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PIEDMONT COMPLETES BANKABLE FEASIBILITY STUDY OF THE CAROLINA LITHIUM PROJECT WITH POSITIVE RESULTS

Piedmont Lithium Inc. ("Piedmont" or the "Company") is pleased to report the results of a Bankable Feasibility Study ("BFS") for its 100% owned proposed integrated lithium hydroxide business ("Carolina Lithium" or the "Project") in Gaston County, North Carolina. The Study confirms that Carolina Lithium could be one of the world's largest and lowest-cost producers of lithium hydroxide, with a sustainability footprint that is superior to incumbent producers, all in a highly favorable location to supply the rapidly growing electric vehicle supply chain in the United States.

LITHIUM HYDROXIDE FOR THE UNITED STATES ELECTRIC VEHICLE MARKET

LiOH

- *U.S. Electric Vehicle ("EV") demand is expected to grow 12x by 2030 (Benchmark Minerals)*
- *Commitments of over $25 billion to build U.S. battery capacity by 2030*
- *Lithium Hydroxide ("LiOH") is required in the high-nickel batteries used in longer range EVs*
- *Carolina Lithium is positioned to be the leading U.S. source of Lithium Hydroxide*

POSITIVE ESG PROFILE

- *LiOH will power the electrification of the vehicle business, dramatically reducing carbon and other emissions vs. traditional internal combustion vehicles*
- *Superior sustainability profile relative to current LiOH producers in China and South America*
- *Automotive companies prefer spodumene-sourced lithium hydroxide for sustainability reasons*
- *Chemical Plant designed to rely on low carbon power sources in North Carolina*
- *Carolina Lithium will operate under U.S. labor, environmental and safety standards*

STRONG FINANCIAL RESULTS EXPECTED FROM LOW ESTIMATED OPERATING COSTS[1]

- *BFS indicates results of NPV_8 (after tax) of $2.0 billion and post-tax IRR of 27%*
- *BFS estimated steady-state EBITDA[2] of $459 million over the first 10 years of operations*
- *Projected steady-state LiOH cash costs of $3,657/t and AISC of $4,377/t for the first 10 years*

OPPORTUNITIES FOR FURTHER ECONOMIC UPSIDE

- *Stronger lithium pricing - current spot prices point toward higher EBITDA than BFS projections with indicative after tax $4.5bb NPV_8 and 50% IRR using spot price modeling[3]*
- *Conversion of additional ore reserves and new mineral resources consistent with Piedmont's strong track-record through continued exploration of the Carolina Tin Spodumene Belt*
- *Continued evaluation of possible Phase 2 LiOH expansion using SC6 sourced from Piedmont-affiliated companies*

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[1] Based on the assumptions made as part of the Carolina Lithium Project's BFS announcement dated December 14, 2021.
[2] EBITDA defined as earnings before interest, taxes, depletion, depreciation, and amortization.
[3] Indicative NPV and IRR of the Carolina Lithium Project when applying current spot prices as reported by Fastmarkets on 12/03/21 of $31,000/t for LiOH and $2,300/t for SC6 for pricing assumptions in the project's financial model.

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EXECUTIVE SUMMARY

Piedmont's Carolina Lithium Project is uniquely positioned to benefit from its highly favorable location in Gaston County, North Carolina, with exceptional infrastructure, a deep local talent pool, low-cost energy, and proximity to local markets for the monetization of by-product industrial minerals. The Study reflects more conservative costing assumptions than prior studies, with recent inflationary pressures having a substantial impact on both capital expenditures and operating costs. These cost impacts are partially offset using lithium pricing assumptions based on the more positive outlook incorporated in the consensus estimates described herein. Summary results of the Study are shown below.

\$459mm Steady-State EBITDA 1st 10 years	**\$2.04bb** After-tax NPV_8	**27%** After-tax IRR
30,000 Tonnes per Year LiOH Production	**\$3,657/t** Steady-State LiOH Cash Cost 1st 10 years	**3.5 year** Payback Period

The competitive advantage of Carolina Lithium's unique location is depicted in the following lithium hydroxide cost curve, which was prepared by Roskill, a leading lithium industry consultancy.

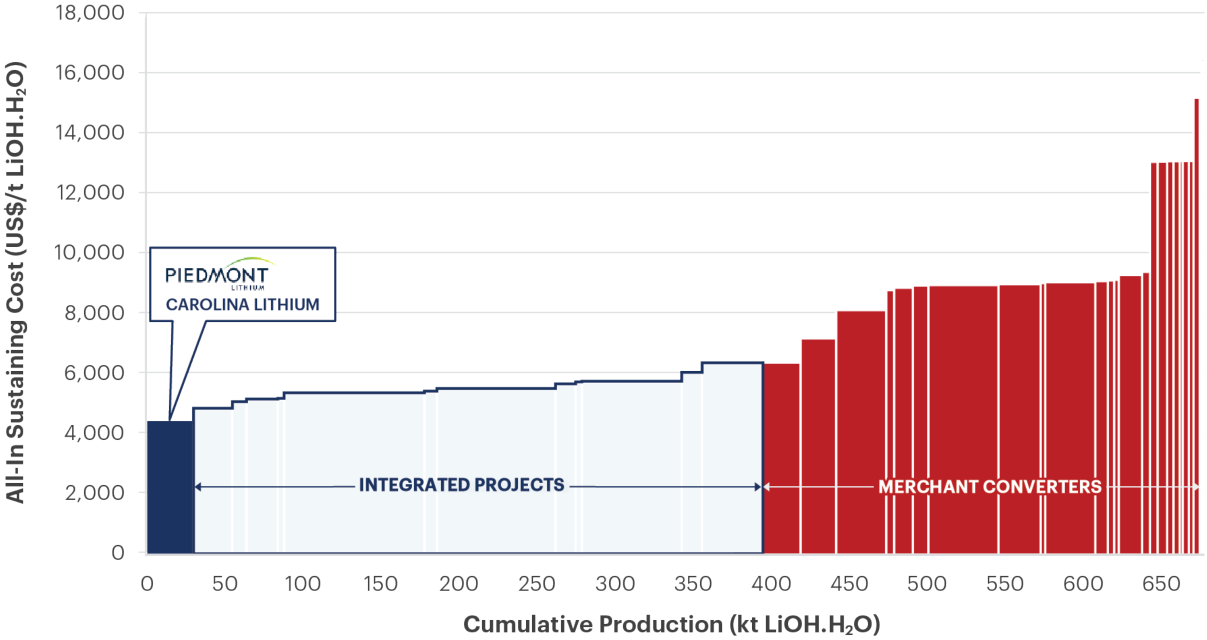

Figure 1 – Lithium hydroxide 2028 AISC cost curve (real basis) (Roskill) for Carolina Lithium BFS Production Case[4]
AISC includes all direct and indirect operating costs including feedstock costs (internal AISC), refining, corporate G&A and selling expenses.

Industry Leading Sustainability Profile

Carolina Lithium is expected to have a superior sustainability profile relative to current lithium hydroxide producers in China and South America. Chinese lithium producers are highly reliant on coal-fired power and generally utilize a carbon-intensive sulfuric acid roasting process to convert raw materials shipped in from Australia, while South American producers tend to utilize vast tracts of land and large quantities of water, all in the driest desert in the world, the Atacama.

[4] Carolina Lithium AISC presented based on December 2021 BFS results showing Piedmont's steady-state AISC during the first 10 years of operations. All other costs shown based on Roskill May 2021 cost curve but assuming \$900/t SC6 input costs for Merchant Converters to match BFS pricing assumptions.

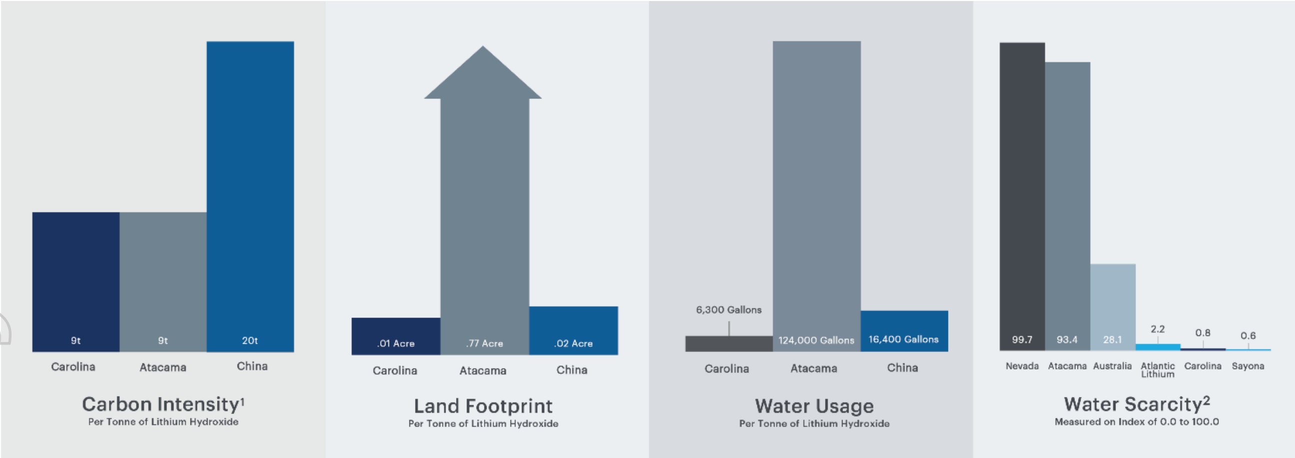

Figure 2 – Life cycle analysis of key carbon intensity, water usage, and land footprint of Carolina Lithium[5,6]

United States Market Dynamics

2021 has been a transformative year for electrification in the United States. Current and forecasted battery manufacturing capacity now exceeds 500 GWh with public announcements of over $25bb in capital investments to occur by 2025. Based on an average requirement of 960 t of lithium hydroxide per GWh of manufacturing capacity the resultant U.S. demand for lithium hydroxide could exceed 460,0000 t/y by 2027, dramatically exceeding the current development plans of domestic lithium companies.

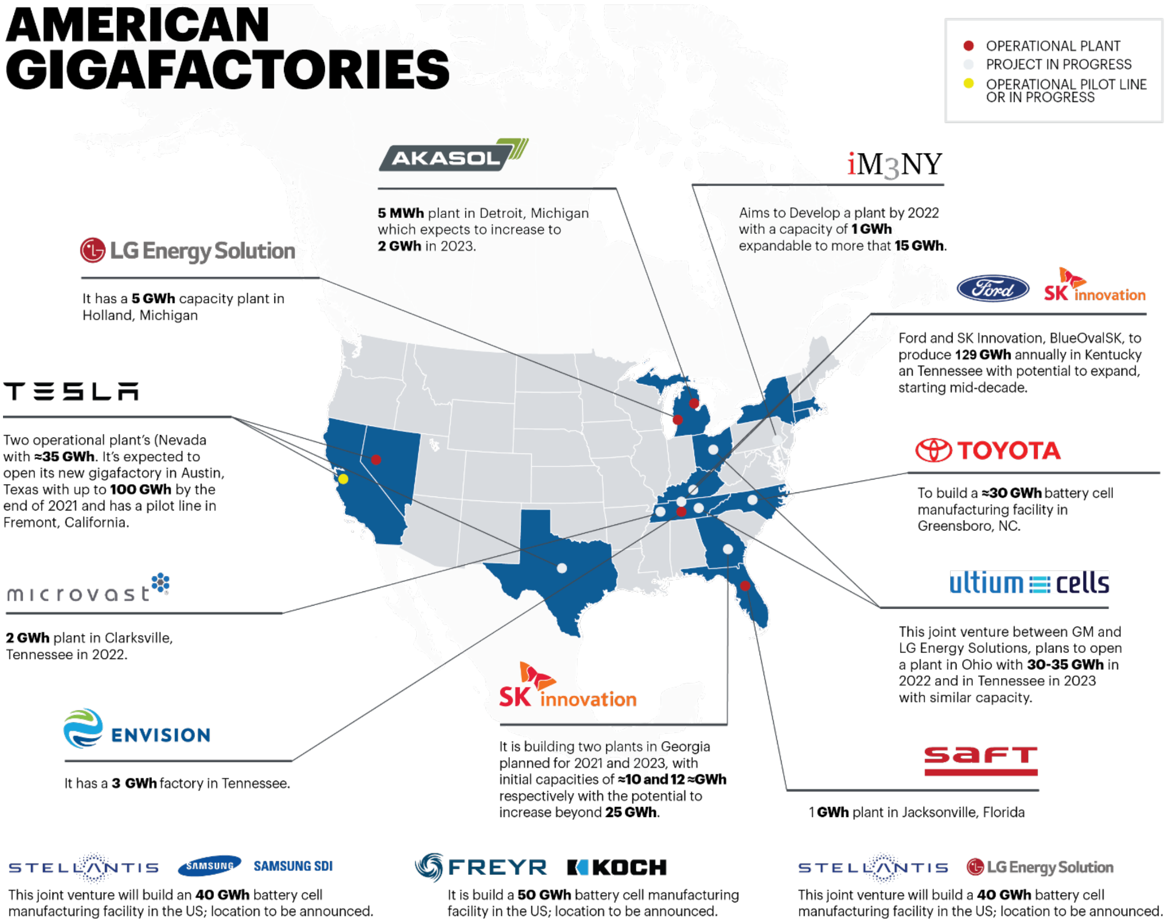

Figure 3 – Operating, Under Construction, or Announced U.S. Battery Manufacturing Capacity

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[5] Water scarcity values published by AWARE and available at wulca-waterlca.org/aware/
LCA results previously announced on June 9, 2021

[6] Atlantic Lithium and Sayona are spodumene projects in which the Company has equity interests and offtake agreements

Strong Estimated Financial Results with Potential for Extended Operational Life

The BFS prioritizes the production of the Company's newly defined Probable Ore Reserves, which are calculated based upon compliance standards promogulated by the Joint Ore Reserve Committee ("JORC") and those standards recently adopted by the United States Securities and Exchange Commission (SEC) via its rules issued under Regulation S-K, Item 1300. Following exhaustion of the Company's Ore Reserves, chemical plant feed is assumed to be supplemented with ore obtained via the Company's equity-backed offtake agreements or other spodumene concentrate purchased from the market.

The production target outlined in the BFS is limited to the Company's Probable Ore Reserves. Table 1 summarizes the financial outcomes of the BFS Ore Reserves production scenario.

Table 1: Summary BFS Financial Outcomes	Unit	Ore Reserves Production Scenario
Operational Life		
Lithium Hydroxide Plant Operation Life	years	30
Ore Reserve Life	years	11
Financial Performance		
Average annual steady state EBITDA – first 10 years	$mm/y[7]	$459
Average annual steady state EBITDA – life of operations	$mm/y	$346
Average annual steady state after-tax cash flow – first 10 years	$mm/y	$296
Average annual steady state after-tax cash flow – life of operations	$mm/y	$244
After tax Net Present Value ("NPV") @ 8% discount rate	$mm	$2,041
After tax Internal Rate of Return ("IRR")	%	27%

The BFS emphasizes an initial production target of 11 years of spodumene concentrate to be processed at the Company's chemical plant which will be located adjacent to mining operations. The BFS incorporates assumptions of additional lithium hydroxide production sourced from equity-backed offtake agreements, discussed below, which allow the Company to secure spodumene from alternate sources, increasing the chemical plant life to 30 years.

Multi-Asset Business with Upside Potential

Strategic investments in logistically advantaged, high quality spodumene projects have transformed Piedmont Lithium in 2021 from a single project company to a multi-jurisdictional business with access to spodumene concentrate from multiple sources.

Piedmont Lithium holds a 25% equity interest in Sayona Quebec and North American Lithium along with a 50% offtake right to spodumene concentrate produced by Sayona Quebec on a life-of-mine basis.

Additionally, Piedmont Lithium has an earn-in right to acquire a 50% interest in Atlantic Lithium's Ghanaian project portfolio including the Ewoyaa Project. Along with this equity earn-in right Piedmont holds a 50% offtake right to spodumene concentrate produced by Atlantic Lithium on a life-of-mine basis.

Offtake rights provide Piedmont Lithium the flexibility to extend the operational life of Carolina Lithium, or to increase lithium hydroxide production capacity through construction of a Phase 2 Lithium Hydroxide Conversion Plant.

The Company expects to publish additional technical studies in 2022 evaluating potential expansion cases for Phase 2 Lithium Hydroxide Operations.

[7] References to $ in this announcement are United States Dollars.

Figure 4 – Piedmont holds spodumene concentrate offtake rights along with project investments in multiple jurisdictions

Fully Integrated Manufacturing Campus

Carolina Lithium contemplates a single, integrated site, comprising quarrying, spodumene concentration, by-products processing, and spodumene conversion to lithium hydroxide. There are currently no such integrated sites operating anywhere in the world, and the economic and environmental advantages of this strategy are compelling:

- Premier location in Gaston County, North Carolina – *"the cradle of the lithium business"*
- Integrated site eliminates unnecessary SC6 transportation costs and truck movements
- Electric powered conveyors eliminate mine trucks, reduce noise, dust and diesel-based CO_2 emissions
- On-site solar complex to power concentrate operations
- Potential to co-locate downstream battery materials, Li-ion battery manufacturing, and by-product customers
- Creation of up to 500 permanent manufacturing, engineering, and management jobs (Phase 1)

Figure 5 – Site plan for the planned permit area of the Phase 1 30,000 t/y Carolina Lithium operations

We will soon commence detailed engineering for the Project with a view to a final investment decision in 2022. We are actively engaged in project financing discussions, including possible debt finance via the U.S. Department of Energy's Advanced Technology Vehicle Manufacturing loan program, and potential strategic equity investments via the partnering process being coordinated by our financial advisors.

An important priority for 2022 will be the evaluation of expansion opportunities incorporating the spodumene concentrate assets we control in Quebec and in Ghana. Our ambition is to build America's largest lithium hydroxide business, and the spodumene resource base we've assembled during 2021 should underpin substantial growth."

Keith D. Phillips, President and Chief Executive Officer

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CAROLINA LITHIUM 30,000 T/Y BANKABLE FEASIBILITY STUDY

Piedmont's fully integrated Carolina Lithium Project's Bankable Feasibility Study ("BFS") is based on the Company's Mineral Resource estimate reported in October 2021, of 44.2 Mt at a grade of 1.08% Li_2O and the by-product Mineral Resource estimates comprising 7.4 Mt of quartz, 11.1 Mt of feldspar and 1.1 Mt of mica reported in June 2021. This announcement is intended to alert investors to the conversion of 18.3 million metric tons of previously categorized spodumene Mineral Resources (undiluted basis) to Probable Ore Reserves and to report the results of technical study of the production of battery grade lithium hydroxide from these Ore Reserves and other sources.

The BFS emphasizes an initial Ore Reserves only production target of 11 years of spodumene concentrate to be processed at the Company's chemical plant which will be located adjacent to mining operations. The BFS incorporates assumptions of additional lithium hydroxide production sourced from offtake agreements which allow the Company to secure spodumene from alternate sources, increasing the chemical plant life to 30 years. Table 2 summarizes project outcomes under the BFS.

There remains significant opportunity to increase the operational life of Carolina Lithium beyond 11 years by conversion of existing mineral resources to ore reserves or by discovery of additional resources within the TSB within a reasonable trucking or conveying distance to the proposed concentrator.

Table 2: BFS Summary Outcomes for the Carolina Lithium Project	Unit	Ore Reserves Scenario
LiOH Conversion Plant Production		
Operation life	years	30
Steady-state annual lithium hydroxide production	t/y	30,000
Metallurgical recovery	%	91
Life of project battery quality LiOH production	kt	883
Mine Production		
Ore Reserves production scenario	years	11
Average steady state SC6 production	t/y	242,000
Average steady state quartz production	t/y	252,000
Average steady state feldspar production	t/y	392,000
Average steady state mica production	t/y	28,000
Life-of-Mine ("LOM") Production		
Production target – run-of-mine ore	Mt	20.1
LOM SC6 production	Mt	2.6
LOM quartz production	Mt	2.7
LOM feldspar production	Mt	4.2
LOM mica production	Mt	0.3
LOM feed grade (excluding dilution)	%	1.10
LOM average concentrate grade	%	6.0
LOM average process recovery	%	77
LOM average strip ratio	waste:ore	11.6:1
Operating Costs – Steady-State Production – First 10 Years		
Average LiOH production cash costs	$/t	$3,657
Average LiOH production all in sustaining costs	$/t	$4,377
Average SC6 production cash costs	$/t	$234
Operating Costs – Average Life of LiOH Conversion Operations		
Average LiOH production cash costs	$/t	$6,235
Average LiOH production all in sustaining costs	$/t	$6,559
Average SC6 supply cost	$/t	$687

Table 2: BFS Summary Outcomes for the Carolina Lithium Project	Unit	Ore Reserves Scenario
Capital Costs		
Mining	$mm	$81
Concentrator	$mm	$162
Byproducts	$mm	$45
Lithium hydroxide conversion plant	$mm	$408
Project indirects	$mm	$99
Owner's costs	$mm	$73
Contingency	$mm	$120
Total initial capital cost	**$mm**	**$988**[8]
Sustaining, working and deferred capital	$mm	$351
Financial Performance		
Average annual steady state EBITDA – first 10 years	$mm/y	$459
Average annual steady state EBITDA – life of operations	$mm/y	$346
Average annual steady state after-tax cash flow – first 10 years	$mm/y	$296
Average annual steady state after-tax cash flow – life of operations	$mm/y	$244
After tax Net Present Value ("NPV") @ 8% discount rate	$mm	$2,041
After tax Internal Rate of Return ("IRR")	%	27%
Payback from start of operations	years	3.5

Updates from Prior Studies

The BFS represents a significant advancement in project definition compared with the Company's previously announced Scoping Study update announced in June 2021. Estimate accuracy has been improved between June and December 2021 from ±35% to ±15%. Significant changes have occurred in lithium market conditions and product pricing, while inflationary pressures have contributed to increases in estimated project capital and operating costs.

Table 3: Comparative Outcomes of BFS and June 2021 Scoping Study Update

Outcomes	*Unit*	*BFS*	*June 2021 SSU*
Chemical Plant life	years	30	20
Spodumene concentrate production[9]	years	11	20
Steady-state average annual LiOH production	kt/y	30	30
Steady-state average annual SC6 production	kt/y	242	248
Steady-state average annual by-product production	kt/y	672	714
Long term lithium hydroxide price	$/t	$18,000	$15,239
Long term spodumene concentrate price	$/t	$900	$762
Steady-state average cash cost of LiOH production	$/t	$3,657[10]	$2,943
Steady-state average cost of SC6 production	$/t	$234[11]	$181
Initial capital cost (including contingency)	$mm	$988	$838
Steady-state average annual EBITDA	$mm/y	$459[12]	$401
After tax NPV @ 8% discount rate	$mm	$2,041	$1,923
After tax IRR	%	27%	31%
Payback from start of operations	years	3.5	2.9

[8] Due to rounding the capital costs as presented do not add to $988mm

[9] Spodumene concentrate production in the BFS is a production target based solely on Ore Reserves, prior studies established production targets based on Indicated as well as Inferred Mineral Resources. There remains significant opportunity to increase the operational life of Carolina Lithium beyond 11 years by conversion of existing mineral resources to ore reserves or by discovery of additional resources within the TSB

[10] Steady-state cash costs of LiOH production during years 3-10 using SC6 sourced from Carolina Lithium

[11] Steady-state cash costs of SC6 production at Carolina Lithium at a BFS level from years 3-10

[12] Average annual EBITDA during years 3-10 of operations. The average annual EBITDA life of chemical plant is $346mm

BFS Consultants

The results of the BFS incorporate expertise and input from multiple industry experts and consultants of the Company. A Technical Report Summary (TRS) of the BFS will be filed prior to the release of the Company's next quarterly filing, currently anticipated by the end of February 2022, which would allow the Company to express Ore Reserves in accordance with JORC and S-K 1300 standards.

Table 4: BFS Consultants

Consultant	Scope of Work
Primero Group Americas Inc.	Concentrate operations and overall BFS integration
Metso Outotec	Lithium hydroxide manufacturing technology package; LiOH pilot testwork
SGS Canada Inc.	Concentrate and byproducts metallurgical testwork
Marshall Miller and Associates	Mine design and scheduling; estimation of Ore Reserves
McGarry Geoconsulting Corp.	Mineral Resource estimation
HDR Engineering, Inc.	Permitting, environment, and social studies
Johnston, Allison, and Hord	Land title and legal
Benchmark Mineral Intelligence	Lithium products marketability
John Walker	By-products marketability

Feasibility Study Overview

Piedmont holds a 100% interest in the Carolina Lithium Project located within the Carolina Tin-Spodumene Belt ("TSB") and along trend to the Hallman Beam and Kings Mountain mines, which historically provided most of the western world's lithium between the 1950s and the 1980s. The TSB has been described as one of the largest hard rock lithium regions in the world and is located approximately 25 miles west of Charlotte, North Carolina.

