

WWR / NYSE-Amer

**SPECULATIVE
BUY**

Unchanged

\$20.00

(Reiterated 2/22/21)

CAPITALIZATION

Shares Outstanding (5/12/21)	32.3 M
Recent Price (5/18/21)	\$3.99

Market Capitalization	\$129.0 M
+ Debt	0.0 M
- Cash	117.9 M
Enterprise Value	\$ 11.1 M

Book Value	\$124.2 M
Working Capital	\$115.1 M
Dividend	Nil

Balance sheet figures as of 3/31/20

MARKET DATA

Bid-Ask Spread, % Price	0.5%
52 Week High/Low	\$14.50 - \$1.34

Shares Outstanding	32.3 M
Inside Ownership	<1%
Institutional Ownership	12%
Estimated Flotation	32.0 M

Average Daily Volume	3.1 M
Short Interest, % of Float	14.6%
Beta	NA

Source: Bloomberg LP

INVESTMENT RETURNS

	WWR	Sector*
Return on Equity	Neg	13.26%
Return on Assets	Neg	6.22%
Return on Capital	Neg	8.19%

Source: Crystal Equity Research, CSI Markets

FINANCIAL PROFILE

	FY19	FY20
Sales	\$ 0.0 M	\$ 0.0 M
EBITDA	(\$10.3) M	(\$13.8) M
(L)EPS	(\$5.39)	(\$2.68)

Source: Company Reports

HIGHLIGHTS

- **Graphite process pilot test.** Pilot testing of Westwater's proprietary graphite materials process has been completed, confirming the method and equipment. The test produced 13.2 metric tons of graphite materials for customer qualification trials.
- **Final feasibility study.** Work is already underway by a qualified engineering firm to determine capital costs and operating budget for a commercial scale graphite materials processing plant. A final feasibility report is expected in the third quarter 2021.
- **Commercial production.** The Company appears on schedule to reach a goal of commercial graphite materials production by the end of 2022.
- **Valuation.** Recent price-to-book value multiples for comparable graphite developers and producers implies an intrinsic value near \$28 per share for WWR.
- **Price catalysts.** We reiterate our Speculative Buy recommendation on WWR and target price of \$20.00. The final feasibility study and onset of plant construction could serve as strong triggers for investor sentiment.

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INDUSTRY: INDUSTRIAL, ENERGY MATERIALS

WWR: NASDAQ

RECENT DEVELOPMENTS

During the first quarter 2021, Westwater Resources completed a successful test of its proprietary production process for battery-grade graphite, producing 13.2 metric tons of material that can be used for customer qualification trials as well as additional development tests by the Company's engineers. The Company also raised \$72.2 million in new capital in the quarter, bringing cash balances at the end of March 2021, to \$117.9 million. During the earnings conference call management declared the cash hoard sufficient to support operations through the end of 2022 as well as provide capital for completion of Phase I of construction of the planned graphite materials processing plant. We believe that plant is likely to be located near the Company's Coosa County, Alabama graphite resource. A final feasibility study is already underway and on schedule to be completed sometime in the third quarter 2021. That study is expected to detail the capital requirement and operating budget for the processing plant project.

RECOMMENDATION

Westwater's list of accomplishment is growing. While our rating of WWR remains Speculative Buy, there is every greater certainty in the Company's energy materials story with every check on management's list of tasks to bring graphite materials to market. The successful pilot process test is informing a final feasibility study that will in turn support the processing plant construction decision and financing. It appears that the Company currently has enough capital in hand to begin construction on time even while seeking additional resources through strategic partners or equipment financing. In our view, this puts Westwater in a strong position to realize its goal of commercial production by the end of 2022. With the performance and quality of its various battery-grade graphite materials already well established, we believe Westwater is fast moving to a leading position in the graphite materials sector.

Our target price for WWR is \$20.00. In our view, Westwater has been consistently undervalued relative to its peers. We believe this is due in part of concerns about capital adequacy as well as negative news related to the Company's uranium mining activities. With a plump bank balance and the Company's exit from the uranium sector, we view these risks as at least partially mitigated. A review of recent price multiples for a selection of 35 graphite mining and materials development companies finds an average price-to-book value multiple of 7.24, which implies an intrinsic value of \$27.81 for WWR.

