, after by-product credits, is calculated net of depreciation, depletion, and amortization and by-product credits. 2019E refers to Hecla's estimates for 2019. Current GAAP measures used in the mining industry, such as cost of goods sold, do not capture all the expenditures incurred to discover, develop and sustain silver and gold production. Management believes that all in sustaining costs is a non-GAAP measure that provides additional information to management, investors and analysts to help in the understanding of the economics of our operations and performance compared to other producers and in the investor's visibility by better defining the total costs associated with production. Similarly, the statistic is useful in identifying acquisition and investment opportunities as it provides a common tool for measuring the financial performance of other mines with varying geologic, metallurgical and operating characteristics. In addition, the Company may use it when formulating performance goals and targets under its incentive program. 2018 AISC, after by-product credits, per gold ounce for the Nevada operations excludes $5 million of capital as it distorts the AISC estimates for the remainder part of the year. The estimated fair value of the stockpile acquired at Hollister has been removed from the AISC, after by-product credits calculation.
5. 2019E refers to Hecla's estimates for 2019.
6. Free Cash Flow is a non-GAAP measure calculated as Operating Cash Flow (GAAP) less Capex (GAAP). Cash flow conversion calculated as Free Cash Flow from mines divided by Operating Cash Flow.
7. Expectations for 2019 includes silver, gold, lead and zinc production from Lucky Friday, Greens Creek, San Sebastian, Casa Berardi and Nevada Operations converted using Au $1,250/oz, Ag $16.00/oz, Zn $1.25/lb, Pb $1.00/lb. (Numbers may be rounded.)