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March 10, 2023

Clean Environment Commission
305-155 Carlton Street
Winnipeg, MB R3C 3H8

EXHIBIT NO. H-034
File Name: High Arctic
Date: 3-11-23
Received by: [Signature]
(Commission Secretary)

Dear CEC:

Re: Vivian Sand Extraction Project (sic)

Thomas Sowell was raised in poverty in the segregated South. He graduated from Harvard and became a university professor. He has written 45 books. A conservative, he said this:

"It is hard to imagine a more dangerous way of making decisions than by putting those decisions in the hands of people who pay no price for being wrong."

During the past 4 years I have spent an inordinate amount of time on File 6119.00, of Sio Silica, formerly CanWhite Sands of Calgary, Alberta. The Environmental Approvals Branch (EAB) titles this file "Silica Sand Extraction Project". File 6119.00 is not to be confused with the already licensed "Vivian Sand Processing Facility", File 6057.00. This conflation of 3 titles, including "Vivian Sand Extraction Project" is dangerous to the public's perception of the enormous risks. You see, whatever one calls the "sand extraction project", it will, if licensed, eventually cover thousands of hectares. The only "sand processing facility" currently identified is for the tiny, bucolic hamlet of Vivian. Vivian is not the site of large scale sand extraction, as implied by the Clean Environment Commission in its advertising.

In half a century of environmental volunteerism I have never seen such a train wreck by a proponent and its co-proponents at the Mines Branch and the EAB.

The Mines Branch knew full well what HD Minerals, the originator of this endeavour, was pursuing. It chose to protect the proprietary interests of an out-of-province corporation above prioritizing the security of Manitobans. The environmental analysis of this tragedy should have started with a prudent Mines Branch alerting the EAB with a request to initiate environmental "scoping" 6 years ago. However, the veil of secrecy perfected by the Mines Branch has led us to today. A vigilant EAB, in the absence of wisdom from the Mines Branch, could have read the enticing media reports, and been proactive in scoping long ago.

The EAB's status as a co-proponent in the abomination hereinafter referred to as the "Silica Sand Extraction Project" was confirmed when the minister refused Participant Assistance, also known as intervenor funding. She could have assigned Class 3 status and collected an applicant fee of \$120,000, instead of the paltry \$7,500 assessed under Class 2. Funds so collected could have been used to advance democracy by funding participants. This opportunity, unsurprisingly, was missed. There are legislated means by which intervenor funding could be provided, but they were also withheld.

Sadly, the EAB is governed by an ancient *Environment Act* that is heavily dependent on ministerial discretion, and captive to a senior public service that lacks the academic credentials and the courage to represent the public. Its revision was championed by the *Manitoba Law Reform Commission* in 2015, but the government of the day kiboshed it.

So here we are, not just because Sio Silica wants to make money, but also because the government and its minions have a limited understanding of prudence and due process.

Other presenters who object to the Silica Sand Extraction Project will provide lucid arguments for its rejection. Some will have credentials as scientists. Others will be "citizen scientists" who are not to be discounted.

My comments are not science-based. They focus on evidence that questions the legitimacy of the Project. Here they are:

- In 2019, the CEO of Sio Silica appeared before Noble Capital in Florida. There he pitched the silica sand in our aquifers to potential investors. The commercial use, he said, was to sell fracking sand to the oil industry in North Dakota and Alberta. Secondly, upon the establishment of a viable business, to sell the company. Despite significant public opposition, and contrary to due environmental process, the EAB licensed Sio Silica's Vivian Sand Processing Facility prior to the Silica Sand Extraction Project. In Appendix "1" to File 6057.00, being the processing facility, Sio Silica declared that "at least 60% of the sand produced will be going to various uses outside of the oil and gas industry". Of course, that means that up to 40% will be going to frack oil wells and all the environmental degradation that such entails. Nevertheless, Sio Silica has lately been vocal in its claims that the sand mined from our aquifers will be used only for solar panels, medical glass, batteries and other non-fracking purposes. Sio Silica has yet to disavow Appendix "1" of File 6057.00.
- As declared in clause 2.2 of the proponent's Environment Act Proposal, the Silica Sand Extraction Project, Sio Silica intends to drill between 392 and 467 wells per year for 24 years. This is between 9,408 and 10,274 wells in total. (In recent Manitoba Municipal Board hearings the principals of the corporation alluded to fewer wells, but this has not been formalized by an amendment to the EAP. In any case, the "fewer" wells are still significant in number.) Each well will be used for only a few days. Then each well will be severed below grade, capped and backfilled. Forever! Only the Mines Branch, Sio Silica and private landowners will know the location of 10,000 abandoned wells! It is inevitable that Mother Nature will unleash her irresistible forces and cause the seals to fail and the entombed pipes to disintegrate. Catastrophic damage to the aquifers will be permanent. Our family, regrettably, has experienced nature's power over unseen well casings. During a particularly cold spell in the winter of 2015, the deeper than normal frost damaged our casing. The spring thaw introduced slurred sand into our plumbing and only an iron filter prevented widespread damage to our house plumbing. We had the benefit of daily surveillance. This ill-conceived project will not have surveillance, regardless of unenforceable promises.

