



Pacific  
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Communauté  
du Pacifique

# Fiji Geodetic Datum Surveys



## PACIFIC COMMUNITY DATA RELEASE REPORT No. 7/2022

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## TABLE OF CONTENTS

Acronyms.....	4
Acknowledgement .....	6
Executive Summary .....	7
Background.....	8
Introduction.....	9
National Development Plan, PGSC Strategy & UN-GGIM IGIF .....	11
Objective .....	15
Project Collaborations .....	16
Survey Equipment & Accessories.....	19
Geodetic Survey Capacity.....	20
Geodetic Survey Data and Information .....	21
Field Survey Methodology .....	22
GNSS CORS in Fiji.....	23
Fiji Geodetic Survey Stations.....	37
Survey Data Conversion .....	41
Fiji Geodetic Survey Occupation Summary .....	44
Geodetic Survey Station Coordinates .....	54
Data Processing .....	63
Challenges & Issues .....	63
Benefits.....	65
Future Directions.....	66
Lessons Learnt .....	67
Reference .....	68
Appendix 1: Geodetic Survey Station Field sheets.....	69
Appendix 2: Locality Diagram Pages .....	223

## Acronyms

AUSPOS	-	Australia Online GPS Processing Service
APREF	-	Asia-Pacific Reference Frame
APRGP	-	Asia Pacific Regional Geodetic Project
BoM	-	Bureau of Meteorology
BM	-	Benchmark
CD	-	Chart Datum
CORS	-	Continuously Operating Reference Station
COSPPac	-	Climate and Oceans Support Program in the Pacific
DBM	-	Deep Benchmark
EGM	-	Earth Geoid Model
ENC	-	Electronic Navigational Charts
FMG	-	Fiji Map Grid 1986
FTP	-	File Transfer Protocol
GA	-	Geoscience Australia
GEM	-	Geoscience, Energy & Maritime
GGRF	-	Global Geodetic Reference Framework
GNSS	-	Global Navigation Satellite System
GPS	-	Global Positioning System
ICT	-	Information & Communication Technology
IGS	-	International GNSS Service
IHO	-	International Hydrographic Office
ITRF	-	International Terrestrial Reference Framework
ITRS	-	International Terrestrial Reference System
LAT	-	Lowest Astronomical Tide
LGO	-	Leica Geo Office



MSL	-	Mean Sea Level
MLMR	-	Ministry of Lands and Mineral Resources
PGSC	-	Pacific Geospatial and Surveying Council
PPK	-	Post Processed Kinematic
PS	-	Principal Surveyor
PSLGMP	-	Pacific Sea Level & Geodetic Monitoring Project
RASVY	-	Royal Australia Survey Corps
RINEX	-	Receiver Independent Exchange Format
SG	-	Surveyor General
SOP	-	Standard Operating Procedure
SOPAC	-	Pacific Islands Applied Geoscience Commission
SPC	-	Pacific Community
SSBM	-	Standard Surveys Benchmark
TBC	-	Trimble Business Centre
TGZ	-	Tide Gauge Zero
TM	-	Transverse Mercator
VRF	-	Vertical Reference Frame
UAV	-	Unmanned Aerial Vehicle
UN-GGIM	-	United Nations Global Geospatial Information Management
UN-GGIM AP	-	United Nations Global Geospatial Information Management for Asia Pacific
UTM	-	Universal Transverse Mercator
UKHO	-	United Kingdom Hydrographic Office
WGS 72	-	World Geodetic System 1972
WGS 84	-	World Geodetic System 1984

## Acknowledgement

Ministry of Lands and Mineral Resources of the Government of Fiji would like to acknowledge the good support and kind assistance provided by the Climate and Oceans Support Program in the Pacific (COSPPac) supported by Government of Australia and Geoscience Australia to complete the geodetic surveys of the islands in Fiji, from November 2019 to February 2020 and the compilation of data and information for the modernisation of the Fiji Geodetic Datum from March to December 2021.

This activity of “*Geodetic Data Compilation*” was generously successful through the COSPPac program staff; the Geodetic Unit, based in the Oceans and Maritime programme at the Geoscience, Energy and Maritime Division of the Pacific Community (SPC). Since there was COVID-19 lock down, this activity was well executed during the time frame stated above.

The survey equipment donated by Geoscience Australia, to the SPC PGSC Partnership Desk, enabled the project survey activities and the capacity for surveyors.

The COSPPac program has been supporting the Pacific Geospatial & Surveying Council (PGSC) since November 2014. SPC has established the PGSC Partnership Desk to provide support and assistance in the geospatial and surveying activities in the region.



# Executive Summary

Fiji is advancing from the geodetic datum (mapping reference system) defined in 1986 based on World Geodetic System 1972 (WGS72) ellipsoid, to a modern datum, that is globally recognised. In doing so it would be introducing a datum which is totally compatible with the rest of the world and has been adopted by other countries in the region too, such as Australia, New Zealand, Niue, Samoa, Tonga. The new datum has a range of socio-economic benefits and opportunities to the wider communities.

A diverse range of stakeholders relies on geospatial data and information, that must be aligned to the global geodetic reference frame and in Fiji's case, that comes as a challenge to align the two different system, one good example is that all the land parcels in Fiji, is on the Fiji Map Grid reference system and as such, when overlaid against the Google Earth, there is a displacement in positioning.

With the government endorsement and funding, Fiji's Lands & Survey Department in collaboration with the Fiji Hydrographic Office, Pacific Community and Geoscience Australia carried out the geodetic surveys in Fiji's archipelago, Rotuma and Ceva-i-ra with the utilization of the Global Navigation Satellite System (GNSS) Technology, in this modern day and age. Many of the remote areas and the maritime islands have insufficient or no geodetic stations at all and that could deprive them of land development works, cadastral surveys, and mapping.

In the course, of the modernisation of Fiji's Geodetic Datum, the Control Section of Lands & Survey Department has established eight (8) GNSS COR Stations in Vanua Levu, Taveuni, Kadavu, Rotuma, Lakeba and Ono-i-lau, to strength the geodetic reference frame in Fiji. In addition, the GNSS CORS in Lautoka and Suva, which has been in operation for more than a decade, will add further value to define the parameters of Fiji's new geodetic datum.

The Fiji Geodetic Datum Surveys project involved more than 60 personnel for this campaign and was undertaken cooperatively by the Department of Lands and Survey, the Fiji Hydrographic Service, the Fiji Navy, and the Geoscience Energy & Maritime Division of the Pacific Community. The geodetic surveys commenced in November 2019, and a total of one hundred and ninety-three (193) geodetic control stations were occupied using the GPS/GNSS technology during the three (3) phases: -

- Phase 1; 10<sup>th</sup> to 17<sup>th</sup> November 2019
- Phase 2; 8<sup>th</sup> to 15<sup>th</sup> December 2019
- Phase 3; 26<sup>th</sup> January to 2<sup>nd</sup> February 2020

A number of these stations are existing Doppler stations and first order trig stations which were observed in the early 1980's. Integrated with the observation of these stations were many selected first order trigonometric geodetic stations on Viti Levu and Vanua Levu and the mentioned maritime islands with a lot of selected standard survey marks in major towns and cities.

The raw data acquired during the Fiji geodetic survey campaign has been verified and validated as part of this data release report, further processing and analysis will be completed. The compilation of the data sets and meta data was completed from March to December 2021.

## Background

In 1979, Royal Australia Survey Corps (R.A.S.C.) carried out a doppler satellite control survey of the Fiji group where eighteen (18) stations were established. The establishment of Doppler on these stations enabled the whole network to be aligned, adjusted and adopted to an internationally accepted datum then WGS72. This project was primarily completed to define the maritime boundaries of the Fiji Islands, which was deposited to the United Nations in 1980.

And then in 1983, through the NZAID project, New Zealand appointed a triangulation aid advisor to assist the Fiji Department of Lands and Survey in planning for and obtaining the data necessary to support a new, consistent, and accurate datum; Fiji Map Grid 1986. Field work began in the 1984 field season (May-July) and was completed in the 1985 season. This project proceeds to the observational data sets using theodolite and electronic distance measuring (EDM) equipment to define the new datum. A total of one hundred and twelve (112) stations were observed in Viti Levu, Vanua Levu, Kadavu, Taveuni, Ovalau. Preliminary data analysis and the final adjustment of this project to provide the primary stations in the Fiji Geodetic Datum (FGD) 1986 is being published in the Survey Review Volume 30, 1989 - Issue 231.

Fiji's existing geodetic network (triangulation and the trilateration) interconnects the outermost islands and is currently defined in terms of the mapping reference system; based on World Geodetic System 1972 known as Fiji Map Grid 1986 which is not internationally aligned with the current mapping reference system, here is an offset in location between the two. The new Fiji Geodetic Datum will be based on an internationally recognized reference system.

Parameters	FMG 1986
Central Meridian	178° 45' 00" E
Latitude of Origin	17° 00' 00" S
Zone Width	6°
Scale Factor	0.999854
Projection	Transverse Mercator
Spheroid	WGS 72
False Easting	2 000 000m
False Northing	4 000 000m

*Table 1: showing the parameters for the Fiji Map Grid 1986 based on WGS72 spheroid*

It was not that late, the World Geodetic System 1984 and the International Terrestrial Reference System was defined and adopted as the new Global Geodetic Reference Frame. It was not until 2005, the survey teams from Control Section, Fiji Hydrographic Office and SOPAC collaborated to undertake another geodetic survey campaign in 2007 and 2008 to occupy twenty-seven (27) geodetic stations for the definition of the maritime boundaries in the international reference system. All the GPS data was post-processed by Geoscience Australia with a set of 7 parameters transformations established.

# Introduction

Fiji moved the motion at the United Nations General Assembly 2015 for a global geodetic reference frame for sustainable development, the Resolution (A/RES/69/266) “A Global Geodetic Reference Frame for Sustainable Development” was adopted by the United Nations General Assembly in its 80<sup>th</sup> plenary meeting held on 26<sup>th</sup> February 2015. This reference framework has already been used by many developed countries including Australia and New Zealand in defining their new geodetic datum based on ITRS, with Fiji, to adopt, align and modernize its geodetic datum and following the ten-year regional strategy (2017 - 2027), for the Pacific Geospatial and Surveying Council Strategy Goal 2; Countries across the pacific region to adopt the Global Geodetic Reference Frame (GGRF) and improve technology underpinning geospatial systems and applications.

A cabinet memorandum – “Modernizing Fiji’s Geodetic Datum” (CP (15)169) dated 29<sup>th</sup> August 2015, by the Minister for Lands and Mineral Resources was accepted and endorsed by cabinet via decision no. 207. An approved budget of FJ \$2,546,560 for three years, enabled the Ministry to embark on this very important project and with approval from the cabinet, the Control Section was able to implement the activities for the Global Geodetic Reference Frame.

To modernise the Fiji Geodetic Datum, the Control Section of Lands & Survey Department of Fiji, has developed its geodetic infrastructure, with the establishment of the GNSS CORS network and to reinforce the geodetic survey network, established geodetic survey benchmarks were occupied during the survey campaign.

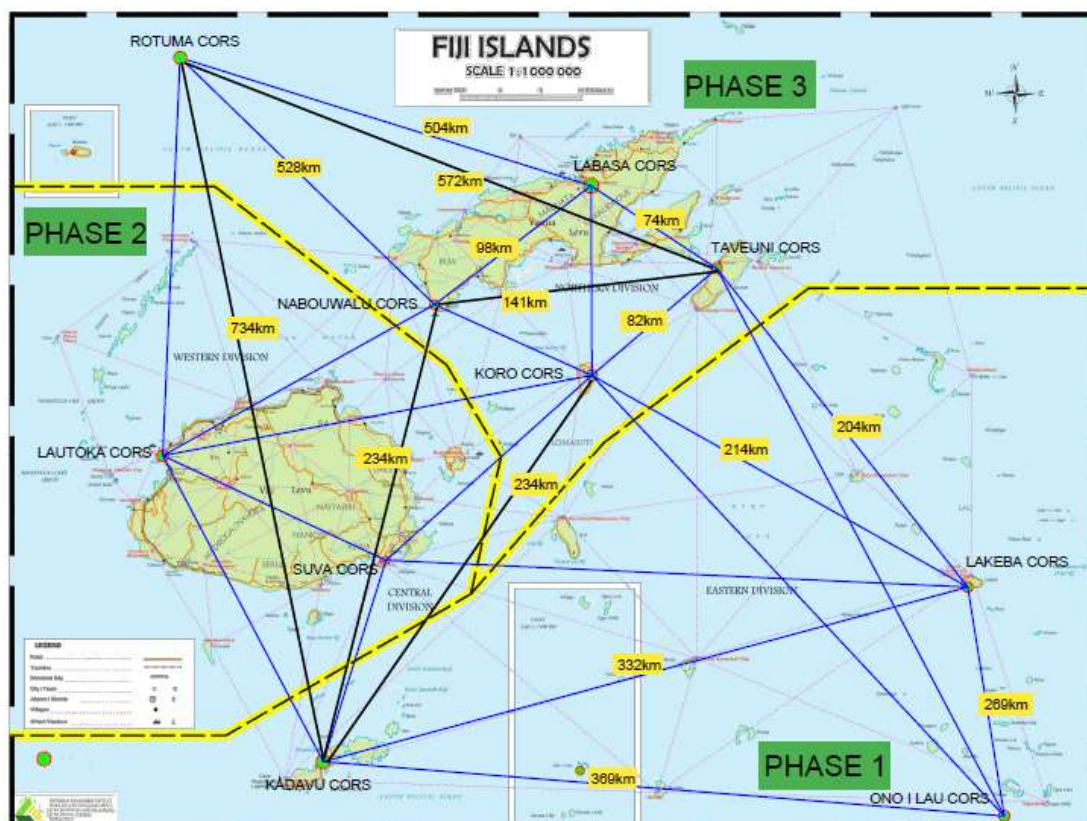


Figure 1: Fiji Geodetic Datum Surveys Campaign Sites as per phase, 1, 2 and 3

The existing geodetic stations across the Fiji Islands including Rotuma, that were occupied in the field survey campaign sets the base to determine the new transformation parameters (reference frame) for Fiji's new Geodetic datum.

The field survey campaign specifications were set out for the field survey completed and with follow on data preparations with adherence to these standards and specifications ensured that the data acquired at each observation site, all GNSS survey data, meta data and information facilitates for post-processing and analysis.

All the geodetic survey activities such as the GNSS CORS and the survey campaigns contributed to the 60% completion of the project. The data compilation, processing, analysis, adjustment and computations and transformation of the survey data will be the area of focus to bring the project to 90% completion. The balance 10% will influence all the geospatial data and information, which exists in FMG 1986 to be transformed in GGRF. This may take a specialized task force to complete and as such all the geospatial related government departments and institutes will need to collaborate further and beyond.

This report includes all the related information to modernize the Fiji Geodetic Datum Surveys with datasets, that will be sent to Geoscience Australia.

# National Development Plan, PGSC Strategy & UN-GGIM IGIF

**Fiji's National Development Plan (NDP)**, with the vision of *“Transforming Fiji”*, maps out the way forward for Fiji and all Fijians to realise our full potential as a nation. Fiji has a 20-Year Development Plan (2017-2036) and a comprehensive 5-Year Development Plan (2017-2021). These plans work together, as the 5-Year Development Plan provides a detailed action plan with specific targets and policies that are aligned to the long-term transformational 20-Year Development Plan.

This forward looking NDP is the outcome of a nationwide consultation process that involved the private sector, civil society, community groups, government, and the general public. It reflects the aspirations of the Fijian people, and the government's commitment to deliver on the goal, **A sound regulatory environment for inclusive and sustainable private sector development to: -**

- Enhance land use administration.
- Capacity building to develop the Fiji Geospatial Information System, National Land Bank and National Land Register.
- Support development of i'Taukei and State land to improve access for productive purposes.

The Ministry of Lands & Mineral Resources through the UN resolution of 2015 and through the Fiji's national development plan, provided the platform for budget support to upgrade the Geodetic Datum and included the work scope into their 5-year Strategic Plan: -

Programme	Responsible	2018 – 2019	2019- 2020	2020- 2021	2021- 2022	Output
Modernise Geodetic Datum	Surveying Division	Construction of five (5) CORS	Construction of three (3) CORS and Collection of GNSS data	Data Processing, Analysis, Adjustment and Transformation of the new Fiji Geodetic Datum	Completion of Fiji's Geodetic Datum	Eight (8) CORS & Modern Geodetic Datum

Fiji's national development plan is well aligned to adopt the regional strategy; *The Pacific Geospatial & Surveying Council Strategy 2017-2027* that supports capacity in **Positioning Pacific Island Countries and Territories for the Future**. Fiji plays an active role in the Pacific Geospatial & Surveying Council and is well by the Ministry of Lands & Mineral Resources and the Fiji Hydrographic Office.

This Strategy guides the members of Pacific Geospatial and Surveying Council (PGSC) toward achieving our vision of sustainable development in the Pacific, enabled by world class geospatial information and surveying services.

The PGSC has adopted this Strategy to guide the development of geospatial and surveying services over the next decade, ensuring that National Lands & Survey Departments, Hydrography Offices, and Geospatial Units can fulfil their responsibilities and expand their capabilities.

The long-term goal of the strategy is that Pacific Island survey and geospatial services are sufficiently resourced to respond to member country needs and geospatial requirements for sustainable development.

This long-term goal is supported by the four priority areas for action (goals) identified in the Strategy and one of the goals that is aligned to this activity is: -

***Goal 2: Adopting a modern Geodetic Reference Frame (GRF) and improving the technology underpinning geospatial systems and applications***

*“With the long-term outcome of the Goal 2 of PGSC Strategy, is to reinforce the vital role of accurate positioning in economic and social development and national planning processes. Transitioning to the standard global coordinate system is an involved process and requires significant investment on the part of individual countries, but it is a requirement for countries to participate in the increasingly global systems of industry, trade, transport, tourism, geospatial monitoring and mapping. Upgrades to current geodetic infrastructure, technology, and data management are required steps in this process.”*

Expected intermediate outcomes of Goal 2 of PGSC Strategy includes: -

- Strengthened national geospatial and surveying legislation.
- Improved national geospatial and surveying information management.
- Members’ geospatial and surveying technology, software and geodetic infrastructure are upgraded, maintained, and appropriate training provided.
- Members modernise their respective geodetic reference frame.

The Pacific Geospatial and Surveying Council Strategy articulates how Pacific Island Countries and Territories will modernise geodetic infrastructure, develop the capacity of their surveyors and utilise geospatial information to achieve the UN 2030 Agenda for Sustainable Development. The incremental, realistic and people-focused approach by the PGSC to build “fit for purpose” and sustainable geospatial infrastructure to facilitate integrated land and marine administration systems and good governance.

And as such, through good coordination and good collaboration, Fiji’s Ministry of Lands and Mineral Resources through this activity to adopt, align, and operationalise the UN-GGIM Integrated Geospatial Information Framework (IGIF) to strengthen the national geospatial information management arrangements within Fiji.

Fiji together with Tonga is one of the implementing agencies of the Integrated Geospatial Information Framework (IGIF) and is one of the pilot study areas in the region.



*“Strengthening national geospatial information management arrangements in Fiji, can be achieved through the implementation of an integrated approach to geospatial information management, aligned to national strategies and arrangements, and anchored into national development priorities. The IGIF is a multi-dimensional United Nations mandated Framework, aimed at strengthening national geospatial information management arrangements in countries, that responds to clear policy needs.”*

**The Integrated Geospatial Information Framework (IGIF) provides a basis and guide for developing, integrating, strengthening and maximizing geospatial information management and related resources in all countries. It will assist countries in bridging the geospatial digital divide, secure socio-economic prosperity, and to leave no one behind.**

***The IGIF comprises of three components: an overarching strategy, implementation guidance, and action plans at the country level.*** The Overarching Strategy sets the context of **'why'** geospatial information management needs to be strengthened and why it is a critical element of a nation's national priorities and development. It focusses on the role of geospatial information in the digital age and how that information is integral to government functions at all levels. The IGIF communicates this via vision and mission statements, seven principles, eight goals and nine strategic pathways. However, through the Implementation Guide, anchored by the nine strategic pathways, the IGIF provides the guidance on **'what'** actions can be undertaken to 'integrate' geospatial information with any other meaningful data to solve societal and environmental problems, and to provide understanding and benefit from a country's national priorities and development and the SDGs. The Country-level Action Plan references the specific guidance, options and actions provided in the Implementation Guide, and is the process of building an IGIF for a nation, beginning with specific plans that align with a country's national priorities and circumstances. The country-level Action Plan is specific to each country, detail **'how'** the guiding principles, options, and actions recommended in the Implementation Guide will be carried out, **when** and **by whom**. The country-level Action Plan can be viewed as the 'requirements document' for national implementation.

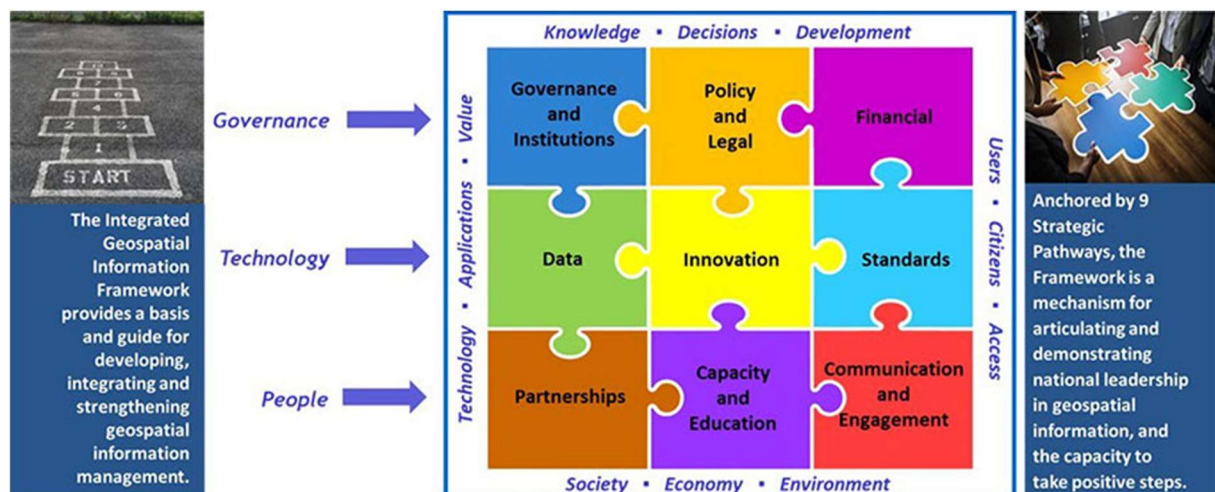
*Importantly, the IGIF is not an infrastructure. It is a standalone 'framework', independent of national spatial data infrastructures (NSDIs) and other infrastructures. The IGIF fundamentally recognizes, builds substantially upon, and augments previous investments and achievements in planning and implementing NSDIs. Beyond the traditional NSDI concepts and architecture, the IGIF focuses on the governance, legal, financial, capacity, and engagement processes necessary to collect, maintain, share and integrate geospatial information, through all levels of government and society, in a modern and enabling technology environment. This approach contributes to understanding capacity and capability shortcomings while building a more sustainable national geospatial information management program, aligned to national priorities and circumstances within a country.*

Geospatial information is a critical component of the national infrastructure and knowledge economy; a blueprint of what happens where, and the means to integrate a wide variety of government services. Yet there is still a considerable lack of awareness and understanding of the vital and integrative role of geospatial information and related enabling architectures, such as National Spatial Data Infrastructures (NSDIs), in contributing to national development.

Essential data management policies, practices, integration and analytical capacities are currently limited in many countries, and is still a significant challenge in Fiji.

Geospatial information has been typically collected in organisational silos, resulting in data duplication, and the use of different standards, formats and classifications. This has made data harmonisation, maintenance and integration problematic; therefore countries operationalize the IGIF with their own country action plans (CAP) that align with their countries' priorities and circumstances.

The country action plan (CAP) addresses each of the nine strategic pathways while considering the strategic and operational needs of a country when operationalizing the IGIF. Importantly, the CAP is a plan, not a program that is implemented. Each CAP is unique to a country, as it determines where they currently are in their capacity and capabilities, and reflects decisions made to advance and/or enhance national geospatial capabilities within that country, and where they want to be after planning for their integrated geospatial information management. Fiji is one of the countries closely working with UN-GGIM for the implementation and operationalisation of IGIF.



The IGIF focuses on location information that is integrated with any other meaningful data to solve societal and environmental problems, acts as a catalyst for economic growth and opportunity, and to understand and take benefit from a nation's development priorities and the Sustainable Development Goals (SDGs). This project underpins the seventeen (17) UN-SDGs but at this stage, this activity has achieved to or will address the following UN-SDGs:



# Objective

Fiji endorsed to modernize its geodetic datum in accordance with United Nations resolution A69/266 – “A Global Geodetic Reference Frame for Sustainable Development” in its 80th plenary meeting held on 26th February 2015 and of the United Nations General Assembly in March 2015.

Therefore, the principal objective of the Fiji geodetic datum survey campaign, is to establish a fundamental global coordinate reference framework and align it in terms of the global geodetic reference frame; International Terrestrial Reference System (ITRS) for all the islands in the archipelago, including Rotuma and Ceva-i-ra.

The purpose of this data release is to complete the compilation, manipulation, and delivery of all the survey data and information; in detail, the following tasks were completed for data handling: -

- Download all the GNSS survey data from the survey campaigns
- Download all the available GNSS survey data from the GNSS CORS
- Download all the UAV data from the field surveys for the survey campaign (Phase 1)
- Check, verify and validate GNSS survey datasets and make correctness for occupation time, antenna height, file format, file type, file structure and point ID of all the individual geodetic stations.
- Convert all the GNSS raw survey data (Leica, Hi-Target and Trimble) of the survey campaigns in RINEX format using the converter utility tool
- Complete the locality diagram pages as per individual geodetic stations
- Complete the field occupation sheet for all the individual geodetic stations
- Collect and complete the metadata table of the geodetic stations as per type, original coordinates, origin of survey, geodetic datum
- Complete the occupation summary report of all geodetic stations
- Complete the RINEX data summary report as per individual geodetic stations
- Archive all the geodetic survey data sets accordingly for post processing and analysis
- Upload all the RINEX data for all the individual geodetic stations on AUSPOS
- Assess and provide options for good data handling, data accessibility, data storage and archive, data management of all the GNSS survey data and GNSS CORS
- Arrange to deliver the report and all the GNSS survey data to Geoscience Australia
- Make provisions for the GNSS CORS to be part of the APREF network

## Project Collaborations

The participating institutions in the geodetic survey campaign are as follows:

1. Control Section, Lands & Survey Department, Fiji
2. Lands and Survey Department Divisional Lands Office – Central Eastern
3. Lands and Survey Department Divisional Lands Office – West
4. Lands and Survey Department Divisional Lands Office – North
5. Lands and Survey Department Geospatial Information Management Division
6. Fiji Hydrographic Office (Fiji Navy)
7. Lands & Survey - Tuvalu
8. Ocean & Maritime Programme, GEM Division – Pacific Community (SPC)

The following personnel were involved in the field survey campaign from their respective offices: -

1. Control Section, Lands & Survey Department, Fiji

Paserio Samisoni	Sanjesh Kumar
Aisea Sakumeni	Aliposo Tomasi
Savenaca Sova	Daniel Kalisito
Basilio Labaibure	Isaac Rigamoto
Aseri Baleitamana	William Caesar
Navitalai Nabuca	Vorokisi Natutusau
Silio Ravuru	Livi Yavala
Joep Volavola	Semi Sivo
Jesoni Bo	Nikolau Seduadua
Waisale Waqaliva	Vasemaca Tamani
Gabiriele Vosamosi	Asaeli Cavuilagi
Marawa Cabemaiwai	Kolinio Kurumudu
Amrit Deo	Pene Tevite Samisoni
Vereniki Loba	Savenaca Cavalevu

2. Lands and Survey Department Divisional Survey Office – Central Eastern

Alipate Raikabula	Josaia Sukanasau
Josefa Nasali	Newal Kishore
Mesulame Ramoala	Luke Tuinavitlevu
Josefa Naikaukau	Josefa Sakaraia
Jone Darunibaka	Akasio Yavala
Pio Manoa	Sitiveni Tikoduadua
Epeli Tawake	

3. Lands and Survey Department Divisional Survey Office – West

Peniasi Rokula	Atunaisa Ralulu
Luke Tuinavitilevu	Taivesi Waqalevu
Eroni Raikoti	Kesa Dumukuro
Abinesh Chand	Vivita Nimilote Jnr
Wame Duve	Vetaia Kamikamica
Navinesh Kumar	Kemueli Masikerei
Ilaitia Vivita	Waqawai Vakawale
Vilimaina Batirerega	

4. Lands and Survey Department Divisional Survey Office – North

Avitereki Tukuwasa	Nemani Ratukonadi
Mesake Bainiwai	Rajneel Ram
Josefa Seniloli	Inia Waqa
Alex Bubu	

5. Lands and Survey Department Geospatial Information Management Division

Tevita Vakataga	Joape Degei
-----------------	-------------

6. Fiji Hydrographic Office (Fiji Navy)

Lui Tawake	Kolinio Qiqiwaqa
Isikeli Seduadua	Sikeli Raleba
Pio Naboseyawa	Osea Matalolokula
Vakamino Panapasa	Sireli Savutila
Nasoni Kididromo	Jone Yavala
Wame Cagicaucou	Palu Soqoiwasa
Abaramo Matalomani	Avete Badui
Daniel Cativakalakeva	Elimi Kurusiga
Jashneel Maharaj	Levani Neimila
Naomi Naituivau	Michael Brown
Viliame Cataki	Jolame Mateyawa
Benjamin Wilson	Josua Vuetiviti
Maki Kulanikoro	Panapasa Vakamino
Rusiate Seduadua	

7. Tuvalu Lands & Survey Department

Ielemia Maheu	Ane Talia
---------------	-----------

8. Oceans & Maritime Programme, GEM Division – Pacific Community (SPC)

Marika Kalouniviti	Poate Degei
Veenil Rattan	Donato Roqica
Gary Lee	

The following means of transportation was used in the project during the geodetic survey campaign: -

1. Government vehicles on the ground

GN 623	GR 546
GR 578	GQ 305
GR 323	GQ 850
GR 193	

2. Naval vessels and local ferries to maritime islands

RFNS Kacau	RFNS Kikau
RFNS Kula	MV Lomaiviti Princess 7
MV Lomaiviti Princess 3	MV Lomaiviti Princess 5

## Survey Equipment & Accessories

Several weeks before the survey teams departed for the field survey campaign, the Control Office of Ministry of Lands & Mineral Resources, managed to acquire all that were required of a field survey team.

The following were the main items used in the field surveys: -

- Trimble R10 GNSS
- Trimble NetR9 GNSS Receivers with Trimble Zephyr Model 2 Antenna
- Trimble R8 GNSS Receivers
- Leica GS10 Receivers with
- Leica GS16 Receivers with
- Leica GPS 1200 Receivers with LEIAX1202 Antenna
- Leica GRX1200+ GNSS Receivers with Trimble Choke Ring Antenna
- Leica Survey Tripods
- Trimble Survey Poles with Bipods
- Leica Tripods
- 12V batteries (deep cycle)
- Camping tents
- Sleeping bags
- Tarpaulins
- Portable gas stoves for cooking
- Torches plus spare torch batteries
- Carry bags
- Cooking pots plus utensils and cutlery
- Jerry cans for water storage
- Chainsaw (spare chains and fuel)
- Ropes
- Portable power generators

## Geodetic Survey Capacity

The two-day workshop that was held on 30<sup>th</sup> and 31<sup>st</sup> October 2019, facilitated by the Senior Geodetic Surveyor of SPC and the PGSC Partnership Desk Officer and the Project Manager from the Control Survey Office of the Lands and Survey Department.

The workshop was held at the SPC office at Lotus Building, Nabua and it was attended by more than fifty (50) staff from the Lands and Survey Department and the Fiji Hydrographic Office. The main purpose of the workshop was to build capacity in the operationalisation of the Geodetic Surveys using the GNSS technology. The range of topics in this workshop included Fiji's Geodetic Reference System, GNSS Technology and concepts, GNSS CORS with field practice on the GNSS survey equipment (Leica and Trimble) set up and functions using the field survey operational guideline.

Seven (7) sets of GNSS survey equipment sent from Geoscience Australia (GA), through SPC and in addition to the five (5) from SPC and plus the eleven (11) from the Lands and Survey Department; in total twenty-one (21) of GPS/GNSS Receivers; hands-on training was put in place to ensure all the team leaders/operators are more than confident to maximize the use of these equipment.

A total of forty (40) operators attended the training held at the Geodetic Survey Office at Berkeley Crescent, off Cakobau Road, the training went on, from setting up to powering the equipment and measuring – tracking satellites and storing the raw data on the equipment. Also, in addition to this all operators were required to fill the log sheets accordingly.

As part of the GNSS geodetic operations workshop, attachment with SPC (GEM division) on data management and processing and online training (training with GA on CORS operation) and following the COVID-19 lockdown, the survey personnel were able to build capacity in the following: -

- GNSS CORS infrastructure, geodetic survey campaign data and metadata
- Maintenance and operationalisation of the GNSS COR station
- Handling and management of GNSS CORS data, geodetic survey campaign data and metadata
- Project scope, necessary requirements and documentation of the geodetic survey campaign
- Capacity in field survey procedure
- Raw data conversion to RINEX format
- Online data processing - AUSPOS data submission and requirements
- GNSS equipment operations – ability to use different GNSS survey equipment
- Proper data manipulation (slicing, combining and decimate, etc)
- Use of different converter utility tools and software: -
  - TEQC (UNAVCO)



- Trimble RINEX converter
- Leica Geo Office
- Trimble Business Centre
- Hi-Target Geo Office
- Online resources
  - Antenna calibrations (<https://geodesy.noaa.gov/ANTCAL/>)
  - Four-character point ID checks (<http://sopac.ucsd.edu/checkSiteID.shtml>)
- RINEX data formatting (point ID, antenna type, antenna height, antenna code, version)
- Next steps for the GNSS CORS and the geodetic survey data management

## Geodetic Survey Data and Information

The following is the list of survey datasets and information packages that was checked, verified, reviewed and validated by the Control Section and Geodetic Unit of SPC and will be further post processed and analysed: -

- RINEX Data for the geodetic stations and GNSS CORS.
- Field Sheets
- Locality Diagram Pages
- Geodetic Survey Station metadata (station coordinates, source files, occupation summary)
- Historical Survey Information
- AUSPOS Reports

## Field Survey Methodology

The field survey success is based on good collaboration and coordination, the survey teams were able to carry out the surveys with good weather conditions and with the good assistance from the other organisations, government departments, communities and turaga-ni-koro in Fiji, the following order of survey activities was undertaken to complete the Fiji geodetic datum surveys: -

### Reconnaissance Surveys

After the establishment of the GNSS CORS network, the Control Office carried out the two reconnaissance surveys to locate the existing geodetic survey benchmarks that will be part of the Fiji geodetic datum surveys. These geodetic survey benchmarks were cleared of undergrowth and the surroundings with trees for clearance of the trees and make access for the survey teams.

In Viti Levu, total of forty-five (45) geodetic stations that included first and second order trig stations and standard survey benchmarks, whereas in Vanua Levu, Taveuni and Rabi, total of forty-two (42) geodetic stations that included first and second order trig stations and standard survey benchmarks. Whilst the old geodetic survey station benchmarks were recovered, a total of new survey geodetic survey benchmarks were established.

### Static Geodetic Control Surveys

All the geodetic survey stations were occupied with the dual frequency GPS/GNSS survey equipment and a continuous static observation for seven (7) days on primary survey benchmarks or stations were completed and where required six (6) hours of GPS/GNSS observations were made onto the standard survey benchmarks. All the requirements were adhered to standards of geodetic control surveys such as elevation mask of  $10^\circ$  with good site clearance, antenna height was recorded with field sheets completed and data were recorded to maximum of 30 secs epoch rate. All stations had a 12-volt battery for power supply



Figure 2: Typical GPS/GNSS Geodetic Survey Station Setup

# GNSS CORS in Fiji

## Site locations

During the reconnaissance survey, the team focused on the rural Government Stations due to the availability of electricity power and security. It was also taken into consideration that all the Government stations are either on i'Taukei leased land or state-owned land. However, three of the sites selected are outside of the Government Station sites at their respective locations and they required proper leases.

- Labasa – Vaturekuka Govt. Station
- Nabouwalu - Nabouwalu Govt. Station
- Taveuni - Waiyevo Govt. Station
- Kadavu - Vunisea Govt. Station
- Koro Is. – Nasau Govt. Station
- Lakeba – Tubou Village
- Rotuma – Ahau Govt. Station
- Ono-i-lau Island – Matokana Village
- Suva – Mead Road, Nabua
- Lautoka – FSC Mill Compounds, Drasa Avenue

## Site Selection

The site selection involved ground stability, the site security Site security includes protecting the GNSS CORS site and equipment from theft, vandalism, weather, lightning, animals and insects, and access to utilities. The following factors were thoroughly considered for the GNSS CORS: -

- Significant signal obstructions
- Potential multipath and Radio Frequency Interference (RFI) sources
- Access restrictions
- Access to available power and communications
- Cable length requirements
- Human, pest and environmental site security issues
- Tenure and land ownership
- Potential changes to sky visibility from tree growth and development at adjacent sites, does not have interference with the GPS/GNSS frequencies and not close to any telecommunication mast – 360° sky clearance

## Site Leases

Five (5) of the GNSS CORS were constructed within the existing Government Stations, where the land tenure is either State owned or leased and are namely:

- Labasa
- Nabouwalu
- Taveuni
- Kadavu
- Rotuma

All the government stations are either on i'Taukei leased land or state-owned land, however, three (3) of

- Koro
- Lakeba
- Ono-i-Lau

## Site Plans

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Fiji Geodetic Datum Surveys Data Release Report 7/2022

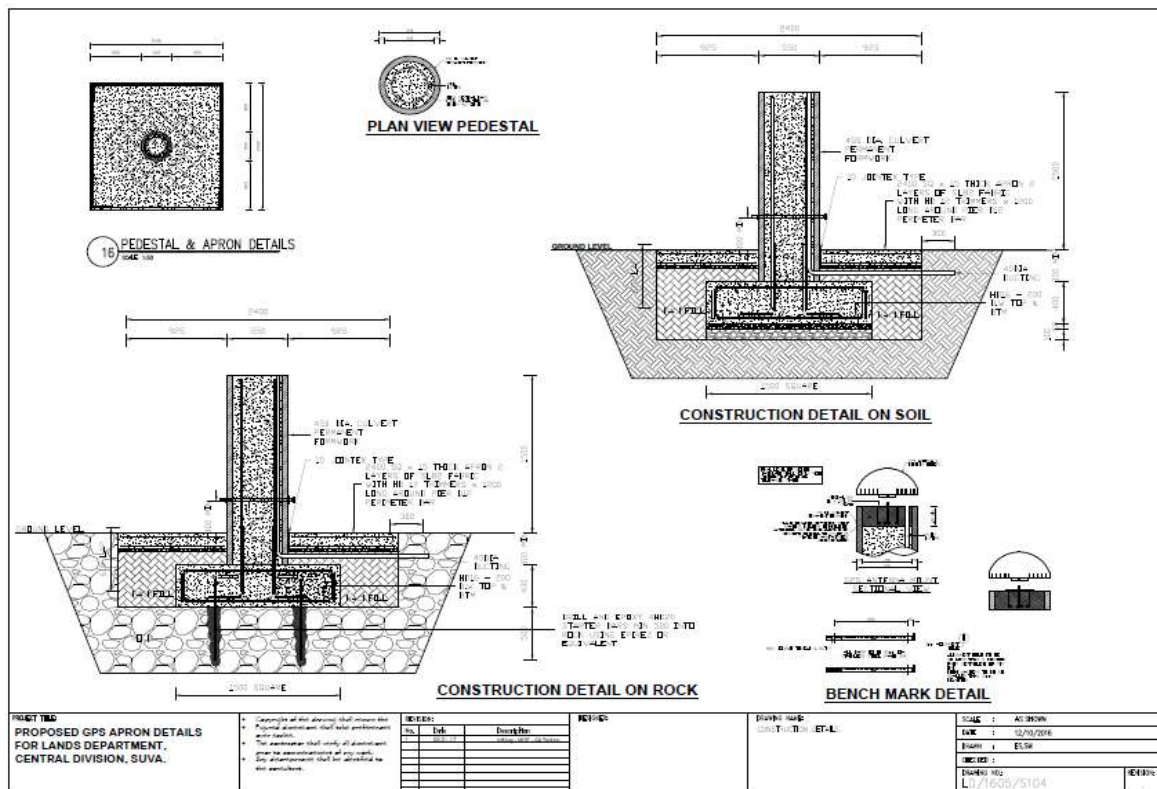


Figure 4: Design layout plan for the GNSS CORS Pillar at the sites; Note that 350mm diameter culvert used for formwork and not as per above drawing

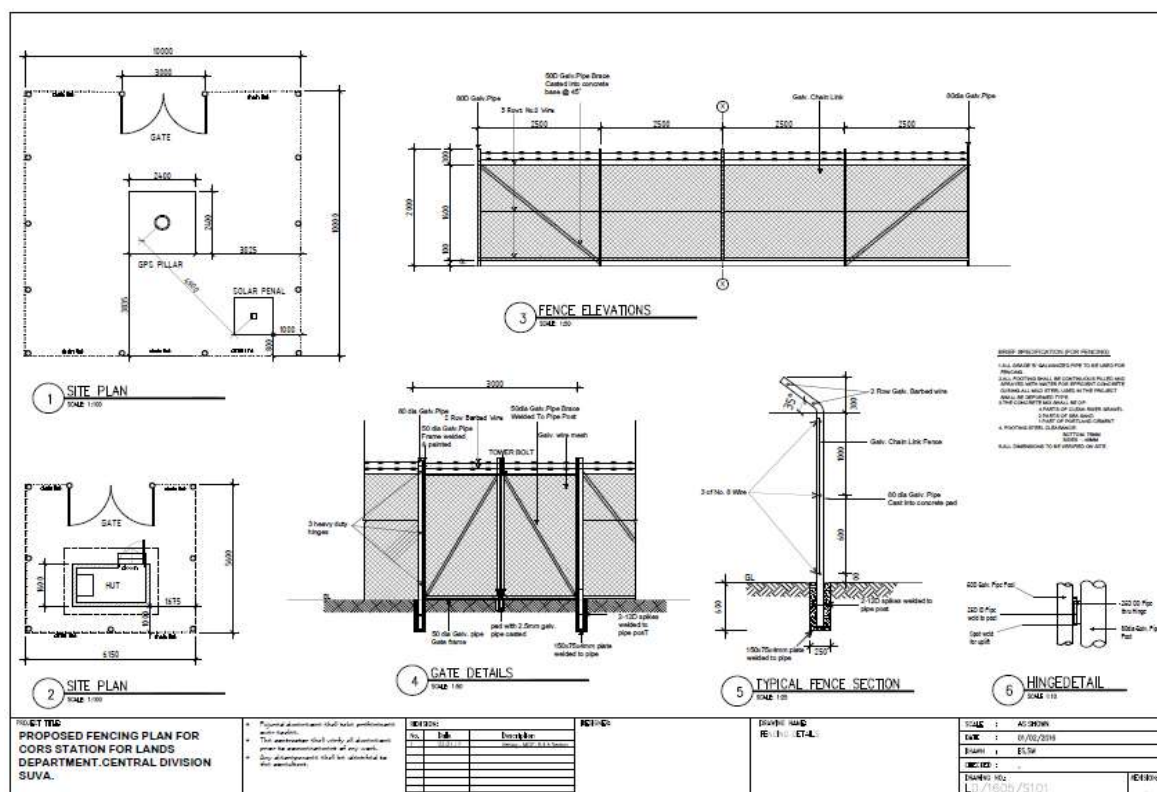


Figure 5: Design layout plan for the fencing around the GNSS CORS sites



## GNSS CORS Site Construction

The construction of the GNSS CORS commenced in November 2017, with the Labasa station up in Vanua Levu followed by two more in the North. In a span of 2 years all 8 GNSS CORS were constructed.

