

WWR / Nasdaq
**SPECULATIVE
BUY**

Unchanged

\$30.00

(Affirmed 5/20/20)

CAPITALIZATION

Shares Outstanding (8/1/20)	7.6 M
Recent Price (8/17/20)	\$2.05

Market Capitalization	\$ 15.6 M
+ Debt	0.0 M
- Cash	2.3 M
Enterprise Value	\$ 13.3 M

Book Value	\$ 17.6 M
Working Capital	(\$ 0.7) M
Dividend	Nil

Balance sheet figures as of 6/30/20
MARKET DATA

Bid-Ask Spread, % Price	3.8%
52 Week High/Low	\$9.25 - \$0.25

Shares Outstanding	7.6 M
Inside Ownership	<1%
Institutional Ownership	10.0%
Estimated Flotation	7.4 M

Average Daily Volume	920 K
Short Interest, % of Float	Nil
Beta	1.90

Source: Bloomberg LP
INVESTMENT RETURNS

	WWR	Sector*
Return on Equity	Neg	7.8%
Return on Assets	Neg	3.1%
Return on Capital	Neg	3.8%

Source: Crystal Equity Research, CSI Markets
FINANCIAL PROFILE

	FY18	FY19
Sales	\$ 0.0 M	\$ 0.0 M
EBITDA	(\$36.1) M	(\$10.3) M
(L)EPS	(\$38.47)	(\$5.39)

Source: Company Reports
HIGHLIGHTS

- Pilot Plant Progress.** Coronavirus pandemic policies have not slowed progress on design work for Westwater's graphite processing pilot plant; plans remain on track build the plant to yet in 2020.
- Successful Product Tests.** Tests of Westwater Resources proprietary battery-grade graphite materials appear to validate the Company's processing design, at least at a laboratory scale.
- Cash Usage.** During the June 2020 quarter operations used cash resources totaling \$2.6 million, down from \$3.4 million used in the first three months of the year.
- Capital Resources.** Westwater ended June 2020, with \$2.3 million in cash in the bank. At end of July 2020, there was \$9.7 million remaining available under a recently renewed equity sales agreement.
- Rating and Outlook.** We continue to rate WWR at Speculative Buy and view the stock as undervalued at the current price level. There is potential for near-term stock price catalysts from Company progress reports in producing and selling graphite materials.

Debra Fiakas, CFA
 Security Analyst
 212-400-7519
 dfiakas@crystalequityresearch.com

INDUSTRY: INDUSTRIAL, ENERGY MATERIALS

WWR: NASDAQ

RECENT DEVELOPMENTS

Successful tests of Westwater Resources proprietary battery-grade graphite materials appear to validate the Company's processing design, at least at a laboratory scale. During the conference call to discuss financial performance in the second quarter ending June 2020, management provided assurances that the Company and its contracted engineering firm are on track to complete design work needed to construct and begin operation of a larger-scale pilot plant by the end of 2020. The pilot plant is needed to produce testing samples for prospective customers. At least one such prospect has asked for one metric ton of the Company's *Purified Micronized Graphite (PMG)* for large-volume qualification testing. The Company has claimed a consistent but small business pipeline. However, that pipeline could become more active as newly hired marketing and sales personnel begin promoting the Westwater graphite materials among battery manufacturers.

RECOMMENDATION

We continue to rate WWR at Speculative Buy and view the stock as undervalued even after recent price appreciation. With improving liquidity characterized by increasing trade volume and narrowing bid-ask spread, we expect more investors to be attracted to the stock. There is also the potential for upside catalysts for the stock price in the form of progress reports from the Company on its planned graphite materials pilot plant. Even the recently initiated sales and marketing effort could yield accomplishments of sufficient importance for public announcement.

