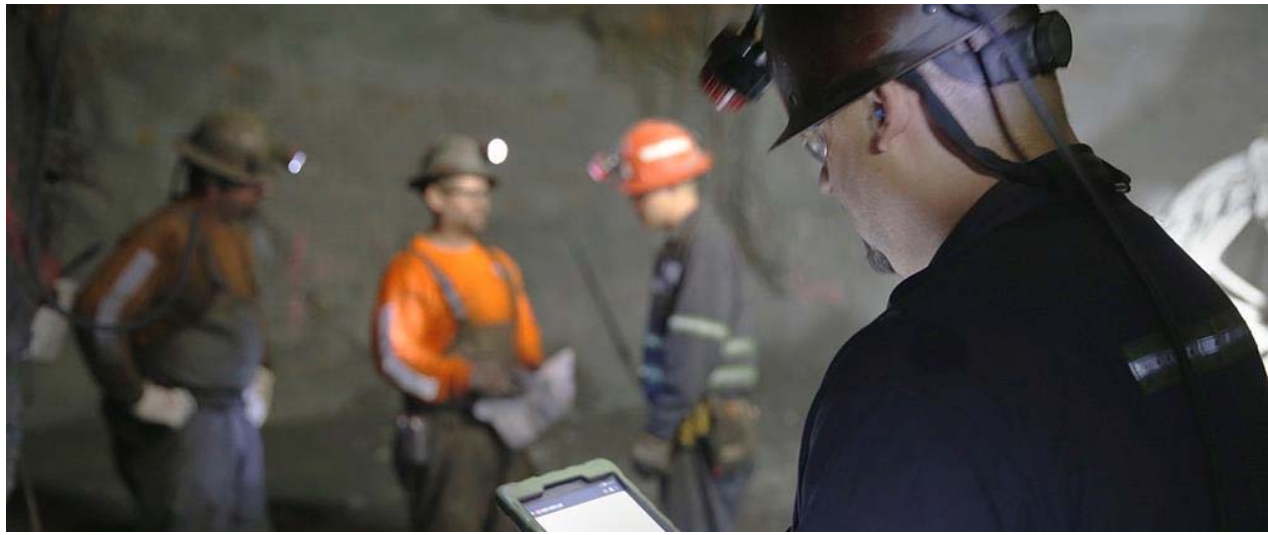
ROTH CONFERENCE

KEY VALUE DRIVERS

March 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 March 28, 2013, 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 March 31, 2014 (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.

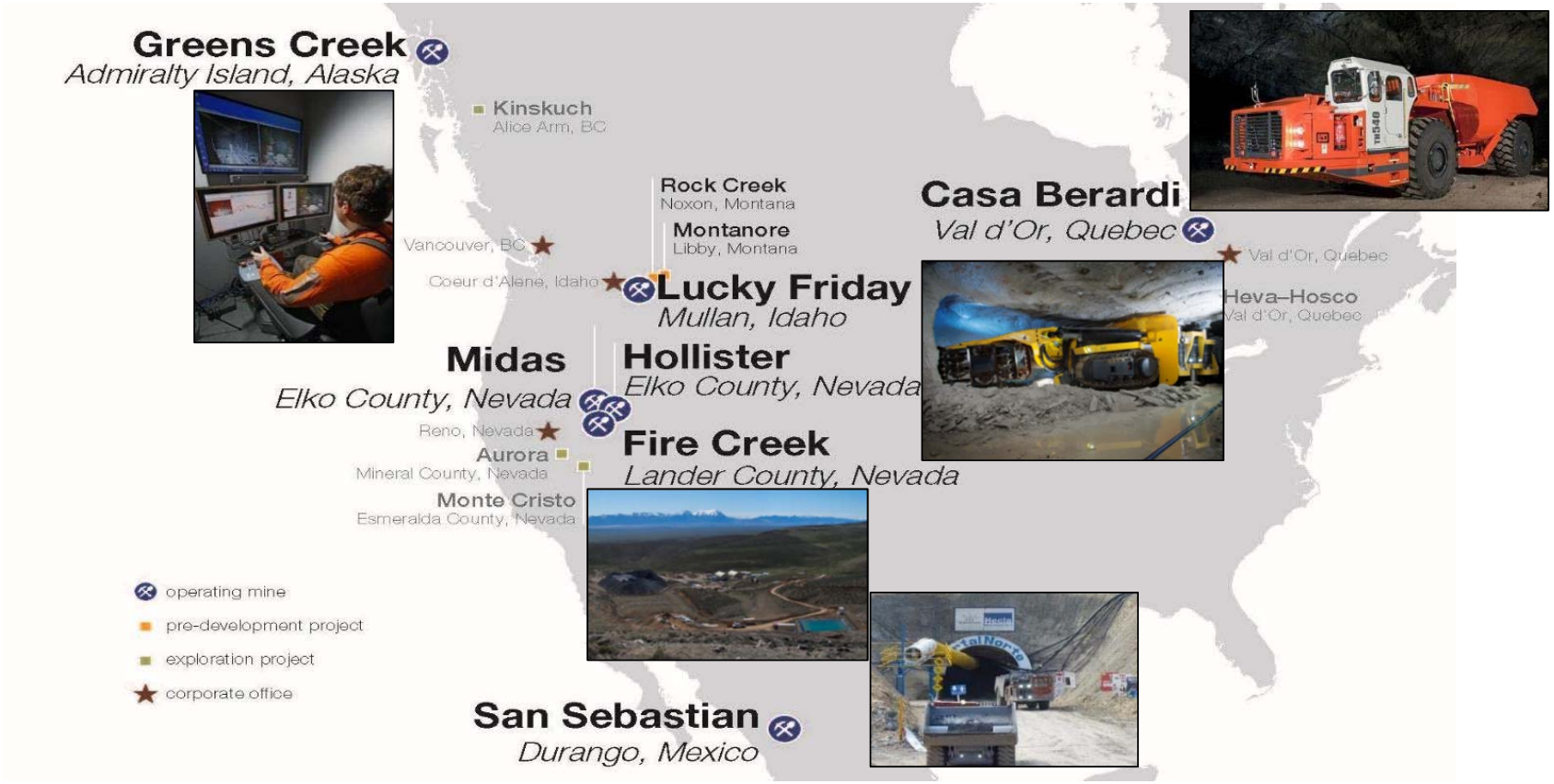
WHY INVEST IN HECLA?