All the above works carried out at all the GNSS CORS sites were the same and construction of the stations on the maritime islands had difficulty due to the unreliable shipping services and the delay in the supply of building materials. It is also noted that the construction phase began soon after Category 5 Cyclone Winston and the team faced delays due to the short supply of building materials required.



*Figure 6: Construction of the GNSS CORS Pillar*



*Figure 7: Construction of the GNSS CORS hut*





Figure 8: Typical fencing around the GNSS CORS Pillar

## Infrastructure

The GNSS CORS have in place, a secured hut and pillar with all built to standards and complimented by periodic maintenance by the Control Office. All the GNSS CORS huts are equipped with air condition.



Figure 9: inside the GNSS CORS hut, typical set-up of the GNSS receiver with the internet router and the UPS.



Figure 10: Hi-Target GNSS Receiver and Antenna installed at the GNSS CORS Site in Labasa, Nabouwalu and Taveuni



Figure 11: Leica GNSS Receiver and Antenna installed at the GNSS CORS Site in Ono-i-lau, Lakeba, Koro, Rotuma and Kadavu



Figure 12: Trimble GNSS Receiver and Antenna installed at the GNSS CORS Site in Suva

## Power Supply

It is a requirement that every GNSS CORS be powered 24/7 in order to track satellite signals, but electricity is not available at most of the stations and thus the reason to provide solar power and battery backup. The company Clay Energy was contracted to provide this backup power supply and the following was carried out and completed:

- Labasa - electricity is available 24 hours daily but the battery power backup is installed
- Nabouwalu - electricity is available 24 hours daily and battery power backup is installed
- Taveuni - electricity is available 24 hours daily and battery power backup is installed
- Rotuma - electricity is available 18 hours daily and battery power backup is installed
- Kadavu - electricity is available 15 to 18 hours daily and battery power backup is installed
- Ono-i-lau - solar power 24/7 installed



- Lakeba - solar power 24/7 installed
- Koro - solar power 24/7 installed
- Suva - electricity is available 24 hours daily with backup generator
- Labasa - electricity is available 24 hours daily but the battery power backup is installed



Figure 13: Typical solar power set-up at the GNSS CORS Site in Ono-i-lau, Lakeba and Koro

## Site Access

All GNSS CORS sites are accessible by road and are authorised to site keepers and survey personnel. It is advisable to seek appropriate landowner's approval prior visiting the GNSS CORS site for any maintenance work.

## Data Access

The data is accessed through the ethernet service with a dedicated internet protocol, and it is downloaded daily onto the dedicated server through the Hi-Target web access portal.

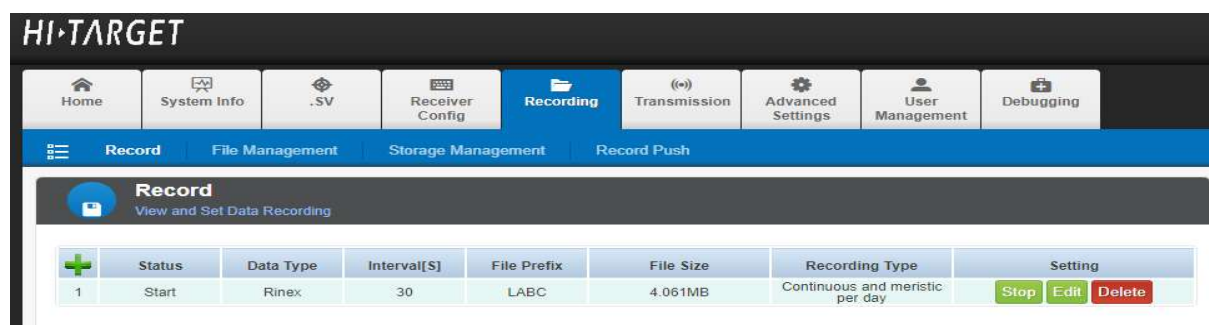


Figure 14: Hi-Target web interface for data recording

## Internet Service Provider & Server

Vodafone is currently the internet service provider to access all stations and there are two servers with one acting as a backup; the servers are housed in the Control Office.

## On-Site Download

The files are automatically downloaded daily through FTP, into a dedicated folder in the server

The Hi-Target software is currently used to manage all the GNSS CORS data.

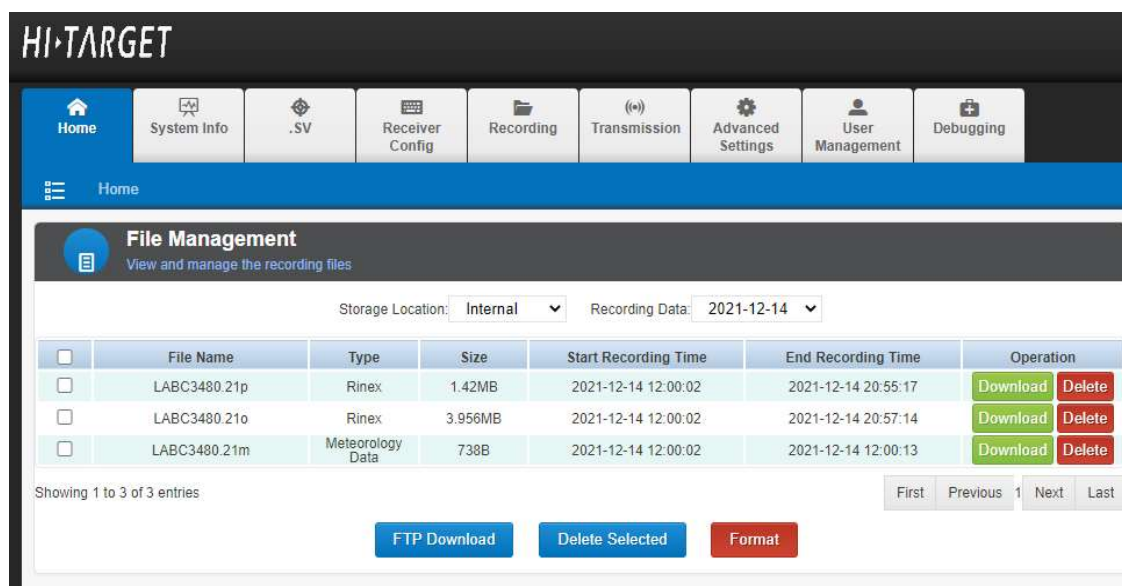


Figure 15: Hi-Target web interface for data types recording at daily session

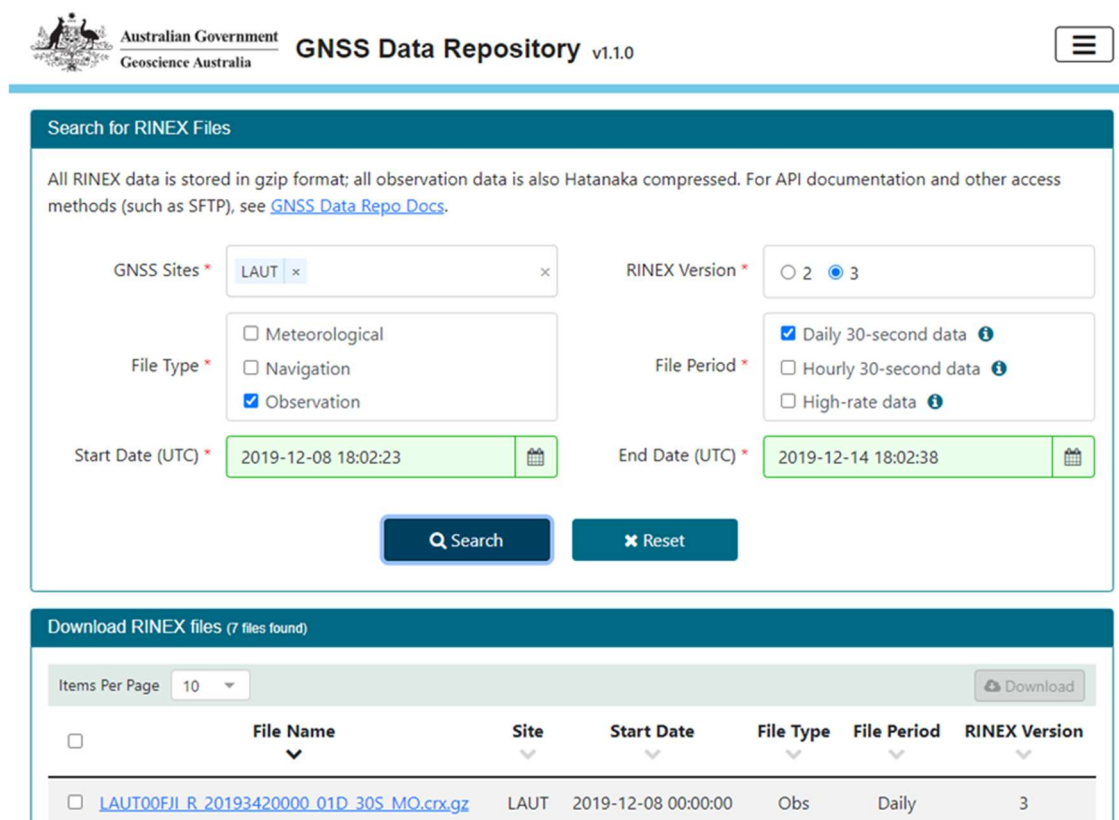


Figure 16: GA GNSS data repository web interface for data types recording at daily session

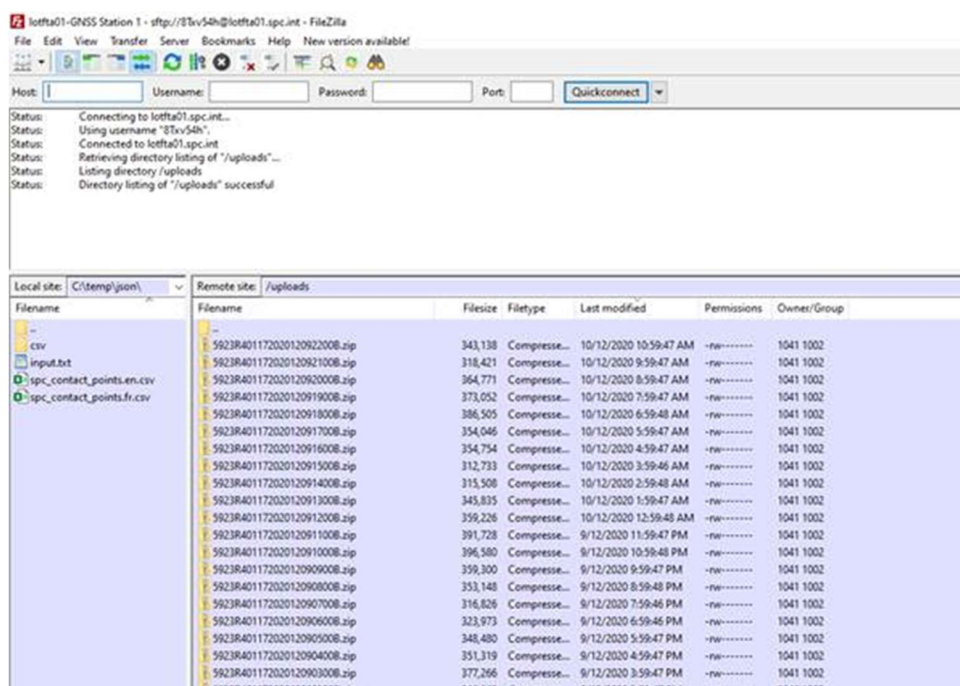


Figure 17: SPC GNSS data repository web interface for data types recording at daily session

## Data Storage and Archives

Data is stored onto the server and archived in the dedicated folder. The Hi-Target GNSS receivers have inbuilt 60GB storage space while Leica GR50 GNSS receivers have got 16GB memory cards

Station	Brand	Receiver	Antenna	Storage	Archived
Labasa	Hi-Target	VNET10T - D	AT-53501	Inbuilt - 60GB	Server
Nabouwalu	Hi-Target	VNET10T - D	AT-53501	Inbuilt - 60GB	Server
Taveuni	Hi-Target	VNET10T - D	AT-53501	Inbuilt - 60GB	Server
Kadavu	Leica	GR50	AR20	16 GB Memory Card	Server
Rotuma	Leica	GR50	AR20	16 GB Memory Card	Server
Koro	Leica	GR50	AR20	16 GB Memory Card	Server
Lakeba	Leica	GR50	AR20	16 GB Memory Card	Server
Ono-i-lau	Leica	GR50	AR20	16 GB Memory Card	Server
Lautoka	Javad	SEPT POLARX5	JAVRINGANT_DM	15 GB Memory	GA Server
Suva	Trimble	Alloy	JAVRINGANT_DM	24 GB Memory	SPC Server

Table 2: GNSS CORS storage on site in the receiver



## GNSS CORS Sites in Fiji

### Labasa



### Taveuni



## Nabouwalu



## Kadavu





## Rotuma



## Ono-i-lau



## Koro



## Lakeba





## Lautoka



## Suva





# Fiji Geodetic Survey Stations

The table below is the schedule for the geodetic stations occupied in Fiji during the survey campaign

Station ID	Location	Station Type	Source	Establish By	Year
LAUT	Drasa Ave, Lautoka, Viti Levu	GNSS CORS	PSLGMP	PSLGMP	2002
SUV1	Suva, Viti Levu	GNSS CORS	SPC	SPC	2018
LABC	Labasa, Vanua Levu	GNSS CORS	LANDS	Control Office	2018
NABC	Nabouwalu, Vanua Levu	GNSS CORS	LANDS	Control Office	2018
TAVC	Taveuni, Vanua Levu	GNSS CORS	LANDS	Control Office	2018
KORC	Koro Island	GNSS CORS	LANDS	Control Office	2018
LAKC	Lakeba, Island	GNSS CORS	LANDS	Control Office	2018
ONOC	Ono I Lau, Island	GNSS CORS	LANDS	Control Office	2018
KADC	Kadavu, Island	GNSS CORS	LANDS	Control Office	2018
ROTC	Rotuma, Island	GNSS CORS	LANDS	Control Office	2018
CEVA	Conway Reef, Ceva-i-ra Island	CONTROL STATION	EEZ SURVEY	Control Office	2007
KADV	Lomati Village, Kadavu Island	TRIG STATION	TD 88/R.A.S.C	Control Office	1937
NAKO	Vione Village, Gau Island	TRIG STATION	SO 4274	McCaw	1937
OALA	Naroi Village, Moala Is	TRIG STATION (1ST ORDER)	SO 4274	McCAW	1910
UNAV	Yadrana Village, Lakeba Is	TRIG STATION	SO 4347	McCAW	1910
CIKI	Cikobia I Lau Is, Lau Group	TRIG STATION	SO 2221	McCAW	1979
LULU	Cicia Is, Lau Group	TRIG STATION	SO 4274	McCAW	1979
MATU	Makadru Village, Matuku Is, Lau	TRIG STATION	SO 4274	McCAW	1979
ODRI	Ogea Is, Lau Group	TRIG STATION (1ST ORDER)	SO 4274	McCAW	1910
VATO	Vatoa Is, Lau Group	DOPPLER STATION	EEZ SURVEY	R.A.S.C	1979
ONOI	Ono-i-lau Is, Lau Group	DOPPLER STATION	EEZ SURVEY	R.A.S.C	1979
TUVR	Tuvan-i-ra Is, Lau Group	STANDARD SURVEY MARK	New Station	Control Office	2019
NAC2	Suva, Viti Levu	TRIG STATION (1ST ORDER)	SO 4344	McCAW	1910
BITU	Navua, Viti Levu	TRIG STATION (1ST ORDER)	SO 5132	McCAW	1910
NASE	Ucinivanua Village, Tailevu, Viti Levu	TRIG STATION	SO 4274	McCAW	1911
EKUB	Ekubu Village, Vatulele Island	TRIG STATION	SO 4672	McCAW	1911
ASAU	Nadroga, Viti Levu	TRIG STATION	SO 4672	McCAW	1911
MALO	Nadroga, Viti Levu	TRIG STATION (1ST ORDER)	SO 4672	McCAW	1910
LEVU	Taulevu Village, Naitasiri, Viti Levu	TRIG STATION (1ST ORDER)	SO 3829	McCAW	1910
KALI	Namena Village, Tailevu, Viti Levu	TRIG STATION (1ST ORDER)	SO 4274	McCAW	1910
MAGO	Bukuya Village, Ba, Viti Levu	TRIG STATION (1ST ORDER)	SO 2221	McCAW	1910
BULI	Nadi, Viti Levu	TRIG STATION (1ST ORDER)	SO 3515	McCAW	1910
TOMA	Navai Village, Naitasiri, Viti Levu	TRIG STATION (1ST ORDER)	TD83, SO7594	McCAW	1910
NDRO	Mataso, Ra, Viti Levu	TRIG STATION (1ST ORDER)	SO 4274	McCAW	1910
KAVU	Rakiraki, Ra, Viti Levu	TRIG STATION (1ST ORDER)	SO 3515	McCAW	1910
UIRA	Vatu I ra Is, Ra, Viti Levu	TRIG STATION (1ST ORDER)	SO 3515	McCAW	1910
DRAU	Vatia, Ba	TRIG STATION (1ST ORDER)	TD3	McCAW	1910
ROQE	Nailaga, Ba, Vitilevu	TRIG STATION (1ST ORDER)	TD3	McCAW	1910
LOAT	Vuda, Ba, Viti Levu	TRIG STATION (1ST ORDER)	SO 3540	McCAW	1910
MANF	Mana Is, Ba, Viti Levu	TRIG STATION (1ST ORDER)	SO 4920	McCAW	1910

Station ID	Location	Station Type	Source	Establish By	Year
TILI	Viwa Is, Ba, Viti Levu	TRIG STATION (1ST ORDER)	SO 4264	McCAW	1910
YAWI	Yawini Is, Yasawa Group	TRIG STATION	SO 3515	McCAW	1979
NASA	Koro Island, Lomaiviti	TRIG STATION (1ST ORDER)	SO 4274	McCAW	1910
TAVE	Navakawau Village, Taveuni	TRIG STATION (1ST ORDER)	SO 4274	McCAW	1914
ARIA	Qamea Is, Vanua Levu	TRIG STATION	SO 2221	McCAW	1979
MACA	Savusavu, Vanua Levu	TRIG STATION (1ST ORDER)	SO 4274	McCAW	1910
DELA	Navatu Village, Bua, Vanua Levu	TRIG STATION	EEZ SURVEY	Control Office	2008
SESE	Navunievu Village, Bua.	TRIG STATION	SO 6185	McCAW	1915
ROGA	Bua, Vanua Levu	TRIG STATION (1ST ORDER)	SO 6552 / SO 3524	McCAW	1910
WANI	Dreketi Govt Station	TRIG STATION (1ST ORDER)	SO 6185	McCAW	1910
BULE	Macuata, Vanua Levu	TRIG STATION (1ST ORDER)	SO 3542	McCAW	1910
GALA	Cakaudrove, Vanua Levu	TRIG STATION (1ST ORDER)	SO 6689	McCAW	1910
KIAS	Macuata, Vanua Levu	EEZ STATION	EEZ SURVEY	Control Office	2008
KOKA	Macuata, Vanua Levu	TRIG STATION (1ST ORDER)	McCAW	McCAW	1910
KALO	Namukalau Village, Vanua Levu	TRIG STATION (1ST ORDER)	McCAW	McCAW	1910
KAMA	Cakaudrove, Vanua Levu	TRIG STATION	TD59	McCAW	1913
QELE	Cakaudrove, Vanua Levu	TRIG STATION	TD59	McCAW	1979
QILO	Macuata, Vanua Levu	TRIG STATION (1ST ORDER)	McCAW	McCAW	1910
SOLE	Rotuma Island	CONTROL STATION	SO6449	EEZ Station	2008
RABE	Cakaudrove, Vanua Levu	TRIG STATION (1ST ORDER)	SO6689	Control Office	1910
C111	Cicia Is, Lau Group	STANDARD SURVEY MARK	SO 2460	Control Office	1987
CIJ1	Cicia Is, Lau Group	STANDARD SURVEY MARK	New Station	Control Office	2019
CP02	Cicia Is, Lau Group	STANDARD SURVEY MARK	New Station	Control Office	2019
BUAT	Vanuabalavu Is, Lau Group	TRIG STATION	SO 2490	Control Office	1987
LKRE	Bucabauca Reservoir, Lakeba	TRIG STATION	SO 4347	Control Office	1978
KQAL	Koroniqala Peak, Vodafone Mast	TRIG STATION	TD 88	Control Office	1937
LUGA	Muani Village	TRIG STATION	TD 88	Control Office	1937
VANA	Tuvana-i-ra Is, Lau Group	STANDARD SURVEY MARK	New Station	Control Office	2019
TUCO	Tuvana-i-colo Is, Lau Group	STANDARD SURVEY MARK	GA Record2008/04	Control Office	2008
GAA1	Gau Airstrip, Lovu village	STANDARD SURVEY MARK	New Station	Control Office	2019
GAA2	Gau Airstrip, Lovu village	STANDARD SURVEY MARK	New Station	Control Office	2019
GAA3	Narocake District School	STANDARD SURVEY MARK	New Station	Control Office	2019
GAJ1	Korolevu hill, Qarani village	STANDARD SURVEY MARK	New Station	Control Office	2019
GAJ2	Qarani Village	STANDARD SURVEY MARK	New Station	Control Office	2019
GAJ3	Qarani Health Centre	STANDARD SURVEY MARK	New Station	Control Office	2019
GJN1	Nawaikama Jetty Shed	STANDARD SURVEY MARK	New Station	Control Office	2019
KAD1	Kadavu Jetty, Kadavu Island	STANDARD SURVEY MARK	New Station	Control Office	2019
KAD2	Kadavu Jetty, Kadavu Island	STANDARD SURVEY MARK	New Station	Control Office	2019
KAD3	Kadavu Airstrip, Kadavu Island	STANDARD SURVEY MARK	New Station	Control Office	2019
KAJ1	Kadavu Jetty, Kadavu Island	STANDARD SURVEY MARK	New Station	Control Office	2019
LK01	Lakeba Is, Lau Group	STANDARD SURVEY MARK	New Station	Control Office	2019
LK02	Nukulevu settlement, Lakeba	STANDARD SURVEY MARK	New Station	Control Office	2019
LKBJ	Tubou, Lakeba, Lau	STANDARD SURVEY MARK	New Station	Control Office	2019
NSNU	Tubou, Lakeba, Lau	STANDARD SURVEY MARK	New Station	Control Office	2019

Station ID	Location	Station Type	Source	Establish By	Year
MATT	Matuku Jetty, Lau	STANDARD SURVEY MARK	New Station	Control Office	2019
MDRO	Makadro Island, Matuku village	STANDARD SURVEY MARK	New Station	Control Office	2019
MATI	Matokana village, Ono-i-lau	STANDARD SURVEY MARK	New Station	Control Office	2019
MTII	Matokana village, Ono-i-lau	STANDARD SURVEY MARK	New Station	Control Office	2019
OLA1	Matokana village, Ono-i-lau	STANDARD SURVEY MARK	New Station	Control Office	2019
OLA2	Matokana village, Ono-i-lau	STANDARD SURVEY MARK	New Station	Control Office	2019
ONOS	Onolevu District Sch, Nukuni Vill.	STANDARD SURVEY MARK	New Station	Control Office	2019
VBA1	Airstrip, Vanua Balavu	STANDARD SURVEY MARK	New Station	Control Office	2019
VBA2	Airstrip, Vanua Balavu	STANDARD SURVEY MARK	New Station	Control Office	2019
VBJ1	Lomolomo Village, Vanua Balavu	STANDARD SURVEY MARK	New Station	Control Office	2019
VBJ2	Lomolomo Village, Vanua Balavu	STANDARD SURVEY MARK	New Station	Control Office	2019
VBJ3	Lomolomo Village, Vanua Balavu	STANDARD SURVEY MARK	New Station	Control Office	2019
VTP1	Vatoa village along the beach	STANDARD SURVEY MARK	New Station	Control Office	2019
VTP2	Vatoa village graveyard, Vatoa	STANDARD SURVEY MARK	New Station	Control Office	2019
VTP3	Vatoa village, Lau	STANDARD SURVEY MARK	New Station	Control Office	2019
VTP4	Nurse's quarters, Vatoa village	STANDARD SURVEY MARK	New Station	Control Office	2019
VTP5	Vatoa village, Lau	STANDARD SURVEY MARK	New Station	Control Office	2019
VTP6	Lighthouse,, Vatoa Village, Lau	STANDARD SURVEY MARK	New Station	Control Office	2019
SLPI	Fintel Compound, Suva	PILLAR (1st ORDER)	S 1244	Control Office	1969
SS41	Bowling Club, Suva	STANDARD SURVEY MARK	S 1244	Control Office	1969
S094	Dilkusha, Nausori	STANDARD SURVEY MARK	SO 2685	Control Office	1990
S095	Old Rewa Bridge, Nausori	STANDARD SURVEY MARK	SO 2686	Control Office	1990
NVIA	Koronivia, Nausori	TRIG STATION	SO 4344	Control Office	1960
VANT	Wainibuku, Nakasi	TRIG STATION (2nd ORDER)	SO 2329	Control Office	1960
TOKO	Tokotoko, Navua	TRIG STATION/PILLAR (1st Order)	McCAW/SO 5132	McCAW	1912
WALU	Talenaua, Serua	TRIG STATION	SO 6533/SO 5836	Control Office	2007
NADA	Nayawa, Nadroga	TRIG STATION (2nd ORDER)	N 1737/TD 6/SO 6955	McCAW	1912
2007	Lobau, Namosi	STANDARD SURVEY MARK	CP 90/NS 439	Control Office	1970
2718	Navoto Sett, Sigatoka	STANDARD SURVEY MARK	SO 291	Control Office	1982
TBM9	Vugalei, Lami	STANDARD SURVEY MARK	TD 95	Control Office	1969
1923	Navutulevu Village, Serua	STANDARD SURVEY MARK	SO 7197	Control Office	2014
2750	Mataqali Lutuya, Serua	STANDARD SURVEY MARK	SO 491	Control Office	1982
2500	Pacific Harbour, Serua	STANDARD SURVEY MARK	CP 87	Control Office	1978
1906	Sigatoka	STANDARD SURVEY MARK	SO 7273	Control Office	2014
1886	Maui Bay, Sigatoka	STANDARD SURVEY MARK	SO 8129	Control Office	2014
1873	Vatukarasa, Sigatoka	STANDARD SURVEY MARK	SO 8129	Control Office	2014
2496	Muasara, Sigatoka	STANDARD SURVEY MARK	CP 57	Control Office	1978
2740	Talenaua, Serua	STANDARD SURVEY MARK	SO 491	Control Office	1982
2656	Galoa village, Serua	STANDARD SURVEY MARK	SO 194/SO 8507	Control Office	1982
1935	Waibale Settlement, Serua	STANDARD SURVEY MARK	SO 7197	Control Office	2014
2515	Deuba, Serua	STANDARD SURVEY MARK	CP 87/SO 8507	Control Office	1978
2567	Wainadoi, Namosi	STANDARD SURVEY MARK	CP 89	Control Office	1979
2595	Togalevu Village, Namosi	STANDARD SURVEY MARK	CP 92	Control Office	1979
3381	Tamusu Settlement, Ba	STANDARD SURVEY MARK	SO 3540	Control Office	1995

Station ID	Location	Station Type	Source	Establish By	Year
3382	Vakarakurukuru, Ba	STANDARD SURVEY MARK	SO 3540	Control Office	1995
LOVA	Vadravadra Cemetery, Ba	TRIG STATION	SO 3889	McCAW	1912
VADA	Navero, Ba	TRIG STATION	CP41/SO3503/3889	McCAW	1915
YAQA	Tavua	TRIG STATION	TD 31/SO 3503	McCAW	1931
ADOI	Votualevu, Naboutini Road	TRIG STATION	SO 4242	Control Office	1999
1963	Narewa, Heli Tour Fiji	STANDARD SURVEY MARK	SO 7740	Control Office	2015
1964	Maqalevu Rd Junction	STANDARD SURVEY MARK	SO 7740	Control Office	2015
1965	Denarau Rd, Green Escape Ltd	STANDARD SURVEY MARK	SS 7740	Control Office	2015
SS20	Naviti St, Lautoka	STANDARD SURVEY MARK	ND 2686	Control Office	1967
SS19	Naviti St, Lautoka	STANDARD SURVEY MARK	ND 2686	Control Office	1967
4043	Nabouwalu Hosptal, Bua	STANDARD SURVEY MARK	SO 6552	Control Office	2007
VUYA	Nabouwalu, Bua	TRIG STATION	TD 46/SO 6185	Control Office	1929
DIRI	Wairiki, Bua	TRIG STATION	TD 46/SO 6185	Control Office	1929
NASO	Nautomaliva Settlement, Bua	TRIG STATION	TD 46/TD 80/SO 6185	Control Office	1929
2032	Nadua Farm, Bua	STANDARD SURVEY MARK	SO 7669	Control Office	2017
2051	Namawaqa, Daria, Bua	STANDARD SURVEY MARK	SO 7669	Control Office	2017
2053	Korotiki Village, Bua	STANDARD SURVEY MARK	SO 7669	Control Office	2017
3905	Vunikoka, Savusavu Town	STANDARD SURVEY MARK	SO 5519	Control Office	2005
3925	Tavulomo, Savusavu Airport	STANDARD SURVEY MARK	SO 5519	Control Office	2005
VATU	Labasa Weather Stn. Vatudova	TRIG STATION	SO 5484/SO 5510	Control Office	2005
3848	Low-cost Housing, Labasa	STANDARD SURVEY MARK	SO 5518	Control Office	2005
MULO	Wailevu, Labasa	TRIG STATION	SO 5484	Control Office	1929
3849	Bulileka Rd, Labasa	STANDARD SURVEY MARK	SO 5510	Control Office	2005
ENAU	Uluibenau Reservoir, Labasa	TRIG STATION	SO 5510	Control Office	2005
3873	Wasavulu, Labasa	STANDARD SURVEY MARK	SO 5510	Control Office	2005
ULUI	Vaturekuka, Labasa	TRIG STATION	SO 5518	Control Office	2008
3793	Korotari Rd, Labasa	STANDARD SURVEY MARK	SO 5518	Control Office	2005
3804	Labasa River Bridge	STANDARD SURVEY MARK	SO 5510	Control Office	2005
1830	Navakasobu Village, Seaqaqa	STANDARD SURVEY MARK	SO 7033	Control Office	2011
1836	Seaqaqa Town	STANDARD SURVEY MARK	SO 7033	Control Office	2011
1834	FSC Compounds, Seaqaqa	STANDARD SURVEY MARK	SO 7033	Control Office	2011
1842	Nakalou, Naividamu Rd, Seaqaqa	STANDARD SURVEY MARK	SO 7033	Control Office	2011
AGFA	Afgaha Island, Noatau, Rotuma	TRIG STATION	SO 6449	Control Office	2008
HAUA	Haua Is, Oinafa, Rotuma	TRIG STATION	SO 6449	Control Office	2008
NAFA	Oinafa Jetty, Oinafa, Rotuma	TRIG STATION	SO 6449	Control Office	2008
KELE	Hunsolo, Motusa, Rotuma	TRIG STATION	SO 6449	Control Office	2008

Table 3: list of geodetic stations occupied in Fiji during the survey campaign

# Survey Data Conversion

The conversion utility tools from Leica Geo Office, Hi-Target and Trimble Business Centre were used to convert the GPS and the GNSS raw data to the required RINEX format, whilst conversion, the survey data sets was manipulated to have the following correct version, format, type, layout and structure as per header. Upon conversion the antenna heights with reference to antenna reference point, antenna type and receiver type were also thoroughly checked and corrected.

