



THE DESTRUCTION OF FOULDEN MAAR

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“New Zealand’s pre-eminent fossil terrestrial site of the Miocene age... it’s the only pre-ice age Maar in the southern hemisphere which has been fully drilled [to its base]. . . there are few others like it.”¹

Professor Daphne Lee

Geology Department, Otago University

¹ Otago Daily Times, 2 June 2018 – Simon Hartley

FOULDEN MAAR, 10KM SOUTHEAST OF MIDDLEMARCH, CENTRAL OTAGO, is a 23 million years old, small but deep volcanic crater. After becoming a lake, it gradually filled over the following 130,000 years with layers of microscopic silica-bearing plant life. It contains exceptional levels of fossilised organic material, ranging from microscopic algae, insects, fish, birds, mammals and reptiles.

Foulden Maar is considered by Otago University Geology Department to be of international importance as a paleontological site from which it is possible to reconstruct entire ecosystems from the past. Its layers of strata provide one of the best records of pre-historic climate change in the world.² The world's oldest known galaxiid, or whitebait, the oldest known fossilised eel in the southern hemisphere, have all come from Foulden Maar and scientists believe it could contain moa and even crocodiles. International geologists and scientists are currently studying the few fossils and geological samples that have been extracted from the site.

While it carries no legal weight, the Geoscience Society of New Zealand Geopreservation Index Rating of Foulden Maar was recently upgraded to A = international importance.³ This is what they say about it:

“The lake sediments infilling the crater were deposited very close to the Oligocene–Miocene boundary, a key time in Earth History spanning a period of major deglaciation on Antarctica. No other pre-Quaternary terrestrial deposit in the Southern Hemisphere contains such a high-resolution mid-latitude climate record nor are there other potential sites in New Zealand, or elsewhere that might yield such a record.”

² Ibid.

³ Foulden Maar Geopreservation Status, 27 February 2018

BUT WE NEED TO ACT NOW

Trans-national company Plaman Resources Ltd, known for purchasing distressed assets,⁴ is currently gearing up to opencast mine the reserve of an estimated 31 million tonnes of diatomite (microscopic algae and fossils) for the next 27 years. In 2014, major shareholder of Plaman, Iris Corporation of Malaysia, announced plans to use Foulden Maar diatomite as a fertiliser on palm plantations in Southeast Asia. While not a fertiliser in itself, it will be used as an additive to inhibit soil leaching and improve resistance to the fungus related disease Ganderma.⁵ The announcement that NZ diatomite would be used for this ecologically destructive activity caused national outrage. Things went quiet for a couple of years in the public arena, until Plaman announced the diatomite would now be used as a new and unique animal feed additive.⁶ The market for this will be off-shore factory farms and feedlots.

The Maar and all it contains will be destroyed and this invaluable site lost to us forever. This is not regional development. This is regional disaster, and instead of a golden egg, we are left with a 180 metre deep void.

“How could I look my grandchildren in the eye and say I knew about this – and I did nothing.”

David Attenborough

THERE ARE ALWAYS ALTERNATIVES

What if Foulden Maar was preserved as a geopark and museum? What if Middlemarch and the Strath Taieri set itself the task of combining geo-science with geo-tourism? What about a permanent research facility based in the area? What if the region could become an international centre of scientific, geological, astronomical and climate change research?

4 *Otago Daily Times*, 28 May 2018– Simon Hartley

5 <https://www.radionz.co.nz/news/regional/289457/nz-linked-to-destruction-in-se-asia-greenpeace-says>
<https://www.odt.co.nz/business/otago-fertiliser-bolster-oil-palm-plantations>

6 <https://www.plamanglobal.com/product/>

By focusing on the region's geological heritage, combined with Otago's exceptional night skies and opportunities for star gazing, such a park could contribute significantly to the sustainable development of the region, combining ecological land use with green tourism.

Such models are already working in Europe. The Vulkaneifel Geopark and Museum in Germany is a great example. Attracting scientists and geo-tourists from all over the world, its significance has been recognised by Unesco.⁷

The Strath Taieri already has the Otago Rail Trail, the Taieri Gorge Railway, the area is rich in pioneering history and heritage, it has the only inland salt lake in New Zealand, and is overlooked by the marvellous Rock and Pillar Range. Otago's night skies are world renowned for exceptional darkness and lack of light pollution. Otago Museum director Dr. Ian Griffin has described the Otago region as, "... excellent for astronomy, arguably beating Tekapo in terms of its clear night sky."⁸ Naseby, just 52 km from Foulden Maar, is already working to brand itself as New Zealand's first Dark Skies Community town. The Strath Taieri could develop alongside the Maniototo as a star-gazing region par excellence.

We need to augment rather than pillage the treasures in our part of the country, for our children and our children's children. Let us dream big. It is the least we can do.

"So many of our dreams at first seem impossible, then they seem improbable, and then, when we summon the will, they soon become inevitable."

Christopher Reeves

WHO ARE PLAMAN RESOURCES?

⁷ <https://www.geopark-vulkaneifel.de/en/>

⁸ <https://www.odt.co.nz/regions/central-otago/towns-bid-become-dark-sky-community>

Plaman Resources trading as Plaman Global is the brainchild of Sydney-based Australian investment bankers Panayiotis (Pete) Plakidis and George (Geordie) Manolas. Plakidis previously worked for Deutsche Bank and Manolas for Goldman Sachs. Manolas is son of Kerry Manolas, one of Australia's wealthiest property developers.

Just prior to forming Plaman Resources, Manolas was Chief Investment Officer for Albany Capital Group, a \$2 billion + company domiciled in the Cayman Islands tax haven⁹, and owned by one of Australia's wealthiest families and largest proprietors of private real estate in Australia.¹⁰

Minority shareholder of Plaman Resources at 49.05%, is Burleigh Nominees. Owned by the Manolas Family Trust and the Plakidis Family Trust¹¹, it is domiciled in the tax haven Isle of Man.¹² They have other business interests domiciled in the British Virgin Islands tax haven. Like the Isle of Man and the Cayman Islands, there exist no capital gains tax, gift tax, sales tax or value added tax, profit tax, inheritance tax or estate duty, or corporation tax.

