

High-Grade Gold in Japan "A Unique Opportunity, A Unique Strategy"

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Dr. Quinton Hennigh, the Company's Technical Advisor and Director and a Qualified Person as defined by National Instrument 43-101, has approved the technical contents of this presentation.





Capital Structure (February 2020):				
Shares Outstanding:	54,794,738			
Options Outstanding:	4,013,334			
(Directors, Officers, Emp	loyees and Consultants)			
Warrants Outstanding:	942,641			
942,641 at C\$1.75 – November 26, 2020				
Issued Shares – Fully Diluted:	59,750,713			
Management/Directors (FD):	15.67%			
Newmont:	9.34%			
Cash:	Approximately C\$11.6 M			





Akiko Levinson, President, CEO, Director – Ms. Akiko Levinson has over 20 years of experience in the junior mining market including mining finance and 'end-to-end' rare earth mineral investment. Ms. Levinson was previously the President and a director of Gold Canyon Resources Inc. and is currently a director of Novo Resources Corp.

Dr. Quinton Hennigh, Director and Technical Advisor – Dr. Quinton Hennigh is an economic geologist with more than 25 years of exploration experience with major gold mining firms including Homestake Mining, Newcrest Mining and Newmont Mining. Currently, Dr. Hennigh is Chairman, President and director of Novo Resources Corp. and director of Miramont Resources Corp, TriStar Gold, Inc., Precipitate Gold Corp and NV Gold Corp.

Douglas Buchanan, Director – Mr. Douglas Buchanan, Q.C. is Senior Counsel and Co-Head of North American Infrastructure at Norton Rose Fulbright. Mr. Buchanan has extensive experience in the area of mergers and acquisition, project development and project finance, with emphasis on the natural resource and infrastructure sectors. His personal and business connections in Japan go back more then forty years.

Kevin Box, Director – Mr. Kevin Box is a Geographic Information Systems Analyst specializing in mineral exploration for over 14 years. Mr. Box is currently the GIS and Research Manager for Irving Resources and Novo Resources Corp.

Haruo Harada, Director and President of Irving Japan - Mr. Haruo Harada graduated from Kagoshima University with a B.Sc. and M.Sc. in Science and has over 30 years experience in mineral exploration around the globe. Over the past three years, he has worked closely with management of Irving through his role as Director of Mitsui Mineral Development Engineering Co., Ltd., Irving's lead contract engineering firm in Japan.

Lisa Sharp, CFO – Ms. Lisa Sharp, CPA, CGA has over 20 years of senior management experience in a variety of industries including mining, environmental technology and remediation. For the past 15 years, she has focused on public companies listed on the TSX, TSX Venture Exchange and AMEX.

Hidetoshi Takaoka, Technical Advisor and Chief Mining Engineer, Irving Japan- Mr. Hidetoshi Takaoka is a geologist with more than 40 years exploration and mining experience. Mr. Takaoka spent the majority of his time with Sumitomo Metal Mining Co. Ltd. (SMM) where he was instrumental in early exploration at Hishikari Mine, Japan and was responsible for the discovery of the world class Pogo Mine, Alaska.

Toshiyuki Goto, General Manager, Omu Office and Omui Mine Site, Irving Japan – Mr. Toshiyuki Goto is a mining engineer with 25 years experience in operations and development of Sumitomo Metal Mining Co. Ltd.'s Hishikari gold mine, the largest gold mine in Japan.

Dr. Takeshi Uemoto, Omu Project Manager, Irving Japan - Dr. Takeshi Uemoto holds a B.Sc and M.Sc. from Hiroshima University and a Ph.D. from the University of Western Australia. Dr. Uemoto has worked as senior exploration geologist for Gold Fields Australasia at its St. Ives and Agnew gold mines in Australia and prior to that as senior geologist for Mitsubishi Materials Corporation exploring for geothermal resources in Japan.



Working in Japan



Working in Japan is all about building relations and trust.

Irving is uniquely qualified to explore in Japan:

- Our team is mostly Japanese.
- Mitsui Mineral Development Engineering Co., Ltd. ("MINDECO") is our lead contractor.
- Built a long-standing relationship with Japan Oil, Gas and Metals National Corporation ("JOGMEC").
- Developed close connections with many Japanese mining houses.
- Established strong relations with the Japanese academic community.
- Earned a good report with Japanese government authorities.
- Developed excellent relations with local communities and forestry association.