## Leica Geo Office Export Utility

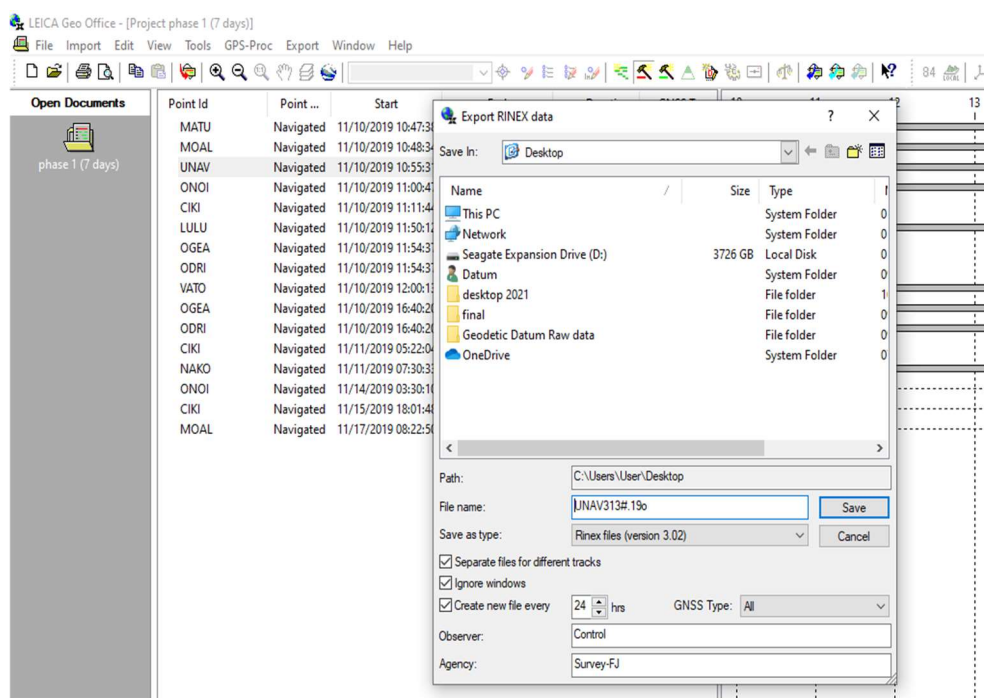


Figure 18: Using Leica Geo Office to convert Leica GNSS data into RINEX

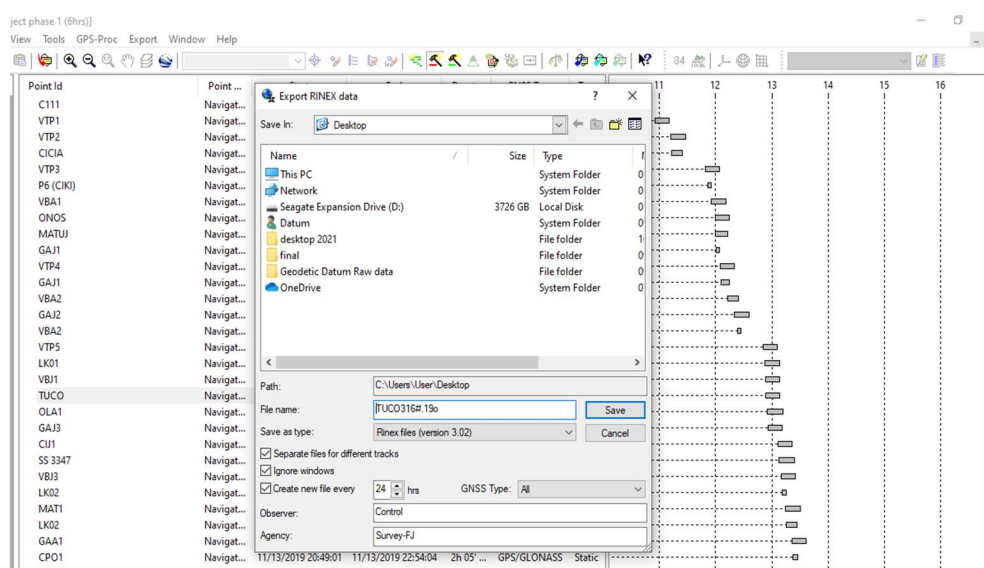


Figure 19: Using Leica Geosystem to convert Leica GPS data into RINEX

## Trimble Convert to RINEX Utility

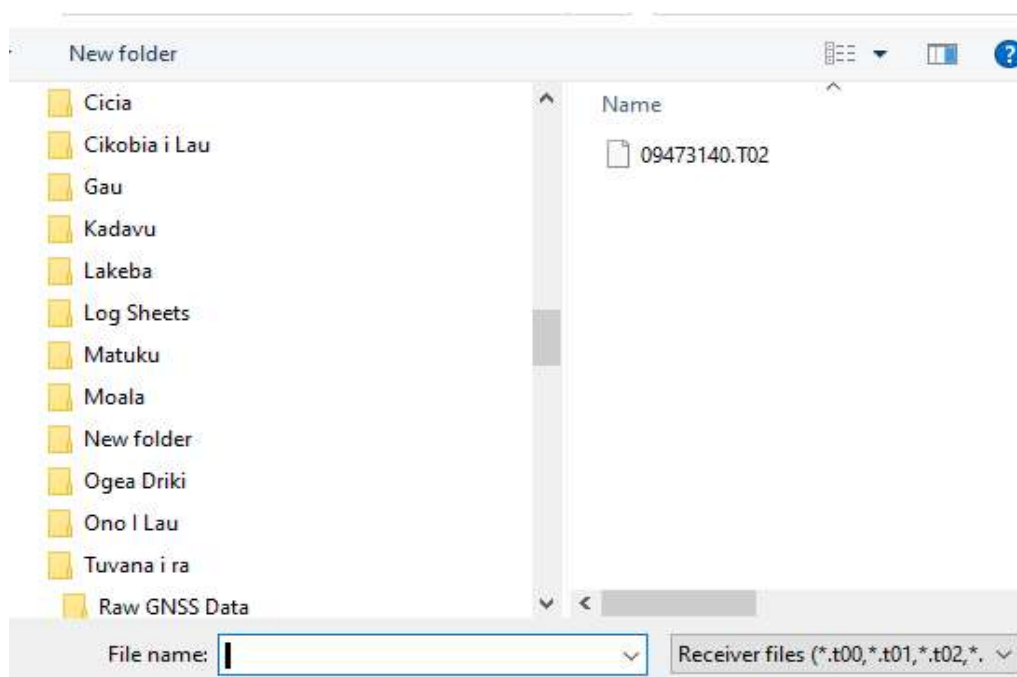


Figure 20: Selecting raw data file for conversion from \*.T02 format into RINEX

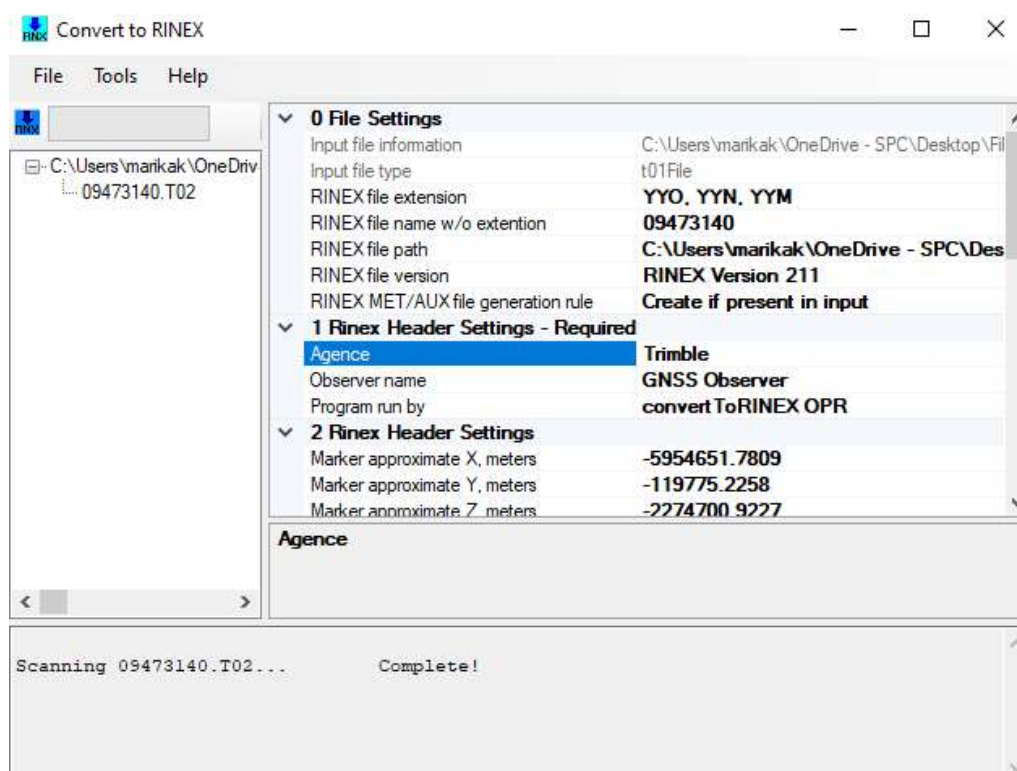


Figure 21: Scanning and conversion into RINEX, browser with the header details

## Hi-Target Geomatics Office to RINEX Utility

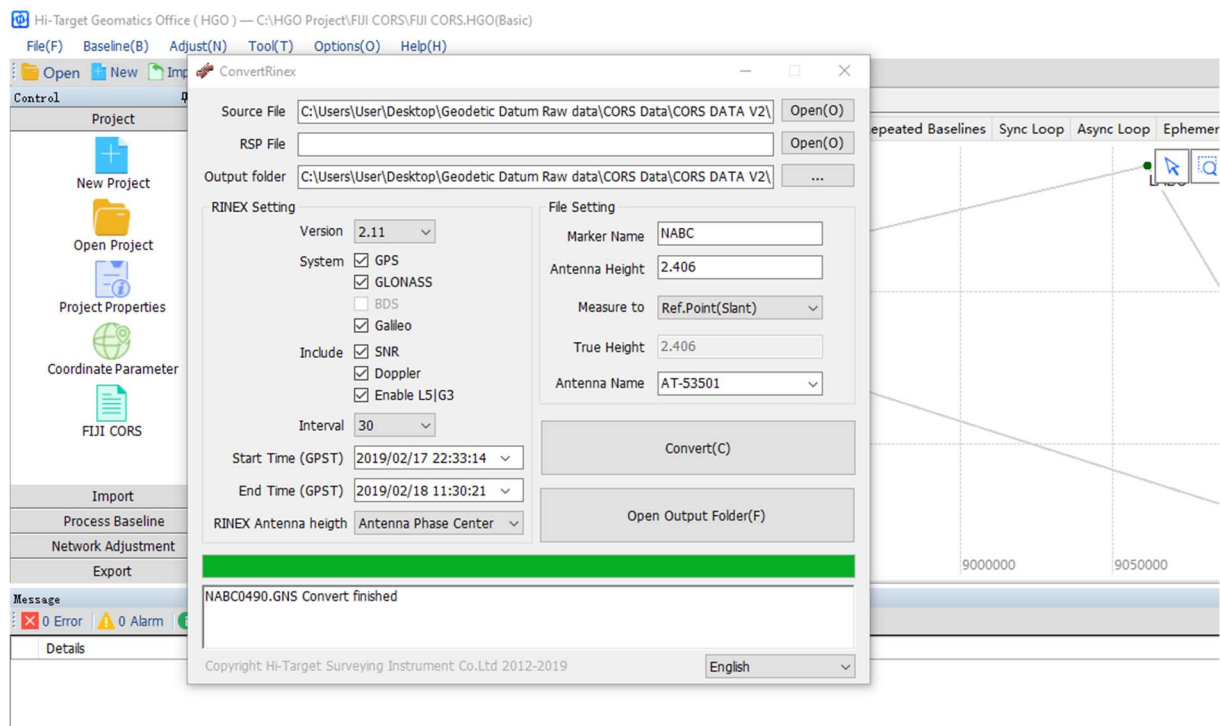


Figure 22: Selecting raw data file for conversion from \*.GNS format into RINEX

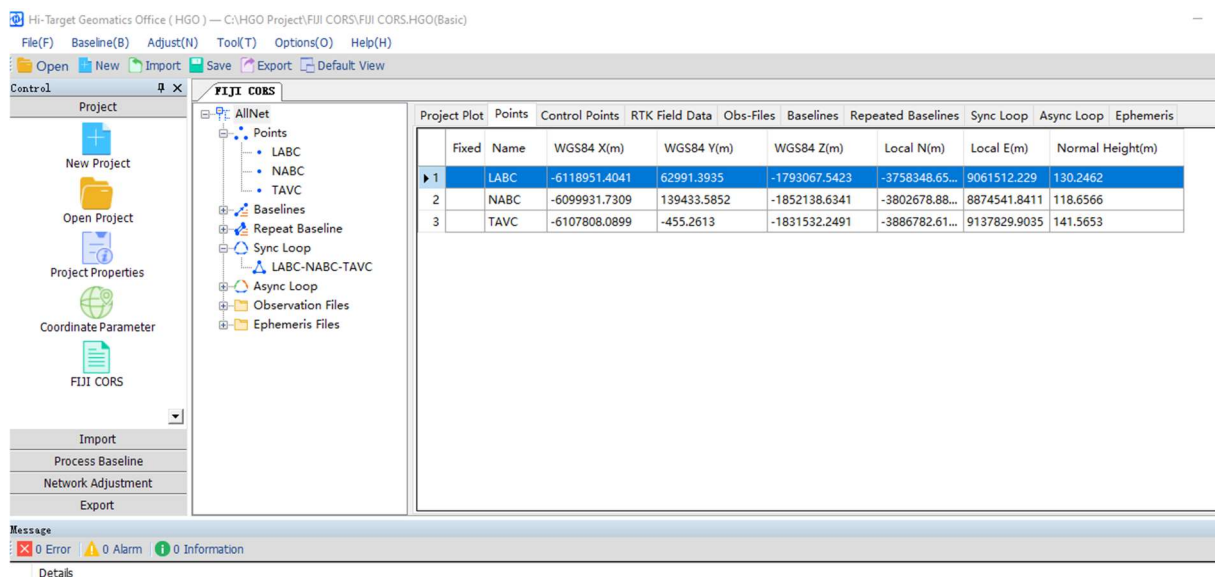


Figure 23: RINEX data info in Hi-Target

## Fiji Geodetic Survey Occupation Summary

The table below is the schedule for the geodetic station occupation summary as per start of occupation time and due to duration for 7 days and 6 hours with their relevant GNSS RINEX campaign data files and following GNSS receiver and antenna details.

Station ID	Start time	Duration	File Name	RINEX Version	Receiver Type	Antenna Height	Antenna Method	ARP Height	Antenna Type
CEVA	10/11/19 1200hrs UTC	7days	16633153.19o 16633133.19o 16633140.19o 16633201.19o	3.02	Trimble R10	1.642	BQR	1.692	TRMR10
KADV	10/11/19 1200hrs UTC	7days	42703140.19o 42703150.19o 42703160.19o 42703170.19o 42703180.19o 42703190.19o 42703200.19o	3.02	Trimble Net R9	1.978	BON	1.934	TRIMBLE ZEPHYR MODEL 2
NAKO	10/11/19 1200hrs UTC	7days	NAKO3140.19o NAKO3140.19o NAKO3150.19o NAKO3160.19o NAKO3170.19o NAKO3180.19o NAKO3190.19o NAKO3200.19o	3.02	Leica GS10	1.265	Hook Height	1.625	LEIAS10
OALA	10/11/19 1200hrs UTC	7days	OALA3130.19o OALA3140.19o OALA3150.19o OALA3160.19o	2.11	LEICA GPS 1200	1.404	Hook Height	1.764	LEICA AX1202
UNAV	10/11/19 1200hrs UTC	7days	UNAV3130.19o UNAV3140.19o UNAV3150.19o UNAV3160.19o UNAV3170.19o UNAV3180.19o UNAV3190.19o UNAV3200.19o	3.02	Leica GS16	1.38	Hook Height	1.74	LEICA GS16
CIKI	10/11/19 1200hrs UTC	7days	CIKI3130.19o CIKI3140.19o CIKI3190.19o CIKI3200.19o	3.02	Leica GS10	1.333	Hook Height	1.693	LEIAS10
LULU	10/11/19 1200hrs UTC	7days	LULU.19o	3.02	Trimble Net R9	1.751	BON	1.707	TRIMBLE ZEPHYR MODEL 2
MATU	10/11/19 1200hrs UTC	7days	MATU3130.19o MATU3140.19o MATU3150.19o MATU3160.19o MATU3170.19o MATU3180.19o MATU3190.19o MATU3200.19o	2.11	LEICA GPS 1200	1.263	Hook Height	1.623	LEICA AX1202
ODRI	10/11/19 1200hrs UTC	7days	ODRI3130.19o	2.11	LEICA GPS 1200	1.185	Hook Height	1.545	LEICA AX1202
VATO	10/11/19 1200hrs UTC	7days	VATO3140.19o VATO3150.19o VATO3160.19o VATO3170.19o VATO3180.19o VATO3190.19o VATO3200.19o	2.11	LEICA GPS 1200	1.272	Hook Height	1.632	LEICA AX1202



Station ID	Start time	Duration	File Name	RINEX Version	Receiver Type	Antenna Height	Antenna Method	ARP Height	Antenna Type
ONOI	10/11/19 1200hrs UTC	7days	ONOI3130.19o ONOI3140.19o ONOI3150.19o ONOI3160.19o ONOI3170.19o ONOI3180.19o ONOI3190.19o ONOI3200.19o	3.02	Leica GS10	1.272	Hook Height	1.632	LEIAS10
TUVR	10/11/19 1200hrs UTC	7days	09473140.19o	3.02	Trimble R10	1.309	BQR	1.359	TRMR10
NAC2	07/12/19 1200hrs UTC	7days	NAC23410.19o NAC23420.19o NAC23430.19o NAC23440.19o	3.02	Leica GS16	0.25	Hook Height	0.61	LEICA GS16
BITU	07/12/19 1200hrs UTC	7days	BITU33410.19o	3.02	Trimble R10	1.753	BQR	1.803	TRMR10
NASE	07/12/19 1200hrs UTC	7days	NASE3420.19o NASE3430.19o NASE3440.19o NASE3450.19o NASE3460.19o NASE3470.19o NASE3480.19o	3.02	LEICA GNSS 1200+	1.740	BOCR	1.705	TRIMBLE CHOKE RING
EKUB	07/12/19 1200hrs UTC	7days	EKUB3420.19o EKUB3430.19o EKUB3440.19o EKUB3450.19o EKUB3460.19o EKUB3470.19o EKUB3480.19o	3.02	LEICA GNSS 1200+	1.439	BOCR	1.404	TRIMBLE CHOKE RING
ASAU	07/12/19 1200hrs UTC	7days	ASAU3410.19o ASAU3420.19o ASAU3430.19o ASAU3440.19o ASAU3450.19o ASAU3460.19o ASAU3470.19o ASAU3480.19o	3.02	Leica GS10	1.211	Hook Height	1.571	LEICA AS10
MALO	07/12/19 1200hrs UTC	7days	MALO3420.19o MALO3430.19o MALO3440.19o MALO3450.19o MALO3460.19o MALO3470.19o MALO3480.19o MALO3490.19o	3.02	Leica GS16	1.35	Hook Height	1.71	LEICA GS16
LEVU	07/12/19 1200hrs UTC	7days	LEVU3420.19o LEVU3421.19o LEVU3430.19o LEVU3440.19o LEVU3450.19o LEVU3460.19o LEVU3470.19o LEVU3480.19o	3.02	Trimble Net R9	1.978	BON	1.933	TRIMBLE ZEPHYR MODEL 2
KALI	07/12/19 1200hrs UTC	7days	KALI3420.19o	3.02	Trimble Net R9	1.927	BON	1.882	TRIMBLE ZEPHYR MODEL 2
MAGO	07/12/19 1200hrs UTC	7days	MAGO3410.19o MAGO3420.19o MAGO3430.19o MAGO3440.19o MAGO3450.19o MAGO3460.19o MAGO3470.19o MAGO3480.19o	2.11	LEICA GPS 1200	1.209	Hook Height	1.569	LEICA AX1202

Station ID	Start time	Duration	File Name	RINEX Version	Receiver Type	Antenna Height	Antenna Method	ARP Height	Antenna Type
BULI	07/12/19 1200hrs UTC	7days	BULI3420.19o BULI3430.19o BULI3440.19o BULI3450.19o BULI3460.19o BULI3470.19o	3.02	LEICA GNSS 1200+	1.75	BOCR	1.715	TRIMBLE CHOKE RING
TOMA	07/12/19 1200hrs UTC	7days	TOMA3420.19o TOMA3430.19o TOMA3440.19o TOMA3450.19o TOMA3460.19o TOMA3470.19o TOMA3480.19o	2.11	LEICA GPS 1200	1.93	Hook Height	2.29	LEICA AX1202
NDRO	07/12/19 1200hrs UTC	7days	NDRO3420.19o NDRO3430.19o NDRO3440.19o NDRO3450.19o NDRO3460.19o NDRO3470.19o NDRO3480.19o	3.02	Leica GS10	1.283	Hook Height	1.643	LEICA AS10
KAVU	07/12/19 1200hrs UTC	7days	09813420.19o 09813471.19o	3.02	Trimble R10	1.899	BQR	1.949	TRMR10
UIRA	07/12/19 1200hrs UTC	7days	UIRA3420.19o UIRA3430.19o UIRA3440.19o UIRA3450.19o UIRA3460.19o UIRA3470.19o UIRA3480.19o	3.02	LEICA GNSS 1200+	1.673	BOCR	1.638	TRIMBLE CHOKE RING
DRAU	07/12/19 1200hrs UTC	7days	DRAU3420.19o DRAU3430.19o DRAU3440.19o DRAU3450.19o DRAU3460.19o DRAU3470.19o DRAU3480.19o	3.02	LEICA GNSS 1200+	1.538	BOCR	1.503	TRIMBLE CHOKE RING
ROQE	07/12/19 1200hrs UTC	7days	ROQE3420.19o ROQE3430.19o ROQE3440.19o ROQE3450.19o ROQE3460.19o ROQE3470.19o ROQE3480.19o ROQE3490.19o	2.11	LEICA GPS 1200	1.375	Hook Height	1.735	LEICA AX1202
LOAT	07/12/19 1200hrs UTC	7days	LOAT3420.19o LOAT3430.19o LOAT3440.19o LOAT3450.19o LOAT3460.19o LOAT3470.19o LOAT3480.19o	3.02	LEICA GNSS 1200+	1.735	BOCR	1.7	TRIMBLE CHOKE RING
MANF	07/12/19 1200hrs UTC	7days	MANF3420.19o MANF3430.19o MANF3440.19o MANF3450.19o MANF3460.19o MANF3470.19o MANF3480.19o	3.02	LEICA GNSS 1200+	1.291	BOCR	1.256	TRIMBLE CHOKE RING
TILI	07/12/19 1200hrs UTC	7days	TILI3410.19o TILI3430.19o TILI3440.19o TILI3450.19o TILI3460.19o TILI3470.19o TILI3480.19o TILI3490.19o	3.02	Leica GS10	1.212	Hook Height	1.572	LEICA AS10
YAWI	07/12/19 1200hrs UTC	7days	YAWI3421.19o YAWI3430.19o YAWI3440.19o YAWI3450.19o	3.02	Trimble Net R9	2.374	BON	2.33	TRIMBLE ZEPHYR MODEL 2

Station ID	Start time	Duration	File Name	RINEX Version	Receiver Type	Antenna Height	Antenna Method	ARP Height	Antenna Type
			YAWI3460.19o YAWI3470.19o YAWI3480.19o						
NASA	26/01/20 1200hrs UTC	7days	NASA0260.20o NASA0280.20o NASA0290.20o NASA0300.20o NASA0310.20o NASA0320.20o	3.02	LEICA GPS 1200	1.474	Hook Height	1.834	LEICA AX1202
TAVE	26/01/20 1200hrs UTC	7days	TAVE260.20o TAVE270.20o TAVE280.20o TAVE290.20o TAVE300.20o TAVE310.20o TAVE320.20o	3.02	LEICA GNSS 1200+	1.715	BOCR	1.68	TRIMBLE CHOKE RING
ARIA	26/01/20 1200hrs UTC	7days	ARIA270.20o ARIA280.20o ARIA290.20o ARIA300.20o ARIA310.20o ARIA320.20o	3.02	LEICA GNSS 1200+	1.88	BOCR	1.845	TRIMBLE CHOKE RING
MACA	26/01/20 1200hrs UTC	7days	MACA260.20o MACA270.20o MACA280.20o MACA290.20o MACA300.20o MACA310.20o MACA320.20o	3.02	LEICA GNSS 1200+	2.197	BOCR	2.162	TRIMBLE CHOKE RING
DELA	26/01/20 1200hrs UTC	7days	DELA0260.20o DELA0270.20o DELA0280.20o DELA0290.20o DELA0300.20o DELA0310.20o DELA0320.20o	2.11	LEICA GPS 1200	1.197	Hook Height	1.557	LEICA AX1202
SESE	26/01/20 1200hrs UTC	7days	42910250.20O 42910260.20O 42910270.20O 42910280.20O 42910290.20O 42910300.20O 42910310.20O 42910320.20O 42910330.20O	3.02	Trimble Net R9	1.641	BON	1.597	TRIMBLE ZEPHYR MODEL 2
ROGA	26/01/20 1200hrs UTC	7days	09470251.20o	3.02	Leica GS10	1.85	BQR	1.9	TRMR10
WANI	26/01/20 1200hrs UTC	7days	WANI260.20o WANI270.20o WANI280.20o WANI290.20o WANI300.20o WANI310.20o WANI320.20o	3.02	LEICA GNSS 1200+	1.479	BOCR	1.444	TRIMBLE CHOKE RING
BULE	26/01/20 1200hrs UTC	7days	BULE20200250.mx BULE20200270.mx BULE20200280.mx BULE20200290.mx BULE20200300.mx BULE20200310.mx BULE20200320.mx BULE20200330.mx	3.02	Trimble Net R9	2.75	BON	2.705	TRIMBLE ZEPHYR MODEL 2
GALA	26/01/20 1200hrs UTC	7days	GALA250.20o GALA260.20o GALA270.20o GALA280.20o GALA290.20o GALA300.20o GALA310.20o GALA320.20o	3.02	Leica GS10	1.883	Hook Height	2.243	LEIAS10

Station ID	Start time	Duration	File Name	RINEX Version	Receiver Type	Antenna Height	Antenna Method	ARP Height	Antenna Type
KIAS	26/01/20 1200hrs UTC	7days	KIAS20200260.mx KIAS20200270.mx KIAS20200280.mx KIAS20200290.mx KIAS20200300.mx	3.02	Trimble Net R9	1.609	BON	1.565	TRIMBLE ZEPHYR MODEL 2
KOKA	26/01/20 1200hrs UTC	7days	09800250.20o 09800260.20o	3.02	Leica GS10	1.551	BQR	1.601	TRMR10
KALO	26/01/20 1200hrs UTC	7days	KALO260.20o KALO270.20o KALO280.20o KALO290.20o KALO300.20o KALO310.20o KALO320.20o	3.02	LEICA GNSS 1200+	2.242	BOCR	2.207	TRIMBLE CHOKE RING
KAMA	26/01/20 1200hrs UTC	7days	KAMA250.20o KAMA270.20o KAMA280.20o KAMA290.20o KAMA300.20o KAMA310.20o KAMA320.20o	3.02	LEICA GS10	1.435	Hook Height	1.795	LEIAS10
QELE	26/01/20 1200hrs UTC	7days	QELE260.20o QELE270.20o QELE280.20o QELE290.20o QELE300.20o QELE310.20o QELE320.20o	3.02	LEICA GX1230	1.35	Hook Height	1.71	LEICA AX1202
QILO	26/01/20 1200hrs UTC	7days	QILO260.20o QILO270.20o QILO280.20o QILO290.20o QILO300.20o QILO310.20o	3.02	LEICA GNSS 1200+	1.735	BOCR	1.7	TRIMBLE CHOKE RING
SOLE	26/01/20 1200hrs UTC	7days	SOLM250.20o	3.02	LEICA GS16	1.323	Hook Height	1.683	LEICA GS16
RABE	26/01/20 1200hrs UTC	7days	RABE270.20o RABE270.20o RABE280.20o RABE290.20o RABE300.20o RABE310.20o	3.02	LEICA GS10	1.287	Hook Height	1.647	LEIAS10
C111	10/11/19 0631hrs UTC	6 hrs	SS I3140.19o	3.02	LEICA GS16	1.323	Hook Height	1.683	LEIACA GS16
CIJ1	10/11/19 0631hrs UTC	6 hrs	SS I3170.19o	3.02	LEICA GS16	1.302	Hook Height	1.662	LEIACA GS16
CP02	17/11/19 1809hrs UTC	5 hrs	CP02_3200.19o	3.02	LEICA GS16	1.429	Hook Height	1.789	LEIACA GS16
BUAT	10/11/19 2002hrs UTC	6 hrs	BUAT3170.19o	3.02	LEICA GNSS 1200+	1.463	BOCR	1.428	TRIMBLE CHOKE RING
LKRE	14/11/19 2015hrs UTC	6 hrs	LKRE3170.19o	3.02	LEICA GNSS 1200+	1.717	BOCR	1.682	TRIMBLE CHOKE RING
KQAL	14/11/19 2134hrs UTC	7hrs	43023178.19o	3.02	TRIMBLE NET R9	1.989	BON	1.944	TRIMBLE ZEPHYR MODEL 2
LUGA	14/11/19 0631hrs UTC	6 hrs	43023181.19o	3.02	TRIMBLE NET R9	2.55	BON	2.506	TRIMBLE ZEPHYR MODEL 2
VANA	14/11/19 0100hrs UTC	5 hrs	VANA13180.19o	3.02	LEICA GNSS 1200+	1.401	BOCR	1.366	TRIMBLE CHOKE RING
TUCO	13/11/19 2118hrs	6 hrs	TUCO3160.19o	3.02	LEICA GNSS	1.771	BOCR	1.736	TRIMBLE

Station ID	Start time	Duration	File Name	RINEX Version	Receiver Type	Antenna Height	Antenna Method	ARP Height	Antenna Type
	UTC				1200+				CHOKE RING
GAA1	13/11/19 0828hrs UTC	6 hrs	GAA13170.19o	3.02	LEICA GNSS 1200+	1.538	BOCR	1.503	TRIMBLE CHOKE RING
GAA2	14/11/19 1458hrs UTC	6 hrs	GAA23170.19o	3.02	LEICA GNSS 1200+	1.493	BOCR	1.458	TRIMBLE CHOKE RING
GAA3	14/11/19 2136hrs UTC	6 hrs	GAA33170.19o	3.02	LEICA GNSS 1200+	1.56	BOCR	1.525	TRIMBLE CHOKE RING
GAJ1	12/11/19 0003hrs UTC	4 hrs	GAJ13160.19o	3.02	LEICA GNSS 1200+	1.498	BOCR	1.463	TRIMBLE CHOKE RING
GAJ2	12/11/19 0754hrs UTC	6 hrs	GAJ23160.19o	3.02	LEICA GNSS 1200+	1.442	BOCR	1.407	TRIMBLE CHOKE RING
GAJ3	13/11/19 2212hrs UTC	6 hrs	GAJ33160.19o	3.02	LEICA GNSS 1200+	1.417	BOCR	1.382	TRIMBLE CHOKE RING
GJN1	16/11/19 2217hrs UTC	6 hrs	GAJN3190.19o	3.02	LEICA GNSS 1200+	1.493	BOCR	1.458	TRIMBLE CHOKE RING
KAD1	12/11/19 0631hrs UTC	6 hrs	43023151.19o	3.02	Trimble NetR9	1.778	BON	1.734	TRIMBLE ZEPHYR MODEL 2
KAD2	11/11/19 2245hrs UTC	6 hrs	43023141.19o	3.02	Trimble NetR9	2.213	BON	2.169	TRIMBLE ZEPHYR MODEL 2
KAD3	12/11/19 0554hrs UTC	14 hrs	43023161.19o	3.02	Trimble NetR9	1.778	BON	1.734	TRIMBLE ZEPHYR MODEL 2
KAJ1	13/11/19 0503hrs UTC	6 hrs	43023176.19o	3.02	Trimble NetR9	1.848	BON	1.804	TRIMBLE ZEPHYR MODEL 2
LK01	13/11/19 2105hrs UTC	6 hrs	LK013160.19o	3.02	LEICA GNSS 1200+	1.609	BOCR	1.574	TRIMBLE CHOKE RING
LK02	13/11/19 0412hrs UTC	6 hrs	LK023170.19o	3.02	LEICA GNSS 1200+	1.713	BOCR	1.678	TRIMBLE CHOKE RING
LKBJ	15/11/19 1902hrs UTC	6 hrs	LKBJ3180.19o	3.02	LEICA GNSS 1200+	1.742	BOCR	1.707	TRIMBLE CHOKE RING
NSNU	16/11/19 2216hrs UTC	6 hrs	NSNU3190.19o	3.02	LEICA GNSS 1200+	1.427	BOCR	1.392	TRIMBLE CHOKE RING
MATT	12/11/19 0000hrs UTC	5 hrs	MATT3160.19o	3.02	LEICA GNSS 1200+	1.249	BOCR	1.214	TRIMBLE CHOKE RING
MDRO	14/11/19 02001hrs UTC	6 hrs	MDRO3180.19o	3.02	LEICA GNSS 1200+	1.521	BOCR	1.486	TRIMBLE CHOKE RING
MATI	14/11/19 0551hrs UTC	6 hrs	MATI3170.19o	3.02	LEICA GNSS 1200+	1.771	BOCR	1.736	TRIMBLE CHOKE RING
MTII	14/11/19 1211hrs UTC	6 hrs	MTII23170.19o	3.02	LEICA GNSS 1200+	1.923	BOCR	1.888	TRIMBLE CHOKE RING
OLA1	13/11/19 2204hrs UTC	7 hrs	OLA13160.19o	3.02	LEICA GNSS 1200+	1.741	BOCR	1.706	TRIMBLE CHOKE RING
OLA2	14/11/19 2151hrs UTC	7 hrs	OLA23170.19o	3.02	LEICA GNSS 1200+	1.772	BOCR	1.737	TRIMBLE CHOKE RING
ONOS	12/11/19 0000hrs UTC	6 hrs	ONOS3160.19o	3.02	LEICA GNSS 1200+	1.8	BOCR	1.765	TRIMBLE CHOKE RING
VBA1	12/11/19 214hrs	6 hrs	VBA13150.19o	3.02	LEICA GNSS	1.137	BOCR	1.102	TRIMBLE CHOKE

Station ID	Start time	Duration	File Name	RINEX Version	Receiver Type	Antenna Height	Antenna Method	ARP Height	Antenna Type
	UTC				1200+				RING
VBA2	12/11/19 0456hrs UTC	5 hrs	VBA23160.19o	3.02	LEICA GNSS 1200+	1.486	BOCR	1.451	TRIMBLE CHOKE RING
VBJ1	13/11/19 2114hrs UTC	6 hrs	VBJ13160.19o	3.02	LEICA GNSS 1200+	1.548	BOCR	1.513	TRIMBLE CHOKE RING
VBJ2	13/11/19 0358hrs UTC	6 hrs	VBJ23180.19o	3.02	LEICA GPS 1200	1.589	BOCR	1.554	TRIMBLE CHOKE RING
VBJ3	13/11/19 0406hrs UTC	6 hrs	VBJ33170.19o	3.02	LEICA GPS 1200	1.456	BOCR	1.421	TRIMBLE CHOKE RING
VTP1	11/11/19 2200hrs UTC	6 hrs	VTP13140.19o	2.11	LEICA GPS 1200	1.423	Hook Height	1.783	LEIAX1202
VTP2	11/11/19 0500hrs UTC	6 hrs	VTP23150.19o	2.11	LEICA GPS 1200	1.364	Hook Height	1.724	LEIAX1202
VTP3	12/11/19 1230hrs UTC	6 hrs	VTP33150.19o	2.11	LEICA GPS 1200	1.326	Hook Height	1.686	LEIAX1202
VTP4	12/11/19 0200hrs UTC	6 hrs	VTP43160.19o	2.11	LEICA GPS 1200	1.28	Hook Height	1.64	LEIAX1202
VTP5	14/11/19 2116hrs UTC	6 hrs	VTP53170.19o	2.11	LEICA GPS 1200	1.37	Hook Height	1.73	LEIAX1202
VTP6	13/11/19 2006hrs UTC	6 hrs	VTP63160.19o	2.11	LEICA GPS 1200	1.16	Hook Height	1.52	LEIAX1202
SLPI	14/12/19 2108hrs UTC	6 hrs	SLP13470.19o	3.02	LEICA GS16	0.565	Hook Height	0.925	LEICA GS16
SS41	14/12/19 2133hrs UTC	6 hrs	SS413470.19o	3.02	LEICA GS16	1.516	Hook Height	1.876	LEICA GS16
S094	13/12/19 2031hrs UTC	6 hrs	S0943460.19o	3.02	LEICA GS16	1.449	Hook Height	1.809	LEICA GS16
S095	13/12/19 2007hrs UTC	6 hrs	S0953460.19o	3.02	LEICA GS16	1.699	Hook Height	2.059	LEICA GS16
NVIA	12/12/19 2115hrs UTC	7 hrs	NVIA3450.19o	3.02	LEICA GS16	1.285	Hook Height	1.645	LEICA GS16
VANT	11/12/19 2310hrs UTC	6 hrs	LEVU3440.19o	3.02	LEICA GS16	1.285	Hook Height	1.645	LEICA GS16
TOKO	08/12/19 2345hrs UTC	20 hrs	09803410.19o	3.02	TRIMBLE R10	0.49	BQR	0.54	TRMR10
WALU	09/12/19 2048hrs UTC	8 hrs	09803421.19o	3.02	TRIMBLE R10	1.353	BQR	1.403	TRMR10
NADA	11/12/19 2039hrs UTC	6 hrs	09803443.19o	3.02	TRIMBLE R10	1.614	BQR	1.664	TRMR10
S007	13/12/19 0531hrs UTC	15 hrs	09803474.19o	3.02	TRIMBLE R10	1.444	BQR	1.494	TRMR10
2718	10/12/19 0518hrs UTC	14 hrs	09803442.19o	3.02	TRIMBLE R10	1.632	BQR	1.682	TRMR10
TBM9	13/12/19 0641hrs UTC	7 hrs	01643470.19o	3.02	TRIMBLE R8	1.676	ARP	1.621	TRMR8S
1923	09/12/19 2228hrs UTC	6 hrs	01643426.19o	3.02	TRIMBLE R8	1.911	ARP	1.856	TRMR8S

Station ID	Start time	Duration	File Name	RINEX Version	Receiver Type	Antenna Height	Antenna Method	ARP Height	Antenna Type
2750	10/12/19 2102hrs UTC	7 hrs	09803430.19o	3.02	TRIMBLE R10	1.474	BQR	1.524	TRMR10
2500	09/12/19 0603hrs UTC	14 hrs	09803430.19o	3.02	TRIMBLE R8	2.056	COB	2.001	TRMR8S
1906	10/12/19 2147hrs UTC	7 hrs	01643433.19o	3.02	TRIMBLE R8	1.747	COB	1.692	TRMR8S
1886	10/12/19 0447hrs UTC	6 hrs	01643440.19o	3.02	TRIMBLE R8	1.975	COB	1.92	TRMR8S
1873	11/12/19 1135hrs UTC	8 hrs	01643442.19o	3.02	TRIMBLE R8	1.703	COB	1.648	TRMR8S
2496	11/12/19 2007hrs UTC	7 hrs	01643443.19o	3.02	TRIMBLE R8	1.996	COB	1.941	TRMR8S
2740	11/12/19 0556hrs UTC	20 hrs	09803453.19o	3.02	TRIMBLE R10	1.761	BQR	1.811	TRMR10
2656	12/12/19 0014hrs UTC	6 hrs	01643460.19o	3.02	TRIMBLE R8	1.809	COB	1.754	TRMR8
1935	12/12/19 0245hrs UTC	18 hrs	09803460.19o	3.02	TRIMBLE R10	1.633	BQR	1.683	TRMR10
2515	12/12/19 0655hrs UTC	10 hrs	01643461.19o	3.02	TRIMBLE R8	2.026	COB	1.971	TRMR8S
2567	13/12/19 2305hrs UTC	6 hrs	09803461.19o	3.02	TRIMBLE R10	1.741	BQR	1.791	TRMR10
2595	13/12/19 2346hrs UTC	6 hrs	01643462.19o	3.02	TRIMBLE R8	1.897	COB	1.842	TRMR8
3381	10/12/19 2143hrs UTC	8 hrs	07553432.19o	3.02	TRIMBLE R8	1.744	COB	1.689	TRMR8
3382	12/12/19 2305hrs UTC	6 hrs	09473433.19o	3.02	TRIMBLE R10	1.665	BQR	1.715	TRMR10
LOVA	11/12/19 2239hrs UTC	6 hrs	09473442.19o	3.02	TRIMBLE R10	0.476	BQR	0.526	TRMR10
VADA	09/12/19 2305hrs UTC	6 hrs	07553440.19o	3.02	TRIMBLE R8	0.928	COB	0.873	TRMR8
YAQA	09/12/19 2230hrs UTC	9 hrs	09473420.19o	3.02	TRIMBLE R10	1.274	BQR	1.324	TRMR10
ADOI	12/12/19 0719hrs UTC	6 hrs	ADOI3460.19o	3.02	LEICA GS16	0.875	Hook Height	1.235	LEICA GS16
1963	10/12/19 0652hrs UTC	6 hrs	00623442.19o	3.02	TRIMBLE R8	1.851	COB	1.796	TRMR8
1964	10/12/19 0827hrs UTC	6 hrs	SS113440.19o	3.02	LEICA GS16	1.723	Hook Height	2.083	LEICA GS16
1965	11/12/19 1342hrs UTC	6 hrs	00623443.19o	3.02	TRIMBLE R8	1.881	COB	1.826	TRMR8
SS20	11/12/19 0726hrs UTC	4 hrs	00623450.19o	3.02	TRIMBLE R8	2.296	COB	2.241	TRMR8
SS19	11/12/19 0804hrs UTC	4 hrs	SS193450.19o	3.02	LEICA GS16	1.912	Hook Height	2.272	LEICA GS16
4043	26/01/20	3 hrs	SS40260.20o	3.02	LEICA	1.467	BOCR	1.432	TRIMBLE

Station ID	Start time	Duration	File Name	RINEX Version	Receiver Type	Antenna Height	Antenna Method	ARP Height	Antenna Type
	0600hrs UTC				GNSS 1200+				CHOKE RING
VUYA	27/01/20 0000hrs UTC	4 hrs	VUYA270.20o	3.02	LEICA GNSS 1200+	1.77	BOCR	1.735	TRIMBLE CHOKE RING
DIRI	27/01/20 0555hrs UTC	15 hrs	DIRI270.20o	3.02	LEICA GNSS 1200+	1.781	BOCR	1.746	TRIMBLE CHOKE RING
NASO	28/01/20 2214hrs UTC	8 hrs	NASO270.20o	3.02	LEICA GNSS 1200+	1.731	BOCR	1.696	TRIMBLE CHOKE RING
2032	30/01/20 0000hrs UTC	6 hrs	2032300.20o	3.02	LEICA GNSS 1200+	1.582	BOCR	1.547	TRIMBLE CHOKE RING
2051	31/01/20 0000hrs UTC	5 hrs	2051310.20o	3.02	LEICA GNSS 1200+	1.576	BOCR	1.541	TRIMBLE CHOKE RING
2053	31/01/20 0000hrs UTC	6 hrs	2053310.20o	3.02	LEICA GNSS 1200+	1.618	BOCR	1.583	TRIMBLE CHOKE RING
3905	26/01/20 0000hrs UTC	6 hrs	3905280.20o	3.02	LEICA GS16	1.87	Hook Height	2.23	LEICA GS16
3925	31/01/20 0136hrs UTC	6 hrs	3925310.20o	3.02	LEICA GS16	1.403	Hook Height	1.763	LEICA GS16
VATU	27/01/20 2325hrs UTC	6 hrs	09810262.20o	3.02	TRIMBLE R10	1.71	BQR	1.76	TRMR10
3848	27/01/20 0646hrs UTC	6 hrs	09810273.20o	3.02	TRIMBLE R10	1.627	BQR	1.677	TRMR10
MULO	28/01/20 2006hrs UTC	6 hrs	09810275.20o	3.02	TRIMBLE R10	1.197	BQR	1.247	TRMR10
3849	28/01/20 0335hrs UTC	6 hrs	09810281.20o	3.02	TRIMBLE R10	1.783	BQR	1.833	TRMR10
ENAU	29/01/20 1849hrs UTC	7 hrs	09810284.20o	3.02	TRIMBLE R10	1.138	BQR	1.188	TRMR10
3873	29/01/20 0626hrs UTC	4 hrs	09810293.20o	3.02	TRIMBLE R10	1.799	BQR	1.849	TRMR10
ULUI	30/01/20 0142hrs UTC	8 hrs	09810284.20o	3.02	TRIMBLE R10	1.64	BQR	1.69	TRMR10
3793	01/02/20 2221hrs UTC	6 hrs	09810311.20o	3.02	TRIMBLE R10	1.728	BQR	1.778	TRMR10
3804	01/02/20 0456hrs UTC	6 hrs	09810322.20o	3.02	TRIMBLE R10	1.609	BQR	1.659	TRMR10
1830	30/01/20 2329hrs UTC	6 hrs	16630290.20o	3.02	TRIMBLE R10	1.889	BQR	1.939	TRMR10
1836	29/01/20 2334hrs UTC	7 hrs	16630282.20o	3.02	TRIMBLE R10	1.723	BQR	1.773	TRMR10
1834	28/01/20 2246hrs UTC	6 hrs	16630271.20o	3.02	TRIMBLE R10	1.289	BQR	1.339	TRMR10
1842	28/01/20 0543hrs UTC	18 hrs	16630281.20o	3.02	TRIMBLE R10	1.739	BQR	1.789	TRMR10
AFGA	29/01/20 2143hrs UTC	6 hrs	AGFA280.20o	3.02	LEICA GS16	1.22	Hook Height	1.58	LEICA GS16
HAUA	28/01/20 2302hrs	6 hrs	HAUA270.20o	3.02	LEICA GS16	1.192	Hook Height	1.552	LEICA GS16



Station ID	Start time	Duration	File Name	RINEX Version	Receiver Type	Antenna Height	Antenna Method	ARP Height	Antenna Type
	UTC								
NAFA	28/01/20 0608hrs UTC	6 hrs	NAFA280.20o	3.02	LEICA GS16	1.291	Hook Height	1.651	LEICA GS16
KELE	26/01/20 2137hrs UTC	6 hrs	KELE260.20o	3.02	LEICA GS16	1.173	Hook Height	1.533	LEICA GS16

*Table 4: GNSS COR Station with their Positions (Easting, Northing coordinates) in TRF2014 and Height above EGM2008 Geoid (metres), adopted from AUSPOS report*

## Geodetic Survey Station Coordinates

The schedule of coordinates below is for the geodetic survey stations known from AUSPOS for the GNSS CORS and the newly established geodetic stations whereas for the Fiji Maritime Boundaries and the Fiji Geodetic Survey Stations are sourced as per origin of surveys, as established and as stated for datum.