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

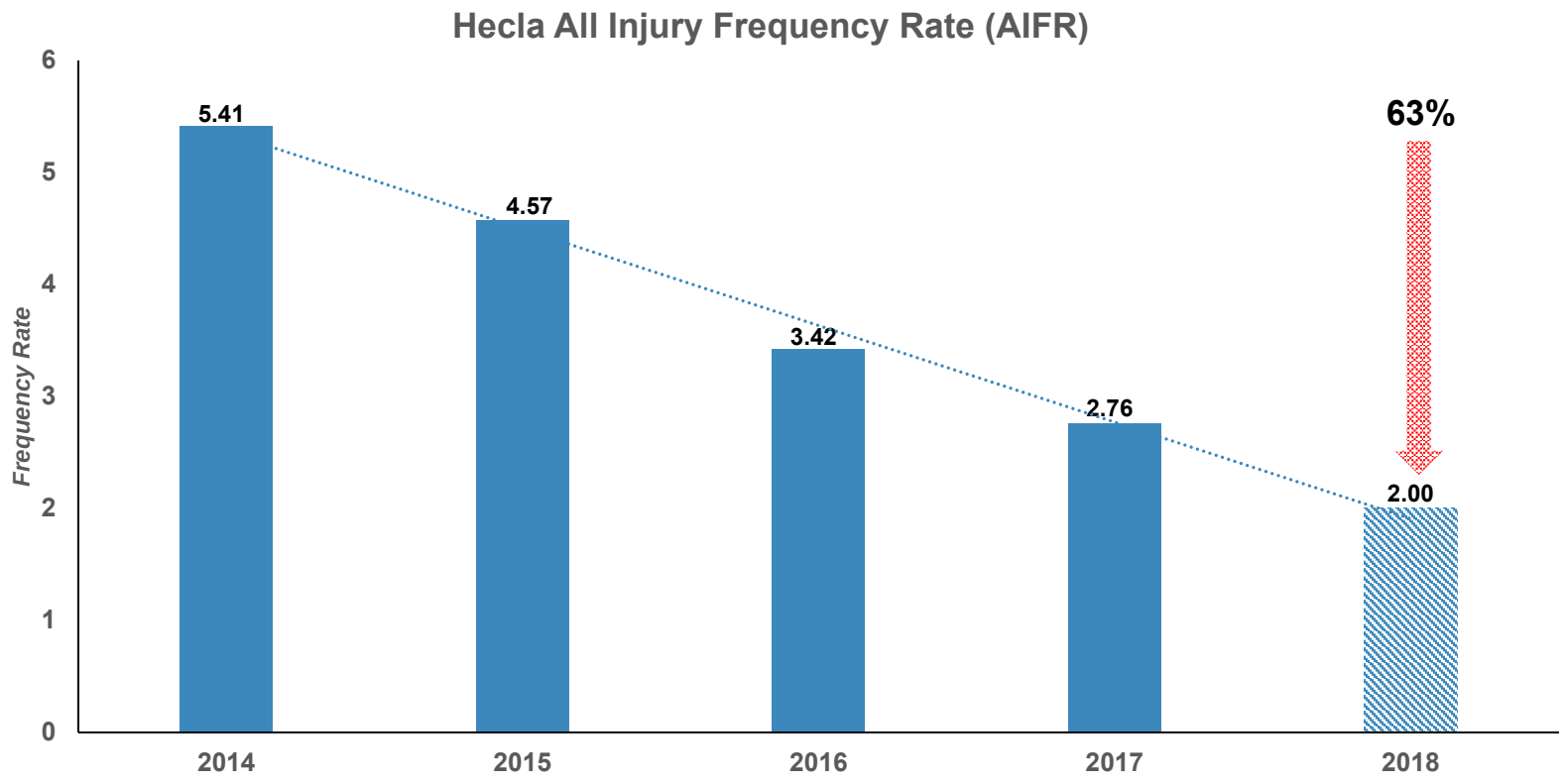
INNOVATING ACROSS NORTH AMERICAN FOCUSED ASSETS

OPERATIONS IN LOW-RISK & MINING-FRIENDLY JURISDICTIONS



SAFETY FIRST

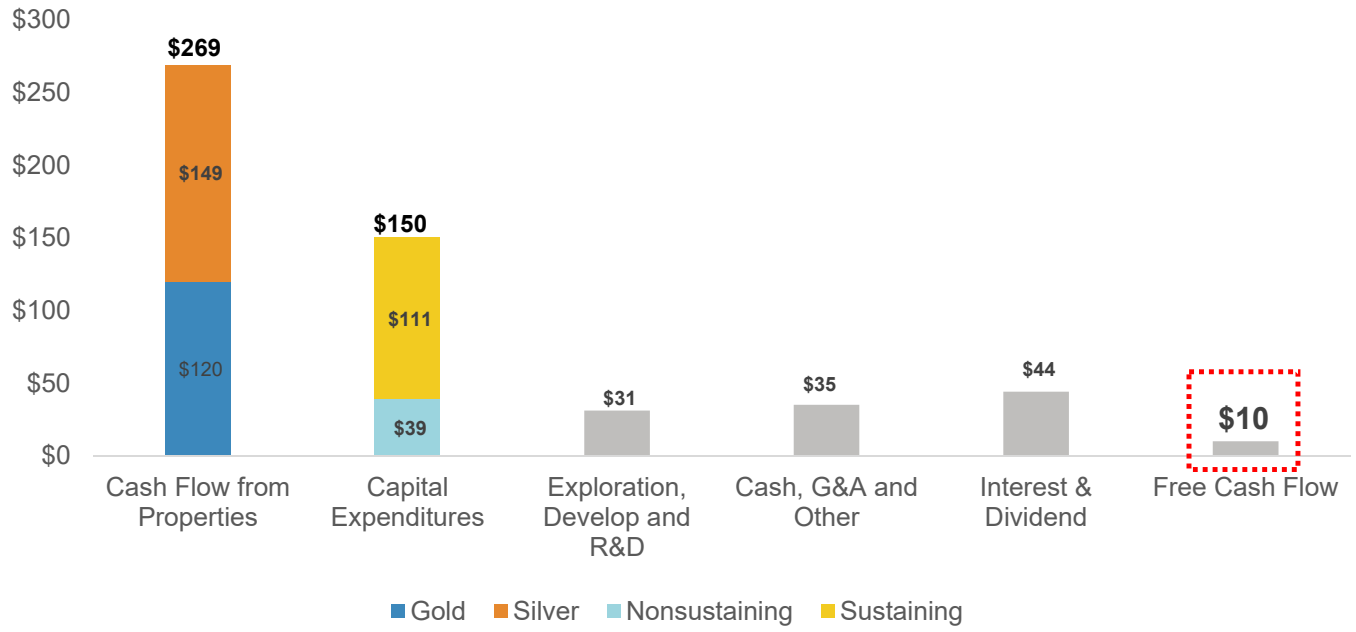
FIRST HARDROCK MINING COMPANY TO COMPLETE NMA CORESAFETY PROGRAM



HECLA HAS FINANCIAL DISCIPLINE

EXPECT TO GENERATE FREE CASH FLOW IN 2019

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



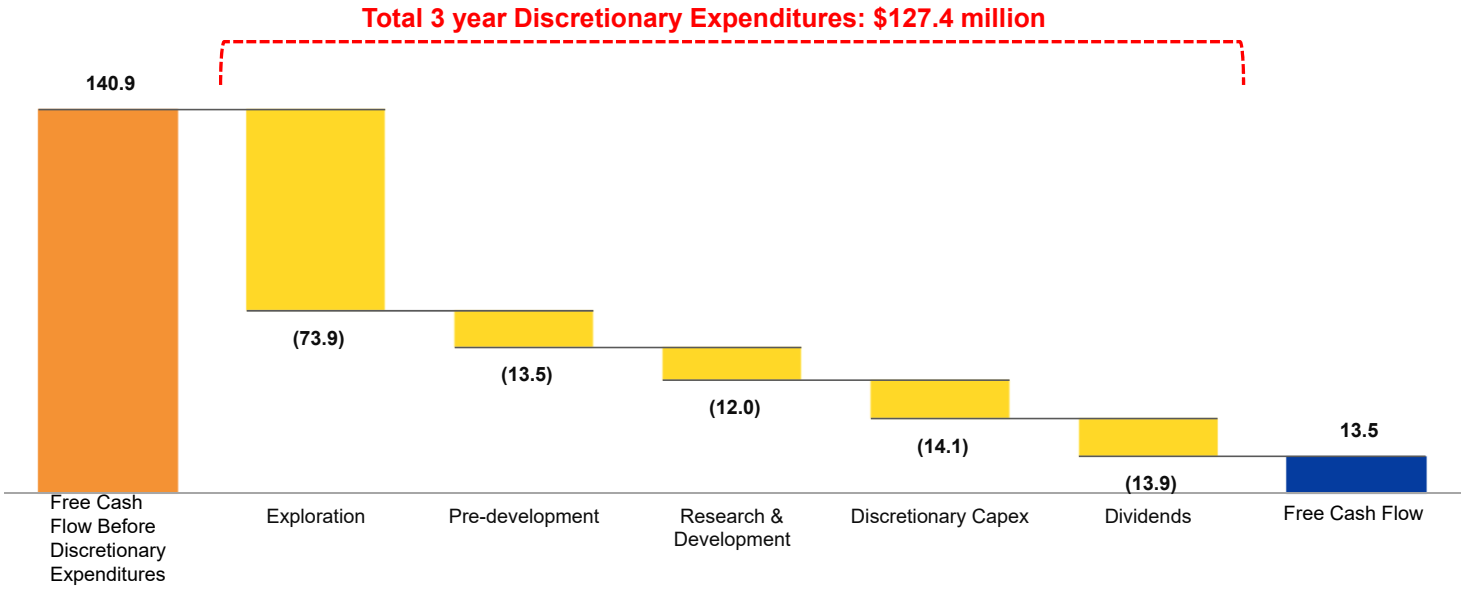
(in millions)