Gold Mining in Japan



- Since the beginning of the Edo period (1601), over 20 Moz of gold have been produced from Japanese gold mines...the top five being *Hishikari, Sado, Konomai, Kushikino and Taio*. All of these mines exploit highgrade epithermal deposits.
- Hishikari mine (Sumitomo Metal Mining Co. Ltd.), Japan's largest gold mine, has produced over 7 Moz Au (as of March, 2015) since its discovery in 1981. Current head grades are around 30 gpt Au. Considerable reserves and resources remain.
- Japan's second largest gold mine, Sado Kinzan (Mitsubishi Materials Corporation), produced 2.51 Moz Au and 74 Moz Ag over a continuous mine life of 388 years beginning in 1601. Grades averaged 5.2 gpt Au and 153 gpt Ag.
- *Konomai* mine (Sumitomo Metal Mining Co. Ltd.), Japan's third largest gold mine, produced 2.35 Moz Au and 38.6 Moz Ag between its discovery in 1915 and mine closure in 1973.







- Hishikari mine is the largest active gold mine in Japan. Gold production is about 225 Koz per year. A head grade of 30 gpt Au is achieved by ore sorting, optical ore sorters used for small pieces of rock and hand labor used for sorting larger pieces (*right*).
- <u>Hishikari has no mill</u>. High-grade ore is shipped to Sumitomo Metal Mining's smelters where it is utilized as smelter flux. Gold and silver are recovered during smelting and refining of copper resulting in high recoveries and low processing costs.
- Similarly, silica-rich gold ores ("keisan-ko") from the Akeshi mine (Mitsui Kushikino Kozan Co. Ltd.) and Kasuga and Iwato mines (Nippon Mining) are utilized for smelter flux.
- The Kushikino mine complex (Mitsui Kushikino Kozan Co. Ltd.) is the only operating gold mine utilizing a CN mill for processing. Gold-bearing industrial waste and low grade ore from Hishikari are also treated at this facility.









- Japan is an environmentally conscientious country. Although mining is still active, it must be conducted in the utmost responsible manner. Tolerance for large open pit mining and commensurate milling complexes and tailings dams is low.
- Hishikari is an underground mine with a very small surface footprint (*upper right*). Ore is shipped offsite and waste rock is either returned underground or crushed and used for road aggregate. This is the ideal Japanese mine.
- Sumitomo Metal Mining Co. Ltd. has done an exquisite job reclaiming the Konomai mine site to its native state (*lower right*). Such responsibility is what the Japanese people expect from modern mining companies.



Smelter Flux Industry in Japan





- Mining silica-rich gold ores and using them for smelter flux has a very long history in Japan.
- Each year, Japanese smelters require many hundreds of thousands of tonnes of silica flux.
- Mitsui, Sumitomo Metal Mining, Sumitomo Corporation, Nippon Mining (JX), Mitsubishi, Dowa and Toho Zinc operate smelters.
- Silica flux from Japanese gold mines (Hishikari, Akeshi, Kushikino) is currently used in some smelters. Others rely on silica from various other domestic and international sources.
- Demand for new sources of silica-rich gold ores is strong.





Smelters in Japan







Irving's Business Model

Irving recognizes the sensitivity of mining gold in Japan and has developed a strategy to honor this. Criteria Irving uses to select exploration targets include:

- High-silica, precious metal-rich veins that are suitable as smelter flux. No milling will be required.
- Deposits with low sulfur and deleterious elements including As, Sb and Hg, thus making them environmentally friendly and suitable as smelter flux.
- Deposits that will have a small surface footprint when mined.
- Ideally near shipping facilities enabling easy transport to Japanese smelters.
- Low impact on communities, cultural heritage and environmentally sensitive areas.

Through modern exploration, Irving sees opportunity to rekindle gold mining in Japan. 11

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This is the classic hot spring epithermal vein model in which gold and silver precipitate in response to boiling as geothermal waters rise toward surface (*right*).

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Deposits of silica (sinter) and clay form at surface such as at Yellowstone Park, USA (*below*).











- At Hishikari, veins preferentially occur near a major unconformity between Cretaceous sedimentary rocks and overlying Tertiary volcanic rocks (*right*). Extensive clay alteration is present at surface.
- Veins locally bear abundant ginguro, banded silver sulfosalts, and electrum (below).







Hokkaido Model





Sillitoe's Model for exploration in Hokkaido based on Hishikari.