VALUATION

Price/Sales	Neg
Price/Cash Flow	Neg
Price/EPS	Neg
Price/Book Value	1.03 X
Consensus EPS 2021	na
Forward PE	na

OPERATING PROJECTIONS

	2018A	2019A	2020A	2021E	2022E
Sales	\$ 0.0	\$0.0	\$ 0.0	\$ 0.0	\$ 0.0
Operating (Loss)	(\$ 36.0)	(\$ 6.3)	(\$11.2)	(\$ 11.3)	(\$ 6.9)
Net Inc (Loss)	(\$ 36.7)	(\$10.6)	(\$23.6)	(\$ 11.8)	(\$ 6.9)
CFO (U)	(\$ 11.7)	(\$10.0)	(\$15.2)	(\$ 15.9)	(\$ 5.9)
EPS (LPS)	(\$38.50)	(\$5.39)	(\$2.68)	(\$0.40)	(\$0.15)

Dollars in millions except per share earnings

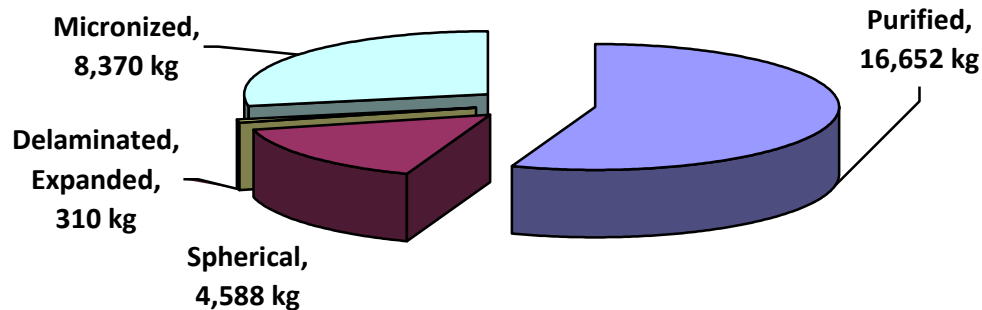
Per share figures estimated 5/18/21

Company Reports and Crystal Equity Research Estimates

PILOT PROJECT - strong yields delivered on-time

A pilot project to test Westwater Resources proprietary graphite process appears to have gone off without difficulty. The Company has applied for patent protection for the purification methodology used in its graphite materials process. Westwater has disclosed that the process is based on caustic roasting of the graphite concentrate. The roasting step is followed by acid leaching and thermal treatment.

The pilot test generated 13,268 kilograms (13.3 metric tons) of battery-grade graphite material that can be used for testing and qualification trials by customers or the Company's own engineers. The Company reported purifying 16,652 kilograms (16.65 metric tons) of graphite material, which provided for 8,370 kilograms (8.37 metric tons) of purified and micronized material, 4,588 kilograms (4.5 metric tons) of spherical purified graphite and 310 kilograms (0.31 metric tons) of delaminated expanded material. The implied yield of marketable materials was 80%.



The purified and micronized materials are marketed by Westwater as *ULTRA-PMG* and the delaminated, expanded materials as *ULTRA-DEXDG*. The spherical graphite can be put through an additional coating process to yield the Company's *ULTRA-CSPG* product for the high-performance segment of the vehicle battery market. In 2020, at least one customer in the alkaline battery market had requested one ton of the *ULTRA-PMG* materials for qualification trials.

FEASIBILITY STUDY - on schedule for 3rd quarter 2021 completion

The pilot study test results are informing a final feasibility study for the Company's planned commercial graphite materials processing facility. The study is currently underway by a qualified engineering firm. This detail study is expected to provide a final product process design and a processing plant design. With those details in place the study can also determine capital costs and an estimated operating budget. Such studies usually build on and confirm preliminary analysis of a mineral resource. However, in Westwater's case the study is likely to discuss the Company's plans to use outsourced graphite concentrate for the first five years of operation.

During the earnings conference call, Westwater management indicated the final feasibility study is on schedule for completion during the third quarter 2021.