The Company has previously reported a global Mineral Resource estimate ("MRE") for the Project of 44.2Mt grading at 1.08% Li_2O. As of the date of our most recent 10-K filing, Piedmont has completed 599 drill holes on these properties totaling 88,185 meters to date spanning five drill campaigns. The BFS[13] only considers mining of the company's Core Property and results in the conversion of approximately 18 million tons of previously categorized Indicated Mineral Resources to Probable Ore Reserves.

The Project is located in a rural area of Gaston County, North Carolina, USA approximately 25 miles northwest of the city of Charlotte. As of October 31, 2021, the Project comprised approximately 3,245 total acres, of which 1,526 acres are claims on private property through option or deferred purchase agreements, 113 acres are under a long-term mineral leased agreement, 79 acres are under lease to own agreements, and 1,527 acres are owned by Piedmont. For the properties hosting the Mineral Resources in this report, Piedmont controls 100% of the surface and mineral rights per one or more agreement scenarios.

On August 31, 2021 Piedmont submitted a mine permit application to the North Carolina Department of Environmental Quality's ("NCDEQ") Division of Energy, Minerals and Land Resources ("DEMLR") covering 1,548 acres of the Project's total land package. Ore Reserves are inclusive of tons within the mine permit application. Additionally, ore reserves and mine planning summarized in this announcement include a smaller portion of tons contained within currently controlled properties which are anticipated to be permitted and mined via future permit boundary revisions. Additional property acquisitions, the costs of which are included in BFS financials, would allow

[13] The Terms "Feasibility Study" and "Bankable Feasibility Study" are defined and/or referred to by the JORC Code (2012 Edition) and the SEC adopting for release S-K 1300. With regards to both JORC and SEC rules, feasibility studies are intended to support the economic viability of Ore Reserves via a detailed engineering and financial analysis. The Bankable Feasibility Study in which this announcement relates includes assumptions pertaining to the production of lithium reserves currently controlled by the Company and processing of purchased spodumene concentrate from other entities. As such, the term "Feasibility Study" as referred to in this announcement presents a business case which includes costs and revenues associated with reserve and non-reserve material. With regards to assumptions related to the production of the company's Ore Reserves, all engineering and financial analysis aligns with the requirements of JORC and SEC rules to meet feasibility level standards. While the feasibility study and this announcement present a business model which includes non-reserve material, the Company and its consultants have completed a stand-alone analysis of the Company's reserves to document their economic viability absent assumptions of purchased spodumene material.

permit boundary revisions to capture these additional reserve tons. In addition to further property acquisitions which are needed to expand permit boundaries, the project will require additional waste storage volume which is not currently included in the permit application. The Company currently controls tracts of land which are contiguous to the permitted areas that could be utilized for additional waste material storage without sterilizing reserves as expressed in this BFS.

The BFS supplements production of the Company's Ore Reserves with ore secured via interests and offtake agreements with Sayona Quebec and Atlantic Lithium. As part of the BFS financial modelling, the Company and its Consultants confirmed the economic viability of its controlled Ore Reserves absent the impact of offtake tonnages. Further details are included in the announcement's appendix.

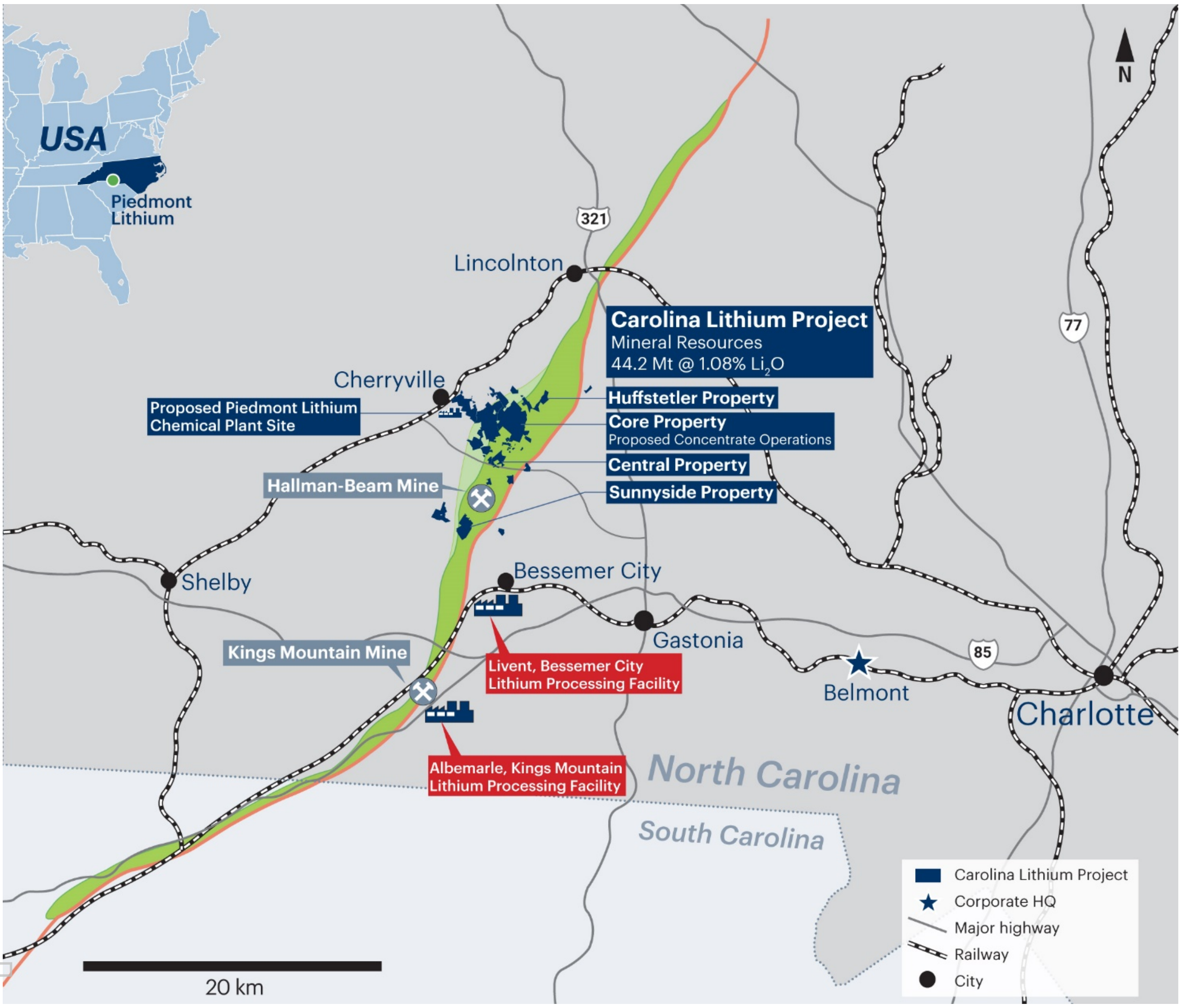

Figure 6 – Piedmont's Carolina Lithium Project located within the TSB

Mineral Resource Estimates

On October 21, 2021 the Company announced an updated MRE prepared by independent consultant McGarry Geoconsulting Corp. ("McGarry Geo") in accordance with the U.S. Securities and Exchange Commission's Regulation S-K, Item 1300 ("S-K 1300") and the JORC Code (2012 Edition). The total lithium Mineral Resources reported by Piedmont for the Carolina Lithium Project are 44.2 Mt grading at 1.08% Li_2O.

Table 5: Carolina Lithium Project – Summary of Mineral Resources Estimate at October 20, 2021							
Resource Category	Tonnes (Mt)	Grade (Li_2O%)	Li_2O (t)	LCE (t)	LiOH·H2O (t)	Cut-Off Grade (% Li_2O)	Metallurgical Recovery (%)[14]
Indicated	28.2	1.11	313,000	774,000	879,000	0.4	71.2
Inferred	15.9	1.02	162,000	401,000	455,000		
Total	44.2	1.08	475,000	1,175,000	1,334,000		

On October 21, 2021 the Company announced updated MREs for by-products quartz, feldspar, and mica. The results are shown in Table 6. The by-product MRE's have been prepared by independent consultants, McGarry Geo and are reported in accordance with requirements of S-K 1300 and the JORC Code (2012 Edition). The economic extraction of by-product minerals is contingent on Piedmont's economic extraction of lithium Mineral Resources. Accordingly, the by-product Mineral Resource estimates are reported at a 0.4% Li_2O cut-off grade, consistent with the reported lithium MRE.

Table 6: Carolina Lithium Project – Summary of By-Product Quartz, Feldspar, and Mica Mineral Resources										
			Li_2O		Quartz		Feldspar		Mica	
Cut-Off Grade (Li_2O %)			0.4		0.4		0.4		0.4	
Metallurgical Recovery (%)			71.2		50.8		51.1		35.5	
Category	Deposit	Tonnes (Mt)	Grade (%)	Tonnes (Mt)	Grade (%)	Tonnes (Mt)	Grade (%)	Tonnes (Mt)	Grade (%)	Tonnes (Mt)
Indicated	Core	25.75	1.10	0.282	29.59	7.62	45.06	11.60	4.29	1.10
	Central	2.47	1.30	0.031	28.79	0.71	45.16	1.12	3.24	0.08
	Huffstetler	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**28.22**	**1.11**	0.313	**29.52**	**8.33**	**45.07**	**12.72**	**4.20**	**1.18**
Inferred	Core	10.93	1.02	0.111	29.13	3.18	45.52	4.97	4.18	0.46
	Central	2.69	1.10	0.030	29.99	0.81	43.88	1.18	4.08	0.11
	Huffstetler	2.31	0.91	0.021	28.82	0.67	48.60	1.12	3.24	0.08
	Total	**15.93**	**1.02**	0.162	**29.22**	**4.66**	**45.67**	**7.28**	**4.03**	**0.64**
MRE Total		44.15	1.08	0.475	29.42	12.99	45.30	20.00	4.12	1.82

Ore Reserves

An estimate of Ore Reserves was made following detailed mine planning completed during the BFS and is based on the Indicated Mineral Resources contained within the Project's Core Property. The Ore Reserves have been estimated in accordance with the requirements of S-K 1300 and the JORC Code. Section 4 of Table 1 of the JORC Code appear in the Appendices to this announcement.

Table 7: Carolina Lithium Project – Estimate of Ore Reserves (undiluted)							
Ore Reserves Category	Tonnes (Mt)	Grade (Li_2O%)	Li_2O (t)	LCE (t)	LiOH·H_2O (t)	Cut-Off Grade (% Li_2O)	Metallurgical Recovery (%)[15]
Proven	-	-	-	-	-	0.4	70.1
Probable	18.26	1.10	200,000	495,000	562,000		
Total	**18.26**	**1.10**	**200,000**	**495,000**	562,000		

The Qualified and Competent Persons responsible for the derivation of Probable Ore Reserves have considered pertinent modifying factors, inclusive of geological, environmental, regulatory, and legal factors, in converting a portion of the Mineral Resource to Mineral Reserve. Probable Ore Reserves, derived from previously stated Indicated Mineral Resources, incorporate reasonable expectations of costs and performance. Historic mining ventures in the TSB yield additional confidence in the likelihood of a successful mining project. The Qualified and Competent

[14] Overall metallurgical recovery from spodumene ore to lithium hydroxide monohydrate assumption within resource model

[15] The metallurgical recovery of ore reserves is based on 77% recovery of ore to spodumene concentrate, and 91% metallurgical recovery of SC6 to battery quality lithium hydroxide as reported in this announcement.

Persons have considered the rules and regulations promulgated by the Joint Ore Reserve Committee and US Securities and Exchange Commission in estimating Ore Reserves. The Qualified and Competent Persons find the assumptions and modifying factors utilized for the BFS to be sufficient and satisfactory in the delineation of Probable Ore Reserves based upon JORC and S-K 1300 regulations.

Ore Reserves Classification Criteria

All converted Mineral Resources were classified as Probable Ore Reserves. There were no Measured Mineral Resources defined that could be converted into Proven Ore Reserves and no Inferred Mineral Resources were included in the estimation of Ore Reserves.

Ore Reserves Cut-Off Parameters

Cutoff grade of 0.4% Li_2O was used in creation of the block model supplied by McGarry Geoconsulting Corp.

Ore Reserves Mining Factors

An open pit mining method was selected due to the ore body outcropping in several places along the surface. No other mining method was evaluated as part of the Ore Reserves estimation.

Mine design parameters include overburden batter angle in unconsolidated material of 27 degrees, face batter angle of 75 degrees, inter-ramp slope of 57 degrees, overall slope of 51 degrees, berm width of 9.5 meters, berm height working 12 meters, berm height final wall of 24 meters, ramp width of 30 meters, ramp grade of 10%, mine dilution of 10%, process recovery of 77%, and minimum mining width of 50 meters.

Ore Reserves Metallurgical Factors

In 2019, Piedmont engaged SGS Canada Inc. in Lakefield, Ontario to undertake testwork on variability and composite samples. Dense Medium Separation ("DMS") and locked-cycle flotation tests produced high-quality spodumene concentrate with a grade above 6.0% Li_2O, iron oxide below 1.0%, and low impurities from composite samples.

In 2021, Piedmont engaged SGS Canada Inc. in Lakefield, Ontario to undertake testwork on nine variability samples. Samples were produced from drill core from the East and South pits and represented the early years of production (i.e., the first 10 years of operation). The samples generally contained elevated levels of host rock dilution (ranging from 9.4% to 17.3%) as compared to the mine plan average (10%). DMS and batch and locked-cycle flotation tests were undertaken. Based on the historical testwork and the 2021 variability program, the BFS assumes a spodumene recovery of 77.0% for a diluted head grade of 0.996% Li_2O when targeting a 6.0% Li_2O spodumene concentrate product.

Ore Reserves Revenue Factors

The BFS assumes a fixed price of $18,000/t for battery quality lithium hydroxide and $900/t for spodumene concentrate (SC6).

Ore Reserves Cost Factors

Capital costs include estimates for infrastructure development including roads, electrical power delivery and distribution, water sources for plant and dust control and initial site development based on contractor responses to requests for proposal based on BFS level engineering.

Operating costs were established using budget pricing from mining contractors based on a request for proposal issued by Marshall Miller and Associates combined with first-principles estimates for utilities including electrical service from Duke Energy.

Costs were estimated on a 2021 U.S. dollars basis in real terms. Royalties of $1.00 per ROM tonne are based on the average land option agreement.

Mining Production Target

Pit optimizations were completed by Marshall Miller & Associates in order to produce a production schedule on a quarterly basis for the first five years of operations and on an annual basis thereafter. This resulted in a total production target of approximately 2.56 Mt of 6.0% Li_2O spodumene concentrate ("SC6"), averaging approximately 242,000 t/y of SC6 over the 11-year ore reserve life. This equates to a steady state average of 1.90 Mt/y of ore processed, totaling approximately 20.1 Mt of run-of-mine ("ROM") ore at an average fully diluted ROM grade of 1.0% Li_2O (diluted) over the 11-year ore reserve life.

The BFS assumes concentrate operations production life of 11 years (matching ore reserves) and chemical plant operations life of 30 years, commencing in year 1 of the Project. It is assumed that concentrate operations including by-products will commence about 90 days in advance of chemical plant start-up to build initial SC6 inventory. Produced SC6 which exceeds chemical plant capacities are assumed to be sold to third parties during the life of the Project. Of the total production target of 2.56 Mt of SC6, approximately 0.56 Mt will be sold to third parties during the operational life and approximately 2.0 Mt will be supplied to Piedmont's chemical plant operations for conversion into lithium hydroxide.

The Study assumes production targets of 2.68 Mt of quartz concentrate, 4.17 Mt of feldspar concentrate, and 0.30 Mt of mica concentrate over the life of operations based on the potential recovery of these products from the concentrator flotation circuits and the Company's analysis of domestic industrial minerals markets and engagement with prospective customers.

There remains significant opportunity to increase the operational life of Carolina Lithium beyond 11 years by conversion of existing mineral resources to ore reserves or by discovery of additional resources within the TSB within a reasonable trucking or conveying distance to the proposed concentrator. Reserves delineated as part of the BFS only consider the Company's Core Property and are predominately limited to those tons which are captured by current permit applications. Significant upside exists via the potential future conversion of other resources to reserves, the impact of which is not captured in the BFS economics.

Chemical Plant Production

The lithium hydroxide plant is assumed to operate for 30 years, with 2.0 Mt of SC6 delivered from Carolina Lithium's concentrate operations from years 1-11 and 3.9 Mt of SC6 delivered from third party spodumene concentrate purchases from years 12-30, resulting in a total production target of approximately 883,000 tonnes of battery quality lithium hydroxide, averaging approximately 29,400 t/y of lithium hydroxide over the 30-year production life.

Third party purchases of spodumene concentrate may include procurement of SC6 from Sayona Quebec, where Piedmont Lithium holds offtake rights to the greater of 113,000 t/y or 50% of SC6 production on a life-of-mine basis. SC6 may also be delivered from Atlantic Lithium, where Piedmont Lithium holds a 50% offtake right, currently forecasted as 147,500 t/y SC6 production for life-of-mine. The BFS project financials do not capture potential financial gains from Piedmont's equity interests in Sayona Quebec or Atlantic Lithium.

Mining Optimization

Independent consultants Marshall Miller and Associates used Maptek Vulcan and Evolution to generate a series of economic pit shells using the updated Mineral Resource block model and input parameters as agreed by Piedmont. Overall slope angles in rock were estimated following a preliminary geotechnical analysis that utilized fracture orientation data from oriented core and downhole geophysics (Acoustic Televiewer), as well as laboratory analysis of intact rock strength. The preliminary geotechnical assessment involved both kinematic and overall slope analyses utilizing Rocscience™ modeling software.

Overall slope angles of 27 degrees were assumed for overburden and oxide material. Overall slope angles of 51 degrees were estimated for fresh material which includes a ramp width of 30 meters. Production schedules were prepared for the Project based on the following parameters:

- A targeted run-of-mine production of 1.9 Mt/y targeting concentrator output of about 242,000 t/y of SC6
- Mining dilution of 10%
- Mine recovery of 100%
- Concentrator processing recovery of 77%
- Mine sequence targets utilized Proven and Probable reserves for the schedule

The results reported are based upon a scenario which utilizes extraction of Probable reserves from property currently under mine permit application filed with NC DEMLR and additional controlled tonnes which are anticipated to be added to the permit following additional property acquisitions. These tonnes are currently excluded from the permit due to geometric constraints and offset requirements, but are anticipated to be permitted in the future. Table 8 shows the production target.

Table 8: Total Production Target for Piedmont Properties

Property	ROM Tonnes Processed (Mt)	Waste Tonnes Mined (Mt)	Stripping Ratio (W:O t:t)	ROM Li_2O Undiluted Grade (%)	ROM Li_2O Diluted Grade (%)	Production Years	Tonnes of SC6 (Mt)
Core	20.09	232.52	11.58	1.10	0.996	1-11	2.57
Central	0	0	0	-	-	-	0
Huffstetler	0	0	0	-	-	-	0
Total	**20.09**	**232.52**	**11.58**	**1.10**	**0.996**	**1-11**	**2.57**

Production Schedule

A mine design has been prepared based on delivery of ore reserves to the spodumene concentrator. The open pit design incorporates the production schedule on a quarterly basis for the first five years and then annually for the remaining life of mine. Access ramps, ramp widths, conveyor passes, batter angles, berm widths, berm heights, mine permit limits, zoning permit requirements, and jurisdictional buffers from flood zones, streams and wetlands not permitted for disturbance were all incorporated into the mine design.

Table 9: Mine Production Schedule by Time Period

Yr.	Qtr.	ROM Production (MT)	Undiluted Grade (% Li_2O)	Diluted Grade (% Li_2O)	Probable Tonnes (MT)	SC6 Product (kT)	Quartz Product (kT)	Feldspar Product (kT)	Mica Product (kT)
0	0	-	-	-	-	-	-	-	-
1	1	0.24	1.22	1.11	0.24	35.2	35.6	54.7	3.5
1	2	0.24	1.07	0.97	0.24	29.7	36.0	55.3	3.6
1	3	0.24	1.20	1.09	0.24	35.0	36.4	55.9	3.6
1	4	0.24	1.20	1.09	0.24	35.0	36.4	55.9	3.6
2	1	0.47	1.25	1.14	0.47	71.5	70.2	107.8	7.0
2	2	0.47	1.20	1.09	0.47	67.9	71.0	109.0	7.1
2	3	0.48	1.11	1.01	0.48	62.0	71.7	110.2	7.1
2	4	0.48	1.01	0.91	0.48	54.7	71.7	110.2	7.1
3	1	0.47	1.02	0.93	0.47	54.8	70.8	108.7	7.0
3	2	0.47	1.14	1.03	0.47	63.3	70.8	108.7	7.0
3	3	0.48	0.98	0.89	0.48	52.4	71.5	109.9	7.1
3	4	0.48	1.13	1.03	0.48	63.8	71.5	109.9	7.1
4	1	0.47	1.07	0.97	0.47	57.9	70.2	107.8	7.0
4	2	0.47	1.00	0.91	0.47	53.8	71.0	109.0	7.1
4	3	0.48	1.07	0.97	0.48	59.0	71.7	110.2	7.1
4	4	0.48	1.01	0.92	0.48	54.7	71.7	110.2	7.1
5	1	0.47	1.05	0.96	0.47	56.6	70.2	107.8	7.0
5	2	0.47	1.07	0.97	0.47	58.4	71.0	109.0	7.1
5	3	0.48	1.17	1.06	0.48	66.4	71.7	110.2	7.1
5	4	0.48	1.22	1.11	0.48	70.3	71.7	110.2	7.1
6	1-4	1.90	1.12	1.02	1.90	250.3	284.6	437.2	28.3
7	1-4	1.90	1.04	0.94	1.90	225.1	284.6	437.2	28.3
8	1-4	1.90	1.06	0.97	1.90	233.4	284.6	437.2	28.3
9	1-4	1.90	1.07	0.97	1.90	235.7	284.6	437.2	28.3
10	1-4	1.90	1.13	1.02	1.90	251.5	284.6	437.2	28.3
11	1-4	1.90	1.14	1.03	1.90	254.7	284.6	437.2	28.3
12	1	0.15	1.06	0.97	0.15	18.3	22.3	34.3	2.2
Life of Mine		20.09	1.10	1.00	20.09	2,571.4	3,012.7	4,628.1	299.4

Metallurgical Testwork

Concentrate Metallurgy

In 2019, Piedmont engaged SGS Canada Inc. in Lakefield, Ontario to undertake testwork on variability and composite samples. Dense Medium Separation ("DMS") and locked-cycle flotation tests produced high-quality spodumene concentrate with a grade above 6.0% Li_2O, iron oxide below 1.0%, and low impurities from composite samples. Table 10 shows the results of composite tests on the preferred flowsheet (previously announced on July 17, 2019). The feed grade of the composite sample was 1.11% Li_2O.

Table 10: 2019 Dense Medium Separation and Locked Cycle Flotation Test Concentrate Assays

Sample	Li_2O (%)	Fe_2O_3 (%)	Na_2O (%)	K_2O (%)	CaO+ MgO + MnO (%)	P_2O_5 (%)
Dense medium separation	6.42	0.97	0.56	0.45	0.51	0.12
Locked-cycle flotation	6.31	0.90	0.68	0.52	1.25	0.46
Combined concentrate	6.35	0.93	0.63	0.49	0.96	0.32

In 2020, a pilot plant testwork program was undertaken at SGS Canada Inc. A 54-t bulk outcrop sample from the Carolina Lithium Project was processed through a DMS and flotation pilot plant. Using the optimized results from the flotation pilot plant, the combined DMS and flotation concentrates graded >6% Li_2O and <1% Fe_2O_3 with lithium recoveries >70%. Optimized testing on the master composite sample resulted in lithium recovery of 82% and concentrate grading 6.13% Li_2O.

In 2021, Piedmont engaged SGS Canada Inc. in Lakefield, Ontario to undertake testwork on nine variability samples. Samples were produced from drill core from the East and South pits and represented the early years of production (i.e., the first 10 years of operation). The samples generally contained elevated levels of host rock dilution (ranging from 9.4% to 17.3%) as compared to the mine plan average (10%). DMS and batch and locked-cycle flotation tests were undertaken. Table 11 shows the composition of the nine variability samples and combined (DMS and flotation) concentrate grades and spodumene recoveries which were estimated based on feed mineralogy.