As was argued in the British Parliament at a debate on tax avoidance and evasion, "... the Isle of Man and its overseas territories and crown dependencies have become the 'place of choice' for those wanting to hide their wealth and avoid tax."¹³

AND THE OTHERS INVOLVED?

Majority shareholder (50.95%) of Plaman Resources is Malaysian Iris Corporation. Its core business is identification technology. Iris has two directors on the board of Plaman Resources, and there have been a number of personnel changes.

In 2014, Iris Corporation entered into a shareholders agreement with

9 Paradise Papers

10 From *Our People*, *Plaman Global* website

11 <http://www.theedgemarkets.com/article/iris-invests-rm39m-jv-company-buy-diatomite-business>

12 Panama Papers

13 www.theguardian.com/news/2017/nov/07/

Burleigh Nominees to form the New Zealand incorporated joint venture company, Plaman Resources Ltd.¹⁴ Iris has invested A\$13million into the venture. It paid A\$4.8 million to acquire the assets including the extended mining permit (until 2033), signed off by then Minister of Energy and Resources, Simon Bridges, and NZ\$650,000 for 42 hectares of land at Foulden Hills.¹⁵ Otago Regional Council Consent for operations on the site expires 1 July, 2020.¹⁶

Prior to the release of information from a leaked Goldman Sachs report in the Otago Daily Times on 20 April 2019, FELDA (Federal Land Development Authority) was the largest shareholder in Iris Corporation.¹⁷ Felda Global Ventures Holdings Berhad (FGVH), is the world's largest palm plantation owner (450,000 hectares plus), the world's third largest palm oil producer¹⁸ and a significant producer and supplier of fertiliser.¹⁹

FELDA directors have been implicated and arrested for corruption and graft. The Wall Street Journal reports FELDA has also been complicit in widespread human rights abuses of migrant workers on their Malaysian palm-oil plantations. Passports seized, and workers forced to work in slave-like conditions rife with abuse, no health and safety, subject to toxic sprays (Paraquat) with no protection, often earning less than the legal minimum wage, and even having wages withheld.²⁰

Plaman Resources, in an effort to get approval for their proposed diatomite mine in Middlemarch, are busy wooing New Zealand politicians behind the scenes. They now consider their majority shareholder, Iris Corporation, as a liability, due to their direct links to the destructive palm plantation industry.

14 <http://www.theedgemarkets.com/article/iris-invests-rm39m-jv-company-buy-diatomite-business>

15 <https://quarryingandminingmag.co.nz/q-m/mining/iris-corporation/>

16 <http://data.orc.govt.nz/Reporting/ConsentReport/Search/2000.230>

17 Felda shares in Iris have reduced from 25% to 14% and early 2019, were reduced to 5%

18 <https://www.radionz.co.nz/news/regional/289457/nz-linked-to-destruction-in-se-asia-greenpeace-says>

19 <https://www.thestar.com.my/business/business-news/2017/11/21/fgv-unit-aims-to-sell-30000-tonnes-of-new-fertilisers/>

20 <https://www.wsj.com/articles/palm-oil-migrant-workers-tell-of-abuses-on-malaysian-plantations-1437933321>

In a leaked report²¹, Goldman Sachs who are providing seed financing for the proposal, advised Plaman Resources to detach Iris Corporation as a shareholder in order to “... remove any link...” with the controversies surrounding palm oil plantations, which, they say, “was identified as a sensitivity for local community.”²² The report continues that such a move would be “... viewed positively by NZ ministers, since it removes any potential use as a fertiliser for palm plantations.”²³

This is easier said than done. Whether or not Iris is detached from Plaman Resources, it is self-evident that simply because the direct connections are no longer visible, that the palm plantation market is off the agenda. Plaman still need a huge market for the 500,000 tonnes of processed diatomite they intend to produce each year. Whether or not there are direct links via their directorship to palm plantations, Plaman are hardly going to turn their back on such a large market.

Nevertheless, knowing the report had been leaked due to ODT journalist Simon Hartley contacting Plaman for comment, Plaman Resources accordingly began the process of ‘corporate reorganisation’ as a window-dressing exercise.

Rozabil Rahman, one of four Plaman Resources directors, was also Executive Director of Iris Corporation and had direct political links to the disgraced former Malaysian Prime Minister, Najib Razak.²⁴ On 17 April 2019, he was removed as a Plaman Resources director, and replaced by Yang Hong Poh²⁵ (more commonly known as Paul Poh²⁶), President and Group Managing director of Iris Corporation.²⁷

In March 2019, Rozabil resigned as executive director of Iris Corporation²⁸.

21 <https://www.odt.co.nz/business/leaked-report-sheds-light-mine-project>

22 Ibid

23 Ibid

24 See appendix

25 <https://app.companiesoffice.govt.nz/companies/app/ui/pages/companies/4960779/directors>

26 <https://www.bloomberg.com/research/stocks/people/person.asp?personId=25665460&privcapId=9858322>

27 <https://www.theedgemarkets.com/article/paul-poh-now-president-and-group-md-iris-corp>

28 <https://www.thestar.com.my/business/business-news/2019/03/22/iris-corp-executive-director-rozabil-resigns/>

He also reduced his personal shareholding in Iris²⁹, as did the financially troubled FELDA. However, a company called Caprice Development Sdn Bhd bought up much of this sell-off, and it turns out that Rozabil and Poh are co-owners of this investment company.³⁰

About five years ago, Iris diversified into education, sustainable development, hydroponic systems, mining and building systems, and have since been “bleeding red ink”.³¹ Recently Iris has been selling off these failing non-core investments, and is in the process of suing former board members and executives, including Tan Say Jim,³² a former director of Plaman Resources.