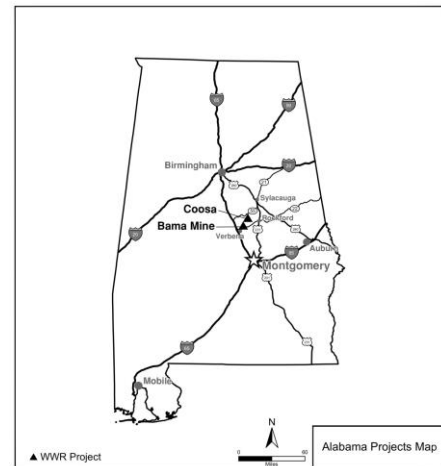
QUARTER FINANCIAL RESULTS - cash adequate through 2022

During the first quarter ending March 2021, Westwater used \$4.9 million in cash resources to support operations. Cash usage climbed 40% over the prior-year period due to increases in spending on product development, including the pilot plant process design and test discussed above. The Company also experienced a temporary increase in legal fees related to its arbitration case against the Republic of Turkey for the revocation of a uranium mining license in that country.

The Company ended the March 2021 quarter with \$117.9 million in cash and equivalents on its balance sheet. During the quarter the Company sold 9.3 million shares of common stock through an equity sales agreement with Cantor Fitzgerald & Co. and 3.8 million shares of common stock to Lincoln Park Capital Fund. The stock sales resulted in \$72.2 million in new capital, net of fees. Stock sales brought shares outstanding to 32.3 million.

During the earnings conference call, management suggested that the current cash resources are adequate to support operations through the end of 2022. Additionally, cash resources are considered adequate to fund the first phase of the graphite processing plant construction planned near the Company's graphite resource in Alabama.

Nonetheless, Westwater leadership is asking for shareholder approval to expand sales of common stock to Lincoln Park Capital Fund under a purchase agreement reached in December 2020. Now listed on the New York Stock Exchange American, the Company must get shareholder approval for stock issuance of more than 19.99% of outstanding shares.



FINANCIAL PROJECTIONS - commercial sales beginning late 2022

During the earnings conference call management reiterated guidance for first revenue from commercial sales beginning in late 2022. Accordingly, we have not adjusted our financial projections beyond updating our model with first quarter 2021 financial results.

During the earnings conference call management did provide additional commentary on anticipated expense levels during the balance of 2021. Legal expenses related to a dispute with the Republic of Turkey over a revoked uranium license in that country boosted reported operating expenses in the first quarter 2021. However, legal activities have slowed and thus expenses are likely to fall back in June 2021 quarter. We expect to see spike again in the third quarter ending September 2021, when an arbitration panel hears Westwater's complaint.

While legal expenses are expected to decline, it is likely that other operating expenses will increase as the year progresses. First, the Company has added a new controller and financial officer to the employee roster. Additionally, during the earnings conference call management suggested that hiring could begin in the near-term for the Company's planned graphite processing plant. The plant is expected to be completed by the end of 2022, with commercial operation beginning before the end of 2022.

We expect to adjust our model to reflect changes in operating expenses and capital investments when the final feasibility study is available.

VALUATION - undervalued against graphite industry peer group

A perspective on market sentiment is provided by a review of recent valuation metrics for a selection of comparable graphite companies. We chose a group of thirty-five companies with publicly trade shares that are involved in exploration, development and commercial sales of graphite concentrate or materials. Only fourteen of the companies had revenue in the most recently reported twelve months. None are profitable, but three had positive cash flow in the most recently reported twelve months. The financial reality of these graphite market aspirants means only the multiple of book value provides a good view on valuation. We find that the average price-to-book value ratio for the group is 7.24 times.

The comparable group's price-to-book value multiple implies an intrinsic price of \$27.81 per share for Westwater Resources given current shares outstanding and book value at the end of March 2021. This is well above the current price of \$3.99, and echoes our view that the stock is deeply undervalued.

Despite the suggestion that the current price should be closer to \$28.00 to keep the WWR price in line with comparable companies, we are leaving our target price at \$20.00. Our target price is based on a technical signal that suggests a line of historic price resistance near the \$20.00 price level. We note that in recent trading sessions another technical signal indicates potential price resistance at the \$12.00 price level. However, this line is defined by nominal trading volume and thus is a weaker signal. It is also worthwhile to note that there is a strong line of volume-related price support at the \$4.00 price level.