*Based on 2019 Guidance and 2018 Actuals

ROBUST 3 YEAR FREE CASH FLOW GENERATION

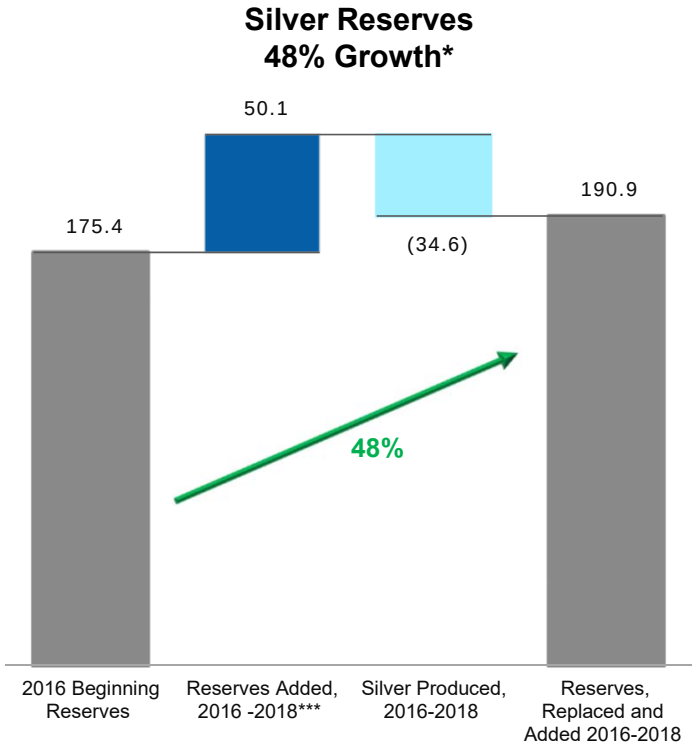
STRONG CASH FLOW FROM OPERATIONS INVESTED IN DISCRETIONARY PROJECTS

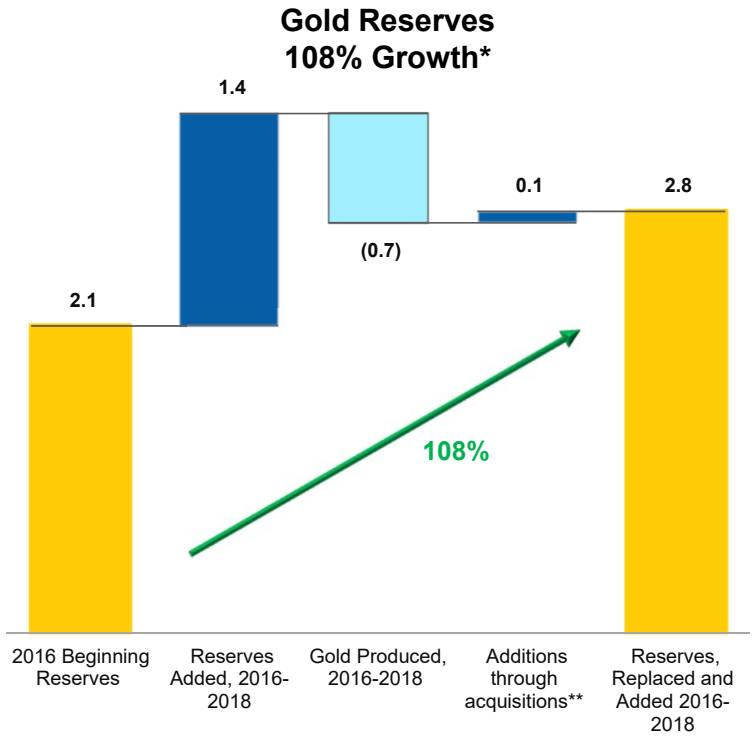
Investment in exploration, technology and innovation has generated robust double digit returns: Much higher than dividends, share buybacks, debt repayment



(in millions)

EXPLORATION: DISCRETIONARY BUT A KEY DRIVER OF RETURNS





(in millions)

*% growth calculated by adding new reserves plus mining depletion divided by beginning reserves.
**Klondex acquisition in July 2018
*** Silver reserves include the ounces acquired through Nevada acquisition, the ounces were only around 139 koz.

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

RECORD RESERVES/RESOURCES

RECORD SILVER, GOLD AND LEAD RESERVES

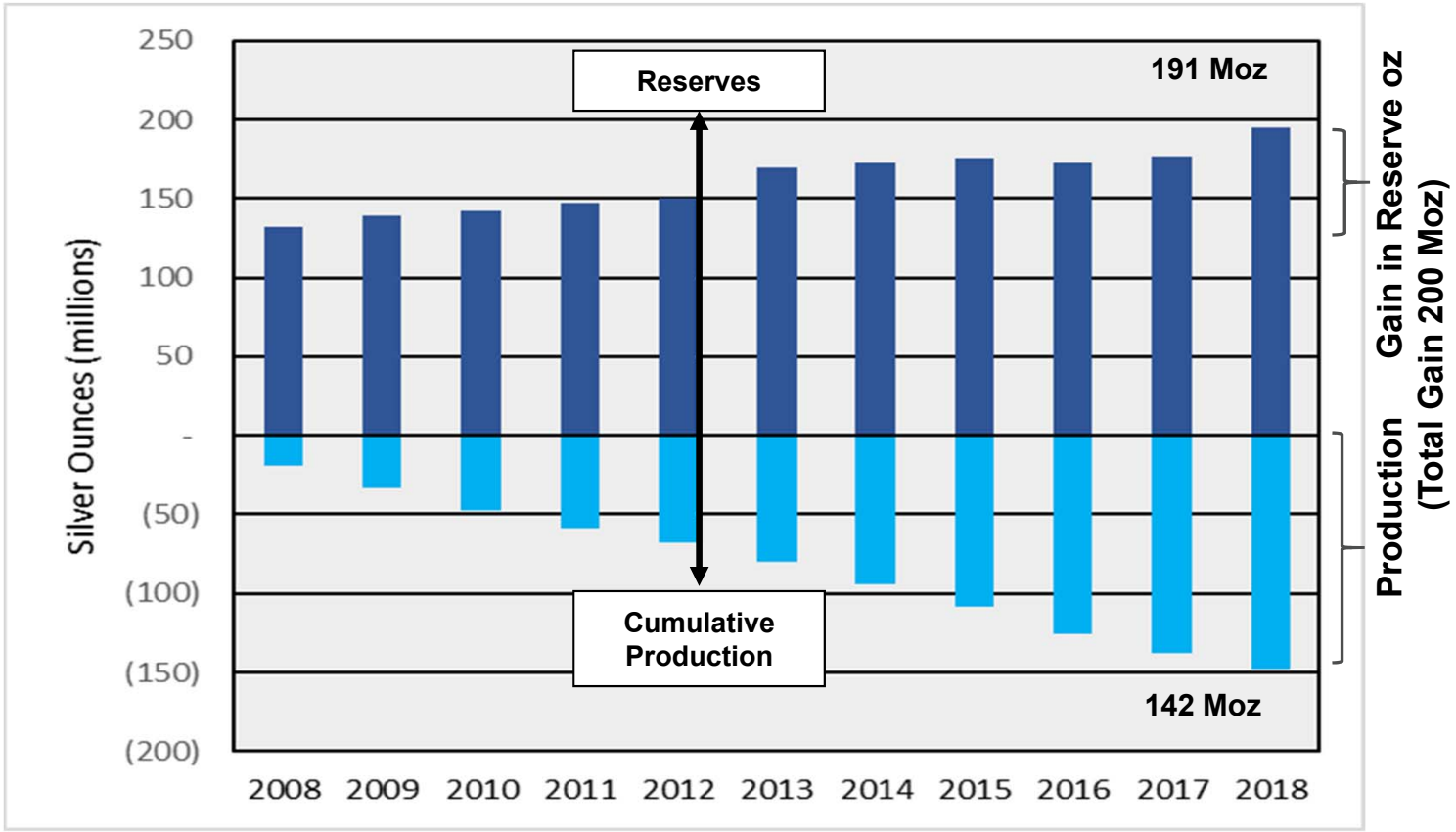
	Reserves	Increase
Silver	191 Moz	**8%**
Gold	2.8 Moz	**26%**
Lead	773,740 Tons	**5%**
Zinc	931,730 Tons	**11%**

