



(<https://saportareport.com/>)

UNCATEGORIZED ([HTTPS://SAPORTAREPORT.COM/CATEGORY/UNCATEGORIZED/](https://saportareport.com/category/uncategorized/))

National defense does not need titanium from Okefenokee Swamp, industry says



Joe Cook () • July 11, 2021 1:38 pm



Alligators were at risk of extinction before they were protected by the Endangered Species Act. As many as 13,000 are thought to reside in the Okefenokee Swamp. Special: Joe Cook (<https://saportainsta.s3.amazonaws.com/wp-content/uploads/2021/07/Joe-Cook-6-scaled-e1626026138185.jpg>)

By Joe Cook

Special to SaportaReport.com

Unincorporated St. George, Georgia is but a dot on the state road map in the state's far southeast panhandle – that thumb of land formed by the St. Marys River that pokes into north Florida.



(<https://saportakinsta.s3.amazonaws.com/wp-content/uploads/2021/04/joe-cook-e1618772946853.jpg>)

Joe Cook

Surrounding this intersection of state Routes 34 and 23 is ... well, not much, and thanks to its remoteness, this crossroads community finds itself in the crosshairs of one of the state's most bitter environmental battles in a generation.

Twin Pines Minerals, LLC, an Alabama-based company, wants to mine some 600 acres 5 miles west of the community to access valuable heavy mineral sands, but the mine sits less than 4 miles from the Okefenokee Swamp, a National Natural Landmark, and

the proposal has raised the ire of swamp advocates who fear the mine could impact water levels in the swamp and irreparably harm it.

The stakes are so high that that newly-elected Georgia senators Jon Ossoff and Raphael Warnock have weighed in on the issue, writing to the U.S. Fish and Wildlife Service in April to urge the agency to provide "resources and support" to Georgia's Environmental Protection Division, the state agency that will decide in the coming months whether to issue permits to allow the mine to move forward.

Meanwhile, swamp advocacy groups have inundated EPD and Gov. Brian Kemp's office with letters, e-mails and phone calls, urging the state to deny Twin Pines the environmental permits it needs. Citizens have sent more than 39,000 e-mails and letters to EPD, while the Governor's office has seen more than 10,000 e-mails and phone calls.

At the heart of the controversy is titanium. Though abundant and found along the Atlantic coastal plain from New Jersey to Florida, the only place in the country where titanium is currently mined is an 80-mile swath of land running along the Atlantic coast from Brunswick to Jacksonville.

Why is this remote region the epicenter of U.S. titanium production? Partly because it has the right kind of sands, but equally important is what it lacks – people. Mining companies need large tracts of land and few neighbors, and property adjacent to 400,000 acres of wilderness, fits the bill.

“There’s a lot of gold still up north of Atlanta, but you don’t see any gold mines up there. The land’s too valuable as home sites,” said Jim Renner, manager of environmental stewardship with Chemours Co., the only company currently operating heavy mineral sands mines in the U.S., with two mines in Georgia and two in Florida.

Trail Ridge, once a 130-mile long barrier island along Georgia’s prehistoric coast and now a low rise of land to the east of the swamp that holds the valuable heavy mineral sands, finds itself tugged by two sides – one wants to plumb the ridge’s depths for valuable minerals; the other wants it to remain unmolested so it will continue to function as it has for millennia, serving as a geological barrier that regulates water levels in the Okefenokee Swamp.

The impetus to protect the Okefenokee Swamp lies in its status as the largest blackwater wetland in North America. It is commonly cited as one of Georgia’s Seven Natural Wonders and has berthed everything from comic strips (Pogo Possum) to an iconic ride at the Atlanta’s Six Flags over Georgia theme park (Tales of the Okefenokee). It is, say swamp advocates, the “wild heart of Georgia.”

Studies conducted by the U.S. Fish and Wildlife Service show that more than 600,000 people visit the swamp annually, creating more than 700 jobs in local communities and pumping \$64.7 million into local economies annually.