Table 11: 2021 Variability Testwork Results

Pit	Variability Sample	Feed		Combined Concentrate		
		Li_2O (%)	Fe_2O_3 (%)	Li_2O (%)	Fe_2O_3 (%)	Est Spodumene Recovery (%)
East	Early Flat 1	1.05	2.01	6.00	1.11	74.7
	Early Flat 2	0.99	1.80	6.16	0.92	73.2
	Early Steep	1.12	1.92	6.36	1.11	82.2
	Late Flat	0.69	1.89	6.10	0.92	74.9
	Late Low-grade	0.69	1.85	5.67	1.06	67.2
	Extension High-grade	1.05	1.40	5.84	1.14	81.5
	Extension Low-grade	1.01	1.81	5.81	1.10	67.4
South	Lower Flat	1.01	2.00	5.74	0.95	75.4
	Upper Steep	1.10	2.25	6.05	1.59	79.3

Based on the historical testwork and the 2021 variability program, the BFS assumes a spodumene recovery of 77.0% for a diluted head grade of 0.996% Li_2O when targeting a 6.0% Li_2O spodumene concentrate product.

By-Product Metallurgy

The production of bulk quartz and feldspar concentrates as by-products from the spodumene locked-cycle flotation tailings was investigated. Six individual batch tests were conducted with the quartz and feldspar concentrates being composited. The results of these tests are provided in Table 12 (results previously announced May 13, 2020). Additional by-product testwork in conjunction with BFS is ongoing.

Table 12: Composite Locked Cycle By-product Assays (from Spodumene Tailings)										
	Li_2O	SiO_2	Al_2O_3	K_2O	Na_2O	CaO	MgO	MnO	P_2O_5	Fe_2O_3
Quartz concentrate	0.02	99.0	0.32	0.04	0.11	0.01	0.01	0.01	0.01	0.01
Feldspar concentrate	0.12	68.0	19.35	2.45	9.30	0.17	0.04	0.01	0.15	0.05

Piedmont engaged North Carolina State University's Minerals Research Laboratory in 2018 to conduct bench-scale testwork on samples obtained from the Company's MRE within the Core Property for by-products quartz, feldspar, and mica. The objective of the testwork program was to develop optimized conditions for spodumene flotation and magnetic separation for both grade and recovery. Summary mica concentrate data are shown in Table 13. Complete mica data were previously announced on September 4, 2018. Further mica product optimization is in progress in conjunction with the BFS.

Table 13: Bench Scale Mica Physical Properties Results		
Parameter	Unit	Optimized Value
Particle Size	Medium to Very Fine	40 – 635 Mesh
Bulk Density	g/cm^3	0.681 – 0.682
Grit	%	0.70 – 0.79
Photovoltmeter	Green Reflectance	11.2 – 11.6
Hunter Value	± a [Redness(+) Greenness(-)]	0.27 – 1.25
Hunter Value	± b [Yellowness(+) Blueness(-)]	44.77 – 46.07

Mica quality is measured by its physical properties including bulk density, grit, color/brightness, and particle size. The bulk density of mica by-product generated from Piedmont composite samples was in the range of 0.680 – 0.682 g/cm^3.

The National Gypsum Grit test is used mostly for minus 100 mesh mica which is used as joint cement compound and textured mica paint. Piedmont sample grit results were in the range of 0.70 – 0.79%, well below the typical specification for total grit in mica of 1.0%. Color/brightness is usually determined on minus 100 mesh material. Several instruments are used for this determination including the Hunter meter, Technedyne and the Photovoltmeter. The green reflectance is often reported for micas and talcs. Piedmont Green Reflectance results were in the range of 11.2 – 11.6.

Quartz and feldspar concentrates were produced during the 2021 Variability program at SGS Canada Inc. Batch flotation tests were operated to produce feldspar concentrate with the flotation tailings passed through wet high-intensity magnetic separation to produce quartz concentrate. Table 14 and Table 15 show assays for the feldspar and quartz concentrates produced from optimized variability batch tests.

Table 14: Optimized Batch Test Feldspar Concentrate Assays (from Spodumene Tailings)								
Test	SiO_2	Al_2O_3	K_2O	Na_2O	CaO	MgO	P_2O_5	Fe_2O_3
1	69.3	18.5	2.32	8.15	0.51	0.06	0.13	0.3
2	65.6	20.8	2.25	8.92	1.08	0.05	0.13	0.1
3	67.8	18.8	2.28	8.14	0.95	0.04	0.11	0.1
4	69.0	18.8	2.46	8.46	0.48	0.05	0.13	0.1
5	69.3	18.5	2.53	8.56	0.36	0.05	0.13	0.1

Table 15: Optimized Batch Test Quartz Concentrate Assays (from Spodumene Tailings)								
Test	SiO_2	Al_2O_3	K_2O	Na_2O	CaO	MgO	P_2O_5	Fe_2O_3
1	99.6	0.11	0.01	0.03	0.01	0.01	0.01	0.01
2	99.7	0.13	0.01	0.04	0.01	0.01	0.01	0.02
3	99.7	0.14	0.02	0.03	0.01	0.01	0.01	0.01
4	99.4	0.13	0.01	0.04	0.01	0.01	0.01	0.02
5	99.7	0.12	0.01	0.04	0.01	0.01	0.01	0.00

Conversion Metallurgy

In 2021, Piedmont engaged Metso Outotec to undertake pilot plant testwork using their proprietary Lithium Hydroxide Process. The spodumene concentrate sample used was produced during concentrator pilot plant operation in 2020. The spodumene concentrate was calcined by Metso Outotec at their laboratory in Oberursel, Germany. The calcined concentrate was then sent to Metso Outotec Research Center in Pori, Finland for hydrometallurgical testing.

The pilot plant flowsheet tested included: soda leaching, cold conversion, secondary conversion, ion exchange, and lithium hydroxide crystallization. The pilot plant operated for approximately 10 days. Roughly 100 kg of calcined spodumene concentrate was fed to the pilot plant. The average total lithium extraction achieved in soda leaching and cold conversion was 89% during the first 136 h of operation. Process recycles were incorporated in the pilot plant with no significant accumulation of impurities in the process. First stage lithium hydroxide crystallization was operated continuously during the pilot plant. Second stage crystallization was operated in batches after the completion of the continuous pilot plant. Impurities levels in the final battery-quality lithium hydroxide monohydrate product were typically low with Al <10 ppm, Ca <10 ppm, Fe <20 ppm, K <10 ppm, and Si <40 ppm. All other metal impurities were below detection limits.

Based on the testwork completed, Metso Outotec expects that 195,000 t/y of SC6 will be required to produce 30,000 t/y of battery quality lithium hydroxide. Based on Metso Outotec's estimate, the BFS study assumes 91% lithium conversion through the lithium hydroxide conversion plant.

Process Design

The concentrator process design is based on historical testwork including the 2021 variability testwork program. Lithium hydroxide manufacturing process design is based on pilot plant results and Metso Outotec experience. The simplified process flow diagram for the Project is shown in Figure 7.

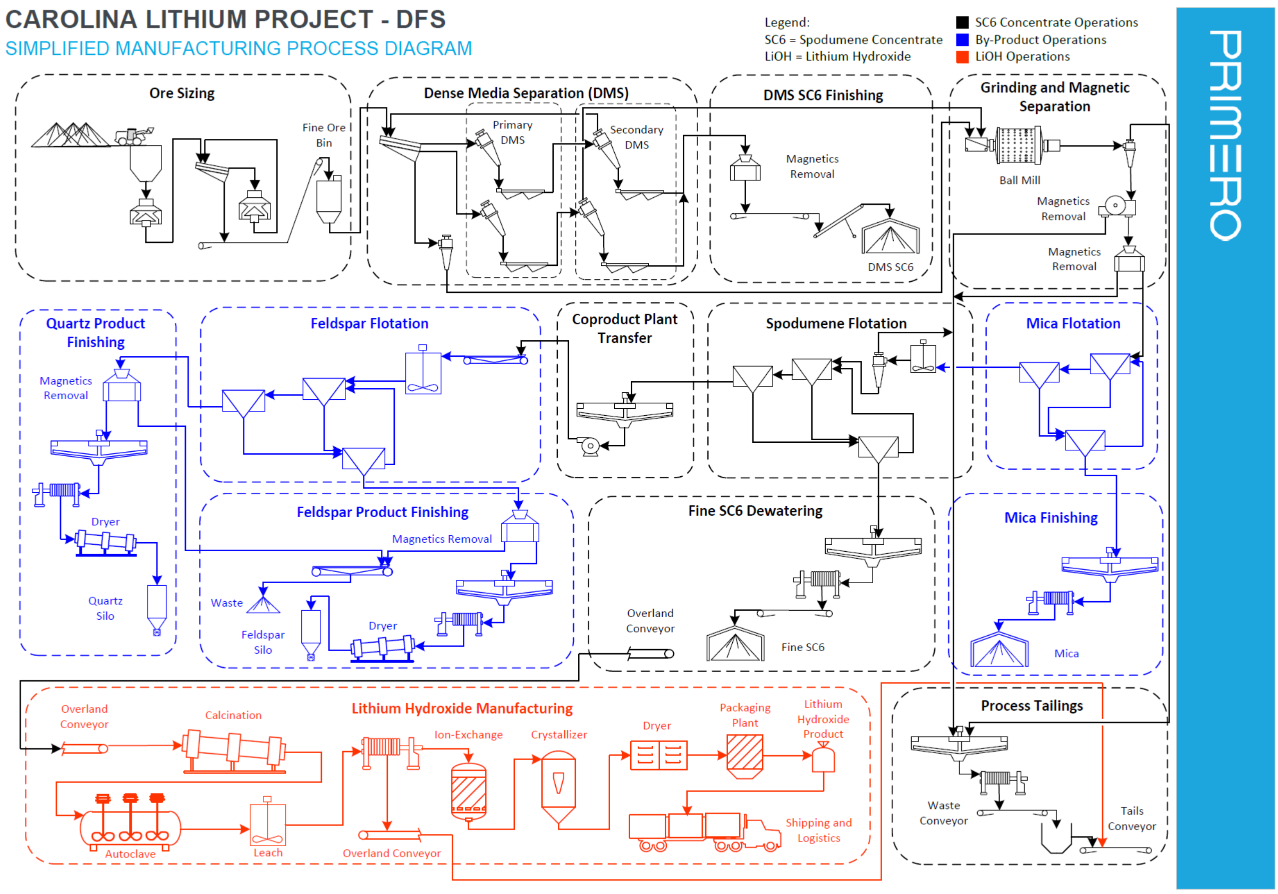

Figure 7 – Proposed Carolina Lithium Project block flow diagram

Site Plan

A detailed site plan including mining operations, concentrate operations, lithium hydroxide manufacturing, overburden and waste rock disposal, by-product manufacturing and ancillary facilities was developed by Marshall Miller and Primero Group in connection with the Project's mine permit application submitted in August 2021. This plan is expected to be modified as additional properties are acquired in order to execute the mine plan as expressed in the BFS. Most notably, the BFS assumes that tonnes contained between external property boundaries and pit extents, currently constrained by permitting offset requirements, are mined as additional properties are acquired. Also, a secondary waste pile, located on currently controlled property, is not included in the current permit application but is needed to develop the reserves as shown in the BFS. Staged permitting is a common practice and should not be considered abnormal for a mining venture of this magnitude. Figure 8 shows the proposed mine permit plan for the proposed integrated manufacturing campus.

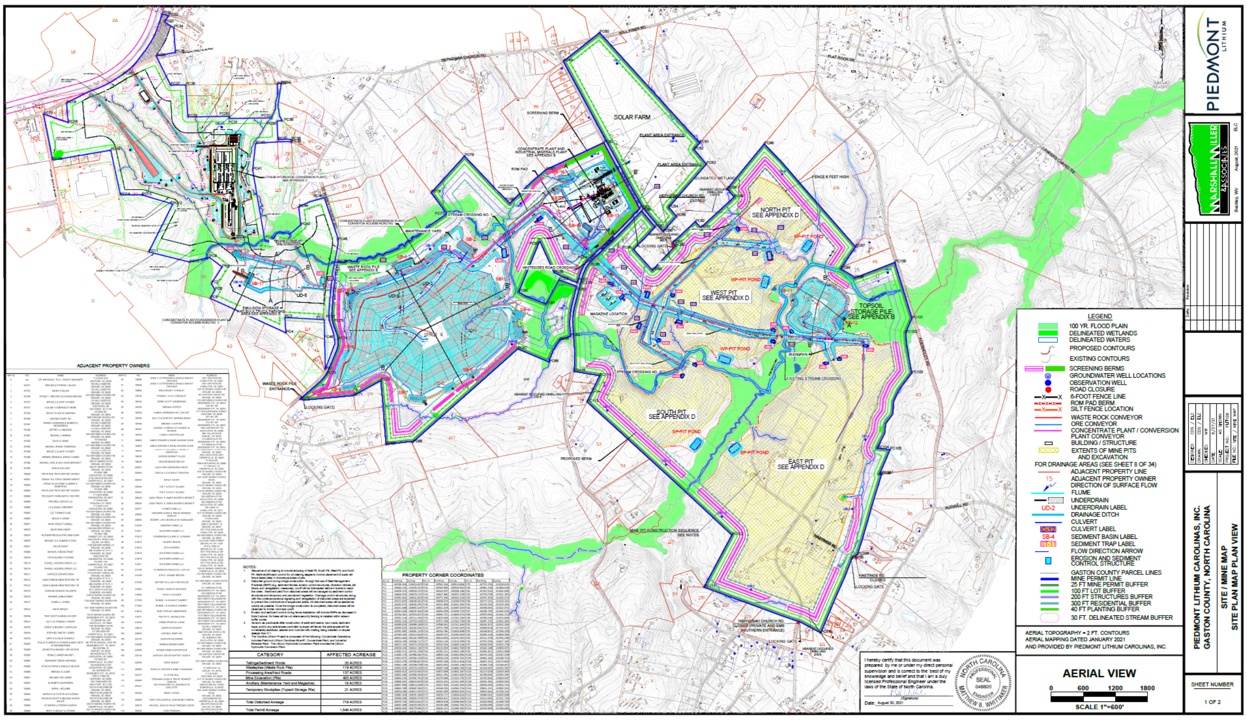

Figure 8 – Proposed integrated manufacturing campus site plan

Navisworks models have been completed for the lithium hydroxide conversion operations (Figure 9) and spodumene concentrate facilities (Figure 10) to a BFS level of detail. Further optimization of the proposed layouts will be completed during front-end engineering design.

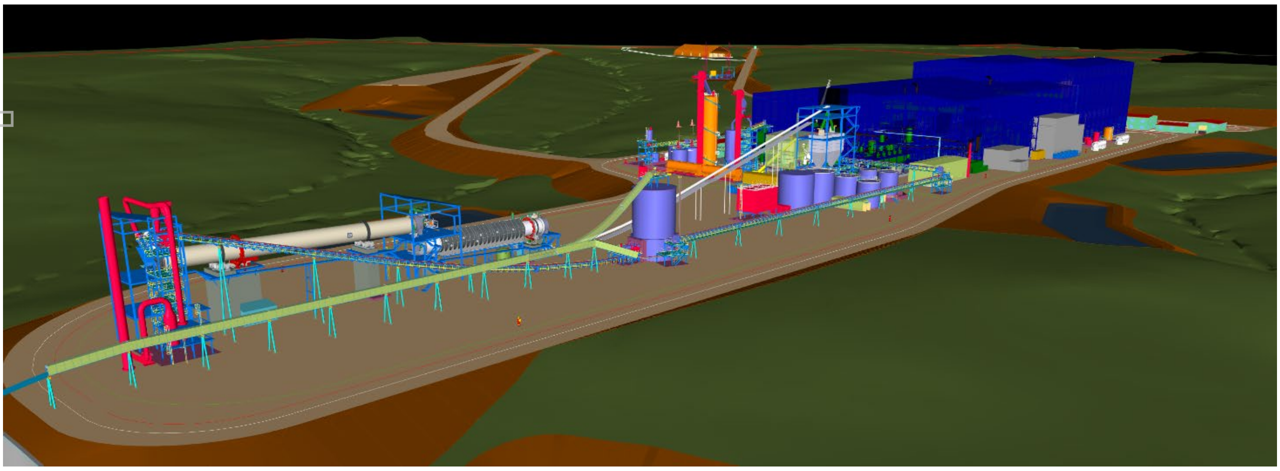

Figure 9 – Carolina Lithium 30,000 t/y lithium hydroxide conversion facilities

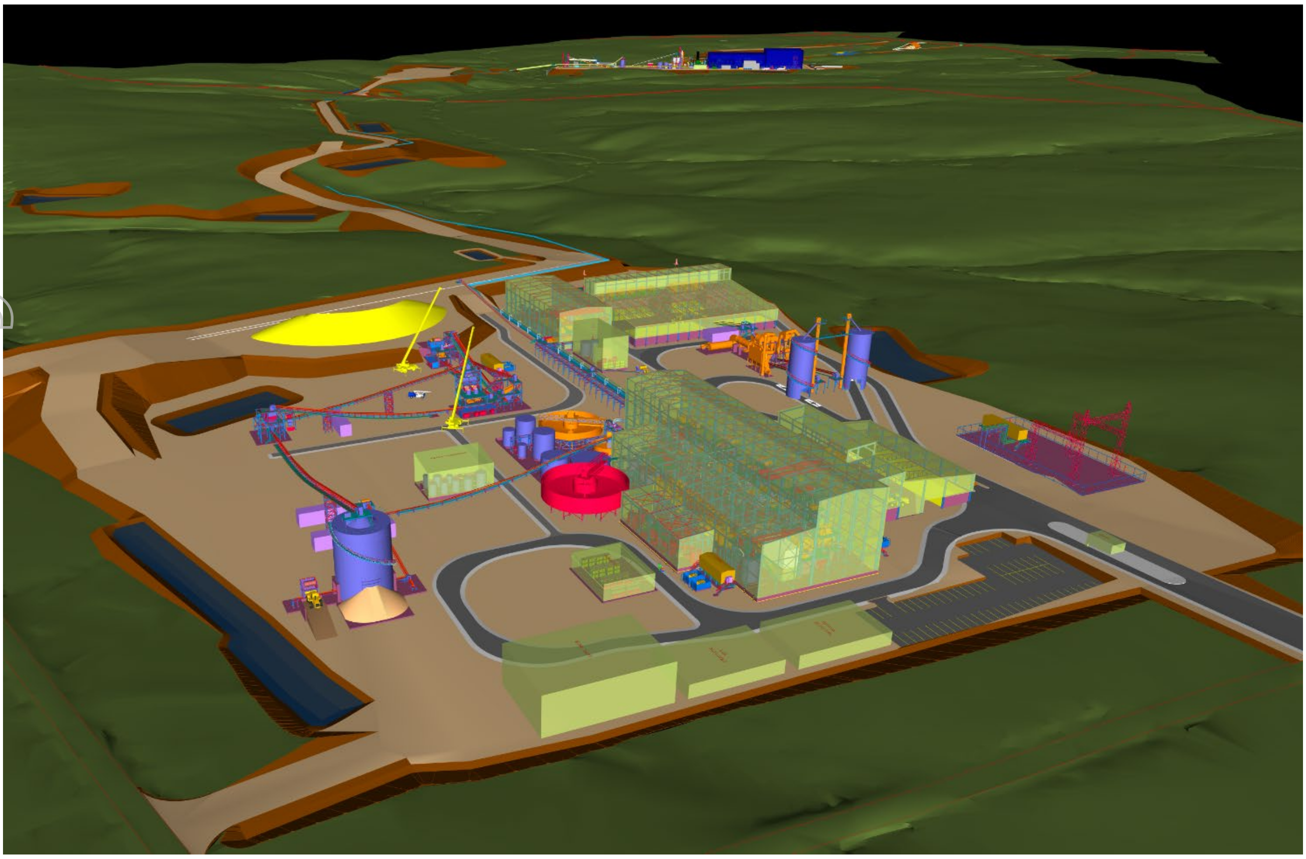

Figure 10 – Carolina Lithium spodumene and byproducts concentrator with integrated LiOH plant in background

Infrastructure

Piedmont enjoys a superior infrastructure position relative to most lithium projects globally. The proposed site is approximately 25 miles west of Charlotte, North Carolina. The site is directly accessible by multiple state highways, CSX railroad, and is in close proximity to U.S. Highway 321 and U.S. Interstate I-85.

Piedmont's proposed Carolina Lithium operations are in proximity to four (4) major US ports:

- Charleston, SC, 197 miles
- Wilmington, NC, 208 miles
- Savannah, GA, 226 miles
- Norfolk, VA, 296 miles

Charlotte-Douglas International Airport is 20 miles from the proposed operations. Charlotte-Douglas is the 6th largest airport in the United States and has direct international routes to Canada, the Caribbean, South America, and Europe.

Temporary or permanent camp facilities will not be required as part of the Project. Furthermore, Livent Corporation and Albemarle Corporation operate lithium chemical plants in close proximity to the proposed Piedmont operations, and the local region is well serviced by fabrication, maintenance, and technical service contractors experienced in the sector.

Logistics

Most spodumene concentrate produced by Piedmont will be consumed by the Piedmont Carolina Lithium chemical plant. For internal transportation costs within the integrated campus, the cost to operate the belt conveyors connecting the concentrator and chemical plant are carried in the concentrator operating costs. Products are assumed to be shipped from site via truck.

Permitting

HDR Engineering has been retained by Piedmont to support permitting activities on the proposed Project.

In November 2019, the Company received a Clean Water Act Section 404 Standard Individual Permit from the US Army Corps of Engineers for the concentrate operations. This is the only federal permit required for the concentrate operations. The Company has also received a Section 401 Individual Water Quality Certification from the North Carolina Division of Water Resources. In connection with the 404 Permit an Environmental Assessment was completed for the Project which resulted in a Finding of No Significant Impact ("FONSI").

The concentrate operations require a North Carolina State Mining Permit from the North Carolina Department of Environmental Quality ("NCDEQ") Division of Energy, Mineral and Land Resources ("DEMLR"). The Company submitted a mine permit application to DEMLR on August 31, 2021. A public hearing in relation to the mine permit application was held on November 15, 2021. The Company has received additional information requests in connection with the mine permit application and is preparing a written response.

Piedmont previously received a Clean Air Act Title V synthetic minor permit from the NCDEQ Division of Air Quality for a proposed lithium hydroxide operation in Kings Mountain. Piedmont plans to apply for a new air permit for the Carolina Lithium integrated operations upon completion of the BFS.

Carolina Lithium remains subject to local rezoning and permit requirements. Piedmont remains in pre-application consultation with Gaston County at this time. A rezoning application will follow receipt of mine and air permits. The Company will apply for a special use permit required under the Gaston County UDO upon completion of the rezoning process.

The following environmental studies have been completed in connection with the Project (Table 16).

Table 16: List of Completed Environmental Background Studies for the Project

Study Description	Author	Date of completion
Jurisdictional Delineation	HDR Engineering	April 2019
Threatened and Endangered Species Survey	HDR Engineering	December 2018
Roadway Abandonment Technical Memo	HDR Engineering	March 2019
Cultural Resources Survey	HDR Engineering	April 2019
Static Groundwater model	HDR Engineering	June 2019
Summary of Waste Rock and Process Tailings Geochemical Assessment	Marshall Miller & Associates	August 2019
Addendum Report - Results of Humidity Cell Leaching Tests	Marshall Miller & Associates	December 2019
Water Quality Testing	HDR Engineering	March 2020
Dynamic Groundwater Model	HDR Engineering	August 2021
Toxicity Testing of the Lithium Hydroxide Conversion Plant Tailings	HDR Engineering	August 2021
Acid Base Account and Toxicity Characteristics Leaching Procedure Test Results Summary, and Proposed Mitigation Plan Associated with Potentially Acid Producing Waste Rock in the Southern East Pit	Marshall Miller & Associates	August 2021
Jurisdictional Delineation – Additional properties	HDR Engineering	November 2021
Threatened and Endangered Species Survey – Additional properties	HDR Engineering	November 2021

Marketing

Lithium Market Outlook

Benchmark Mineral Intelligence ("Benchmark") reports that total battery demand will grow to 346 GWh in 2021 translating to 339kt of LCE demand in 2021, a growth of 51% over 2020 demand. Benchmark forecasts total demand in 2021 to be 473kt on an LCE basis.

Benchmark further expects the market to remain in a structural deficit (see Figure 11) for the foreseeable future as demand gets a head-start on supply. In the near impossible scenario that all projects come online on time as planned and without any issues, the first surplus will not occur until 2025. Benchmark believes that in this extreme case, a surplus could only be expected to last a few years before demand forces the market into a large deficit without further new projects yet undiscovered or developed.

