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Fundamental Research Corp.
Investment Analysis for Intelligent Investors

October 3 , 2018

Marifil Mines Limited (TSXV: MFM) - Initiating Coverage: Lithium / Nickel (Cobalt) / Gold in Argentina

Sector/Industry: Junior Resource **www.marifilmines.com**

Market Data (as of October 3, 2018)

Current Price	**C$0.125**
Fair Value	**C$0.31**
Rating*	**BUY**
Risk*	**5**
52 Week Range	C$0.06 - C$0.24
Shares O/S	38,438,290
Market Cap	C$4.80 mm
Current Yield	N/A
P/E (forward)	N/A
P/B	1.3x
YoY Return	25.0%
YoY TSXV	-9.8%

*see back of report for rating and risk definitions.
* All figures in C$ unless otherwise specified.

Investment Highlights

- Marifil Mines Limited ("Marifil", "company") holds a portfolio of early stage lithium, nickel (cobalt as a by-product) and gold projects in Argentina.
- The lithium projects, covering 15,267 hectares in the Catamarca province, is approximately 100 km south of FMC Corporation's (NYSE: FMC) Hombre Muerto lithium brine operation.
- The Las Aguilas project, located in the San Luis province, hosts two parallel nickel sulfide deposits, with a small resource estimate. Indicated resources total 3.26 Mt at 0.67% NiEq (0.41% Ni, 0.42% Cu, 0.03% Co), and an inferred resource total of 1.04 Mt at 0.59% NiEq (0.41% Ni, 0.38% Cu, 0.03% Co).
- The San Roque is estimated to hold an epithermal polymetallic deposit, with gold as the primary metal. After almost seven years of inactivity (2011 to 2018), the company recently completed a drill program on the property.
- Management and board own approximately 23.1% of the total outstanding shares – aligning their interest with investors.
- We are initiating coverage with a BUY rating and a fair value estimate of $0.31 per share.

Risks

- The value of the company is dependent on commodity prices.
- Only one project has a NI43-101 compliant resource estimate.
- The lithium projects are in very early stages.
- Exploration and development risks.
- Exchange rate risks.

Key Financial Data (FYE - Dec 31) ($)	2017	2018 (6M)
Cash	$33,487	$728,808
Working Capital	-$420,580	$186,080
Mineral Assets	$2,816,641	3,478,401
Total Assets	$2,877,364	4,274,266
Net Income (Loss)	-$435,831	-$890,083
EPS	-$0.03	-$0.03

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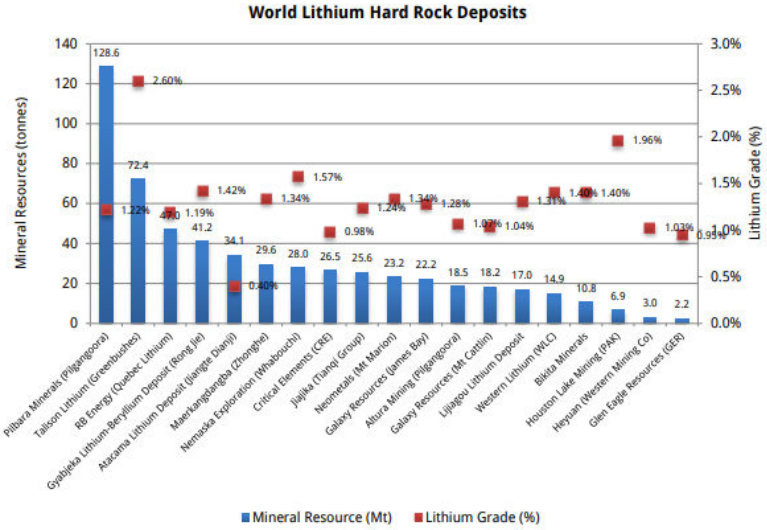
Background

Marifil Mines, based out of Vancouver, B.C., Canada, was incorporated in December 2003. Since inception, the company has been exclusively focused on mineral exploration in Argentina. Marifil's current focus is on a portfolio of lithium, nickel (cobalt as byproduct) and gold projects in Argentina.

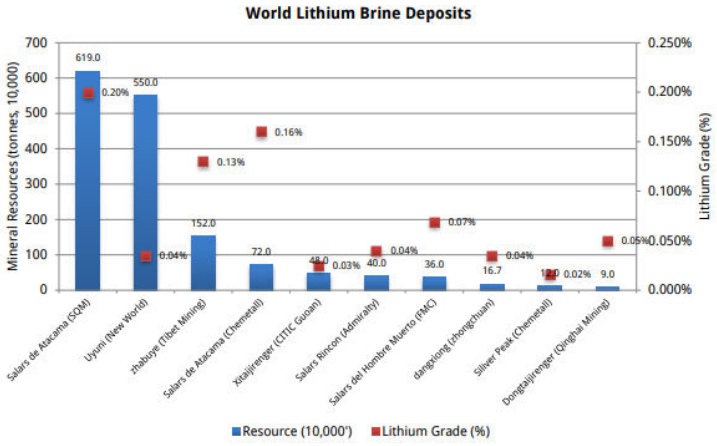
Overview of Lithium Deposits

Lithium is primarily extracted from two sources: hard-rock (spodumene) deposits and brine-based deposits. Lithium hard rock deposits are commonly found in spodumene bearing pegmatite mineral deposits. The below chart outlines notable hard rock lithium deposits in the world:



Source: Golden Dragon Capital

Lithium brines are accumulations of saline groundwater that contain dissolved lithium. Although brine deposits are typically of lower grade, brine mining is a significantly cheaper operating cost alternative to hard rock mining. The below chart outlines notable lithium brine deposits.

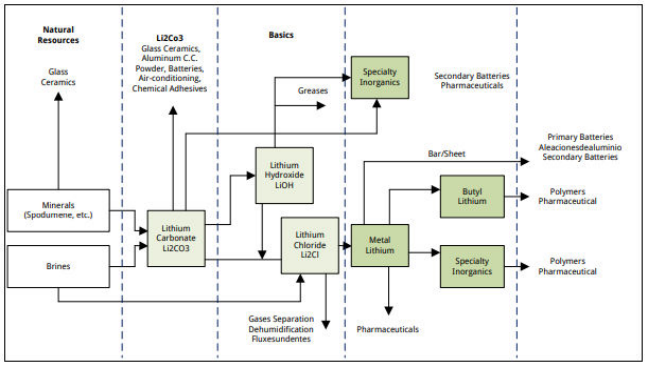


Source: Golden Dragon Capital

The chart below demonstrates how lithium hard rock and brine deposits are processed into

end-products:

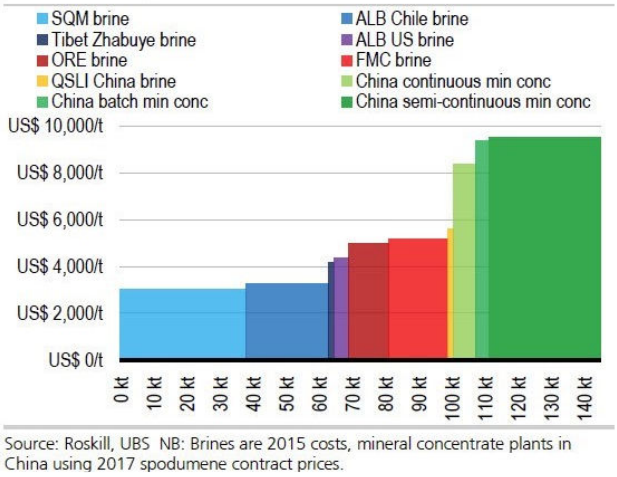
How Lithium Hard Rock and Lithium Brine are Processed



Source: Golden Dragon Capital

The chart below shows the cost of relatively low cost of brines versus hard rock deposits around the world.