(<https://saportakinsta.scontent/uploads/2021/08/sand-special-to-scaled-e1626025579174.jpeg>)

The dark sand contains minerals that have attracted a proposal to extract the sands from a quarry proposed for the southeastern edge of the Okefenokee Swamp. Credit: Rhett Turner

In documents filed with EPD, Twin Pines asserts that its mining operations can recover minerals without harming the Okefenokee or the tourism industry that it supports. Citing “extensive geological and hydrological evaluations,” the company has proposed a “demonstration mining project” that will show that mining can be safely conducted “with negligible impact to the site, the surrounding area and the Okefenokee Swamp.”

That “demonstration project” has swamp advocates jittery because though the initial project would impact 577 acres, Twin Pines owns 7,764 adjacent acres, including parcels that are within 400 feet of the Okefenokee National Wildlife Refuge.

But, what is titanium that it could focus such attention on this remote rise of land in the Georgia panhandle?

Titanium sponge, which is processed into metals and alloys, is a wonder substance. Corrosion resistant, it is as strong as steel, but weighs 40% less. It is also among the most bio-compatible metals known to man. These properties have led to titanium sponge’s more sexy uses in the manufacture of hip joints, mountain bikes, golf clubs, and notably, bombers and fighter jets. Yet titanium’s use as a metal accounts for less than 10% of global demand for titanium.

That’s what separates titanium from other metallic elements. It is mined primarily to satisfy demands for a chemical product – titanium dioxide.

In that form it is among the whitest substances known to man and is used as a pigment primarily in paints, but also in plastics, papers and even food and toothpaste.



(<https://saportakinsta.s3.amazonaws.com/content/uploads/2021/07/Okefenokee-Twin-Pines-Map-with-Logos-copy-e1626024687922.jpg>)

Twin Pines Minerals proposes to quarry sand from a site on the southeastern edge of the Okefenokee Swamp, extract minerals of value and return the leftover materials to the burrow pit and replant the area. Credit: Georgia River Network

Titanium is big business. According to U.S. Geological Survey (USGS), the value of titanium sponge and titanium dioxide produced and imported to the U.S. in 2020 was more than \$3.2 billion. (<https://saportareport.com/>)

In fact, titanium is so important that acting upon a Trump administration executive order, in 2018 the USGS named titanium as one of 35 minerals critical to the U.S. economy and national security. Zirconium, another mineral expected to be recovered from the Twin Pines mine, also was included on the list. Commodities for which the U.S. is heavily dependent upon foreign sources comprise the bulk of the critical minerals list.

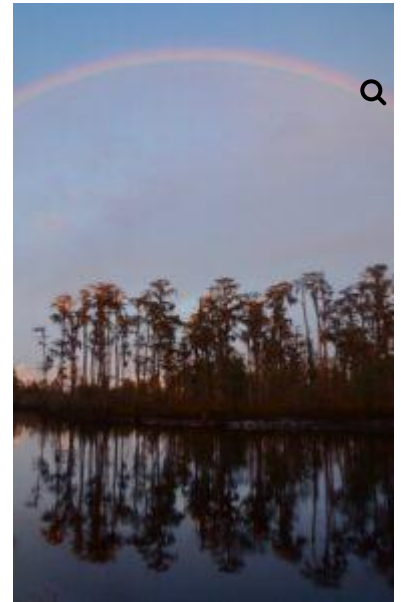
Twin Pines Minerals, which has applied for state permits to mine 577 acres, has seized upon titanium and zirconium's critical mineral status to pitch its project to state and federal regulators and the public.

In 2020 filings with the U.S. Army Corps of Engineers, the company said that the project will serve to "decrease the United States dependence on foreign imports of critical mineral resources."

The company's president, Steve Ingle, told news media last fall that the mine would "produce substantial benefits to the nation – for the national economy as well as national security."

But the mine's impact on the complicated global supply chain for titanium and its impact on national security are suspect, according to mine opponents.