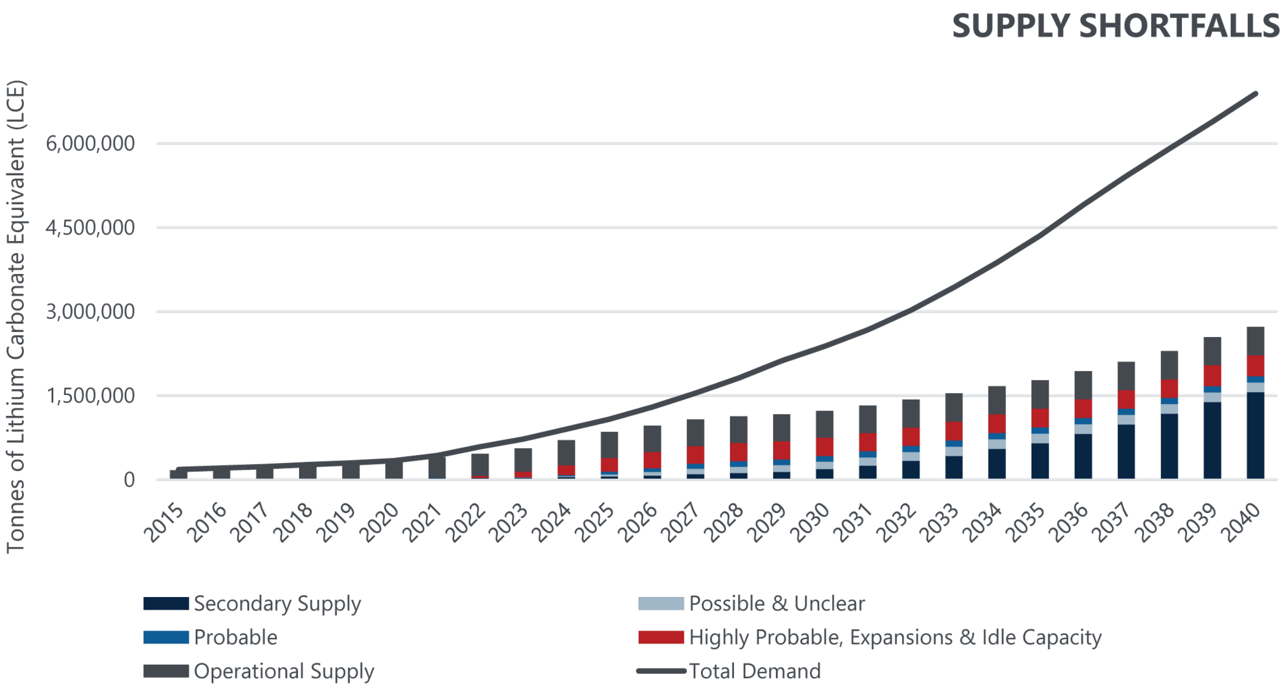

Figure 11 –Lithium hydroxide supply demand forecast

The Company analyzed recent battery-grade lithium hydroxide and SC6 prices from Benchmark, JPMorgan and Macquarie for the period 2022-2025 as well as price forecasts recently announced by other lithium project developers.

Table 17: Price Forecasts for Battery-Grade Lithium Hydroxide ($/tonne)				
Forecast	2022	2023	2024	2025
Benchmark Minerals	$20,600	$26,200	$25,200	$20,900
JPMorgan	$26,625	$22,500	$19,737	$18,420
Macquarie	$21,275	$20,415	$18,545	$17,540

Based on these and other data this Study assumes long-term pricing of $18,000/t for battery quality lithium hydroxide and $900/t for spodumene concentrate for the life of the project. Figure 12 compares the pricing used in the BFS to historical China pricing for lithium hydroxide.

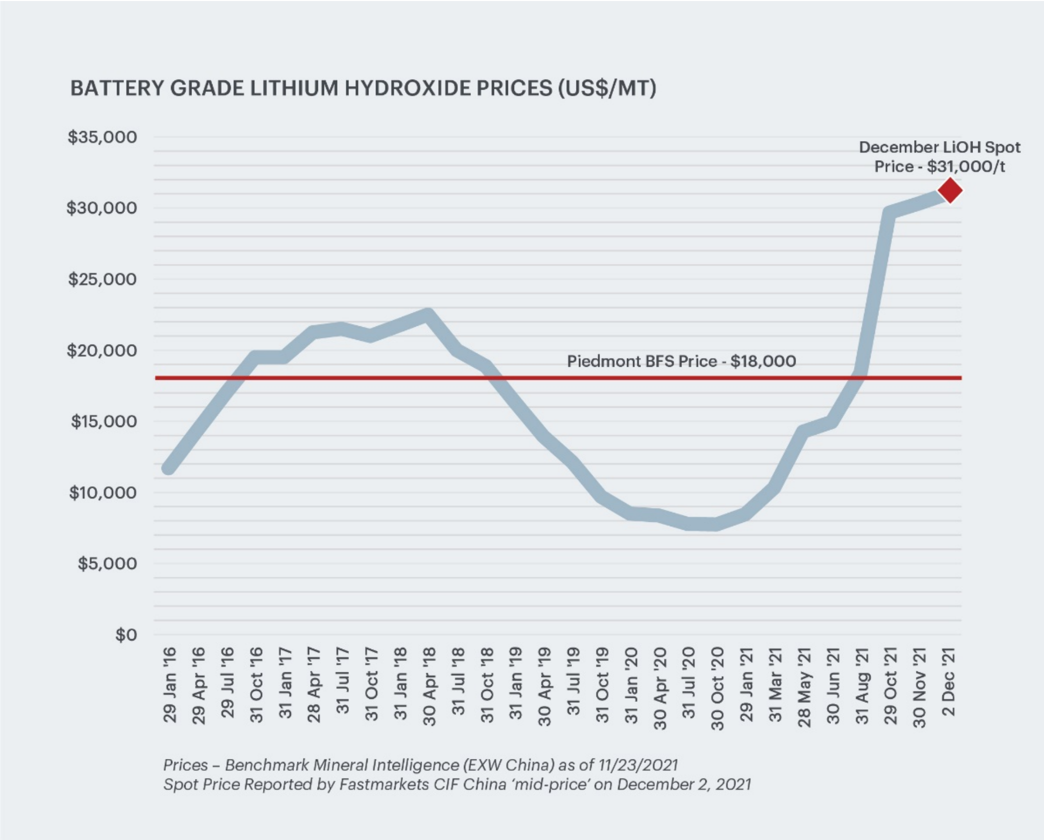

Figure 12 –Historical battery quality lithium hydroxide prices (ex-China) $/t

As shown in Figure 13 below North America is seeing considerable growth in battery plant capacity. Figure 14 below shows the corresponding lithium hydroxide demand for the announced U.S. battery plant capacity at full production.

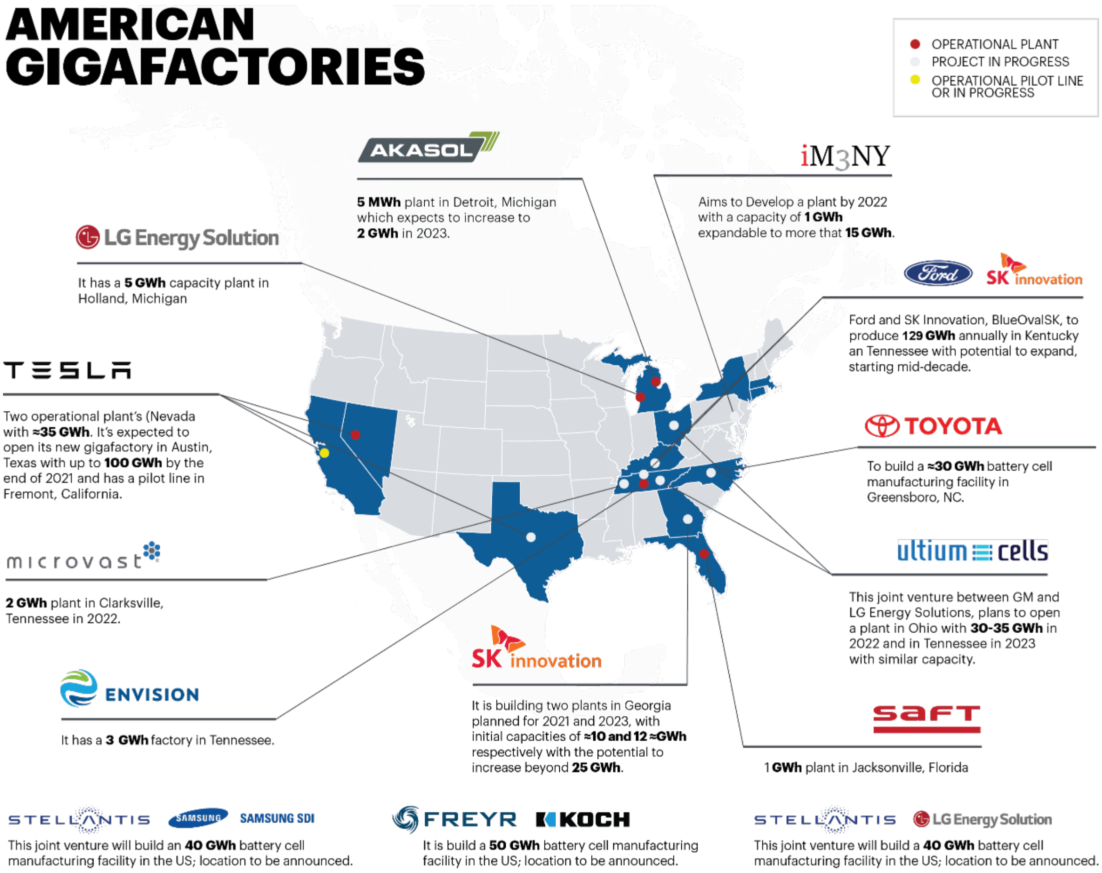

Figure 13 –Current battery plants operating, under construction or announced in the United States

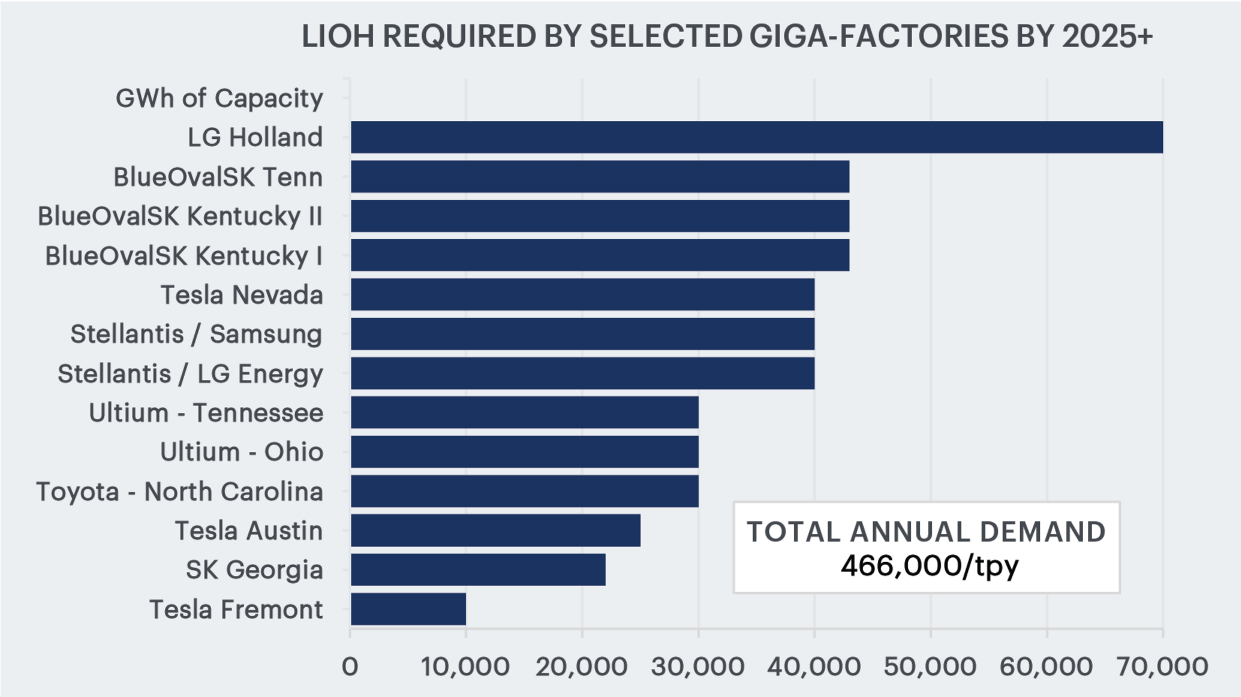

Figure 14 –LiOH Demand for Select U.S. Giga-Factories

Market Strategy

Piedmont is focused on establishing strategic partnerships with customers for battery grade lithium hydroxide with an emphasis on a customer base which is focused on EV demand growth in North America and Europe. Piedmont will concentrate this effort on these growing EV supply chains, particularly in light of the growing commitments of battery manufacturing by groups such as Ford, General Motors, Stellantis, Toyota, LGES, SK Innovation, Samsung SDI and others. Advanced discussions with prospective customers are ongoing.

By-Product Marketing

Piedmont proposes to produce quartz, feldspar and mica as by-products of spodumene concentrate operations. The Company engaged John Walker, an independent consultant, and Pronto Minerals, a joint venture between the Company and Ion Carbon & Materials, to assist the Company in estimating market opportunities for its by-products as shown in Table 18 below.

Table 18: Market Forecasts and Basket Pricing for By-Products ($/t)			
Quartz (t/y)	Feldspar (t/y)	Mica(t/y)	Average Realized Price ($/t) Mine Gate
252,000	392,000	28,000	$69.70

Operating Cost Estimates

Spodumene Concentrate Operating Cost Estimate

The SC6 operating cost estimate was prepared based on operating at approximately 1.90 million t/y run-of-mine ore producing an average of 242,000 t/y of SC6. Table 19 summarizes the estimated operating costs at steady-state. Costs are presented on an FOB chemical plant basis. Analcime by-product from lithium hydroxide manufacturing is assumed to have zero credit value.

Table 19: Concentrate Operations Cash Operating Cost Summary (Steady State)		
SC6 Production Costs	**Total Average Annual Cost ($mm/y)**	**Cost $/t SC6**
Mining	$62.1	$274
SC6 processing	$24.6	$101
Labor	*$8.6*	*$36*
Consumables	*$9.0*	*$37*
Power	*$3.9*	*$16*
Maintenance	*$1.1*	*$4*
Mobile Equipment	*$0.6*	*$2*
Lab and Plant G&A	*$0.7*	*$3*
Water Treatment	*$0.8*	*$3*
Royalties	$1.9	$8
Subtotal	$88.6	$383
By-product processing	$11.3	$46
Labor	*$2.4*	*$10*
Consumables	*$5.4*	*$22*
Power	*$1.5*	*$6*
Maintenance	*$0.3*	*$1*
Mobile Equipment	*$0.3*	*$1*
Lab and Plant G&A	*$0.3*	*$1*
Water Treatment	*$1.2*	*$5*
By-product credit	($46.8)	($195)
Total cash operating cost	**$53.1**	**$234**

Lithium Hydroxide Operating Cost Estimate

The operating cost estimate was prepared based on producing 30,000 t/y of lithium hydroxide monohydrate. Table 20 summarizes the estimated average operating costs for lithium hydroxide production over the life of mining operations and when using third-party spodumene concentrate.

Table 20: Chemical Plant Cash Operating Cost Summary				
	Steady-State First 10 Years		Average Life of Operations	
Operating Cost Component	Total Average Annual Cost ($mm/y)	Cost $/t LiOH	Total Average Annual Cost ($mm/y)	Cost $/t LiOH
Salaries	$10.0	$334	$10.0	$339
Operating Consumables	$30.5	$1,017	$30.5	$1,027
Power	$6.4	$214	$6.4	$218
Maintenance	$3.2	$107	$3.2	$108
Laboratory and QA/QC	$2.1	$70	$2.1	$70
Other Costs	$1.1	$32	$1.1	$32
Subtotal conversion costs	$53.3	$1,774	$53.3	$1,794
SC6 supply costs (cash cost basis)	$45.8[16]	$1,527	$123.5[17]	$4,131
G&A	$10.7	$356	$9.3	$310
Total cash operating costs	**$109.8**	**$3,657**	**$186.1**	**$6,235**

[16] Expenses attributable to SC6 delivered to the lithium hydroxide conversion plant for processing.

[17] After depletion of Ore Reserves the model assumes that Carolina Lithium purchases SC6 at market rates of $900/t plus $35/t inland freight costs from U.S. port to Cherryville, NC.

The operating cost estimate is based on Q4 2021 U.S. dollars with no escalation. Target accuracy of the operating cost estimate is ± 15%. Operating costs are based on steady-state production. The average operating costs include the commissioning and ramp-up phases of both concentrate operations and chemical plant operations. Third party SC6 sales are not included in the by-product credits.

During years 12-30, the chemical plant operations pay market price for spodumene concentrate either delivered CIF to the port of Charleston, South Carolina, or to DAP to Carolina Lithium's rail siding in Cherryville, NC.

Operating costs assume that Carolina Lithium employs contract mining services.

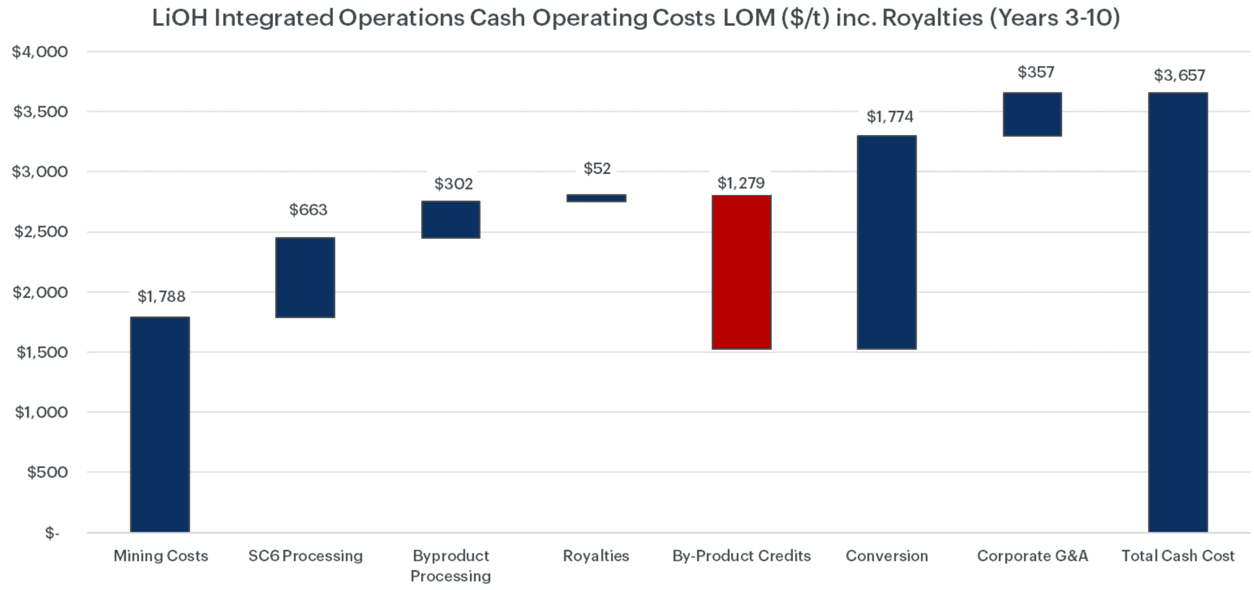

Figure 15 – Lithium hydroxide production average steady state cash cost first 10 years

Capital Cost Estimate

Table 21 highlights the total estimated capital expenditures for the Project. Variable contingency has been applied to project costs based on the level of engineering definition completed and the confidence level of supplier and contractor quotations. The capital cost estimate has a ±15% accuracy and is based on Q4 2021 costs.

Table 21: Estimated Capital Costs	
Cost Center	Total Capital Costs ($ mm)
Mining	$81
Concentrator	$162
Byproducts	$45
Lithium hydroxide conversion plant	$408
Project indirects	$99
Owner's costs	$73
Total Initial Capital (excluding contingency)	**$867**
Contingency	$120
Total Development Capital	**$988**
Deferred, working and sustaining capital	$351

Project Schedule

An integrated schedule was prepared as part of the BFS. The level 1 summary schedule is presented in Figure 16. For the purposes of financial modeling construction of the Carolina Lithium Project is assumed to commence at the start of Q3 2022. Project approvals including a state mining permit, rezoning, air permit, and special use permit are required before construction activities can commence on the Project.

Commercial production at the lithium hydroxide plant is estimated to start 24 months after the start of construction, with full production achieved within 12 months from the start of production.

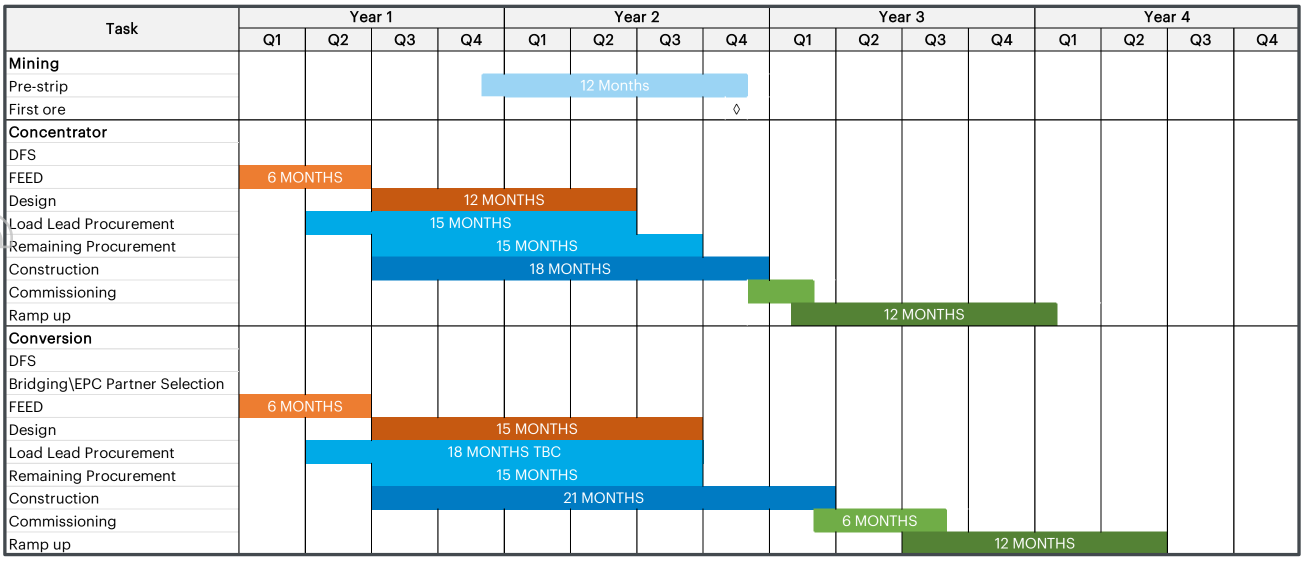

Figure 16 – Carolina Lithium Project Level 1 Schedule

Royalties, Taxes, Depreciation, and Depletion

The BFS project economics include the following key parameters related to royalties, tax, depreciation, and depletion allowances:

- Royalties of $1.00 per ROM tonne based on the average land option agreement
- Current North Carolina state corporate taxes are 2.5% but will reduce to 0% between 2024-2028
- Federal tax rate of 21% is applied and state corporate taxes are deductible from this rate
- Effective base tax rate of 22.975% in 2028 and reduces to 21% from 2028 onwards
- Depletion allowance of 22% is applied to the spodumene concentrate and mica sales prices. For spodumene concentrate used internal to the Carolina Lithium operations a transfer price equal to the market price has been used to calculate depletion.
- Depletion allowances for quartz and feldspar concentrates are 14% within the financial model
- Depreciation in the concentrate operations is based on Asset Class 10.0 - Mining in IRS Table B-1 using the general depreciation system ("GDS") over 7 years with the double declining balance method
- Depreciation in the chemical plant is based on Asset Class 28.0 – Mfg. of Chemical and Allied Products in Table B-1 using GDS of 5 years with the double declining balance method
- Bonus depreciation of 80% has been applied based on the bonus depreciation allowance in the Tax Cuts and Jobs Act of 2017, where applicable

BFS Economics

Modeling Assumptions

A detailed project economical model was completed by the Company as part of the Study with the following key assumptions:

- Capital and operating costs are in accordance with technical study outcomes
- Chemical plant ramp-up is based on a 12-month time frame to nameplate production
- Financial modeling has been completed on a monthly basis, including estimated cash flow for construction activities and project ramp-up
- Mine scheduling was prepared on a quarterly basis for the first five years of operations, and annually thereafter.

- Pricing information for battery-grade lithium hydroxide sales and spodumene concentrate supply are based on a fixed price of $18,000/t for battery quality lithium hydroxide and $900/t for 6.0% Li_2O spodumene concentrate
- Royalties, tax, depreciation, and depletion allowances according to stated assumptions

Financial Modelling

A comprehensive economic model has been prepared which fully integrates the Carolina Lithium Project including concentrate and chemical operations. The Study assumes a chemical plant production life of 30 years commencing 3 months after the start of mining operations. The chemical plant operates using self-supplied spodumene concentrate for the first 11 years of operations followed by market procurement of SC6 from year 12, including potentially from offtake sources currently controlled by or contracted with Piedmont. The mining production target is approximately 20.1 Mt at an average run of mine grade of 1.0% Li_2O (fully-diluted) over an 11-year ore reserve life. The overall life of chemical plant operations is 30 years.