Brine versus mineral concentrate operations



Source: Roskill, UBS NB: Brines are 2015 costs, mineral concentrate plants in China using 2017 spodumene contract prices.

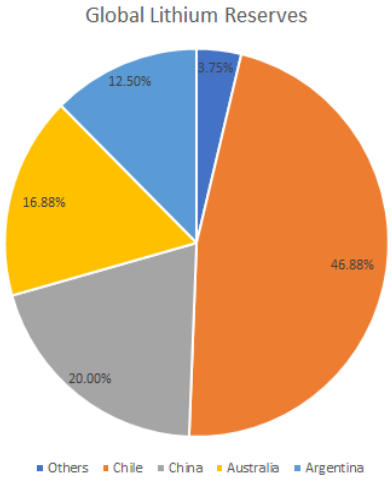
Potential for Lithium in Argentina

Argentina lies in the "lithium triangle": an area of land defined by high-altitude arid salt flats that lie between Chile, Bolivia and Argentina. The lithium triangle is estimated to hold over 60% of the world's lithium resources.

Lithium Triangle

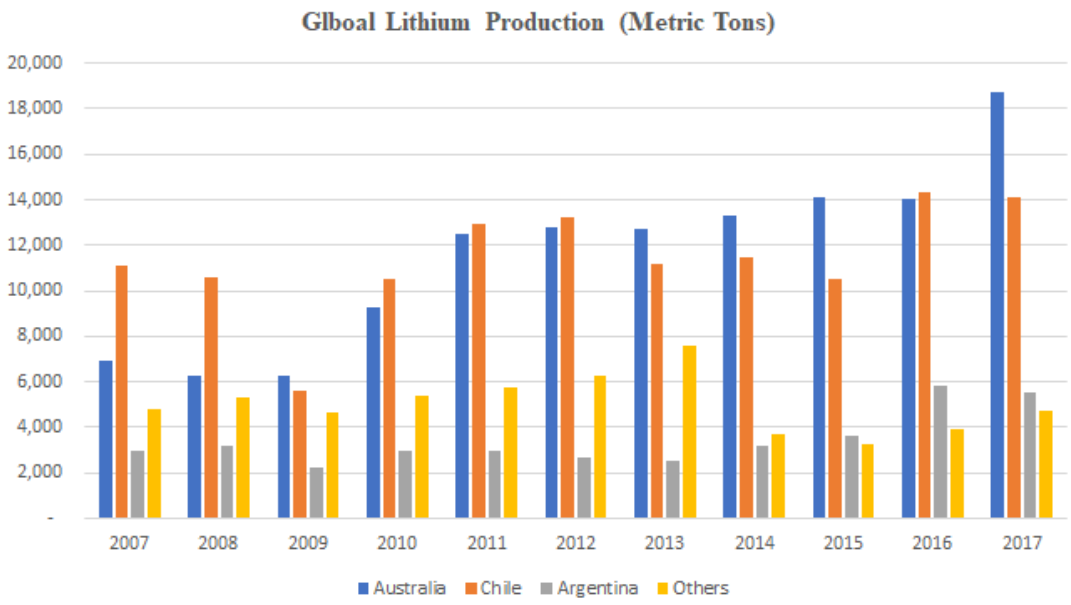
Source: Economist

According to the U.S. Geological Survey (USGS), Argentina ranks fifth in terms of global lithium reserves, or 12.5% of the total. Chile currently boasts the world's largest reserves of lithium. In 2017, Chile was estimated to have 46.9% of the world's lithium reserves, more than double that of China, which is estimated to have the second largest lithium reserves.



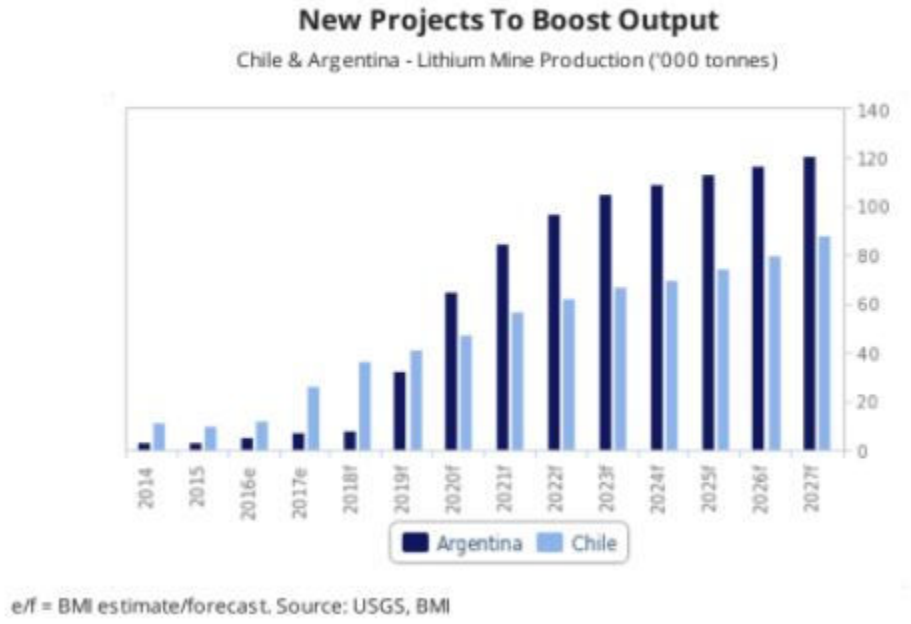
Source: U.S. Geological Survey, FRC

In response to increasing demand, global lithium production has trended higher, with supply spiking upwards between 2009 and 2012, and again between 2015 and 2017. Lithium production has historically been dominated by Chile or Australia, with Australia claiming the title of largest lithium producer in 2017. Argentina is the third largest producer, accounting for 12.7% of global production, behind Australia (43.4%), dominated by one hard rock mine (Greenbushes), and Chile (32.8%), dominated by two brine producers, in 2017. Argentina's production grew at a rate of 6.2% p.a. from 2007 to 2017.



Source: U.S. Geological Survey, FRC

Lithium production in Argentina experienced a significant increase in 2016 (as shown in the chart above) aided by a change in government, which introduced several initiatives to increase foreign investment. According to BMI Research, Argentina's production is expected to overtake Chile's production, driven by a strong project pipeline and a supportive government.



Argentina's two major producers are the Salar de Hombre Muerto (dominated by FMC Corporation / NYSE: FMC) and the Salar de Olaroz (dominated by Orocobre / ASX: ORE). The table below shows typical grades:

	Salar de Hombre Muerto, Argentina	Salar de Rincon, Argentina
	All figures in weight per cent	
Li	0.05–0.06	0.03
K	0.52–0.62	0.62–0.66
Mg	0.05–0.09	0.28–0.30
Ca	0.05–0.09	0.04–0.06
B	0.02–0.04	0.04
Na	9.79–10.30	9.46–9.79
Cl	15.80–16.80	15.80

Source: Lithium Today

The following sections present summaries of the company's projects.