In October 2018, Iris Group CEO Shaiful Subhan (also a Plaman director), said that among the firm’s non-core assets that would be divested, was its 51% stake in New Zealand company Plaman Resources Ltd.³³ However in March 2019, Shaiful Subhan made this statement: “We have disposed of the major non-core businesses that have been bleeding the company dry. There are a few non-core assets to dispose of, which we should be able to complete in the next couple of years. Having said that, there will be no fire sale of assets,” he says, adding that these assets include Plaman Resources Ltd, which is involved in mining activities in New Zealand.”³⁴

It is likely they cannot find a buyer for their 50.95% share in Plaman. Its only asset is 42 hectares of former farm land containing a failed diatomite mine, and restricted by current Otago Regional Council consents, to a 3 hectare quarrying operation and a mining permit until 2033.

Shuffling around a few executives and spinning shares faster than numbers on a roulette wheel, changes nothing. And a spinning roulette wheel is something Paul Poh may be very familiar with. He has just been ordered by the Malaysian Court to pay his gambling debt of \$HK33

29 <https://www.theedgemarkets.com/article/rozabil-ceases-be-substantial-shareholder-iris-corp>

30 <https://www.theedgemarkets.com/article/iris-corp-pursuit-acquisitions-partners>

31 <https://www.theedgemarkets.com/article/new-shareholders-new-lease-life-iris>

32 <https://www.theedgemarkets.com/article/iris-sues-exchairman-board-members-losses-over-bcs-investment>

33 <https://themalaysianreserve.com/2018/10/01/iris-corp-to-divest-more-non-core-assets-in-fy19/>

34 <https://www.theedgemarkets.com/article/iris-corp-pursuit-acquisitions-partners>

million (NZ\$6.4 million) plus interest, to casino Wynn Resort in Macau.³⁵ This landmark ruling was the first time a casino has been allowed to collect dues from gamblers in Malaysia, as Malaysia's current law does not recognize gambling contracts. This means casinos do not have legal recourse for funds they are owed by gamblers. Poh may have felt he could lose with impunity, but, unfortunately for him, he penned a credit agreement which has been recognised by the Malaysian Courts.³⁶ The edgemarkets.com confirmed it is the same Paul Poh³⁷, who is the newly appointed director, as of April 17, of Plaman Resources.³⁸

PLAMAN WANTS TO PURCHASE MORE LAND

The current 42 hectares owned by Plaman Resources does not include the whole of Foulden Maar, or all of the 174ha granted by the mining permit.³⁹ Plaman, at the time of writing, have an application with the Overseas Investment Office to buy another 400ha of land. This gives Plaman the ability to exploit the Maar in its entirety and still have ample room for mine infrastructure.

In mid 2018, the Overseas Investment Office said the decision was imminent, and Plaman Resources stated they expected the land purchase to be completed by December 2018, and subsequent resource consent for mining activity by mid 2019.⁴⁰ As of May 2019, the OIO has not made a decision.

The land Plaman wants permission to purchase, is a family farm that surrounds Plaman's 42 hectares, a farm renowned for producing award-winning ultra-fine merino wool.⁴¹ By law, the farm must be advertised on the open market to allow New Zealanders the opportunity to purchase

35 <https://www.reuters.com/article/us-wynn-macau-malaysia/malaysia-court-rules-in-favor-of-wynn-macau-in-42-million-case-lawyer-idUSKCN1PD05J>

36 <https://www.casinonewsdaily.com/2019/01/19/wynn-macau-wins-gambling-debt-lawsuit-against-malaysian-gambler/>

37 <https://www.theedgemarkets.com/article/insider-moves-mq-technology-bhd-seacera-group-bhd-alam-maritim-resources-bhd-barakah>

38 <https://app.companiesoffice.govt.nz/companies/app/ui/pages/companies/4960779/directors>

39 <http://data.nzpam.govt.nz/permit# 41186>

40 *Plaman Project Overview – Summary Black Diatomaceous Earth Project*, Pg.3, June 2018

41 <http://otagotours.co.nz/index.php/tours/short-tours/farm-tour/>

what is classified as 'sensitive land'. Nor can any agreement be made between vendor and overseas entity to exclude the vendor from accepting alternative offers. "An agreement must not require the owner to allow the overseas person to match or better any alternative offer presented, as the land... would not then be available for acquisition on the open market by New Zealanders."⁴²

PLAMAN SPIN DOCTORS AT WORK

There are already more diatomite resources available to be mined than the world can use. The Minerals Yearbook Metals and Minerals 2010 Vol 1 estimates, "... world reserves to be more than 500 times the current [2010] estimated world production... and the world's largest producing district, Lompoc C.A. (USA) has deposits to meet all of the world's current diatomite consumption for hundreds of years".

Plaman is however claiming that their diatomite mined at Foulden Maar is a globally rare and valuable 'black' diatomite, rich in organic content.⁴³ This is true only in the sense that it is rare in situ.⁴⁴ This black diatomite is wet diatomite found below the water table. When it is brought to the surface and dries out, it is a poor quality white diatomite.⁴⁵ This is echoed in Earth Magazine: "Chalky to the touch and often light in color, diatomite can be white if pure, but more commonly it is buff to gray in situ, or sometimes black."⁴⁶

When Plaman bought the mine from Featherston Resources (which was in liquidation), reserves were estimated to be 5-6 million tonnes and considered "... of too low a quality for many markets".⁴⁷ Former mine owner, Graeme Thompson, also stated that due to organic impurities and

42 <https://www.linz.govt.nz/overseas-investment/what-you-need-do-if-you-are-selling-new-zealand-assets-over-seas-investors-non-residential/farm-land#advertise-other>

43 www.plamanglobal.com/product/

44 <https://minerals.usgs.gov/minerals/pubs/commodity/diatomite/250400.pdf> pg1

45 From conversation with Assoc. Prof. of Geology, Dr. Andrew Gorman, Otago University, 8 August 2018

46 <https://www.earthmagazine.org/article/mineral-resource-month-diatomite>

47 Arnold, J.C 1999, Ministry of Economic Development unpublished mineral report MR3738, Featherston Resources, 58p

high water content (60%⁴⁸), the diatomite from Foulden Maar is of poor quality.⁴⁹