	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



SILVER AND GOLD RESERVE PRICE COMPARISONS

COMPANY COMPARISON - HECLA AT LOW END OF KNOWN PEER RANGE



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

DIVERSIFIED REVENUE STREAM 2018

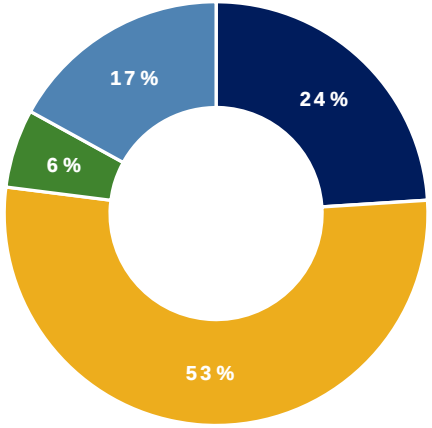
MITIGATES RISK AND ENHANCES ECONOMICS

#1 Silver and #3 Lead and Zinc Producer in the U.S.

Zinc Production: **56 Ktons**
Realized Price: **$1.27/lb**

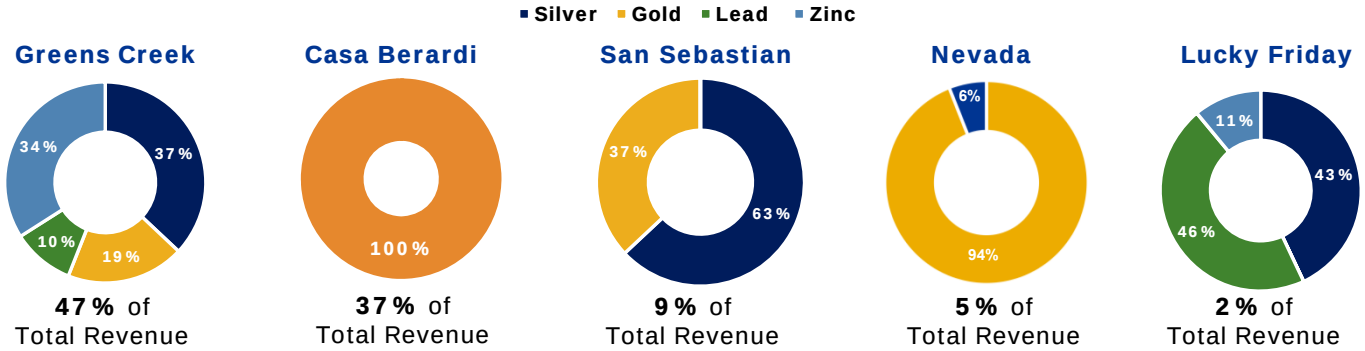
Lead Production: **20 Ktons**
Realized Price: **$1.04/lb**

2018 Margins
Silver Margin: **$14.56/oz**
Gold Margin: **$394/oz**



Silver Production: **10.4 Moz**
Cost of Sales: **$241.6 M**[2]
Cash Costs, after by-product credits: **$1.08/oz**[3]
Realized Price: **$15.63/oz**

Gold Production: **262 Koz**
Cost of Sales: **$246.4 M**[2]
Cash Costs, after by-product credits: **$871/oz**[3]
Realized Price: **$1,265/oz**



47% of Total Revenue

37% of Total Revenue

9% of Total Revenue

5% of Total Revenue

2% of Total Revenue

CONDENSED CONSOLIDATED INCOME STATEMENT AND CASH FLOW STATEMENT

($ millions)

	FY 2018	FY 2017
Revenues	$ 567	$ 578
Cost of Sales (Production Costs and DD&A)	488	425
Earnings from mine operations	79	152
Other Operating Exp (Corp Admin, Exploration, Pre-Development, Other)	118	92
(Loss) income from operations	(39)	60
Net gain (loss) on metals derivatives and foreign exchange	51	(31)
Other costs (includes interest expense)	(46)	(37)
Net loss before taxes	(34)	(8)
Income tax benefit (provision)	7	(21)
Net loss	(27)	(29)
Adjusted for Non-cash Items	132	184
Operating cash flow before change in working capital	105	155
Change in working capital and other balance sheet changes	(11)	(40)
Cash provided by operating activities	94	116
Capital expenditures (net of leased capital equipment)	(137)	(98)
Purchase of a Business, net of cash and restricted cash acquired	(139)	-
Other Investing Activities	40	1
Cash used in investing activities	(237)	(97)
Cash used in financing activities	(15)	(5)
Effect of exchange rates on cash	(2)	1
Net Cash Flow	**$ (159)**	**$ 15**

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

Greens Creek

Increased recoveries/ low cost production

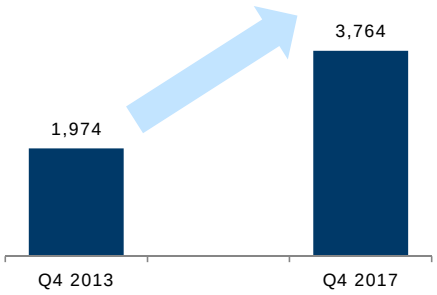
- Increased average silver recovery by 6%
- Consistent low-cost production
- Tele-remote mucking has increased productivity
- Adding shallow mineralization to enhance economics
- Maintained reserves over 10 years of ownership

San Sebastian

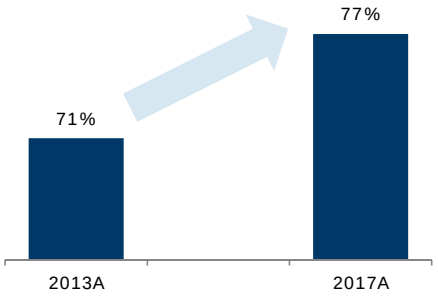
Prudent, high impact capital differentiated mining model

- 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

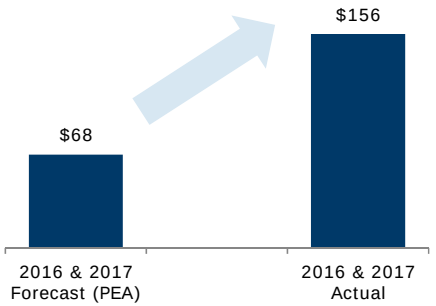
+91% throughput (Tons per day)



+6% silver recoveries



+129% operating cash flow

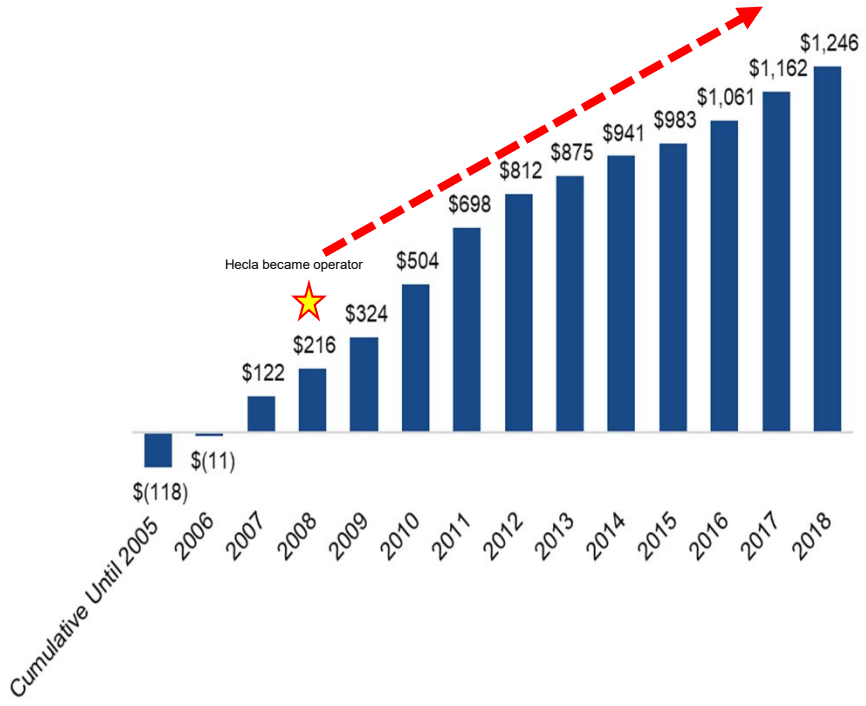


Source: Company disclosure.