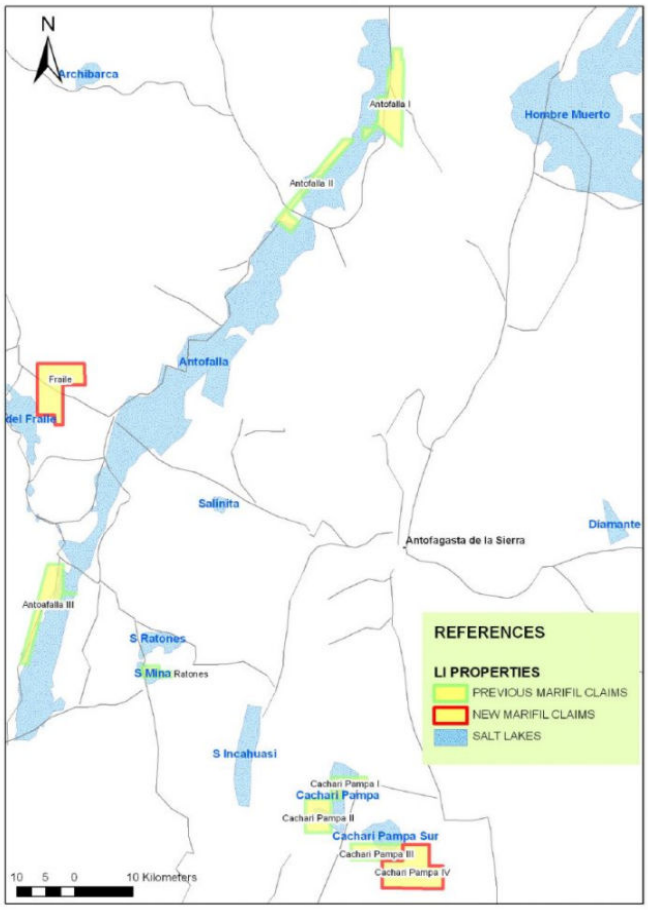
Lithium Projects, Catamarca Province

The company currently holds four lithium focused properties, covering 15,267 hectares, in the Catamarca province.

Project Location

Source: www.mapcarta.com

Project Location



Source: Company

The properties are located within the main lithium-bearing region of South America, in the Altiplano Puna plateau (Puna), which is an approximately 2,000 km long by 300 km wide area, with an average elevation of 3,500 m. The projects are approximately 100 km south of FMC Corp's Hombre Muerto lithium brine operation. FMC's Hombre Muerto lithium brine operation is expected to produce approximately 21 Kt LCE in 2018, currently under expansion.

On May 9, 2018, the company announced the acquisition of two brine properties, Fraile (5,678 ha) and Ratones (850 ha), covering a total of 6,528 ha in the Catamarca province.

- The **Ratones claim** is located within the Ratones salar (1.5 km wide and 15 km long), which is approximately 50 km southwest of the town of Antofagasta de la Sierra. The property is accessible by dirt road. Eight reconnaissance surface water samples showed geochemically anomalous levels of boron, but returned no significant lithium values. Management believes that these samples were from the top of the water column, are likely diluted, and do not reflect the potential of deeper and denser brines. The company is planning a Transient Electromagnetic Method (TEM) geophysical survey on the property, as well as better sampling using augers and/or hand dug pits.

- The **Fraile claim** is located within the Fraile salar, which is located approximately 60 km west of the town of Antofagasta de la Sierra. This property is also accessible by dirt road. Reconnaissance exploration pit sampling is planned.

On May 15, 2018, the company announced an option to acquire a 100% interest in Carachi Pampa III (2,569 hectares) and Carachi Pampa IV (6,170 hectares), for US$1.86 million from a privately held entity. The seller retains a 1.5% NSR, which can be acquired by Marifil for US$2 million. Carachi Pampa salar is approximately 20 kilometers in diameter.

Management's plans for the lithium projects are yet to be announced.

Nickel / Copper / Cobalt – Las Aguilas Property

The Las Aguilas project is located in the San Luis province, approximately 800 km to the west of Buenos Aires, and approximately 35 km southwest from San Luis, the provincial capital. The property has good infrastructure and access. San Luis, and three other provinces, did not participate in the New Federal Mining Agreement signed in June 2017, which we believe exposes the province to higher risk levels.

Las Aguilas hosts a nickel-copper-platinum group (Ni-Cu-PGE) sulphide deposit. More than US$15 million has been spent on the property. Historic work included diamond core drilling (144 holes / 27,000 meters), various airborne and ground geophysical surveys.

Diamond Drill Core Summary

Company	Period	Total Holes	Total Meters	Average Length Meters
DGRM	1970-1984	44	7,420	167
BHP-B	2004-2005	22	6,842	311
Castillian	2007-2008	78	12,857	165
Total	**1970-2008**	**144**	**27,119**	

Source: Company

The project hosts two parallel nickel sulfide deposits 300 m apart. The two deposits combined hold an indicated resource of 3.26 Mt at 0.67% NiEq (0.41% Ni, 0.42% Cu, 0.03% Co), and an inferred resource of 1.04 Mt at 0.59% NiEq(0.41% Ni, 0.38% Cu, 0.03% Co). The resource estimate, based on 79 holes, was calculated by Wardrop Engineering in 2011.

Las Aguilas Resource Summary by Wardrop Engineering

TOTAL COST	ZONE	TONNES	Ni%	Cu %	Co%	Au (ppm)	Ag (ppm)	Pt (ppm)	Pd (ppm)	NiEq %
IND	East	1,036,800	0.52	0.35	0.03	0.09	0.53	0.19	0.19	0.77
	West	2,227,000	0.36	0.45	0.03	0.03	0.29	0.15	0.19	0.62
	Total	**3,263,800**	**0.41**	**0.42**	**0.03**	**0.05**	**0.37**	**0.16**	**0.19**	**0.67**
INF	East	1,036,800	0.48	0.33	0.03	0.03	0.31	0.05	0.04	0.65
	West	1,036,800	0.35	0.43	0.03	0.01	0.01	0.01	0.01	0.53
	Total	**1,036,800**	**0.41**	**0.38**	**0.03**	**0.02**	**0.16**	**0.03**	**0.03**	**0.59**

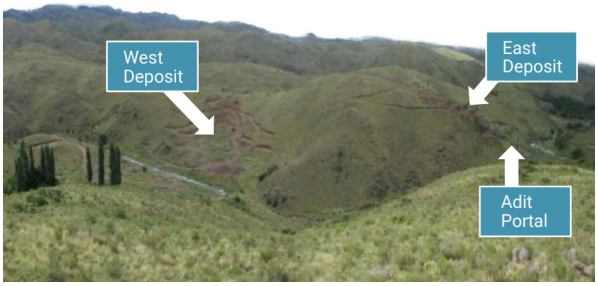
Source: Company

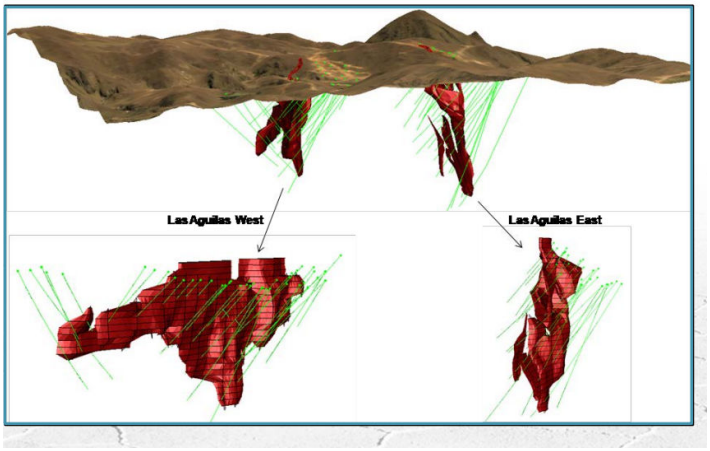
The following table shows the contained resource by metal.