Total world diatomite production has remained more or less static showing only a very small gradual increase. At full production, by 2025, Plaman intends to export 500,000 metric tonnes of processed diatomaceous earth per year. This would be a 15% increase on current (2017) total world production and make New Zealand the second largest producer in the world, just behind the USA.⁵⁰

On the world market, diatomaceous earth is a low value product already in plentiful supply. United States Geological Survey Mineral Commodity Summaries 2016, states diatomite prices per tonne vary from US\$100 to more than \$400 for speciality markets including art supplies, cosmetics and DNA extraction⁵¹. An article in the Asian Journal of Materials Science repeatedly makes comment of “... natural diatomite [being] an abundant and low-cost material when compared to other artificial chemicals.”⁵²

Yet Plaman Global are claiming that as a fertiliser (bulk rather than speciality market), it is worth US\$320 to \$400 (NZ\$500 to \$600) per tonne, and significantly more as a stock feed supplement⁵³ and they expect to earn “billions” from it over the next three decades.⁵⁴ They estimate the cost of mining, cartage, processing and exporting to be \$513 (currency not stated) per tonne in 2022, easing down to \$407 by 2025.⁵⁵ By Plaman’s own calculations, the margins appear very tight, especially given that seed funders Goldman Sachs estimate the cost of setting up the enterprise is \$470 million.⁵⁶

48 <https://www.odt.co.nz/news/dunedin/potential-create-100-jobs>

49 Letter to Otago Daily Times 14.09.18

50 <https://www.statista.com/statistics/264935/global-diatomite-production/>

51 <https://minerals.usgs.gov/minerals/pubs/commodity/diatomite/mcs-2013-diato.pdf>, page 58

52 Hossam Elden Galal Morsy Hossam Mohamd Bakr, 2010. Diatomite: Its Characterization, Modifications and Applications. Asian Journal of Materials Science, 2: 12-136. <https://scialert.net/abstract/?doi=jmskr.2010.121.136>

53 <https://www.odt.co.nz/news/dunedin/potential-create-100-jobs> (May 2018)

54 <https://quarryingandminingmag.co.nz/q-m/mining/mining-black-pearl/>

55 <https://www.odt.co.nz/business/leaked-report-sheds-light-mine-project>

56 Ibid

For a low-value product enterprise to be economically viable, Plaman will have to transport very large volumes of raw diatomite to and through its processing plant. The ODT reiterates this, reporting that the project “... can only be commercially feasible if full production forecasts can be met; anything less would mean the project would be over capitalised and likely not viable”.⁵⁷

WINDOW DRESSING

Iris Corporation, majority shareholder of Plaman Resources, said in 2014, the rationale for the mine purchase was that Malaysia had 5 million hectares of palm plantations, and they hoped to sell the product there, as well as in its other operations in more than 20 countries in Africa and Asia.⁵⁸

Plaman, however, sensitive to public condemnation of New Zealand diatomite augmenting environmentally destructive palm plantations, came back after a period of silence, claiming a new use for the ‘black’ diatomite, now called Black Pearl. There had been no mention of its supposed rarity or ‘blackness’ prior to this, nor would there be any further mention of its use on palm plantations.⁵⁹ They promote only its ‘green’ credentials as an ‘organic’⁶⁰ stock feed supplement, part of the “clean food movement... it’s the right time for our product.”⁶¹

A search of the New Zealand Trademark Register indicates that in 2017, well after they supposedly turned their back on the palm plantation fertiliser market, Plaman Resources submitted and registered two trademarks – one lists a combination of anti-caking agent for animal feed, medicated and non-medicated nutritional supplement and a

57 <https://www.odt.co.nz/business/leaked-report-sheds-light-mine-project>

58 <https://www.odt.co.nz/business/otago-fertiliser-bolster-oil-palm-plantations>

59 Since November 2015, and with the one exception of the May 2018 ODT article, no Plaman Resources media releases or the *Plaman Project Overview* document (June 2018) make any mention of diatomite as a fertiliser or fertiliser component for use on palm plantations, yet *Black Pearl* was trademarked by Plaman as a fertiliser in 2017. (IP#1063006)

60 *Plaman Project Overview – Summary Black Diatomaceous Earth Project*, pg.4, June 2018

61 <https://www.odt.co.nz/business/funding-secured-diatomite-mine-firm> June 18, 2018

mixed animal feed stock⁶², and the other is as a fertiliser.⁶³ In the USA, their trademark application was refused because it was too similar to another existing Canadian fertiliser product (charcoal based) already trademarked Black Pearl, and their patent application appears to have been abandoned.⁶⁴The original Plaman application to the US Patent and Trademark Office, signed by director George Manolas on 11 April 2017, lists the uses of their own Black Pearl. All are as fertilisers. There is no mention of potential use in stock feed.⁶⁵

Diatomaceous earth is not an additive in conventional stock feed. However high quality white diatomaceous earth is used by some alternative farmers to combat internal parasites, but the recommended dosage rate is between 2 – 5% of bulk.⁶⁶ It is unlikely that the international stock feed industry that might choose to add Black Pearl to their feed products, can absorb Plaman's planned annual output from Foulden Maar of 500,000 tonnes. This would equate to between 12.5 million and 25 million tonnes of stock feed annually. It also overlooks the fact that pure and cheap white diatomite is widely available across the world. Why go to a distant and expensive source for an impure diatomite? A logical conclusion is that while some of Plaman's Black Pearl may be used as a stock feed supplement, most will quietly be used in bulk application fertiliser on palm plantations.

