

# GRASSY MOUNTAIN: PRE-FEASIBILITY STUDY

TRT Meeting Portland, Oregon July 2018

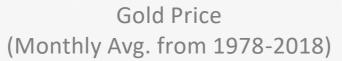
### **Forward Looking Statements**

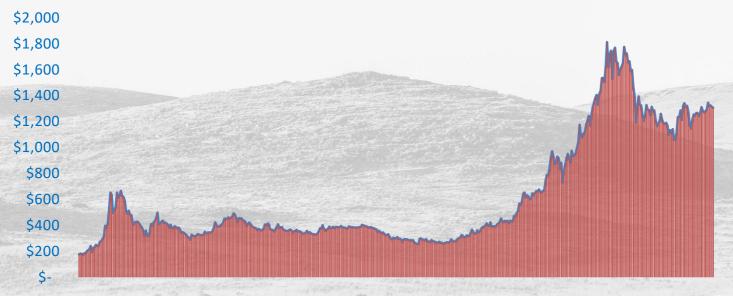
This presentation only may include "forward-looking statements" and "forward-looking information" (collectively, "forward-looking statements") pursuant to applicable United States and Canadian securities laws. Paramount's future expectations, beliefs, goals, plans or prospects constitute forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995 and other applicable securities laws. Words such as "believes," "plans," "anticipates," "expects," "estimates" and similar expressions are intended to identify forward-looking statements, although these words may not be present in all forward-looking statements. Forward-looking statements included in this news release include, without limitation, statements with respect to: production estimates and assumptions, including production rate and grade per tonne; revenue, cash flow and cost estimates and assumptions; statements with respect to future events or future performance; anticipated exploration, development, permitting and other activities on the Grassy Mountain project; the economics of the Grassy Mountain project, including the potential for improving project economics and finding more ore to extend mine life; and mineral reserve and mineral reserve and mineral reserve and mineral reserve and opinions of management made in light of its experience and its perception of trends, current conditions and expected developments, as well as other factors that management believes to be relevant and reasonable in the circumstances at the date that such statements are made, but which may prove to be incorrect. Management believes that the assumptions and expectations reflected in such forward-looking statements are reasonable. Assumptions have been made regarding, among other things: the conclusions made in the PFS; the quantity and grade of resources included in resource estimates; the accuracy and achievability of projections included in the PFS; Paramount's ability to carry on exploration and development activities, including construction; the timely receipt of required approvals and permits; the price of silver, gold and other metals; prices for key mining supplies, including labor costs and consumables, remaining consistent with current expectations; work meeting expectations and being consistent with estimates and plant, equipment and processes operating as anticipated. There are a number of important factors that could cause actual results or events to differ materially from those indicated by such forward-looking statements, including, but not limited to: uncertainties involving interpretation of drilling results; environmental matters; the ability to obtain required permitting; equipment breakdown or disruptions; additional financing requirements; the completion of a definitive feasibility study for the Grassy Mountain project; discrepancies between actual and estimated mineral reserves and mineral resources, between actual and estimated development and operating costs and between estimated and actual production; and the other factors described in Paramount's disclosures as filed with the SEC and the Ontario, British Columbia and Alberta Securities Commissions.

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#### Cautionary Note to U.S. Investors Concerning Estimates of Indicated, Inferred Resources and Reserves

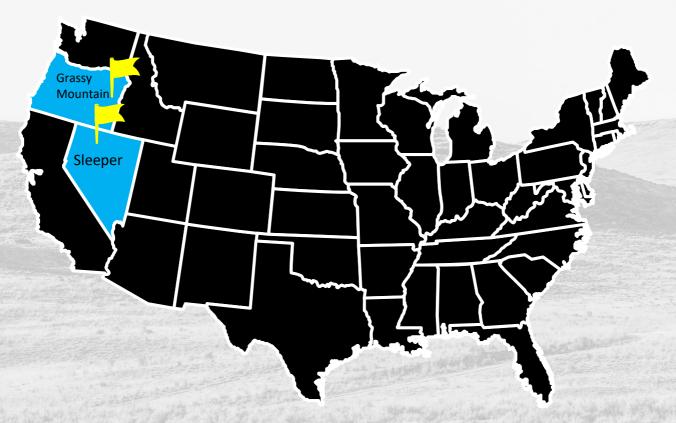
This news release uses the terms "measured and indicated resources", "inferred resources" and "proven and probable reserves". We advise U.S. investors that while these terms are defined in, and permitted by, Canadian regulations, these terms are not defined terms under SEC Industry Guide 7 and not normally permitted to be used in reports and registration statements filed with the SEC. "Inferred resources" have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Under Canadian rules, estimates of inferred mineral resources may not form the basis of a feasibility study or prefeasibility studies, except in rare cases. The SEC normally only permits issuers to report mineralization that does not constitute SEC Industry Guide 7 compliant "reserves", as in-place tonnage and grade without reference to unit measures. U.S. investors are cautioned not to assume that any part or all of mineral deposits in this category will ever be converted into reserves. U.S. investors are cautioned not to assume that any part or all of an inferred resource exists or is economically or legally minable. Under SEC Industry Guide 7 standards, a "final" or "bankable" feasibility study is required to report reserves, the three-year historical average price is used in any reserve or cash flow analysis to designate reserves and the primary environmental analysis or report must be filed with the appropriate governmental authority.