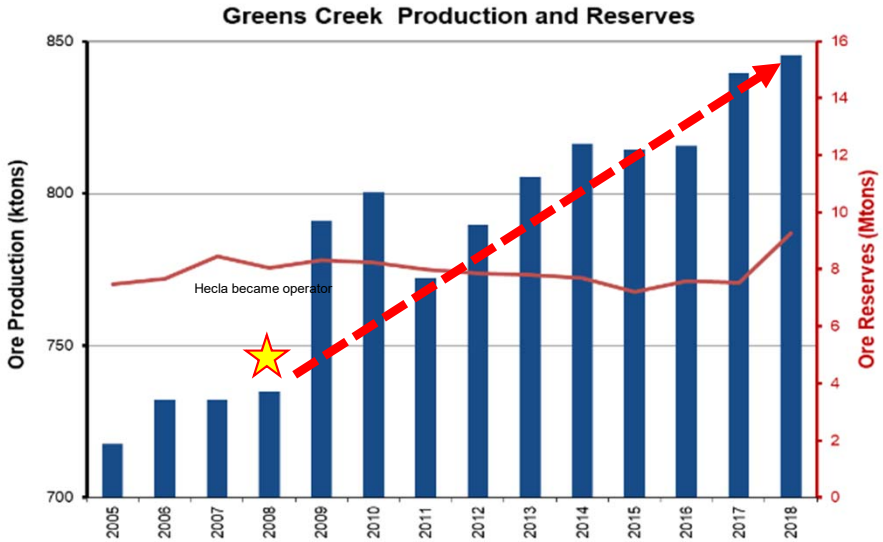
GREENS CREEK HAS GENERATED +$1B OF FREE CASH FLOW

SIGNIFICANT IMPROVEMENT IN PERFORMANCE SINCE HECLA BECAME OPERATOR

Cumulative Net Cash Flow



Greens Creek throughput has grown 15% since purchase in 2008



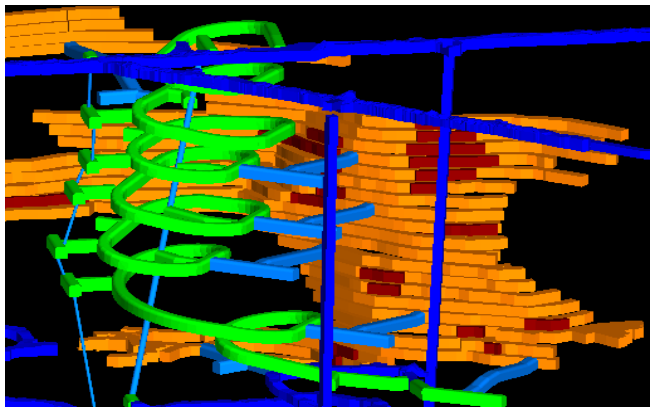
- Automation drive beginning in 2017 leads to further efficiencies
- Exploration success enables reserves to grow

GREENS CREEK: OUR BEST MINE IS GETTING BETTER

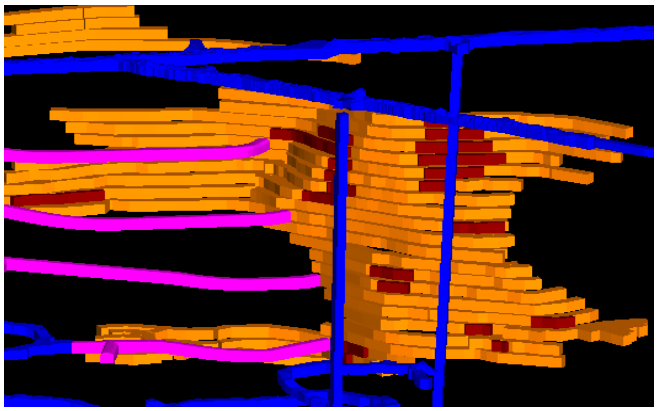
LONGER LIFE, MOVING REVENUE FORWARD, REDUCED DEVELOPMENT EXPECTED

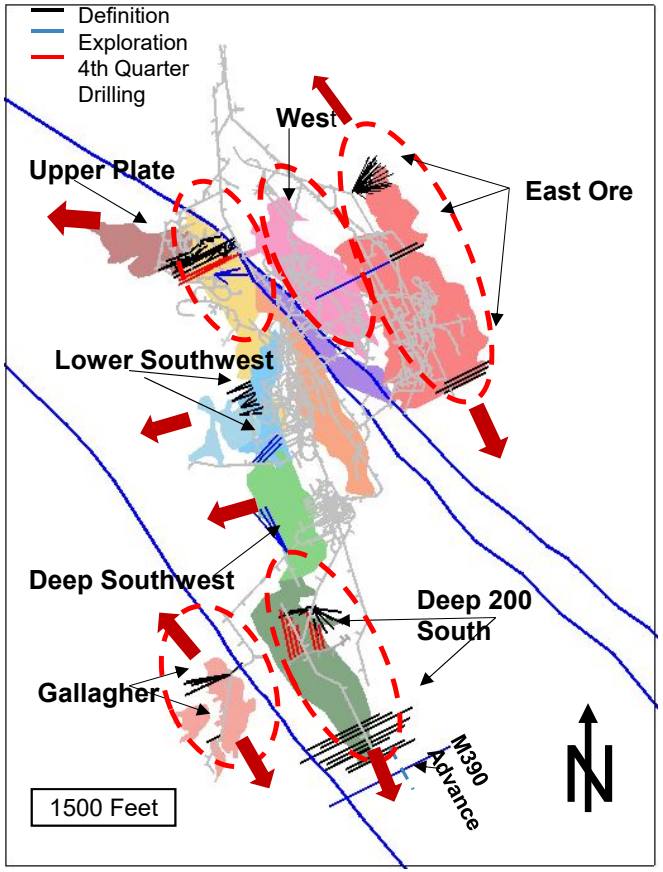
- 15 to 20% increase in silver, gold, lead and zinc reserves from drilling and more data
- Improved plan has 8% higher grades over the next four years, almost $80 million more revenue
- Development plan spends $13m less over the next four years
  - 20% less development or a reduction of 14,000 feet
  - 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