"Heavy minerals sands mines on Trail Ridge will not prevent the U.S. from being dependent on foreign sources for titanium or produce any titanium for national defense purposes," said Rena Ann Peck, executive director at Georgia River Network,



(<https://saportakinsta.s3.amazonaws.com/uploads/2021/07/Cook-4-scaled-e1626026046730.jpg>)

The Okefenokee Swamp was designated a National Wilderness Area in 1974, and in 1986 was designated a wetland of international importance by the Ramsar Convention on Wetlands.
Special: Joe Cook

one of dozens of organizations that have formed the Okefenokee Protection Alliance to oppose the mine. “We shouldn’t place the Okefenokee Swamp at risk for this common mineral that can be extracted more safely elsewhere.”
 (https://saportareport.com/)

Any minerals produced by Twin Pines would likely follow the path of those extracted at Chemours’s Georgia and Florida facilities and at mines around the world: 90 percent of titanium minerals are ultimately processed into titanium dioxide to make pigment. Other minerals extracted from Chemours’s Georgia and Florida mines are important in the production of magnets, batteries, catalytic converters and welding rods and are used in casting precision metal parts.

Yet, Chemours confirms that none of the titanium currently produced at their mines is processed into titanium sponge – the raw material needed to create titanium metals and alloys.

If Twin Pines wanted to sell its raw materials for producing titanium sponge, it would have to search globally. There is currently no domestic producer of titanium sponge, with the U.S. importing 90% of its titanium sponge from long-time trading partner Japan, according to documents filed with the federal government by the Aerospace Industries Association earlier this year.

And, there’s not likely to be one, according to Henry Seiner, vice president of business strategy for Titanium Metals Corporation (TIMET), which in 2020 closed the country’s only titanium sponge producing facility.



(https://saportakinsta.s3.amazonaws.com/content/uploads/2021/07/Joe-Cook-6-scaled-e1626026138185.jpg)

Alligators were at risk of extinction before they were protected by the Endangered Species Act. As many as 13,000 are thought to reside in the Okefenokee Swamp.
 Special: Joe Cook

“Establishing a new producer in the U.S. is not necessary,” he wrote to the Trump Administration’s Titanium Sponge Working Group in January, “Titanium sponge supply from four existing plants in Japan and Kazakhstan is reliable and cost effective.”
 (https://saportareport.com/)

TIMET implicated Japanese producers in intentionally underselling the commodity to harm U.S. producers and petitioned the Trump Administration to implement policies to save its sponge facility located in Henderson, Nev.

While the TIMET facility was ultimately shuttered, TIMET’s efforts led to the establishment of the Working Group that was charged with exploring measures the federal government could take to ensure access to titanium sponge for national defense and critical industries.

The consensus of industry experts who submitted comments (https://www.regulations.gov/docket/BIS-2020-0037/document) to the Working Group earlier this year was that national security can “be protected without domestic titanium sponge production.” Instead, industry representatives recommended stockpiling reserves and eliminating tariffs on titanium sponge.

The Aerospace Industries Association, representing industries that are the leading users of titanium sponge, said in its comments to the Working Group: “Current global market dynamics do not justify investment in U.S. titanium sponge production, so the U.S. titanium industry continues to import most of our industry’s raw material input, just as has been done for more than 50 years...The partnership with Japan securely addresses this gap, as Japan is a reliable, long-standing provider of high-quality titanium sponge.”



(https://saportakinsta.s3.amazonaws.com/content/uploads/2021/07/Cook-2-scaled-e1626026201395.jpg)

Alligators were at risk of extinction before they were protected by the Endangered Species Act. As many as 13,000 are thought to reside in the Okefenokee Swamp. Special: Joe Cook

When it comes to titanium dioxide, the global market for the highly sought after product is equally complicated. While the U.S. typically imports about 90% of the titanium mineral concentrates used to make titanium dioxide, American companies turn around and export more of the finished product – titanium dioxide – than they import. [\(https://saportareport.com/\)](https://saportareport.com/)

According to USGS data, in 2020, domestic and foreign-mined titanium mineral concentrates were used by U.S.-based processors to produce one million metric tons of titanium dioxide. An estimated 37 percent of that was exported. Imported titanium dioxide made up 30 percent of total U.S. consumption.

The distribution of titanium resources across the globe also makes it likely that the U.S. will always rely on foreign sources for the mineral building blocks of titanium dioxide.