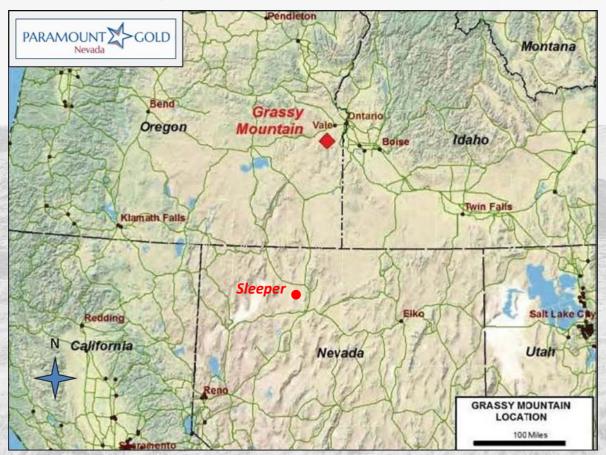
## **US Only Advanced Assets**



**MYSE American: PZG** 



### **Grassy Mountain Location**



#### BROGAN **JAMIESON** WILLOWCREEK ONTARIO CAIRO VALE OVALE HOPE LITTLE VALLEY • 20 NYSSA ARPER KINGMAN Parma OWYHEE ADRIAN Grassy Mountain NAPTON

# **Grassy Mountain Location**

- 20 miles S of Vale
- 30 miles SSW of Ontario
- 70 miles West of Boise

**Access Road** 



# Population & Income

#### **HOUSEHOLD INCOME**

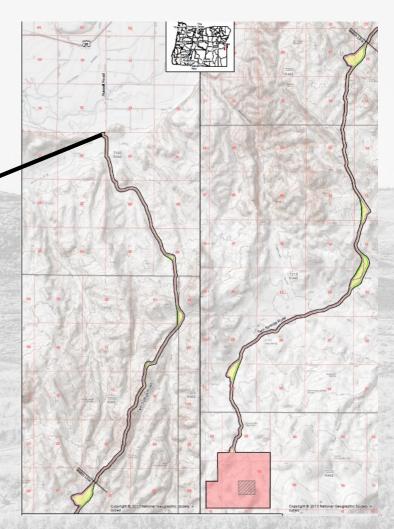
Area	Population	Mean \$	Median \$
Oregon	3,939,233.0	69,040	51,243
<b>Malheur County</b>	30,551.0	48,070	35,418
Ontario	11,089.0	40,575	27,276
Nyssa	3,189.0	47,029	40,586
Vale	1,850.0	42,930	34,950

Source: US Census Bureau 2016

#### **Access Road**

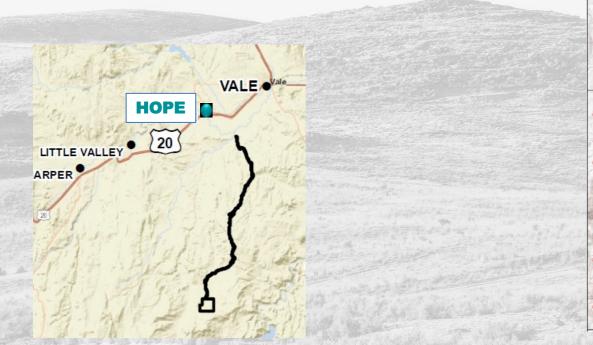
- ~ 17 mile Upgrade of a 24 ft. wide road
- Begins at the end of Russel Road