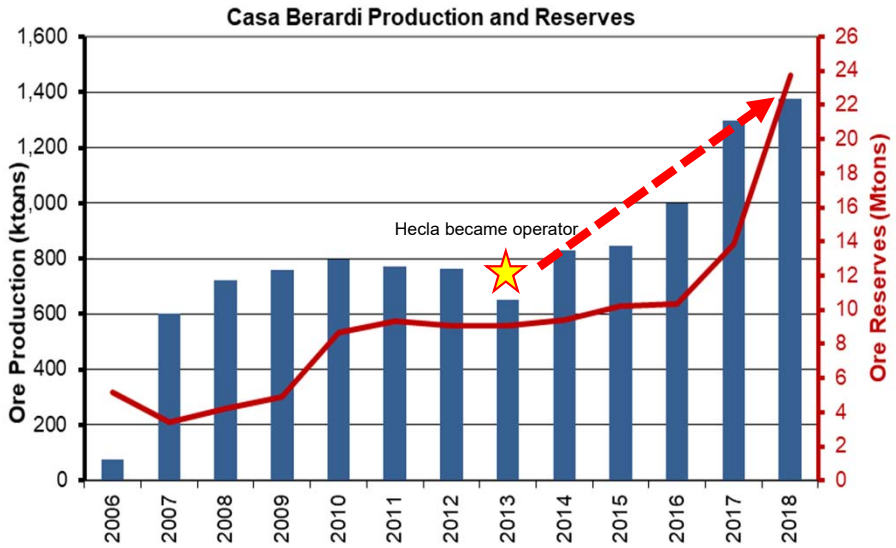




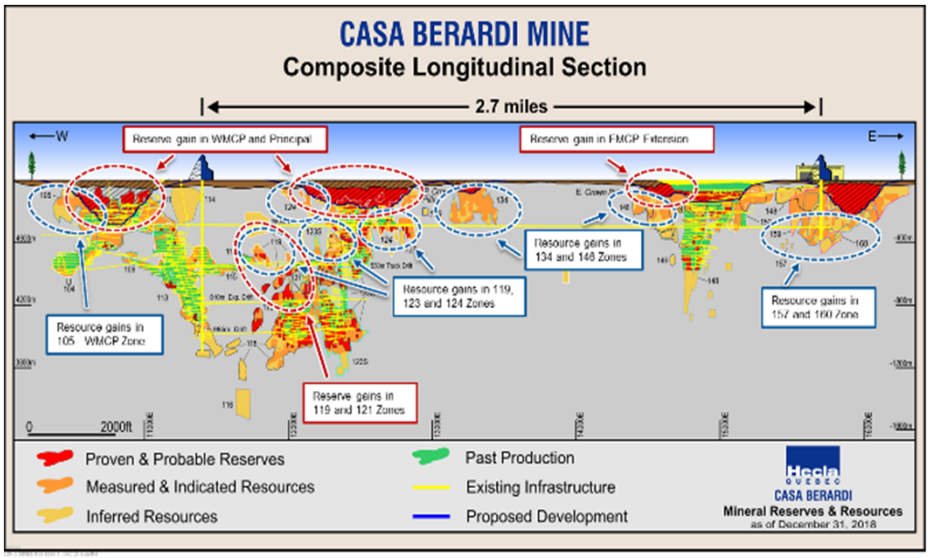
CASA BERARDI: GROWING RESERVES PRODUCTION AND CASH FLOW

AGGRESSIVE EXPLORATION ADDS TO RESERVE AND RESOURCE BASE

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



Casa Berardi Longitudinal Section

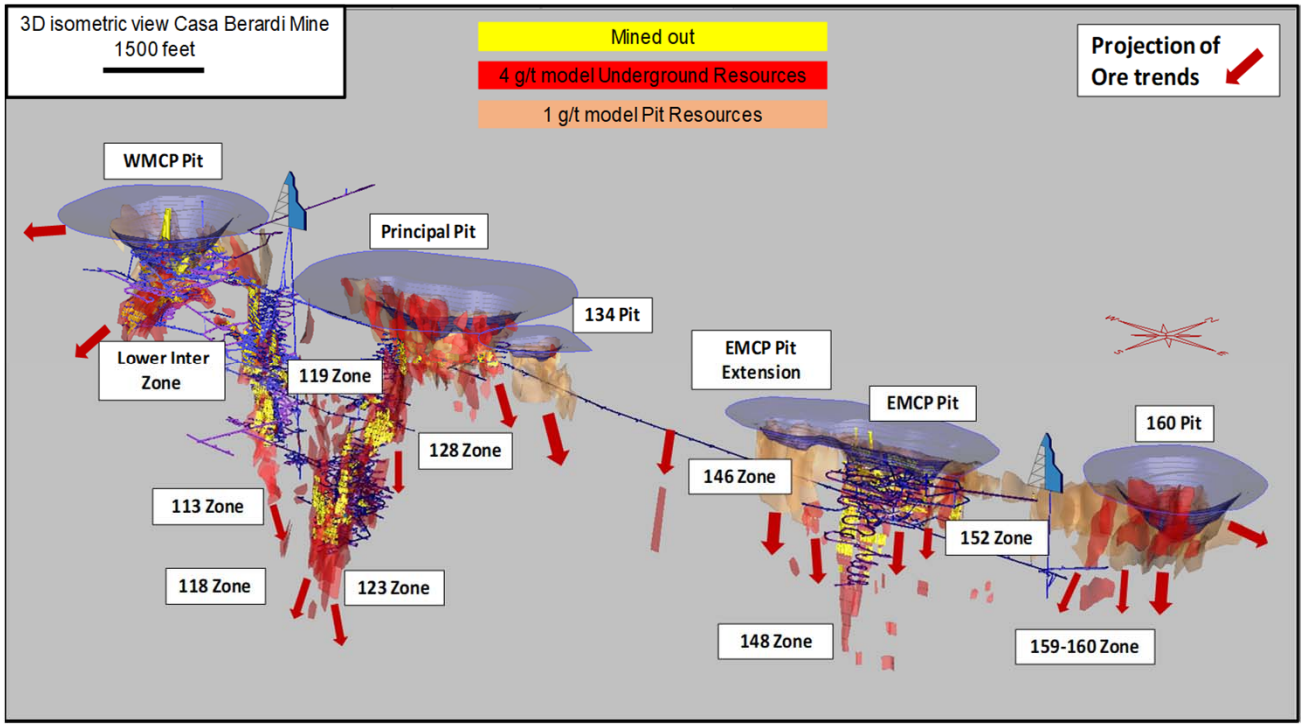


- Successfully stabilized, then increased throughput rates since becoming operator
- Began surface open-pit mining in 2016
- Consistent exploration success enables reserves to increase