### GNSS COR Stations

Station ID	Easting	Northing	Zone	Ht. Above Geoid	Source
LAUT	547379.909	8053037.543	60	31.712	AUSPOS # 8548
SUV1	653851.705	7996424.422	60	46.813	AUSPOS # 8548
LABC	757367.609	8181333.722	60	70.745	AUSPOS # 8548
NABC	679975.796	8120435.049	60	57.251	AUSPOS # 6729
TAVC	180663.576	8140327.029	1	87.771	AUSPOS # 8548
KADC	622677.943	7893613.194	60	49.239	AUSPOS # 8548
ROTC	505018.156	8618225.629	60	25.343	AUSPOS # 8548

Table 5: GNSS COR Station with their Positions (Easting, Northing coordinates) in TRF2014 and Height above EGM2008 Geoid (metres), adopted from AUSPOS report

Station ID	Latitude	Longitude	Ellipsoidal Ht.	Source
LAUT	S 17 36 31.71375	E 177 26 47.69618	89.655	AUSPOS # 8548
SUV1	S 18 06 55.94150	E 178 27 14.89659	102.169	AUSPOS # 8548
LABC	S 16 26 08.61637	E 179 24 36.67287	124.801	AUSPOS # 8548
NABC	S 16 59 35.06579	E 178 41 25.97184	112.152	AUSPOS # 6729
TAVC	S 16 47 54.41640	W 179 59 44.63888	140.275	AUSPOS # 8548
KADC	S 19 02 47.62361	E 178 09 57.05379	104.950	AUSPOS # 8548
ROTC	S 12 29 57.73022	E 177 02 46.26410	75.197	AUSPOS # 8548

Table 6: GNSS COR Station with their Positions (Latitude, Longitude coordinates) in TRF2014 and Height above EGM2008 Geoid (metres), adopted from AUSPOS reports.

## New Geodetic Survey Stations

Station ID	Easting	Northing	Zone	Ht. above Geoid	Source
TUVR	307989.620	7673224.618	1	4.046	AUSPOS # 8970
C111	253330.661	8036782.110	1	160.5142	AUSPOS # 7732
CIJ1	252765.206	8038903.104	1	2.955	AUSPOS # 5935
CP02	252813.696	8038550.954	1	26.685	AUSPOS # 4475
VANA	307671.207	7673064.888	1	2.457	AUSPOS # 3460
GAA1	747239.983	7995610.929	60	14.058	AUSPOS # 8516
GAA2	747234.745	7995708.758	60	13.082	AUSPOS # 3441
GAA3	747751.784	7995409.237	60	13.933	AUSPOS # 1255
GAJ1	740757.697	8013738.033	60	113.347	AUSPOS # 2036
GAJ2	740170.110	8014154.205	60	11.665	AUSPOS # 3445
GAJ3	740648.359	8014383.717	60	17.420	AUSPOS # 7034
GJN1	739545.363	8005974.712	60	2.790	AUSPOS # 8264
KAD1	622082.212	7894220.815	60	63.669	AUSPOS # 4373
KAD2	622195.348	7893334.478	60	3.609	AUSPOS # 3510
KAD3	621628.599	7892837.281	60	3.154	AUSPOS # 4199
KAJ1	621676.901	7894658.365	60	3.059	AUSPOS # 6551
LK01	308525.795	7986796.113	1	159.120	AUSPOS # 7014
LK02	306813.880	7983320.650	1	3.406	AUSPOS # 0181
LKBJ	308643.894	7982209.156	1	3.332	AUSPOS # 8101
NSNU	309056.454	7981054.303	1	36.532	AUSPOS # 0297
MATT	788838.186	7880098.222	60	3.414	AUSPOS # 8498
MDRO	787762.353	7877882.923	60	23.587	AUSPOS # 8776
MATI	318227.288	7714009.022	1	4.575	AUSPOS # 9536
MTII	318164.938	7714085.518	1	4.515	AUSPOS # 8378
OLA1	318722.767	7714169.493	1	34.322	AUSPOS # 3988
OLA2	318492.114	7715038.312	1	21.976	AUSPOS # 7087
ONOS	320431.490	7714114.615	1	16.623	AUSPOS # 2690
VBA1	292010.602	8092144.408	1	44.507	AUSPOS # 0256
VBA2	292656.440	8091606.354	1	71.258	AUSPOS # 5209
VBJ1	288870.030	8086992.210	1	3.004	AUSPOS # 1651
VBJ2	288780.846	8086924.216	1	2.141	AUSPOS # 1201

Station ID	Easting	Northing	Zone	Ht. above Geoid	Source
VBJ3	288552.583	8086632.647	1	58.198	AUSPOS # 0000
VTP1	368372.092	7806892.615	1	11.658	AUSPOS # 9236
VTP2	368771.733	7807403.897	1	2.544	AUSPOS # 3798
VTP3	368912.589	7807664.167	1	5.029	AUSPOS # 7730
VTP4	368929.600	7807792.995	1	5.147	AUSPOS # 5401
VTP5	370169.439	7809364.150	1	45.987	AUSPOS # 7613
VTP6	369018.981	7808433.648	1	2.484	AUSPOS # 7251
TBM9	650656.788	7996725.675	60	3.421	AUSPOS # 1637

*Table 7: New Stations with their Positions (Easting, Northing coordinates) in ITRF2014 and Height above EGM2008 Geoid (metres), adopted from AUSPOS reports*

Station ID	Latitude	Longitude	Ellipsoidal Ht.	Source
C111	S 17 44 32.81212	W 179 19 34.35860	211.034	AUSPOS # 7732
CIJ1	S 17 43 23.62460	W 179 19 52.65170	53.467	AUSPOS # 5935
CP02	S 17 43 35.09358	W 179 19 51.15468	77.199	AUSPOS # 4475
VANA	S 21 01 59.45475	W 178 51 02.70294	54.595	AUSPOS # 3460
GAA1	S 18 06 51.14780	E 179 20 11.26498	65.955	AUSPOS # 8516
GAA2	S 18 06 47.96937	E 179 20 11.04468	64.985	AUSPOS # 3441
GAA3	S 18 06 57.49379	E 179 20 28.75329	65.793	AUSPOS # 1255
GAJ1	S 17 57 04.41580	E 179 16 23.28906	166.099	AUSPOS # 2036
GAJ2	S 17 56 51.11796	E 179 16 03.15611	64.418	AUSPOS # 3445
GAJ3	S 17 56 43.46581	E 179 16 19.30667	70.174	AUSPOS # 7034
GJN1	S 18 01 17.31075	E 179 15 45.32330	55.381	AUSPOS # 8264
KAD1	S 19 02 27.98680	E 178 09 36.53843	119.401	AUSPOS # 4373
KAD2	S 19 02 56.79395	E 178 09 40.60887	59.334	AUSPOS # 3510
KAD3	S 19 03 13.08887	E 178 09 21.33391	58.879	AUSPOS # 4199
KAJ1	S 19 02 13.84074	E 178 09 22.57593	58.795	AUSPOS # 6551
LK01	S 18 11 58.23673	W 178 48 37.82720	210.137	AUSPOS # 7014
LK02	S 18 13 50.71276	W 178 49 37.25871	54.414	AUSPOS # 0181
LKBJ	S 18 14 27.45187	W 178 48 35.35064	54.378	AUSPOS # 8101
NSNU	S 18 15 05.14258	W 178 48 21.69688	87.585	AUSPOS # 0297
MATT	S 19 09 06.67111	E 179 44 45.52460	54.720	AUSPOS # 8498
MDRO	S 19 10 19.21261	E 179 44 09.92364	74.983	AUSPOS # 8776

Station ID	Latitude	Longitude	Ellipsoidal Ht.	Source
MATI	S 20 39 52.08016	W 178 44 41.77493	56.700	AUSPOS # 9536
MTII	S 20 39 49.57115	W 178 44 43.90046	56.638	AUSPOS # 8378
OLA1	S 20 39 47.03548	W 178 44 24.59849	86.457	AUSPOS # 3988
OLA2	S 20 39 18.70580	W 178 44 32.24455	74.094	AUSPOS # 7087
ONOS	S 20 39 49.41268	W 178 43 25.58859	68.796	AUSPOS # 2690
VBA1	S 17 14 46.68938	W 178 57 22.50649	95.481	AUSPOS # 0256
VBA2	S 17 15 04.40067	W 178 57 00.83158	122.235	AUSPOS # 5209
VBJ1	S 17 17 33.20629	W 178 59 10.59511	53.948	AUSPOS # 1651
VBJ2	S 17 17 35.38766	W 178 59 13.63803	53.084	AUSPOS # 1201
VBJ3	S 17 17 44.79339	W 178 59 21.46744	109.138	AUSPOS # 0000
VTP1	S 19 49 46.31756	W 178 15 24.85580	63.401	AUSPOS # 9236
VTP2	S 19 49 29.78474	W 178 15 10.98980	54.280	AUSPOS # 3798
VTP3	S 19 49 21.35346	W 178 15 06.08241	56.762	AUSPOS # 7730
VTP4	S 19 49 17.16743	W 178 15 05.46497	56.879	AUSPOS # 5401
VTP5	S 19 48 26.36278	W 178 14 22.45769	97.702	AUSPOS # 7613
VTP6	S 19 48 56.35175	W 178 15 02.23015	54.212	AUSPOS # 7251
TBM9	S 18 06 46.95388	E 178 25 26.13338 E	58.984	AUSPOS # 1637

*Table 8: New Stations with their Positions (Latitude, Longitude coordinates) and Ellipsoidal Height (metres) in ITRF2014, adopted from AUSPOS reports*

## Fiji Maritime Boundaries Geodetic Survey Stations

Station ID	Latitude	Longitude	Ellipsoidal Ht.	Source
CEVA	N 21 44 10.55364	E 174 37 57.47920	63.5479	GA Record2008/04, SO6450
KADV	S 19 07 05.31825	E 177 59 17.45239	860.5357	GA Record2008/04
NAKO	S 17 56 49.7928	E 179 17 55.0587	142.0013	EEZ Report - Northern
UNAV	S 18 11 14.3492	W 178 46 47.5921	112.6458	EEZ Report - Northern
CIKI	S 17 17 0.1427	W 178 47 33.4089	208.6234	EEZ Report - Northern
MATU	S 19 10 27.91403	E 179 44 59.71645	387.6648	GA Record2008/04
ODRI	S 19 12 1.06425	W 178 24 21.20689	130.9099	GA Record2008/04
VATO	S 19 49 43.54319	W 178 15 06.88044	91.0613	GA Record2008/04
ONOI	S 20 38 34.631	W 178 4421.899	100.2	GA Record2008/04
EKUB	S 18 30 54.9704	E 177 38 49.6212	69.6575	EEZ Report - Northern
MANF	S 17 40 19.3811	E 177 06 06.9592	93.3822	EEZ Report - Northern
YAWI	S 16 41 16.6981	E 177 33 38.1622	123.1534	EEZ Report - Northern
NASA	S 17 15 36.0449	E 179 21 2.0427	130.3907	EEZ Report - Northern
TAVE	S 16 59 39.4464	E 179 55 11.7247	350.9440	EEZ Report - Northern
SESE	S 16 46 23.7458	E 178 30 39.8860	477.2449	EEZ Report - Northern
KIAS	E 179 05 47.3047	S 16 13 21.4091	111.5180	EEZ Report - Northern
KAMA	S 16 9 12.3749	W 179 59 29.9831	221.3874	EEZ Report - Northern
QELE	S 16 05 29.0576	W 179 09 54.9230	54.6608	EEZ Report - Northern
QILO	S 15 43 12.6853	W 179 57 39.8431	218.9129	EEZ Report - Northern
SOLE	S 12 29 49.4785	E 177 0 55.4724	199.7357	SO 6449
TUCO	S 21 00 40.25961	W 178 45 12.47489	57.0808	GA Record2008/04
VADA	S 17 31 39.7211	E 177 39 59.8168	136.4290	EEZ Report - Northern
ULUI	S 16 25 55.9046	E 179 24 45.6094	166.7953	EEZ Report - Northern
AGFA	S 12 31 158132	E 177 08 54.8416	69.959	SO 6449
HAUA	S 12 28 53.0165	E 177 07 24.4564	53.761	SO 6449
NAFA	S 12 29 13.4752	E 177 07 17.2364	52.794	SO 6449
KELE	S 12 31 06.4974	E 177 02 00.0740	132.345	SO 6449

Table 9: Fiji Geodetic Stations with their Positions (Latitude, Longitude coordinates) and Ellipsoidal Height (metres) in ITRF2005, adopted from Fiji Maritime Boundaries technical reports and survey plans.

## Fiji Geodetic Survey Stations

Station ID	Easting	Northing	Orthometric Ht.	Source
KADV	1919868.03	3765411.97	805.3	TD88
NAKO	2058096.05	3895100.72	89.62	SO 4274
OALA	2124627.20	3825511.38	302.53	SO 4274
UNAV	2261331.88	3866850.50	59.77	SO 4347
CIKI	2260961.59	3966627.56	No height	SO 2221
LULU	2204350.89	3916987.03	184.20	SO 4274
MATU	2105145.87	3759062.64	334.00	SO 4274
ODRI	2299139.86	3754057.80	77.03	SO 4274
NAC2	1967213.58	3873474.46	68.57	SO 4344
BITU	1937474.54	3861774.87	1.743	SO 5132
NASE	1985022.68	3904801.02	50.35	SO 4274
EKUB	1883536.19	3831962.33	8.80	SO 4672
ASAU	1879745.49	3871858.77	329.58	SO 4672
MALO	1853477.76	3878609.26	237.96	SO 4672
LEVU	1951466.19	3908517.82	149.83	SO 3829
KALI	1975560.95	3924167.43	628.56	SO 4274
MAGO	1892005.20	3912119.77	888.75	SO 2221
BULI	1844680.20	3902210.43	228.99	SO 3515
TOMA	1922332.77	3931823.33	1323.26	TD83, SO7594
NDRO	1951762.58	3945996.49	481.58	SO 4274
KAVU	1940016.55	3963595.05	203.20	SO 3515
UIRA	1969846.90	3964988.72	31.48	SO 3515
DRAU	1896807.79	3953186.47	368.67	TD3
ROQE	1878437.87	3939446.39	480.39	TD3
LOAT	1856094.03	3927420.71	33.80	SO 3540
MANF	1826383.35	3924403.43	64.83	SO 4920
TILI	1806984.16	3985384.17	1.49	SO 4264
YAWI	1873131.51	4034146.53	65.5	SO 3515
NASA	2063838.9	3971127.50	77.98	SO 4274
TAVE	2124557.41	4000258.42	297.85	SO 4274
ARIA	2155612.16	4023483.34	No height	SO 2221



Station ID	Easting	Northing	Orthometric Ht.	Source
MACA	2060032.11	4021723.14	243.93	SO 4274
DELA	2027267.52	4007095.08	143.27	SO 4274
SESE	1974515.19	4025072.18	420.62	SO 6185
ROGA	2004180.61	4033643.72	146.89	SO 6552 / SO 3524
WANI	2008724.83	4048758.35	73.93	SO 6185
BULE	2033789.35	4057266.76	No height	SO 3542
GALA	2094314.85	4031699.18	512.80	SO 6689
KOKA	2065052.5	4068620.62	No height	SO 5510
KALO	2102058.41	4085018.03	No height	TD59
KAMA	2134556.43	4093258.25	169.93	TD59
RABE	2134719.36	4054875.17	463.05	SO 6689
LKRE	2258855.49	3861844.63	48.50	SO 4347
KQAL	1935499.01	3772475.28	No height	CP86
LUGA	1938769.03	3763987.21	No height	CP86
SLPI	1965379.90	3873694.04	3.05	S1244
SS41	1965408.48	3872937.64	No height	S1244
S094	1976429.45	3885663.61	No height	SO 2685
S095	1976479.40	3885590.98	No height	SO 2685
NVIA	1975988.97	3883849.82	44.37	SO4344
VANT	1972799.33	3882999.80	94.18	SO4344
TOKO	1939172.68	3866019.72	3.139	SO 5132
WALU	1910410.72	3860428.90	227.30	SO 6533
NADA	1869307.29	3872092.75	No height	SO 6955
S007	1942430.42	3869844.30	No height	CP90/NS439
2718	1876423.45	3868779.64	No height	SO 291
TBM9(SS2010)	1965477.99	3876798.53	No Height	TD95
1923	1897286.61	3863595.21	14.20	SO 7197
2750	1910595.01	3861821.14	No height	SO 491
2500	1927664.64	3860978.04	No height	SO 8720
1906	1891657.20	3865631.66	5.51	SO 7273
1886	1885882.25	3866563.65	4.28	SO 8129
1873	1878609.32	3868624.92	5.70	SO 8129

Station ID	Easting	Northing	Orthometric Ht.	Source
2496	1871151.80	3870244.55	No height	CP 57
2740	1913000.15	3861059.42	77.33	SO 491
2656	1921949.50	3859789.97	1.573	SO 194
1935	1903982.09	3864117.21	93.83	SO 7197
2515	1932890.65	3883404.45	3.56	SO 8720
2567	1947193.34	3872288.30	No height	CP 89
2595	1954378.37	3875391.86	No height	CP 92
3381	1882872.23	3943852.93	41.761	SO 3540
3382	1882088.42	3945140.30	43.672	SO 3540
LOVA	1888107.68	3942657.83	No height	SO 3889
VADA	1884957.07	3941277.12	77.907	SO 3889
YAQA	1917247.07	3952105.63	32.693	SO 3503
ADOI	1865702.40	3916958.40	61.306	SO 4242
1963	1855192.56	3913130.23	2.1893	SO 7740
1964	1855493.25	3921792.64	1.8635	SO 7740
1965	1855618.38	3912754.88	2.210	SO 7740
SS20	1862382.99	3932612.58	No height	DP 6666
SS19	1862244.21	3932636.38	No height	DP 6666
4043	1994101.85	4000159.77	65.44	SO 6552
VUYA	1996579.46	4002870.10	549.41	SO 6185
DIRI	1990761.83	4006796.29	53.64	SO 6185
NASO	1989344.62	4011644.61	61.05	SO 6185
2032	2001869.97	4007630.27	184.99	SO 7669
2051	2013894.35	4015736.90	45.798	SO 7669
2053	2014440.58	4015550.96	25.53	SO 7669
3905	2062588.20	4024110.90	No height	SO 5519
3925	2062754.21	4022231.81	No height	SO 5519
VATU	2055668.42	4062777.57	No height	SO 5510
3848	2071520.35	4061536.39	No height	SO 5518
MULO	2060973.16	4060808.89	No height	SO 5510
3849	2071805.99	4061565.12	No height	SO 5518
ENAU	2065244.85	4059190.23	No height	SO 5510

Station ID	Easting	Northing	Orthometric Ht.	Source
3873	2066236.15	4059868.80	No height	SO 5510
ULUI	2070749.35	4062710.34	No height	SO 5518
3793	2066215.63	4062437.81	No height	SO 5510
3804	2067007.68	4063141.79	No height	SO 5510
1830	2043849.54	4059786.95	109.98	SO 7033
1836	2041650.95	4053178.18	85.98	SO 7033
1834	2042974.72	4054548.16	122.30	SO 7033
1842	2039797.80	4054152.81	201.14	SO 7033

*Table 10: Fiji Geodetic Stations with their Positions (Easting, Northing coordinates) and Orthometric Height (metres), based on Fiji Map Grid 1986 (FMG1986) and adopted from the published survey plans*

## Data Processing

The initial data processing was completed for all the geodetic survey stations via [AUSPOS - Online GPS Processing Service](#).

AUSPOS is a free online GPS/GNSS data processing facility provided by Geoscience Australia. It takes advantage of both the IGS Stations Network in the pacific region and the IGS product range. All dual-frequency geodetic quality GPS/GNSS RINEX data observed in a 'static' mode were submitted to the GPS data processing system. An AUSPOS report was emailed back with the International Terrestrial Reference Frame (ITRF) coordinates.

All the geodetic station datasets collated will be further post-processed and analysed with the great support from Geoscience Australia. These datasets will be shared via cloud.

All the data will be post processed and analysis using Leica Geo Office, Trimble Business Centre and DynAdjust software packages.

## Challenges & Issues

The survey department faced the following challenges before the geodetic survey campaign: -

- Not enough resources (survey equipment, transportation, camping kits etc.)
- Shipping schedules for transportations to outer islands
- Consent approval from landowners regarding the location of the survey benchmarks and GNSS CORS.
- Survey staff with limited capacity in geodetic infrastructure, GNSS operation, technology, and application
- Capacity building (hands on training with in-house training workshops needed on operations and technical knowledge)
- Lack of awareness on the importance of the Geodetic Survey
- Access for GNSS CORS data for geospatial experts and surveyors
- Lack of consultations with the field survey teams
- Lack of project visibility to the public and to stakeholders
- Lack of engagement of stakeholders (TLTB, NLC, USP, FNU, WAF, FRA, EFL etc.)
- Gender balance - encouragement of more females to participate in this project
- Effective use of the standard operating procedure for geodetic operations
- Succession plan for the geodetic surveys

The survey department had the following challenges during the geodetic survey campaign: -

- Communications (network connectivity, satellite phones)
- Less preparation time given between the phases (e.g. one week break)
- Equipment issues – battery failures, less chargers, less GNSS receivers
- Limited capacity on GNSS operations for the operators
- Staff commitments towards the survey (not following the SOP)
- Office Support – there was no back up support from the office since everyone was out of the office.
- Survey documentation – incomplete field-sheet e.g., no height recorded, locality diagrams not drawn, description of ground marks not stated etc.
- Weather conditions – cyclone Sarai

The survey department had the following challenges after the geodetic survey campaign: -

- Data downloading and backup – GNSS CORS data was not downloaded immediately after the completion of each phase, also backup copies were not stored in a remote location; it was still in the server, which collapsed.
- GNSS CORS setup was not configured to IGS Standards and Guidelines.
- Missing information from field survey sheets e.g., heights, equipment type, photos, etc
- Timely and accurate compilation of geodetic survey data
- Data Gaps due to disruptions of GNSS COR station failure from natural disasters and internet connectivity
- Capacity – limited knowledge in conversion of GNSS Raw data to RINEX of Leica, Hi-Target and Trimble.
- Internet connectivity during data processing (difficulty in upload AUSPOS)
- GNSS COR stations - data handling, data access, data storage, and data management
- Capacity on operations and management of GNSS CORS
- Timely provision of data after geodetic survey campaign
- Lack of IT support – importance of GNSS CORS data
- Software and firmware issue for - Vnet platform for GNSS CORS, LGO for multiple users, upgrade LISCAD license

## Benefits

- Global Geodetic Reference Frame (horizontal and vertical positioning definitions)
- Transformation parameters – from local to international system
- Improve and align the geospatial, engineering and surveying applications to the international reference frame.
- Improve mapping and charting through positioning and navigation
- Improve town and country planning
- Enhance social and economic development
- The GNSS CORS will enhance positioning for land surveyors, civil engineers, land developers and other stakeholders
- Assist landowner's boundary demarcation effectively
- Assist surveyors in embracing new technologies
- Interoperability between users of different background
- Precision Agriculture (GNSS on agricultural machinery)
- Pre and post disaster planning, mapping, hazard, relief and risk management
- Assist in national and provincial maritime boundaries
- Climate change mitigation and monitoring
- Enhance marine and ocean management plans
- Assist in natural resources management e.g., mining, minerals, deep sea mining,
- Encourage and enhance open data sharing for social and economic development
- Encourage participation for gender balance in positioning and navigation.

## Future Directions

- Geodetic survey data processing, analysis and network adjustment using AUSPOS, TBC, LGO, DynAdjust and Bernese.
- Capacity building in geodetic survey data processing, analysis, and network adjustment.
- Technical Reports – Geodetic Surveys
- Definition of transformation parameters and develop tools for transformations
- Transformation and alignment of all the geospatial data, information and products (survey plans and topographic maps) from the Fiji Map Grid 1986 to the new datum.
- Awareness and visibility of the new Fiji Geodetic Datum 2020
- Installation of the Tide Gauges, to be co-located with the GNSS CORS
- Develop and establish the vertical reference frame with pole to gauge calibrations
- Develop and establish reference marks at the GNSS CORS sites, for monitoring surveys
- Precision levelling surveys from the GNSS CORS to the Tide Gauge Stations
- Maintenance plan for the GNSS CORS and site
- Capacity building needs in ICT and electronics of the GNSS CORS
- GNSS CORS data management plan and strategy for handling, accessibility, sharing.
- Solutions and results of the GNSS CORS to analysis for land velocity
- Inclusion of GNSS CORS to be part of the APREF and IGS network
- Upgrade the GNSS CORS for Network RTK capability
- Develop and maintain archive data sets for all the GPS/GNSS observations in the past, current and in future
- Seek opportunity to establish and develop Fiji's geoid model.
- Geospatial Policy, incorporating the Fiji's Geodetic Reference Frame
- Fiji Geodetic Reference Frame Database incorporated into VanuaGIS

## Lessons Learnt

- Better management and maintenance of the GNSS CORS
- Capacity building in geodetic survey data handling and management
- Consultations with all relevant stakeholders
- Better communications within teams
- Project ownership and commitment from project staff
- Proper planning for fieldwork
- Importance of documenting relevant and accurate information on field sheets, localities.
- Visibility for future projects



## Reference

- Inter-Government Committee on Surveying and Mapping (ICSM), Guideline for Control Surveys by GNSS, Special Publication 1, SP1, Ver. 2.2, 7 December 2020.  
[https://www.icsm.gov.au/sites/default/files/2020-12/Guideline-for-Control-Surveys-by-GNSS\\_v2.2\\_0.pdf](https://www.icsm.gov.au/sites/default/files/2020-12/Guideline-for-Control-Surveys-by-GNSS_v2.2_0.pdf)
- Inter-Government Committee on Surveying and Mapping (ICSM), Guideline for Continuously Operating Reference Stations, Special Publication 1, SP1, Ver. 2.2, 7 December 2020.  
[https://www.icsm.gov.au/sites/default/files/2020-12/Guideline-for-Continuously-Operating-Reference-Stations\\_v2.2.pdf](https://www.icsm.gov.au/sites/default/files/2020-12/Guideline-for-Continuously-Operating-Reference-Stations_v2.2.pdf)

## Appendix 1: Geodetic Survey Station Field sheets

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: CEVA I RA

4 CHARACTER ID: CEVA

LOCATION: CEVA I RA I SLAND

COUNTRY: FIJI

TYPE OF SURVEY MARK: 20mmx1.220mm STEEL ROD ENCASED BY 30mmx0.5mm  
ALUMINIUM PIPE IN SITU IN CONCRETE.

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 09/11/2019

UTC TIME: 2257hrs

OBSERVATION END DATE/DAY: 17/11/2019

UTC TIME: 0007hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5333441663

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 5333441663

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.643m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.692m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: DELAINABUKELEVU

4 CHARACTER ID: KADV

LOCATION: LOMAJI, NABUKELEVU, KADAVU

COUNTRY: FIJI

TYPE OF SURVEY MARK: 20MM IRON ROD IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/11/2019

UTC TIME: 0000hrs

OBSERVATION END DATE/DAY: 16/11/2019

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE NET R9

SERIAL NUMBER: 5215K84270

FIRMWARE VERSION: 5.37

GNSS ANTENNA TYPE: TRM557971.0

=====

MODEL: TRM57971.0

SERIAL NUMBER: 5311118056

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.985m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF NOTCH

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.934m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.  
=====

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

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STATION NAME: NAKOROWARO

4 CHARACTER ID: NAKO

LOCATION: VIONE, GAU, LOMAIVITI

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS PLAQUE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/11/2019

UTC TIME: 1931hrs

OBSERVATION END DATE/DAY: 17/11/2019

UTC TIME: 0001hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GS10

SERIAL NUMBER: 1532578

FIRMWARE VERSION: 5.05

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIAS10

SERIAL NUMBER: 667126

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.265m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.625m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: KORONIKOLI

4 CHARACTER ID: OALA

LOCATION: NAROI, MOALA, LAU

COUNTRY: FIJI

TYPE OF SURVEY MARK: 9mm BRASS BOLT SET IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 09/11/2019

UTC TIME: 2249hrs

OBSERVATION END DATE/DAY: 16/11/2019

UTC TIME: 2327hrs

GNSS RECEIVER TYPE: LEICA GPS1200

=====

MODEL: LEICA GX1230

SERIAL NUMBER: 459652

FIRMWARE VERSION: 4.00

GNSS ANTENNA TYPE: LEICA AX1202

=====

MODEL: LEIAX1202

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.404m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.764m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: UNAVCO

4 CHARACTER ID: UNAV

LOCATION: YADRANA, LAKEBA, LAU

COUNTRY: FIJI

TYPE OF SURVEY MARK: STAINLESS STEEL PIN IN ROCK

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 09/11/2019

UTC TIME: 2255hrs

OBSERVATION END DATE/DAY: 17/11/2019

UTC TIME: 0011hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GS16

SERIAL NUMBER: 3707695

FIRMWARE VERSION: 8.0

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.380m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.740m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: CIKOBIA I LAU

4 CHARACTER ID: CIKI

LOCATION: CIKOBIA VILLAGE, CIKOBIA I LAU ISLAND

COUNTRY: FIJI

TYPE OF SURVEY MARK: DOPPLER STATION (BRASS PLAQUE)

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 09/11/2019

UTC TIME: 2312hrs

OBSERVATION END DATE/DAY: 17/11/2019

UTC TIME: 0002hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GS10

SERIAL NUMBER: 1532442

FIRMWARE VERSION: 5.05

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIAS10

SERIAL NUMBER: 14071055

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.333m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.693m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: COKALULU

4 CHARACTER ID: LULU

LOCATION: TARUKUA, CICIA, LAU

COUNTRY: FIJI

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 09/11/2019

UTC TIME: 2350hrs

OBSERVATION END DATE/DAY: 17/11/2019

UTC TIME: 0021hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE NET R9

SERIAL NUMBER: 5215K84291

FIRMWARE VERSION: 4.85

GNSS ANTENNA TYPE: TRM557971.0

=====

MODEL: TRM557971.0

SERIAL NUMBER: 5211118160

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.759m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF NOTCH

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.707

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: MATUKU

4 CHARACTER ID: MATU

LOCATION: MAKADRU, MATUKU, LAU

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS PLAQUE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 09/11/2019

UTC TIME: 2248hrs

OBSERVATION END DATE/DAY: 16/11/2019

UTC TIME: 2327hrs

GNSS RECEIVER TYPE: LEICA GPS1200

=====

MODEL: LEICA GX1230

SERIAL NUMBER: 460136

FIRMWARE VERSION: 4.00

GNSS ANTENNA TYPE: LEICA AX1200

=====

MODEL: LEIAX1202

SERIAL NUMBER: 05170191

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.263m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.623m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: OGEA

4 CHARACTER ID: ODRI

LOCATION, OGEA DRIKI ISLAND, OGEA, LAU

COUNTRY: FIJI

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 09/11/2019

UTC TIME: 2355hrs

OBSERVATION END DATE/DAY: 17/11/2019

UTC TIME: 0152hrs

GNSS RECEIVER TYPE: LEICA GPS1200

=====

MODEL: LEICA GX1230

SERIAL NUMBER: 460120

FIRMWARE VERSION: 4.00

GNSS ANTENNA TYPE: LEICA AX1202

=====

MODEL: LEIAX1202

SERIAL NUMBER: 05170071

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.185m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.545m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VATOA

4 CHARACTER ID: VATO

LOCATION: VATOA VILLAGE, VATOA, LAU

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRONZE PLAQUE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/11/2019

UTC TIME: 0001hrs

OBSERVATION END DATE/DAY: 16/11/2019

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: LEICA GPS1200

=====

MODEL: LEICA GX1230

SERIAL NUMBER: 459637

FIRMWARE VERSION: 4.0

GNSS ANTENNA TYPE: LEICA AX1202

=====

MODEL: LEIAX1202

SERIAL NUMBER: 05170113

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.272m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.632m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: DELAILOA (ONO I LAU)

4 CHARACTER ID: ONOI

LOCATION: MATOKANA, ONO I LAU, LAU

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRONZE PLAGUE SET IN CONCRETE.

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 09/11/2019

UTC TIME: 2317hrs

OBSERVATION END DATE/DAY: 16/11/2019

UTC TIME: 0205hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GS10

SERIAL NUMBER: 1532450

FIRMWARE VERSION: 5.05

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIAS10

SERIAL NUMBER: 14081041

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.272m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
**HOOK HEIGHT**

\_\_\_\_\_  
**ANTENNA HEIGHT TO ARP - 1.632m**

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: TUVANA-I-RA 2

4 CHARACTER ID: TUVR

LOCATION: TUVANA-I-RA, ONO-I-LAU

COUNTRY: FIJI

TYPE OF SURVEY MARK: STAINLESS STEEL TORX PATTERN SCREW

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/11/2019

UTC TIME: 0000hrs

OBSERVATION END DATE/DAY: 16/11/2019

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440947

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 40919570

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.309m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.359m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: NACOVU 2

4 CHARACTER ID: NAC2

LOCATION: VESI STREET, VATUWAQA, SUVA

COUNTRY: FIJI

TYPE OF SURVEY MARK: \_\_\_\_\_

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 07/12/2019

UTC TIME: 2023hrs

OBSERVATION END DATE/DAY: 11/12/2019

UTC TIME: 0035hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GS16

SERIAL NUMBER: 3707695

FIRMWARE VERSION: 8.0

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 0.25m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 0.610m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VUNIBITU

4 CHARACTER ID: BITU

LOCATION: NAITATA SETTLEMENT, NAVUA TOWN

COUNTRY: FIJI

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 07/12/2019

UTC TIME: 2243hrs

OBSERVATION END DATE/DAY: 15/12/2019

UTC TIME: 0057hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5333441663

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 5333441663

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.754m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.803m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: NASELE

4 CHARACTER ID: NASE

LOCATION: UCUNIVANUA, VERATA, TAILEVU

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/2019

UTC TIME: 0000hrs

OBSERVATION END DATE/DAY: 14/12/2019

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: LEICA GNSS

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495613

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: 5038353984

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.75m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA  
THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.705m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.



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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: KOROLEVU (KOROGASAU)

4 CHARACTER ID: ASAU

LOCATION: BALENABELO, BARAVI, NADROGA

COUNTRY: FIJI

TYPE OF SURVEY MARK: IRON RAIL IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 07/12/2019

UTC TIME: 2319hrs

OBSERVATION END DATE/DAY: 15/12/2019

UTC TIME: 0006hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GS10

SERIAL NUMBER: 1532578

FIRMWARE VERSION: 5.05

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIAS10

SERIAL NUMBER: 667126

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.211m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.571m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: KOROLEVU (MALOMALO)

4 CHARACTER ID: MALO

LOCATION: MALOMALO, NADROGA

COUNTRY: FIJI

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/2019

UTC TIME: 0326hrs

OBSERVATION END DATE/DAY: 15/12/2019

UTC TIME: 0317hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GS16

SERIAL NUMBER: 3707706

FIRMWARE VERSION: 8.0

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.350m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.710m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: TAULEVU

4 CHARACTER ID: LEVU

LOCATION: TAULEVU, MATAILOBAU, NAITASIRI

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS IN CONCRETE ON TOP OF ROCK

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/2019

UTC TIME: 0000hrs

OBSERVATION END DATE/DAY: 14/12/2019

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE NETR9

SERIAL NUMBER: 5215K84270

FIRMWARE VERSION: 5.37

GNSS ANTENNA TYPE: TRIMBLE ZEPHYR MODEL 2

=====

MODEL: TRM557971.0

SERIAL NUMBER: 5311118056

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.985m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF NOTCH

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.933m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT
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STATION NAME: VATUKALIKALI

4 CHARACTER ID: KALI

LOCATION: VOROVORO, SAWAKASA, TAILEVU

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS PLAQUE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: _____
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/2019

UTC TIME: 0001hrs

OBSERVATION END DATE/DAY: 15/12/2019

UTC TIME: 0014hrs

GNSS RECEIVER TYPE: TRIMBLE
=====
MODEL: TRIMBLE NET R9

SERIAL NUMBER: 5215K84291

FIRMWARE VERSION: 4.85

GNSS ANTENNA TYPE: TRIMBLE ZEPHYR MODEL 2
=====
MODEL: TRM55971.0

SERIAL NUMBER: 5211118160

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.934m
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA
THAT THE ANTENNA HEIGHT REFERS TO:

_____

BOTTOM OF NOTCH

_____

ANTENNA HEIGHT TO ARP - 1.882m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: MAGODRO

4 CHARACTER ID: MAGO

LOCATION: BUKUYA, MAGODRO, BA

COUNTRY: FIJI

TYPE OF SURVEY MARK: COPPER RIVET SET ON ROCK

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 07/12/2019

UTC TIME: 0330hrs

OBSERVATION END DATE/DAY: 14/12/2019

UTC TIME: 1123hrs

GNSS RECEIVER TYPE: LEICA GPS1200

=====

MODEL: LEICA GX1230

SERIAL NUMBER: 459652

FIRMWARE VERSION: 4.0

GNSS ANTENNA TYPE: LEICA AX1202

=====

MODEL: LEIAX1202

SERIAL NUMBER: 05170078

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.209m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

HOOK HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.569m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SENILABULI

4 CHARACTER ID: BULI

LOCATION: NABILA, UCIWAI, NADI

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS PIN ON ROCK SURFACE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/2019

UTC TIME: 0000hrs

OBSERVATION END DATE/DAY: 13/12/2019

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: LEICA GNSS

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495648

FIRMWARE VERSION: 8.71

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.760m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.715m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: TOMANIIVI

4 CHARACTER ID: TOMA

LOCATION: NAVAI, NABOUBUCO, NAITASIRI.