The U.S. holds just 10% of the world's titanium dioxide resources, according to a 2017 USGS study. That study concluded that the low grade of some U.S. resources, high costs of permitting and production and competition from foreign sources would “continue to curtail domestic production.”

South Africa and Australia are the U.S.'s leading suppliers of titanium mineral concentrates, providing 59% of imports this year, according to the USGS.

And yet, the federal agency says, there's still plenty of potentially untapped titanium resources in the U.S. Titanium resources are known in 20 states, with the Atlantic coastal plain holding significant potential.

In 2018, the USGS published a study in which it examined sediment samples from 3,457 streams along the Atlantic coast, searching for indicators of heavy mineral sands deposits like those found on Trail Ridge.



[\(https://saportakinsta.content/uploads/2021/](https://saportakinsta.content/uploads/2021/)

“The results of this study indicate the potential for similar deposits in many areas of the Atlantic Coastal Plain,” the authors wrote, noting potential deposits along the fall line from Virginia to Alabama, in areas along the South Carolina-North Carolina border, the majority of the Coastal Plain of Virginia and along barrier islands and the shoreline from South Carolina to northeast Florida.

Cook-5-scaled-e1626026267917.jpg

Opponents make clear their opinions on the proposal to mine sand from near Trail Ridge, located at the edge of the Okefenokee Swamp.

Special: Joe Cook

“There’s no lack of areas in the southeast that have these deposits,” said Bradley Van Gosen, a USGS research geologist who co-authored the report, “But just because you have a resource doesn’t mean you can start mining.”


Van Gosen pointed to the shorelines and barrier islands as an example. Visit an Atlantic coast beach and you can see the titanium-bearing minerals. They are the dark black bands of sands mixed amongst the golden sands for which the Georgia coast is known.

But the value of the barrier islands and coastal shores for tourism and residential development precludes mining interests from exploring these sites.

Similarly, Chemours has noted known heavy mineral resources near the Satilla River in Camden County that are inaccessible because the land is currently protected as part of the 16,000-acre state-owned Ceylon Wildlife Management Area.

Which brings us back to Trail Ridge and the proposed Twin Pines mine. Trail Ridge has all that Twin Pines leaders could want in a mining site: A known deposit of titanium bearing minerals, rights to mine large tracts of land, nearby rail transportation and, equally important, few neighbors. From a mining perspective, the 400,000 acres of adjacent wilderness in the Okefenokee Swamp only improves the suitability of Trail Ridge as a mine location.

Swamp advocates fear that if the proposed 577-acre mine is permitted, it will lead to mining on the company’s adjacent property that spans more than 7,000 acres, much of it in closer proximity to the swamp. What’s more, just north of the Twin Pines’ property

along Trail Ridge sits a 30,000-acre parcel owned by Toledo Manufacturing Company, a timber company headed by Charlton County native Joe Hopkins. 

Hopkins, whose family first used the land to tap the pines and produce turpentine and rosin in the early 1900s and then transitioned to timber production, is conflicted when it comes to mining on Trail Ridge. (<https://saportareport.com/>)

On one hand, he's seen the profitability of the timber business decline precipitously over the last three decades and sees his native soil starved for jobs. "I've watched my community dry up," he said, "There's no jobs for college educated kids here. When we send them off to college, we're essentially saying goodbye because there's nothing for them to come back to."

On the other hand, like many in the area, his roots run to the swamp. One of his first jobs was guiding visitors into the wilderness. Today his company's timber holdings share an 8-mile border with the swamp. The swamp is part of his community's cultural identity.

"I don't want to be a part of something that's going to harm the swamp," he said, "But if they can establish that it's not going to harm the swamp, I would certainly lease the property for mining."

In April, EPD provided initial comments to Twin Pines' regarding the company's application for a surface mining permit and permission to pump up to 1.4 million gallons of water a day from the Upper Floridan aquifer. The agency is also reviewing the company's plans for protecting air and water quality around the mining site. In total, the company must secure five state-issued environmental permits to begin operations.

Citizens can review the company's applications and EPD's initial responses here (<https://epd.georgia.gov/twin-pines>). Email comments in support of or against the mining proposal may be sent to EPD at this address: TwinPines.comment@dnr.ga.gov (<mailto:TwinPines.comment@dnr.ga.gov>).