VALUATION

Price/Sales	Neg
Price/Cash Flow	Neg
Price/EPS	Neg
Price/Book Value	0.70 X
Consensus EPS 2020	na
Forward PE	na

OPERATING PROJECTIONS

	2017A	2018A	2019A	2020E	2021E
Sales	\$ 0.0	\$0.0	\$ 0.0	\$ 0.0	\$ 0.9
Operating (Loss)	(\$ 24.8)	(\$36.0)	(\$10.9)	(\$ 11.7)	(\$ 14.6)
Net Inc (Loss)	(\$ 19.0)	(\$35.7)	(\$ 10.6)	(\$11.7)	(\$ 14.6)
CFO (U)	(\$ 11.6)	(\$11.7)	(\$ 10.0)	(\$10.5)	(\$ 14.2)
EPS (LPS)	(\$38.50)	(\$38.50)	(\$5.39)	(\$1.30)	(\$1.52)

Dollars in millions except per share earnings

Per share figures estimated 6/30/20

Company Reports and Crystal Equity Research Estimates



JUNE 2020 QUARTER PERSPECTIVE

Westwater Resources reported operating costs totaling \$2.5 million in the quarter ending June 2020, bringing the net loss for the quarter to \$2.4 million or \$0.43 per share. General and administrative expenses covering primarily salaries and personnel costs were the largest expenditure, totaling \$1.7 million. Westwater has at least 30 employees, most of which are deployed for reclamation and maintenance work at the Company's uranium facilities in Texas. The Company reported savings in travel during the June quarter that helped offset new spending on supplies and procedures for employee safety against the spread of the coronavirus.

Cash usage by operations during the June 2020 quarter totaled \$2.6 million, down from \$3.4 million used in the first three months of the year. Operating expenses represent the greatest use of cash. The Company also used \$87,000 for capital investment in the quarter.

The Company ended June 2020, with \$2.3 million in cash in the bank. A total of \$3.8 million was raised during the quarter through the sale of common stock under an equity purchase agreement made with Lincoln Park Capital, an investment company based in Chicago that has pledged to acquire Westwater's shares. The agreement was recently renewed for an additional \$12.0 million in stock to be purchased over the year beginning June 2020. As of the end of July 2020, approximately \$9.7 million remained available under this new agreement.

We expect the Company to rely at least in part on the Lincoln Park agreement to fund completion of a proposed pilot plant to test a production process for its proprietary battery-grade graphite material. Westwater has a similar but separate equity sales agreement with Cantor Fitzgerald & Co., under which an additional \$19.5 million capacity remains available.

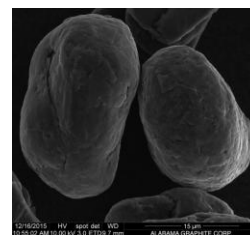
Graphite Sales Effort

In July 2020, Westwater Resources announced the addition of a senior position focused on graphite sales strategy and execution. The seat has been filled by Jay Wago, a professional experienced in specialty chemicals, including battery materials. Wago has previously worked on business development for lithium producer Albemarle Corporation (ALB: NYSE). He was also involved in business development at specialty chemical producer Dow Chemical and in technology sales at one of Japan's sogo shosha, ITOCHU International.

Wago is tasked with accelerating the Company's graphite materials marketing and sales effort. Although Westwater has been known for a number of years in the uranium market, it remains a newcomer in the graphite supply chain. We believe it is timely for the Company to elevate its visibility in the graphite market. The Company has targeted year-end 2020 for completion of a pilot plant to prove out scaled production of its proprietary graphite materials - *Purified Micronized Graphite (PMG)*, *Coated Spherical Purified Graphite (CSPG)* and *Delaminated Expanded Purified Graphite (DEXPG)*.

Availability of production at the pilot plant should provide adequate supplies of test materials for prospective customers. Westwater already has an order for one metric ton of *PMG* material for large-volume qualification tests by an undisclosed alkaline battery manufacturer.

Wago's effort could be made easier by recent encouraging tests of two of Westwater's proprietary graphite materials. In June 2020, the Company disclosed favorable results of resistivity tests of its *PMG* product as a conductive material. The internationally recognized 4T test is a standard electrical impedance measuring technique that uses separate pairs of current-carrying and voltage-sensing electrodes. The actual material tested had been produced using laboratory-scale equipment by the German engineering firm Dorfner AnzaPlan, which has been engaged by Westwater to design a planned pilot plant. In addition to demonstrating desirable resistivity, *PMG* sample demonstrated superior or comparable resistivity to materials produced by other graphite manufacturers, at least the ones for which data is publicly available.