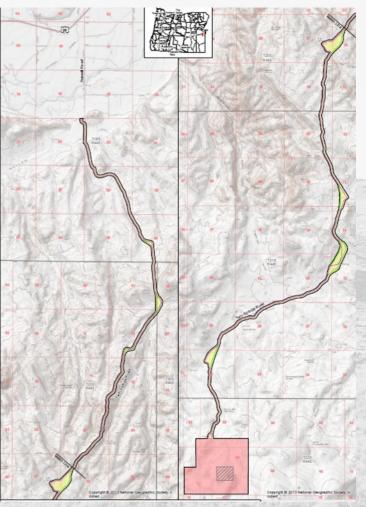




#### **Power to Site**

- Provided by Idaho Power (hydro)
- New line from Hope Substation along access road
  - 23 mile line with a capacity of 5.3MW





### **Operational Highlights**

- Underground Mine (1,200-1,400 ton per day)
- Mill 750 tpd; 24/7
- Gravity Concentration followed by a CIL Recovery process
- Yearly Production of 47,000 oz of Au and 50,000 oz of Ag
- Total Initial Capital Expenditures \$110 Million
- Initial Mine life Including Construction Time ~ 9 year

#### Reserves

Class	Tonsa	Au	Au	Ag	Ag
Class	(millions)	(opt)	(ozs)	(opt)	(ozs)
Proven	0.23	0.191	43,000	0.27	62,000
Probable	1.49	0.214	319,000	0.30	454,000
Proven & Probable	1.72	0.210	362,000	0.30	516,000

Class	Tonnes <sup>b</sup>	Au	Au	Ag	Ag
Class	(millions)	(g/T)	(ozs)	(g/T)	(ozs)
Proven	0.21	6.55	43,000	9.26	62,000
Probable	1.35	7.34	319,000	10.29	454,000
Proven & Probable	1.56	7.23	362,000	10.29	516,000

Note: Resources are inclusive of reserves

a. Imperial Units

b. Metric units

Source: Pre-Feasibility Study May 2018



#### Resources

Class	Tons <sup>a</sup> (millions)	Au (opt)	Au (ozs)	Ag (opt)	Ag (ozs)
Measured	17.93	0.020	363,000	0.079	1,409,000
Indicated	12.89	0.054	695,000	0.146	1,882,000
M & I	30.82	0.034	1,058,000	0.107	3,291,000
Inferred	1.06	0.040	42,000	0.119	125,000

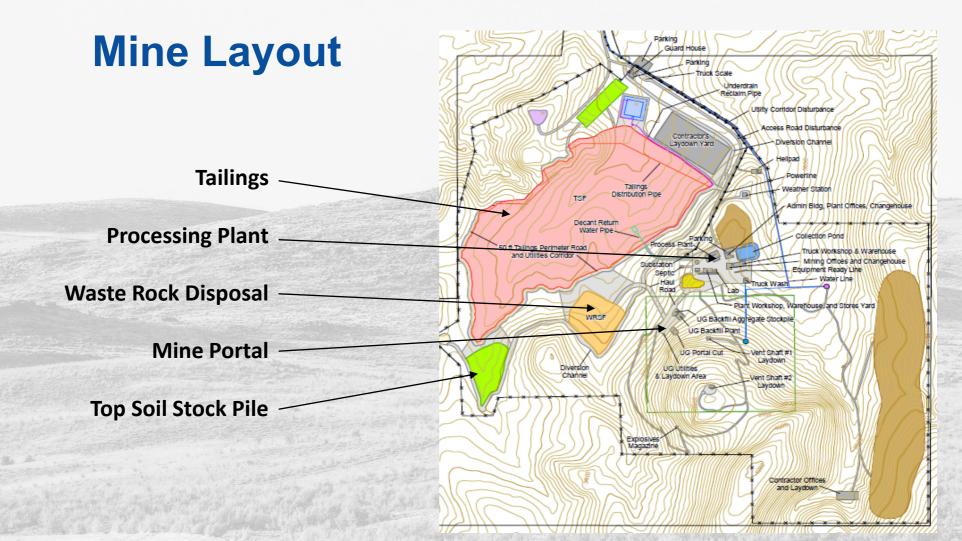
Class	Tonnes <sup>a</sup> (millions)	Au (g/T)	Au (ozs)	Ag (g/T)	Ag (ozs)
Measured	16.27	0.69	363,000	2.71	1,409,000
Indicated	11.69	1.85	695,000	5.01	1,882,000
M & I	27.96	1.17	1,058,000	3.67	3,291,000
Inferred	0.96	1.37	42,000	4.08	125,000