Irving has established five large LSE vein projects in northern Hokkaido:

- Omu: 168.29 sq km (16,829 hectares) of prospecting licenses and license applications, the 2.98 sq km (298 hectares) Omui Mining Right, and 2.18 sq km (218 hectares) of surface rights.
- Utanobori: 121.55 sq km (12,155 hectares) of prospecting license applications.
- Shimokawa: 48.5 sq km (4,850 hectares) of prospecting license applications.
- Engaru: 84.4 sq km (8,440 hectares) of prospecting license applications.
- Rubeshibe: 188.80 sq km (18,880 hectares) of prospecting license applications.
- Eniwa: 56.15 sq km (5,615 hectares) of prospecting license applications.
- Sado: 86.53 sq km (8,653 hectares) of prospecting licenses on Sado Island.
- All prospecting license applications have been accepted the Ministry of Economy, Trade and Industry ("METI"), Hokkaido Bureau, and a multistep review is underway for the final approval. MINDECO is assisting the Company throughout the process.





Irving's Omu Project



Most of Irving's recent exploration efforts have focused on Omu including:

- Specialized stream sediment sampling (BLEG - bulk leach extractable gold) to identify mineralized areas.
- Close-spaced gravity measurements to help evaluate the structural framework of the hydrothermal "plumbing" system at Omu.
- Airborne (drone-based) magnetics to help evaluate structure and identify areas of hydrothermal alteration.
- Soil sampling over the Omui Mining Right and surrounding prospecting applications to help define anomalies for drill targeting.
- Controlled-source audio-magnetotelluric ("CSAMT") surveys to identify subsurface silicification.







- Both the Omu and Hokuryu historic mining areas are well defined by BLEG gold results.
- Gold anomalism extends to areas well east and southeast of the Omui mine site.
- Gold anomalism covers a vast area surrounding the Hokuryu mine.
- Omu Sinter is defined by Hg anomalism.





Gravity Results



- Bouger gravity horizontal gradient clearly highlights major fault structures, ones that likely control the "plumbing" of the hydrothermal systems at Omu.
- Graben-bounding structures are evident. Note that Omui mine and the Omu sinter are connected along faults defining the eastern margin of the graben. Hokuryu sits astride faults defining the western margin.



Drone-based Magnetics

- After recognizing the challenge of undertaking ground-based magnetics surveys in dense bamboo, the decision was made to develop a drone-based magnetics system in early June, 2017.
- By September, MINDECO completed engineering and construction of a drone-based magnetics system. Surveys were conducted at Omui mine site and the Omu sinter in October.

Drone-based Magnetics

- At Omui mine site, a plot of magnetic analytic signal shows a complex network of low magnetic intensity (blue) where hydrothermal alteration has obliterated traces of magnetite in volcanic rocks, a possible indication of vein systems at depth.
- Note, the northwest-trending zone of low magnetic intensity extending from the Nanko prospect through the historic Honpi mine site. This is parallel to a prominent gravity gradient highlighting a graben-bounding fault underlying this area (lower right).

- At Omu sinter, a plot of residual magnetic shows intensity а profound northnortheast trending zone of low magnetism (blue) where hydrothermal alteration has obliterated traces of magnetite in volcanic rocks. Irving views this zone as a robust target prospective for highgrade epithermal vein mineralization.
- Note, this zone is coincident with a prominent gravity gradient highlighting a graben-bounding fault underlying this area (upper left).

Omu Sinter Drilling

Between mid-March and late July, 2019, Irving completed eight diamond drill holes at Omu Sinter targeting highgrade veins under the sinter terrace.

Hole19OMS-002encountered 0.32 m grading118.5 gpt Au and 1,410 gptAg, a stellar start for apreviously unexplored hotspring system.

Omu Sinter Drilling

Hole	From (m)	To (m)	Length (m)	Au (gpt)	Ag (gpt)	Au eq (gpt)	Ag-to-Au ratio
190MS-001	61.20	62.66	1.46	5.15	13.0	5.31	2.5
including	61.90	62.12	0.22	10.20	31.9	10.58	3.1
190MS-002	183.75	191.92	8.17	5.40	105.9	6.68	19.6
including	184.39	185.72	1.33	29.77	575.7	36.71	19.3
including	184.93	185.25	0.32	118.50	1410.0	135.49	11.9
190MS-003	356.10	357.40	1.30	3.65	27.5	3.98	7.5
190MS-004	177.59	178.37	0.78	1.85	444.0	7.20	240.0
190MS-005	308.27	310.30	2.03	12.92	44.1	13.45	3.4
including	308.93	310.30	1.37	17.80	59.4	18.52	3.3
190MS-006	136.50	139.50	3.00	1.18	656.3	9.09	556.2
	138.50	139.50	1.00	2.57	1570.0	21.49	610.9
190MS-007	304.10	310.10	6.00	0.73	159.3	2.65	218.2
including	304.10	305.10	1.00	1.35	686.0	9.62	508.1
190MS-008	5.70	7.70	2.00	1.04	16.4	1.24	15.8

Au eq (gpt) = Au (gpt) + Ag (gpt)/83

Omu Sinter CSAMT

Irving and Newmont undertook a controlled source audiomagnetotelluric ("CSAMT") survey over Omu Sinter between June and July, 2019.