SERIES OF OPEN PITS AT CASA BERARDI

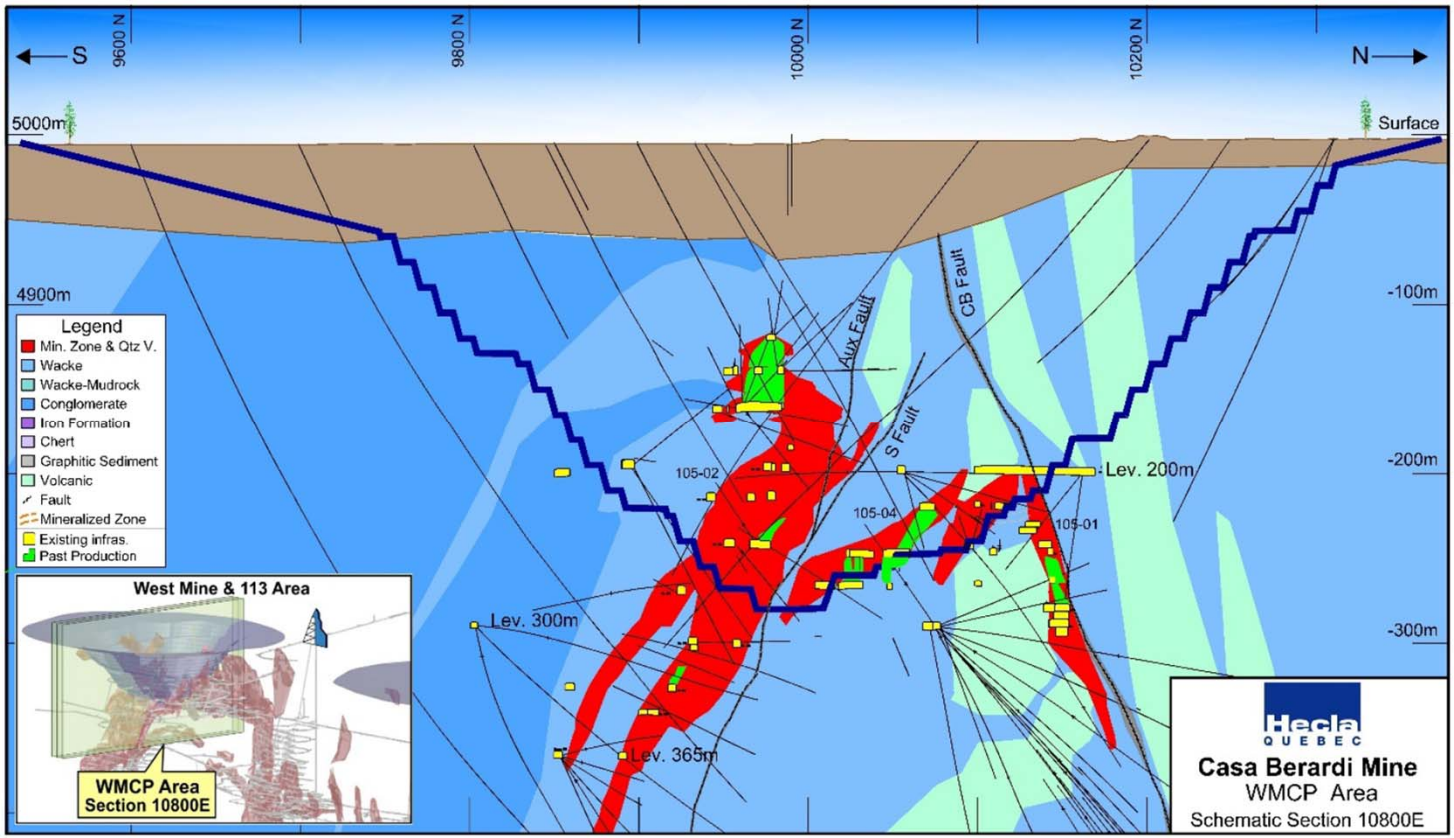
WEST MINE CROWN PILLAR (WMCP) LATEST ADDITION TO THE PITS

- 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 ASSETS: 2018 ACTIVITIES AND 2019 PLAN

FOCUS ON IMPROVING OPERATIONS, INVESTING IN THE MINES

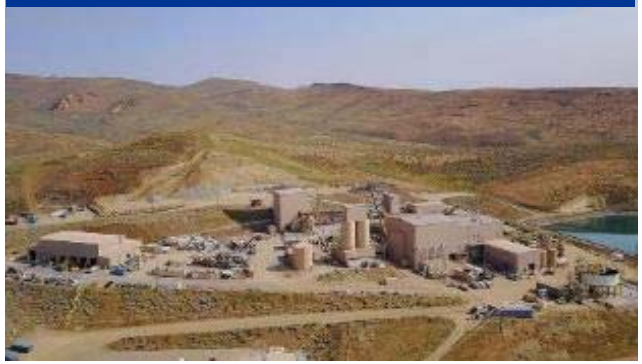
2018 Activities:

- Reorganized assets, put Midas on care and maintenance, relocated employees 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