COUNTRY: FIJI

TYPE OF SURVEY MARK: IRON ROD IN SITU

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/2019

UTC TIME: 0000hrs

OBSERVATION END DATE/DAY: 14/12/2019

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: LEICA GPS1200

=====

MODEL: LEICA GX1230

SERIAL NUMBER: 459636

FIRMWARE VERSION: 4.0

GNSS ANTENNA TYPE: LEICA AX1202

=====

MODEL: LEIAX1202

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.930m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

HOOK HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 2.290m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: NADELANADRO

4 CHARACTER ID: NDRO

LOCATION: NAKOROVOU, NAKOROTUBU, RA

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS PIN

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/2019

UTC TIME: 0006hrs

OBSERVATION END DATE/DAY: 15/12/2019

UTC TIME: 0009hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GS10

SERIAL NUMBER: 1532450

FIRMWARE VERSION: 5.05

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIAS10

SERIAL NUMBER: 14081041

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.283m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.643m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: ROKAVUKAVU

4 CHARACTER ID: KAVU

LOCATION: VOLIVOLI, RAKIRAKI, RA

COUNTRY: FIJI

TYPE OF SURVEY MARK: COPPER PIN IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/2019

UTC TIME: 0001hrs

OBSERVATION END DATE/DAY: 15/12/2019

UTC TIME: 0001hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440981

FIRMWARE VERSION: 5.41

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 40919570

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.900m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.949m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VATU-I-RA

4 CHARACTER ID: UIRA

LOCATION: VATU-I-RA ISLAND, NAKOROTUBU, RA

COUNTRY: FIJI

TYPE OF SURVEY MARK: BOLT & NUT ON LIGHTHOUSE CONCRETE FOUNDATION

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/2019

UTC TIME: 0000hrs

OBSERVATION END DATE/DAY: 14/12/2019

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495666

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: 5038353980

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.684m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.638m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: DRAUTANA

4 CHARACTER ID: DRAU

LOCATION: VATIA, TAVUA

COUNTRY: FIJI

TYPE OF SURVEY MARK: COPPER RIVET

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/2019

UTC TIME: 0001hrs

OBSERVATION END DATE/DAY: 14/12/2019

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495587

FIRMWARE VERSION: 8.51

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.550m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.503m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS



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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: KOROQELE

4 CHARACTER ID: ROQE

LOCATION: LOLOLO PINE STATION, LAUTOKA

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS PIN IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/2019

UTC TIME: 0004hrs

OBSERVATION END DATE/DAY: 15/12/2019

UTC TIME: 0002hrs

GNSS RECEIVER TYPE: LEICA GPS1200

=====

MODEL: LEICA GX1230

SERIAL NUMBER: 460136

FIRMWARE VERSION: 4.00

GNSS ANTENNA TYPE: LEICA AX1202

=====

MODEL: LEIAX1202

SERIAL NUMBER: 05170191

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.375m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.735m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: LOA

4 CHARACTER ID: LOAT

LOCATION: SAWENI, VUDA, LAUTOKA

COUNTRY: FIJI

TYPE OF SURVEY MARK: IRON ROD IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/2019

UTC TIME: 0000hrs

OBSERVATION END DATE/DAY: 14/12/2019

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495619

FIRMWARE VERSION: 8.71

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: 5033353874

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.745m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.700m

\_\_\_\_\_

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: MANA

4 CHARACTER ID: MANF

LOCATION: YAROLEVU, MANA ISLAND, NADROGA

COUNTRY: FIJI

TYPE OF SURVEY MARK: IRON BOLT IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/2019

UTC TIME: 0000hrs

OBSERVATION END DATE/DAY: 14/12/2019

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495624

FIRMWARE VERSION: 8.70

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: 5220354466

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.305m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.256m

\_\_\_\_\_

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VIWA

4 CHARACTER ID: TILI

LOCATION: NAJIA, VIWA ISLAND, YASAWA .

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 07/12/2019

UTC TIME: 2331hrs

OBSERVATION END DATE/DAY: 15/12/2019

UTC TIME: 0002hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GS10

SERIAL NUMBER: 1532442

FIRMWARE VERSION: 5.05

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIAS10

SERIAL NUMBER: 14071055

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.212  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

HOOK HEIGHT

ANTENNA HEIGHT TO ARP - 1.572m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: YAWINI

4 CHARACTER ID: YAWI

LOCATION: YAWINI ISLAND, YASAWA I RARA

COUNTRY: FIJI

TYPE OF SURVEY MARK: IRON PEG IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/2019

UTC TIME: 0006hrs

OBSERVATION END DATE/DAY: 14/12/2019

UTC TIME: 2300hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE NETR9

SERIAL NUMBER: 5215K84302

FIRMWARE VERSION: 5.37

GNSS ANTENNA TYPE: TRIMBLE ZEPHYR MODEL 2

=====

MODEL: TRM55971.0

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 2.380m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

BOTTOM OF NOTCH

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 2.330m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: NASAVUTI

4 CHARACTER ID: NASA

LOCATION: NOLA POINT, KORO, LOMAIVITI

COUNTRY: FIJI

TYPE OF SURVEY MARK: IRON PIPE SET IN BLACK SOIL

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 26/01/2020

UTC TIME: 2358hrs

OBSERVATION END DATE/DAY: 02/02/2020

UTC TIME: 0006hrs

GNSS RECEIVER TYPE: LEICA GPS1200

=====

MODEL: LEICA GX1230

SERIAL NUMBER: 459652

FIRMWARE VERSION: 4.00

GNSS ANTENNA TYPE: LEICA AX1202

=====

MODEL: LEIAX1202

SERIAL NUMBER: 03170078

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.474m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.834m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: TAVUYAGA

4 CHARACTER ID: TAVE

LOCATION: NAVOLIVOLI, VUNA, TAVEUNI.

COUNTRY: FIJI

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 26/01/2020

UTC TIME: 0000hrs

OBSERVATION END DATE/DAY: 01/02/2020

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495624

FIRMWARE VERSION: 8.70

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: 5220354466

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.726m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.680m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: NATARIA

4 CHARACTER ID: ARIA

LOCATION: NAIVIIVI, QAMEA ISLAND, CAKAUDROVE

COUNTRY: FIJI

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 27/01/2020

UTC TIME: 0239hrs

OBSERVATION END DATE/DAY: 01/02/2020

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495590

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: 5220354490

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.890m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.845m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: MACANABU

4 CHARACTER ID: MACA

LOCATION: KOROVESI, SAVUSAVU TOWN, CAKAUDROVE

COUNTRY: FIJI

TYPE OF SURVEY MARK: STAINLESS STEEL ROD DRILLED IN ROCK

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 26/01/2020

UTC TIME: 0019hrs

OBSERVATION END DATE/DAY: 01/02/2020

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GRX1200+ GNSS

SERIAL NUMBER: 495587

FIRMWARE VERSION: 8.51

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: 14071057

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 2.205m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 2.162m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: DELAVALAU 2

4 CHARACTER ID: DELA

LOCATION: NAVATU, NAVATU ISLAND, BUA,

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS PLAQUE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 26/01/2020

UTC TIME: 0000hrs

OBSERVATION END DATE/DAY: 01/02/2020

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: LEICA GPS1200

=====

MODEL: LEICA GX1230

SERIAL NUMBER: 460136

FIRMWARE VERSION: 4.00

GNSS ANTENNA TYPE: LEICA AX1202

=====

MODEL: LEIAX1202

SERIAL NUMBER: 05170191

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.197m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.557m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SESELEKA

4 CHARACTER ID: SESE

LOCATION: KOROINASOLO, BUA

COUNTRY: FIJI

TYPE OF SURVEY MARK: IRON PIPE IN STONE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 25/01/2020

UTC TIME: 2352hrs

OBSERVATION END DATE/DAY: 02/02/2020

UTC TIME: 0000hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL NET R9

SERIAL NUMBER: 5215k84291

FIRMWARE VERSION: 4.85

GNSS ANTENNA TYPE: TRIMBLE ZEPHYR MODEL 2

=====

MODEL: TRM55971.0

SERIAL NUMBER: 5211118160

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.650m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF NOTCH

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.597m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: DELAINAROGA

4 CHARACTER ID: ROGA

LOCATION: NAMUAVOIVOI, LEKUTU, BUA

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS PIN IN ROCK

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 25/01/2020

UTC TIME: 2255hrs

OBSERVATION END DATE/DAY: 02/02/2020

UTC TIME: 0006hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440947

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 5330440947

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.851m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.900m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: CULASAWANI

4 CHARACTER ID: WANI

LOCATION: DREKETI IRRIGATION SCHEME, DREKETI, MACUATA

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS MOUNTED ON ROCK

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 26/01/2020

UTC TIME: 0125hrs

OBSERVATION END DATE/DAY: 01/02/2020

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495666

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: 5038353980

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.491m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.444m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: BULEBULEWA

4 CHARACTER ID: BULE

LOCATION: NASEA, MACUATA

COUNTRY: FIJI

TYPE OF SURVEY MARK: 6mm IRON ROD IN CONCRETE, 1m BELOW GROUND LEVEL

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 25/01/2020

UTC TIME: 0000hrs

OBSERVATION END DATE/DAY: 02/02/2020

UTC TIME: 2206hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE NETR9

SERIAL NUMBER: 5215K84270

FIRMWARE VERSION: 5.37

GNSS ANTENNA TYPE: TRIMBLE ZEPHYR MODEL 2

=====

MODEL: TRM55971.0

SERIAL NUMBER: 5311119056

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 2.755m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF NOTCH

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 2.705m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: QALAULEVU

4 CHARACTER ID: GALA

LOCATION: LEA, NAVATU, CAKAUDROVE

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS PLAQUE CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 25/01/2020

UTC TIME: 0244hrs

OBSERVATION END DATE/DAY: 02/02/2020

UTC TIME: 0006hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GS10

SERIAL NUMBER: 1532450

FIRMWARE VERSION: 5.05

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIAS10

SERIAL NUMBER: 14081041

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.883m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 2.243m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: KIA

4 CHARACTER ID: KIAS

LOCATION: KIA LIGHTHOUSE, KIA ISLAND, MACUATA

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS PLAQUE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 26/01/2020

UTC TIME: 0000hrs

OBSERVATION END DATE/DAY: 30/01/2020

UTC TIME: 0000hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE NETR9

SERIAL NUMBER: 5215K84302

FIRMWARE VERSION: 5.37

GNSS ANTENNA TYPE: TRIMBLE ZEPHYR MODEL 2

=====

MODEL: TRM55971.0

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.618m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF NOTCH

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.565m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: KOROINAKOKA

4 CHARACTER ID: KOKA

LOCATION: MALAU, LABASA, MACUATA

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS IN CONCRETE ON BEDROCK

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 25/01/2020

UTC TIME: 0538hrs

OBSERVATION END DATE/DAY: 01/02/2020

UTC TIME: 2128hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440980

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 40919570

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.552m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.601m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: KOROKALO

4 CHARACTER ID: KALO

LOCATION: CAWADEVO, NAMUKA, MACUATA

COUNTRY: FIJI

TYPE OF SURVEY MARK: COPPER RIVET

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 26/01/2020

UTC TIME: 0000hrs

OBSERVATION END DATE/DAY: 01/02/2020

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495613

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: 5038353984

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 2.25m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 2.207m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: ULUIKAMALI

4 CHARACTER ID: KAMA

LOCATION: YASAWA, TAWAKE, CAKAUDROVE

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS PIN IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 25/01/2020

UTC TIME: 2345hrs

OBSERVATION END DATE/DAY: 02/02/2020

UTC TIME: 0001hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GS10

SERIAL NUMBER: 1532442

FIRMWARE VERSION: 5.05

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIAS10

SERIAL NUMBER: 14071055

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.435m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.795m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: QELELEVU

4 CHARACTER ID: QELE

LOCATION: QELELEVU ISLAND, LAUCALA, CAKAUDROVE

COUNTRY: FIJI

TYPE OF SURVEY MARK: A 0.5" INCH GALVANIZED IRON PIPE SET IN CONCRETE  
POURED IN SITU 10cm GROUND LEVEL

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 26/01/2020

UTC TIME: 0000hrs

OBSERVATION END DATE/DAY: 02/02/2020

UTC TIME: 0000hrs

GNSS RECEIVER TYPE: LEICA GPS1200

=====

MODEL: LEICA GX1230

SERIAL NUMBER: 460120

FIRMWARE VERSION: 4.0

GNSS ANTENNA TYPE: LEICA AX1202

=====

MODEL: LEIAX1202

SERIAL NUMBER: 14071057

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.350m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.710m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: QILOWAI (CIKOBIA)

4 CHARACTER ID: QILO

LOCATION: CIKOBIA ISLAND, MACUATA

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS PLAQUE ON CONCRETE PILLAR

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 26/01/2020

UTC TIME: 0000hrs

OBSERVATION END DATE/DAY: 31/01/2020

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495619

FIRMWARE VERSION: 8.71

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: 5220334490

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.745m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.700m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SOLMEA

4 CHARACTER ID: SOLE

LOCATION: ITUMUTA VILAGE, ROTUMA ISLAND

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS PLAQUE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 26/01/2020

UTC TIME: 0001hrs

OBSERVATION END DATE/DAY: 01/02/2020

UTC TIME: 2359hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GS16

SERIAL NUMBER: 3707695

FIRMWARE VERSION: 8.00

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.323m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.683m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

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STATION NAME: DELAIRABE

4 CHARACTER ID: RABE

LOCATION: RABI ISLAND, CAKAUDROVE

COUNTRY: FIJI

TYPE OF SURVEY MARK: IRON RAIL

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 27/01/2020

UTC TIME: 0151hrs

OBSERVATION END DATE/DAY: 02/02/2020

UTC TIME: 0101hrs

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GS10

SERIAL NUMBER: 1532578

FIRMWARE VERSION: 5.05

GNSS ANTENNA TYPE: LEICA GNSS

=====

MODEL: LEIAS10

SERIAL NUMBER: 667126

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.287m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

HOOK HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.647m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SSIII

4 CHARACTER ID: C111

LOCATION: TARUKUA, CICIA, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/11/19

UTC TIME: 0631HRS

OBSERVATION END DATE/DAY: 10/11/19

UTC TIME: 1229HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GS16

SERIAL NUMBER: 3707706

FIRMWARE VERSION: 8.0

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.323m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.683m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: CICIA JETTY

4 CHARACTER ID: CIJ1

LOCATION: CICIA JETTY, TARUKUA, CICIA, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS PLATE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/11/19

UTC TIME: 0225HRS

OBSERVATION END DATE/DAY: 13/11/19

UTC TIME: 0829HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GS16

SERIAL NUMBER: 3707706

FIRMWARE VERSION: 8.0

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.302m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.662m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: POST OFFICE 2

4 CHARACTER ID: CP02

LOCATION: POST OFFICE, TARUKUA, CICIA, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PEG IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 16/11/19

UTC TIME: 1809HRS

OBSERVATION END DATE/DAY: 16/11/19

UTC TIME: 2312HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GS16

SERIAL NUMBER: 3707706

FIRMWARE VERSION: 8.0

GNSS ANTENNA TYPE: LEICA

=====

MODEL: GS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.429m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.789m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: BUATACE TRIG

4 CHARACTER ID: BUAT

LOCATION: BUATACE , VANUA BALAVU, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/11/19

UTC TIME: 2002HRS

OBSERVATION END DATE/DAY: 14/11/19

UTC TIME: 0203HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495590

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.475m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.428m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: WATER TANK

4 CHARACTER ID: LKRE

LOCATION: BUCABAUCA RESERVOIR, TUBOU VILLAGE, LAKEBA, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: STAINLESS STEEL PIN WITH DRILL HOLE AND WING

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/11/19

UTC TIME: 2015HRS

OBSERVATION END DATE/DAY: 14/11/19

UTC TIME: 0220HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495624

FIRMWARE VERSION: 8.70

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.728m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.682m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: KOROIQALA TRIG

4 CHARACTER ID: KQAL

LOCATION: NAMUANA, KADAVU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/11/19

UTC TIME: 2134HRS

OBSERVATION END DATE/DAY: 14/11/19

UTC TIME: 0442HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE NETR9

SERIAL NUMBER: 5215K84302

FIRMWARE VERSION: 5.37

GNSS ANTENNA TYPE: TRIMBLE ZEPHYR MODEL 2

=====

MODEL: TRM557971.0

SERIAL NUMBER: 5215K84302

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.996m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF NOTCH

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.944m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: NAISULUGA TRIG

4 CHARACTER ID: LUGA

LOCATION: MUANI, RAVITAKI, KADAVU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: GALVANIZED PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 14/11/19

UTC TIME: 0636HRS

OBSERVATION END DATE/DAY: 15/11/19

UTC TIME: 0103HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE NETR9

SERIAL NUMBER: 5215K84302

FIRMWARE VERSION: 5.37

GNSS ANTENNA TYPE: TRIMBLE ZEPHYR MODEL 2

=====

MODEL: TRM557971.0

SERIAL NUMBER: 5215K84302

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 2.556m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF NOTCH

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 2.506m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VANA

4 CHARACTER ID: VANA

LOCATION: TUVANA-I-RA ISLAND, ONO I LAU

COUNTRY: FIJI

TYPE OF SURVEY MARK: STAINLESS STEEL SCREW

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 14/11/2019

UTC TIME: 0100HRS

OBSERVATION END DATE/DAY: 14/11/2019

UTC TIME: 0609HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495666

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER 5038353980

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.414m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.366m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: TUVANA I COLO

4 CHARACTER ID: TUCO

LOCATION: TUVANA-I-COLO ISLAND

COUNTRY: FIJI

TYPE OF SURVEY MARK: IRON TUBE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/11/2019

UTC TIME: 2118HRS

OBSERVATION END DATE/DAY: 13/11/2019

UTC TIME: 0322HRS

GNSS RECEIVER TYPE: LEICA  
=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495666

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING  
=====

MODEL: TRM49700.00

SERIAL NUMBER 5038353980

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.781m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.736m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: GAU AIRSTRIP 1

4 CHARACTER ID: GAA1

LOCATION: GAU AIRSTRIP, GAU, LOMAIVITI

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS PLATE IN CONCRETE (LANDS DEPT STANDARD SURVEY MARK)

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/11/19

UTC TIME: 0828HRS

OBSERVATION END DATE/DAY: 13/11/19

UTC TIME: 1428HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX 1200+ GNSS

SERIAL NUMBER: 495587

FIRMWARE VERSION: 8.51

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.550m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.503m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: GAU AIRSTRIP 2

4 CHARACTER ID: GAA2

LOCATION: GAU AIRSTRIP, GAU, LOMAIVITI

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/11/19

UTC TIME: 1458HRS

OBSERVATION END DATE/DAY: 13/11/19

UTC TIME: 2058HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495587

FIRMWARE VERSION: 8.51

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.505m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.458m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: GAU AIRSTRIP 3

4 CHARACTER ID: GAA3

LOCATION: NAROCAKE DISTRICT SCHOOL, GAU, LOMAIVITI

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/11/19

UTC TIME: 2136HRS

OBSERVATION END DATE/DAY: 14/11/19

UTC TIME: 0335HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495587

FIRMWARE VERSION: 8.51

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.572m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.525m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: GAU JETTY 1

4 CHARACTER ID: GAJ1

LOCATION: KOROLEVU HILL, QARANI VILLAGE, GAU ISLAND

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE WITH ROD IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/11/19

UTC TIME: 0003HRS

OBSERVATION END DATE/DAY: 12/11/19

UTC TIME: 0543HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495587

FIRMWARE VERSION: 8.51

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.510m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.463m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: GAU JETTY 2

4 CHARACTER ID: GAJ2

LOCATION: HILL OPPOSITE JETTY, QARANI VILLAGE, GAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS PLATE IN CONCRETE (LANDS DEPT STANDARD SURVEY MARK)

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/11/19

UTC TIME: 0754HRS

OBSERVATION END DATE/DAY: 12/11/19

UTC TIME: 1411HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495587

FIRMWARE VERSION: 8.51

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.455m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.407m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: QARANI HEALTH CENTRE

4 CHARACTER ID: GAJ3

LOCATION: QARANI HEALTH CENTRE, QARANI VILLAGE, GAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE WITH ROD IN CONTRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/11/19

UTC TIME: 2212HRS

OBSERVATION END DATE/DAY: 13/11/19

UTC TIME: 0417HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495587

FIRMWARE VERSION: 8.51

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.430m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.382m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: NAWAIKAMA JETTY SHED

4 CHARACTER ID: GJN1

LOCATION: NAWAIKAMA JETTY SHED, NAWAIKAMA VILLAGE, GAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 15/11/19

UTC TIME: 2217HRS

OBSERVATION END DATE/DAY: 16/11/19

UTC TIME: 0418HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495587

FIRMWARE VERSION 8.51

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.505m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.458m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: KADAVU 1

4 CHARACTER ID: KAD1

LOCATION: VUNISEA GOVERNMENT STATION, KADAVU.

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS PLAQUE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 11/11/19

UTC TIME: 2243HRS

OBSERVATION END DATE/DAY: 12/11/19

UTC TIME: 0503HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE NETR9

SERIAL NUMBER: 5215K84302

FIRMWARE VERSION: 5.37

GNSS ANTENNA TYPE: TRIMBLE ZEPHYR MODEL 2

=====

MODEL: TRM557971.0

SERIAL NUMBER: 5215K84302

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.786m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF NOTCH

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.734m

\_\_\_\_\_

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: KADAVU 2

4 CHARACTER ID: KAD2

LOCATION: VUNISEA MARKET, VUNISEA GOVERNEMENT STATION, KADAVU.

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS PLATE (LANDS DEPT STANDARD SURVEY MARK)

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/11/19

UTC TIME: 2245HRS

OBSERVATION END DATE/DAY: 11/11/19

UTC TIME: 0459HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE NETR9

SERIAL NUMBER: 5215K84302

FIRMWARE VERSION: 5.37

GNSS ANTENNA TYPE: TRIMBLE ZEPHYR MODEL 2

=====

MODEL: TRM57971.00

SERIAL NUMBER: 5215K84302

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.22m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF NOTCH

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 2.169m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: KADAVU 3

4 CHARACTER ID: KAD3

LOCATION: VUNISEA AIRSTRIP, KADAVU.

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS PLATE (LANDS DEPT STANDARD SURVEY MARK)

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/11/19

UTC TIME: 0554HRS

OBSERVATION END DATE/DAY: 12/11/19

UTC TIME: 1950HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE NETR9

SERIAL NUMBER: 5215K84302

FIRMWARE VERSION: 5.37

GNSS ANTENNA TYPE: TRIMBLE ZEPHYR MODEL 2

=====

MODEL: TRM557971.0

SERIAL NUMBER: 5215K84302

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.786m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF NOTCH

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.734m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: KADAVU JETTY

4 CHARACTER ID: KAJ1

LOCATION: VUNISEA JETTY, KADAVU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS PIN IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/11/19

UTC TIME: 0503HRS

OBSERVATION END DATE/DAY: 13/11/19

UTC TIME: 1129HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE NETR9

SERIAL NUMBER: 5215K84302

FIRMWARE VERSION: 5.37

GNSS ANTENNA TYPE: TRIMBLE ZEPHYR MODEL 2

=====

MODEL: TRM557971.0

SERIAL NUMBER: 5215K84302

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.856m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF NOTCH

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.804m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: IT1

4 CHARACTER ID: LK01

LOCATION: LAKEBA AIRPORT, LAKEBA ISLAND, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/11/19

UTC TIME: 2105HRS

OBSERVATION END DATE/DAY: 13/11/19

UTC TIME: 0305HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495624

FIRMWARE VERSION: 8.70

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.620m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.574m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: IT2

4 CHARACTER ID: LK02

LOCATION: NUKULEVU SETTLEMENT, TUBOU, LAKEBA

COUNTRY: LAU GROUP, FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/11/19

UTC TIME: 0412HRS

OBSERVATION END DATE/DAY: 13/11/19

UTC TIME: 1030HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495624

FIRMWARE VERSION: 8.70

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.724m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.678m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: LAKEBA JETTY

4 CHARACTER ID: LKBJ

LOCATION: TUBOU VILLAGE, LAKEBA ISLAND, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS PLATE IN CONCRETE (LANDS DEPT STANDARD SURVEY MARK)

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 14/11/19

UTC TIME: 1902HRS

OBSERVATION END DATE/DAY: 15/11/19

UTC TIME: 0130HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495624

FIRMWARE VERSION: 8.70

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.752m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.707m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: NASINU POINT

4 CHARACTER ID: NSNU

LOCATION: NASINU POINT, TUBOU VILLAGE, LAKEBA ISLAND, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 15/11/19

UTC TIME: 2216HRS

OBSERVATION END DATE/DAY: 16/11/19

UTC TIME: 0454HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495624

FIRMWARE VERSION: 8.70

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.440m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.392m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: MATUKU JETTY

4 CHARACTER ID: MATT

LOCATION: YAROI, MATUKU, LAU

COUNTRY: FIJI ISLAND

TYPE OF SURVEY MARK: BRASS PLAQUE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/11/2019

UTC TIME: 0000HRS

OBSERVATION END DATE/DAY: 12/11/2019

UTC TIME: 0501HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495648

FIRMWARE VERSION: 8.71

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.263m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.214m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: MAKADRO

4 CHARACTER ID: MDRO

LOCATION: MAKADRU, MATUKU, LAU

COUNTRY: FIJI ISLAND

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 14/11/2019

UTC TIME: 0200HRS

OBSERVATION END DATE/DAY: 14/11/2019

UTC TIME: 0815HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495648

FIRMWARE VERSION: 8.71

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.533m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.486m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: MATOKANA I

4 CHARACTER ID: MATI

LOCATION: MATOKANA, ONO-I-LAU, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/11/19

UTC TIME: 0551HRS

OBSERVATION END DATE/DAY: 13/11/19

UTC TIME: 1156HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495613

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.781m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.736m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: MATOKANA VILLAGE II

4 CHARACTER ID: MTII

LOCATION: MATOKANA, ONO-I-LAU, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/11/19

UTC TIME: 1211HRS

OBSERVATION END DATE/DAY: 13/11/19

UTC TIME: 1814HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495613

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.932m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.888m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: ONO I LAU AIRSTRIP I

4 CHARACTER ID: OLA1

LOCATION: ONO I LAU AIRPORT, MATOKANA, ONO-I-LAU.

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/11/19

UTC TIME: 2204HRS

OBSERVATION END DATE/DAY: 13/11/19

UTC TIME: 0446HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495613

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.751m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.706m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: ONO I LAU AIRSTRIP 2

4 CHARACTER ID: OLA2

LOCATION: ONO I LAU AIRPORT, MATOKANA, ONO-I-LAU.

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/11/19

UTC TIME: 2151HRS

OBSERVATION END DATE/DAY: 14/11/19

UTC TIME: 0423HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495613

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.782m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.737m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: ONOLEVU DISTRICT SCHOOL

4 CHARACTER ID: ONOS

LOCATION: ONOLEVU DISTRICT SCHOOL, NUKUNI, ONO-I-LAU, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/11/19

UTC TIME: 0000HRS

OBSERVATION END DATE/DAY: 12/11/19

UTC TIME: 0543HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495613

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.810m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.765m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VANUA BALAVU AIRSTRIP

4 CHARACTER ID: VBA1

LOCATION: MALAKA, VANUA BALAVU, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS PLAQUE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 11/11/19

UTC TIME: 2214HRS

OBSERVATION END DATE/DAY: 12/11/19

UTC TIME: 0416HRS

GNSS RECEIVER TYPE: LEICA GNSS

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495590

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.153m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.102m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VANUA BALAVU AIRPORT 2

4 CHARACTER ID: VBA2

LOCATION: BUATACI, VANUA BALAVU, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/11/19

UTC TIME: 0456HRS

OBSERVATION END DATE/DAY: 12/11/19

UTC TIME: 1018HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495590

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.498m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.451m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.



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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VANUA BALAVU JETTY I

4 CHARACTER ID: VBJ1

LOCATION: LOMALOMA, VANUA BALAVU, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS PLAQUE CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/11/19

UTC TIME: 2114HRS

OBSERVATION END DATE/DAY: 13/11/19

UTC TIME: 0315HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495590

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.560m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.513m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VANUA BALAVU JETTY 2

4 CHARACTER ID: VBJ2

LOCATION: LOMALOMA, VANUA BALAVU, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 14/11/19

UTC TIME: 0358HRS

OBSERVATION END DATE/DAY: 14/11/19

UTC TIME: 1000HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495590

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.600m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.554m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VANUA BALAVU JETTY 3

4 CHARACTER ID: VBJ3

LOCATION: NAQARA, VANUA BALAVU, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/11/19

UTC TIME: 0406HRS

OBSERVATION END DATE/DAY: 13/11/19

UTC TIME: 1005HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495590

FIRMWARE VERSION: 9.20

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.468m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.421m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VATOA P1

4 CHARACTER ID: VTP1

LOCATION: VATOA, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/11/19

UTC TIME: 2200HRS

OBSERVATION END DATE/DAY: 11/11/19

UTC TIME: 0400HRS

GNSS RECEIVER TYPE: LEICA GPS1200

=====

MODEL: LEICA GX1230

SERIAL NUMBER: 460136

FIRMWARE VERSION: 4.00

GNSS ANTENNA TYPE: LEICA AX1202

=====

MODEL: LEIAX1202

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.423m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

ANTENNA HEIGHT TO ARP - 1.783m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VATOA P2

4 CHARACTER ID: VTP2

LOCATION: VATOA CEMETERY, VATOA, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 11/11/19

UTC TIME: 0500HRS

OBSERVATION END DATE/DAY: 11/11/19

UTC TIME: 1100HRS

GNSS RECEIVER TYPE: LEICA GPS1200

=====

MODEL: LEICA GX1230

SERIAL NUMBER: 460136

FIRMWARE VERSION: 4.0

GNSS ANTENNA TYPE: LEICA AX1202

=====

MODEL: LEIAX1202

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.364m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

HOOK HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.724m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VATOA P3

4 CHARACTER ID: VTP3

LOCATION: VATOA CHURCH, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 11/11/19

UTC TIME: 1930HRS

OBSERVATION END DATE/DAY: 12/11/19

UTC TIME: 0131HRS

GNSS RECEIVER TYPE: LEICA GPS1200

=====

MODEL: LEICA GX1230

SERIAL NUMBER: 460136

FIRMWARE VERSION: 4.00

GNSS ANTENNA TYPE: LEICA AX1202

=====

MODEL: LEIAX1202

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.326  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

HOOK HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.686m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VATOA P4

4 CHARACTER ID: VTP4

LOCATION: VATOA NURSING STATION, VATOA, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/11/19

UTC TIME: 0200HRS

OBSERVATION END DATE/DAY: 12/11/19

UTC TIME: 0805HRS

GNSS RECEIVER TYPE: LEICA GPS1200

=====

MODEL: LEICA GX1230

SERIAL NUMBER: 460136

FIRMWARE VERSION: 4.0

GNSS ANTENNA TYPE: LEICA AX1202

=====

MODEL: LEIAX1202

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.28m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

HOOK HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.64m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VATOA P5

4 CHARACTER ID: VTP5

LOCATION: VATOA NURSING STATION, VATOA, LAU GROUP

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/11/19

UTC TIME: 2116HRS

OBSERVATION END DATE/DAY: 14/11/19

UTC TIME: 0315HRS

GNSS RECEIVER TYPE: LEICA GPS1200

=====

MODEL: LEICA GX1230

SERIAL NUMBER: 460136

FIRMWARE VERSION: 4.00

GNSS ANTENNA TYPE: LEICA AX1202

=====

MODEL: LEIAX1202

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.37m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.730m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VATOA P6

4 CHARACTER ID: VTP6

LOCATION: VATOA LIGHT HOUSE, VATOA, LAU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/11/19

UTC TIME: 2006HRS

OBSERVATION END DATE/DAY: 13/11/19

UTC TIME: 0205HRS

GNSS RECEIVER TYPE: LEICA GPS1200

=====

MODEL: LEICA GX1230

SERIAL NUMBER: 460136

FIRMWARE VERSION: 4.0

GNSS ANTENNA TYPE: LEICA AX1202

=====

MODEL: LEIAX1202

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.16m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.52m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SUVA LONGITUDE

4 CHARACTER ID: SLP1

LOCATION: FINTEL COMPOUND, VICTORIA PARADE, SUVA

COUNTRY: VITI LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: IRON BOLT IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/12/19

UTC TIME: 2108HRS

OBSERVATION END DATE/DAY: 14/12/19

UTC TIME: 0314HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GS16

SERIAL NUMBER: 3707695

FIRMWARE VERSION: 8.00

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 0.565m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 0.925m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 41

4 CHARACTER ID: SS41

LOCATION: BOWLING CLUB, QUEEN ELIZABETH DRIVE, SUVA.

COUNTRY: VITI LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/12/19

UTC TIME: 2133HRS

OBSERVATION END DATE/DAY: 14/12/19

UTC TIME: 0340HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GS16

SERIAL NUMBER: 3707722

FIRMWARE VERSION: 8.0

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.516m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA  
THAT THE ANTENNA HEIGHT REFERS TO:

HOOK HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.876m

\_\_\_\_\_

\_\_\_\_\_

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 10094

4 CHARACTER ID: S094

LOCATION: DILKUSHA, PRINCESS RD, NAUSORI

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/12/19

UTC TIME: 2031HRS

OBSERVATION END DATE/DAY: 13/12/19

UTC TIME: 0237HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GS16

SERIAL NUMBER: 3707695

FIRMWARE VERSION: 8.00

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.449m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

HOOK HEIGHT

ANTENNA HEIGHT TO ARP - 1.809m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 10095

4 CHARACTER ID: S095

LOCATION: OLD REWA BRIDGE, PRINCESS RD, NAUSORI

COUNTRY: VITI LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/12/19

UTC TIME: 2007HRS

OBSERVATION END DATE/DAY: 13/12/19

UTC TIME: 0225HRS

GNSS RECEIVER TYPE: LEICA

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MODEL: GS16

SERIAL NUMBER: 3707722

FIRMWARE VERSION: \_\_\_\_\_

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: 8.00

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.699m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 2.059m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: KORONIVIA

4 CHARACTER ID: NVIA

LOCATION: KORONIVIA, KINGS RD, NAUSORI

COUNTRY: VITI LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PEG IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 11/12/19

UTC TIME: 2115HRS

OBSERVATION END DATE/DAY: 12/12/19

UTC TIME: 0357HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GS16

SERIAL NUMBER: 3707695

FIRMWARE VERSION: 8.00

GNSS ANTENNA TYPE: LEICA

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MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.285m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.645m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VANUALEVU TRIG

4 CHARACTER ID: VANT

LOCATION: WAINIBUKU, NAKASI

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/12/19

UTC TIME: 2310HRS

OBSERVATION END DATE/DAY: 11/12/19

UTC TIME: 0513HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GS16

SERIAL NUMBER: 3707722

FIRMWARE VERSION: 8.00

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.285m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.645m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.  
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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: TOKOTOKO

4 CHARACTER ID: TOKO

LOCATION: TOKOTOKO, NAVUA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 07/12/19

UTC TIME: 2345HRS

OBSERVATION END DATE/DAY: 08/12/19

UTC TIME: 1938hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440980

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 5330440980

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 0.493m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 0.540m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.



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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: NABOUWALU 2

4 CHARACTER ID: WALU

LOCATION: TALENAUA, SERUA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/20

UTC TIME: 2048HRS

OBSERVATION END DATE/DAY: 09/12/20

UTC TIME: 0510HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440980

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 5330440980

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.354m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF QUICK RELEASE

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.403m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: NADAI

4 CHARACTER ID: NADA

LOCATION: SIGATOKA, NADROGA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON RAIL IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/12/19

UTC TIME: 2039HRS

OBSERVATION END DATE/DAY: 11/12/19

UTC TIME: 0258HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440980

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 5330440980

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.615m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.664m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 2007

4 CHARACTER ID: 2007

LOCATION: LOBAU, VEIVATULOA, NAMOSI

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/12/19

UTC TIME: 0531HRS

OBSERVATION END DATE/DAY: 13/12/19

UTC TIME: 2045HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440980

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 5330440980

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.445m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.494m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

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STATION NAME: SS 2718

4 CHARACTER ID: 2718

LOCATION: NAVOTO, SIGATOKA, NADROGA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON RAIL IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/12/19

UTC TIME: 0518HRS

OBSERVATION END DATE/DAY: 10/12/19

UTC TIME: 1928HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440980

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 5330440980

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.633m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF QUICK RELEASE

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.682m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

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STATION NAME: SS2010

4 CHARACTER ID: TBM9

LOCATION: NAVESI BRIDGE 2, VUGALEI, LAMI

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS SCREW IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 13/12/19

UTC TIME: 0641HRS

OBSERVATION END DATE/DAY: 13/12/19

UTC TIME: 1316HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R8S

SERIAL NUMBER: 5801R00164

FIRMWARE VERSION: 5.34

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR8S

SERIAL NUMBER: 01R00164

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.678m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
CENTER OF BUMPER

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.621m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 11923

4 CHARACTER ID: 1923

LOCATION: MAUI BAY, BARAVI NADROGA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/19

UTC TIME: 2228HRS

OBSERVATION END DATE/DAY: 09/12/19

UTC TIME: 0440HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R8S

SERIAL NUMBER: 5801R00164

FIRMWARE VERSION: 5.34

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR8S

SERIAL NUMBER: 01R00164

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.913m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
CENTER OF BUMPER

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.856m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 2750

4 CHARACTER ID: 2750

LOCATION: MATAQALI LUTUYA, SERUA, VITI LEVU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON RAIL IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 09/12/19

UTC TIME: 2102HRS

OBSERVATION END DATE/DAY: 10/12/19

UTC TIME: 0349hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440980

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 5330440980

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.475m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF QUICK RELEASE

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.524m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

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STATION NAME: SS 2500

4 CHARACTER ID: 2500

LOCATION: PACIFIC HARBOR, SERUA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: LANDS DEPT MARK IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 9/12/19

UTC TIME: 0603HRS

OBSERVATION END DATE/DAY: 9/12/19

UTC TIME: 2009HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R8S

SERIAL NUMBER: 5801R00164

FIRMWARE VERSION: 5.34

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR8S

SERIAL NUMBER: 01R00164

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 2.058m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

CENTER OF BUMPER

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 2.001m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====



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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 11906

4 CHARACTER ID: 1906

LOCATION: SIGATOKA, NADROGA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 09/12/19

UTC TIME: 2147HRS

OBSERVATION END DATE/DAY: 10/12/19

UTC TIME: 0423HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R8S

SERIAL NUMBER: 5801R00164

FIRMWARE VERSION: 5.34

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR8S

SERIAL NUMBER: 01R00164

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.749m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

CENTER OF BUMPER

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.692m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 11886

4 CHARACTER ID: 1886

LOCATION: MAUI BAY, SIGATOKA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/12/19

UTC TIME: 0447HRS

OBSERVATION END DATE/DAY: 10/12/19

UTC TIME: 1108HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R8S

SERIAL NUMBER: 5801R00164

FIRMWARE VERSION: 5.34

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR8S

SERIAL NUMBER: 01R00164

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.977m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

CENTER OF BUMPER

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.920m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 11873

4 CHARACTER ID: 1873

LOCATION: VATUKARASA, CONUA, NADROGA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/12/19

UTC TIME: 1135HRS

OBSERVATION END DATE/DAY: 10/12/19

UTC TIME: 1730HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R8S

SERIAL NUMBER: 5801R00164

FIRMWARE VERSION: 5.34

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR8S

SERIAL NUMBER: 01R00164

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.705m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
CENTER OF BUMPER

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.648m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 2496

4 CHARACTER ID: 2496

LOCATION: MUASARA, NAYAWA, NADROGA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/12/19

UTC TIME: 2007HRS

OBSERVATION END DATE/DAY: 11/12/19

UTC TIME: 0319HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R8S

SERIAL NUMBER: 5801R00164

FIRMWARE VERSION: 5.34

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR8S

SERIAL NUMBER: 01R00164

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.998m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
CENTER OF BUMPER

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.941m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 2740

4 CHARACTER ID: 2740

LOCATION: TALENAUA, SERUA,

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON RAIL IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 11/12/19

UTC TIME: 0556HRS

OBSERVATION END DATE/DAY: 12/12/19

UTC TIME: 0147HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440980

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 5330440980

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.762m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF QUICK RELEASE

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.811m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 2656

4 CHARACTER ID: 2656

LOCATION: GALOA,BATIWAI, SERUA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/12/19

UTC TIME: 0014HRS

OBSERVATION END DATE/DAY: 12/12/19

UTC TIME: 0619HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R8S

SERIAL NUMBER: 5801R00164

FIRMWARE VERSION: 5.34

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR8S

SERIAL NUMBER: 01R00164

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.811m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
CENTER OF BUMPER

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.754m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 11935

4 CHARACTER ID: 1935

LOCATION: WAIBALE SETTLEMENT, SERUA, VITILEVU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON TUBE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/12/19

UTC TIME: 0245HRS

OBSERVATION END DATE/DAY: 12/12/19

UTC TIME: 2114HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440980

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 5330440980

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.634m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.683m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 2515

4 CHARACTER ID: 2515

LOCATION: DEUBA, SERUA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/12/19

UTC TIME: 0655HRS

OBSERVATION END DATE/DAY: 12/12/19

UTC TIME: 1653HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R8S

SERIAL NUMBER: 5801R00164

FIRMWARE VERSION: 5.34

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR8S

SERIAL NUMBER: 5801R00164

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 2.028m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
CENTER OF BUMPER

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.971m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 2567

4 CHARACTER ID: 2567

LOCATION: WAINADOI, VEIVATULOA, NAMOSI,

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS PLATE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/12/19

UTC TIME: 2305HRS

OBSERVATION END DATE/DAY: 13/12/19

UTC TIME: 0506HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440980

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 5330440980

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.742m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.791m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 2595

4 CHARACTER ID: 2595

LOCATION: TOGALEVU, SUVA, REWA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS ROD IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/12/19

UTC TIME: 2346HRS

OBSERVATION END DATE/DAY: 13/12/19

UTC TIME: 0559hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R8S

SERIAL NUMBER: 5801R00164

FIRMWARE VERSION: 5.34

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR8S

SERIAL NUMBER: 01R00164

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.899m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
CENTER OF BUMPER

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.842m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 3381

4 CHARACTER ID: 3381

LOCATION: TAMUSU, KINGS RD, BA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS PLATE IN CONCRETE (LANDS DEPT STANDARD SURVEY MARK)

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 09/12/19

UTC TIME: 2143HRS

OBSERVATION END DATE/DAY: 10/12/19

UTC TIME: 0600HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R8-4

SERIAL NUMBER: 5329440755

FIRMWARE VERSION: 4.80

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR8-4

SERIAL NUMBER: 5329440755

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.746m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
CENTER OF BUMPER

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.689m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 3382

4 CHARACTER ID: 3382

LOCATION: VAKARAKURUKURU, BA, VITILEVU

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS PLAQUE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 09/12/19

UTC TIME: 2305HRS

OBSERVATION END DATE/DAY: 10/12/19

UTC TIME: 0455HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440947

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 40919570

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.666m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.715m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: NAILOVALOVA

4 CHARACTER ID: LOVA

LOCATION: VADRAVADRA CEMETRY, VADRAVADRA, BA.