Resistivity clearly shows the structural "plumbing" underlying the extinct hot spring. Irving's initial drilling was not optimal given this survey was completed after the first eight holes were finished.

Irving thinks the prospective boiling horizon lies at depths of +350 m at Omu Sinter. The first eight holes did not adequately test this level of the system. With this CSAMT data, Irving can now sharp shoot the structural feeders at the boiling level. Phase II drilling is underway.

Omu Sinter Targeting

- Soil gold anomalism is extensive at Omui. At Honpi and Nanko, many "hot spots" are evident, a likely indication that more veins have yet to be discovered.
- A robust soil gold anomaly has emerged at Sakinyama.
- Mineralization is open to the east.

High-Grade Veins at Omui

Vein textures including implosion breccias, poly-stage vein formation and cross-cutting veins suggest mineralization at Honpi formed in a dynamic near-surface setting. Honpi is the main vein mined at Omui. The big question is what is going on at depth?!

Banded vein+ginguro, 67.6 gpt Au, 1,060 gpt Ag

CSAMT at Omui shows a similar pattern to that seen at Omu Sinter. Lots of resistive structural zones are evident, the "plumbing" system that generated the high-grade veins.

Like Omu Sinter, boiling is believed to have occurred at +350 m at Omui. In late 2019, Irving drilled a series of shallow holes to test for near surface high grade, but it also drilled one deep hole testing the main resistive zone at the level of boiling, hole 19OMI-010. This hole encountered 21 notable mineralized veins demonstrating the robust nature of this system.

Holes 190MI-001 through 190MI-007 and 190MI-009 tested for shallow high-grade veins.

Hole 19OMI-008 tested the Sakinyama target.

Hole 190MI-010 is the first deep test of the main vein zone at the boiling level. This hole encountered a remarkable 21 mineralized veins.

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Results from seven shallow holes drilled as a fence from north to south across the Honpi area.

Hole	From (m)	To (m)	Length (m)	Au (gpt)	Ag (gpt)	Au Eq (gpt)
190MI-001	5.30	6.30	1.00	19.25	27.50	19.57
	45.92	47.00	1.08	4.38	6.15	4.45
including	45.92	46.50	0.58	6.34	8.52	6.44
190MI-002	46.40	58.50	12.10	1.58	139.90	3.23
including	54.70	56.50	1.80	6.05	808.18	15.56
including	55.55	55.88	0.33	28.90	4180.00	78.08
	67.00	68.00	1.00	1.04	326.68	4.88
including	67.00	67.19	0.19	3.46	1195.00	17.52
190MI-003	No significant	t intervals				
190MI-004	3.80	5.30	1.50	3.52	5.40	3.58
	27.25	27.80	0.55	1.37	45.10	1.90
190MI-005	16.17	16.42	0.25	0.51	193.00	2.78
	47.65	48.30	0.65	0.85	121.54	2.28
including	48.20	48.30	0.10	1.95	240.00	4.77
	50.30	51.60	1.30	2.07	154.27	3.88
including	50.30	50.55	0.25	9.30	580.00	16.12
	74.53	76.45	1.92	1.21	43.93	1.73
including	75.31	75.85	0.54	1.63	108.00	2.90
190MI-006	9.60	9.80	0.20	6.88	228.00	9.56
	58.60	60.20	1.60	7.35	470.99	12.89
including	59.64	60.20	0.56	19.30	1240.00	33.89
190MI-007	0.00	20.90	20.90	2.51	5.83	2.58
including	0.00	7.45	7.45	5.3	9.03	5.41
including	5.20	7.45	2.25	11.89	16.31	12.09
including	6.70	7.45	0.75	19.70	22.80	19.97
	12.50	13.20	0.70	3.65	4.67	3.70
	14.20	15.00	0.80	3.04	4.54	3.09
	18.90	19.90	1.00	2.63	11.60	2.77
	100.20	101.10	0.90	1.25	228.01	3.93
including	100.20	100.26	0.06	4.64	2820.00	37.82

Au Eq = Au (gpt) + Ag (gpt)/85

Hole 19OMI-009 was intended to test deep, but was lost in bad ground before reaching boiling zone.