Note: Resources are inclusive of reserves

a. Imperial Unitsb. Metric units

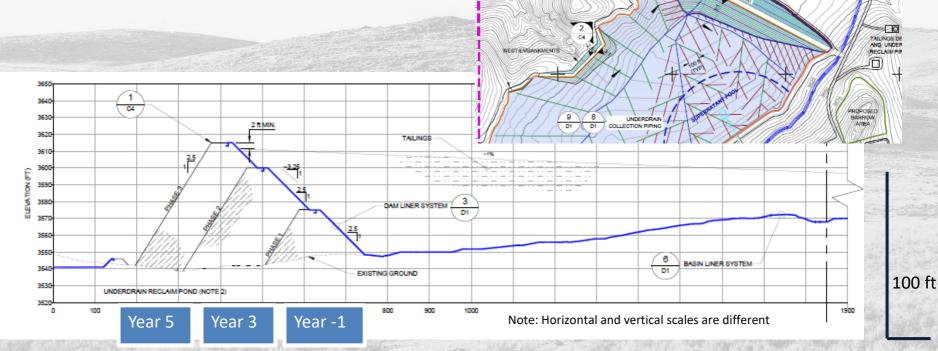
Source: Pre-Feasibility Study May 2018





# **Tailings Storage**

 To be built in stages depending on capacity requirements.

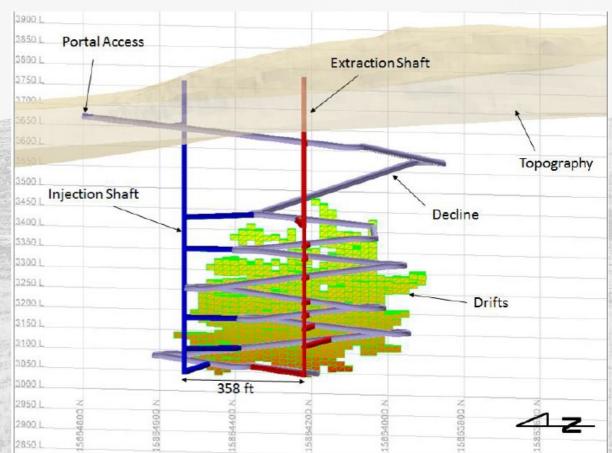


NORTH EMBANKMENT

## **Mining Methodology**

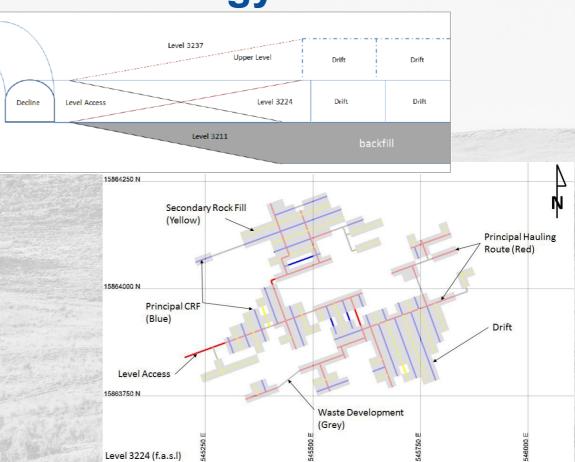
- Decline construction to bottom of deposit
- Two ventilation shafts (540,000 cfm)
- Total of 35 levels

Development Heading Parameters - Horizontal/Incline/Decline	Width (ft)	Height (ft)
Decline	15	15
Level access	13	13
Stope	20	13



# **Mining Methodology**

- Cut and Fill (Rock Fill and Cemented Rock Fill)
  - Primary Stopes 46% CRF
  - Secondary Stopes
     54% RF
- Mining of approx.
   1,400 tonnes/day
  - 4 days a week

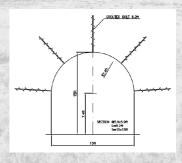


## **Mining Support**

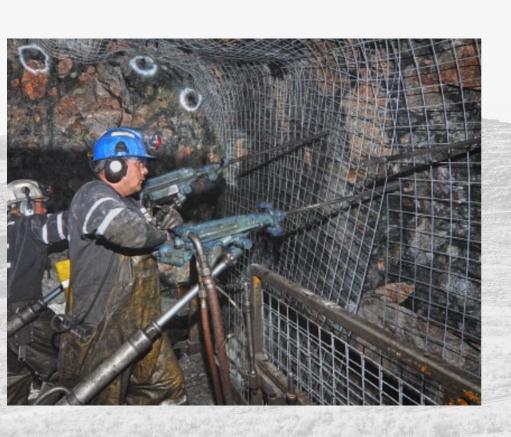
- Support determined by rock mechanics
  - Bolts
  - Steel net
  - Shotcrete