COUNTRY: VITI LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: STEEL ROD IN CONCRETE PILLAR

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/12/19

UTC TIME: 2239HRS

OBSERVATION END DATE/DAY: 11/12/19

UTC TIME: 0514HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440947

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 40919570

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 0.480m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 0.526m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VADRAULAILAI TRIG

4 CHARACTER ID: VADA

LOCATION: VADRAULAILAI RESERVOIR, BA

COUNTRY: VITI LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: STEEL ROD IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/12/19

UTC TIME: 2305HRS

OBSERVATION END DATE/DAY: 11/12/19

UTC TIME: 0457HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: R8-4

SERIAL NUMBER: 5329440755

FIRMWARE VERSION: 4.80

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR8-4

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 0.932m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
ANTENNA PHASE CENTRE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 0.873m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: YAQARA TRIG

4 CHARACTER ID: YAQA

LOCATION: YAQARA, TAVUA

COUNTRY: VITI LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PEG IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 08/12/19

UTC TIME: 2230HRS

OBSERVATION END DATE/DAY: 09/12/19

UTC TIME: 0703HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440947

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 40919570

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.275  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.324m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: LEKOROVUNADOI TRIG

4 CHARACTER ID: ADOI

LOCATION: NABOUTINI RD, VOTUALEVU, NADI

COUNTRY: VITI LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: \_\_\_\_\_

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 12/12/19

UTC TIME: 0719HRS

OBSERVATION END DATE/DAY: 13/12/19

UTC TIME: 1327HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GS16

SERIAL NUMBER: 322707

FIRMWARE VERSION: 8.0

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 0.875m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.235m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.



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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 11963

4 CHARACTER ID: 1963

LOCATION: HELI TOUR FIJI, NAREWA, NADI

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/12/19

UTC TIME: 0652HRS

OBSERVATION END DATE/DAY: 10/12/19

UTC TIME: 1310HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R8S

SERIAL NUMBER: 5802R00062

FIRMWARE VERSION: 5.34

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR8S

SERIAL NUMBER: 02R00062

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.853  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

CENTER OF BUMPER

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.796m

\_\_\_\_\_

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 11964

4 CHARACTER ID: 1964

LOCATION: BOMBAY LODGE, DENARAU RD, NADI

COUNTRY: VITI LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/12/19

UTC TIME: 0827HRS

OBSERVATION END DATE/DAY: 10/12/19

UTC TIME: 1434HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GS 16

SERIAL NUMBER: 3242707

FIRMWARE VERSION: 8.00

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.723m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 2.083m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 11965

4 CHARACTER ID: 1965

LOCATION: GREENSCAPE LTD, DENARAU RD, NADI.

COUNTRY: VITI LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 10/12/19

UTC TIME: 1342HRS

OBSERVATION END DATE/DAY: 10/12/19

UTC TIME: 1946HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R8S

SERIAL NUMBER: 5802R00062

FIRMWARE VERSION: 5.34

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR8S

SERIAL NUMBER: 02R00062

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.883m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

CENTER OF BUMPER

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.826m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 20

4 CHARACTER ID: SS20

LOCATION: JOLLY GOOD, NAVITI ST, LAUTOKA

COUNTRY: VITI LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 11/12/19

UTC TIME: 0726HRS

OBSERVATION END DATE/DAY: 11/12/19

UTC TIME: 1103HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R8S

SERIAL NUMBER: 5802R00062

FIRMWARE VERSION: 5.34

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR8S

SERIAL NUMBER: 02R00062

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 2.298m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

CENTER OF BUMPER

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 2.241m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 19

4 CHARACTER ID: SS19

LOCATION: COURTS BUILDING, NAVITI ST, LAUTOKA

COUNTRY: VITI LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 11/12/19

UTC TIME: 0804HRS

OBSERVATION END DATE/DAY: 11/12/19

UTC TIME: 1225HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GS16

SERIAL NUMBER: 3242707

FIRMWARE VERSION: 8.0

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.912  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 2.272m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 4043

4 CHARACTER ID: 4043

LOCATION: NABOUWALU HOSPITAL, NABOUWALU, BUA

COUNTRY: VANUA LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 26/01/20

UTC TIME: 0600HRS

OBSERVATION END DATE/DAY: 26/01/20

UTC TIME: 0910HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495648

FIRMWARE VERSION: 8.71

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.479m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.432m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: ULUIVUYA

4 CHARACTER ID: VUYA

LOCATION: NABOUWALU, BUA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: \_\_\_\_\_

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 27/01/20

UTC TIME: 0000HRS

OBSERVATION END DATE/DAY: 27/01/20

UTC TIME: 0422HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495648

FIRMWARE VERSION: 8.71

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: LEIAT504

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.780m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.735m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: DIRIYAGA

4 CHARACTER ID: DIRI

LOCATION: WAIRIKI CHIP MILL, BUA

COUNTRY: VANUA LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: \_\_\_\_\_

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 27/01/20

UTC TIME: 0555HRS

OBSERVATION END DATE/DAY: 27/01/20

UTC TIME: 2109HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495648

FIRMWARE VERSION: 8.71

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.791m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.746m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: NAISOSO A

4 CHARACTER ID: NASO

LOCATION: NAUTOMALIVA, BUA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 27/01/20

UTC TIME: 2214HRS

OBSERVATION END DATE/DAY: 28/01/20

UTC TIME: 0557HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495648

FIRMWARE VERSION: 8.71

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.741  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.696m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 12032

4 CHARACTER ID: 2032

LOCATION: NADUA FARM, NASOLO, BUA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 30/01/20

UTC TIME: 0000HRS

OBSERVATION END DATE/DAY: 30/01/20

UTC TIME: 0545HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495648

FIRMWARE VERSION: 8.71

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.593m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.547m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 12051

4 CHARACTER ID: 2051

LOCATION: NAMAWAQA, WAINUNU, BUA

COUNTRY FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 31/01/20

UTC TIME: 0000HRS

OBSERVATION END DATE/DAY: 31/01/20

UTC TIME: 0502HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GRX1200+ GNSS

SERIAL NUMBER: 495648

FIRMWARE VERSION: 8.71

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.587m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.541m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 12053

4 CHARACTER ID: 2053

LOCATION: NAKOROTIKI, WAINUNU, BUA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 31/01/20

UTC TIME: 0537HRS

OBSERVATION END DATE/DAY: 31/01/20

UTC TIME: 1759HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GRX1200+ GNSS

SERIAL NUMBER: 495648

FIRMWARE VERSION: 8.71

GNSS ANTENNA TYPE: TRIMBLE CHOKE RING

=====

MODEL: TRM49700.00

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.629m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF ANTENNA - SLANT HEIGHT

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.583m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 3905

4 CHARACTER ID: 3905

LOCATION: VUNIKOKA, SAVUSAVU TOWN

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 28/01/20

UTC TIME: 0750HRS

OBSERVATION END DATE/DAY: 28/01/20

UTC TIME: 1354HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GS16

SERIAL NUMBER: 3242707

FIRMWARE VERSION: 8.00

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.870m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 2.230m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 3925

4 CHARACTER ID: 3925

LOCATION: NUKUBALAVU RD, SAVUSAVU AIRPORT

COUNTRY: VANUA LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 31/01/20

UTC TIME: 0136HRS

OBSERVATION END DATE/DAY: 31/01/20

UTC TIME: 0725HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: GS16

SERIAL NUMBER: 3242707

FIRMWARE VERSION: 8.0

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.403m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.763m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: VATUDAMU

4 CHARACTER ID: VATU

LOCATION: LABASA WEATHER STATION, VATUDOVA, MACUATA

COUNTRY: VANUA LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS ON ROCK

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 26/01/20

UTC TIME: 2325hrs

OBSERVATION END DATE/DAY: 27/01/20

UTC TIME: 0526hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440981

FIRMWARE VERSION: 5.41

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 30440981

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.711m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.760m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 3848

4 CHARACTER ID: 3848

LOCATION: BULILEKA ROAD, LABASA, MACUATA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS ON KERB

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 27/01/20

UTC TIME: 0646hrs

OBSERVATION END DATE/DAY: 27/01/20

UTC TIME: 1232hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440981

FIRMWARE VERSION: 5.41

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 40919570

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.628m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.677m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

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STATION NAME: MULOMULO

4 CHARACTER ID: MULO

LOCATION: SOLOVE, WAILEVU, MACUATA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: 2 INCH PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 27/01/20

UTC TIME: 2006hrs

OBSERVATION END DATE/DAY: 28/01/20

UTC TIME: 0236hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440981

FIRMWARE VERSION: 5.41

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 40919570

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.198m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.247m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 3849

4 CHARACTER ID: 3849

LOCATION: BULILEKA SECONDARY SCHOOL, LABASA, MACUATA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS ON KERB

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 28/01/20

UTC TIME: 0335hrs

OBSERVATION END DATE/DAY: 28/01/20

UTC TIME: 0941hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440981

FIRMWARE VERSION: 5.41

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 40919570

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.784m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.833m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: ULUIBENAU

4 CHARACTER ID: ENAU

LOCATION: ULUIBENAU RESERVOIR RD, LABASA, MACUATA

COUNTRY: VANUA LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 28/01/20

UTC TIME: 1849hrs

OBSERVATION END DATE/DAY: 29/01/20

UTC TIME: 0147hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440981

FIRMWARE VERSION: 5.41

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 40919570

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.139m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.188m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 3873

4 CHARACTER ID: 3873

LOCATION: ULUIBENAU RESEIVOR RD, LABASA, MACUATA

COUNTRY FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 29/01/20

UTC TIME: 0626hrs

OBSERVATION END DATE/DAY: 29/01/20

UTC TIME: 0958hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440981

FIRMWARE VERSION: 5.41

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 40919570

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.800m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_

BOTTOM OF QUICK RELEASE

\_\_\_\_\_

ANTENNA HEIGHT TO ARP - 1.849m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT
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STATION NAME: ULUIVOLANAU

4 CHARACTER ID: ULUI

LOCATION: VATUREKUKA, LABASA, MACUATA

COUNTRY: VANUA LEVU, FIJI ISLANDS

TYPE OF SURVEY MARK: STAINLESS STEEL PIN IN ROCK (GPS MARK)

ORTHOMETRIC HEIGHT OF SURVEY MARK:
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 30/01/20

UTC TIME: 0142hrs

OBSERVATION END DATE/DAY: 30/01/20

UTC TIME: 0933HRS

GNSS RECEIVER TYPE: TRIMBLE
=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440981

FIRMWARE VERSION: 5.41

GNSS ANTENNA TYPE: TRIMBLE
=====

MODEL: TRMR10

SERIAL NUMBER: 40919570

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.641m
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

BOTTOM OF QUICK RELEASE

ANTENNA HEIGHT TO ARP - 1.690m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 3793

4 CHARACTER ID: 3793

LOCATION: NAKOROUTARI RD, LABASA, MACUATA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: BRASS ON KERB

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 31/01/20

UTC TIME: 2221hrs

OBSERVATION END DATE/DAY: 01/02/20

UTC TIME: 0423hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440981

FIRMWARE VERSION: 5.41

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 40919570

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.729m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.778m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

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FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 3804

4 CHARACTER ID: 3804

LOCATION: LABASA BRIDGE, LABASA TOWN, MACUATA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 01/02/20

UTC TIME: 0456hrs

OBSERVATION END DATE/DAY: 01/02/20

UTC TIME: 1107hrs

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5330440981

FIRMWARE VERSION: 5.41

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: 40919570

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.610m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.659m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 11830

4 CHARACTER ID: 1830

LOCATION: NAVAKASOBU, SASA, MACUATA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 29/01/20

UTC TIME: 2329HRS

OBSERVATION END DATE/DAY: 30/01/20

UTC TIME: 0541HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5333441663

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.890m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.939m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====



=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 11836

4 CHARACTER ID: 1836

LOCATION: SEAQAQA GOVERNMENT STATION, MACUATA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 28/01/20

UTC TIME: 2334HRS

OBSERVATION END DATE/DAY: 29/01/20

UTC TIME: 0621HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5333441663

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.724m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.773m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 11834

4 CHARACTER ID: 1834

LOCATION: SEAQAQA, MACUATA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON TUBE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 27/01/20

UTC TIME: 2246HRS

OBSERVATION END DATE/DAY: 28/01/20

UTC TIME: 0453HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5333441663

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.290m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.339m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: SS 11842

4 CHARACTER ID: 1842

LOCATION: NATUA CIRCLE RD, SEAQAQA, MACUATA

COUNTRY: FIJI ISLANDS

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 28/01/20

UTC TIME: 0543HRS

OBSERVATION END DATE/DAY: 28/01/20

UTC TIME: 2333HRS

GNSS RECEIVER TYPE: TRIMBLE

=====

MODEL: TRIMBLE R10

SERIAL NUMBER: 5333441663

FIRMWARE VERSION: 4.81

GNSS ANTENNA TYPE: TRIMBLE

=====

MODEL: TRMR10

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.740m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
BOTTOM OF QUICK RELEASE

\_\_\_\_\_  
ANTENNA HEIGHT TO ARP - 1.789m

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS.

=====

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: AFGAHA ISLAND - 6 HOURLY SESSION

4 CHARACTER ID: AGFA

LOCATION: AFGAHA, NOATAU, ROTUMA

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS PLAQUE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 28/01/20

UTC TIME: 2143 HRS

OBSERVATION END DATE/DAY: 29/01/20

UTC TIME: 0343 HRS

GNSS RECEIVER TYPE: LEICA  
=====

MODEL: LEICA GS16

SERIAL NUMBER: 3707722

FIRMWARE VERSION: 8.0

GNSS ANTENNA TYPE: LEICA  
=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.220m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

ANTENNA HEIGHT TO ARP - 1.580m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS

=====

=====

**FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT**

=====

STATION NAME: HAUA - 6 HOURLY SESSION

4 CHARACTER ID: HAUA

LOCATION: HAUA Is, OINAFA, ROTUMA

COUNTRY: FIJI

TYPE OF SURVEY MARK: IRON PIPE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 27/01/20

UTC TIME: 2302 HRS

OBSERVATION END DATE/DAY: 28/01/20

UTC TIME: 0503 HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GS16

SERIAL NUMBER: 3707722

FIRMWARE VERSION: 8.0

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.192m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
**HOOK HEIGHT**

**ANTENNA HEIGHT TO ARP - 1.552m**

\_\_\_\_\_  
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS

=====

=====

FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

=====

STATION NAME: ROTUMA JETTY - 6 HOURLY SESSION

4 CHARACTER ID: NAFA

LOCATION: OINAFU JETTY, OINAFU, ROTUMA

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS PLAQUE IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 28/01/20

UTC TIME: 0608 HRS

OBSERVATION END DATE/DAY: 28/01/20

UTC TIME: 1209 HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GS16

SERIAL NUMBER: 3707722

FIRMWARE VERSION: 8.0

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.291m  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

\_\_\_\_\_  
HOOK HEIGHT

ANTENNA HEIGHT TO ARP - 1.651m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS

=====

=====

**FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT**

=====

STATION NAME: KELEGA - 6 HOURLY SESSION (Not the same as that of 2008)

4 CHARACTER ID: KELE

LOCATION: HUNSOLO, MOTUSA, ROTUMA

COUNTRY: FIJI

TYPE OF SURVEY MARK: BRASS PIN SET IN CONCRETE

ORTHOMETRIC HEIGHT OF SURVEY MARK: \_\_\_\_\_  
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: 26/01/2020

UTC TIME: 2137 HRS

OBSERVATION END DATE/DAY: 27/01/2020

UTC TIME: 0339 HRS

GNSS RECEIVER TYPE: LEICA

=====

MODEL: LEICA GS16

SERIAL NUMBER: 3707722

FIRMWARE VERSION: 8.0

GNSS ANTENNA TYPE: LEICA

=====

MODEL: LEIGS16

SERIAL NUMBER: \_\_\_\_\_

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: 1.173m HEIGHT HOOK  
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA

THAT THE ANTENNA HEIGHT REFERS TO:

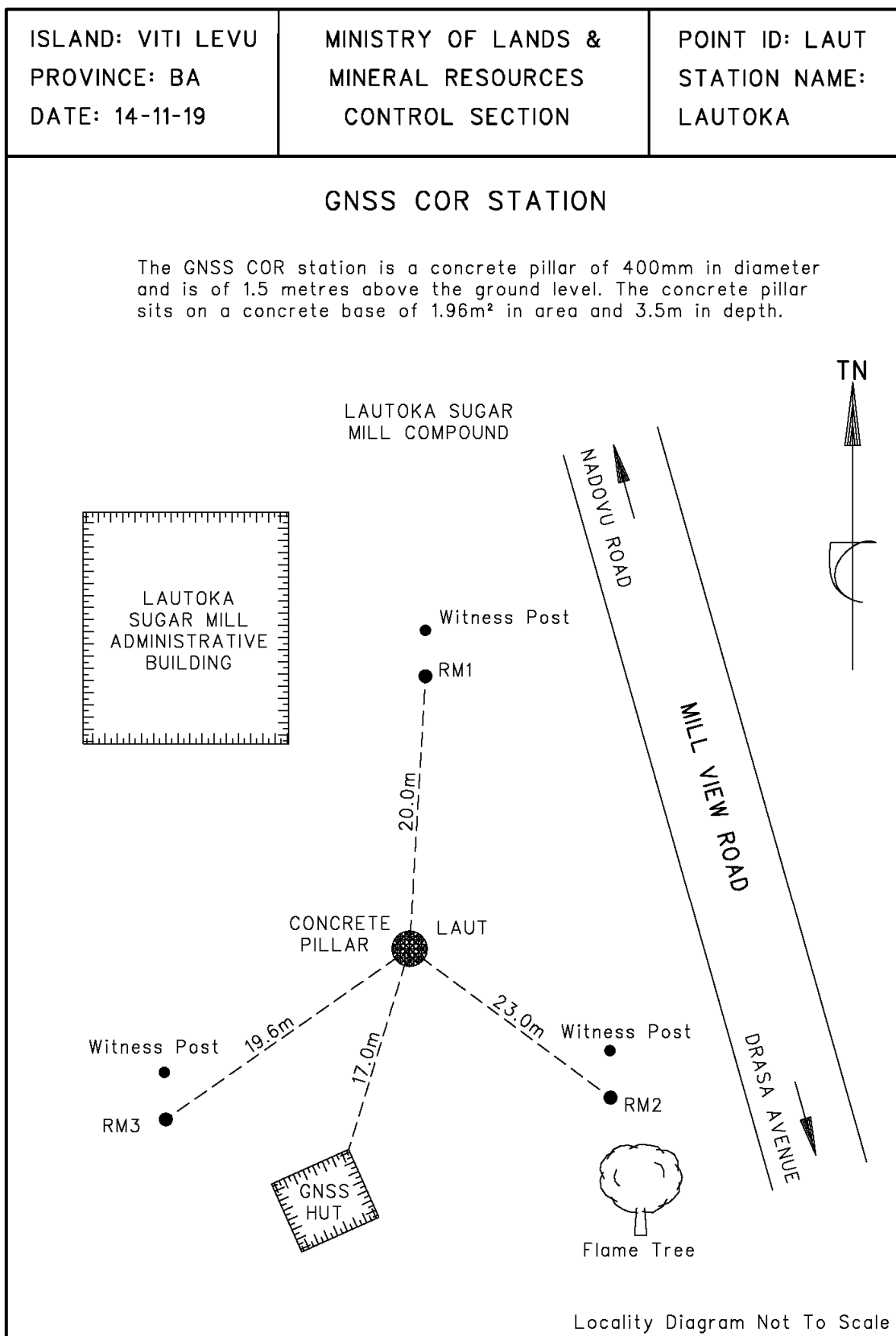
Height was measured with a height hook to a known offset  
of 0.360m to the antenna reference plane

ANTENNA HEIGHT TO ARP - 1.533m

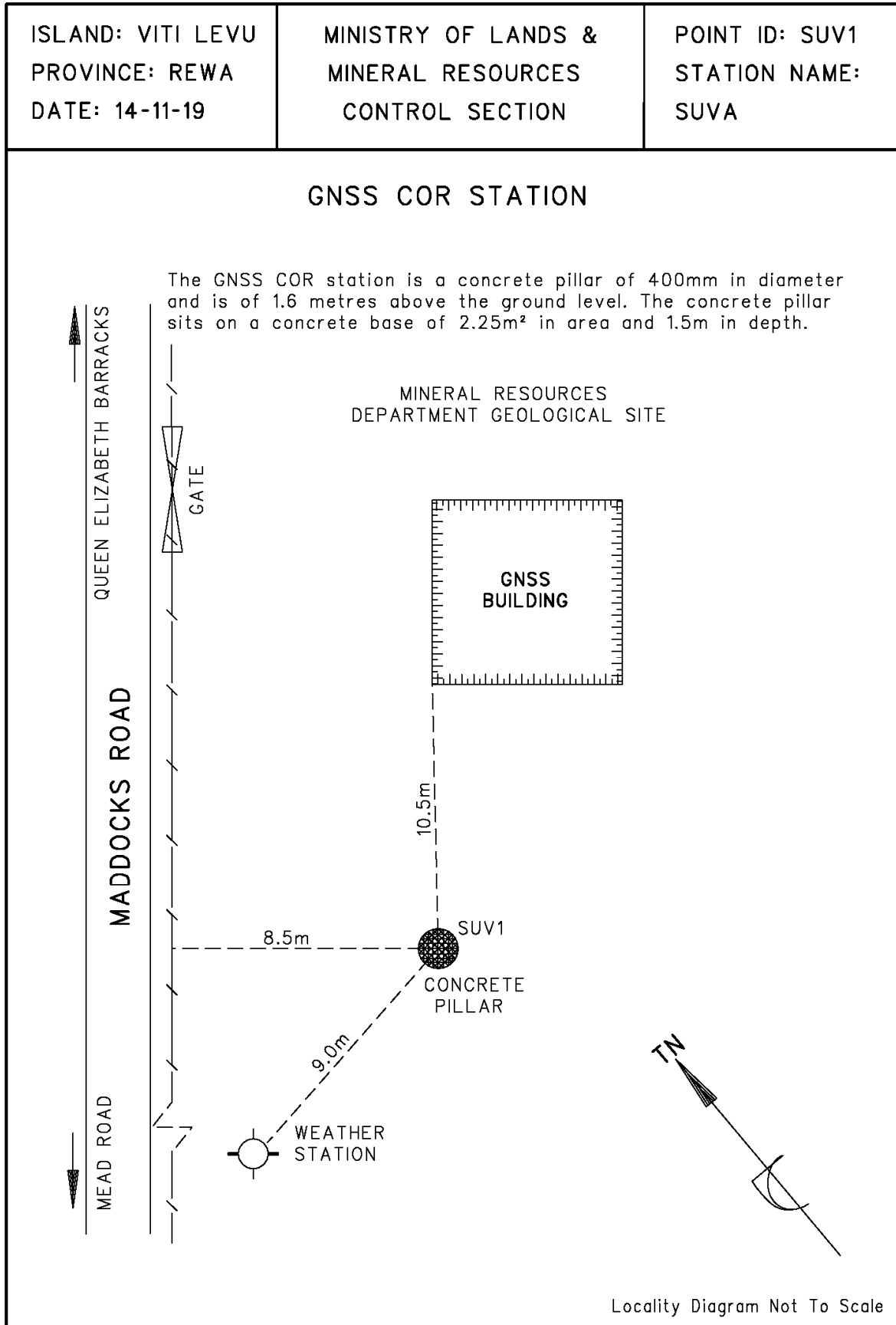
ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS  
PROCESSING THE DATA AND ANALYSING THE RESULTS

=====

## Appendix 2: Locality Diagram Pages







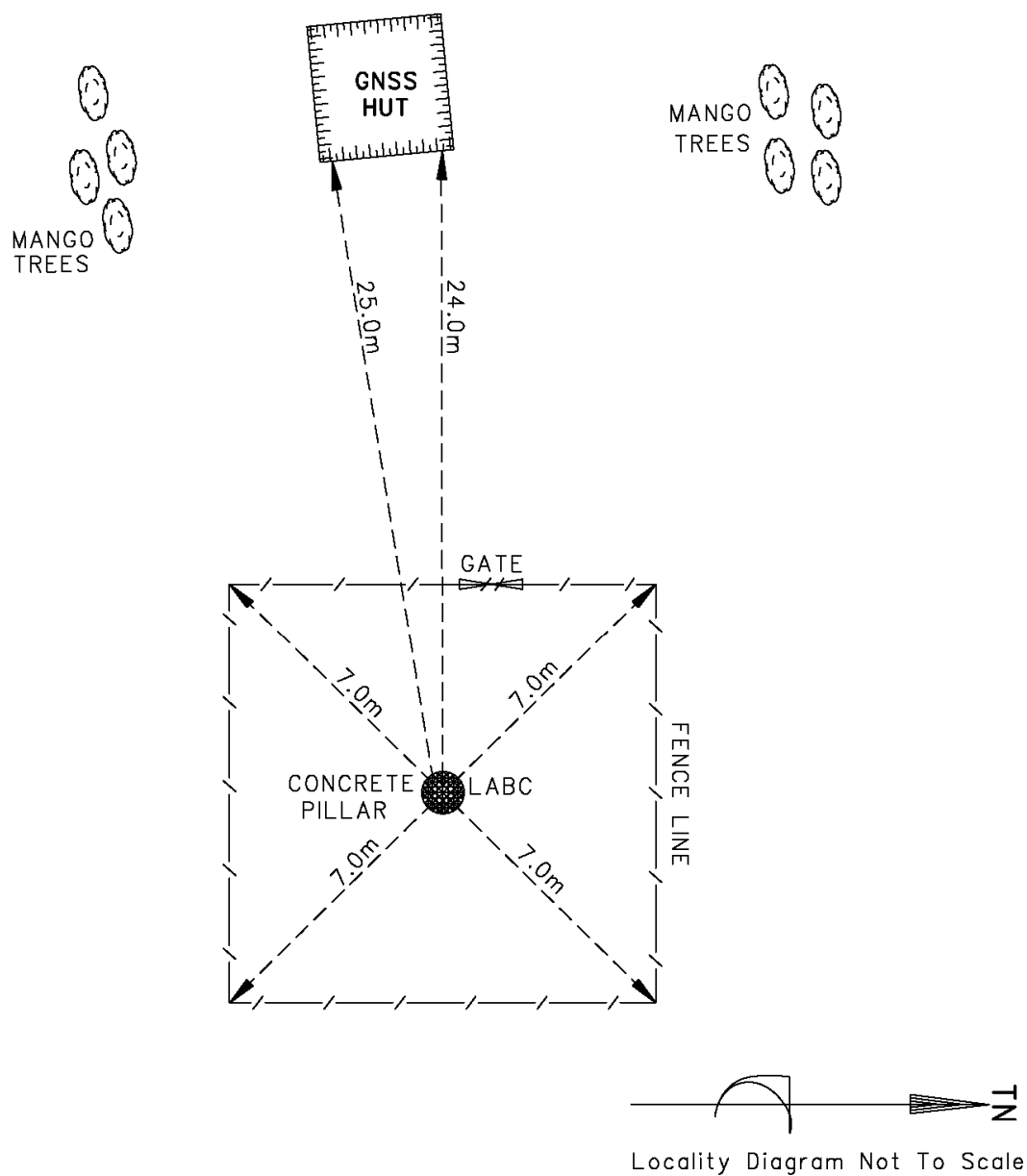
ISLAND: VANUA LEVU  
PROVINCE: MACUATA  
DATE: 14-11-19

MINISTRY OF LANDS &  
MINERAL RESOURCES  
CONTROL SECTION

POINT ID: LABC  
STATION NAME:  
LABASA

### GNSS COR STATION

The GNSS COR station is a precast concrete pillar of 400mm in diameter and is of 2.2 metres above the ground level. The concrete pillar sits on a concrete base of 2.25m<sup>2</sup> in area and 0.6m in depth. The pillar is enclosed with chain-wire fence with galvanised posts around and has a gate for access



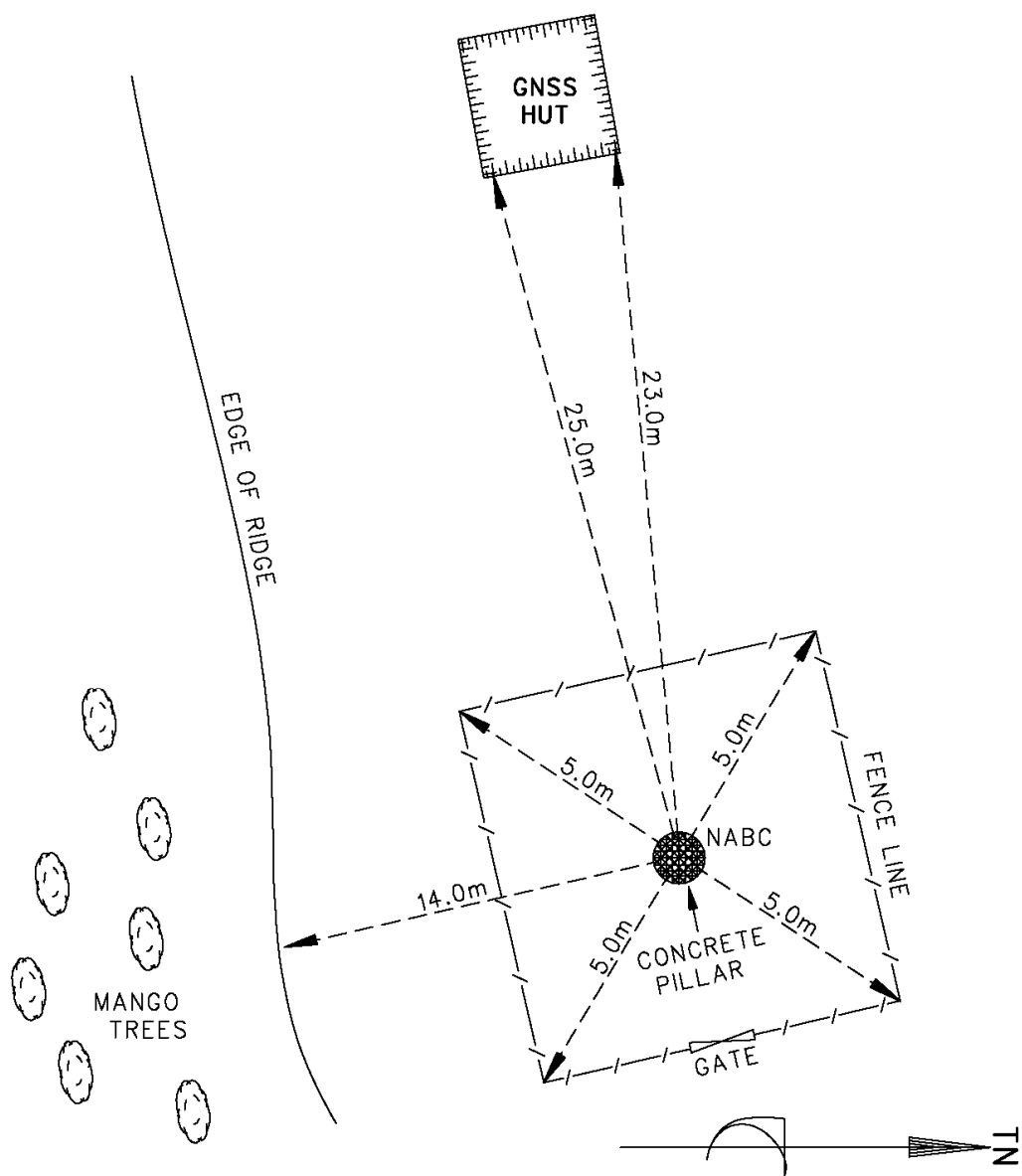
ISLAND: VANUA LEVU  
PROVINCE: BUA  
DATE: 14-11-19

MINISTRY OF LANDS &  
MINERAL RESOURCES  
CONTROL SECTION

POINT ID: NABC  
STATION NAME:  
NABOUWALU

### GNSS COR STATION

The GNSS COR station is a precast concrete pillar of 400mm in diameter and is of 2.2 metres above the ground level. The concrete pillar sits on a concrete base of 2.25m<sup>2</sup> in area and 0.6m in depth. The pillar is enclosed with chain-wire fence with galvanised posts around and has a gate for access

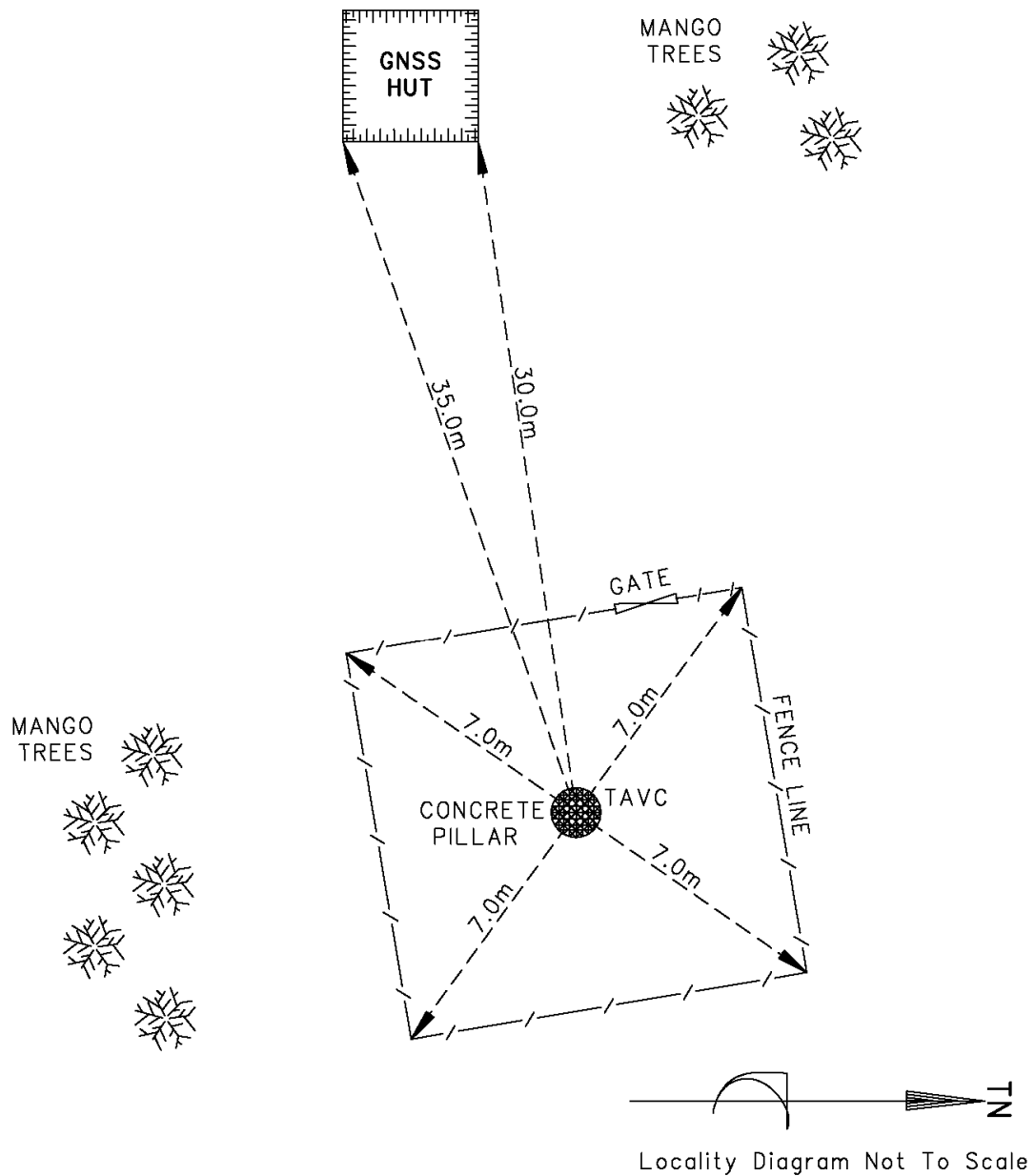


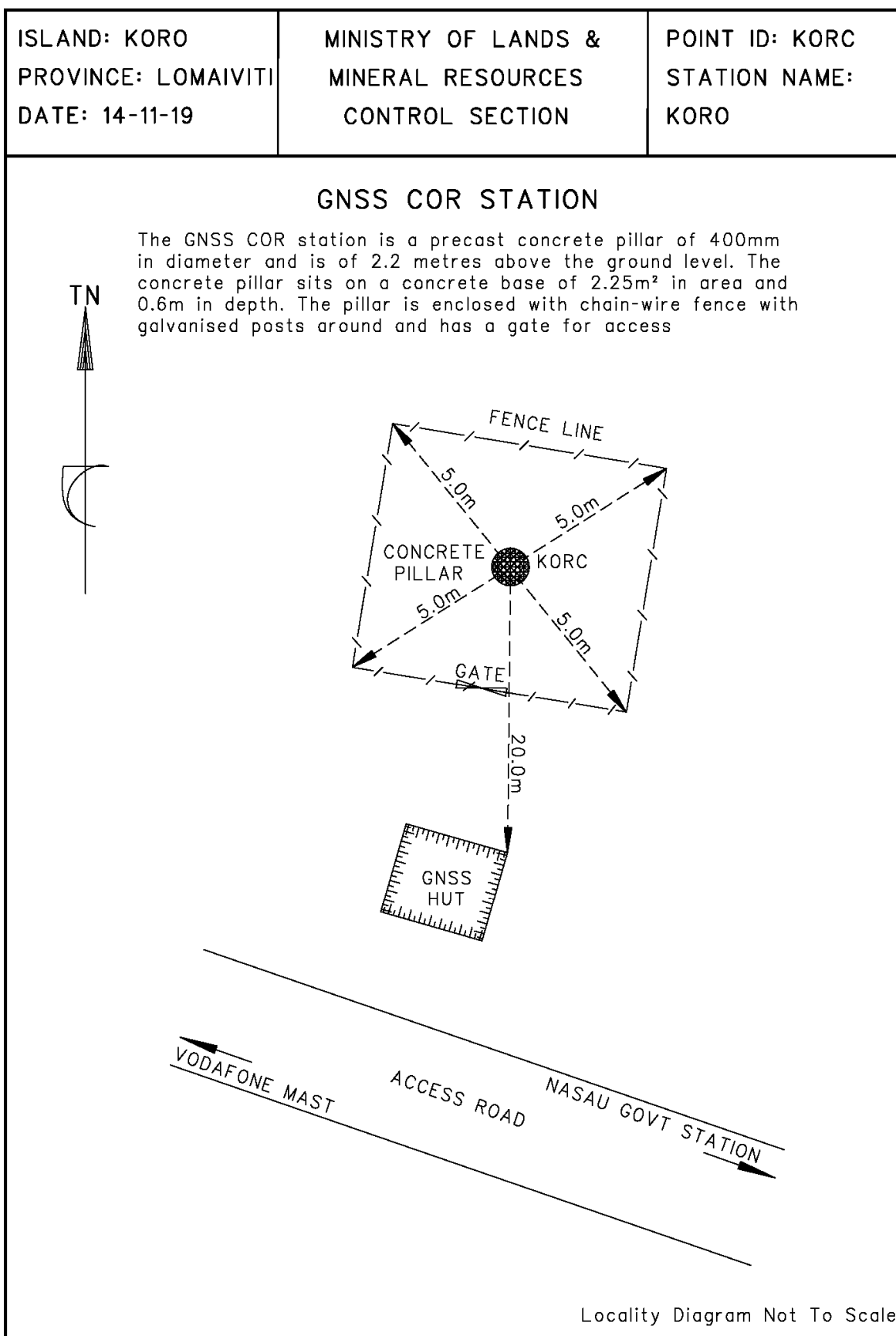
Locality Diagram Not To Scale

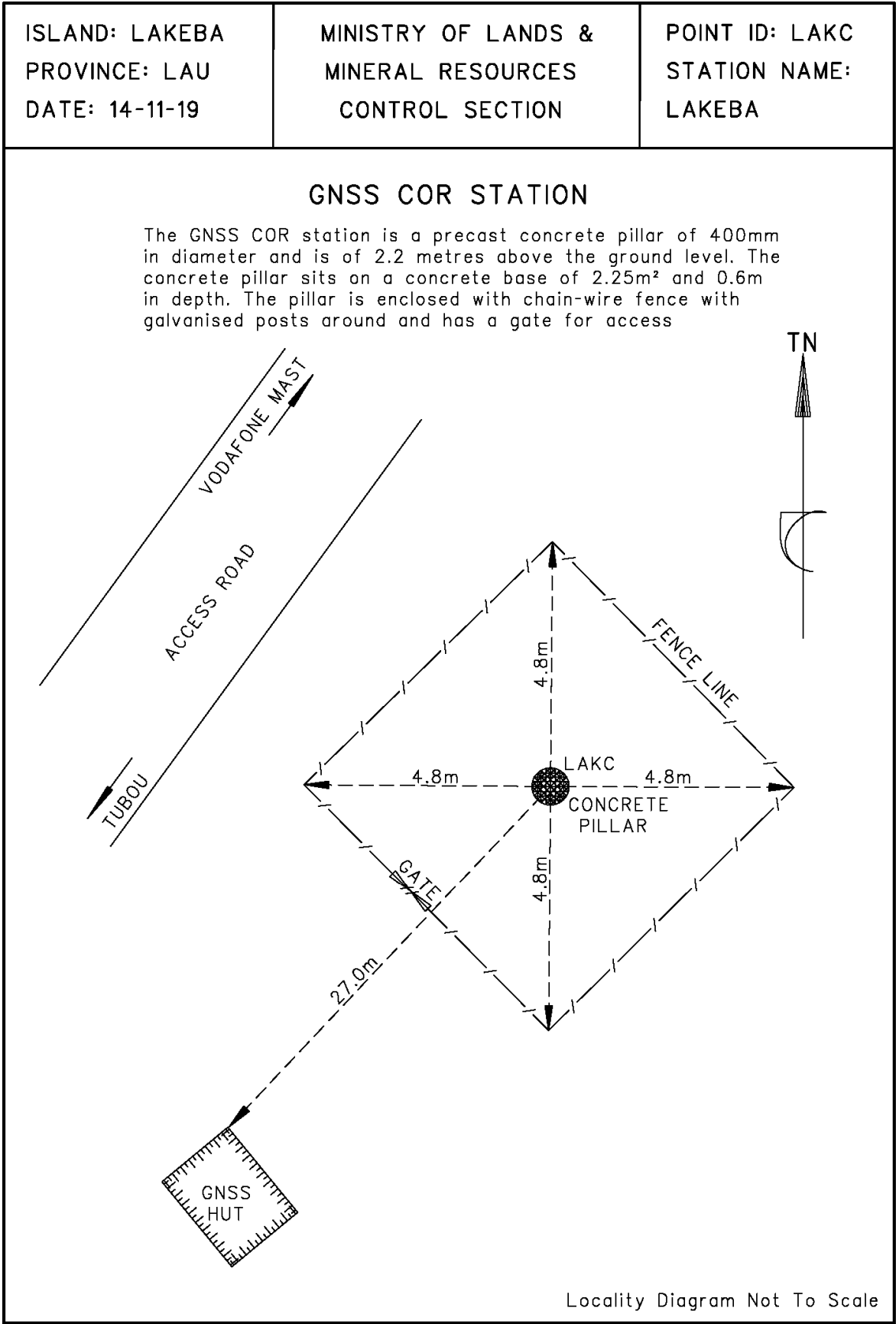
ISLAND: TAVEUNI	MINISTRY OF LANDS &	POINT ID: TAVC
PROVINCE: CAKAUDROVE	MINERAL RESOURCES	STATION NAME:
DATE: 14-11-19	CONTROL SECTION	TAVEUNI