The current economic model is based on a monthly projection of capital costs and assumes that the full capital cost is spent across 21 months prior to commissioning of the concentrate operations and across 24 months prior to the commissioning of the chemical plant. Concentrate operations are assumed to ramp to full production over a one-year period and the chemical plant is also assumed to ramp to full production over a one-year period.

Payback Period

Payback periods for the Project constructed in a single phase is 3.5 years after the start of chemical plant operations or 5.5 years from the start of construction. Payback period is calculated on the basis of after-tax free cash flow.

Sensitivity Analyses

The concentrate operations and chemical plant components of the Study have been designed to a BFS level of detail with an intended accuracy of ± 15%. Key inputs into the Study have been tested by pricing, capital cost, and operating cost sensitivities. The impact to after tax net present value is presented in Figure 17 while impact to project IRR is presented in Figure 18. Additionally, applying discount rates of 7% and 9% resulted in NPV_7 of $2,360mm and NPV_9 of $1,768mm.

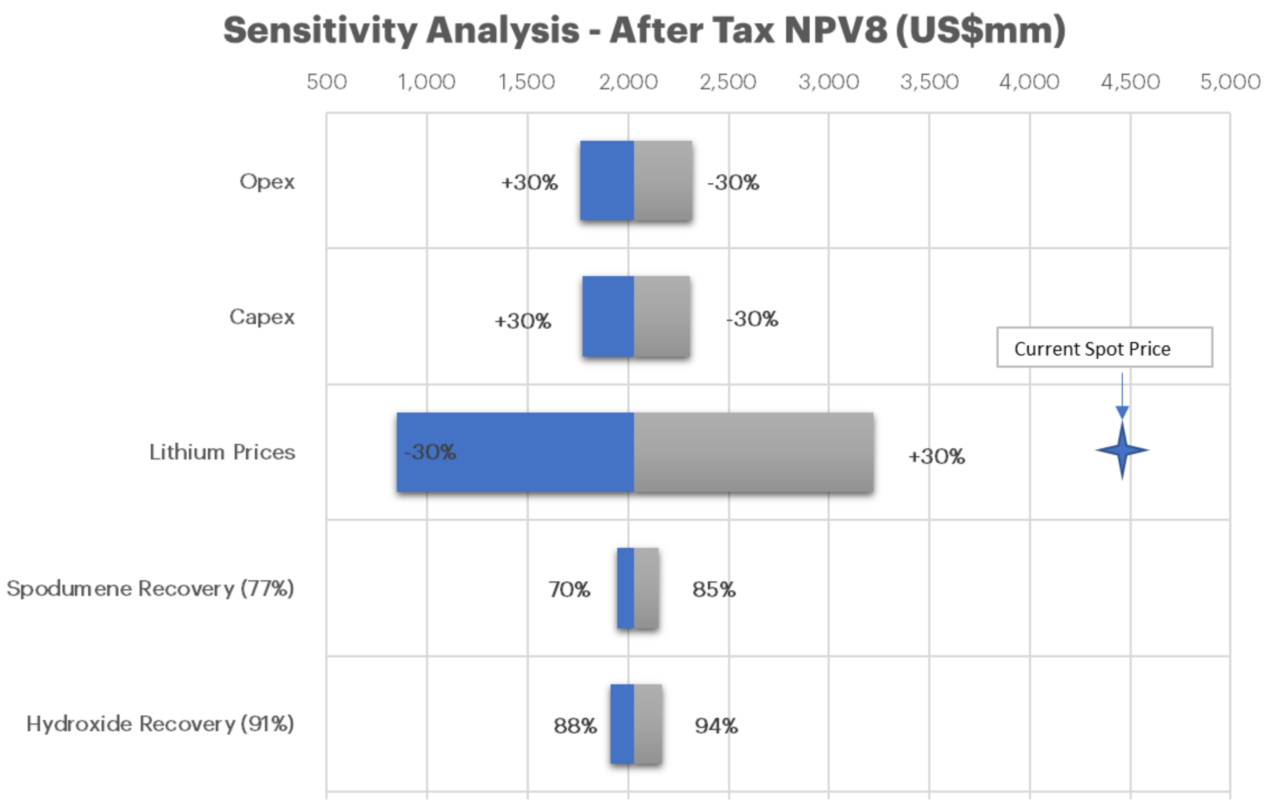

Figure 17 – Net present value sensitivity analysis for the Carolina Lithium Project

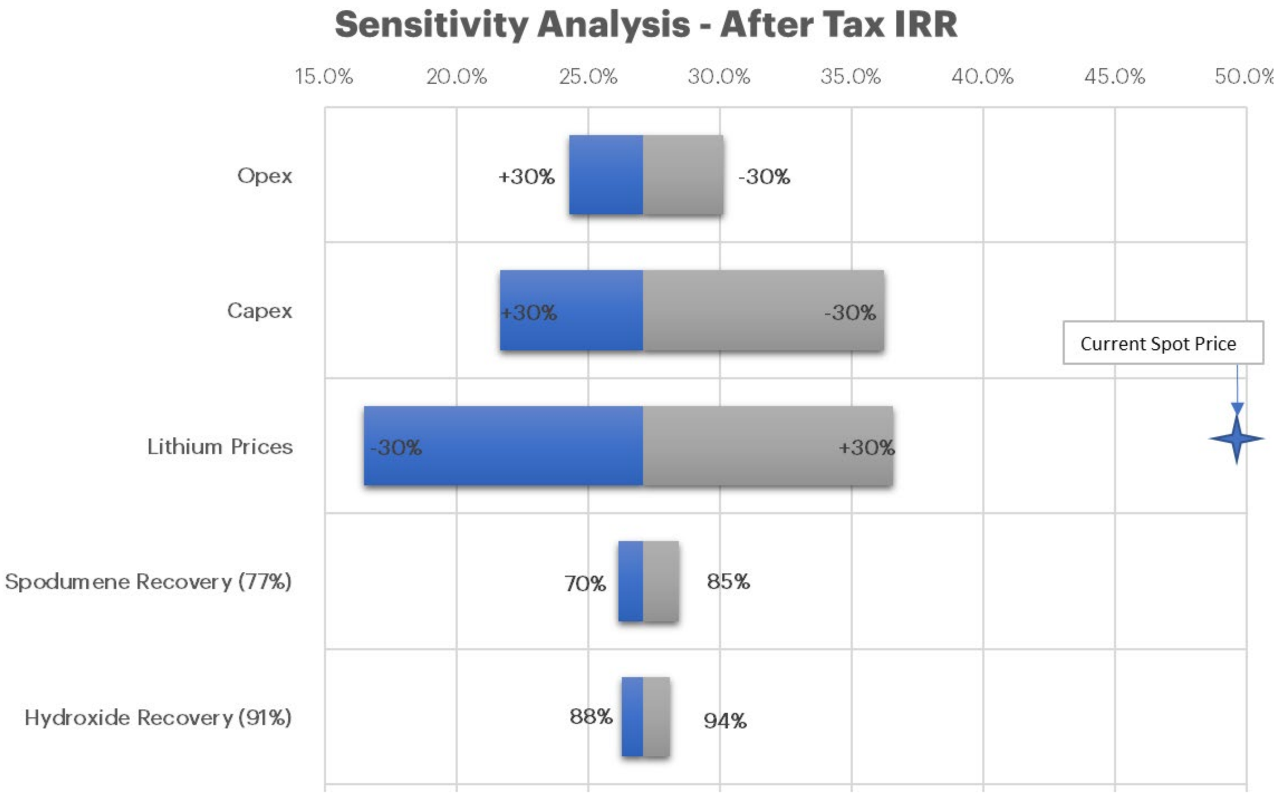

Figure 18 – IRR sensitivity analysis for the Carolina Lithium Project

Conclusions and Next Steps

The Study results demonstrate the potential for Carolina Lithium to become a major North American lithium hydroxide producer on a fully integrated spodumene mine to lithium hydroxide chemical plant basis. The Company will now concentrate on the following initiatives to drive the Project forward:

- Complete an expanded Scoping Study to define a Phase 2 lithium hydroxide operation using partner sourced spodumene concentrate
- Continue evaluation of environmentally sensitive issues for incorporation in mine planning
- Undertake bridging and optimization engineering activities and launch FEED engineering
- Selection of EPC contractor for execution of the Project
- Respond to additional requests for information from DEMLR and continue to advance mine permit approvals
- Complete and submit a new air permit application for the proposed 30,000 t/y Carolina Lithium Project
- Engage in further pre-application consultation with Gaston County in advance of rezoning and special use permit application submittals
- Complete formal submission of the Company's Advanced Technology Vehicle Manufacturing program loan application
- Continue to evaluate opportunities to add quality assets to the Company's portfolio
- Evaluate strategic partnering options in partnership with Evercore and JP Morgan

Cautionary Note to United States Investors Concerning Estimates of Measured, Indicated and Inferred Mineral Resources and Proven and Probable Ore Reserves

The information contained herein by Piedmont has been prepared in accordance with the requirements of the securities laws in effect in the United States and Australia. The terms "mineral resource", "measured mineral resource", "indicated mineral resource" and "inferred mineral resource" are used herein as defined by the U.S. Securities and Exchange Commission ("SEC") in Regulation S-K, Item 1300 ("S-K 1300") and as defined in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code"). The terms "Ore Reserves", "Proven Ore Reserves", and "Probable Ore Reserves" are used herein as defined by the U.S. Securities and Exchange Commission ("SEC") in Regulation S-K, Item 1300 ("S-K 1300") and as defined in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code").

Competent Persons and Qualified Persons Statements

The information in this announcement that relates to Exploration Results is based on, and fairly represents, information compiled or reviewed by Mr. Lamont Leatherman, a Competent Person and Qualified Person, who is a Registered Member of the 'Society for Mining, Metallurgy and Exploration', a 'Recognized Professional Organization' (RPO). Mr. Leatherman is an employee of the Company. Mr. Leatherman has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Leatherman's credentials also allow him to satisfy the requirements of a Qualified person in accordance with the United States Securities and Exchange Commission's Modernization of Property Disclosures. Mr. Leatherman consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to lithium Mineral Resources is extracted from our announcement entitled "Piedmont Increases Mineral Resources with Completion of Phase 5 Infill Drilling dated October 22, 2021. This announcement is available to view on the Company website at www.piedmontlithium.com. Piedmont confirms that: a) it is not aware of any new information or data that materially affects the information included in the original announcements; b) all material assumptions and technical parameters underpinning the Mineral Resources in the original announcements continue to apply and have not materially changed; and c) the form and context in which the Competent/Qualified Person's findings are presented in this announcement have not been materially modified from the original announcements.

The information in this announcement that relates to Metallurgical Testwork Results is based on, and fairly represents, information compiled or reviewed by Dr. Jarrett Quinn, a Competent and Qualified Person who is a Registered Member of Ordre des Ingénieurs du Québec', a 'Recognized Professional Organization' (RPO). Dr. Quinn is a consultant to Primero Group Americas Inc. Dr. Quinn has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves' and a Qualified Person under S-K 1300 standards. Dr. Quinn consents to the inclusion in the report of the matters based on information in the form and context in which it appears.

The information in this announcement that relates to Process Design and Operating Costs is based on, and fairly represents, information compiled or reviewed by Mr. Andrew Siemon, a Competent and Qualified Person who is a Registered Member of the 'Australian Institute of Mining and Metallurgy', a 'Recognized Professional Organization' (RPO). Mr. Siemon is a full time employee of Primero Group Americas Inc. Mr. Siemon has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves' and a Qualified Person under S-K 1300 standards. Mr. Siemon consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Capital Costs and Financial Analysis is based on, and fairly represents, information compiled or reviewed by Mr. Stephane Normandin, a Competent and Qualified Person who is a Registered Member of 'Ordres des Ingenieurs du Quebec', a 'Recognized Professional Organization' (RPO). Mr. Normandin is a full time employee of Primero Group Americas Inc. Mr. Normandin has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves' and a Qualified Person under S-K 1300 standards. Mr. Normandin consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Mining Engineering, Mining Schedule, Mining Costs & Ore Reserves is based on information compiled by Mr. Chris Scott and reviewed by Dr. Steven Keim, both of whom are employees of Marshall Miller and Associates (MM&A). Dr. Keim takes overall responsibility as Competent and Qualified Person for the portions of the work completed by MM&A. Dr. Steven Keim is a Competent Person who is a Registered Member of the 'Society for Mining, Metallurgy & Exploration Society', a 'Recognized Professional Organization' (RPO). Dr. Keim has sufficient experience, which is relevant to the style of mineral extraction under consideration, and to the activity he is undertaking, to qualify as Competent Person in terms of the JORC Code (2012 Edition) and a Qualified Person under S-K 1300 standards. Dr. Keim has reviewed this document and consents to the inclusion in this report of the matters based on his information in the form and context within which it appears.

Forward Looking Statements

This announcement may include forward-looking statements. These forward-looking statements are based on Piedmont's expectations and beliefs concerning future events. Such forward-looking statements concern Piedmont's anticipated results and progress of its operations in future periods, planned exploration and, if warranted, development of its properties and plans related to its business and other matters that may occur in the future. These statements relate to analyses and other information that are *based on forecasts of future results, estimates of amounts not yet determinable and assumptions of management. All statements contained herein that are not clearly historical in nature are forward-looking, and the words "anticipate," "believe," "expect," "estimate," "may," "might," "will," "could," "can," "shall," "should," "would," "leading," "objective," "intend," "contemplate," "design," "predict," "potential," "plan," "target" and similar expressions are generally intended to identify forward-looking statements.*

Forward-looking statements are subject to a variety of known and unknown risks, uncertainties and other factors which could cause actual events or results to differ from those expressed or implied by the forward-looking statements. Forward-looking statements in this release include, but are not limited to, statements with respect to risks related to:

- *Piedmont's operations being further disrupted and Piedmont's financial results being adversely affected by public health threats, including the novel coronavirus pandemic;*
- *Piedmont's limited operating history in the lithium industry;*
- *Piedmont's status as an exploration stage company, including Piedmont's ability to identify lithium mineralization and achieve commercial lithium mining;*
- *mining, exploration and mine construction, if warranted, on Piedmont's properties, including timing and uncertainties related to acquiring and maintaining mining, exploration, environmental and other licenses, permits, access rights or approvals in Gaston County, North Carolina, the Province of Quebec, Canada and Ghana as well as properties that Piedmont may acquire or obtain an equity interest in the future;*
- *completing required permitting, zoning and re-zoning activities required to commence mining and processing operations for the Carolina Lithium Project;*
- *Piedmont's ability to achieve and maintain profitability and to develop positive cash flows from Piedmont's mining and processing activities;*
- *Piedmont's estimates of mineral reserves and resources and whether mineral resources will ever be developed into mineral reserves;*
- *investment risk and operational costs associated with Piedmont's exploration activities;*
- *Piedmont's ability to develop and achieve production on Piedmont's properties;*
- *Piedmont's ability to enter into and deliver products under supply agreements;*
- *the pace of adoption and cost of developing electric transportation and storage technologies dependent upon lithium batteries;*
- *Piedmont's ability to access capital and the financial markets;*
- *recruiting, training and developing employees;*
- *possible defects in title of Piedmont's properties;*
- *compliance with government regulations;*
- *environmental liabilities and reclamation costs;*
- *estimates of and volatility in lithium prices or demand for lithium;*
- *Piedmont's common stock price and trading volume volatility;*
- *the development of an active trading market for Piedmont's common stock; and*
- *Piedmont's failure to successfully execute Piedmont's growth strategy, including any delays in Piedmont's planned future growth.*

All forward-looking statements reflect Piedmont's beliefs and assumptions based on information available at the time the assumption was made. These forward-looking statements are not based on historical facts but rather on management's expectations regarding future activities, results of operations, performance, future capital and other expenditures, including the amount, nature and sources of funding thereof, competitive advantages, business prospects and opportunities. By its nature, forward-looking information involves numerous assumptions, inherent risks and uncertainties, both general and specific, known and unknown, that contribute to the possibility that the predictions, forecasts, projections or other forward-looking statements will not occur. Although Piedmont have attempted to identify important factors that could cause actual results to differ materially from those described in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those anticipated, believed, estimated, or expected. Piedmont cautions readers not to place undue reliance on any such forward-looking statements, which speak only as of the date made. Except as otherwise required by the securities laws of the United States, Piedmont disclaims any obligation to subsequently revise any forward-looking statements to reflect events or circumstances after the date of such statements or to reflect the occurrence of anticipated or unanticipated events. Piedmont qualifies all the forward-looking statements contained in this release by the foregoing cautionary statements.

This announcement has been authorized for release by the Company's Board of Directors.

APPENDIX A: SUMMARY OF MODIFYING FACTORS AND MATERIAL ASSUMPTIONS—FEASIBILITY STUDY

The Modifying Factors included in the JORC Code (2012) and S-K 1300 have been assessed as part of the Feasibility and Scoping Studies, including mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and government factors. The Company has received advice from appropriate experts when assessing each Modifying Factor.

A summary assessment of each relevant Modifying Factor is provided below.

Mining	Refer to Section entitled 'Production Target and Mining' in the BFS Announcement. The Company engaged independent engineers Marshall Miller to carry out pit optimizations, mine design, scheduling, and waste disposal. Modelling and pit sequencing were compiled by Mr. Chris Scott, a Senior Engineer with Marshall Miller. The mine design is based on an open pit design assuming the following wall design configuration for oxide and overburden material in this Feasibility Study: ▪ Batter face angle of 27 degrees ▪ Batter height of 10 vertical meters ▪ Berm width of 0 meters ▪ Overall slope angle of 27 degrees. The following wall design configuration was used for fresh material in this Feasibility Study: ▪ Batter face angle of 75 degrees ▪ Batter height of 24 vertical meters ▪ Berm width of 9.5 meters ▪ Overall slope angle of 51 degrees, which includes a ramp width of 30 meters. The pit wall design parameters indicated above are based on the results of a preliminary geotechnical assessment that utilized available fracture orientation measurements from exploration drilling and downhole geophysical logging, along with laboratory results for intact rock strength. Production schedules have been prepared for the mine based on the following parameters: ▪ Targeted concentrator throughput of 1.90 Mt/y ▪ Targeted concentrator output of 240 kt/y of 6% Li_2O concentrate ▪ Approximately 50% of production will be achieved in year 1 of operations ▪ Mine dilution of 10% ▪ Mine recovery of 100% ▪ Processing recovery of 77% ▪ Maximized utilization of Indicated resources at the front end of the mining schedule ▪ Quarterly scheduling periods for the first five years then Annual scheduling periods for the remaining LOM. The U.S. Army Corps of Engineers has issued a permit for disturbance of streams and wetlands within the areas of the mine excavation and concentrate operations. A Mine Permit application has been filed with NC DEMLR encompassing 1,548 acres. Mine planning and associated ore Reserves are inclusive of tonnes within the mine permit application. Additionally, ore reserves and mine planning summarized in this announcement includes a smaller portion of tonnes contained within currently controlled properties which are anticipated to be permitted and mined via permit boundary revisions. Such tonnes are not mineable based on current permit applications due to offset requirements and geometric boundary complexities. Additional property acquisitions, the costs of which are included in

BFS financials, would allow permit boundary revisions to capture these additional reserve tonnes.

Several meetings have been held with the permitting agency as well as the public and comments received related to the permit application. It is reasonable to believe the mining permit will be issued in accordance with the mining schedule. A permit for Gaston County zoning has not yet been applied for; however, several meetings have been held with the county staff, county commissioners, and the public. Changes to the Gaston County Zoning Ordinance related to mining were approved by the commissioners on September 21, 2021, and have been incorporated into the mine design. It is reasonable to believe the zoning permit will be issued when applied for.

Pursuant to the changes in the Gaston County Zoning Ordinance related to mining, optimizations were carried out to the limits of the mine permit boundary and will require the purchase of an additional 10 parcels of land. The estimated cost of these tracts has been included into the CAPEX costs for the mining section, and it is reasonable to believe these tracts will be procured.

After considering all the modifying factors mentioned, the economically mineable part of the indicated mineral resource has been converted to probable ore reserves. No inferred resources tonnes were used in this conversion and no measured tonnes have been reported. 20.09 million tonnes of indicated resource have been converted to probable reserves and used for optimizations and mine design for this feasibility study.

A mine design has been prepared based on delivery of ore reserves to the concentrator plant. The open pit design incorporates the production schedule on a quarterly basis for the first five years and then annually for the remaining life of mine. Access ramps, ramp widths, conveyor passes, batter angles, berm widths, berm heights, mine permit limits, zoning permit requirements, and jurisdictional buffers from flood zones, streams and wetlands not permitted for disturbance were all incorporated into the mine design.

Mine Production Schedule by Time Period									
Yr.	Qtr.	ROM Production (MT)	Undiluted Grade (% Li_2O)	Diluted Grade (% Li_2O)	Probable Tons (MT)	SC6 Product (kT)	Quartz Product (kT)	Feldspar Product (kT)	Mica Product (kT)
0	0	-	-	-	-	-	-	-	-
1	1	0.24	1.22	1.11	0.24	35.2	35.6	54.7	3.5
1	2	0.24	1.07	0.97	0.24	29.7	36.0	55.3	3.6
1	3	0.24	1.20	1.09	0.24	35.0	36.4	55.9	3.6
1	4	0.24	1.20	1.09	0.24	35.0	36.4	55.9	3.6
2	1	0.47	1.25	1.14	0.47	71.5	70.2	107.8	7.0
2	2	0.47	1.20	1.09	0.47	67.9	71.0	109.0	7.1
2	3	0.48	1.11	1.01	0.48	62.0	71.7	110.2	7.1
2	4	0.48	1.01	0.91	0.48	54.7	71.7	110.2	7.1
3	1	0.47	1.02	0.93	0.47	54.8	70.8	108.7	7.0
3	2	0.47	1.14	1.03	0.47	63.3	70.8	108.7	7.0
3	3	0.48	0.98	0.89	0.48	52.4	71.5	109.9	7.1
3	4	0.48	1.13	1.03	0.48	63.8	71.5	109.9	7.1
4	1	0.47	1.07	0.97	0.47	57.9	70.2	107.8	7.0
4	2	0.47	1.00	0.91	0.47	53.8	71.0	109.0	7.1
4	3	0.48	1.07	0.97	0.48	59.0	71.7	110.2	7.1
4	4	0.48	1.01	0.92	0.48	54.7	71.7	110.2	7.1
5	1	0.47	1.05	0.96	0.47	56.6	70.2	107.8	7.0
5	2	0.47	1.07	0.97	0.47	58.4	71.0	109.0	7.1
5	3	0.48	1.17	1.06	0.48	66.4	71.7	110.2	7.1
5	4	0.48	1.22	1.11	0.48	70.3	71.7	110.2	7.1
6	1-4	1.90	1.12	1.02	1.90	250.3	284.6	437.2	28.3
7	1-4	1.90	1.04	0.94	1.90	225.1	284.6	437.2	28.3
8	1-4	1.90	1.06	0.97	1.90	233.4	284.6	437.2	28.3
9	1-4	1.90	1.07	0.97	1.90	235.7	284.6	437.2	28.3
10	1-4	1.90	1.13	1.02	1.90	251.5	284.6	437.2	28.3
11	1-4	1.90	1.14	1.03	1.90	254.7	284.6	437.2	28.3
12	1	0.15	1.06	0.97	0.15	18.3	22.3	34.3	2.2
Life of Mine		20.09	1.10	1.00	20.09	2,571.4	3,012.7	4,628.1	299.4

It is planned that conventional drill and blast, load to in-pit crushers and belt conveyance open pit mining will be used to extract the mineralized material. ROM feed will be defined by grade control procedures in the pit and delivered by belt conveyor to the ROM pad located next to the processing facility.

It is planned that site development and pre-strip activities will be carried out by an experienced earthmoving contractor.

Costs carried in the Study assume an experienced mine services contractor to provide all labor, mobile equipment and in-pit crushers.

No alternative mining methods were considered in this Study.

Concentrator tailings will be co-disposed with waste rock from mining operations. The disposal method will not require the construction of a tailings impoundment.

No other tailings disposal methods were considered in this Study.

The initial production target is approximately 242,000t of 6.0% (Li_2O) or greater spodumene concentrate of which 195,000 t/y will be converted to 30,000 t of lithium hydroxide monohydrate and the balance sold to 3rd party customers. This equates to approximately 1.9 Mt of ore processed per year totaling 20.09 Mt grading at 0.996% (fully diluted) Li_2O over 11 years. The production target was derived from selection of the Maptek Evolution shell which provided the best estimate NPV.

The total production target is based on 0% Proven and 100% Probable reserves for the mine life covered under the Feasibility Study.

