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ERASITO CONSULTANTS PTE LIMITED (*ERASITO*)

Erasito Newsletter

My First Geotech Experience—Vomo Island

Our recent geotechnical investigation at Vomo Island, Fiji, was a unique blend of professional learning and unforgettable memories. It was definitely a perfect mix of fieldwork, sophisticated, gourmet food, combined with lack of sleep! The trip lasted three days and two nights, during which I, along with my colleague Tulia, had the opportunity to carry out fieldwork in one of the most scenic locations imaginable.

The first day greeted us with heavy rain, which made our work a bit challenging, especially with our Dynamic Cone Penetrometer (DCP) test locations being situated next to the shoreline. Then came Day 2. The sun came out blazing like it had a personal vendetta. I was excited at first until I realised I was slowly being roasted like a lovo feast. My skin still hasn't forgiven me. Let's just say, I came back with a lot of test data and an uneven tan.

Professionally, the trip offered a valuable opportunity to apply our knowledge in a real world setting. Working alongside Tulia was a pleasure. Our teamwork was smooth and we shared responsibilities well. Beyond the technical work, what truly made the trip special was everything in between. Let's talk about the real most valuable person (MVP) of the entire trip which, without doubt, was the food. Oh, My Goodness. I'm not sure what was more satisfying: finishing a DCP test or finishing a dessert. The meals were top-notch, and the desserts? Next-level. I'm not exaggerating when I say I was more motivated by the buffet table than the fieldwork!

Of course, no trip is complete without a few *challenges.* Mine came at night in the form of Fereti and Naibuka, two of the most committed snorers I've ever encountered. On the first night, I barely got any sleep. Their snoring wasn't just noise, it was a full surround sound experience which was very much audible in the other rooms. Night two, I got smart. I made sure to fall asleep before they even entered the room. Victory? Not quite. I woke up an hour later to the same old night time concert. At that point, I accepted my fate: no peaceful sleep was going to happen on this trip!

Still, despite the rain, sunburn, and snore symphonies, the Vomo Island trip was incredible. I got to work alongside an awesome teammate, and learnt engineering tasks within a hands-on environment. Every moment contributed to a story I will always carry with me. It reminded me that engineering isn't just about calculations and site works, it is about the experiences, the people and the memories we build along the way. Would I do it all over again? Absolutely. But next time, I'm bringing sunscreen and earplugs!



PHOTOGRAPH 01: Nidhi Nand conducting *Geotech testing near the coastline (photo taken 28/01/2025)*

Author: Nidhi Nand

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Special points of interest:

- *New Diving Experience—First Dive Inspection with Erasito*
- *Director's Corner*

New Diving Experience—First Dive Inspection with Erasito



PHOTOGRAPH 02: *Erasito* Staff (Laisenia Tagilala and Tulia Katafono on the right) snap a victory photo with Greg Buxton and his boat captain upon completion the dive exercise (photo taken on 29/12/2024).

At *Erasito*, one of the more exciting aspects of our work involves underwater inspections of marine structures – a unique blend of engineering and exploration.

During the Christmas break of 2024, a colleague and I had the opportunity to undertake PADI (*Professional Association of Diving Instructors*) certification with *Scuba Suva*. Over an intensive three-day *Open Water Dive* course, we were trained on the fundamentals of SCUBA (*Self-Contained Underwater Breathing Apparatus*) diving. Mastering the basics and their correct application is critical, especially in environments where the smallest mistake can have serious consequences.

In March 2025, *Erasito* was engaged to conduct a dive inspection of the Eastern Mouring Dolphin structure at Fiji Sugar Cooperation's jetty in Malau, Labasa.

During the inspection, two dives were carried out to assess the condition of the 16 piles supporting the Eastern Mouring Dolphin. Each dive began at the water surface, with each pile examined from the waterline down to the seabed level.

While it was an incredible experience, underwater inspections are not without challenges. One of the key issues we faced was poor visibility, as murky water can severely limit the diver's ability to see, navigate and communicate effectively.



PHOTOGRAPH 03: Team photo after completion of pre-dive checks for the first dive (photo taken 19/03/2025).



PHOTOGRAPH 04: Dive inspection of an Eastern Mouring Dolphin pile led by Terence Erasito (photo taken 19/03/2025).

Furthermore, when inspecting underwater/ submerged structures, divers must proceed with caution, as construction debris may be present on the sea floor. This may include exposed reinforcement bars protruding from concrete masses, along with entangled ocean debris such as fishing lines.

Divers should take extra precaution to avoid becoming entangled in these hazards.