Rock Class	Q	Value	Support Pattern (ft)			Shotcrete (ft)
Class 1	0.08	Min	4.3	X	4.3	0.2 – 0.3
Old55 T	0.64	Max	5.2	X	5.2	0.2 - 0.3
Class 2	0.72	Min	5.6	X	5.6	0.16 – 0.2
Old55 Z	5.92	Max	6.9	X	6.9	0.10 - 0.2
Class 3	6,61	Min	5.9	X	5.9	Occasional
Old55 3	54,60	Max	10.8	X	10.8	Occasional





# **Underground Support**

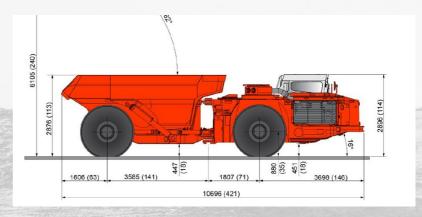


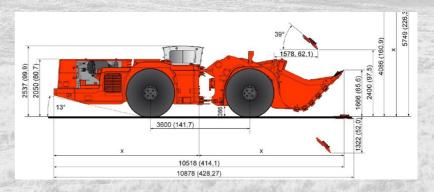


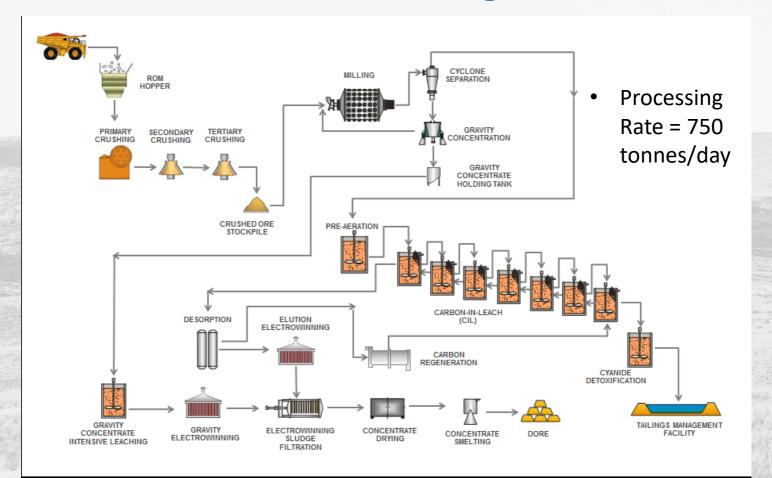
### **Underground Equipment**

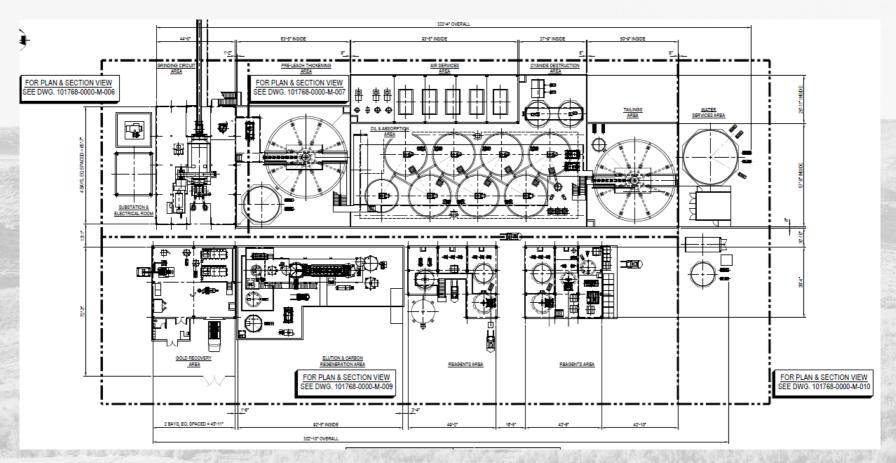


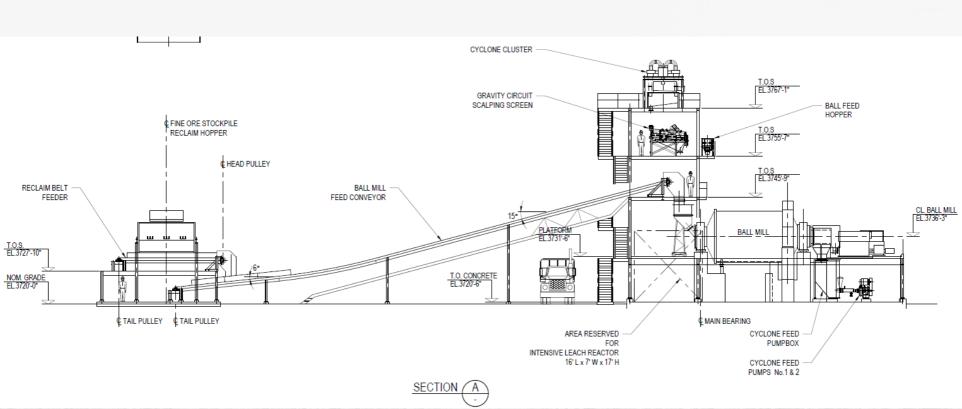
Underground Mining Equipment	Quantity
Drilling Development Jumbo (Jumbo DD21-40)	2