Piedmont is located within the TSB and along trend to the Hallman Beam and Kings Mountain mines, which historically provided most of the western world's lithium between the 1950s and the 1980s. The TSB has been described as one of the largest lithium pegmatite regions

	in the world. The TSB was the most important lithium producing region in the western world prior to the establishment of the brine operations in Chile and Argentina in the 1990s. Livent and Albemarle both historically mined the lithium bearing spodumene pegmatites from the TSB, with the historic Kings Mountain lithium mine being described as one of the richest spodumene deposits in the world by Albemarle. The lithium chemical plant mass balance assumes that 195,000 t/y (dry basis) of 6.0% spodumene concentrate is required to achieve the production target. Excess concentrate produced each year after the lithium chemical plant achieves full capacity in this Study will be sold to 3rd parties.
Processing (including Metallurgical)	Refer to Sections 'Concentrate Metallurgy' and 'Concentrator Process Design' in the BFS Announcement. The Company engaged SGS laboratories in Lakefield, Ontario to complete variability and composite testwork on various flowsheet options using a combination of Dense Medium Separation (DMS) and flotation processing techniques. The summary results for the preferred flowsheet alternative are shown. Details of the testwork program and results were previously announced on July 17, 2019.

Parameter	DMS Results	Locked Cycle Test Results	Composite Sample Results
Feed Grade Li_2O (%)			1.11
Concentrate Grade Li_2O (%)	6.42	6.31	6.35
Fe_2O_3 (%)	0.97	0.90	0.93
Na_2O (%)	0.56	0.68	0.63
K_2O (%)	0.45	0.52	0.49
CaO+ MgO + MnO (%)	0.51	1.25	0.96
P_2O_5 (%)	0.12	0.46	0.32

In 2020, a pilot plant testwork program was undertaken at SGS Canada Inc. A 54-t bulk outcrop sample from the Carolina Lithium Project was processed through a DMS and flotation pilot plant. Using the optimized results from the flotation pilot plant, the combined DMS and flotation concentrates graded >6% Li_2O and <1% Fe_2O_3 with lithium recoveries >70%. Optimized testing on the master composite sample resulted in lithium recovery of 82% and concentrate grading 6.13% Li_2O.

In 2021, Piedmont engaged SGS Canada Inc. in Lakefield, Ontario to undertake testwork on nine variability samples. Samples were produced from drill core from the East and South pits and represented the early years of production (i.e., the first 10 years of operation). The samples generally contained elevated levels of host rock dilution (ranging from 9.4% to 17.3%) as compared to the mine plan average (10%). DMS and batch and locked-cycle flotation tests were undertaken. The table below shows the composition of the nine variability samples and combined (DMS and flotation) concentrate grades and spodumene recoveries which were estimated based on feed mineralogy.

2021 Variability Testwork Results						
		Feed		Combined Concentrate		
Pit	Variability Sample	Li_2O (%)	Fe_2O_3 (%)	Li_2O (%)	Fe_2O_3 (%)	Est Spodumene Recovery (%)
East	Early Flat 1	1.05	2.01	6.00	1.11	74.7
	Early Flat 2	0.99	1.80	6.16	0.92	73.2
	Early Steep	1.12	1.92	6.36	1.11	82.2
	Late Flat	0.69	1.89	6.10	0.92	74.9
	Late Low-grade	0.69	1.85	5.67	1.06	67.2
	Extension High-grade	1.05	1.40	5.84	1.14	81.5
	Extension Low-grade	1.01	1.81	5.81	1.10	67.4
South	Lower Flat	1.01	2.00	5.74	0.95	75.4
	Upper Steep	1.10	2.25	6.05	1.59	79.3

Based on the historical testwork and the 2021 variability program, the BFS assumes a spodumene recovery of 77.0% for a diluted head grade of 0.996% Li_2O when targeting a 6.0% Li_2O spodumene concentrate product.

For detailed by-product quartz and feldspar results refer to Sections 'By-Product Metallurgy' and 'Concentrator Process Design' of this Announcement and the detailed testwork results previously announced on May 13, 2020.

The summary results of quartz and feldspar qualities are shown. Over 8kg of each product was produced from a composite of six (6) individual batch samples of spodumene flotation tailings.

	Li_2O	SiO_2	Al_2O_3	K_2O	Na_2O	CaO	MgO	MnO	P_2O_5	Fe_2O_3
Quartz Concentrate	0.02	99.0	0.32	0.04	0.11	0.01	0.01	0.01	0.01	0.01
Feldspar Concentrate	0.12	68.0	19.35	2.45	9.30	0.17	0.04	0.01	0.15	0.05

For detailed mica metallurgical testwork results in bench-scale refer to Sections 'By-Product Metallurgy' and 'Concentrator Process Design' of this Announcement and the detailed testwork results previously announced on September 4, 2018.

Bench Scale Mica Physical Properties Results		
Parameter	Unit	Optimized Value
Particle Size	Medium to Very Fine	40 – 325 Mesh
Bulk Density	g/cm^3	0.681-0.682
Grit	%	0.70-0.79
Photovoltmeter	Green Reflectance	11.2-11.6
Hunter Value	± a [Redness(+) Greenness(-)]	0.27-1.25
Hunter Value	± b [Yellowness(+) Blueness(-)]	44.77-46.07

The by-product recovery flowsheet involves desliming of the spodumene flotation tailings, mica flotation, iron removal by flotation, feldspar flotation followed by several stages of iron removal using WHIMS, and by-product concentrate dewatering.

Quartz and feldspar concentrates were produced during the 2021 Variability program at SGS Canada Inc. Batch flotation tests were operated to produce feldspar concentrate with the flotation tailings were passed through wet high-intensity magnetic separation to produce quartz concentrate. The tables show assays for the feldspar and quartz concentrates produced from optimized variability batch tests.

Optimized Batch Test Feldspar Concentrate Assays (from Spodumene Tailings)								
Test	SiO_2	Al_2O_3	K_2O	Na_2O	CaO	MgO	P_2O_5	Fe_2O_3
1	69.3	18.5	2.32	8.15	0.51	0.06	0.13	0.3
2	65.6	20.8	2.25	8.92	1.08	0.05	0.13	0.1
3	67.8	18.8	2.28	8.14	0.95	0.04	0.11	0.1
4	69.0	18.8	2.46	8.46	0.48	0.05	0.13	0.1
5	69.3	18.5	2.53	8.56	0.36	0.05	0.13	0.1

Optimized Batch Test Quartz Concentrate Assays (from Spodumene Tailings)								
Test	SiO_2	Al_2O_3	K_2O	Na_2O	CaO	MgO	P_2O_5	Fe_2O_3
1	99.6	0.11	0.01	0.03	0.01	0.01	0.01	0.01
2	99.7	0.13	0.01	0.04	0.01	0.01	0.01	0.02
3	99.7	0.14	0.02	0.03	0.01	0.01	0.01	0.01
4	99.4	0.13	0.01	0.04	0.01	0.01	0.01	0.02
5	99.7	0.12	0.01	0.04	0.01	0.01	0.01	0.00

Metallurgical recovery of by-products in the BFS is based on assumed mass recovery in by-product flotation circuits.

The lithium hydroxide pilot plant flowsheet tested included: soda leaching, cold conversion, secondary conversion, ion exchange, and lithium hydroxide crystallization. The pilot plant operated for approximately 10 days. Roughly 100 kg of calcined spodumene concentrate was fed to the pilot plant. The average total lithium extraction achieved in soda leaching and cold conversion was 89% during the first 136 h of operation. Process recycles were incorporated in the pilot plant with no significant accumulation of impurities in the process. First stage lithium hydroxide crystallization was operated continuously during the pilot plant. Second stage crystallization was operated in batches after the completion of the continuous pilot plant. Impurities levels in the final battery-quality lithium hydroxide monohydrate product were typically low with Al <10 ppm, Ca <10 ppm, Fe <20 ppm, K <10 ppm, and Si <40 ppm. All other metal impurities were below detection limits. The following table shows average composition of the second-stage lithium hydroxide monohydrate product. It is expected that LiOH content in the reported sample is below target specification due to product moisture in the pilot sample.

Parameter	Units	$LiOH.H_2O$ Average Composition
LiOH	(%)	53.7
Na	ppm	<20
K	ppm	<10
Fe	ppm	<2
Ca	ppm	<10
Cu	ppm	<1
Mg	ppm	<2
Si	ppm	<40
Cl	ppm	<20
SO_4	(%)	<150
CO_2	ppm	<0.2
Mn	ppm	<1
B	ppm	<10
Cr	ppm	<1
Al	ppm	<10
Ni	ppm	<1
Pb	ppm	<1
Zn	ppm	<5

Infrastructure	Refer to Section entitled 'Infrastructure' in the BFS Announcement. Piedmont's proximity to Charlotte, North Carolina effectively means that no regional infrastructure requirements for project development exist outside of the project's battery limits. The Study was managed by Primero Group Americas Inc. Primero Group is a leader in lithium processing with capabilities including technical study, detailed engineering, procurement, construction management, and contract operations. All infrastructure including on site non-process infrastructure related capital and operating costs were estimated by Primero Group.
Marketing	Refer to Section entitled 'Marketing' in the Announcement The Company analyzed recent battery-grade lithium hydroxide and SC6 prices from Benchmark, JPMorgan and Macquarie for the period 2022-2025 as well as price forecasts recently announced by other lithium project developers.

Price Forecasts for Battery-Grade Lithium Hydroxide (US$/tonne)

Forecast	2022	2023	2024	2025
Benchmark Minerals	$20,600	$26,200	$25,200	$20,900
JPMorgan	$26,625	$22,500	$19,737	$18,420
Macquarie	$21,275	$20,415	$18,545	$17,540

	Based on these and other data this Study assumes long-term pricing of $18,000/t for battery quality lithium hydroxide and $900/t for spodumene concentrate for the life of the project. Piedmont has established basket pricing for by-product concentrates based on consultation with by-product marketing partners Ion Carbon, independent consultant John Walker, and direct engagement with prospective customers. The BFS assumes an average price at mine gate of $69.70 based on the blended production output of the Company's quartz, feldspar, and mica products. Piedmont will continue to focus on developing market relationships and discussions with potential off-take partners for both lithium products and industrial mineral by-products.
Economic	Refer to Sections 'Operating Cost Estimate', 'Capital Cost Estimate', 'Royalties, Taxes, Depreciation, and Depletion', and 'Scoping Study Economics' in the BFS Announcement. Capital Estimates for the concentrator and chemical plant have been prepared by Primero Group, a global expert in spodumene processing, together with input from the Company. Budget quotations were solicited for major equipment packages, site establishment, contract mining, pre-engineered metal buildings as well as unit rates for construction materials including but not limited to structural steel, platework, piping, valves, electrical services, instrumentation and control. Costs are presented in real Q4 2021 terms and are exclusive of escalation but incorporate recent inflationary pressures in labor, building materials, logistics and other cost areas. The intended accuracy of the initial capital cost estimate for the Project is ± 15%. Initial Capital Estimates for the chemical plant are reported based on the results of basic engineering completed by Metso Outotec with input from Primero Group and the Company. Costs presented are in real 2021 terms and are exclusive of escalation but incorporate recent inflationary pressures in labor, building materials, logistics and other cost areas. Intended accuracy of the chemical plant initial capital cost estimate is ± 15%. Marshall Miller and Associates prepared the capital estimate for the mine including site development, mine infrastructure, fixed and mobile equipment, and pre-strip expenses. A competitive quotation process was undertaken for the site development and the BFS is based on contractor pricing. A competitive tender process was undertaken to solicit budget pricing for contract mining services and the BFS incorporates contract mining into the study economics. The in-pit

crushing and overland conveyor system for ore and waste rock are included within the contract mining costs and are reported as sustaining capital.

Capital costs include the cost of all services, direct costs, contractor indirects, EPCM expenses, non-process infrastructure, sustaining capital and other facilities used for the concentrate operations and chemical plant. Capital costs make provision for mitigation expenses and mine closure and environmental costs.

Working capital requirements prior to plant commissioning and full ramp-up have been included in the capital estimate.

The contract mining bids were compared to mining costs that were estimated from first principles by Marshall Miller, a regional leader in mining and geology consulting engineering. Mining costs have been built up from first principles based on equipment, vendor, and contractor quotations, local unit cost rates, and benchmarked costs attributable to North Carolina, United States. After comparative analysis contract mining was selected.

Spodumene processing and general & administrative costs for the concentrator have been estimated by Primero Group, a global leader in lithium processing. Processing costs are based on principles build-up and direct supplier quotes. Recent inflationary pressures in consumables and labor have been incorporated into the operating cost estimate.

Chemical conversion costs, excluding costs of spodumene supply, for the production of lithium hydroxide have been estimated based on first principles build-up, budgetary quotes from suppliers, database costs, factored estimates and experience from similar projects with unit rates benchmarked to costs attributable to North Carolina, United States. Recent inflationary pressures in consumables and labor have been incorporated into the operating cost estimate.

Labor costs have been developed based on a first-principles build-up of staffing requirements with labor rates from benchmarks for the Charlotte, North Carolina region.

There are no government royalties associated with the project. A royalty of $1.00 per ROM tonne delivered to the concentrator is applied to the project economics and are included in the headline figure of $234/t concentrate cash costs.

Rehabilitation and mine closure costs are included within the reported operating cost and sustaining capital figures.

A detailed financial model and discounted cash flow (DCF) analysis has been prepared by the Company in order to demonstrate the economic viability of the Project. The financial model and DCF were modelled with conservative inputs to provide management with a baseline valuation of the Project.

The DCF analysis demonstrated compelling economics of the prospective Project, with an NPV (ungeared, after-tax, at an 8% discount rate) of $2,041 million, assuming a fixed lithium hydroxide price of $18,000/t and a fixed LOM spodumene concentrate price of $900/t based on basket market forecasts, and an (ungeared) IRR of 27%.

The DCF analysis also highlighted the low operating costs, low royalties, and low corporate tax rates which potentially allow Piedmont to achieve high after-tax margins of over $13,500/t, or approximately 75% during years 1-11 of operations.

Sensitivity analysis was performed on all key assumptions used. The robust project economics insulate Piedmont's proposed lithium chemical business from variation in market pricing, capital expense, or operating expenses. At a lithium hydroxide and spodumene concentrate price 30% lower than the BFS prices the Project still displays a positive NPV of $707 million.

Payback period for the Project is 3.5 years from the start of operations. The payback period is based on free-cash flow, after taxes.

Piedmont estimates the total capital cost to construct the mine, concentrator and chemical plant to be $988mm (which includes a $120mm contingency).

The Project assumes that Piedmont will produce lithium hydroxide for a period of 30 years, with spodumene concentrate sourced at market pricing from third parties from year 12 of chemical plant operations. Piedmont has contractual offtake rights for spodumene concentrate supply from both Sayona Quebec and Atlantic Lithium. However, if these suppliers were unable to deliver under their contractual obligations and the lithium hydroxide manufacturing portion of Carolina Lithium only operated for 11 years, then the Project would still deliver a positive after-tax NPV of $1,085mm and an after-tax IRR of 25%.

The Company considers that given the nature of the Project, funding is likely to involve specialist funds and possibly strategic investors and end user customers, with potential funding sources including, but not limited to traditional equity and debt, offtake prepayments and streams, royalty prepayments and streams, and strategic equity, at either the Company and/or Project level.

The Company has signed engagement letters with Evercore ISI and JP Morgan to manage strategic conversations related to financing alternatives for the proposed Piedmont Carolina Lithium operations.

Since acquisition of initial exploration rights Project in September 2016, the Company has completed extensive drilling, sampling and geophysical surveys to understand the geological setting and define spodumene resources within the Company's exploration properties. Over this period, with these key milestones being reached and the Project de-risked, the Company's market capitalization has increased from approximately $15mm to approximately $1bb.

The Company is debt free and is in a strong financial position, with approximately $82mm cash on hand at the end of FY Q1 2022. The current strong financial position means the Company is soundly funded to continue land acquisition activities, permitting activities, and permitting efforts needed to advance the Project to a final investment decision.

Piedmont's shares are listed on the Nasdaq Capital Market ("Nasdaq") and its Chess Depositary Instruments ("CDI's") are listed on the Australian Securities Exchange ("ASX"). Nasdaq is one of the world's premier venues for growth companies and provides increased access to capital from institutional and retail investors in the United States.

As a result, the Board has a high level of confidence that the Project will be able to secure funding in due course, having particular regard to:

- Required capital expenditure;
- Piedmont's market capitalization;
- Recent funding activities by Directors in respect of other resource projects;
- Recently completed funding arrangements for similar or larger scale projects;
- The range of potential funding options available;
- The favorable key metrics generated by the Project; and
- Investor interest to date.

Environmental

HDR Engineering has been retained by Piedmont to support permitting activities on the proposed Project.

In November 2019, the Company received a Clean Water Act Section 404 Standard Individual Permit from the US Army Corps of Engineers for the concentrate operations. This is the only federal permit required for the concentrate operations. The Company has also received a Section 401 Individual Water Quality Certification from the North Carolina Division of Water Resources. In connection with the 404 Permit an Environmental Assessment was completed for the Project which resulted in a Finding of No Significant Impact ("FONSI").

The Project requires a North Carolina State Mining Permit from DEMLR. The Company submitted a mine permit application to DEMLR on August 31, 2021. A public hearing in relation to the mine permit application was held on November 15, 2021. The Company has

	received additional information requests in connection with the mine permit application and is prepared a written response. Piedmont previously received a Clean Air Act Title V synthetic minor permit from the NCDEQ Division of Air Quality for a proposed lithium hydroxide operation in Kings Mountain. Piedmont plans to apply for a new air permit for the Carolina Lithium integrated operations upon completion of the BFS. Carolina Lithium remains subject to local rezoning and permit requirements. Piedmont remains in pre-application consultation with Gaston County at this time. A rezoning application will follow receipt of mine and air permits. The Company will apply for a special use permit required under the Gaston County UDO upon completion of the rezoning process.
Social, Legal and Governmental	The Company has taken legal advice in relation to relevant Modifying Factors. The concentrate operations and chemical plant are located entirely within private lands. Piedmont engaged Johnston, Allison & Hord P.A. ("JAH") to provide legal advice regarding the nature, scope and status of the Company's land tenure and mineral tenement rights for the Project in considering the results of the Scoping Study. As of November 30, 2021, the Company's properties comprised approximately 3,233 acres of surface property and associated mineral rights in North Carolina, of which approximately 1,713 acres (114 parcels) are owned by Gaston Land Company, LLC, a subsidiary of the Company. Approximately 113 acres are subject to long-term lease (1 parcel; 1 individual landowner), approximately 79 acres are subject to lease-to-own agreements (2 parcels; 2 landowners), and approximately 1,328 acres are subject to exclusive option agreements (79 landowners; 124 land parcels). These exclusive option agreements, upon exercise, allow us to purchase or, in some cases, enter into long-term leases for the surface property and associated mineral rights. The Company has made all required payments under each option agreement. ▪ Piedmont has received a Memorandum of Option or Memorandum of Contract signed by each landowner and each Memorandum is recorded in the Gaston County Register of Deeds. These Memoranda were recorded between September 2016 and October 2021. ▪ Title searches on all properties were completed prior to recording each Memorandum of Option. ▪ All title searches have confirmed that landowners hold fee simple ownership of all land and mineral rights related to the land with the exception of real estate taxes, certain utility access and easements which do not materially impact Piedmont's option or purchase rights or ability to extract minerals from the land, and mortgage liens to be paid by the private landowner or subordinated to Piedmont's rights to the land and the minerals upon acquisition or long-term lease by Piedmont. A rezoning to I-3 for the proposed Project approved by the Gaston County Board of Commissioners will be required. A Special Use Permit for mine and quarry operations approved by the Board of Commissioners of Gaston County will also be required. Additional pre-consultation meetings will be conducted with Gaston County staff based on the updated information presented in this study.

MATERIAL ASSUMPTIONS – FEASIBILITY STUDY

Study	Value
Project start date	2022
Life of project	30 Years
Cost and pricing basis	Q4 2021 US$
Currency	US Dollars
Cost escalation	0%
Revenue escalation	0%
Study accuracy	±15%
Capex contingency	$120.9mm
Mining	
Ore reserves (undiluted)	18.3 Mt
Portion of production target – proven	0%
Portion of production target - probable	100%
Annual production (steady state)	1.9 Mt/y
Grade (undiluted) life-of-mine	1.10% Li_2O
Grade (diluted) life-of-mine	1.0% Li_2O
Dilution	10%
Mining recovery	100%
Mining cost base ($/t)	$2.72/t (contract mined)
Total ore mined (diluted)	20,090,000 tonnes
Total waste rock	232,520,000 tonnes
Life-of-mine average strip ratio	11.6:1 waste:ore
Concentration	
Annual average steady-state spodumene concentrate production	242,000 tonnes
Annual average steady-state quartz production	252,000 tonnes
Annual average steady-state feldspar production	392,000 tonnes
Annual average steady-state mica production per year	28,000 tonnes
Average spodumene concentrate quality	6.0% Li_2O
Process recovery	77%
Total spodumene concentrate production	4,940,000 tonnes
Spodumene concentrate sold to 3rd Party	1,195,000 tonnes
Chemical Conversion	
Process recovery	91%
Annual steady-state lithium hydroxide production	30,000 tonnes
Conversion rate (SC6:LiOH t:t)	6.5:1
Battery grade LiOH produced	567,000 tonnes
Technical grade LiOH produced	15,000 tonnes
Pricing	
Spodumene concentrate average price	$900/t
Battery grade lithium hydroxide average price	$18,000/t
By-product average price	$69.70/t
Other	
Direct development capital – mining	$81mm
Direct development capital – concentrate operations	$161mm
Direct development capital – byproducts	$45mm
Direct development capital – chemical plant	$408mm
Indirects	$99mm
Owner’s Costs	$73mm
Sustaining, working and deferred capital	$351mm
Contingency	$120mm
Royalties	$1.00/t avg. per ROM ton ore
Corporate tax rate	21% Federal – 2.5% State (0% by 2028)
Discount rate	8%

Appendix C: JORC Table 1 Checklist of Assessment and Reporting Criteria

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	> *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* > *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* > *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	Resources at the Carolina Lithium Project are derived from diamond and rotary sonic drill core. l. The core was split at an orientation not influenced by the distribution of mineralization within the drill core (i.e. bisecting mineralized veins or cut perpendicular to a fabric in the rock that is independent of mineralization, such as foliation). Diamond and Rotary Sonic drilling provided continuous core which allowed continuous sampling of mineralized zones. The core sample intervals were a minimum of 0.35 m and a maximum of 1.5 m for HQ or NQ drill core (except in saprolitic areas of poor recovery where sample intervals may exceed 1.5 m in length). Sampling took into account lithological boundaries (i.e. sample was to, and not across, major contacts). Standards and blanks were inserted into the sample stream to assess the accuracy, precision and methodology of the external laboratories used. In addition, field duplicate samples were inserted to assess the variability of the mineralization., The laboratories undertake their own duplicate sampling as part of their internal QA/QC processes. Examination of the QA/QC sample data indicates satisfactory performance of field sampling protocols and assay laboratories providing acceptable levels of precision and accuracy.
Drilling techniques	> *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	All diamond drill holes were collared with HQ and were transitioned to NQ once non-weathered and unoxidized bedrock was encountered. Drill core was recovered from surface. Rotary sonic core was only drilled in the saprolitic zones. Drill core was recovered from surface. Holes were terminated in the saprolitic zone or once unoxidized rock was encountered Oriented core was collected on selected drill holes using the REFLEX ACT III tool by a qualified geologist at the drill rig. The orientation data is currently being evaluated.
Drill sample recovery	> *Method of recording and assessing core and chip sample recoveries and results assessed.* > *Measures taken to maximise sample recovery and ensure representative nature of the samples.* > *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	The diamond core was transported from the drill site to the logging facility in covered boxes with the utmost care. Once at the logging facility, the following procedures were carried out on the core: 1. Re-aligning the broken core in its original position as closely as possible. 2. The length of recovered core was measured, and metre marks clearly placed on the core to indicate depth to the nearest centimetre. 3. The length of core recovered was used to determine the core recovery, which is the length of core recovered divided by the interval drilled (as indicated by the footage marks which was converted to metre marks), expressed as a percentage. This data was recorded in the database. The core was photographed wet before logged. 4. The core was photographed again immediately before sampling with the sample numbers visible. For the Sonic core, recovery, geologic logging and sampling was conducted at the drill site by a Piedmont geologist. Sample recovery was consistently good except for zones within the oxidized clay and saprolite zones. These zones were generally within the top 20m of the hole. No relationship is recognized between recovery and grade. The diamond drill holes were designed to intersect the targeted pegmatite below the oxidized zone where the sonic drilling was targeting pegmatites in the saprolitic zone.
Logging	> *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* > *Whether logging is qualitative or quantitative in nature. Core (or costean,*	Geologically, data was collected in detail, sufficient to aid in Mineral Resource estimation. Core logging consisted of marking the core, describing lithologies, geologic features, percentage of spodumene and structural features measured to core axis. The core was photographed wet before logging and again immediately before sampling with the sample numbers visible.