- Abandoned oil wells on private land in Alberta have discouraged banks from approving mortgages upon the proposed sales of those lands. This also reduces market values and impairs a municipality's source of property tax. Will Sio Silica compensate land owners over its wide domain, and will it cover the loss on property taxes for the concerned municipalities? The Alberta experience is that the offending companies walk away. In its 2022 Budget, the Province of Manitoba identified \$50.7 million to remediate orphaned and abandoned mines left behind by companies that walked.
- Manitoba is, regrettably, home to one of the largest factory pig industries in North America. The slurry waste from these pitiful creatures is regularly, and without supervision, injected in and spread on fields. Cattle range in significant numbers on the fields and, of course, defecate. This will also go on forever in unpredictable locations, but always in the catchment area mined by Sio Silica. In 2000, a **SINGLE** well contaminated by cattle manure killed 7 people and sickened over 2,300 in Walkerton, Ontario when the city's drinking water was contaminated. Clause 2.2 says **10,000 wells**.
- On April 11, 2019, the *Winnipeg Free Press* quoted Trevor Martens of Evolve Surface Strategies as declaring that he was **not aware of underground sand mines anywhere in the world. Mr. Martens said "This has never been done before."** Sio Silica disputed this, claiming that its testing procedures were successful. Such testing, however, is not commercial scale production. Prudence dictates that our aquifers must not be subjected to an experimental process.
- In 1988, another out-of-province corporation sought to mine for gold near Shoal Lake, the source of drinking water for Winnipeggers. This caused a near apoplectic response from civic and provincial politicians. In short order, and on June 30, 1989, a 23 page Memorandum of Understanding was signed by the Shoal Lake Indian Band No. 40, Her Majesty in Right of the Province of Manitoba and the City of Winnipeg. The mine was cancelled. So what are rural residents who draw groundwater for drinking? Chopped liver?
- In newspapers and mail drops, Sio Silica has made two boasts. It has claimed that **"We are Environmental, Social and Governance (ESG) Compliant"** and **"Nearly 70% of those decided are in support of the Vivian Sand Project."** I wrote to the company's head office two weeks ago to request documented proof of these claims. One would think when a corporation publishes such claims it must have the proof in hand and would reply with that proof promptly. Not so with Sio Silica, but if Calgary ever gets back to me I will let you know.
- AECOM acted as Sio Silica's consultant. Here is how it couched its preamble to the EAP:
 1. The report "has been prepared by AECOM...for the benefit of [Sio Silica]."
 2. The report "may be based on information provided to AECOM which has not been independently verified."

3. The report "may be based on limited testing."
4. The report "may be based on the assumption that such conditions are uniform and not variable either geographically or over time".

Based on AECOM's wide-ranging disclaimers, the EAP is unenforceable.

Nor do I have any expectation that Sio Silica is being transparent with respect to its finances or commercial goals. "Following the money" is a crucial context for environmental legitimacy:

- Sio Silica is a private company. We are told that the CNR employee pension fund is the primary investor, but we know little else about the financial activities of other significant investors, other than a disappointing report out of Alberta. (Is the involvement of the CNR pension fund a conflict of interest since Sio Silica must yet get approval for its CNR rail loop at the Vivian plant site?)
- Because the company is not traded on any stock exchange, we cannot read its financial statements. As a retired chartered accountant, I would like the opportunity to assess its cash holdings, demand loans, working capital, long term debt and any "notes" and contingent liabilities that may appear on those financial statements. I would also like to know if Sio Silica has been independently audited and by whom.
- Since Sio Silica arrived in eastern Manitoba the Canadian dollar has fallen in value (making out-of-country purchases more expensive) and interest rates have increased (reducing Sio Silica's working capital). Furthermore, Sio Silica has not yet earned a nickel of revenue while incurring major expenses. (Those include pricey, widely circulated postal drops, full page newspaper advertisements and radio infomercials extolling the project, something that intervenors without funding cannot match.) These circumstances may be fatal. It is certainly not worth betting our water on the financial risks being taken by Sio Silica.
- On February 11, I wrote to the Minister of Natural Resources asking two questions. First, at full production how much will Sio Silica pay to Manitoba for the mined sand? Second, what will Sio Silica be charged for the rental of water to be used in its pipelines? On March 7, the Acting Assistant Deputy Minister replied saying that she did not have the answer to the first question. In response to the second question she directed me to an unintelligible government website for me to perform a calculation that she could not, or would not do. My conclusion is unavoidable: Manitobans do not know what Sio Silica will pay for the consumption of our natural resources. Can you imagine this happening with Alberta oil?
- I recommend that the Office of the Auditor General be formally engaged to analyze the financial viability of Sio Silica. My prediction is that it will be found wanting.

I am left to conclude that the CEC is being asked, not for a license to mine in our drinking water, but for a license to sell the rights to mine our drinking water. That is, flip the company. Of this I have no proof, only suspicion.

Sio Silica covets the sand in our aquifers. That lovely groundwater serves thousands of residents. It also supplies schools, hospitals, seniors' residences, community clubs, shopping centres, curling rinks, golf courses and so on. Sio Silica cannot be allowed to compromise our lives or our lifestyles. Clause 7 of *The Charter of Rights and Freedoms* says that "Everyone has the right to life, liberty and security of the person." If safe water does not embody our security, what does?

Between 1993 and 1997, Justice Horace Krever headed the Royal Commission of Inquiry on the Blood System in Canada. Listen to what he said upon reporting in 1997:

"The relationship between a regulator and the regulated must never become one in which the regulator loses sight of the principal that it regulates in the public interest, and not in the interest of the regulated."

Judge, meet the Clean Environment Commission.

Yours truly,



C. Hugh Arklie, CA(ret.), BA(Env. St.)