DOUBTS OVER PLAMAN CLAIMS

Diatomaceous earth comes in three different grades: feed grade, food grade and pool grade for filters. Rob Aukerman, Plaman President of Animal Nutrition and Health (not a scientist)⁶⁷, claims results from short-term efficacy trials on poultry and swine⁶⁸ conducted by contract

62 Submitted in March 2017 and formally registered in September 2017 IP#1074889, IP#1079014

63 Submitted in March 2017 and formally registered in September 2017 - IP#1063006

64 United States Patent and Trademark Office – Notice of Abandonment (Serial number: 87/406183)

65 United States Patent and Trademark Office – Serial number: 87406183 and 87/406183 – both used in document – page 7

66 <http://www.denz.co.nz/diatomaceous-earth-dosage-rates>

67 Rob Aukerman has recently left Plaman Global after only 14 months in the job

68 21 day to 128 day efficacy trials <https://www.plamanglobal.com/>

(commercial) laboratory, AHPharma, “... have been off the charts”.⁶⁹

This is however disputed by Simon M. Shane, Adjunct Professor of Poultry Science at the College of Veterinary Medicine, North Carolina State University, who says, “Absent data and any details of the diets fed and housing of stock, [make] it not possible to evaluate any claims by Plaman Global. There is no published data in the peer-reviewed literature to support a claim that diatomaceous earth can serve as a growth promoter or enhance feed conversion efficiency in monogastric animals.”⁷⁰ He further adds, “Why diatomaceous earth taken from the ground in Otago, New Zealand, should have growth promoting properties, has yet to be explained. Plaman Global should not only demonstrate efficacy and safety of Black Pearl, but also the biological basis on which benefits, if demonstrated, are obtained.”

The claims Plaman is making in New Zealand about Black Pearl as a stock feed additive, (among them, that it increases average body weight gain and improves carcass yield and meat quality⁷¹) contravenes the ACM Act (Agricultural Compounds and Veterinary Medicines legislation). It means they can sell the product in NZ, but cannot promote its so-called benefits, making it unlikely to be available to NZ farmers. (Plaman have recently, following submissions to the OIO, removed the disputed press releases from their website, but a cached image of the page can be viewed.⁷²) They have stated it will be trialling in large companies in the USA, Brazil, Mexico and Argentina.⁷³

In response to Plaman’s announcement that they had secured seed funding of NZ\$28.5 million from Goldman Sachs, Professor Shane states, “Investment should have been based on rigorous data, using appropriate experimental procedures with controls and statistical analysis of results. If

69 Animal Pharm – Agribusiness Intelligence – Joseph Harvey
70 http://www.chick-news.com/View_Single_Post.aspx?Site_Copy_ID=73941, June 2018
71 *Plaman Project Overview – Summary Black Diatomaceous Earth Project*, Pg.4, June 2018
72 <https://web.archive.org/web/20180429062740/http://www.plamanglobal.com/news-media/>
73 *Otago Daily Times*, 18 June 2018

the enterprise is based on assumptions, extrapolations and spreadsheets, Goldman may not see a return on their investment.”⁷⁴

As an anti-caking agent⁷⁵, Black Pearl will most likely be added to stock feeds containing molasses. Remember Iris Corporation’s shareholder? Felda Global Ventures Holdings, in addition to their immense palm plantation interests, also have interests in sugar and according to their own website intend to “...control the complete sugar value chain with the goal of becoming Southeast Asia’s premium sugar refining and trading company”.⁷⁶

Given the quantities of diatomaceous earth Plaman Resources needs to produce, whether as fertiliser component or stock feed additive, bulk application will be crucial to its financial success. All this suggests Black Pearl is far removed from the picture of the ‘organic’ and ‘clean food movement’ Plaman espouses.

TRANSPORT & LOGISTICS

On 5 July 2018, a document titled Plaman Project Overview – Summary Black Diatomaceous Earth Project, June 2018 ⁷⁷ was presented to the Strath Taieri Community Board by Plaman NZ General Manager Craig Pilcher. It stated that when the mine reaches optimum output (expected in 2025), 50 purpose-built dedicated bulk truck and trailer units loaded with raw diatomite will be leaving the mine site at the rate of 4.5 per hour, 24 hours a day, 7 days a week. State Highway 87, (64km) is winding, hilly and steep, and has only one passing lane. It is not designed for this many heavy trucks. In winter, the road is often icy with low visibility. Increasing frustration from being stuck behind a fleet of slow moving trucks is a recipe for disaster.

The document also stated the trucks would be travelling 264 km to

74 http://www.chick-news.com/View_Single_Post.aspx?Site_Copy_ID=73941

75 <http://www.denz.co.nz/diatomaceous-earth-applications/anti-caking-agent>

76 <http://www.feldaglobal.com/our-business/sugar/>

77 *Plaman Project Overview/Summary Black Diatomaceous Earth Project – June 2018*

deposit their loads at their processing plant in Awarua (near Bluff). They would then make the return trip empty. This amounts to 216 truck movements per day to and from the mine; that is 1 truck every 6.5 minutes, 24 hours a day, 7 days a week for the following 23 years.⁷⁸

It is interesting that a company which touts the economic and financial acumen and calibre of its leadership (George Manolas claims to have graduated from Harvard Business School in the top 1% of his class⁷⁹), thought that trucking the diatomite 264km, and returning empty, was both economically and logistically viable, while at the same time claiming Black Pearl[®] reduces greenhouse gas emissions, both directly and indirectly.”⁸⁰

The leaked Goldman Sachs report now reveals that the diatomite will in fact be transported 100km to Milton “... earmarked for a \$36.8million processing plant on 30ha, following an “offer from Calder Stewart and Port Otago” to locate there, and ship the mineral through Port Chalmers.”⁸¹

The report also suggests that rail is the most likely mode of transport. This would however only be possible between the processing plant at Milton and point of export at Port Chalmers. The dimensions of the train tunnels on the historical Strath-Taieri line from Middlemarch preclude the use of modern locomotives.