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td>channel, etc.) photography.
> The total length and percentage of the relevant intersections logged.</td><td></td></tr>
<tr><td>Sub-sampling techniques and sample preparation</td><td>> If core, whether cut or sawn and whether quarter, half or all core taken.
> If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.
> For all sample types, the nature, quality and appropriateness of the sample preparation technique.
> Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.
> Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.
> Whether sample sizes are appropriate to the grain size of the material being sampled.</td><td>Diamond core was cut in half with a diamond saw. Sonic core was split with a large knife or machete.
Standard sample intervals were a minimum of 0.35 m and a maximum of 1.5 m for HQ or NQ drill core, taking into account lithological boundaries (i.e. sample to, and not across, major contacts).
Prior to 2020, the preparation code is CRU21 (crush to 75% of sample <2 mm) and PUL45 (pulverize 250 g to 85% <75 microns), in 2020 the code was changed to CRU16.
A CRM or coarse blank was included at the rate of one for every 20 drill core samples (i.e. 5%).
Sampling precision is monitored by selecting a sample interval likely to be mineralized and splitting the sample into two ¼ core duplicate samples over the same sample interval. These samples are consecutively numbered after the primary sample and recorded in the sample database as “field duplicates” and the primary sample number recorded. Field duplicates were collected at the rate of 1 in 20 samples when sampling mineralized drill core intervals
Samples were numbered sequentially with no duplicates and no missing numbers. Triple tag books using 9-digit numbers were used, with one tag inserted into the sample bag and one tag stapled or otherwise affixed into the core tray at the interval the sample was collected. Samples were placed inside pre-numbered sample bags with numbers coinciding to the sample tag. Quality control (QC) samples, consisting of certified reference materials (CRMs), were given sample numbers within the sample stream so that they are masked from the laboratory after sample preparation and to avoid any duplication of sample numbers.</td></tr>
<tr><td>Quality of assay data and laboratory tests</td><td>> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.
> For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.
> Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</td><td>All samples were shipped to the SGS laboratory in Lakefield, Ontario or Garson, Ontario.
Prior to 2020, the preparation code is CRU21 (crush to 75% of sample <2 mm) and PUL45 (pulverize 250 g to 85% <75 microns), in 2020 the code was changed to CRU16 and PUL10, respectively.
Prior to 2020, the analysis code for lithium was GE ICP91A, which uses a peroxide fusion with an ICP finish, and has lower and upper detection limits of 0.001 and 50,000 (5%) ppm respectively. In 2020, the code was changed to GE ICP92A50. Accuracy monitoring was achieved through submission and monitoring of certified reference materials (CRMs).
XRF analysis code for major oxides prior to 2020 was GO XRF76V. In 2020 the code was changed to GO_XRF72.
Sample numbering and the inclusion of CRMs was the responsibility of the project geologist submitting the samples. A CRM or coarse blank was included at the rate of one for every 20 drill core samples (i.e. 5%).
The CRMs used for this program were supplied by Geostats Pty Ltd of Perth, Western Australia. Details of the CRMs are provided below. A sequence of these CRMs covering a range in Li values and, including blanks, were submitted to the laboratory along with all dispatched samples so as to ensure each run of 100 samples contains the full range of control materials. The CRMs were submitted as “blind” control samples not identifiable by the laboratory.
Details of CRMs used in the drill program (all values ppm):
<table>
<tr><td>CRM</td><td>Manufacturer</td><td>Lithium</td><td>1 Std Dev</td></tr>
<tr><td>GTA-02</td><td>Geostats</td><td>1814</td><td>50</td></tr>
<tr><td>GTA-04</td><td>Geostats</td><td>9550</td><td>246</td></tr>
<tr><td>GTA-08</td><td>Geostats</td><td>1102</td><td>50</td></tr>
<tr><td>GTA-09</td><td>Geostats</td><td>4837</td><td>174</td></tr>
</table>
Sampling precision was monitored by selecting a sample interval likely to be mineralized and splitting the sample into two ¼ core duplicate samples over the same sample interval. These samples were consecutively numbered after the primary sample and recorded in the sample database as “field duplicates” and the primary sample number recorded. Field duplicates were collected at the rate of 1 in 20 samples when sampling mineralized drill core intervals. Random sampling precision was monitored by splitting samples at the sample crushing stage (coarse crush duplicate) and at the final sub-sampling stage for analysis (pulp duplicates). The coarse, jaw-crushed,</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
		reject material was split into two preparation duplicates, sometimes referred to as second cuts, crusher or preparation duplicates, which were then pulverized and analysed separately. These duplicate samples were selected randomly by the laboratory. Analytical precision was also monitored using pulp duplicates, sometimes referred to as replicates or repeats. Data from all three types of duplicate analyses was used to constrain sampling variance at different stages of the sampling and preparation process. Examination of the QA/QC sample data indicates satisfactory performance of field sampling protocols and assay laboratories providing acceptable levels of precision and accuracy. In 2021, a feasibility-level variability testwork program was undertaken by SGS Canada Inc. to produce spodumene concentrate using pilot-scale Dense Medium Separation (DMS) and Batch and Locked Cycle Flotation Tests (LCT). The program included production of byproducts (mica, feldspar, and quartz) concentrates. Nine variability samples were produced from drill core from the East and South pits. Sample selection was undertaken by Piedmont geologists and Primero staff. Industry standard metallurgical procedures were utilised for the various metallurgical tests. Heavy Liquids Separation (HLS) tests (using a 10 kg sub-sample) were undertaken on each of the nine variability samples. Densities tested in the HLS testwork included 2.60, 2.65, 2.70, 2.80, 2.85, 2.90, 2.95, and 3.0. Based on HLS results, an sg cut-point was selected for pilot-scale DMS testing to produce 6% Li_2O spodumene concentrate. Testing included: - *Stage-crushing to -6.3 mm topsize* - *Screening of samples to separate -1.0 mm fines* - *Processing in SGS labs dense medium cyclone pilot plant* - *Primary stage DMS operated at 2.65 SG (gangue rejection)* - *Secondary stage DMS operated at >2.85 SG (concentrate production)* - *Coarse (-6.3 mm / +3.3 mm) and fine (-3.3 mm / +1.0 mm) fractions were processed separately.* - *The sink >2.85 SG material was assayed and reported as DMS concentrate.* - *The concentrate products were dried and passed through magnetic separation. The non-magnetic fractions were the final DMS concentrates.* Chemical Analysis The following assays were conducted on the various sample streams: Li_2O, Fe_2O_3, SiO_2, Al_2O_3, CaO, Na_2O, K_2O, MnO, P_2O_5 Batch and Locked-Cycle Flotation Testwork For each variability sample, the -1.0 mm fraction and the middlings streams were combined to create the flotation feed. Flotation sample preparation: - *Multi-stage grinding to P_{100} of 300 microns* - *High-density scrubbing and desliming* Batch tests were performed using each of the variability samples. Batch flotation tests used 2 kg flotation feed charges in a Denver D12 flotation machine. Reagent dosages were selected based on historical testwork and optimized. Locked-cycle tests were undertaken on three of the nine variability samples. Lithium assays were performed in accordance with analyses code was GE ICP91A, which uses a peroxide fusion with an ICP finish, and has lower and upper detection limits of 0.001 and 50,000 (5%) ppm respectively. SiO_2, Al_2O_3, MgO, Na_2O, K_2O, CaO, P_2O_5, and Fe_2O_3 assays were performed in accordance with analyses code GO/GC/GT_XR which includes formation of a homogeneous glass disk by lithium tetraborate / lithium metaborate fusion. Prepared disks are analyzed by wavelength dispersion X-ray fluorescence (XRF). The lower reporting limit for the oxides listed is 0.01%.

Criteria	JORC Code explanation	Commentary
		Combined concentrate grades were calculated using the individual DMS and flotation concentrate grades and the relative mass recoveries. The hydrometallurgical conversion pilot plant was operated at the Metso Outotec Research Center in Pori, Finland. The flowsheet included soda leaching, cold conversion, secondary conversion, ion exchange, and lithium hydroxide crystallization. Soda leaching was operated in batch mode during continuous piloting. Second stage crystallization was operated in batches after completion of the continuous pilot plant. The pilot plant operated for roughly 10 days and processed ca. 100 kg of calcined material. Soda leaching was undertaken in batches (2 h residence time) in an electrically (jacketed) heated 65 L titanium autoclave operated at 220°C. Soda ash dosage ranged from 215 kg Na2CO3 / t calcine to 255 kg/t depending on if recycle solutions were used. Leach residue was filtered using a Metso Outotec Larox PF0.1 pressure filter. Solids were washed with deionized water at 60-80°C. Cold conversion was operated continuously in two 3 L stainless steel reactors in series at 40°C. All reactors downstream of the cold conversion feed tank operated under a nitrogen atmosphere. Twenty five percent (w/w) lime milk was fed to the first reactor. Residence time ranged from 2 to 4.8 h. Secondary conversion was operated in two 1 L OKTOP stainless steel reactors in series. Reactor contents were heated to 40°C using a heating plate. Lime milk was fed to the first reactor. Ion exchange used two 250 ml columns operated at ambient temperature. A third column was in stand-by and was put into operation during regeneration. The resin employed was Lewatit MDS TP 208. The loading stage operated at 2 to 4 bed volumes per hour. Regeneration included: 1. Prewash with 2.4 BV (600 mL) of 1 M NaOH solution 2. 1st Water wash with 2 BV (500 mL) of deionized water 3. Elution with 5 BV (1250 mL) of 2 M HCl solution 4. 2nd Water wash with 4 BV (1000 mL) of deionized water 5. Neutralization with 3 BV (750 mL) of 1 M LiOH solution IX product solution was fed to a 5-L pre-evaporator with a heated jacket and equipped with a vacuum pump. The temperature of the pre-evaporator ranged from 60 to 73 °C and the vacuum was mostly ~300 mbar. Feed rate was adjusted to match the output from the ion exchange process stage. Pre-evaporator solution was fed to the crystallizer. The laboratory forced circulation crystallizer consisted of a vertical, cylindrical vessel or vapor head with volume of about 2 L, circulation pump, heater, circulating oil bath, condenser, and a vacuum pump with a pressure control. The crystallizer operated at 75°C. Solids were allowed to settle, centrifuged and washed. The product was dried under nitrogen atmosphere at 40°C. Second-stage crystallization was operated after continuous piloting in batches. The setup included a vacuum pump, a heating bath, a distillation column and feed solution and distillate bottles All analyses were completed at the Metso Outotec Research Center. Solution samples were analyzed with ICP-OES (inductively coupled plasma optical emission spectrometer) for metal ion concentration, TOC-analyzer (total organic carbon) for carbon concentration and IC-analyzer (ion chromatography) for chloride and fluoride concentration. Samples for ICP-OES were diluted 1+4 with 5% HNO3 solution and IC-samples and TOC samples were diluted 1+4 with deionized water. Metal concentrations of solid samples were analyzed with either ICP-OES or ICP-MS (inductively coupled plasma mass spectrometer) after total dissolution or fusion melt, whereas carbon and sulfur concentrations were analyzed with an Eltra CS-2000 automatic analyzer. Chloride and fluoride concentrations of solid samples were measured with IC after preparation by a pyrohydrolysis method and silica was analyzed colorimetrically using a Hach DR 5000 UV-Vis spectrophotometer. The particle size distributions of the calcines were measured by sieve analysis, while the PSD of the ground calcine as well as the LiOH·H2O samples were measured by laser diffraction. The mineralogical compositions of the calcines, mainly the presence of different spodumene phases, were investigated by X-Ray Diffraction (XRD).

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	> *The verification of significant intersections by either independent or alternative company personnel.* > *The use of twinned holes.* > *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* > *Discuss any adjustment to assay data.*	Multiple representatives of Piedmont Lithium Inc. have inspected and verified the results. Independent geochemist Dennis Arne (then CSA Managing Director - Principal Consultant) as well as independent geologist Leon McGarry (then CSA Senior Resource Geologist) toured the site, facilities and reviewed core logging and sampling workflow. Each provided comments on how to improve our methods and have been addressed. Verification core samples were collected by Leon McGarry. No holes were twinned. Three-metre rods or 10 foot core barrels were used. Li% was converted to Li_2O by multiplying Li% by 2.153. For by-products, accuracy of the normative mineralogy was monitored using Rietveld semi-quantitative mineralogy for 38 XRD analyses from pulp samples as well as 3 QEMSCAN analyses of composites used for metallurgical test work. Normative estimates for quartz, spodumene, albite and K-feldspar (microcline) have average relative accuracies less than +/- 2% compared to the QEMSCAN composite data, with muscovite showing a positive relative bias of 11.6% (i.e. 11.6% more muscovite in the QEMSCAN results than the normative mineralogy predicts). The normative mineralogical estimates for quartz, spodumene, albite, K-feldspar and muscovite have average relative biases of 1%, -3.7%, 11.9%, 2.9% and 6.3%, respectively, compared to the XRD results, excluding XRD mineral estimates of 2% or less taken to be at or close to the method limit of detection, and following correction of the normative estimates for K-feldspar and muscovite using the XRD data. The QEMSCAN mineralogical data are taken to be more reliable than the XRD data given complications associated with the Rietveld analysis of minerals with a strong preferred orientation, such as muscovite.
Location of data points	> *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* > *Specification of the grid system used.* > *Quality and adequacy of topographic control.*	Drill collars were located with the Trimble Geo 7 which resulted in accuracies <1m. All drill hole collar coordinates were collected in State Plane and re-projected to Nad83 zone17 in which they are reported. Drill hole surveying was performed on each hole using a REFLEX EZ-Trac multi-shot instrument. Readings were taken approx. every 15 metres and recorded depth, azimuth, and inclination. In 2020, Piedmont conducted a LIDAR survey for the Project area.
Data spacing and distribution	> *Data spacing for reporting of Exploration Results.* > *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* > *Whether sample compositing has been applied.*	For selected areas, the drill spacing is approximately 40 m to 80 m along strike and down dip. This spacing is sufficient to establish continuity in geology and grade for this pegmatite system. Composite samples are reported in Li_2O%, this is calculated by multiplying drill length by Li_2O for each sample; then the weighted averages for multiple samples are totalled and divided by the total drill length for the selected samples
Orientation of data in relation to geological structure	> *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* > *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	The drill holes were designed and oriented with inclinations ranging from -52.4 to -85.8 degrees, to best intersect the pegmatite bodies as close to perpendicularly as possible. Assay results in Appendix 1 are drill lengths and not true thicknesses. All results reported for rock chip samples are from surface outcrop, sub-crop and float blocks. The reported samples are considered as grab samples and do not represent a continuous sample over any width or length of the mineralized system.
Sample security	> *The measures taken to ensure sample security.*	Drill core samples and rock chip samples were shipped directly from the core shack by the project geologist in sealed rice bags or similar containers using a reputable transport company with shipment tracking capability so that a chain of custody can be maintained. Each bag was sealed with a security strap with a unique security number. The containers were locked in a shed if they were stored overnight at any point during transit, including at the drill site prior to shipping. The laboratory confirmed the integrity of the rice bag seals upon receipt
Audits or reviews	> *The results of any audits or reviews of sampling techniques and data.*	CSA Global developed a "Standard Operating Procedures" manual in preparation for the drilling program. Independent geochemist Dennis Arne (then CSA Managing Director - Principal Consultant) as well as independent geologist Leon McGarry (then CSA Senior Resource Geologist). Each provided comments on how to

Criteria	JORC Code explanation	Commentary
		improve our methods and have been addressed. Verification core samples were collected by Leon McGarry.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	> *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* > *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	As of September 1, 2021, the Project comprised approximately 3,245 acres of surface property and associated mineral rights in North Carolina, of which approximately 1,527 acres are owned, approximately 113 acres are subject to long-term lease, approximately 79 acres are subject to lease-to-own agreements, and approximately 1525 acres are subject to exclusive option agreements. These exclusive option agreements, upon exercise, allow us to purchase or, in some cases, enter into long-term leases for the surface property and associated mineral rights. There are no known historical sites, wilderness or national parks located within the Project area and there are no known impediments to obtaining a licence to operate in this area.
Exploration done by other parties	> *Acknowledgment and appraisal of exploration by other parties.*	The Project is focused over an area that has been explored for lithium dating back to the 1950's where it was originally explored by Lithium Corporation of America which was subsequently acquired by FMC Corporation. Most recently, North Arrow explored the Project in 2009 and 2010. North Arrow conducted surface sampling, field mapping, a ground magnetic survey and two diamond drilling programs for a total of 19 holes. Piedmont Lithium Inc. has obtained North Arrow's exploration data.
Geology	> *Deposit type, geological setting and style of mineralisation.*	Spodumene pegmatites, located near the litho tectonic boundary between the Inner Piedmont and Kings Mountain belt. The mineralization is thought to be concurrent and cross-cutting dike swarms extending from the Cherryville granite, as the dikes progressed further from their sources, they became increasingly enriched in incompatible elements such as Li, tin (Sn). The dikes are considered to be unzoned.
Drill hole Information	> *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* > *easting and northing of the drill hole collar* > *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* > *dip and azimuth of the hole* > *down hole length and interception depth* > *hole length.* > *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	No drill data is reported in this release. All drillhole data has been reported in previous press releases.
Data aggregation methods	> *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* > *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* > *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	All drill hole intercepts reported are down hole thickness not true thickness. Weighted averaging was used in preparing the intercepts reported. The drill intercepts were calculated by adding the weighted value (drill length x assay) for each sample across the entire pegmatite divided by the total drill thickness of the pegmatite. For each mineralized pegmatite, all assays were used in the composite calculations with no upper or lower cut-offs. Mineralized pegmatite is defined as spodumene bearing pegmatite. Intercepts were reported for entire pegmatites, taking into account lithological boundaries (i.e. sample to, and not across, major contacts), with additional high-grade sub intervals reported from the same pegmatite. In the case where thin wall rock intervals were included, a value of 0% Li_2O was inserted for the assay value, thus giving that individual sample a weighted value of 0% Li_2O. Cumulative thicknesses are reported for select drill holes. These cumulative thicknesses do not represent continuous mineralized intercepts. The cumulative thickness for a drill hole is calculated by adding the drill widths of two or more mineralized pegmatites encountered in the drill hole, all other intervals are omitted from the calculation. Li% was converted to Li_2O% by multiplying Li% by 2.153.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	> *These relationships are particularly important in the reporting of Exploration Results.* > *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* > *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	Drill intercepts are reported as Li_2O% over the drill length, not true thickness. The pegmatites targeted strike northeast-southwest and dip moderately to the southeast or have a near vertical orientation. The holes were drilled to the northwest and southeast with inclinations ranging between -52.4 and -85.8.
Diagrams	> *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Appropriate diagrams are in this and previous press releases.
Balanced reporting	> *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	All of the relevant exploration data for the Exploration Results available at this time has been reported in previous press releases.
Other substantive exploration data	> *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Soil sampling and walking magnetometer geophysical surveys have been completed on the Core and Central property as well as other regional properties.
Further work	> *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* > *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Piedmont continues to evaluate newly acquired properties within the Carolina Tin Spodumene Belt for lithium mineralization.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	> *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*	Geological and geotechnical observations are recorded digitally using the Geospark® Database System directly into a central relational database using standardized logging codes developed for the project. To minimize risk of transcription errors sample data and analytical results are imported directly into the central database from the independent laboratory.
	> *Data validation procedures used.*	On the August 3rd data cutoff date, an extract of the exploration database was validated by the Competent Person for internal integrity via Micromine® validation functions. This includes logical integrity checks of drill hole deviation rates, presence of data beyond the hole depth maximum, and overlapping from-to errors within interval data. Visual validation checks were also made for obviously spurious collar co-ordinates or downhole survey values.
Site visits	> *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	The Competent Person; Leon McGarry P.Geo, has undertaken multiple personal inspections of the Piedmont Properties during 2017, 2018 and 2019 to review exploration sites, drill core and work practices. The site geology, sample collection, and logging data collection procedures were examined. A semi-random selection of drill collar locations at the Core, Central and Sunnyside properties was verified by the collection of independent check samples from drill core and outcrop from the Core Property. In addition to spodumene, the presence of by-product minerals: quartz, feldspar (albite and K-spar) and muscovite mineralization were verified by the inspection of drill core and outcrop. Travel to the site was curtailed during 2020 and 2021 due to the impact of the COVID-19 pandemic. The Competent Person monitored exploration completed at the property during this period through remote review of core

Criteria	JORC Code explanation	Commentary
		photography and exploration activities by regular video conferencing with the exploration team. The outcome of site visits and subsequent remote review was the determination that data has been collected in a manner that supports reporting a Mineral Resource Estimate (MRE) for the Core, Central and Huffstetler properties in accordance with the JORC Code, and controls to the mineralization are well-understood.
	> *If no site visits have been undertaken indicate why this is the case.*	Site visits have been conducted.
Geological interpretation	> *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	Geological models developed for the Core, Central and Huffstetler deposits are based on the lithological logging of visually distinct pegmatite spodumene-bearing pegmatites within amphibolite-biotite schist and metasedimentary host facies. Deposit geology is well understood based on surface pegmatite outcrops and extensive drilling at spacings sufficient to provide multiple points of observation for modelled geological features. Thicker units show good continuity between points of observation and allow a higher level of confidence for volume and mineralization interpretations. Whereas the grade and thickness of thinner or weathered or altered units tend to be more discontinuous and interpretations have more uncertainty.
	> *Nature of the data used and of any assumptions made.*	Input data used for geological modelling are derived from qualitative interpretation of observed lithology and alteration features; semi-quantitative interpretation of mineral composition and the orientation of structural features; and quantitative determinations of the geochemical composition of samples returned from core drilling.
	> *The effect, if any, of alternative interpretations on Mineral Resource estimation.*	Geological models developed for the Core, Central and Huffstetler deposits are underpinned by a good understanding of the deposit geology at the Piedmont properties. Based on input drillhole data, including orientated core measurements, and surface mapping, pegmatite dikes were modelled as variably orientated vertical to sub-horizontal sheets. Where drill data is sparse (i.e. at 80 m spacings) alternative interpretations, of the continuity of individual pegmatites between holes could be made. Alternate interpretations would adjust tonnage estimates locally but would not likely yield a more geologically reasonable result, or impact tonnage and grade estimates beyond an amount congruent with assigned confidence classifications.
	> *The use of geology in guiding and controlling Mineral Resource estimation.*	The model developed for mineralization is guided by observed geological features and is principally controlled by the interpreted presence or absence of spodumene-bearing pegmatite. Estimated deposit densities are controlled by interpreted weathering surfaces. Above the saprolite surface, and in outcrop, spodumene-bearing pegmatites have variable Li_2O and mineral composition grade populations, sufficiently similar to fresh rock, allowing Li_2O and mineral composition grade estimates not to be controlled by interpreted weathering surfaces.
	> *The factors affecting continuity both of grade and geology.*	Geological continuity is controlled by the preference for fractionated pegmatitic fluids to follow preferential structural pathways within the amphibolite and metasediment host rocks. Grade continuity within the pegmatite is controlled by pegmatite thickness, degree of fluid fractionation and the intensity of spodumene alteration to muscovite and amount of weathering. At the Core Property, modelled continuity is impacted by post-mineralization diabase intrusions and fault offsets in areas of limited extent. Modelled pegmatite extent is limited to within the Core, Central and Huffstetler property permit boundaries.
Dimensions	> *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	Spodumene-bearing pegmatites on the Core Property are assigned to three major corridors. Corridors extend over a strike length of up to 2 km and commonly have a set of thicker dikes of 10–20 m true thickness at their core. These major dikes strike northeast and dip steep to moderately toward the southeast. Dikes are intersected by drilling to a depth of 300 m down dip. Dikes are curvi-planar in aspect. Flat to shallowly dipping sills and inclined sheets are encountered across the Core Property and are tested by drilling over 600 m along strike and 500 m down dip. The vertical thickness of individual sills and inclined sheets range from 1 m to 18 m. A close spaced series of sills and inclined sheets typically have cumulative thicknesses greater than 10 m. Spodumene-bearing pegmatites, or a close spaced series of pegmatites, can be traced between drillhole intercepts and surface outcrops for over 1,700 m. Although individual units may pinch out, the deposit is open at depth. The Mineral Resource has a maximum vertical depth of 210 m from surface. Ninety-two percent of the Mineral Resource is within 150 m of the topography surface.