OUTLOOK - multiple stock price catalysts

We continue to see several catalysts for the stock price in the next few months. During the first quarter 2021 earnings conference call management indicated continued progress on a final feasibility study for its planned graphite materials processing plant. The study is expected sometime in the third quarter 2021, and should provide details on the processing plant design, production capacity, capital costs and operating budget. Despite management's caution that the feasibility study conclusion could be plus or minus capital and operation costs by 15%, we believe the study could give greater certainty to projected cash flows from the Company's battery-grade graphite materials. We expect the details to help in confirming the profit potential in Westwater's graphite project. We believe the stock price could firm upward with a clearer view on fundamental value.

More details on the vanadium resource at the Coosa County project are expected in the near-term. The graphite deposit appears to be well documented with extensive drilling over a lengthy period. However, the Company is taking additional samples to better estimate the extent of the vanadium resource that is thought to reside with or near the graphite deposits. Extraction of vanadium could add significant value to the project with nominal incremental investment. We believe this value is not fully represented in the current stock price. Thus, more details on the resource size could be a strong catalyst for the stock.

Another stock price catalyst could come from a resolution of the dispute with the Republic of Turkey over uranium mining licenses in that country, which had been revoked by Turkey's mining authority. In September 2021, an arbitration panel is scheduled to hear arguments by Westwater and a response by Turkey. A decision by the arbitration panel could follow in the next months. A favorable decision could call for compensation to Westwater for the loss of its uranium mining asset. The Company has asked for \$36.5 million as well as reimbursement for legal expenses.

In our view, the most significant catalyst for Westwater value is the availability of adequate capital to support operations and begin construction of the planned graphite processing plant. With shareholder approval of significant share issuances to Lincoln Park Capital, with which the Company has an equity purchase agreement, Westwater will have the mechanism in place to raise capital quickly if the stock price again rises to a compelling level, thereby funding advanced construction phases of the materials processing plant. A secure capital situation means the Company's strategic plans are more than just talking points, but fully executable goal posts that create value.

GRAPHITE INDUSTRY DEVELOPMENTS - Westwater at leading edge

A large market opportunity has attracted several players to the graphite field. The pace of exploration, development and commercialization among Westwater's peers provides insight into the Company's position relative to peers in trying to bring graphite materials to market.

Well established producer Imerys Graphite and Carbon, SA (NK: PA) recently issued its first sustainability linked bond to finance its environmental program. The company's sustainability report touts the critical role played by graphite in the path to a more sustainable world economy. Imerys produces carbon black and graphite in Belgium and Switzerland.

BlackEarth, Inc. (BEM: ASX) has announced it completed processing 60 metric tons of graphite material from its Maniry mine in Madagascar as part of a pilot program. Its process proved capable of delivering fixed carbon levels near 96.5% for the large and jumbo flake graphite tested. BlackEarth plans to send samples of upgraded graphite materials to potential off-take partners. Meanwhile the company has restarted exploration activities at Maniry with the intention of expanding the proven resource.

Eagle Graphite (EGA: TSX.V) won grant funding to support a study of graphite for a silicon-modified battery anode. The study will use graphite samples from Eagle's Black Crystal natural flake graphite quarry in British Columbia. The mine is constructed and permitted, but has not yet begun production.

In February 2021, Graphite One (GPH: TSX.V) raised CA\$10 million in new capital through the private placement of common stock. The proceeds are earmarked for continued study of the company's graphite materials and completion of a pre-feasibility study for its Graphite Creek Property in Alaska.

Lomiko Metals, Inc. (LMR: TSX.V) recently confirmed work on a pre-economic assessment of its graphite-bearing La Loutre Property in Quebec. Metallurgic testing of the graphite has been completed.

In March 2021, early test results were received by Mason Graphite (LLG: TSX.V) for the company's coated spherical purified graphite using natural flake graphite from its Lac Guéret deposit in Quebec. Further development work is planned on the Lac Guéret graphite to reach an even higher performance level of 1,000 charge and discharge cycles with better than 80% capacity retention.

Nouveau Monde (NOU: TSX.V) is continuing construction of a graphite mining facility near Montreal. Full commissioning is expected by the end of 2023. The company is also working on an anode material facility at a location between Montreal and Quebec City.