	Indicated	Inferred
Tonnage	3,263,800	1,036,800
Ni (lbs)	29,501,334	9,371,586
Cu (lbs)	30,220,878	8,685,860
Co (lbs)	2,158,634	685,726
Au (oz)	5,222	664
Ag (oz)	38,643	5,308
Pt (oz)	16,711	995
Pd (oz)	19,844	995

Source: Company / FRC

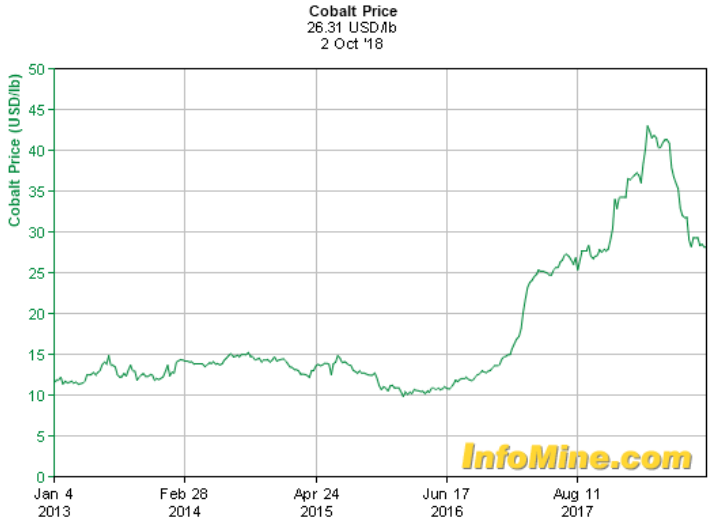
Resource Location





Source: Company

Although cobalt prices have dropped significantly from its peak of approximately US$42/lb to the current price of US$26/lb, prices are still up significantly from the levels in 2011 (when the resource estimate was calculated). **The project's cobalt grades are low, but at current prices, cobalt has the potential to be a significant by-product.** Note that cobalt is primarily produced as a by-product of copper and nickel production. According to the CDI, about 50% of refined cobalt is produced from nickel ore, 44% from copper ore, and about 6% from primary production.



We have a positive outlook on cobalt prices considering the strong expected demand growth from lithium ion batteries for electric vehicles, and since over 50% of current global cobalt production comes from the highly politically unstable Democratic Republic of the Congo.

A 30 tonne bulk sampling program conducted on the project reported favorable metallurgical results on flotation tests. The company is currently seeking a joint venture partner to advance the project.

Gold – San Roque Property

The San Roque property, covering 37,055 / 42,320 ha of mine rights, is located in the Rio Negro province in southwestern Argentina. The project is just 65 km from the Atlantic ocean port (San Antonio).

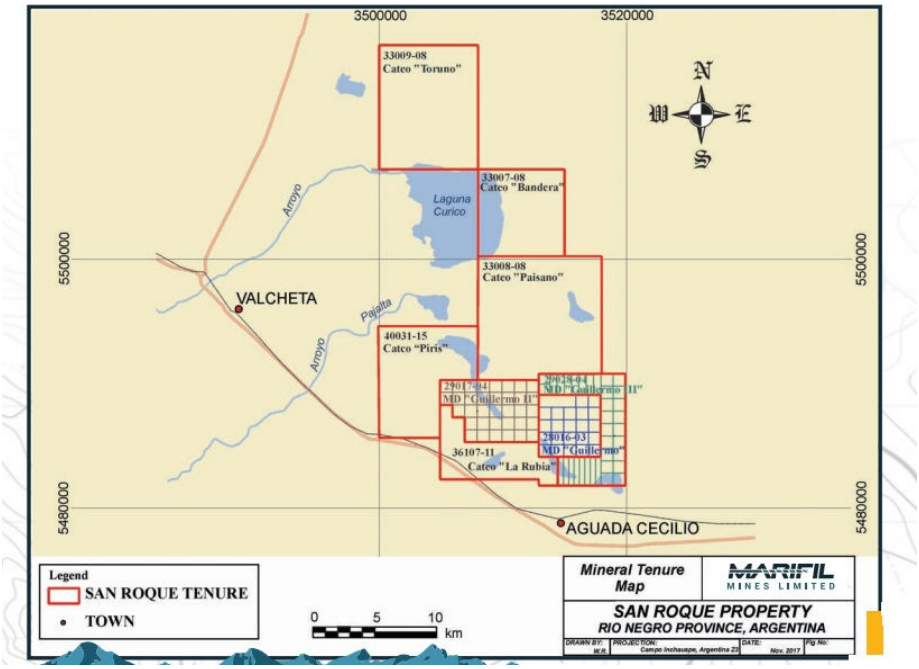
Project Location

Source: Company

Infrastructure is good with a paved highway across the property, a railroad siding that runs close to the property, and good access to water.

The company had initially entered into an agreement to acquire a 51% interest in the project in 2006. By making total payments of US$600k over a four year period, the company acquired its 51% interest in 2011. The remaining 49% is held by NovaGold Resources (TSX: NG). Marifil is the project operator.

Claims



Source: Company

San Roque is estimated to hold an epithermal polymetallic deposit, with gold as the primary metal. The project is also considered to have potential for a deeper porphyry copper-molybdenum deposit. Approximately US$7.5 million has been invested to date, including 108 holes / 15,837 meters. Recent drilling has increased this count to 112 holes / 16,683 meters.

Historical Drilling

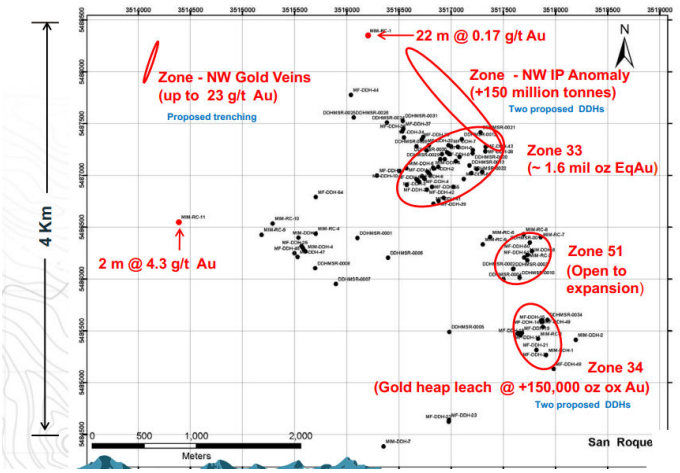
Company	Campaigns	#RC Holes	RC Meters	# DDH Holes	DDH Meters	Total # Holes	Total Meters
MIM	2	11	1,604	8	1,124	19	2,728
MFM	2	0	0	55	5,292	55	5,292
NG	2	0	0	34	7,817	34	7,817
	6	11	1,604	97	14,233	108	15,837

- MIM – Mount Isa Mines
- MFM – Marifil
- NG – Nova Gold

Source: Company

The key target areas are shown below.

Target Zones



Source: Company

Zone 33 holds Au-Ag-In-Pb-Zn mineralization covering approximately 0.3 x 0.9 km. Best results from this zone include an intercept of 120 m of 1.2 g/t Au, 10 g/t Ag, 39 g/t In, 0.4% Pb and 2.0% Zn.