Criteria	JORC Code explanation	Commentary
		Spodumene-bearing pegmatites on the Central Property fall within a corridor that extends over a strike length of up to 0.6 km and contains a pair of thicker dikes of 10 m to 20 m true thickness at their core. These major dikes strike northeast and dip steeply to the southeast. Dikes are intersected by drilling to a depth of 225 m down dip. Although individual units may pinch out, the deposit is open at depth. The Central Mineral Resource has a maximum vertical depth of 275 m, beginning at the topography surface. On average, the model extends to 200 m below surface. Spodumene bearing pegmatites on the Huffstetler Property fall within a corridor that extends over a strike length of up to 0.4 km and form a stacked series of inclined sheets each 2 m to 18 m true thickness. Inclined sheets strike northeast and dip moderately to the northwest. Spodumene bearing pegmatites are intersected by drilling to a depth of 200 m down dip from surface however up-dip extents are limited by the southeastern edge of the permit boundary. Although individual units may pinch out, the deposit is open at depth. The Huffstetler Mineral Resource has a maximum vertical depth of 150 m, beginning at the topography surface. Predominantly, entire intervals of spodumene-bearing pegmatite are selected for modelling. Occasionally interstitial waste material 1 m to 2 m in thickness may be included to facilitate modelling at a resolution appropriate for available data spacings. No minimum thickness criteria are used for modelling; however, a pegmatite must be present in at least two drillholes to ensure adequate control on model geometry. Generally, spodumene-bearing pegmatite models are sufficient for use as MRE domains.
Estimation and modelling techniques	> *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	Samples coded by the modelled pegmatite domain they exploit were composited to 1 m intervals, a length equal to the dominant drill sample interval, and were then evaluated for the presence of extreme grades. Domained samples underwent spatial analysis within the Supervisor™ software which was used to define semi-variogram models for the Li_2O grades and develop search ellipsoids and parameters. A four-pass search strategy was employed, with successive searches using more relaxed parameters for selection of input composite data and/or a larger search radius. Core, Central and Huffstetler Mineral Resources were estimated using Ordinary Kriging (OK) into block models created in Micromine®. The Li_2O variable was estimated independently in a univariate sense. In addition to Li_2O, regularized weight percent grades are modelled for nine minerals: spodumene, quartz, albite, K-spar, muscovite, anorthite, apatite, biotite and diopside, which were estimated independently in a univariate sense. The spatial variability of mineral grades is sufficiently similar to Li_2O grades to allow the use of the same search parameters. The consistent estimation approach was selected to ensure block compositional grade proportions honour those of input samples, and that block grade estimates for compositional minerals approximate 100%.
	> *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*	This Li_2O MRE is an update to the MRE for the Project reported on April 8, 2021. This by-product MRE is an update to the by-product MRE for the Project reported on June 9, 2019. Estimates of Li_2O and by-product grades and tonnages show good agreement with previous estimates. At the Core deposit tonnages show an incremental increase attributable to drilling completed at that property since the previous estimates. For each property resource estimate interpolations were checked visually, statistically, and using an Inverse Distance Weighted estimate.
	> *The assumptions made regarding recovery of by-products.*	Bench-scale metallurgical test work undertaken on material from the Core Property at NCSU-MRL announced on September 4, 2018 and at SGS Canada (Lakefield) announced on May 13, 2020, recovered quartz, feldspar and mica concentrates as by-products to spodumene. These products were recovered at sufficient amounts and qualities to support the estimation of by-product Mineral Resources for the Core Property in addition to spodumene-hosted Li_2O. Pegmatites at the Central and Huffstetler properties have comparable physical properties to Core Property pegmatites and have similar mineralogical proportions. Central and Huffstetler pegmatites are therefore concluded to have comparable grades and by-product specifications.
	> *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).*	Within the resource model, deleterious elements, such as iron are reported to be at acceptably to low levels. Metallurgical test work demonstrates that deleterious elements will not impede the economic extraction of the modelled spodumene hosted lithium and by-product minerals. No estimates for other elements were generated.

Criteria	JORC Code explanation	Commentary
		Core Property pegmatites have comparable mineralogical and physical properties to pegmatites at the Central and Huffstetler properties.
	> *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*	Rotated block models aligned to the dominant strike of pegmatites were orientated at 35° for the Core and Huffstetler deposits and at 40° for the Central deposit. Given the variable orientation and the thickness of the Core and Huffstetler MRE domains, a block size of 6 m(E) x 12 m(N) x 6 m(RL) was selected to honour moderately dipping pegmatites in the across strike dimension, and the shallow dipping pegmatites in the vertical dimension. For the Central Property, a block size of 6 m(E) x 18 m(N) x 18m(RL) was selected to honour steeply dipping pegmatites in the across strike dimension. Core, Central and Huffstetler parent block dimensions compare to an average drillhole spacing of 40 m within the more densely informed areas, that increases up to an 80 m spacing in less well-informed areas. Blocks were sub-celled to a minimum resolution of 2 m(E) x 4 m(N) x 1 m(RL).
	> *Any assumptions behind modelling of selective mining units.*	Block dimensions are assumed to be appropriate for the mining selectivity achievable via open-pit mining method and likely bench heights. At the neighbouring Hallman-Beam mine operating benches of 9 m were mined.
	> *Any assumptions about correlation between variables.*	For the Core, Central and Huffstetler properties, only one metal grade is modelled. Other than lithium analyses, there are insufficient geochemical data to allow a meaningful analysis of correlation between lithium and, for example, tin and tantalum. There is no modelled correlation between pegmatite Li_2O grade and density, and the relationship is not considered in the estimate. Modelled by-product mineral grades show both positive and negative correlations between modelled variables. Regularized weight percent grades are modelled independently in a univariate sense using search parameters that result in block model grade estimates that honour mineral proportions that result from normative calculations.
	> *Description of how the geological interpretation was used to control the resource estimates.*	Modelled pegmatite dikes host and constrain the mineralization model. Each pegmatite domain was estimated independently with hard boundaries assumed for each separate pegmatite body. The dominant modelled orientation of pegmatite units was used to inform search ellipse parameters, so that in-situ grade trends are reflected in the block model.
	> *Discussion of basis for using or not using grade cutting or capping.*	Domained Li_2O grade data was assessed via histogram and log probability plots to identify extreme values based on breaks in the continuity of the grade distributions. Samples with extreme grades were visually compared to surrounding data. Most extreme grades are encountered in high-grade portions of modelled dikes and are well constrained by surrounding holes. Where extreme grades were unusually high relative to surrounding samples, they were capped at 3.00% or 3.50% Li_2O. At Core, capping affected 12 composite samples ranging from 3.02% to 4.30% Li_2O. At Central, capping affected one 4.10% Li_2O composite sample. At Huffstetler no samples we capped. Domained by-product mineral grade data show normal distributions that do not contain extreme values and have coefficients of variation less than 1. On this basis, it is not necessary to cap by-product mineral grades.
	> *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	Block model estimates were validated visually and statistically. Estimated block grades were compared visually in section against the corresponding input data values. Additionally, trend plots of input data and block estimates were compared for swaths generated in each of the three principal geometric orientations (northing, easting and elevation). Statistical validation included a comparison of composite means, and average block model grades, and a validation by Global Change of Support analysis.
Moisture	> *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages are reported on a dry basis.
Cut-off parameters	> *The basis of the adopted cut-off grade(s) or quality parameters applied.*	The Mineral Resource is reported using a 0.4% Li_2O cut-off which approximates cut-off grades used for comparable spodumene-bearing pegmatite deposits exploited by open pit mining. The economic extraction of by-product minerals at the is contingent on the economic extraction of lithium Mineral Resources at the Project. Accordingly, the by-product Mineral Resource is reported using a 0.4% Li_2O cut-off which approximates cut-off grades used for comparable spodumene-bearing pegmatite deposits exploited by open pit mining.

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	> *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	The methods used to design and populate the Core and Central Mineral Resource block models were defined under the assumption that the deposit will be mined via open pit methods, since the depth, geometry and grade of pegmatites at the property make them amenable to exploitation by those methods. Inspection of drill cores and the proximity of open pit mines in similar rock formations indicate that ground conditions are likely suitable for such a mining method. The Core resource model is constrained by a conceptual pit shell derived from a Whittle optimization using estimated block value and mining parameters appropriate for determining reasonable prospects of economic extraction. These include a maximum pit slope of 50°, appropriate recovery and dilution factors, a mining cost of \$2.90/t, a SC6 concentration cost of \$25/t, a processing cost of \$2,616/t $LiOH{\cdot}H_2O$ and a commodity price equivalent to \$ 15,239/t $LiOH{\cdot}H_2O$. Conceptual shells for Central and Huffstetler resource models, developed using the above parameters, extended to the base of the resource model where the deposit is open, and beyond the modelled strike extent of the resource model where the deposit is open. Accordingly, the entire Central and Huffstetler resource models are considered to have reasonable prospects of eventual economic extraction.
Metallurgical factors or assumptions	> *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	The materials targeted for extraction comprise spodumene, quartz, feldspar and mica minerals for which metallurgical processing methods are well established. Based on metallurgical test work completed by SGS and reported by the company, which indicates: • Spodumene concentrate grades exceeding 6.0% Li_2O and less than 1.0% Fe_2O_3 • Quartz samples delivered to potential solar glass customers and met customer quality expectations and has characteristics comparable to marketable quartz products. • Feldspar concentrate, comprised of albite and K-spar minerals, has characteristics comparable to marketable feldspar products. • Muscovite mica concentrate has physical properties comparable to marketable muscovite products. The Competent Person has assumed that metallurgical concerns will not pose any significant impediment to the economic processing and extraction of spodumene from mined pegmatite.
Environmental factors or assumptions	> *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	No assumptions have been made regarding waste streams and disposal options; however, the development of local pegmatite deposits within similar rock formations was not impeded by negative environmental impacts associated with their exploitation by open cut mining methods. It is reasonable to assume that in the vicinity project area, there is sufficient space available for the storage of waste products arising from mining.
Bulk density	> *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*	In situ dry bulk densities for the Core, Central and Huffstetler Mineral Resource were assigned on a lithological basis using representative averages. At Core average bulk densities for spodumene bearing pegmatite and waste rock were derived from 3,434 determinations on selected drill core from the Property made by Piedmont geologists in the field and 139 by SGS Labs, Lakefield, Ontario. At Central average bulk densities for spodumene bearing pegmatite and waste rock were derived from 197 determinations made by Piedmont geologists in the field on selected drill core from the Property. Density of weathered spodumene bearing pegmatite is taken from available data at Core property as of January 8, 2021. At Huffstetler average bulk densities for fresh spodumene bearing pegmatite and waste rock were derived from 55 determinations made by Piedmont geologists in the field on selected drill core from the Property. Density of weathered spodumene bearing pegmatite and waste rock is taken from available data at Core property as of February 15, 2021.

Criteria	JORC Code explanation	Commentary
		Both Piedmont and SGS used the displacement method. Core fragments are typically 6 to 10 cm in length and 90 to 120 cm^3 in volume. The Competent Person considers the values chosen to be suitably representative.
	> *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.*	Bulk density determinations are made on waste rock, saprolite and overburden. Moisture content of porous rock is determined from the change in mass after samples are dried. Void spaces were adequately accounted for by coating samples in cling film.
	> *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	For the Core Property, simple averages were generated for fresh pegmatite (2.70 t/m^3), pegmatite saprolite (1.90 t/m^3), overburden waste (1.31 t/m^3), saprolite waste rock (1.41 t/m^3) and amphibolite/metasedimentary country rock (2.88 t/m^3). For the Central Property, simple averages were generated for fresh pegmatite (2.84 t/m^3), pegmatite saprolite (1.86 t/m^3), overburden waste rock (1.23 t/m^3), saprolite waste rock (1.36 t/m^3) and country rock (2.95 t/m^3). For the Huffstetler Property, simple averages were generated for fresh pegmatite (2.70 t/m^3), pegmatite saprolite (1.86 t/m^3), overburden waste rock (1.30 t/m^3), saprolite waste rock (1.36 t/m^3) and country rock (2.84t/m^3).
Classification	> *The basis for the classification of the Mineral Resources into varying confidence categories.*	Mineral Resources at the Core and Central and properties have been classified as Indicated and Inferred on a qualitative basis; taking into consideration numerous factors such as: the validity and robustness of input data and the estimator's judgment with respect to the proximity of resource blocks to sample locations and confidence with respect to the geological continuity of the pegmatite interpretations and grade estimates. All blocks captured in pegmatite dike interpretation wireframes below the topography surface are classified as Inferred. Indicated classification boundaries were generated that define a region of blocks that are informed by at least two drillholes and eight samples within a range of approximately 25 m to the nearest drillhole in the along strike or strike and downdip directions. No Measured category resources are estimated.
	> *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).*	The classification reflects areas of lower and higher geological confidence in mineralized lithological domain continuity based on the intersecting drill sample data numbers, spacing and orientation. Overall mineralization trends are reasonably consistent within the various lithology types over numerous drill sections.
	> *Whether the result appropriately reflects the Competent Person's view of the deposit*	The Core, Huffstetler and Central Property MREs appropriately reflect the Competent Person's views of the deposit.
Audits or reviews	> *The results of any audits or reviews of Mineral Resource estimates.*	The current model has not been audited by an independent third party.
Discussion of relative accuracy/ confidence	> *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*	The accuracy of Mineral Resources for the Core, Central Huffstetler properties is communicated through the classification assigned to the deposit. The MRE has been classified in accordance with the JORC Code (2012 Edition) using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 2 of this Table.
	> *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*	Mineral Resource statements for the Core, Central and Huffstetler properties have an effective date of August 15, 2021 and relate to a global estimate of in-situ mineralized rock tonnes, Li_2O% grade, estimated Li_2O tonnage, Lithium Carbonate Equivalent (LCE) tonnage whereby one tonne of Li_2O is equivalent to 2.473 tonnes LCE. and $LiOH \cdot H_2O$ tonnage whereby one tonne of Li_2O is equivalent to 2.81 tonnes $LiOH \cdot H_2O$. By-product Mineral Resource statements for the Core, Central and Huffstetler have an effective date of August 15, 2021 and relate to a global estimate of in-situ mineralized rock tonnes and estimated quartz by-product tonnage, estimated feldspar by-product tonnage comprising albite and K-spar minerals, and estimated muscovite mica by-product tonnage.
	> *These statements of relative accuracy and confidence of the estimate should be compared with production data, where*	There is no recorded production data for the Piedmont properties.

Criteria	JORC Code explanation	Commentary
	available.	

Section 4 Estimation and Reporting of Ore Reserves

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	> *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* > *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	The mineral resource estimate used for conversion to ore reserve was supplied by McGarry Geoconsulting Corp.. All reserves were derived from previously stated mineral resources. A significant portion of mineral resources which have not been converted to reserves exist on the Company's property.
Site visits	> *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* > *If no site visits have been undertaken indicate why this is the case.*	Multiple site visits were conducted which included core inspection, outcrop locations, surrounding infrastructure, stream, wetland, and buffer inspection, pit and plant locations and site development layouts.
Study status	> *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* > *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	Previous scoping study and updated scoping studies were done and this study for conversion to ore reserve is a feasibility study. After considering all the modifying factors mentioned the economically mineable part of the measured and indicated mineral resource has been converted to ore reserves. No inferred tonnes were used in this conversion and no measured tonnes have been reported. 20.09 million tonnes of indicated resource have been converted to probable reserves and used for optimizations and mine design for this feasibility study. A mine design has been prepared based on delivery of ore reserves to the concentrator plant. The open pit design incorporates the production schedule on a quarterly basis for the first five years and then annually for the remaining life of mine. Access ramps, ramp widths, conveyor passes, batter angles, berm widths, berm heights, mine permit limits, zoning permit requirements, and jurisdictional buffers from flood zones, streams and wetlands not permitted for disturbance were all incorporated into the mine design.
Cut-off parameters	> *The basis of the cut-off grade(s) or quality parameters applied.*	Cutoff grade of 0.4% Li_2O was used in creation of the block model supplied by McGarry Geoconsulting Corp.
Mining factors or assumptions	> *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* > *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* > *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* > *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* > *The mining dilution factors used.* > *The mining recovery factors used.* > *Any minimum mining widths used.* > *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* > *The infrastructure requirements of the selected mining methods.*	Methodology for determining the ability to convert mineral resource to ore reserve included modifying factors, optimizations, and detailed designs. Open pit mining method was selected due to the ore body outcropping in several places along the surface. Mine design parameters include overburden batter angle in unconsolidated material of 27 degrees, face batter angle of 75 degrees, interramp slope of 57 degrees overall slope of 51 degrees, berm width of 9.5 meters, berm height working 12 meters, berm height finial wall of 24 meters, ramp width of 30 meters, ramp grade of 10%, mine dilution of 10%, process recovery of 77%, and minimum mining width of 50 meters. No inferred material was used for the conversion of ore reserves. CAPEX costs include estimates for infrastructure development including roads, electrical power delivery and distribution, water sources for plant and dust control and initial site development.

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	> *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* > *Whether the metallurgical process is well-tested technology or novel in nature.* > *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* > *Any assumptions or allowances made for deleterious elements.* > *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* > *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	The lithium conversion plant, uses the Metso:Outotec proprietary technology, by converting the spodumene (LiAl(SiO3)2) into a lithium carbonate form and then into a soluble lithium hydroxide, to allow crystallization to the final lithium hydroxide monohydrate product. The solutions generated within the circuit are recirculated as much as possible to maintain lithium concentrations, recover as much lithium as possible, and reduce water requirements. Piedmont engaged SGS Canada Inc. in Lakefield, Ontario to undertake testwork on variability and composite samples. Dense Medium Separation ("DMS") and locked-cycle flotation tests produced high-quality spodumene concentrate with a grade above 6.0% Li_2O, iron oxide below 1.0%, and low impurities from composite samples. Piedmont engaged North Carolina State University's Minerals Research Laboratory in 2018 to conduct bench-scale testwork on samples obtained from the Company's MRE within the Core Property for by-products quartz, feldspar, and mica. The objective of the testwork program was to develop optimized conditions for spodumene flotation and magnetic separation for both grade and recovery. Summary mica concentrate data are shown in Table 13. Complete mica data were previously announced on September 4, 2018.
Environmental	> *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	US Army Corps of Engineers has issued a permit for disturbance of streams and wetlands within the areas of the mine excavation and concentrate operations. A Mine Permit application has been filed with NC DEMLR encompassing 1548 acres. Several meetings have been held with the permitting agency as well as the public and comments received related to the permit application. A permit for Gaston County zoning has not yet been applied for; However, several meetings have been held with the county staff, county commissioners, and the public. Changes to the Gaston County Zoning Ordinance related to mining were approved by the commissioners on September 21, 2021 and have been incorporated into the mine design. Waste rock is planned for an initial storage pile, backfilling south pit and east pit. A second storage pile location has been identified and the property controlled by the company. A modification to the mine permit will be required before it can be used and should be obtainable before needed.
Infrastructure	> *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	The site is located in Gaston County, North Carolina just outside the Charlotte City Limits. Piedmont currently controls over 3000 acres around the site and has 1548 acres currently in the mine permit application. Rutherford Electric CO-OP and Duke Energy have electric power on-site and have been working with Piedmont to supply Power. Water is available from wells, streams, and nearby municipal sources. CSX has a rail line on adjoining property that will provide a spur onto the conversion plant site.
Costs	> *The derivation of, or assumptions made, regarding projected capital costs in the study.* > *The methodology used to estimate operating costs.* > *Allowances made for the content of deleterious elements.* > *The source of exchange rates used in the study.* > *Derivation of transportation charges.* > *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* > *The allowances made for royalties payable, both Government and private.*	Capital costs and operating costs were collected by sending requests for pricing to several qualified mine service contractors. Costs not included in their pricing; i.e. Electrical costs were generated from Duke Energy's current rates. All costs are based on 2021 US dollars Royalties of $1.00 per ROM tonne based on the average land option agreement

Criteria	JORC Code explanation	Commentary
Revenue factors	> *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* > *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	The study assumes a fixed price of $18,000/t for battery quality lithium hydroxide and $900/t for spodumene concentrate (SC6)
Market assessment	> *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* > *A customer and competitor analysis along with the identification of likely market windows for the product.* > *Price and volume forecasts and the basis for these forecasts.* > *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	Refer to the Marketing section of this announcement. According to Benchmark Minerals Intelligence, a supply deficit is expected to occur as early as 2022 and may reach in excess of 1 mt/y of lithium hydroxide supply/demand deficit by 2030. Potential U.S. demand for lithium hydroxide in 2030 may now exceed 460,000 t/y based on operating, under construction, or publicly announced U.S. based battery manufacturing capacity. Lithium hydroxide prices have increased more than 200% in the preceding 12 months, with spodumene concentrate prices appreciating as much as 500% over the same time period.
Economic	> *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* > *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	Refer to the Material Assumptions Appendix of this announcement. Refer to the Sensitivity Analyses section of the Announcement. Sensitivity analyses have been performed for variability in capital cost estimation (±30%), operating costs (±30%), lithium prices (±30%), variability in metallurgical recovery of spodumene concentrate, and variability in conversion rates of spodumene to lithium hydroxide.
Social	> *The status of agreements with key stakeholders and matters leading to social licence to operate.*	Refer to the Social, Legal and Governmental section of Appendix A to this announcement. As of November 30, 2021, the Company's properties comprised approximately 3,233 acres of surface property and associated mineral rights in North Carolina, of which approximately 1,713 acres (114 parcels) are owned by Gaston Land Company, LLC, a subsidiary of the Company. Approximately 113 acres are subject to long-term lease (1 parcel; 1 individual landowner), approximately 79 acres are subject to lease-to-own agreements (2 parcels; 2 landowners), and approximately 1,328 acres are subject to exclusive option agreements (79 landowners; 124 land parcels). These exclusive option agreements, upon exercise, allow us to purchase or, in some cases, enter into long-term leases for the surface property and associated mineral rights. The Company has made all required payments under each option agreement.
Other	> *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* > *Any identified material naturally occurring risks.* > *The status of material legal agreements and marketing arrangements.* > *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	Refer to the Social, Legal and Governmental section and the Environmental section of Appendix A to this announcement. The Project requires a North Carolina State Mining Permit from NCDEQ's DEMLR. The Company submitted a mine permit application to DEMLR on August 31, 2021. A public hearing in relation to the mine permit application was held on November 15, 2021. The Company has received additional information requests in connection with the mine permit application and is prepared a written response. Carolina Lithium remains subject to local rezoning and permit requirements. Piedmont remains in pre-application consultation with Gaston County at this time. A rezoning application will follow receipt of mine and air permits. The Company will apply for a special use permit required under the Gaston County UDO upon completion of the rezoning process.

Criteria	JORC Code explanation	Commentary
Classification	> *The basis for the classification of the Ore Reserves into varying confidence categories.* > *Whether the result appropriately reflects the Competent Person's view of the deposit.* > *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	All converted ore has been classified into probable. There was no measured resource defined that could be converted to proven and no inferred resource was included in reserves.
Audits or reviews	> *The results of any audits or reviews of Ore Reserve estimates.*	
Discussion of relative accuracy/ confidence	> *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* > *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.*	Former mining ventures conducted by other operators on adjacent properties in the TSB lend confidence to the likelihood of a successful mining project. MM&A is confident that mine plans and associated mining costs are reasonably representative to provide an accurate estimation of reserves. Probable reserves were derived from the defined in-situ resources considering relevant processing, economic (including independent estimates of capital, revenue and cost), marketing, legal, environmental, socioeconomic, and regulatory factors on a global scale as current local data reflects the global assumptions. The major risk factors for the development and operation of the project are summarized below. > Highwall Failure. Highwall failures are likely to result in a temporary mine closure and should not have a material impact on the mine sustainability. Highwall stability is reflected in the geometrical constraints assumed in mine planning and reserve delineation. > Environmental Risk. Federal and state permits are required for the project. Permitting rules are complex and may change over time, making compliance difficult. Ongoing studies pertaining to environmentally sensitive issues, especially related to waste disposal, should help mitigate risk related to environmental factors by allowing dynamic mine planning to incorporate such sensitive factors. > Water Quality. Permit requirements to fulfill Clean Water Act obligations are subject to modification. The probability of water quality changes having a material impact on mine operations is possible. > New & Amended Permits. Permit protests by environmental groups and individuals can contribute to permit delays or denial and increase the cost of permitting and delay development. Surface mining activities and waste disposal require permits that are increasingly difficult to obtain. > Regulatory Requirements. Adverse impact from regulatory changes is considered to be probable. The impact will likely affect the broader industry and is not expected to result in mine closure. > Market Risk. Announced or planned battery manufacturing capacity may not be realized. The rate of electric vehicle penetration into the auto market may occur more slowly. Other manufacturing constraints may occur which reduces electric vehicle supply and impacts lithium markets. Changes in government or regulatory frameworks could impact electric vehicle demand. Piedmont's potential position as a low-cost producer would reduce the impact to the Company from these market risks compared to the marginal producer.

Criteria	JORC Code explanation	Commentary
	> *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	> Property Risk. Execution of the mine plan as expressed in the BFS is predicated upon securing additional neighboring properties. While project financials incorporate costs to secure these properties, risk exists with regards to landowners requiring extraordinary monies and potentially not selling regardless of offering prices. > Availability of Equipment and Supplies. Risk of equipment and supply availability is likely to be temporary and should not have a sustained adverse impact on operation. Mine plans, productivity expectations and cost estimates reflect reasonable expectations of performance. Efforts have been made such that performance and costs are reflective of likely mining conditions.