Hole ID	From (m)	To (m)	Length (m)	Au (gpt)	Ag (gpt)	Au eq (gpt)
190MI-009	8.25	11.95	3.70	3.1	28.2	3.4
including	10.20	11.95	1.75	3.9	37.8	4.4
	80.25	81.25	1.00	1.8	70.2	2.7
	101.60	102.40	0.80	4.1	115.4	5.4
	180.00	181.00	1.00	3.3	15.6	3.5
	190.00	190.80	0.80	46.3	22.1	46.6
Au Eq = Au (gpt) + Ag (gpt)/85						

Hole 19OMI-010 encountered a remarkable 21 mineralized veins.

Hole ID	From (m)	To (m)	Length (m)	Au (gpt)	Ag (gpt)	Au eq (gpt)
190MI-010	0.00	3.00	3.00	27.0	40.5	27.5
	18.75	19.85	1.10	2.6	2.8	2.7
	36.30	36.98	0.68	3.2	13.5	3.4
	62.00	64.30	2.30	3.8	55.9	4.4
including	64.05	64.30	0.25	16.3	32.2	16.6
	108.95	110.00	1.05	14.1	37.6	14.5
	117.00	118.10	1.10	29.6	36.5	30.0
including	117.00	117.30	0.30	96.5	65.7	97.3
	123.40	125.70	2.30	2.3	22.6	2.6
	139.15	148.90	9.75	1.3	60.6	2.0
including	143.21	144.25	1.04	1.7	155.0	3.6
	207.02	208.15	1.13	1.0	128.0	2.5
	223.50	224.50	1.00	0.9	132.0	2.4
	259.30	259.90	0.60	4.1	13.9	4.2
	343.00	344.00	1.00	3.0	10.2	3.1
	348.00	348.57	0.57	6.7	501.9	12.6
	353.80	355.77	1.97	4.8	29.0	5.1
including	355.08	355.77	0.69	7.8	33.2	8.2
	368.29	369.32	1.03	5.3	64.3	6.1
including	369.00	369.32	0.32	9.2	137.0	10.8
	401.30	404.90	3.60	2.3	211.5	4.8
including	401.30	402.10	0.80	7.3	629.9	14.7
	406.70	407.80	1.10	2.5	161.0	4.4
	419.58	423.35	3.77	12.3	84.5	13.3
including	421.34	423.35	2.01	21.4	111.4	22.7
including	422.08	422.70	0.62	38.5	128.0	40.0
	427.00	428.00	1.00	2.7	5.3	2.8
	453.90	455.10	1.20	7.8	887.5	18.3
including	454.80	455.10	0.30	26.2	2970.0	61.1
	516.00	517.00	1.00	3.1	166.0	5.0

Au Eq = Au (gpt) + Ag (gpt)/85

amples collected from the Hokuryu nine site display high gold and silver rades.	Au ppm ▲ 0 - 0.1 ppm ▲ 0.1 - 0.5 ppm ▲ 0.5 - 1 ppm ▲ 1 - 3 ppm ▲ 3 - 7 ppm	Hokuryu 58.9 37
Veins are well-banded with ginguro, nd probably formed at a deeper level han those at the Omui mine site. Areas around Hokuryu are virtually nexplored.	▲ > 7 ppm	51.4 22.8 0 200
Image: Note of the second se	Ag ppm ▲ 0 - 31 ▲ 32 - 93 ▲ 94 - 186 ▲ 187 - 310 ▲ 311 - 9660	Hokuryu 495 321 378 637 0 201

Au ppm

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CSAMT at Hokuryu displays a prominent resistive structure trending E-SE and open to the east. Mine workings only occupy a small so Irving area, believes there are many more veins to be found here.

- Irving's 2020 Omu exploration program includes:
 - Phase II drilling at Omu Sinter (Winter and Spring)
 - Complete Phase I drilling at Omui (Spring through Fall)
 - Undertake further geophysics at Hokuryu and Maruyama (Summer)
 - Expand soil sampling over greater Hokuryu (Summer)
 - Expediting grant of Hokuryu prospecting licenses and drill permitting (Spring and Summer)
 - Phase I drilling at Hokuryu (Fall)

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OSE