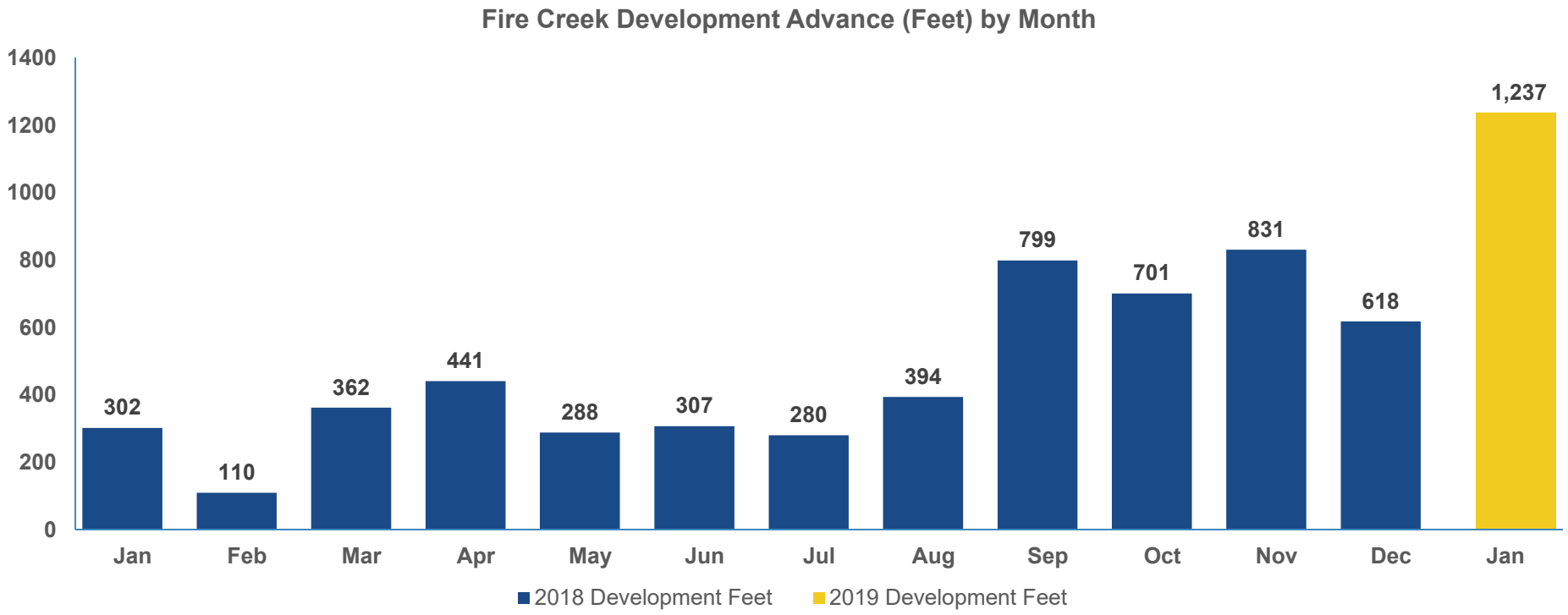


Fire Creek



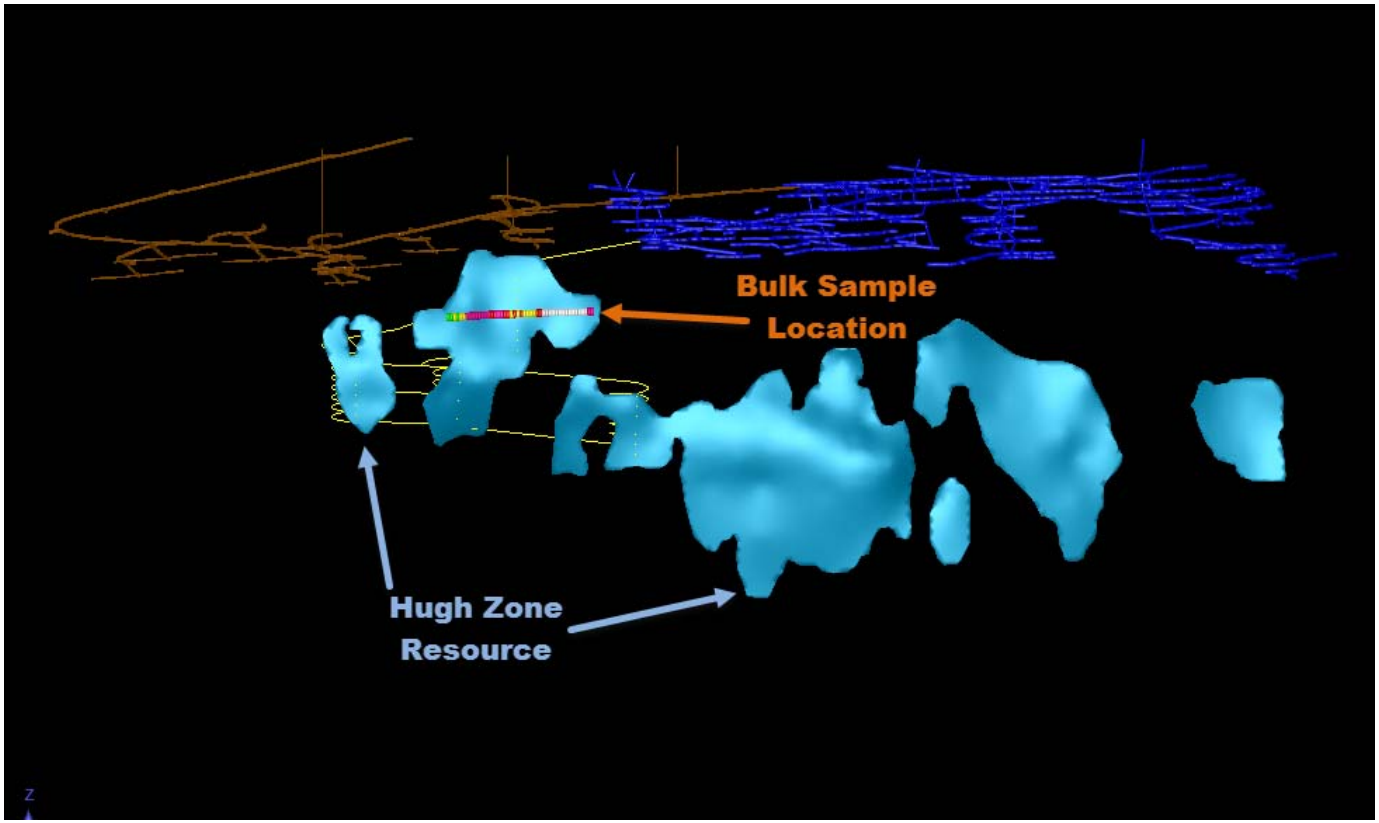
FIRE CREEK DEVELOPMENT INCREASING

SETS THE STAGE FOR RESTORING THE MINE DEVELOPED STATE



SAN SEBASTIAN: TESTING 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



2019 OUTLOOK

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

Production Outlook

	Silver Production (Moz)	Gold Production (Koz)	Silver Equivalent (Moz)[1]	Gold Equivalent (Koz)[1]
Greens Creek	7.7	50	24.0	305
Lucky Friday	0.2	n/a	0.2	n/a
San Sebastian	2.0	14	3.0	40
Casa Berardi	n/a	150	11.7	150
Nevada Operations	0.1	76	6.1	77
Total	**10.0**	**290**	**45.0**	**572**

Cost Outlook

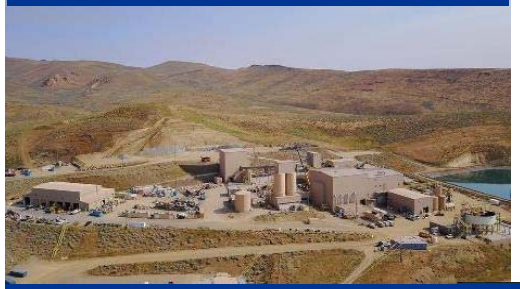
	Costs of Sales (million)[2]	Cash cost, after by-product credits, per silver/gold ounce[3]	AISC, after by-product credits, per produced silver/gold ounce[4]
Greens Creek	$202	$0	$5.50
Lucky Friday	n/a	n/a	n/a
San Sebastian	$41	$9.00	$12.00
Total Silver	**$243**	**$1.10**	**$11.00**
Casa Berardi	$210	$850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

Capital and Exploration Outlook

2019E capital expenditures[5] (excluding capitalized interest)	$150 million
2019E exploration expenditures[5] (includes corporate development)	$25 million
2019E pre-development expenditures[5]	$2.5 million
2019E research and development expenditures[5]	$3.5 million

APPENDIX

Midas



San Sebastian



Lucky Friday



Greens Creek



Fire Creek



Hollister



Casa Berardi



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 mines 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.)

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**

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)

	2018	2017
Cost of sales and other direct production costs and depreciation, depletion and amortization (GAAP)	$ 241,631	$ 240,610
Depreciation, depletion and amortization	(52,125)	(61,468)
Treatment costs	39,820	53,718
Change in product inventory	3,142	(449)
Reclamation and other costs	(4,470)	(4,298)
Exclusion of Lucky Friday costs	(7,247)	-
Cash Cost, Before By-product Credits[1]	220,751	228,113
Reclamation and other costs	3,816	3,351
Exploration	12,902	12,968
Sustaining capital	50,306	46,118
General and administrative expense	36,542	35,611
All-In Sustaining Costs, Before By-product Credits[1,2]	324,317	326,161
By-products credits	(210,024)	(228,267)
Cash Cost, After By-product Credits	$ 10,727	$ (154)
All-In Sustaining Costs, After By-product Credits	$ 114,293	$ (97,894)
Divided by Ounces Produced	9,990	12,449
Cash Cost, Before By-product Credits, per Silver Ounce	$ 22.10	$ 18.33
By-products credits per Silver Ounce	(21.02)	(18.34)
Cash Cost, After By-product Credits, per Silver Ounce	$ 1.08	$ (0.01)
All-In Sustaining Costs, Before By-product Credits, per Silver Ounce	$ 32.46	$ 26.20
By-products credits per Silver Ounce	$ (21.02)	(18.34)
All-In Sustaining Costs, After By-product Credits, per Silver Ounce	$ 11.44	$ 7.86

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)

	2018*	2017
Cost of sales and other direct production costs and depreciation, depletion and amortization (GAAP)	$ 246,407	$ 184,716
Depreciation, depletion and amortization	(81,919)	(59,131)
Treatment costs	2,158	2,432
Change in product inventory	8,343	1,466
Reclamation and other costs	(1,512)	(476)
Cash Cost, Before By-product Credits[1]	173,477	129,007
Reclamation and other costs	1,125	475
Exploration	10,622	4,351
Sustaining capital	57,790	50,664
AISC, Before By-product Credits[1,2]	243,014	184,497
Total By-product credits	(3,109)	(614)
Cash Cost, After By-product Credits, per Gold Ounce	$ 170,368	$ 128,393
AISC, After By-product Credits	$ 239,905	$ 183,883
Divided by Ounces Produced	196	157
Cash Cost, Before By-product Credits, per Gold Ounce	$ 887	$ 824
By-products credits per Gold Ounce	(16)	(4)
Cash Cost, After By-product Credits, per Gold Ounce	$ 871	$ 820
AISC, Before By-product Credits, per Gold Ounce	$ 1,242	$ 1,178
By-products credits per Gold Ounce	(16)	(4)
AISC, After By-product Credits, per Gold Ounce	$ 1,226	$ 1,174

*Klondex acquisition complete July 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

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

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, 2019 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.
3. AISC, Before By-product Credits for our consolidated silver properties includes corporate costs for general and administrative expense, exploration and sustaining capital.

CASH COST AND AISC RECONCILIATION TO GAAP

2019 ESTIMATES – 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)	Estimate for Twelve Months Ended December 31, 2019		
	Casa Berardi	Nevada Operations	Total Gold
Cost of sales and other direct production costs and depreciation, depletion and amortization	$ 210,000	$ 90,000	$ 300,000
Depreciation, depletion and amortization	(80,000)	(15,000)	(95,000)
Treatment costs	—	—	—
Change in product inventory	(2,000)	(1,000)	(3,000)
Reclamation and other costs	1,000	(2,800)	(1,800)
Cash Cost, Before By-product Credits [1]	129,000	71,200	200,200
Reclamation and other costs	1,000	850	1,850
Exploration	4,000	6,000	10,000
Sustaining capital	43,000	25,000	68,000
AISC, Before By-product Credits [1]	177,000	103,050	280,050
By-product credits:		—	
Silver	(2,000)	(2,000)	(4,000)
Total By-product credits	(2,000)	(2,000)	(4,000)
Cash Cost, After By-product Credits	$ 127,000	$ 69,200	$ 196,200
AISC, After By-product Credits	$ 175,000	$ 101,050	$ 276,050
Divided by gold ounces produced	150	76	226
Cash Cost, Before By-product Credits, per Gold Ounce	$ 860	$ 937	$ 886
By-product credits per ounce	(13)	(26)	(18)
Cash Cost, After By-product Credits, per Gold Ounce	$ 847	$ 911	$ 868
AISC, Before By-product Credits, per Gold Ounce	$ 1,180	$ 1,356	$ 1,239
By-product credits per ounce	(13)	(26)	(18)
AISC, After By-product Credits, per Gold Ounce	$ 1,167	$ 1,330	$ 1,221

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, 2019 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.
3. AISC, Before By-product Credits for our consolidated silver properties includes corporate costs for general and administrative expense, exploration and sustaining capital.

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.

PROVEN & PROBABLE MINERAL RESERVES

(ON DEC. 31, 2018 UNLESS OTHERWISE NOTED)

Proven and Probable Reserves – 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	-

[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 DEC. 31, 2018 UNLESS OTHERWISE NOTED)

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 DEC. 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

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