### GNSS COR STATION

The GNSS COR station is a precast concrete pillar of 400mm in diameter and is of 4.7 metres above the ground level. The concrete pillar sits on a concrete base of 2.25m<sup>2</sup> in area and 0.6m in depth. The pillar is enclosed with chain-wire fence with galvanised posts around and has a gate for access







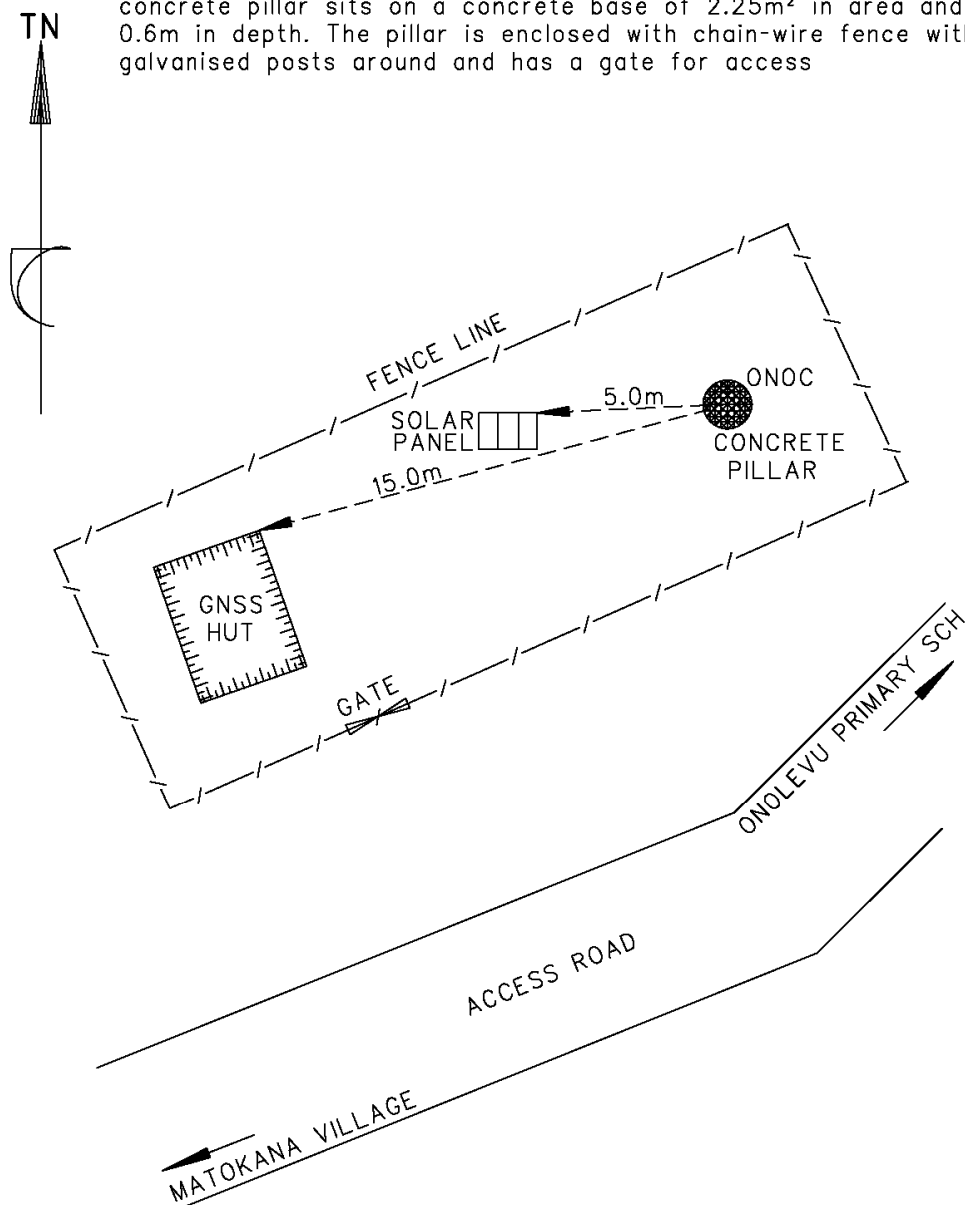
ISLAND: ONO-I-LAU  
PROVINCE: LAU  
DATE: 14-11-19

MINISTRY OF LANDS &  
MINERAL RESOURCES  
CONTROL SECTION

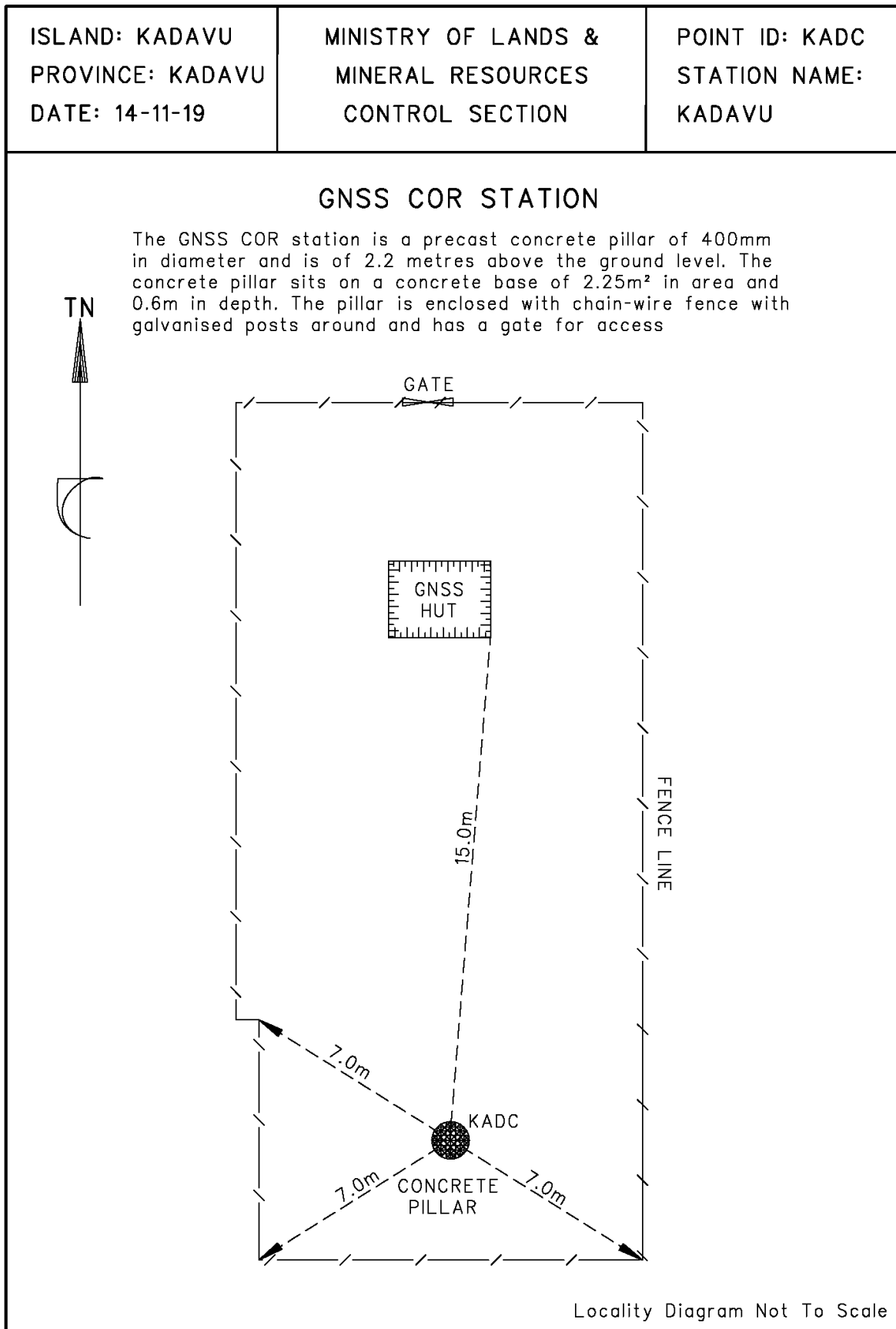
POINT ID: ONOC  
STATION NAME:  
ONO-I-LAU

### GNSS COR STATION

The GNSS COR station is a precast concrete pillar of 400mm in diameter and is of 2.2 metres above the ground level. The concrete pillar sits on a concrete base of 2.25m<sup>2</sup> in area and 0.6m in depth. The pillar is enclosed with chain-wire fence with galvanised posts around and has a gate for access



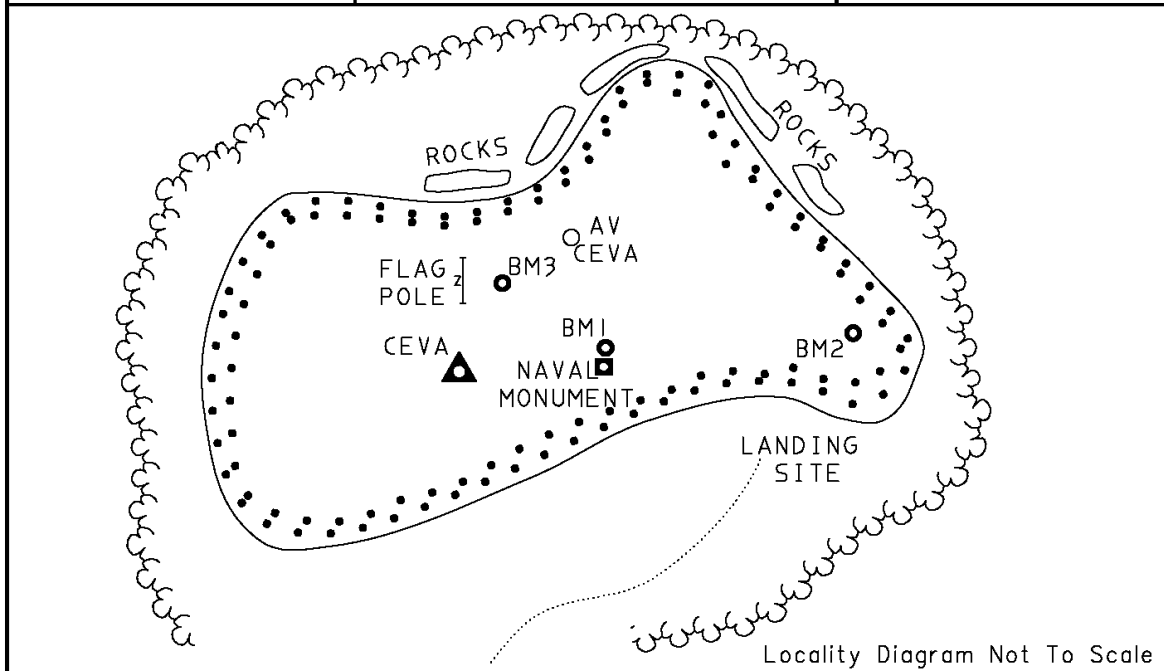
Locality Diagram Not To Scale



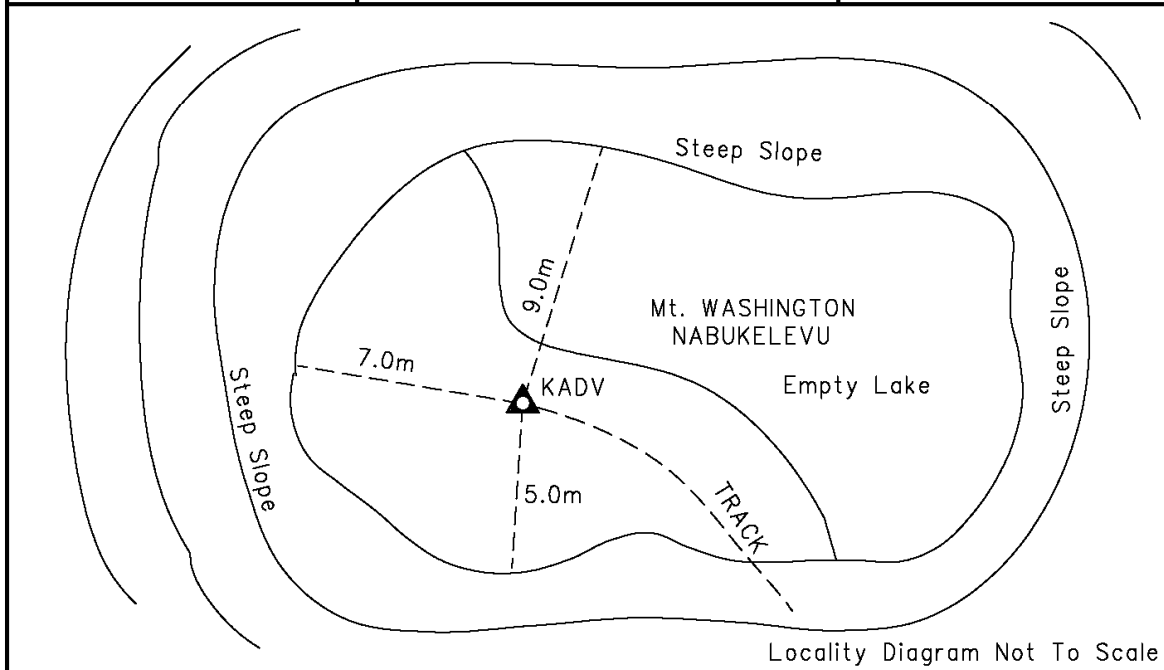




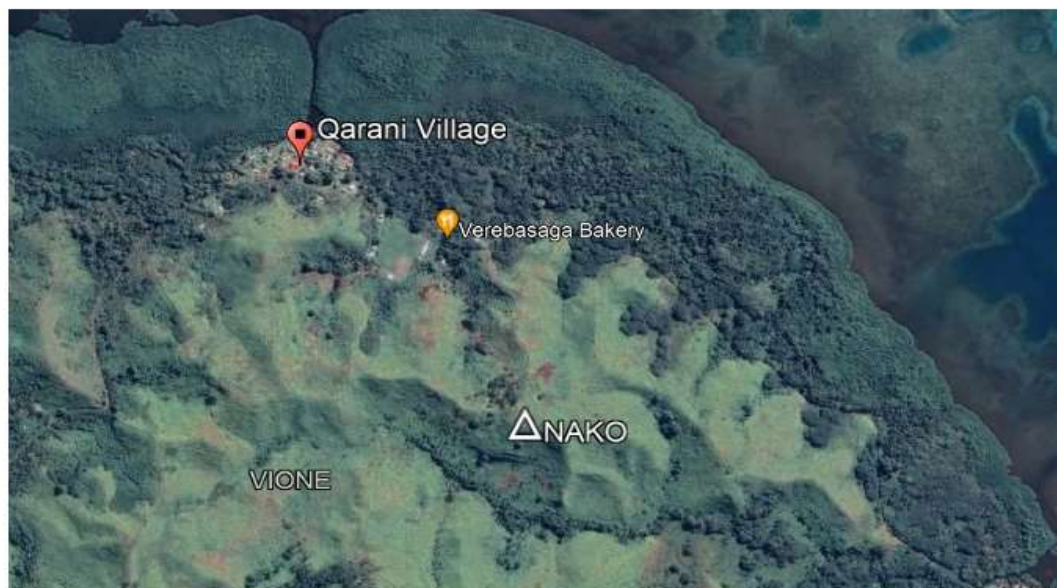
ISLAND: CEVA-I-RA PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: CEVA STATION NAME: CEVA-I-RA
--	---	--



ISLAND: KADAVU PROVINCE: KADAVU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: KADV STATION NAME: DELAINABUKELEVU
--	---	--

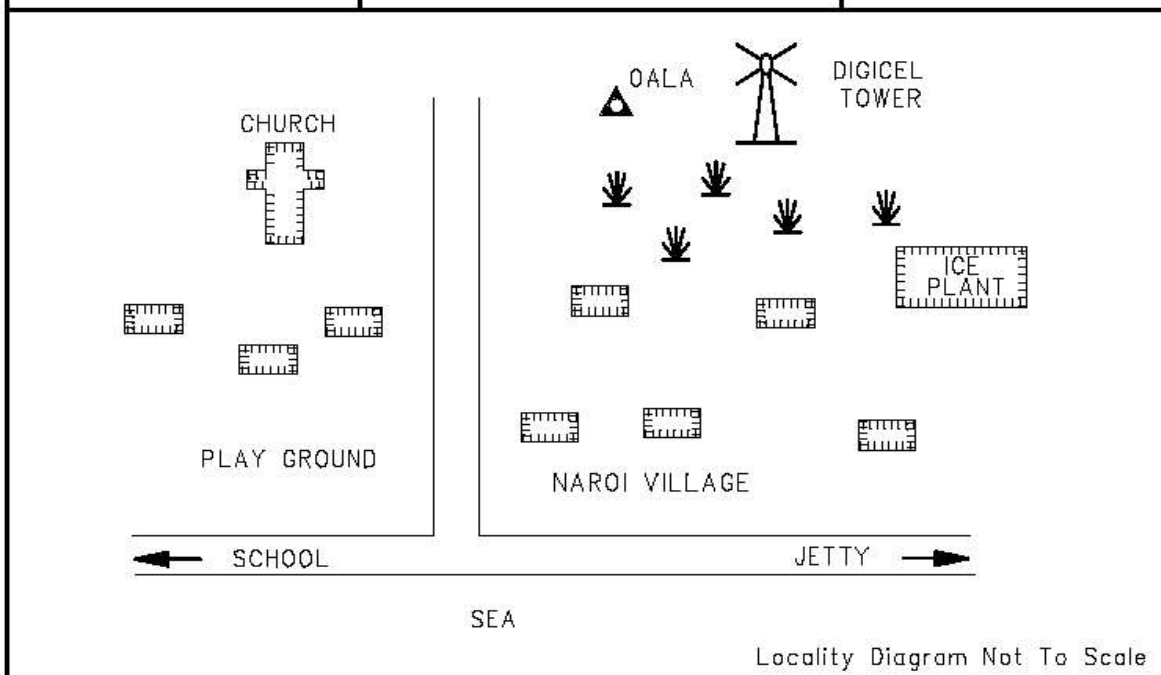


ISLAND: GAU PROVINCE: LOMAIVITI DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: NAKO STATION NAME: NAKOROWAWARO
--	---	---



Locality Diagram Not To Scale

ISLAND: MOALA PROVINCE: LOMAIVITI DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: OALA STATION NAME: OALA
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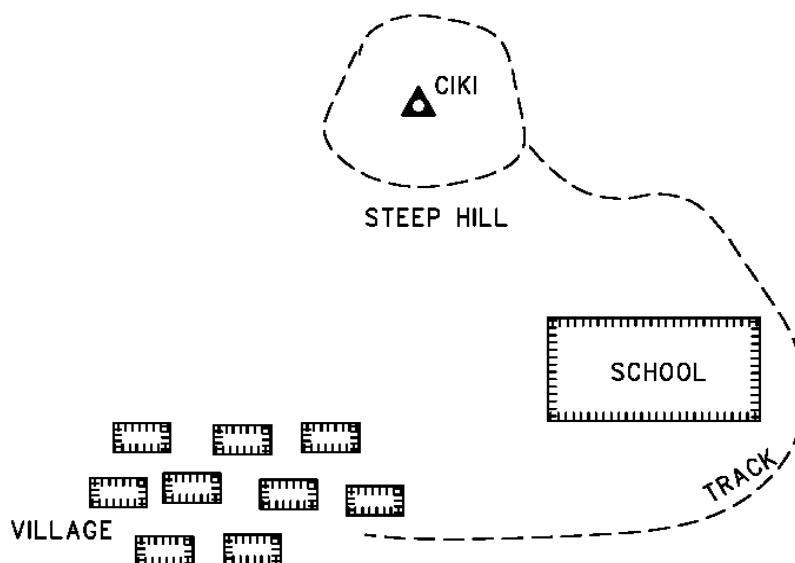
Locality Diagram Not To Scale

ISLAND: LAKEBA PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: UNAV STATION NAME: YADRANA
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Locality Diagram Not To Scale

ISLAND: CIKOBIA-I-LAU PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: CIKI STATION NAME: CIKOBIA
--	---	--



Locality Diagram Not To Scale

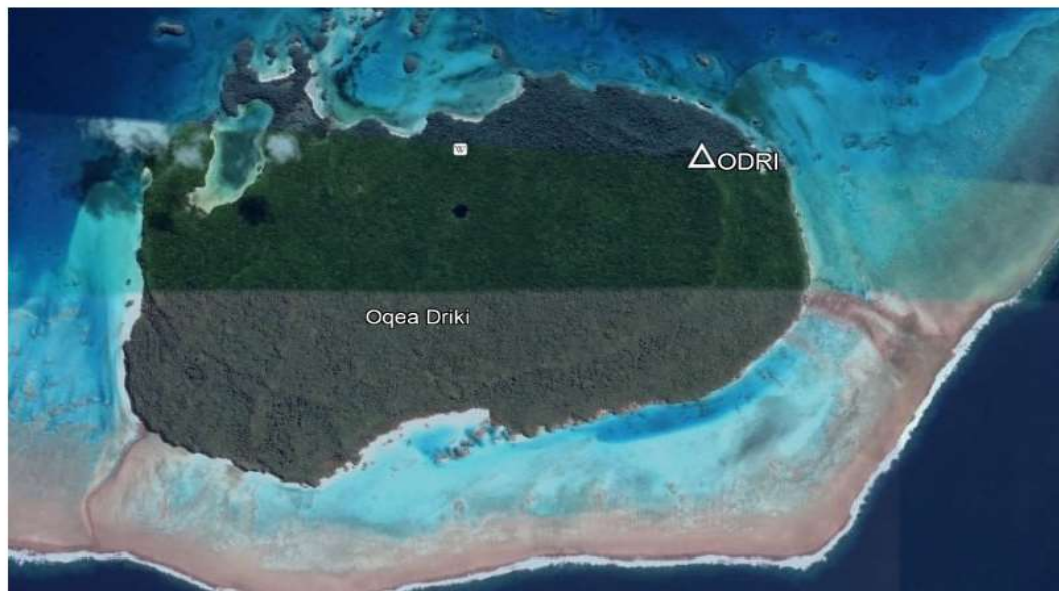
ISLAND: CICIA PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: LULU STATION NAME: COKALULU
<div data-bbox="311 492 1133 1097"> <p>Locality Diagram Not To Scale</p> </div>		
ISLAND: MATUKU PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: MATU STATION NAME: MATUKU
<div data-bbox="268 1350 1334 1939"> <p>Locality Diagram Not To Scale</p> </div>		



ISLAND: OGEA DRIKI  
 PROVINCE: LAU  
 DATE: 14-11-19

MINISTRY OF LANDS &  
 MINERAL RESOURCES  
 CONTROL SECTION

POINT ID: ODRI  
 STATION NAME:  
 OGEA DRIKI

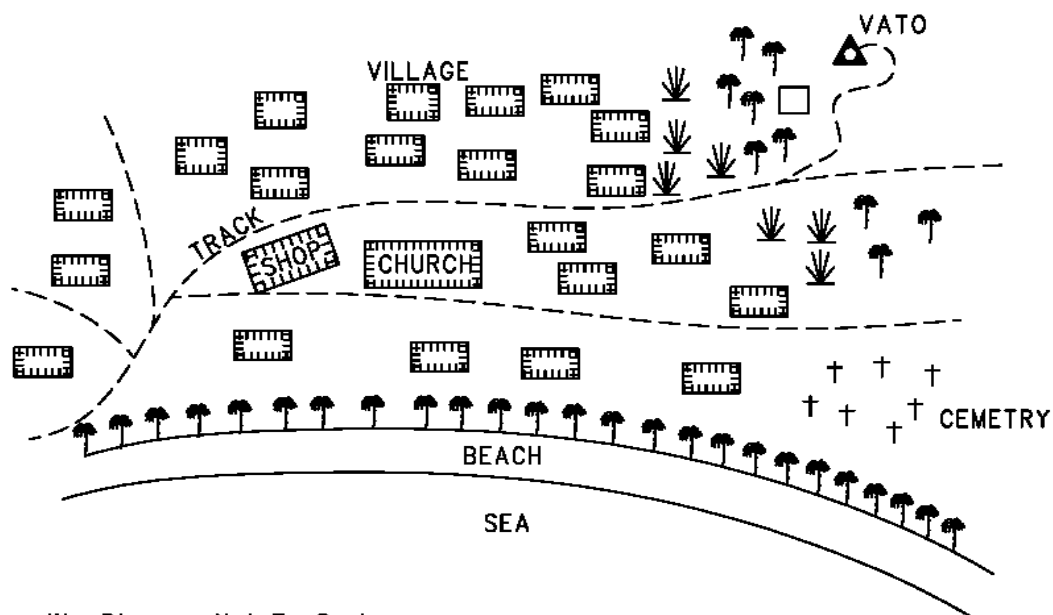


Locality Diagram Not To Scale

ISLAND: VATOA  
 PROVINCE: LAU  
 DATE: 14-11-19

MINISTRY OF LANDS &  
 MINERAL RESOURCES  
 CONTROL SECTION

POINT ID: VATO  
 STATION NAME:  
 VATOA



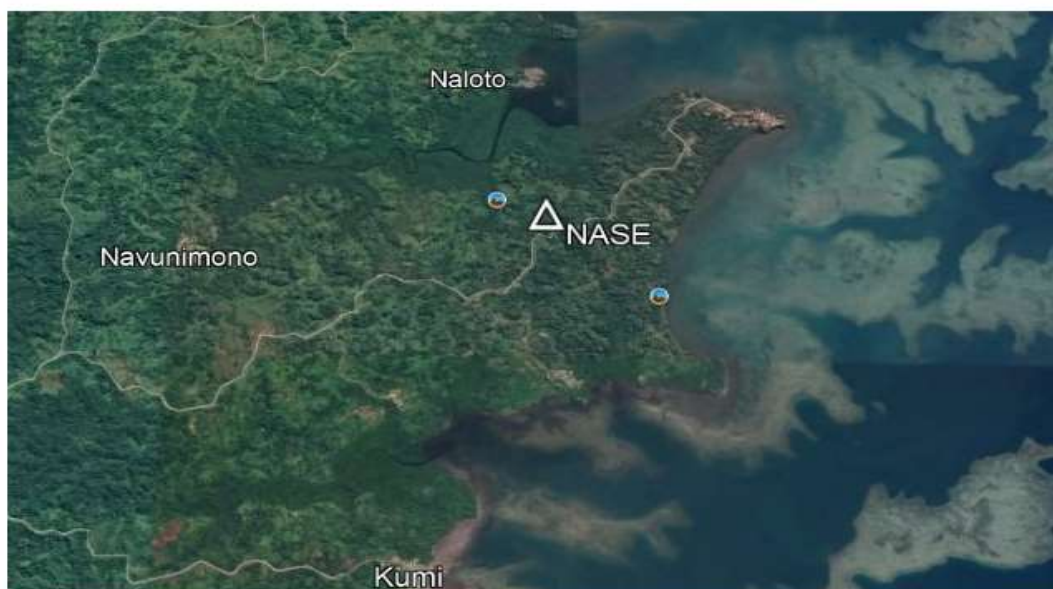
Locality Diagram Not To Scale

ISLAND: ONO-I-LAU PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: ONOI STATION NAME: DELAILOA
<div data-bbox="277 479 1347 1070" data-label="Image"> </div> <p style="text-align: right;">Locality Diagram Not To Scale</p>		
ISLAND: TUVANA-I-RA PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: TUVR STATION NAME: TUVANA-I-RA
<div data-bbox="368 1359 1270 1865" data-label="Diagram"> </div> <p>Note:  Witness and Reference Marks  are Galvanised Iron Tube embedded  in Concrete</p> <p style="text-align: right;">Locality Diagram Not To Scale</p>		

<b>ISLAND: VITI LEVU</b> <b>PROVINCE: REWA</b> <b>DATE: 08-12-19</b>	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES</b> <b>CONTROL SECTION</b>	<b>POINT ID: NAC2</b> <b>STATION NAME:</b> <b>NACOVU 2</b>
<div data-bbox="263 492 1332 1086" data-label="Image"> </div> <div data-bbox="957 1093 1356 1124" data-label="Caption"> <p>Locality Diagram Not To Scale</p> </div>		
<b>ISLAND: VITI LEVU</b> <b>PROVINCE: NAMOSI</b> <b>DATE: 08-12-19</b>	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES</b> <b>CONTROL SECTION</b>	<b>POINT ID: BITU</b> <b>STATION NAME:</b> <b>VUNIBITU</b>
<div data-bbox="263 1355 1332 1937" data-label="Image"> </div> <div data-bbox="957 1953 1356 1984" data-label="Caption"> <p>Locality Diagram Not To Scale</p> </div>		

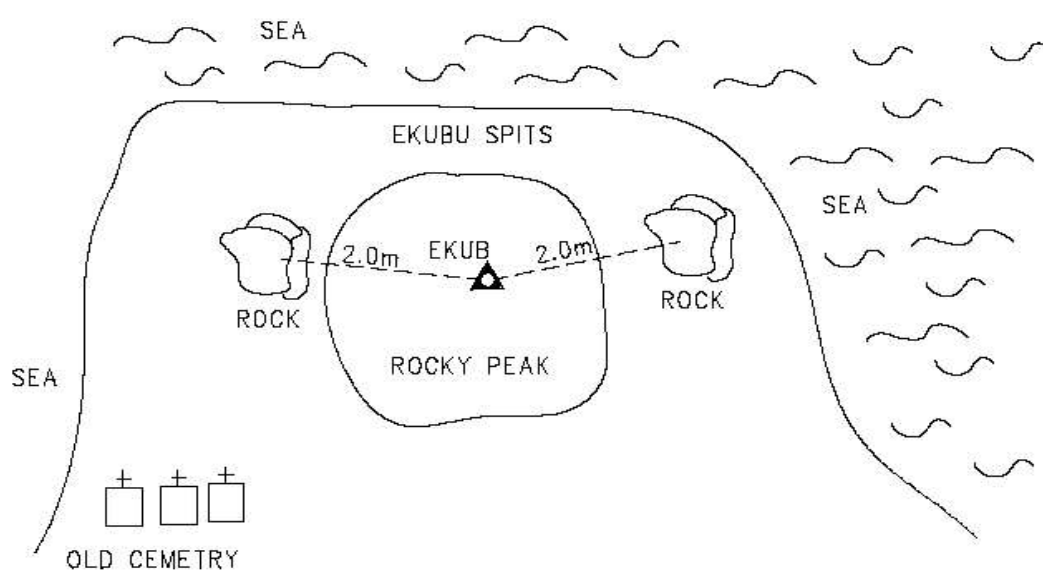


ISLAND: VITI LEVU PROVINCE: TAILEVU DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: NASE STATION NAME: NASELE
--	---	---



Locality Diagram Not To Scale

ISLAND: VATULELE PROVINCE: NADROGA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: EKUB STATION NAME: EKUB
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Locality Diagram Not To Scale

ISLAND: VITI LEVU PROVINCE: NADROGA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: ASAU STATION NAME: KOROGASAU
--	---	--



Locality Diagram Not To Scale

ISLAND: VITI LEVU PROVINCE: NADROGA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: MALO STATION NAME: KORO LEVU MALOMALO
--	---	---



Locality Diagram Not To Scale

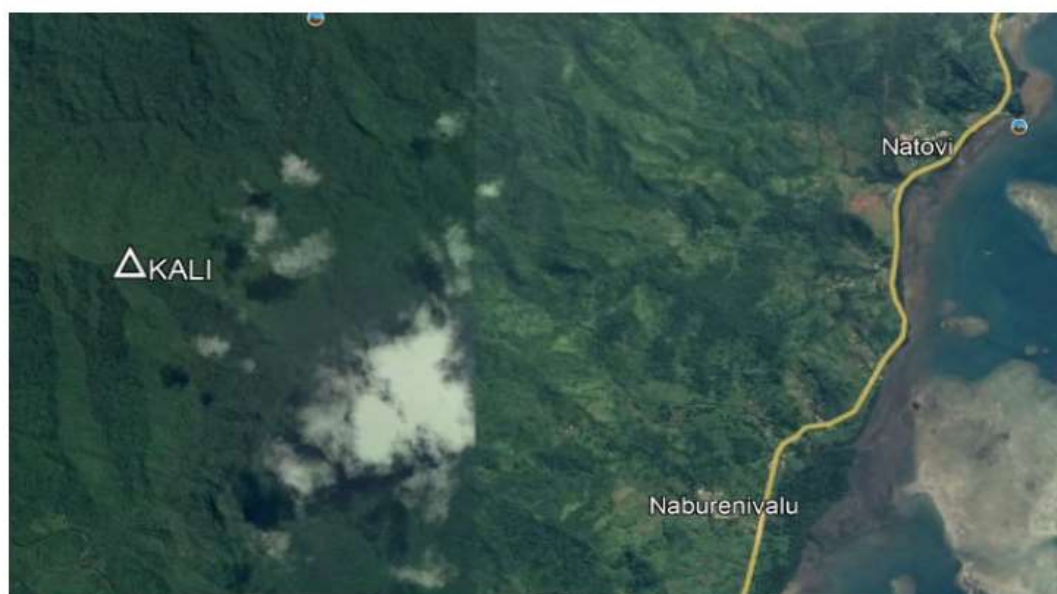


ISLAND: VITI LEVU PROVINCE: NAITASIRI DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: LEVU STATION NAME: TAULEVU
--	---	--





Locality Diagram Not To Scale



ISLAND: VITI LEVU PROVINCE: TAILEVU DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: KALI STATION NAME: VATUKALIKALI
--	---	---



Locality Diagram Not To Scale

<b>ISLAND: VITI LEVU</b> <b>PROVINCE: BA</b> <b>DATE: 08-12-19</b>	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES</b> <b>CONTROL SECTION</b>	<b>POINT ID: MAGO</b> <b>STATION NAME: MAGODRO</b>
<div data-bbox="260 490 1329 1081">  </div> <div data-bbox="965 1088 1370 1122"> Locality Diagram Not To Scale </div>		
<b>ISLAND: VITI LEVU</b> <b>PROVINCE: BA</b> <b>DATE: 08-12-19</b>	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES</b> <b>CONTROL SECTION</b>	<b>POINT ID: BULI</b> <b>STATION NAME: SENILABULI</b>
<div data-bbox="260 1352 1329 1944">  </div> <div data-bbox="997 1951 1370 1984"> Locality Diagram Not To Scale </div>		



ISLAND: VITI LEVU PROVINCE: NAITASIRI DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: TOMA STATION NAME: TOMANIIVI
 <p>Locality Diagram Not To Scale</p>		
ISLAND: VITI LEVU PROVINCE: RA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: NDRO STATION NAME: NADELANADRO
 <p>Locality Diagram Not To Scale</p>		

<b>ISLAND: VITI LEVU</b> <b>PROVINCE: RA</b> <b>DATE: 08-12-19</b>	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES</b> <b>CONTROL SECTION</b>	<b>POINT ID: KAVU</b> <b>STATION NAME:</b> <b>ROKAVUKAVU</b>
<div data-bbox="410 501 1315 965" data-label="Image"> </div> <p data-bbox="244 969 798 1081"> The only prominent hill along Volivoli road.  Road to the Digicel and Vodafone towers  provides the access to the station </p> <p data-bbox="970 1095 1362 1126" style="text-align: right;">Locality Diagram Not To Scale</p>		
<b>ISLAND: VATU-I-RA</b> <b>PROVINCE: RA</b> <b>DATE: 08-12-19</b>	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES</b> <b>CONTROL SECTION</b>	<b>POINT ID: UIRA</b> <b>STATION NAME:</b> <b>VATU-I-RA 2</b>
<div data-bbox="264 1352 1318 1944" data-label="Image"> </div> <p data-bbox="963 1951 1356 1982" style="text-align: right;">Locality Diagram Not To Scale</p>		