PUMP & DUMP

Plaman’s estimation of reserves has been steadily increasing; 28 million tonnes, then 31 million, then 33 million⁸², and in late 2018 it was reported in Quarry and Mining magazine as being between 50 and 100 million tonnes.⁸³ Recently, on the tail of submissions to the OIO, Plaman have, on their website, pulled the estimated reserve back to 31 million

78 *Plaman Project Overview/Summary Black Diatomaceous Earth Project – June 2018, pg.10*
79 <https://www.plamanglobal.com/our-team/>
80 <https://www.plamanglobal.com/sustainability/>
81 <https://www.odt.co.nz/business/leaked-report-sheds-light-mine-project>
82 <https://www.plamanglobal.com/news-media/>
83 <https://quarryingandminingmag.co.nz/q-m/mining/mining-black-pearl/>

tonnes. Meanwhile Plaman President of Animal Nutrition and Health, Rob Aukerman, who had the task of talking up the low quality black diatomite, has left Plaman after just 14 months. (He had previously worked for the animal drug company Elanco for 14 years.⁸⁴)

The hype and exaggerated claims Plaman make are reminiscent of the ill-fated Pike River Mine, which despite exporting only two loads of second rate coal to India over its entire operation, managed to raise hundreds of millions of dollars on exaggerated claims and false data.

Are Plaman preparing to sell a distressed asset by creating the appearance of a viable business? Rather like a property developer who sells apartments off the plan, Plaman may be selling a business plan rather than a working business. Increase the landholding, add some infrastructure such as the purpose-built bridge at Mt. Ross-Sutton (paid for by the Dunedin City Council and the NZ Transport Agency), grossly exaggerate the dollar value of Foulden Maar diatomite and the size of the reserve. They also have prospecting permits (2 years only) for over 8000 square kilometres of Otago. It will look good as part of the company prospectus.

Senior business journalist at the Otago Daily Times, Simon Hartley, notes that the 112 page leaked report from Goldman Sachs reads with “... a level of detail more akin to an initial public offering to float a company on the sharemarket.” The leaked report reveals Plaman has been successful in wooing the Dunedin City Council whom Goldman Sachs describe as “pro-mining” and said the council had provided “letters of support” for the project, highlighting job creation.⁸⁵

Are Plaman Resources really predatory investors engaging in a practice known as ‘pump and dump’? This is an investment scam wherein optimistic, but untrue, statements are publicised about a specific stock in

84 <https://www.linkedin.com/in/rob-aukerman-7991a310/>

85 <https://www.odt.co.nz/business/leaked-report-sheds-light-mine-project>

order to artificially increase the price through higher demand. Susceptible, credulous investors subsequently purchase shares which collectively, lead to a rise in the stock price due to heightened demand. Once the original perpetrators have decided that the price of the stock has peaked, they sell off most, if not all of their positions, for a profit.⁸⁶ Goldman Sachs want their money back by May 2020 and it is not surprising the leaked report suggests “... a proposal for Plaman to complete a capital raising and list on the stock exchange in 2020, to “fully fund” the Foulden Hills project....” This is before the first truck loaded with diatomite rolls out.

Publicity shy directors Manolas and Plakidis on their website, claim expertise, not just in finance and investment banking, but also in agriculture and mining. There is no way of publicly verifying their claims. Their LinkedIn CVs did not indicate any mining or agricultural experience. (Manolas has recently removed himself from LinkedIn).

Another Australian investment banker, Robert Rankin, has recently joined the management team. This newly appointed Plaman Deputy Chair enjoyed a stellar career in the investment banking industry, running Asia-Pacific operations for both UBS and Deutsche Bank, before a brief and less than illustrious stint as co-head of Deutsche’s global corporate banking and securities arm.⁸⁷ It was during his 2012-15 watch, that \$10bn of Russian money was laundered and for which the bank was eventually fined \$630m.⁸⁸ He left the bank to work for James Packer’s gambling empire Crown Resorts, but again left under a cloud following the arrest, in China, of eighteen staff members.⁸⁹ He currently chairs the Peter Thiel⁹⁰ financed Sargon Capital⁹¹ which has been busy getting OIO permissions and buying up finance and superannuation companies here in New Zealand and Australia.

86 https://en.wikipedia.org/wiki/Pump_and_dump

87 <https://www.euromoney.com/article/b12kq417v9h2rk/rankins-preup-packers-a-punch>

88 <https://www.theguardian.com/business/2017/jan/31/deutsche-bank-fined-630m-over-russia-money-laundering-claims>

89 <https://calvinayre.com/2017/07/10/casino/court-chinese-vips-lost-600m-crown-resorts-casinos/>

90 <https://www.nbr.co.nz/article/peter-thiel-invests-%E2%80%A6-wrong-side-tasman-ck-201861>

91 <https://www.investordaily.com.au/appointments/42995-former-deutsche-bank-ubs-heavyweight-named-sargon-chair>

Plaman Resources is classified as a 'K624030 Holding Company Operation - Passive Investment in Subsidiary Companies'.⁹² Their one subsidiary that we can ascertain, is Plaman Services of which Manolas and Plakidis are the directors. This arrangement will enable Plaman Services to borrow money while protecting the assets of Plaman Resources, should things turn pear shaped.

PLAMAN SEIZES AN OPPORTUNITY

The Taieri River separates Foulden Maar from State Highway 87. To access the highway, vehicles must use the modern two-lane bridge just north of Middlemarch. Previously, there was an alternative southern route via the historical Mt. Ross-Sutton suspension bridge, which bypassed Middlemarch township.

In July 2017, restoration and strengthening of the Mt. Ross-Sutton suspension bridge had been almost completed. The much-loved bridge had served the community for over 130 years. Then the Taieri River flooded, rising to unprecedented levels and the bridge collapsed.