Bolter (Sandvik DS311)	1
LHD 5.2 yd3 (LH410)	4
Front-end Loader (JCB 456ZX)	1
Low Profile Truck (AD30)	3
Emulsion Loader	1
Telehandler (JCB 540-170)	2
Bulldozer (Cat D6T)	1
Motor Grader (Paus PG5HA)	1
Fuel Truck	1
Service Truck	1
Diamond Drilling (Hydracore Gopher)	1



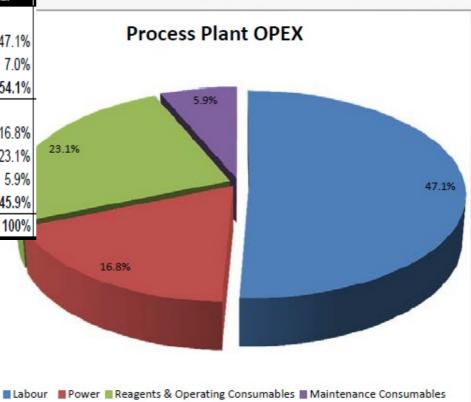








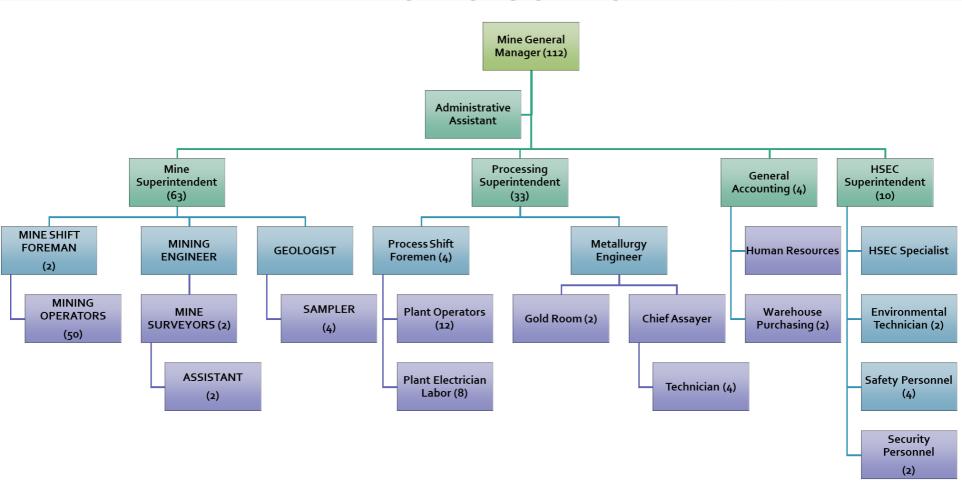
ltem	k\$/year	% of Total
Fixed Costs		
Labour	3,808	47.1%
General Maintenance	563	7.0%
Sub-total (Fixed Costs)	4,371	54.1%
Variable Costs		
Power	1,358	16.8%
Reagents & Operating Consumables	1,867	23.1%
Maintenance Consumables	479	5.9%
Sub-total (Variable Costs)	3,705	45.9%
TOTAL	8,076	100%