Key Results – Zone 33

DDH Inclination	From m	To m	Interval m	Au g/t	Ag g/t	In g/t	Pb %	Zn %
SRDDH 33 -60°	39.6	69.4	29.8	1.72	4.05	1.82	0.30	0.75
SRDDH 43 -60°	11.0	53.8	42.8	0.29	7.34	48.48	1.40	4.59
DDHMSR 0009 -60°	69.0	189.0	120.0	1.16	10.30	39.0	0.43	2.04
DDHMSR 0013 -60°	61.0	205.5	144.5	0.20	25.50	5.1	0.65	1.25
DDHMSR 0033 -50°	55.0	136.0	81.0	0.85	9.15	2.67	0.31	0.67

Source: Company

The company estimates this zone to have a potential resource of 30-60 Mt at 1- 1.2 gpt AuEq.

Zone 51, which is located approximately 1 km to the southeast of zone 33, is partially drill tested.

Key Results – Zone 51

DDH Inclination	From m	To m	Interval m	Au g/t	Ag g/t	In g/t	Pb %	Zn %
SRDDH 51 -60°	7.0	150.0	143.0	0.66	27.2	6.39	0.37	0.55
SRDDH 52 -60°	4.8	132.6	127.8	0.06	3.34	4.78	0.22	0.40
SRDDH 55 -90°	35.0	110.6	75.6	0.12	3.88	8.34	0.26	0.81
DDHMSR 0002 -60°	37.0	135.0	98.0	0.31	12.60	5.30	0.29	0.44
DDHMSR 0003 -60°	25.0	134.0	109.0	0.28	11.80	6.80	0.23	0.34

Source: Company

Zone 34 is approximately 0.9 km southeast of zone 51, and is considered to have potential to

hold a heap leach oxide gold deposit. One hole returned 233 meters of 0.6 g/t Au plus 11 g/t Ag, including 2.3 g/t Au and 43 g/t Ag over 35 meters at the top of the hole.

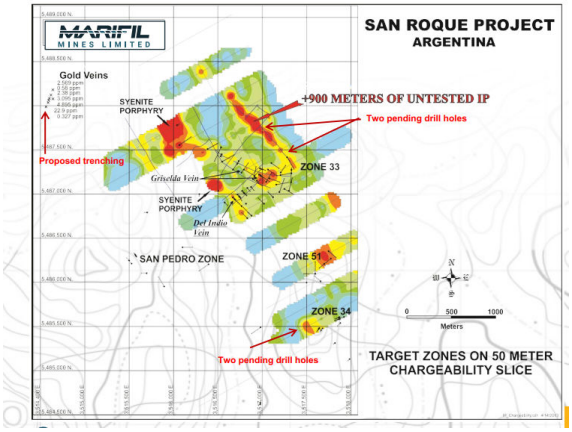
Key Results – Zone 34

DDH Inclination	From m	To m	Interval m	Au g/t	Ag g/t	In g/t	Pb %	Zn %
SRDDH 13 -60°	21.8	26.0	4.2	9.2	9.0	0.00	0.08	0.08
	81.7	104.5	22.8	0.61	83.82	0.00	0.01	0.02
SRDDH 16 -60°	3.0	15.2	12.2	1.97	5.62	0.00	0.04	0.03
SRDDH 19 -60°	3.9	21.7	17.8	1.18	1.27	0.00	0.02	0.02
SRDDH 21 -60°	3.0	24	21.0	2.15	0.63	0.13	0.01	0.03
DDHMSR 0034 -60°	0.0	35.0	35.0	2.27	42.62	0.08	0.03	0.08
	155.5	193.0	37.5	1.12	28.49	0.01	0.07	0.13

Source: Company

After almost seven years of inactivity (2011 to 2018), the company commenced a drill program on the property in June 2018. Four holes / 846 m were drilled (depth between 150 and 270 m), with an objective to confirm the zone 34 gold zone, and to test a kilometer-long Induced Potential–Resistivity geophysical anomaly.

IP Survey Results



Source: Company

In September 2018, the company announced preliminary results of the drill program. The program returned reasonable grades. The following three intersections were very encouraging - 0.61 gpt over 22.5 m, 1.59 gpt over 9.6 m, and 1.89 gpt over 19.8 m.

2018 Drilling

Drill Hole I.D.	From (m)	To (m)	Interval (m)	Au gpt	Ag g/t gpt	Au Eq. gpt
DDH-56	5	14	9.0	0.45	1.40	0.47
	21.4	31	9.6	1.58	0.60	1.59
	35	44.5	9.5	0.89	2.60	0.92
	78.5	87.5	9.0	0.36	12.50	0.51
	98	99.5	1.5	0.38	6.20	0.45
	137	143	6.0	0.36	8.30	0.46
	187	188.5	1.5	0.61	16.60	0.81
	206.5	214	7.5	0.26	3.30	0.29
8 intervals			**53.6**	**0.68**	**5.00**	**0.74**
DDH-57	22.5	25.5	3.0	0.31	0.60	0.32
	51	52.5	1.5	0.29	7.80	0.38
2 intervals			**4.5**	**0.30**	**3.00**	**0.34**
DDH-58	6	18	12.0	0.48	1.80	0.50
	33	49.5	16.5	0.56	2.80	0.59
	63	69	6.0	0.26	5.90	0.33
	78	100.5	22.5	0.54	5.70	0.61
	105	123.5	18.5	0.49	7.10	0.57
	125	132.5	7.5	0.42	10.40	0.54
6 intervals			**83.0**	**0.49**	**5.30**	**0.55**
DDH-59	6.2	26	19.8	1.86	2.80	1.89
	66.5	68	1.5	0.44	30.30	0.80
	71	75.5	4.5	0.38	0.90	0.39
	90.5	92	1.5	0.39	17.10	0.59
	120	122	2.0	8.27	13.00	8.42
5 intervals			**29.3**	**1.92**	**5.30**	**1.98**

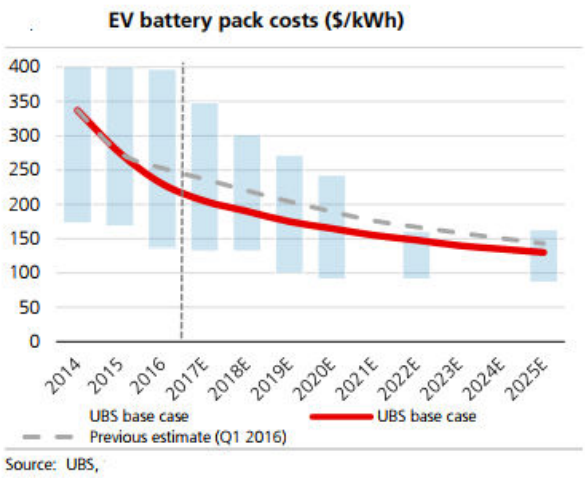
Source: Company

Management's immediate plans on the projects are yet to be announced.