On 11 June 2018, two farmers whose properties span both sides of the Taieri River, presented at the open public forum to the Dunedin City Council Infrastructure Services and Networks Committee. They requested that the new bridge have an increased weight limit to enable trucks with stock and farm machinery to cross.⁹³

There followed a lengthy discussion. Much of it centred on the importance of the new bridge to serve the needs of the local community – that is, farmers, residents living in the immediate proximity, the heritage tours, cycling trail, school bus, rural post and access for emergency services.

A motion proposed by Councillor David Benson-Pope, after a heated debate on how to incorporate the heritage legacy in the rebuild, was left

92 <https://www.bizdb.co.nz/company/9429041093726/>

93 <https://youtu.be/ZVZEpyuy5eY?t=19>

deliberately unspecific, (simply that it is to be “a new bridge construction”). Council officials were given carte blanche to come up with some designs to be presented to the Strath-Taieri / Middlemarch community for feedback. The motion passed 11 to 1. At no time, was the diatomite mine at Foulden Maar or the volume of truck movements discussed.⁹⁴

The possibility of a new 65 tonne bridge at Sutton created an opening by which Plaman Resources could woo the Strath Taieri Community Board by arguing this would enable their proposed 216 daily truck movements to bypass the township.

When Craig Pilcher presented Plaman Project Overview document to the Strath-Taieri Community Board, Dunedin City Councillor Mike Lord, also Chair of the DCC Finance Committee was present. Because of an absence, Councillor Lord took the minutes. They discussed the necessity of ensuring “... that the replacement bridge at Sutton was built to a level where it could fully support fully (sic) laden mining trucks which would enable the trucks to bypass the [Middlemarch] township.”⁹⁵ Pilcher also verbally stated that Plaman Resources was prepared to financially contribute to the rebuilding of the Mt. Ross-Sutton Bridge. This was not minuted.

On July 17, the local community was asked by council officials for ‘thoughts’ about bridge design. However, the community was not informed of the mine’s interests in the bridge, nor of the volume of heavy truck traffic.

An email was sent August 9 to the Strath Taieri Community Board by DCC Group Transport Manager Richard Saunders. It stated, that the bridge “... will be a concrete and steel structure which meets the needs of users and provides for the large vehicles that want to use this route... It will also provide an alternative route for the proposed diatomite mine should that

94 <https://youtu.be/uppBqDridOc?t=5853>
95 Strath Taieri Community Board Minutes, July 5, pg.2

proceed.”⁹⁶ This was the first written evidence we could find from the DCC, that the bridge was being designed to meet the needs of the mine.

On August 10, three bridge designs were released to the wider Dunedin community for feedback. The load bearing capacity had been increased to the maximum bridge specs of 65 tonnes.⁹⁷ This is despite roads on either side of the bridge having a 44 tonne weight limit. Strath Taieri locals were sent an invite to attend a 2-hour drop-in display on 20 August to comment informally on the new bridge designs. Council staff would be in attendance. However, the DCC on-line Information Sheet which accompanied these designs had yet to make any mention of the mine or the expected level of truck movements.

On the evening of Monday, 20 August, 60 – 70 people attended the drop-in in Middlemarch. By this time, information from our research regarding the level of trucking movements had been hand-delivered by a concerned local to most residents of Middlemarch and Sutton. At the gathering, another long-time resident spoke addressing this issue despite an attempt by the Strath Taieri Community Board chair to shut the speaker down. Plaman General Manager (NZ) Craig Pilcher was in attendance, but did not identify himself or respond to the concerns raised.

In January 2019, construction of the bridge began. It is now to be 4 meters higher and 20 metres longer than the designs presented to the Middlemarch community and cost five million dollars, twice the initial estimate.

Plaman have promised community consultation for over a year, but this has not eventuated. They have, however, been busy behind closed doors away from public scrutiny: meeting with and lobbying government ministers, local government politicians, council staff and government departments, all the while quietly establishing advantageous

96 Email from Richard Saunders to Strath Taieri Community Board, 9 August 3.56pm
97 Dunedin City Council *Information Sheet*, released 9 August to STCB and 10 August to the public.

relationships to help ease their way through compliance, as well as striking business deals.

Furthermore, the Goldman Sachs report revealed that, “... former Labour Party minister Clayton Cosgrove... has been engaged as a ‘government relations advisor to secure approval’ for the mine as soon as possible.” The Goldman Sachs report continues, “Clayton has outstanding relationships with the ruling Labour Government and is doing everything possible to ensure a decision is made as soon as possible”⁹⁸

In May 2018, Plaman said there would be no restrictions on geologists and university students visiting and carrying out research on the site.⁹⁹ General Manager Craig Pilcher has said as long as scientists and students don’t interfere with mining activity (which will be running 24/7), and adhere to health and safety considerations¹⁰⁰ (which under the new laws are extremely stringent), they are welcome. This assurance had no genuine credibility.

Pilcher told mine supporter, Labour MP Clare Curran, that they had signed a Memorandum of Understanding with Otago University.¹⁰¹ This is blatantly untrue. Mara Wolkenhauer, Otago University Business Development Manager for the environment portfolio at the Research & Enterprise Office, wrote in an email to us (15 April 2019) that “... there has been no MoU signed [underlined in original] with the university, neither at a high-level nor with the Geology Department. There was a draft letter that was discussed, but the university moved away from the idea of a MoU because of the conflicting views from different departments about the dealings of this venture.”

Plaman Resources were to speak at the Minerals Forum 2019 in Dunedin on 27 May, presenting their updated plans in the company of other

98 Ibid

99 *Otago Daily Times*, 28 May 2018 – Simon Hartley

100 <https://www.odt.co.nz/business/miners-scientists-unlikely-allies>

101 Conversation with MP Clare Curran 12/04/19

mining interests, Dunedin's mayor David Cull, Minister of Mining Megan Woods, Minister for Environment David Parker, and Minister of Regional Development Shane Jones. In the wake of the leaked Goldman Sachs report, Plaman have made a tactical retreat, and are no longer presenting to the Minerals Forum, where for the price of \$850, one may have got an understanding of their plans.