#### **Processed Material**

Processing	Units	Construction	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Total
Mine to Plant	K Tons		217	274	274	275	274	274	154	18	1,759
	oz Au/ton		0.201	0.266	0.205	0.184	0.196	0.215	0.139	0.241	
	K ozs Au		44	73	56	51	54	59	21	4	362
	oz Ag/ton		0.25	0.28	0.29	0.26	0.29	0.34	0.34	0.28	
	K ozs Ag		55	77	79	73	81	94	53	5	516
	Recovery- Au		94.1%	95.2%	94.2%	93.7%	94.0%	94.4%	92.3%	94.8%	
	K oz Au Rec		41	69	53	47	50	56	20	4	341
	Recovery - Ag		66.2%	68.9%	69.6%	67.5%	70.2%	73.8%	73.9%	69.0%	
	K oz Au Rec		36	53	55	49	57	69	39	4	362
Payable Gold	K oz Au Rec		41	69	53	47	50	56	20	4	340
Payable Silver	K oz Ag Rec		36	52	54	49	56	69	39	3	360
Recoverable Au Equivalent Ounces	Rec AuEq K Ozs		41	70	53	48	51	56	20	4	345

#### **Mine Personnel**



#### **Mine Personnel**

Area	Total Personnel	Total Yearly Cost (\$)	Average Cost (\$/pp)
G&A	16	1,041,000	65,063
Total Mining Labor	63	4,550,000	72,222
Process	33	3,315,000	100,455
Total Labor	112	8,906,000	79,518

Area	Population	Mean \$	Adding 35% markup
Ontario	11,089.0	40,575	54,776.25
Nyssa	3,189.0	47,029	63,489.15
Vale	1,850.0	42,930	57,955.50

Source: US Census Bureau 2016

### **Grassy Mountain – Eastern Oregon**



## **Capital Investment**

	INITIAL (millions of \$)
Infrastructure & Equipment	70
Pre-Production Mine Development	12
Other Capital	14
Contingency	14
TOTAL	110

## **Capital Investment**

Capital Item	Initial 000'\$	Sustainng 000' \$	Total 000' \$
Mining Capital	2,928	1,399	4,328
Buildings & Site Infrastructure	12,787	-	12,787
Process Capital	25,935	-	25,935
Tailings Storage Facility	8,215	5,026	13,241
Plant & Infrastructure Indirect	9,691	-	9,691
Off-Site Power and Access	10,328	-	10,328
Subtotal Infrastructure & Equipment	69,885	6,426	76,311
Mine Development	7,640	1,799	9,439
Mine Pre-Production	4,598	-	4,598
Subtotal Mine Pre-Production	12,238	1,799	14,037
Owner's Capital	7,005	(4,142)	2,863
Other Capital	2,092	166	2,259
Working Capital	4,543	(4,543)	-
Subtotal Other Capital	13,640	(8,518)	5,122
Subtotal	95,763	(294)	95,470
Contingency	14,195	1,282	15,477
Total Capital	109,959	988	110,947

# **Summary of Capital and Operating Expenditures**

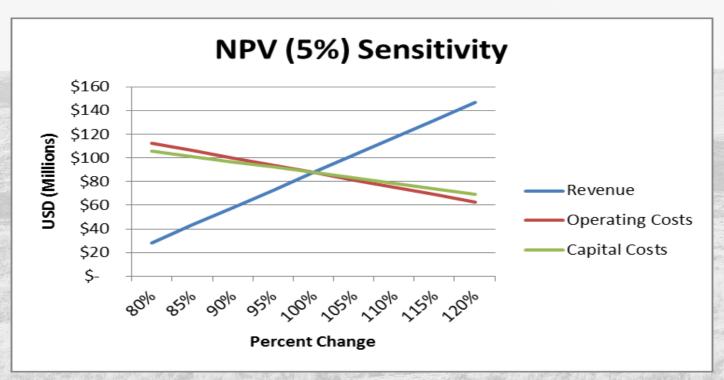
Operating Costs	Life of mine 000'\$	Yearly (8) 000'\$
Expensed Mine Development	6,368	795.96
UG Mining Costs	108,602	13,575
Surface Rehandle	875	109
Process Costs	48,456	6,057
G&A Costs	15,275	1,909
Other Costs	-	-
Reclamation Costs	6,213	777
Sub-Total Operating Costs	185,789	23,224
All Capital	110,947	13,868
Total Cost	296,736	37,092

#### **PFS Economics**

	Base Case	Upside Case	Lower Case
Gold Price (\$/oz)	1,300	1,500	1,200
Silver Price (\$/oz)	16.75	19.33	15.46
Cash Operating Cost Per Au Ounce <sup>1</sup>	<i>\$ 528</i>	\$ 528	\$ 528
Total Cost / oz of Au (includes all capital) <sup>1</sup>	<i>\$ 853</i>	\$ 853	\$ 853
Internal Rate of Return	28 %	38%	22 %
Net Present Value (5%) ( 000's of USD's)	\$ 87,754	\$ 133,243	\$ 64,871
Payback from start of production (years)	2.51	1.97	2.91