In the first quarter ending March 2021, Syrah Resources (SYR: ASX) reported resumption of production at its Balama graphite mine in Mozambique. In its March 2021 quarter earnings presentation management indicated a final investment decision is expected by the end of 2021, on a planned ten kiloton graphite materials processing facility in Vidalia, Louisiana. Syrah has installed a furnace at the facility for the thermal steps in graphite materials processing, but in early 2021 used a toll treatment facility to accelerate some batches for product qualification.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST

Table I: Historic and Projected Annual Financial Performance

Dollars in Thousands	2018A *	2019A *	2020A	2021E	2022E
	Year	Year	Year	Year	Year
Total revenue	-	-	-	-	11,025
Gross profit	-	-	-	-	5,513
Operating expenses:					
General and administrative	7,357	6,086	5,678	8,000	8,500
Product development and other	333	1,378	5,378	3,750	3,750
Depreciation and amortization	116	73	(55)	80	160
Mineral property expenses	3,538	2,852	34	-	-
Accretion of asset retirement obligations	993	390	201	-	-
Impairment of mineral properties	23,712	143	-	-	-
Total operating expenses	36,049	10,922	11,236	11,830	12,410
Operating income (loss)	(36,049)	(10,922)	(11,236)	(11,830)	(6,989)
Other income and expenses					
Gain (loss) on sale of assets	104	729	(2,665)		
Other	261	(372)	(11)		
Total other income (expense)	365	357	(2,676)	-	-
Income (loss) before income taxes	(35,684)	(10,565)	(13,912)	(11,830)	(6,989)
Discontinued operations, net of taxes	-	-	(9,662)	-	-
Unrealized change in value, mkt. securities	(861)	-	-	-	-
Realized loss on sale securities	484	90	-	-	-
Net income (loss)	(36,061)	(10,475)	(23,574)	(11,830)	(6,989)
Net EPS (LPS), comprehensive	\$ (38.50)	\$ (5.39)	\$ (1.58)	\$ (0.40)	\$ (0.17)
Wtd shares outstanding, diluted in 000s	928	1,961	8,799	29,600	42,000

* Years 2018 and 2019 are displayed as originally reported and do not reflect the uranium operations as discontinued operations.

Source: Company Reports and Crystal Equity Research Estimates

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ANALYST

Debra Fiakas, CFA is a seasoned, credentialed investment professional with a diversified and successful track record as a research analyst and as an investment banker. Her decade-plus career includes solid experience in all aspects of the equity capital markets with particular emphasis on emerging growth companies operating in the technology sectors. Ms. Fiakas is also the principal member of Crystal Equity Research, LLC.

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RATING SYSTEM

Buy	Price appreciation expected 10% or more over a 12-month period.
Hold	Price appreciation/depreciation expected between 10% and -10% over 12 months.
Sell	Price depreciation expected 10% or more over a 12-month period.

CRYSTAL RESEARCH UNIVERSE

Buys	70%
Holds	15%
Sells	15%
Total	100%

HISTORICAL RECOMMENDATIONS AND TARGET PRICE: Westwater Resources / WWR

<u>Report</u>	<u>Date</u>	<u>Price</u>	<u>Rating</u>	<u>Target Price</u>
Previous reports by request				
Update	11/19/19	\$2.79	Buy	\$30.00
Update	2/25/20	\$1.96	Buy	\$30.00
Update	4/14/20	\$1.00	Buy	\$30.00
Update	5/20/20	\$1.78	Buy	\$30.00
Update	8/17/20	\$2.05	Buy	\$30.00
Update	9/15/20	\$1.81	Buy	\$30.00
Update	11/19/20	\$5.09	Buy	\$20.00
Update	2/23/21	\$6.97	Buy	\$20.00
Update	5/19/21	\$3.99	Buy	\$20.00

DISCLOSURES

<u>Name</u>	<u>Symbol: Exchange</u>	<u>Disclosures</u>
Westwater Resources, Inc.	WWR: NYSE/Amer	D

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- B A controlling member of Crystal Equity Research, LLC has a beneficial interest in the common stock of the company.
- C A person or persons preparing this report or an immediate family member of the preparer has a beneficial interest in the common stock of the company.
- D Crystal Equity Research, LLC received compensation for research coverage from the company or one of its agents. The fees are paid in advance in cash.
- E The company has a convertible issue outstanding.
- F The securities covered in this report can be optioned.
- G The securities covered in this report can be margined.

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