Dorfner AnzaPlan also produced samples of its *Coated Spherical Purified Graphite (CSPG)* using laboratory-scale equipment that simulates the production process anticipated by the Company. Independent tests were performed on the *CSPG* sample, finding that the material performed as well or better as a battery anode material than benchmark commercially available natural flake and synthetic graphite materials. In an apparent spirit of confidence in the product, Westwater released the test results for the *CSPG*, which could have attracted the attention of customers as well as investors.

UPDATED EARNINGS MODEL

Our earnings model has been updated to reflect financial results for the quarter ending June 2020. We note that spending was slightly lower than had been anticipated. During the Westwater's conference call to discuss the June quarter results with shareholders, the Company's chief financial officer, Jeff Vigil, suggested that operating expenses are likely to remain near levels in the June 2020. Accordingly, we have adjusted our expense estimates downward for the balance of the year. We believe our estimates for selling, general and administrative expenses adequately provide for the recently initiated graphite sales position.

Otherwise our model continues to reflect the usages of cash resources to support operations through at least 2021, as the Company executes its graphite materials strategic plan. During the earning conference call the Company chief executive officer, Chris Jones, indicated that the critical step for the Company's planned graphite materials pilot plant is its design, but declined to give a specific date for completion. An engineering firm in Germany has been contracted to complete the design for scaled production of the Company's *Purified Micronized Graphite (PMG)* that can be used to enhance efficiency of alkaline batteries. Jones did provide assurance that coronavirus pandemic policies in Germany have not slowed progress on the design work and that the project remains on track to complete the pilot plant in yet in 2020.

We expect that completion of the design will lead to more clarity on the final budget for the pilot plant. As the Company moves forward with production at the pilot plant for a previously announced qualification order of one metric ton of *PMG* we expect to get more insight into operating costs. We will return to our earnings model at that time to refine estimates for the full year 2021.

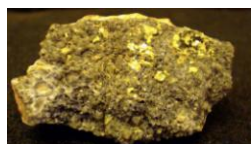
OUTLOOK

Trade in Westwater's shares has shown greater efficiency in recent weeks. Average daily trading volume has increased to approximately 920,000 shares per day from 153,000 per day observed three months ago. Also the bid/ask spread as a percentage of the share price has declined to 3.8% of the price from 6.0% three months ago. This is both as a consequence of the recent increase in share price as well as a small reduction in the bid/ask spread. We believe the improvement in trading efficiency could help attract a wider investor audience for WWR.

We continue to rate the stock at Speculative Buy given that Westwater has yet to produce revenue in its graphite segment. We believe some of the uncertainty in the Company's graphite segment has been mitigated by recent favorable test results of two of its battery-grade graphite materials. The tests appear to confirm that the Company has made progress in developing a viable production process, albeit still at low-volume scale. We expect progress with the planned pilot plant in the second half of 2020, and updates from the Company could be strong catalysts for the stock.

MARKET SEGMENTS

Price and market conditions for each of Westwater's materials markets continue to be a focus of our due diligence.



Uranium achieved a four-year high price of \$34.20 per pound in May 2020 and has since floated near \$33.00 per pound. Business shutdown and stay-at-home policies meant to address the coronavirus pandemic disrupted production in several jurisdictions. Kazatomprom in Kazakhstan and Cameco (CCJ: NYSE) in Canada both announced extensions of production halts. The unexpected interruption of supply caused some worry among utilities buyers, triggering price appreciation since the beginning of the year. That concern is likely to dissipate as the largest suppliers find enough volume among current inventories to meet supply contracts. While uranium prices could remain in the low 30s for the balance of 2020, it is likely to moderate back to the highest 20s by a year from now. As we have noted in the past such price movements are not expected to have any particular impact on Westwater production or asset values.

Lithium supplies have also been under pressure from shutdown and stay-at-home policies to deal with the coronavirus pandemic. Australia's Galaxy Resources (GXY: NYSE) reduced activity at its spodumene operation reduce exposure to rising costs and shrinking demand.