EPD’s decisions on these permit applications will determine the fate of Trail Ridge and what role Georgia will continue to play in the global titanium minerals marketplace. It may also determine the fate of the Okefenokee. [\(https://saportareport.com/\)](https://saportareport.com/)

Tags:

Joe Cook (<https://saportareport.com/tag/joe-cook/>)

Okefenokee (<https://saportareport.com/tag/okefenokee/>)

Titanium (<https://saportareport.com/tag/titanium/>)



Joe Cook ()

PREVIOUS ARTICLE

Johns Creek mayor pledges to be reformer if named to Fulton Development Authority board
(<https://saportareport.com/johns-creek-mayor-pledges-to-be-reformer-if-named-to-fulton-development-authority-board/sections/reports/johnruch/>)

NEXT ARTICLE

Titanium – A fantastic mineral the U.S. doesn’t need from near Okefenokee Swamp
(<https://saportareport.com/titanium-a-fantastic-mineral-the-u-s-doesnt-need-from-near-okefenokee-swamp/columnists/david/>)

1 Comment



Willard Griffin • July 12, 2021 8:08 pm

Leave our swamp alone and the rest of our parks and land, if want Titanium find out in space

Report

Reply



(<https://saportareport.com/>)

Leave a Comment

Your email address will not be published. Required fields are marked *

Your Comment

Name

Email

Website

Save my name, email, and website in this browser for the next time I comment.

Post Comment

This site uses Akismet to reduce spam. [Learn how your comment data is processed \(https://akismet.com/privacy/\)](https://akismet.com/privacy/).

Corporate Sponsors

Platinum Sponsors

RECENT POSTS



(<https://saportareport.com/>)

(<https://saportareport.com/platinum-sponsor-the-coca-cola-company/sponsors/platinum-sponsors/saporta-report/>)

(<https://saportareport.com/att/sponsors/platinum-sponsors/saporta-report/>)

Additional Sponsors

 (https://www.wilmingtontrust.com/wtcom/)	 (https://www.ups.com/us/en/global.page)	 (https://www.truist.com/)	 (http://www.pacpts.com)	 (https://www.macquarium.com/)	 (https://www.mbusa.com)
 (https://www.rollins.com/)	 (https://www.rollins.com/)	 (http://www.coca-colacompany.com/)	 (http://www.chick-fil-a.com)	 (https://blankfoundation.org)	 (https://www.53.com/third/en.html)
 (https://cressetcapital.com/)	 (https://www.jamestownlp.com/)	 (https://www.jamestownlp.com/)	 (https://www.gwcca.com/)	 (https://southerncompanygas.com/)	

Thought Leaders

Region Matters (/thought-leaders/region-matters/)

[Financial Inclusion \(/thought-leaders/financial-inclusion/\)](#)

[Global Health \(/thought-leaders/global-health/\)](#)

[Guardians of Atlanta's Future \(/thought-leaders/guardians-of-atlantas-future/\)](#)

[Higher Education \(/thought-leaders/higher-education/\)](#)
(<https://saportareport.com/>)

[Historic Westside \(/thought-leaders/historic-westside/\)](#)

[Law and Public Policy \(/thought-leaders/law-and-public-policy/\)](#)

[Metro Business \(/thought-leaders/metro-business/\)](#)

[People, Places, Parks \(/thought-leaders/people-places-parks/\)](#)

[Philanthropy \(/thought-leaders/philanthropy/\)](#)

[Poverty and Equity \(/thought-leaders/poverty-and-equity/\)](#)

[Sustainable Communities \(/thought-leaders/sustainable-communities/\)](#)

[Transit \(/thought-leaders/transit/\)](#)

[Views From Peachtree \(/thought-leaders/views-from-peachtree/\)](#)

Login

[\(https://saportareport.com/login/\)](https://saportareport.com/login/)

Contact

[\(https://saportareport.com/contact/\)](https://saportareport.com/contact/)

Terms of Service

[\(https://saportareport.com/terms-of-service/\)](https://saportareport.com/terms-of-service/)

Copyright SaportaReport 2020