Outlook on Lithium

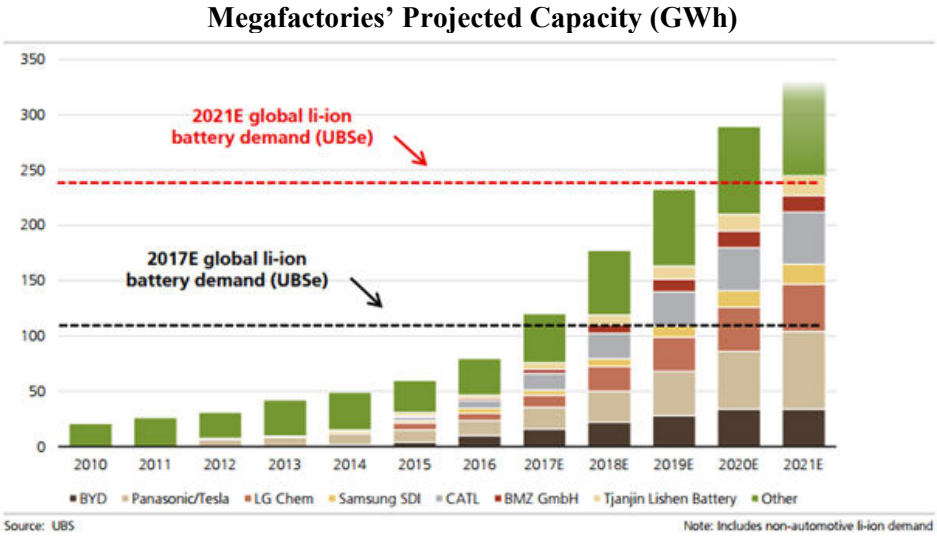
We expect Lithium-ion Batteries (LIBs) to be the primary demand driver of lithium. LIBs are the most common rechargeable battery in the market today. In an LIB, lithium is used as the electrolyte, graphite as the anode (negative electrode) and cobalt typically as the cathode (positive electrode). LIBs are used in a wide range of electronic equipment, such as mobile phones, laptops, digital cameras to name a few. However, the biggest growth driver is the use of LIBs in electric vehicles ("EV")

Declining technology costs are also expected to drive demand for LIBs. The cost of a LIB pack dropped from US$1,000 per kWh approximately six years ago, to the current rate of approximately $350 per kWh.

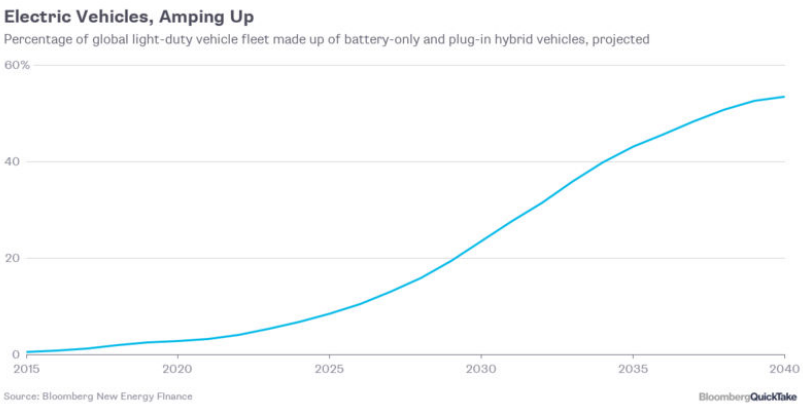


One of the biggest developments in the battery space was the opening of the gigafactory (a $5 billion Lithium-Ion battery manufacturing facility) by Tesla (NASDAQ: TSLA) in 2016, in Nevada in partnership with Panasonic (TSE: 6752).

In addition to Tesla, several other EV (electric vehicles) manufacturers have announced strong projections. The current production capacity of LIBs is approximately 75 GWh globally. However, once Tesla's Gigafactory, and the other facilities being built by LG Chem (KRX: 051910), Foxconn (SEHK: 2038), BYD, and Boston Power are completed, the total capacity is estimated to reach 285 GWh by 2020.



The following chart shows that EV car sales are estimated to be approximately 54% of light-duty vehicle sales by 2040 globally.

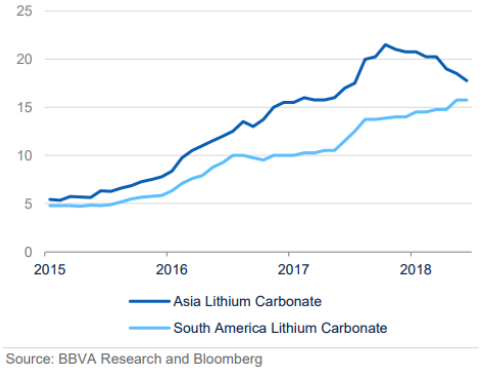


The Commodities Research Unit ("CRU") Group estimates electric car and plug-in hybrid vehicle sales could reach approximately 16 million by 2025 (up from 0.77 million last year), reflecting a CAGR of 40% per annum ("p.a.") from 2016 to 2025.

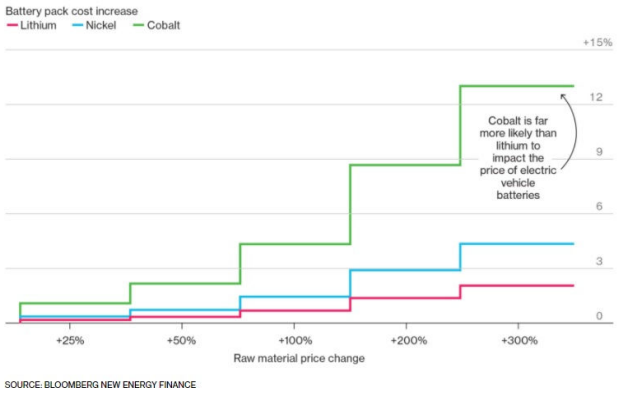
EV Sales Forecasts (millions)

Lithium carbonate is currently trading between US$17,000 and US$19,000 / t in Asia, and approximately US$15,000 / t in in the Americas.

Lithium carbonate – battery grade – prices (US$/t)



The following chart shows that a 300% increase in lithium prices will only result in a 2% increase in battery costs.

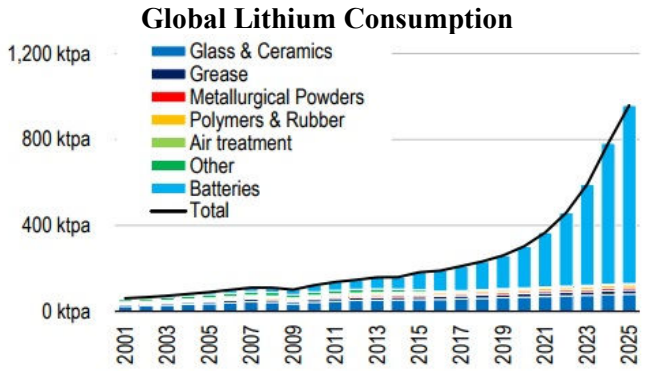


The following table shows our estimate of the expected global demand for LCE from EVs. We estimated this based on Deutsche Bank's (DB: DBK) projections for EV sales, and our estimate of the required LCE per vehicle (derived from multiple sources).