<sup>\*</sup>Assumes silver credit Source: Pre-Feasibility Study May 2018

# **Sensitivity Analysis**(After Tax Cash Flow)



# Sensitivity Analysis (After Tax Cash Flow to Gold Price)

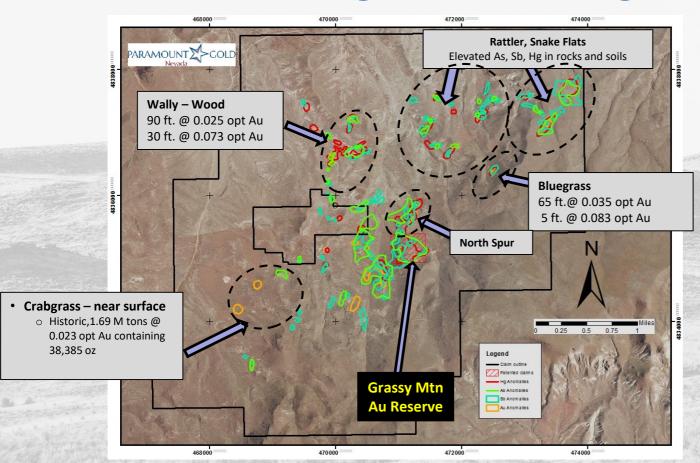
Gold Price (\$/oz)	Silver (\$/oz)	IRR	NPV (5%)	NPV (8%)	NPV (10%)	Payback (Years)
1,100	14.17	16.30%	41,877	28,655	20,801	3.5
1,150	14.82	19.30%	53,406	39,227	30,806	3.17
1,200	15.46	22.10%	64,871	49,714	40,714	2.91
1,250	16.11	24.90%	76,336	60,200	50,622	2.69
1,300	16.75	27.60%	87,754	70,621	60,455	2.51
1,350	17.39	30.20%	99,132	80,987	70,227	2.35
1,400	18.04	32.80%	110,511	91,354	79,998	2.2
1,450	18.68	35.40%	121,890	101,720	89,770	2.07
1,500	19.33	37.80%	133,243	112,050	99,499	1.97

Note: Payback is stated from start of production

#### **PFS Economics**

- \$254M Life Of Mine Operating Cash Flows
- Reserve Grade Drives High Margins Per Ounce Produced
- Opportunities To Increase Reserves and Mine Life

### **Exploring for the Long-Term**



#### • North Spur

- Historic vertical holes have numerous low grade Au intercepts
- Area open and needs deep drilling to test vertical extent of Grassy Mtn Formation and structural controls

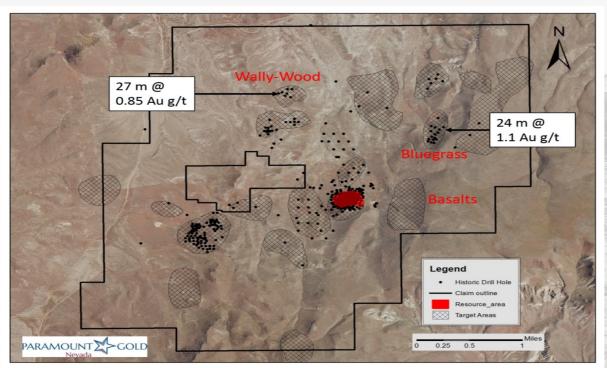
#### Bluegrass

- 16 historic shallow vertical R/C drill holes
- 65 feet @ 0.035 opt Au
- Intercepts up to 0.083 opt Au
- Requires additional angle drilling to test for high grade feeder mineralization

#### Wally - Wood

- Elevated Au, As, Sb, Hg at surface
- 110 ppb Au, 648 ppb Hg
- 90 feet @ 0.025 opt Au
- 30 feet @ 0.073 opt Au
- Geophysics target to east has never been drilled

# **Exploration: Confirmed By Historical Drilling**



**MYSE American: PZG** 

#### **PFS Summary**

- Initial Capital Investment \$110 M
- Initial Mine Life Including Construction ~9 years
- Permanent Direct Employees 110
- Yearly Expenditures in Salaries ~\$9 Million
- Total Yearly Expenditures >\$23 Million
- LOM Total Cost ~ \$297 Million
- Reclamation Cost ~\$7 Million
- Potential for Expanding Mine Life