LOCAL COMMUNITY AT RISK

The local community will no longer have proper and safe use of the bridge and surrounding roads. Farmers will not be able to engage in the traditional practice of moving stock by foot. Existing B&B accommodation on the route will be made obsolete. Gravel roads will have to be widened and sealed.

Movement of local residents, heritage tours, school bus, rural post and emergency services will be dangerously compromised. Plans to extend the cycling network south of Middlemarch will have to be abandoned. Traffic noise will have a dramatic and unwelcome impact in this quiet rural environment. There will be continuous degradation of road surface and substructure, requiring roadworks, ongoing maintenance and traffic delays/detours, the costs of which will be footed by the people of Otago.

Despite all the window dressing to the contrary and the ongoing promise of public consultation¹⁰², the contempt which Plaman Resources and Goldman Sachs have for the concerns of the local community, rendering them irrelevant and insignificant, is evident in the leaked report. It says, "Management does not expect any significant social or community issues at Foulden Hill (sic)".¹⁰³ That money is power is evidenced in their comment: "Any appeal to the Environment Court is likely to come from a small number of local residents, who are not well resourced and will not have comprehensive technical reports to the same extent as Plaman

102 <https://www.odt.co.nz/business/leaked-report-sheds-light-mine-project>
103 *ibid*

Global will have.”¹⁰⁴ Their assessment is that the community is too poor and ill-informed to be able to put up an effective fight.

Trans-national mining corporations the world over, have arrived in small rural and often struggling towns and communities, with grand promises of jobs and economic growth which are rarely delivered.

MEANWHILE ON THE PLAMAN WEBSITE

Between images of newly hatched chicks and another of many hands coming together in unity, Plaman Global declares:

“... we are committed to being an approachable and socially responsible neighbour who shares the benefits of our projects with stakeholders within the communities in which we operate.”¹⁰⁵

APPENDIX

104 Ibid
105 <https://www.plamanglobal.com/operations/>

On 20 March, 2018, Rozabil Abdul Rahman, executive director of Iris Corporation, was appointed a director of Plaman Resources. It appears that Rahman's personal wealth was acquired through engineering company (manufacturing trucks, trains, ships and airplanes) Destini Holdings Berhad, of which he owns a 25% shareholding.¹⁰⁶ Under his management, and with his close political contacts, Destini has successfully acquired many contracts with the Malaysian Government, particularly the military.¹⁰⁷

Until late June 2018, Rozabil was the Arau region Divisional Vice Chief of the political party United Malays National Organisation (UMNO),¹⁰⁸ a nationalist party that aspires to uphold, defend and expand conservative Islam across Malaysia. UMNO has moved far from its liberal roots, and in the words of former UMNO Supreme Council member and magistrate, Syed Hamid Syed Jaafar Albar, "... twisted to become intolerant, self-centred and even undemocratic... its leaders have grown elitist [and] have practised and condoned a denial syndrome... foregoing transparency and the rule of law in favour of their own excesses [and] allowed abuse of power and corruption to thrive."¹⁰⁹

Rozabil was recently summoned to court along with his close associate, Arau region UMNO politician, Shahidan Kassim, for the failure to pay for 60,000 custom made rice cookers. These cookers were stamped with the UMNO logo, and one can surmise it was to buy votes from poor Malays.¹¹⁰ Shahidan is an extreme nationalist and leading proponent of Salafism, a puritanical Sunni Islamic movement. As a Member of Parliament in 2017, Shahidan demanded that atheists and atheist groups be identified and hunted down.¹¹¹

It was Rozibil whom Shahidan chose to take over from him as president

106 https://klse.i3investor.com/insider/director/7212/18-Jun-2018/133535_2654667238.jsp

107 <http://www.kleptocrazy.my/unexplained-wealth-and-conflict-of-interest-of-dato-rozabil-abdul-rahman/>

108 <https://www.thestar.com.my/business/business-news/2018/05/31/rozabil-judge-me-by-record/>

109 <https://www.nst.com.my/news/politics/2018/06/385512/syed-hamid-albar-exits-selfish-intolerant-umno>

110 https://www.thestar.com.my/news/nation/2017/08/29/businesswoman-suing-shahidan-over-unfulfilled-rice-cooker-order/

111 The Sun (Malaysia), 9 August, 2017

of the professional football club, Perlis FA.¹¹² Under Rozabil's leadership, players went unpaid for at least five months.¹¹³ The club was later bailed out by Malaysia's disgraced former Prime Minister Najib Razak,¹¹⁴ now facing a 20 year prison sentence for widespread corruption and money laundering. International investigators say, during his nine years in office, Najib and his associates looted billions from the government owned 1Malaysian Development Berhad (1MDB).¹¹⁵

During this time, Iris Corporation entered into a partnership with Burleigh Nominees to form Plaman Resources Ltd.¹¹⁶

In recent news (Aug 2018), Rozibil has resigned as Arau Perlis Divisional Vice Chief¹¹⁷ but appears to still be treasurer. Legal action over the rice cookers has been withdrawn following an out-of-court settlement.¹¹⁸

112 <http://www.kleptocrazy.my/unexplained-wealth-and-conflict-of-interest-of-dato-rozabil-abdul-rahman/>

113 <https://www.nst.com.my/news/2015/09/star-car-salesman>

114 <https://www.malaysiakini.com/news/367456>

115 <http://time.com/5360659/malaysia-najib-razak-money-laundering-1mdb/>

116 <http://www.theedgemarkets.com/article/iris-invests-rm39m-jv-company-buy-diatomite-business>

117 <http://malaysiagazette.com/en/2018/06/27/shahidan-faces-electoral-challenge-in-arau-after-20-years/>

118 <https://www.thestar.com.my/news/nation/2018/08/25/suit-against-shahidan-called-off-legal-action-withdrawn-after-arau-mp-pays-for-8000-rice-cookers/>



This fossilised *Galaxias effusus*, taken from Foulden Maar, is the earliest record of Galaxiid fishes (known commonly as whitebait).