Required LCE (kg)	in millions	2015	2020	2025
1.5	Hybrid	2.9	6.9	9
11.8	Plug-in Hybrid	0.4	1.6	3.9
19.0	Full EV	0.4	1.6	2.6
	Full EV (commercial)	0.1	0.3	0.4
	Total	**3.7**	**9.5**	**16**
	Required LCE (tonnes)	16,662	59,598	108,842

Source: FRC and Deutsche Bank

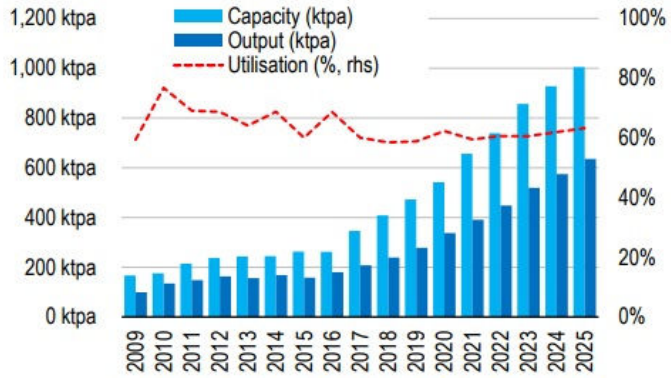
The current global annual consumption is approximately 217,000 tonnes, and EVs account for under 20,000 tonnes. As shown in the above table, an expected increase in demand to 108,800 tonnes from EVs implies that the global LCE market will significantly increase over the next decade. According to Roskill, the global consumption of LCE will reach 785,000 tonnes by 2025, and the market will be in a deficit by 26,000 tonnes. UBS estimates global consumption will reach approximately 1 Mt per year by 2025.



Source: UBS

The above demand projections imply that production has to reach capacity to meet demand.

Global Lithium Production



Source: UBS

Management

We estimate that management and board own approximately 23.1% of the total outstanding shares – aligning their interest with investors. The team is headed by CEO and President, Robert Abenante, who was appointed in 2017. Mr. Abenante (directly and indirectly) holds 3.85 million shares, or 10% of the total outstanding shares.

Share Ownership

Management / Directors	Appointed	Shares	% of Total
Roberto Abenante - President, CEO and Director	2017	3,850,000	10.0%
Richard (Dick) Walters - Executive VP and Director	2004	1,041,764	2.7%
Daniel Buffone, Director	2005	527,426	1.4%
John B. Hite, Independent Director	2004	2,033,016	5.3%
Michael Sweatman, Independent Director	2015	245,000	0.6%
John W. Pearson, Independent Director	2004	171,000	0.4%
Greg Burnett, Independent Director	2004	1,008,000	2.6%
Total		**8,876,206**	**23.1%**

Source: Management Information Circular

Brief biographies of the management team and board members, as provided by the company, follow:

Roberto Abenante - President & Chief Executive Officer
Mr. Abenante is a seasoned executive with extensive public company experience. Mr. Abenante is a Chartered Professional Accountant (CPA, CA) who also holds a Masters, who has founded and/or served as an officer/director of several public and private companies across various industries, ranging from energy and mining to agriculture technology and life sciences.

Richard (Dick) Walters - Executive Vice President
Dick Walters is certified by the American Association of Professional Geologists, and is

licensed to practice geology in two states of the U.S. He is a Qualified Person by definition in Canadian NI 43-101. Mr. Walters has worked for 45 years in the mining industry as a mineral deposit explorer and developer with a world-wide reach, particularly in Southeast Asia and North and South America. He has held various field and management positions in Kennecott Copper Corp., Joe Minerals Co., Sunshine Mining Co. and others. He has been consistently active in Argentina's mining scene since 1990 where in 1994 his private Argentinean company, Compania Minera Polimet S.A., gave birth to Yamana Resources Inc. via a shares exchange, thence gaining a listing on the Canadian stock exchange. In addition to being a co-founder of Yamana Resources he was a director and its COO and President for several years. Mr. Walters has been involved in supporting and running the Company's wholly owned Argentinean subsidiary, Marifil S.A., since 2000, and remains responsible for its mineral exploration and acquisition activities. At least eight notable mineral deposits have been discovered under his direction, including two that have become mines currently in production: Mina Martha in Argentina – one of the richest silver mines in the world, and Chandalar – the largest gold placer mine in Alaska.

Daniel Buffone - President of Marifil Sociedad Anónima (S.A.)

Mr. Buffone is a geologist with 30 years mineral exploration experience in Argentina, and is a successful independent Argentinean cattle rancher as well. His background includes dealings in oil properties, acquisitions of hydrological rights and training in agricultural engineering. Amongst others, he formerly worked as a geologist for Yamana Resources Inc. helping launch the company. In 1997, he founded Marifil S.A. underpinned by a slate of his own mineral properties. Marifil S.A. was folded into Marifil Mines Ltd. by way of a shares exchange in 2005 upon becoming a public company on the Canadian exchange. The Company relies on his abilities as a prospector and businessman to continually generate or find new properties for acquisition in Argentina, and to manage all affairs of the Company in the country in a legal and socially responsible manner.

Alex McAulay - Chief Financial Officer

Alexander McAulay CPA, CA is an experienced public company CFO. Following his articling at MNP LLP, Alex founded the successful Naked Brand Group Inc. (NASDAQ: NAKD) and led the company as its COO and CFO. Alex is the owner of a licensed CFO practice firm, ACM Management Inc.

Pedro Vera - Exploration Manager

Pedro Vera is an Argentinean citizen and a mineral exploration geologist with more than 30 years' experience working with global public mining and exploration companies. He is well known in the mining and exploration community, having worked across Argentina, often advising provincial governments on geological issues. Mr. Vera's background includes four years as an in-charge of Barrick's Patagonia exploration team, where he led evaluations of diverse projects ranging from grassroots exploration programs to advanced-stage. Mr. Vera also led Barrick's exploration team involved with evaluation of third-party gold properties in the Pascua-Lama and Veladero region of the Andes Mountains and has held positions with Iamgold, AngloGold, Gold Fields, M.I.M., Minamerica and Triton Mining.

Daniel Buffone, Director
Mr. Buffone is a geologist with 30 years mineral exploration experience in Argentina, and is a successful independent Argentinean cattle rancher as well. His background includes dealings in oil properties, acquisitions of hydrological rights and training in agricultural engineering. Amongst others, he formerly worked as a geologist for Yamana Resources Inc. helping launch the company. In 1997, he founded Marifil S.A. underpinned by a slate of his own mineral properties. Marifil S.A. was folded into Marifil Mines Ltd. by way of a shares exchange in 2005 upon becoming a public company on the Canadian exchange. The Company relies on his abilities as a prospector and businessman to continually generate or find new properties for acquisition in Argentina, and to manage all affairs of the Company in the country in a legal and socially responsible manner.

John B. Hite, Independent Director
Mr. Hite is a Registered Geologist with significant experience in the junior mining industry, having worked as a geologic consultant since August, 1978, and is a Qualified Person as defined in National Instrument 43-101. Previously he was a Director and President of East Asia Gold Corp.

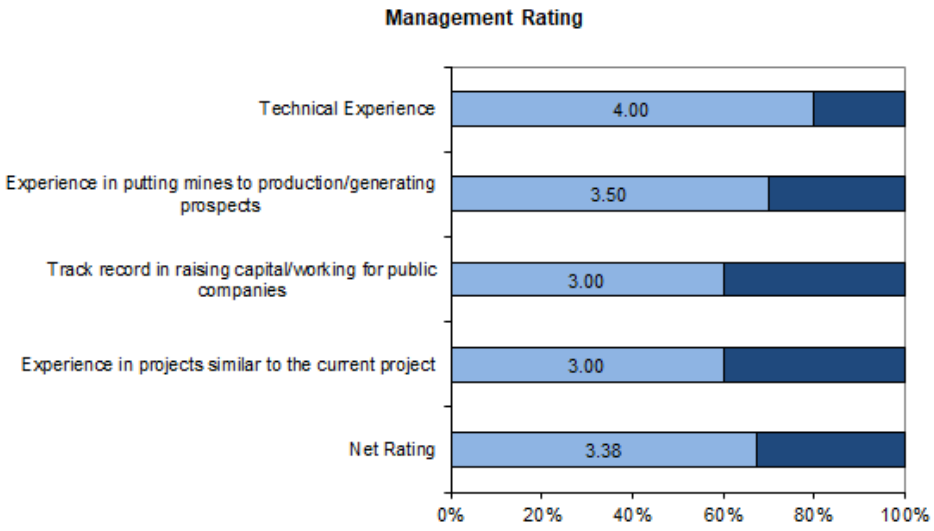
Michael Sweatman, Independent Director
Mr. Sweatman is a Chartered Professional Accountant and has operated MDS Management Ltd., a Vancouver-based management consulting company, since November 1992. He obtained his Bachelor of Arts degree in economics and commerce from Simon Fraser University, gained his CA designation in 1982, and is a member of CPA BC and CPA Yukon . He has served as a director and officer of a number of public companies over the past 30 years and is currently a director and the CEO of Eureka Resources Inc (TSX-V: EUK) and a director of Nevada Sunrise Gold Corp. (TSXV: NEV).