Likewise Orocobre (ORE: NYSE) has reportedly slowed production to match orders for the balance of 2020. Albemarle slowed expansion plans for projects in Chile and Australia. Societe Quimica y Minera de Chile (SQM: NYSE) has reportedly considered holding off on lithium production expansion that had been planned for 2020. The change of pace at SQM is not good news for the parent company of Tanqui Lithium Corporation (002466: Shenzhen), one of China's premier lithium companies. Chengdu Tanqui Industry Group went into debt to buy a share of SQM. Now it is selling about a sixth of its holding in Tanqui Lithium to reduce those debt commitments.

Lithium prices were under pressure even before the coronavirus sucker punched the world. A surge in supply had swamped demand, pushing prices down by nearly 70% even before the pandemic shutdown began squelching economic activity. Lithium carbonate equivalent is currently priced at record low levels below US\$5,900 per metric ton.

Now in late summer 2020, a rebound in lithium prices within the next year appears more likely than not. Nonetheless, the sector is not likely to revisit the frothy pricing conditions of 2017. Automakers are moving forward with new models that could bring about even greater interest than ever in the electric vehicle as the car of choice. It is noteworthy that Germany has doubled its subsidy for electric vehicles. If other countries follow suit the wider selection and improved economics should stimulate demand everything in the electric car supply chain, including lithium-ion batteries. Consequently lithium materials supply could come under pressure again in the next couple of years, pushing up prices and enticing developers back to the field.



The graphite materials sector continues to consolidate. Imerys, S.A. (NK: Paris) recently revealed plans to acquire a 60% stake in Haznedar Group, a Turkish refractory producer. The deal seems off the track for a company that appeared to be prioritizing leadership in graphite and carbon black products for batteries and fuel cells. Refractories represent the largest application for graphite, commanding about 35% of the graphite market in terms of sales value. However, the battery application for graphite is expected to grow near 6% each year through the rest of the decade as demand for lithium-ion batteries accelerates.

It is the battery application that is singularly important for Westwater Resources. We continue to monitor prices of natural flake graphite as supportive of the Company's plans to produce battery-graphite materials from sources and then proprietary graphite supplies. Most prices have remained stable in recent weeks after period of weakening as economic activity slowed in the months of March through June 2020.

One of the major developments in natural flake graphite supply was the onset of production in 2019 by Syrah Resources at its Balama graphite project in Mozambique. However, after Syrah shutdown production at the project in March 2020, the supply-demand balance has been harder to predict. Syrah has indicated that when development resumes of its pilot scale plant for battery anodes in Vidalia, Louisiana, the supply of raw graphite material will come from sources in China. Syrah has also indicated it is now targeting the second half of 2020 for the production of qualification samples from its pilot plant in Vidalia. Reportedly, Syrah may also opt for toll treatment for some or all processing steps.

Vanadium remains a long-term play for Westwater. It will not become a factor in future revenue until the Company moves forward with plans to extract graphite from its project in Coosa County, Alabama. While the final assessment has not be completed, early testing suggests it is more likely than not that the vanadium running with the graphite deposits can add economic value to the Coosa project.



In June 2020, the U.S. Department of Commerce initiated a vanadium imports inquiry in response to a complaint filed by U.S. vanadium producers AMG Vanadium LLC and U.S. Vanadium. The agency will analyze whether the domestic vanadium industry is being adversely impacted by low-price imports or by valued-added taxes placed on U.S. exports by other countries. The U.S. industry has likely been inspired a similar Department of Commerce inquiry into unfair trade practices by foreign uranium suppliers that results in a proposal by the Trump Administration to purchase up to \$150 million per year of domestically produced uranium for a a U.S. stockpile. The inquiry will likely require several months and is not likely to have any impact on vanadium prices, which are largely fixed in world markets.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST.