From this inspection, we found it advisable to carry an extra weight in the BCD (Buoyancy Control Device) pocket – i.e. a metallic object which is easily accessible to tap/bang against the air tank. In low-visibility conditions, this would be an effective way to signal to your dive partner using sound when visual contact is lost.

The dive inspectioned and visit to the FSE Malau terminal was a successful and memorable event.

Author: Tulia Katafono

Managing Technical Cohort



PHOTOGRAPH 05: *The desk and work environment of a leader (photo taken 29/07/2025).*

They say that with significant power comes great responsibility. However, in my case, its: with significant work experience comes great responsibility. Managing the Technical Team within a professional environment requires one to be a leader, a leader who comes up with schedules, meetings, takes responsibility, guides the team, conducts staff briefings with regular follow ups on the status of progress. A leader also reviews, checks and provides references as well. Checking up on the wellbeing of the team members is also important. These responsibilities of a leader take up a lot of time and with your own deadlines to meet, managing the team is a challenge.

Leadership is where a person acquires the skill of mastering time management and balance. Being a leader also amplifies oneself. It is important to manage good self-portrayal, as what people observe is what you become towards your team. It is important to conduct oneself properly as a leader so you are leading by example.

Author: Altaf Shah

Back To School

There was some uncertainty in going back to school whilst remaining engaged with *Erasito*. Most of the uncertainty stemmed from the balance required between attending classes and reporting to the office. However, with much planning and management leeway, we were able to work out a, albeit rapidly changing, schedule to respond to both the needs of the company and the requirements of University. We have now fine tuned this balance where we are able to remain effective both in the office and the lecture theatre.

Needless to say, an extra cup of coffee each day has definitely become part of the routine!

Author: Taukave Mua and Elaijie Erasito

Vomo Island—Drone Survey

In December 2024, *Erasito* was commissioned by Vomo Island Fiji (VIF) to conduct site investigations (i.e. geotechnical investigations, a topographical survey and a drone survey) along the foreshore and coastal area of two sections of the island and resort which were exhibiting signs of distress and erosion. The two areas are adjacent to two structures known as the Royal and beneath the Rock restaurant. The objective of the survey was to capture the area that is to be rehabilitated and also survey the surrounding existing land features.

At the end of January, 2025, we had mobilised to Vomo Island via a ferry ride from Lautoka Fisheries Wharf to Vomo Island which was approximately, a 40 minute ride. Our accommodation for the 7 nights was at the staff quarters located near the resort.

We initially started our survey work locating control stations. These are usually buried at 0.5 to 0.7m beneath ground level and in a form of an iron rod. We had managed to locate a few survey stations, which we used for localisation and positioning our survey.

The two main areas of concern were surveyed using our RTK-GPS capturing the ground spot heights and the surrounding existing features. Once we had completed the topographical survey for the two sites we then proceeded to conduct drone photogrammetry using a DJI Phantom 4 Pro drone, to provide an aerial imagery of the sites.

As part of the scope of services, we were to conduct the drone survey for the coastal area for the entire island. This was quite a huge task as we were also required to carry our survey gear through thick bushes and vegetation and also trek up the hilly terrain on the island. Each day, we thoroughly planned our individual tasks that we needed to complete each day. It took us 4 days to complete the survey for the coastal area for the entire island.

Vomo Island—Drone Survey (continued)

Challenges:

Our first obstacle that hindered our survey was wet weather. Whenever rain fell, we had to stop our drone survey to protect our equipment from getting wet. The second obstacle was the breakdown of communication. As we had to go our separate ways to tend to our individual tasks, the inability to communicate with your teammate was problematic. We managed to overcome this obstacle by pre-planning a day before and also, synchronising the timer on our individual mobile phones on the next meeting location before moving forward to a new site. These obstacles presented a huge challenge to completing our survey within the scheduled timeframe. With the sheer power of will and determination, we managed to overcome the obstacles which popped up and we successfully complete our surveys to a high standard of finish.

Author: Fereti Finiasi

Directors Corner



This year has got off to a lightening start following our recent completion of the Civil Design (by the Nadi Office) for the Tropik Wood Industries Limited (TWIL) Mahogany Timer Mill and commencement of the Tender Processes for the civil works. This initial period for 2025 was a milestone for *Erasito* with having an all-female team mobilise to a site located at Vomo Island in the Mamanuca Group to conduct a series of Geotechnical Investigations. Despite the harsh temperatures and relative isolation from the mainland, our ladies, Nidhi Nand and Tulia Katafono, completed the work that was assigned to them and within the given timeframe. With interest, we look forward to what the next stage of the year brings to us.

Author: Terence Erasito