John W. Pearson, Independent Director
Mr. Pearson holds a Honours B.Sc. in Geology and has extensive experience in investor relations as an Investor Relations Executive with over 35 years experience in the natural resources industry, which includes 30 years of direct investor relations and corporate communications experience. Currently, he is Centerra Gold Inc.'s Vice President Investor Relations. Previously, he held increasingly senior executive investor relations roles and was the executive in charge of Investor Relations at Stillwater Mining Company, SouthernEra Resources Limited, Pegasus Gold Inc., LAC Minerals Ltd., and Canamax Resources. Mr. Pearson began his career as an exploration field geologist in 1981 working throughout Canada and has also served as an Investor Relations Consultant to the mining industry and has served on various committees with the Ontario Mining Association and the Mining Association of Canada.

Greg Burnett, Independent Director
More than 25 years of capital markets experience as President and Managing Director of Carob Management Ltd, a private management consulting company specializing in providing due diligence services, developing business plans, and the structuring, financing, and management of emerging businesses, specializing in going public transactions in both Canada and the United States. Experience in the mining, oil and gas, green energy, consumer

products, biotech, and technology sectors. Has served on the board of directors of more than 20 public companies, currently serving on three public company boards. Serves as an advisor to one other public technology company. Obtained a Master of Business Administration Degree in 1986 and a Bachelor of Applied Sciences Degree in Civil Engineering in 1984 from the University of British Columbia.

Our net rating on the company's management team is 3.4 out of 5.0 (see below).



Source: FRC

The company's board has seven members, of which, four are independent. We believe that the Board of Directors of a company should include independent or unrelated directors who are free of any relationships or business that could materially interfere with the director's ability to act in the best interests of the company. An unrelated/independent director can be a shareholder. The following table shows our analysis on the strength of the company's board.

Strength of Board

	Poor	Average	Good
Four out of seven directors are independent		X	
All directors hold shares of the company			X
The Audit Committee is composed of three board members, all are independent			X
The Management Compensation Committee is composed of three board members, all are independent			X

Source: FRC

Financials

At the end of Q2-2018, the company had cash of $0.73 million, and working capital of $0.19 million. We estimate the company had a burn rate (cash spent on operating) of $122k per month in the first six months of 2018. The following table summarizes the company's liquidity position:

Liquidity Position

	2017	2018 (6M)
Cash	$33,487	$728,808
Working Capital	-$420,580	$186,080
Current Ratio	0.13	1.31
LT Debt / Assets	-	-
Monthly Burn Rate (incl. G&A)	-$28,905	-$122,548
Cash spent on Investing Activities	-$34,926	-$661,760
Cash from Financing Activities	$144,022	$1,927,371

Data Source: Financial Statements

In September 2018, the company announced plans to raise $1 million by issuing 10 million units at $0.10 per unit. Each unit will consist of a common share and one full warrant (exercise price of $0.15 per share).

We estimate the company currently has 2.69 million options outstanding (weighted average exercise price of $0.20 per share) and 25.14 million warrants (weighted average exercise price of $0.95 per share) outstanding. Currently, 2.2 million options and nil warrants are in-the-money. The company can raise up to $0.25 million from these options.

Valuation & Rating

The following table shows a summary of our valuation. We valued the lithium projects based on the average Enterprise Value (EV) to hectare ratio of brine projects, while we valued the San Roque and La Aguilas projects based on the average EV to resource ratios of comparable junior projects. We have discounted our valuations to reflect the early stage nature of the company's projects.

Valuation	Metric	Discount to Adjust for Risk	Multiple	Value	Value per Share
Lithium Projects (net of acquisition payments)	15,267 ha	50% discount	$1,167 / ha	$5,658,295	$0.12
La Aguilas Property	NI 43-101 Resource - 13.65 Mlbs Co.Equiv (100% of Ind. + 50% of Inf.)	75% discount	$0.71 / lb Co.Equiv.	$2,422,356	$0.05
San Roque Property	0.49 Moz non NI-43-101 compliant resource - 51% of 30Mt at 1 gpt Au.Equiv.	50% discount	$25 per oz Au.Equv.	$6,120,000	$0.13
Working Capital, plus cash from the current $1M financing				$743,437	$0.02
Fair Value				**$14,944,087**	**$0.31**

Source: FRC

We are initiating coverage on Marifil with a BUY rating and a fair value estimate of $0.31 per share.

Risks

We believe the company is exposed to the following key risks (not exhaustive):

- The value of the company is dependent on commodity prices.
- Only one project has a NI43-101 compliant resource estimate.
- The lithium projects are in very early stages.
- Exploration and development risks.
- Exchange rate risks.

As with most junior resource companies, we rate Marifil's shares a risk of 5 (Highly Speculative).

Fundamental Research Corp. Equity Rating Scale:
Buy – Annual expected rate of return exceeds 12% or the expected return is commensurate with risk
Hold – Annual expected rate of return is between 5% and 12%
Sell – Annual expected rate of return is below 5% or the expected return is not commensurate with risk
Suspended or Rating N/A— Coverage and ratings suspended until more information can be obtained from the company regarding recent events.

Fundamental Research Corp. Risk Rating Scale:
1 (Low Risk) - The company operates in an industry where it has a strong position (for example a monopoly, high market share etc.) or operates in a regulated industry. The future outlook is stable or positive for the industry. The company generates positive free cash flow and has a history of profitability. The capital structure is conservative with little or no debt.

2 (Below Average Risk) - The company operates in an industry where the fundamentals and outlook are positive. The industry and company are relatively less sensitive to systematic risk than companies with a Risk Rating of 3. The company has a history of profitability and has demonstrated its ability to generate positive free cash flows (though current free cash flow may be negative due to capital investment). The company's capital structure is conservative with little to modest use of debt.

3 (Average Risk) - The company operates in an industry that has average sensitivity to systematic risk. The industry may be cyclical. Profits and cash flow are sensitive to economic factors although the company has demonstrated its ability to generate positive earnings and cash flow. Debt use is in line with industry averages, and coverage ratios are sufficient.

4 (Speculative) - The company has little or no history of generating earnings or cash flow. Debt use is higher. These companies may be in start-up mode or in a turnaround situation. These companies should be considered speculative.

5 (Highly Speculative) - The company has no history of generating earnings or cash flow. They may operate in a new industry with new, and unproven products. Products may be at the development stage, testing, or seeking regulatory approval. These companies may run into liquidity issues, and may rely on external funding. These stocks are considered highly speculative.

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