Table I: Historic and Projected Annual Financial Performance

Dollars in Thousands	2014A Year	2015A Year	2016A Year	2017A Year	2018A Year	2019A Year	2020E Year	2021E Year	2022E Year
Total revenue	-	-	-	-	-	-	-	900	28,500
Gross profit	-	-	-	-	-	-	-	450	17,100
Operating expenses:									
Mineral property expenses	3,502	4,470	3,248	4,584	3,538	2,852	2,554	5,000	6,500
General and administrative	9,132	7,488	7,650	6,614	7,357	6,086	6,988	8,000	10,500
Accretion of asset retirement obligations	425	450	480	1,039	993	390	238	500	1,000
Depreciation and amortization	331	336	247	142	116	73	70	80	160
Impairment of mineral properties	160	960	1,673	11,436	23,712	143	-	-	-
Other	-	3,048	-	1,003	333	1,378	1,872	1,500	1,500
Total operating expenses	13,550	16,752	13,298	24,818	36,049	10,922	11,722	15,080	19,080
Operating income (loss)	(13,550)	(16,752)	(13,298)	(24,818)	(36,049)	(10,922)	(11,722)	(14,630)	(1,980)
Total other income (expense)	2,866	1,609	(6,307)	5,530	365	357	28	-	-
Income (loss) before income taxes	(10,684)	(15,143)	(19,605)	(19,288)	(35,684)	(10,565)	(11,694)	(14,630)	(1,980)
Provision for income taxes (benefit from)	-	-	-	-	-	-	-	-	-
Unrealized change in value, mkt. securities	-	(67)	(49)	287	(861)	-	-	-	-
Realized loss on sale securities	-	-	116	-	484	90	-	-	-
Net income (loss)	(10,684)	(15,210)	(19,538)	(19,001)	(36,061)	(10,475)	(11,694)	(14,630)	(1,980)
Net EPS (LPS), comprehensive	na	na	na	\$ (38.50)	\$ (38.50)	\$ (5.39)	\$ (1.30)	\$ (1.52)	\$ (0.19)
Wtd shares outstanding, diluted in 000s	na	na	na	495	928	1,961	9,000	10,583	11,000

CRYSTAL EQUITY RESEARCH, LLC

Crystal Equity Research, LLC is an objective research resource, providing coverage of small capitalization companies in selected industries. The firm provides research reports by subscription to institutional investors, supplies research consulting services to financial professionals and offers an issuer sponsored research program for qualifying companies. Additional information is available at the firm's web site at www.crystalequityresearch.com.

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.

ANALYST CERTIFICATION

The analyst who is primarily responsible for this research and whose name is listed first on this front cover certifies that: 1) all of the views expressed in this research accurately reflect his or her professional views about any and all of the subject securities or issuers, and 2) no part of any of the analyst's compensation was, is or will be directly or indirectly related to the specific rating expressed by analyst in this research.

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

DISCLOSURES

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

Disclosure Key

- A A member or employee of Crystal Equity Research, LLC serves on the board of directors of the company.
- 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.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST

The information and opinions in this report were prepared by Crystal Equity Research, LLC. The information herein is believed to be reliable and has been obtained from public sources believed to be reliable. We make no representation as to the accuracy or completeness of such information. Opinions, estimates and projections in this report constitute the current judgment of the author as of the date of the report and are subject to change without notice. We have no obligation to update, modify or amend this report or to otherwise notify a reader thereof in the event that any matter stated herein, or any opinion, projection, forecast or estimate set forth herein, changes or subsequently becomes inaccurate, or if research on the subject company is withdrawn.

This report is provided for informational purposes only. It is not to be construed as an offer to buy or sell or a solicitation of an offer to buy or sell any financial instruments or to participate in any particular trading strategy in any jurisdiction. Opinions and recommendations in our reports do not take into account individual investor circumstances, objectives, or needs and are not intended as recommendations of particular securities or strategies to particular investors. The recipients of our reports must make their own independent decisions regarding any securities mentioned in our reports.

Crystal Equity Research, LLC may receive compensation from the company or companies mentioned in this report or agents acting on their behalf. Please review the important disclosures in this report.

This report may not be reproduced, distributed or published by any person for any purpose without the prior written consent of Crystal Equity Research. Please cite source when quoting.

Copyright © 2003-2020 Crystal Equity Research, LLC.