ISLAND: VITI LEVU  
PROVINCE: BA  
DATE: 08-12-19

MINISTRY OF LANDS &  
MINERAL RESOURCES  
CONTROL SECTION

POINT ID: DRAU  
STATION NAME:  
DRAUTANA



Locality Diagram Not To Scale

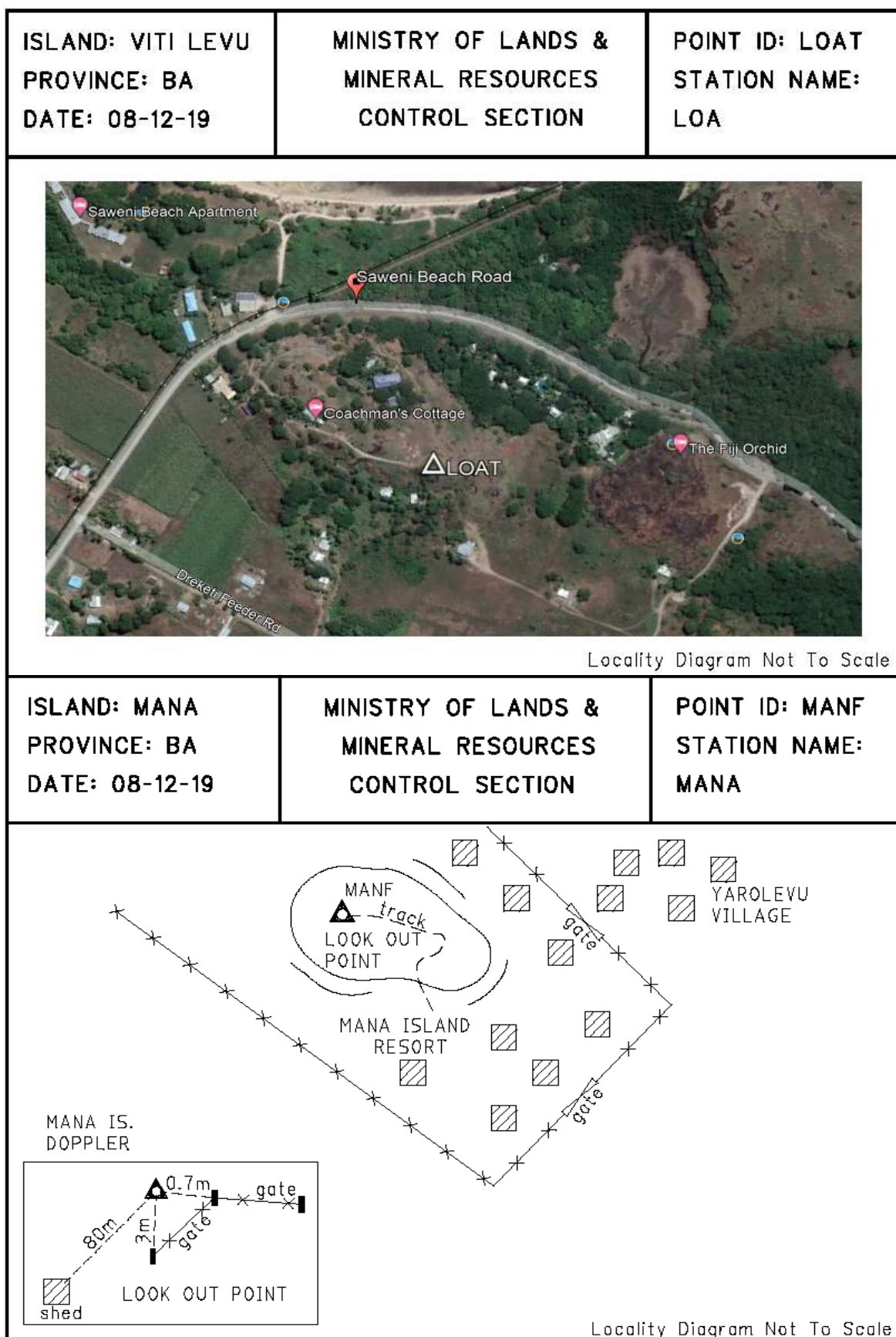
ISLAND: VITI LEVU  
PROVINCE: BA  
DATE: 08-12-19

MINISTRY OF LANDS &  
MINERAL RESOURCES  
CONTROL SECTION

POINT ID: ROQE  
STATION NAME:  
KOROQELE



Locality Diagram Not To Scale





ISLAND: VIWA PROVINCE: BA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: TILI STATION NAME: VIWA
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Locality Diagram Not To Scale



ISLAND: YASAWA-I-RARA PROVINCE: RA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: YAWI STATION NAME: YAWINI
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Locality Diagram Not To Scale



<b>ISLAND: KORO</b> <b>PROVINCE: LOMAIVITI</b> <b>DATE: 26-01-20</b>	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES</b> <b>CONTROL SECTION</b>	<b>POINT ID: NASA</b> <b>STATION NAME: NASAVUTI</b>
<div data-bbox="261 495 1329 1081" data-label="Image"> </div> <div data-bbox="962 1093 1356 1126" data-label="Caption"> <p>Locality Diagram Not To Scale</p> </div>		
<b>ISLAND: TAVEUNI</b> <b>PROVINCE: CAKAUDROVE</b> <b>DATE: 26-01-20</b>	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES</b> <b>CONTROL SECTION</b>	<b>POINT ID: TAVE</b> <b>STATION NAME: TAVUYAGA</b>
<div data-bbox="261 1357 1329 1944" data-label="Image"> </div> <div data-bbox="962 1955 1370 1989" data-label="Caption"> <p>Locality Diagram Not To Scale</p> </div>		



<b>ISLAND: QAMEA</b> <b>PROVINCE: CAKAUDROVE</b> <b>DATE: 26-01-20</b>	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES</b> <b>CONTROL SECTION</b>	<b>POINT ID: ARIA</b> <b>STATION NAME:</b> <b>NATARIA</b>
<div data-bbox="258 492 1329 1081">  </div> <div data-bbox="963 1086 1372 1122"> Locality Diagram Not To Scale </div>		
<b>ISLAND: VANUA LEVU</b> <b>PROVINCE: CAKAUDROVE</b> <b>DATE: 26-01-20</b>	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES</b> <b>CONTROL SECTION</b>	<b>POINT ID: MACA</b> <b>STATION NAME:</b> <b>MACANABU</b>
<div data-bbox="258 1355 1329 1944">  </div> <div data-bbox="963 1948 1372 1984"> Locality Diagram Not To Scale </div>		

ISLAND: VANUA LEVU PROVINCE: BUA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: DELA STATION NAME: DELAVALAU 2
 <p>Locality Diagram Not To Scale</p>		
ISLAND: VANUA LEVU PROVINCE: BUA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: SESE STATION NAME: SESELEKA
 <p>Locality Diagram Not To Scale</p>		



ISLAND: VANUA LEVU PROVINCE: BUA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: ROGA STATION NAME: DELAINAROGA
 <p>Locality Diagram Not To Scale</p>		
ISLAND: VANUA LEVU PROVINCE: MACUATA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: WANI STATION NAME: CULASAWANI
 <p>Locality Diagram Not To Scale</p>		

ISLAND: VANUA LEVU PROVINCE: MACUATA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: BULE STATION NAME: BULEBULEWA
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Locality Diagram Not To Scale



ISLAND: VANUA LEVU PROVINCE: CAKAUDROVE DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: GALA STATION NAME: QALAULEVU
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Locality Diagram Not To Scale



<b>ISLAND: KIA</b> <b>PROVINCE: MACUATA</b> <b>DATE: 26-01-20</b>	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES</b> <b>CONTROL SECTION</b>	<b>POINT ID: KIAS</b> <b>STATION NAME:</b> <b>KIA</b>
<div data-bbox="260 495 1329 1084" data-label="Image"> </div> <div data-bbox="965 1086 1377 1122" data-label="Caption"> <p>Locality Diagram Not To Scale</p> </div>		
<b>ISLAND: VANUA LEVU</b> <b>PROVINCE: MACUATA</b> <b>DATE: 26-01-20</b>	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES</b> <b>CONTROL SECTION</b>	<b>POINT ID: KOKA</b> <b>STATION NAME:</b> <b>KORONIKOKA</b>
<div data-bbox="256 1352 1326 1944" data-label="Image"> </div> <div data-bbox="960 1946 1370 1982" data-label="Caption"> <p>Locality Diagram Not To Scale</p> </div>		

ISLAND: VANUA LEVU PROVINCE: MACUATA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: KALO STATION NAME: KOROKALO
 <p>Locality Diagram Not To Scale</p>		
ISLAND: VANUA LEVU PROVINCE: CAKAUDROVE DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: KAMA STATION NAME: ULUIKAMALI
 <p>Locality Diagram Not To Scale</p>		



ISLAND: QELEVU PROVINCE: CAKAUDROVE DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: QELE STATION NAME: QELELEVU
<div data-bbox="260 495 1329 1081">  </div> <div data-bbox="979 1097 1374 1126"> Locality Diagram Not To Scale </div>		
ISLAND: CIKOBIA PROVINCE: MACUATA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: QILO STATION NAME: QILO
<div data-bbox="260 1357 1329 1944">  </div> <div data-bbox="979 1960 1374 1989"> Locality Diagram Not To Scale </div>		

ISLAND: ROTUMA PROVINCE: ROTUMA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: SOLE STATION NAME: SOLMEA
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Locality Diagram Not To Scale

ISLAND: RABI PROVINCE: CAKAUDROVE DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: RABE STATION NAME: DELAIRABE
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Locality Diagram Not To Scale



<b>ISLAND:</b> CICIA <b>PROVINCE:</b> LAU <b>DATE:</b> 14-11-19	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES CONTROL SECTION</b>	<b>POINT ID:</b> C111 <b>STATION NAME:</b> C111
<div data-bbox="261 495 1326 1081">  </div> <div data-bbox="970 1093 1366 1122" data-cs="2" data-kind="parent">Locality Diagram Not To Scale</div> <div data-kind="ghost"></div>		
<b>ISLAND:</b> VANUABALAVU <b>PROVINCE:</b> LAU <b>DATE:</b> 14-11-19	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES CONTROL SECTION</b>	<b>POINT ID:</b> CIJ1 <b>STATION NAME:</b> CIJ1
<div data-bbox="261 1350 1326 1937">  </div> <div data-bbox="970 1948 1366 1977" data-cs="2" data-kind="parent">Locality Diagram Not To Scale</div> <div data-kind="ghost"></div>		

ISLAND: VANUABALAVU PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: CP02 STATION NAME: CP02
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Locality Diagram Not To Scale

ISLAND: VANUABALAVU PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: BUAT STATION NAME: BUAT
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Locality Diagram Not To Scale



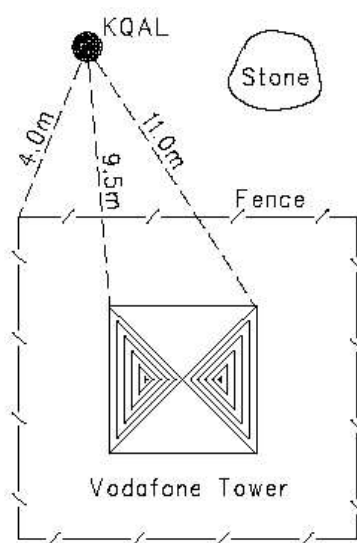
ISLAND: LAKEBA PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: LKRE STATION NAME: LAKEBA RESERVOIR
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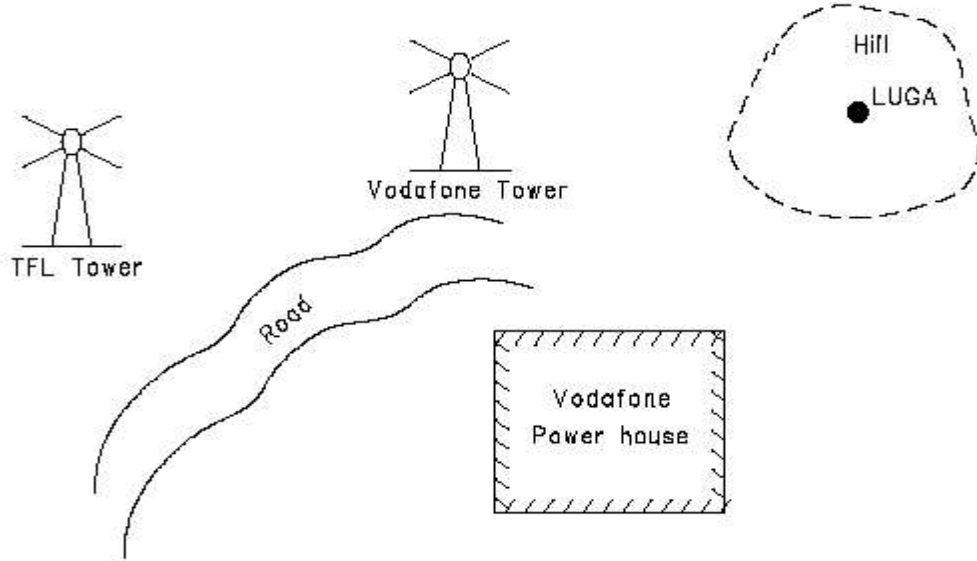

Locality Diagram Not To Scale

ISLAND: KADAVU PROVINCE: KADAVU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: KQAL STATION NAME: KORONIQALA
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Solar Panels



Locality Diagram Not To Scale

ISLAND: KADAVU PROVINCE: KADAVU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: LUGA STATION NAME: NAISULUGA
 <p style="text-align: right;">Locality Diagram Not To Scale</p>		
ISLAND: TUVANA-I-RA PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: VANA STATION NAME: VANA
 <p style="text-align: right;">Locality Diagram Not To Scale</p>		



ISLAND: TUVANA-I-COLO PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: TUCO STATION NAME: TUVANA-I-COLO
 <p>Locality Diagram Not To Scale</p>		
ISLAND: GAU PROVINCE: LOMAIVITI DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: GAA1 STATION NAME: GAAL
 <p>Locality Diagram Not To Scale</p>		



ISLAND: GAU PROVINCE: LOMAIVITI DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: GAA2 STATION NAME: GAA2
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Locality Diagram Not To Scale

ISLAND: GAU PROVINCE: LOMAIVITI DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: GAA3 STATION NAME: GAA3
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Locality Diagram Not To Scale



ISLAND: GAU  
PROVINCE: LOMAIVITI  
DATE: 14-11-19

MINISTRY OF LANDS &  
MINERAL RESOURCES  
CONTROL SECTION

POINT ID: GAJ1  
STATION NAME:  
GAJ1

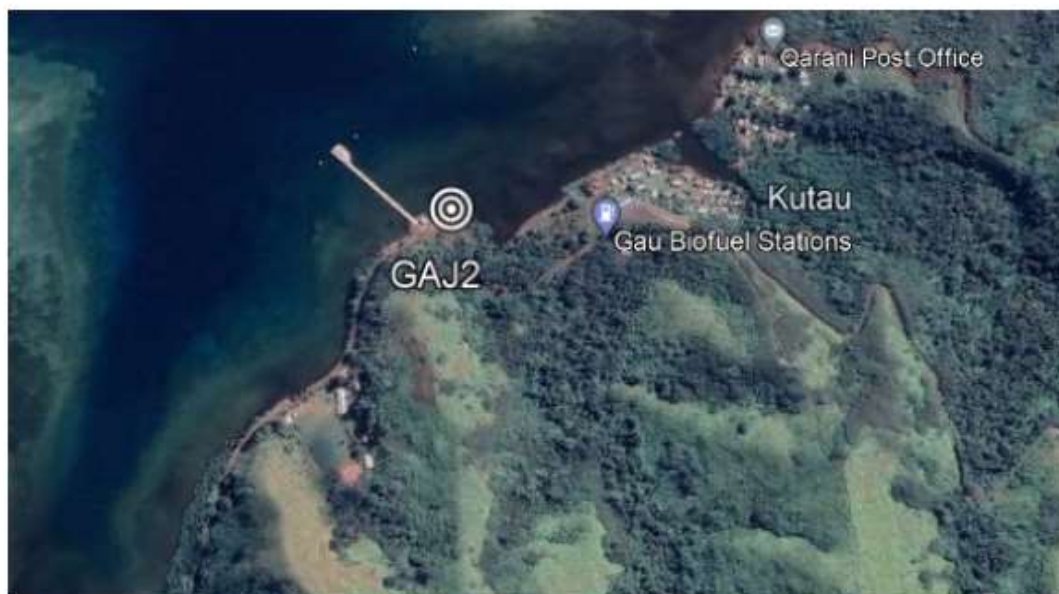


Locality Diagram Not To Scale

ISLAND: GAU  
PROVINCE: LOMAIVITI  
DATE: 14-11-19

MINISTRY OF LANDS &  
MINERAL RESOURCES  
CONTROL SECTION

POINT ID: GAJ2  
STATION NAME:  
GAJ2



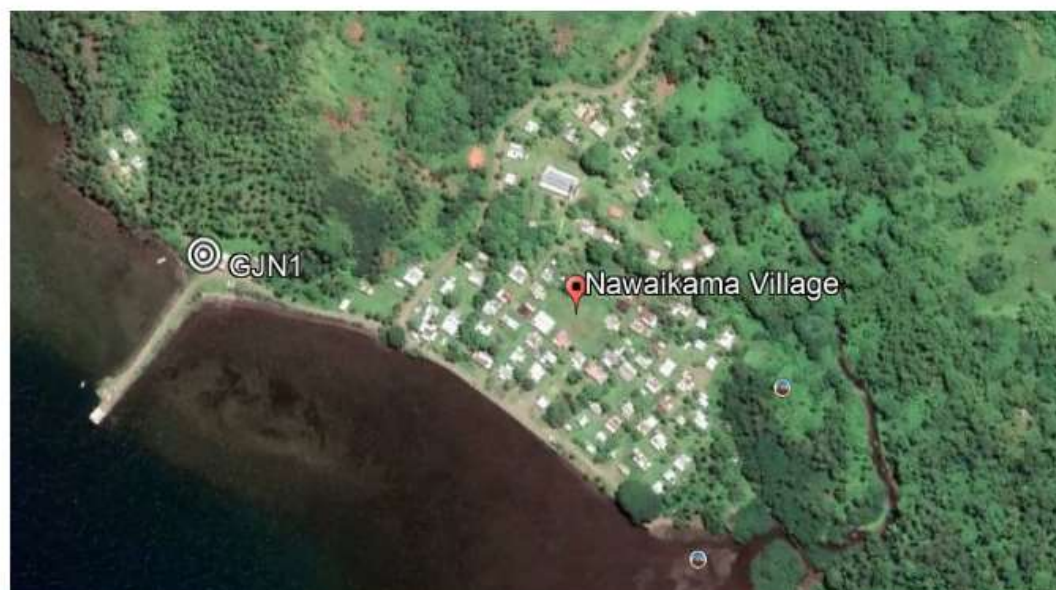
Locality Diagram Not To Scale

ISLAND: GAU PROVINCE: LOMAIVITI DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: GAJ3 STATION NAME: GAJ3
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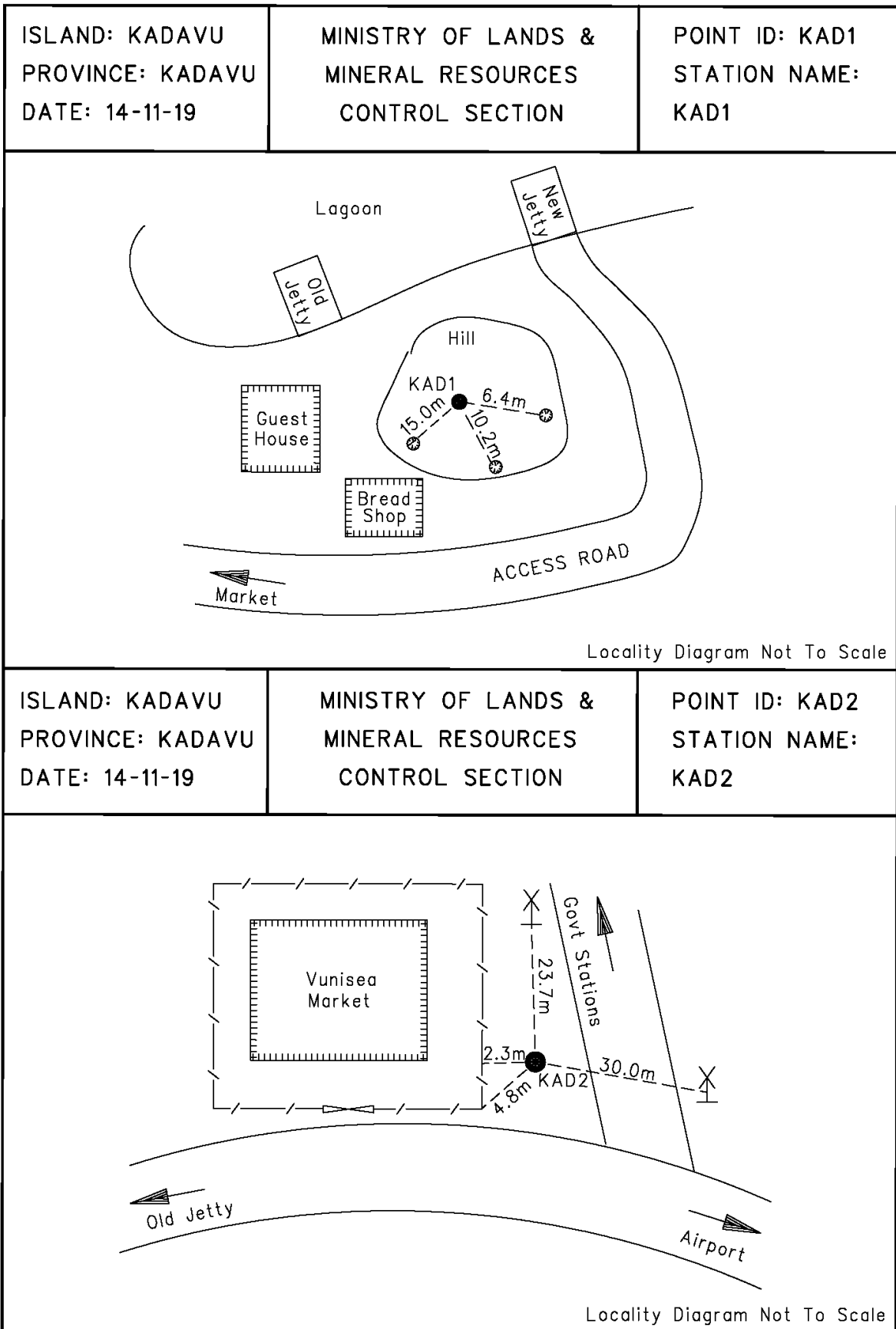


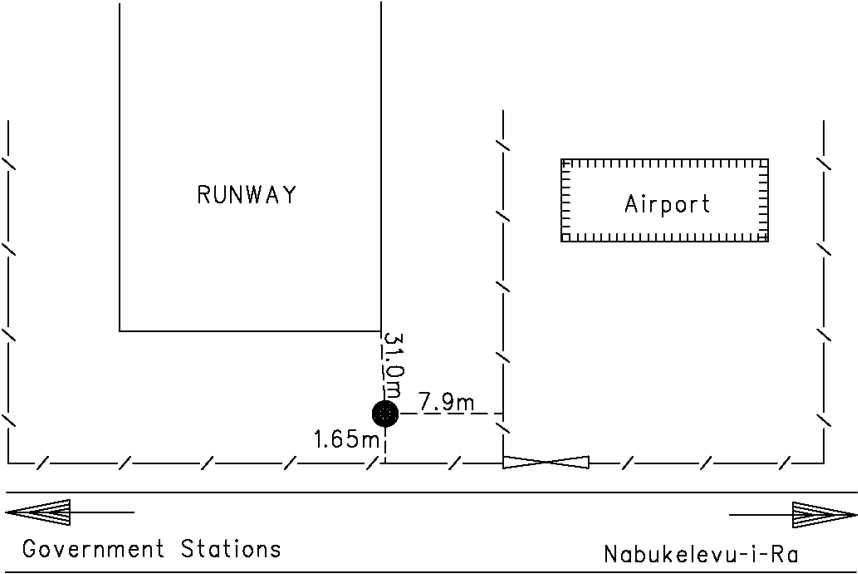
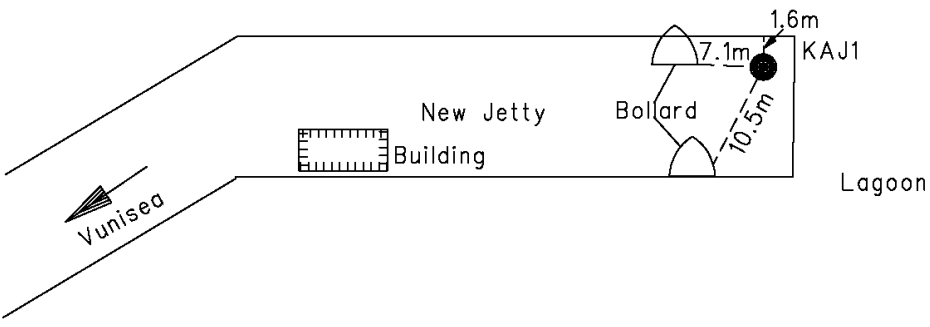
Locality Diagram Not To Scale

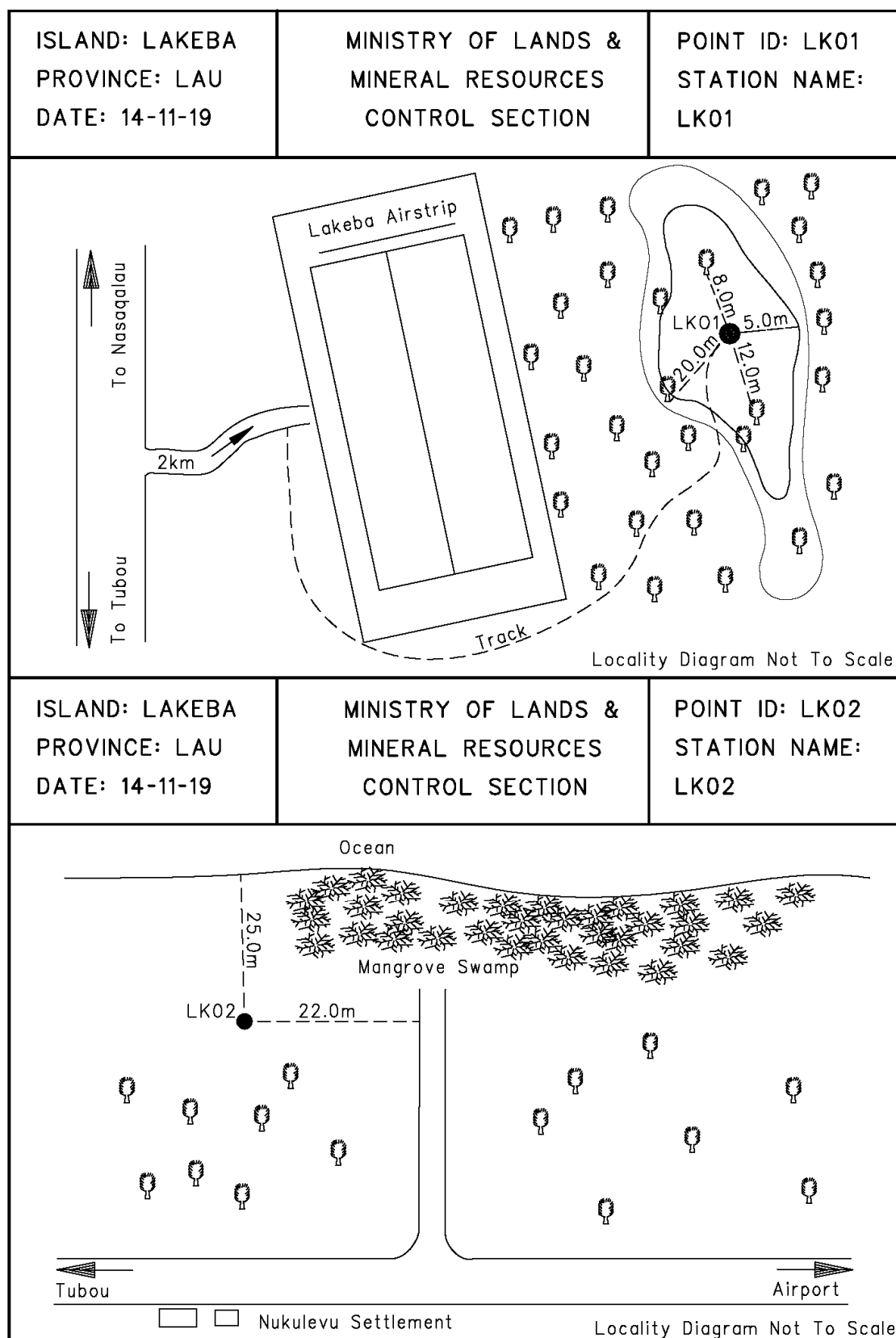
ISLAND: GAU PROVINCE: LOMAIVITI DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: GJN1 STATION NAME: GJN1
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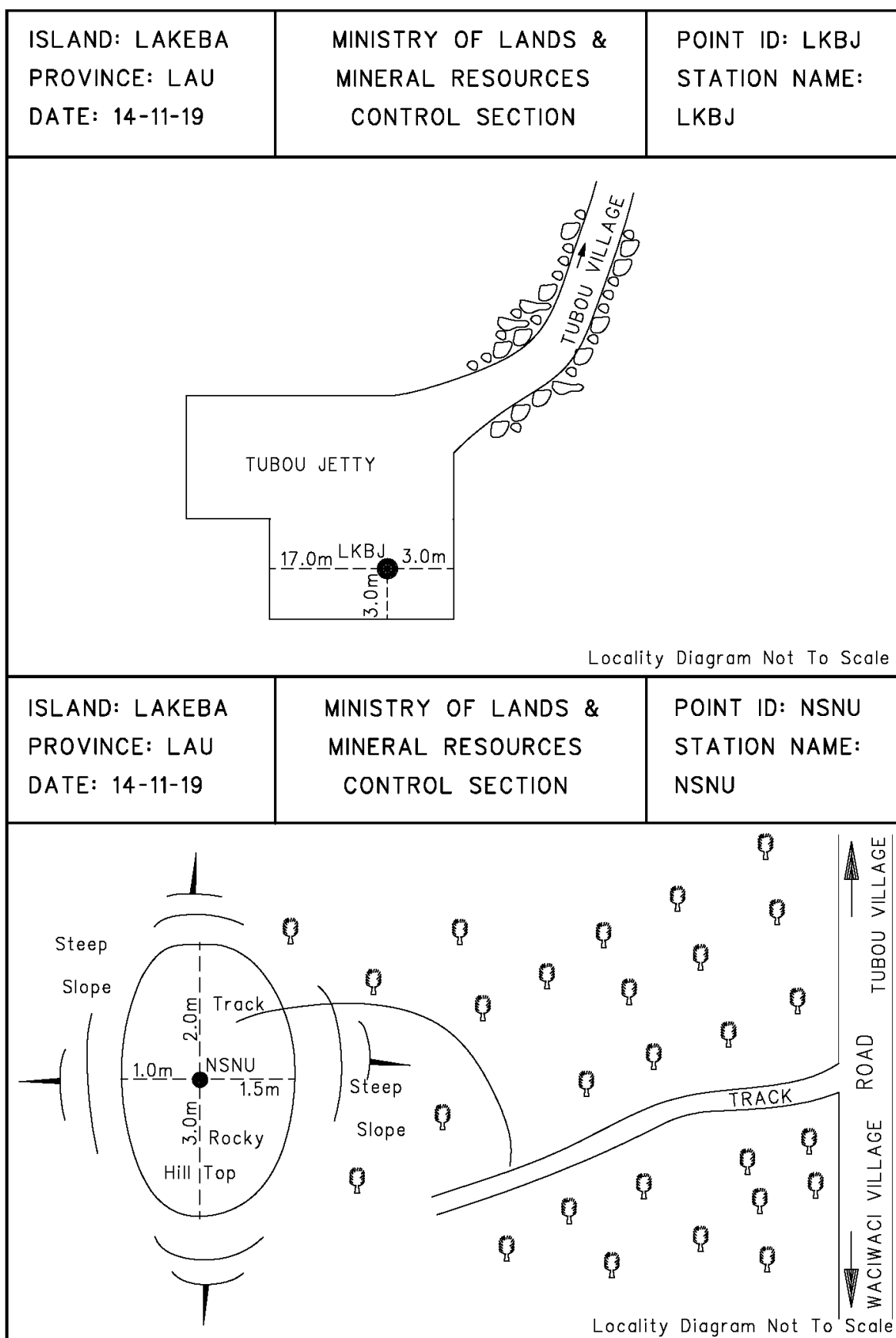
Locality Diagram Not To Scale





ISLAND: KADAVU PROVINCE: KADAVU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: KAD3 STATION NAME: KAD3
 <p>Locality Diagram Not To Scale</p>		
ISLAND: KADAVU PROVINCE: KADAVU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: KAJ1 STATION NAME: KAJ1
 <p>Locality Diagram Not To Scale</p>		







<p>ISLAND: MATUKU PROVINCE: LAU DATE: 14-11-19</p>	<p>MINISTRY OF LANDS &amp; MINERAL RESOURCES CONTROL SECTION</p>	<p>POINT ID: MATT STATION NAME: MATT</p>
<div data-bbox="263 492 1332 1086">  </div> <p data-bbox="965 1086 1364 1120">Locality Diagram Not To Scale</p>		
<p>ISLAND: MATUKU PROVINCE: LAU DATE: 14-11-19</p>	<p>MINISTRY OF LANDS &amp; MINERAL RESOURCES CONTROL SECTION</p>	<p>POINT ID: MDRO STATION NAME: MAKADRO</p>
<div data-bbox="263 1355 1332 1937">  </div> <p data-bbox="965 1937 1364 1971">Locality Diagram Not To Scale</p>		

ISLAND: ONO-I-LAU PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: MATI STATION NAME: MATI
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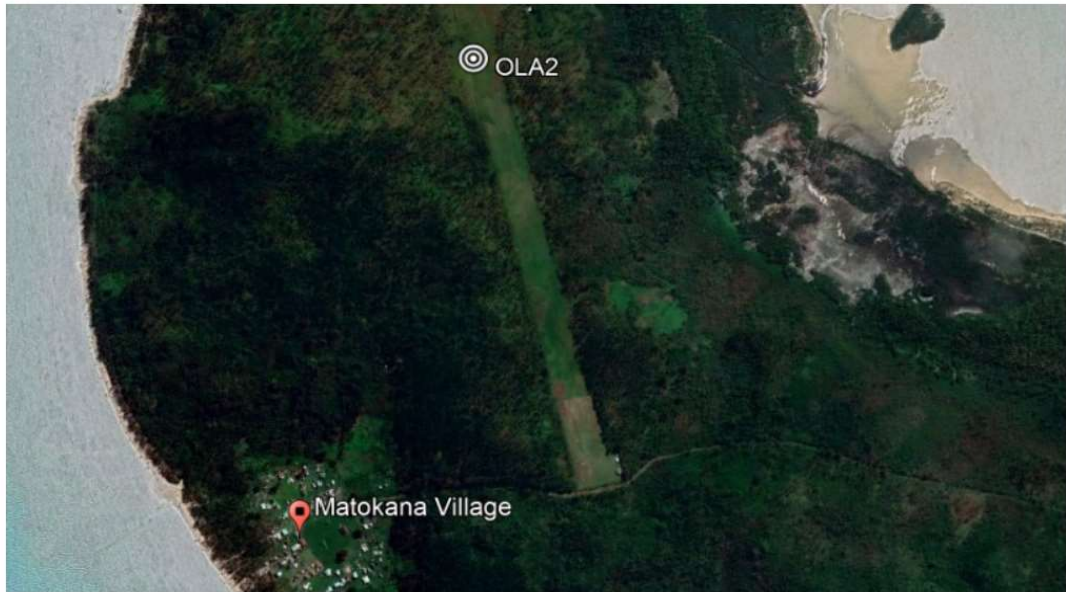
Locality Diagram Not To Scale

ISLAND: ONO-I-LAU PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: MTII STATION NAME: MTII
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Locality Diagram Not To Scale



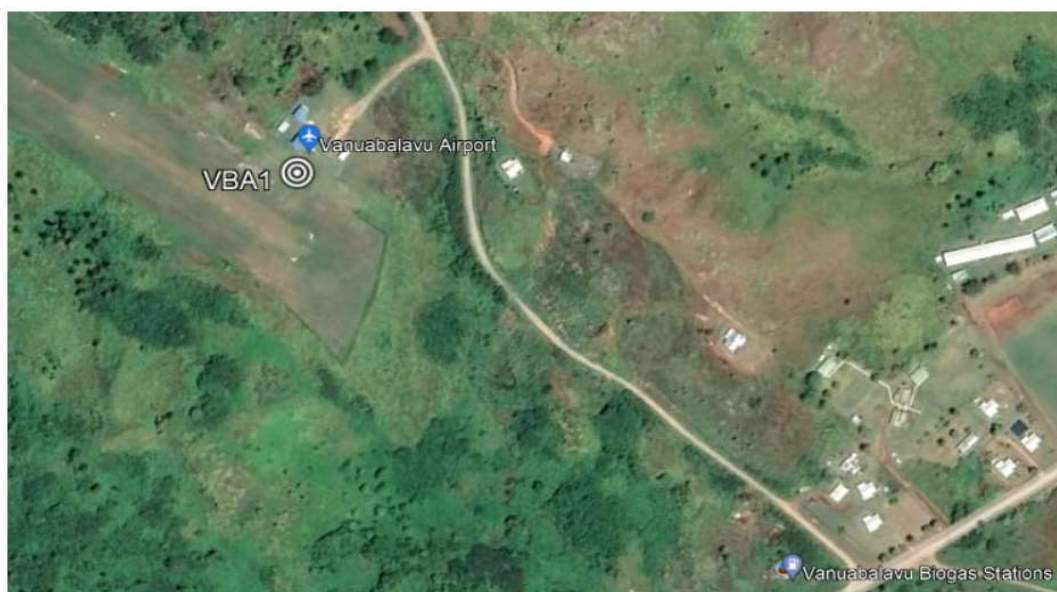
ISLAND: ONO-I-LAU PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: OLA1 STATION NAME: OLA1
 <p>Matokana Village OLA1</p> <p>Locality Diagram Not To Scale</p>		
ISLAND: ONO-I-LAU PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: OLA2 STATION NAME: OLA2
 <p>Matokana Village OLA2</p> <p>Locality Diagram Not To Scale</p>		

ISLAND: ONO-I-LAU PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: ONOS STATION NAME: ONOS
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Locality Diagram Not To Scale

ISLAND: VANUABALAVU PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: VBA1 STATION NAME: VBA1
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Locality Diagram Not To Scale



ISLAND: VANUABALAVU PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: VBA2 STATION NAME: VBA2
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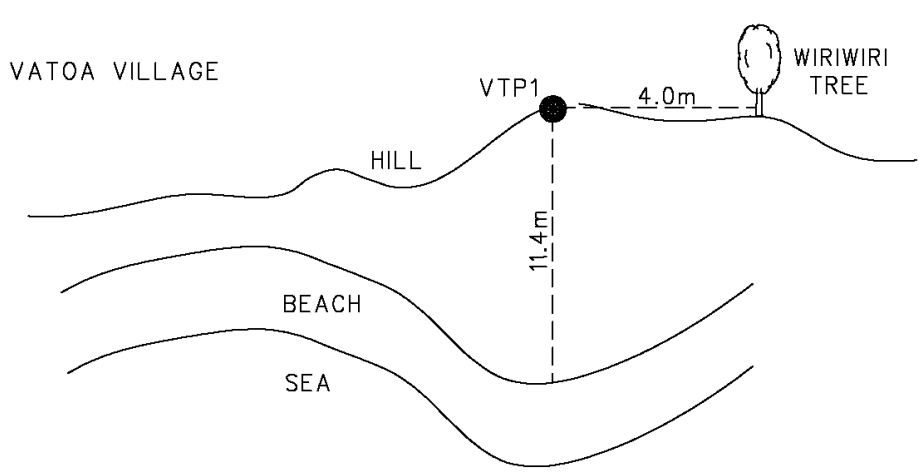
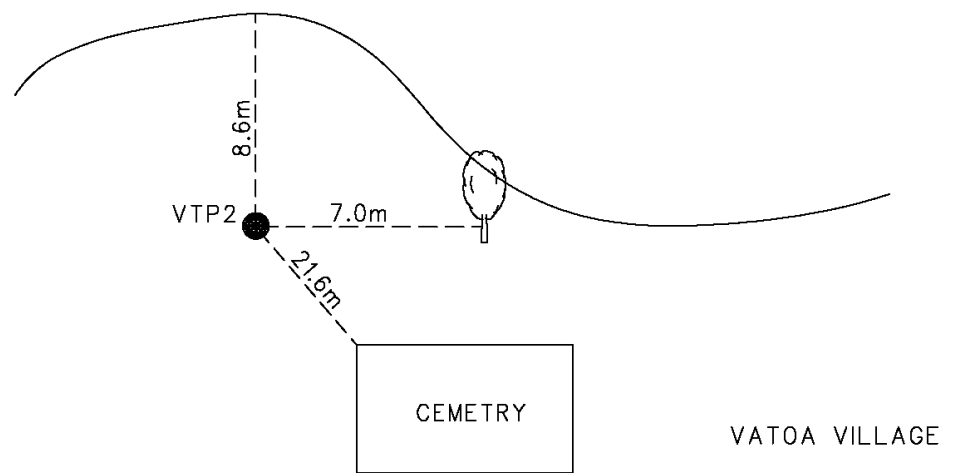
Locality Diagram Not To Scale

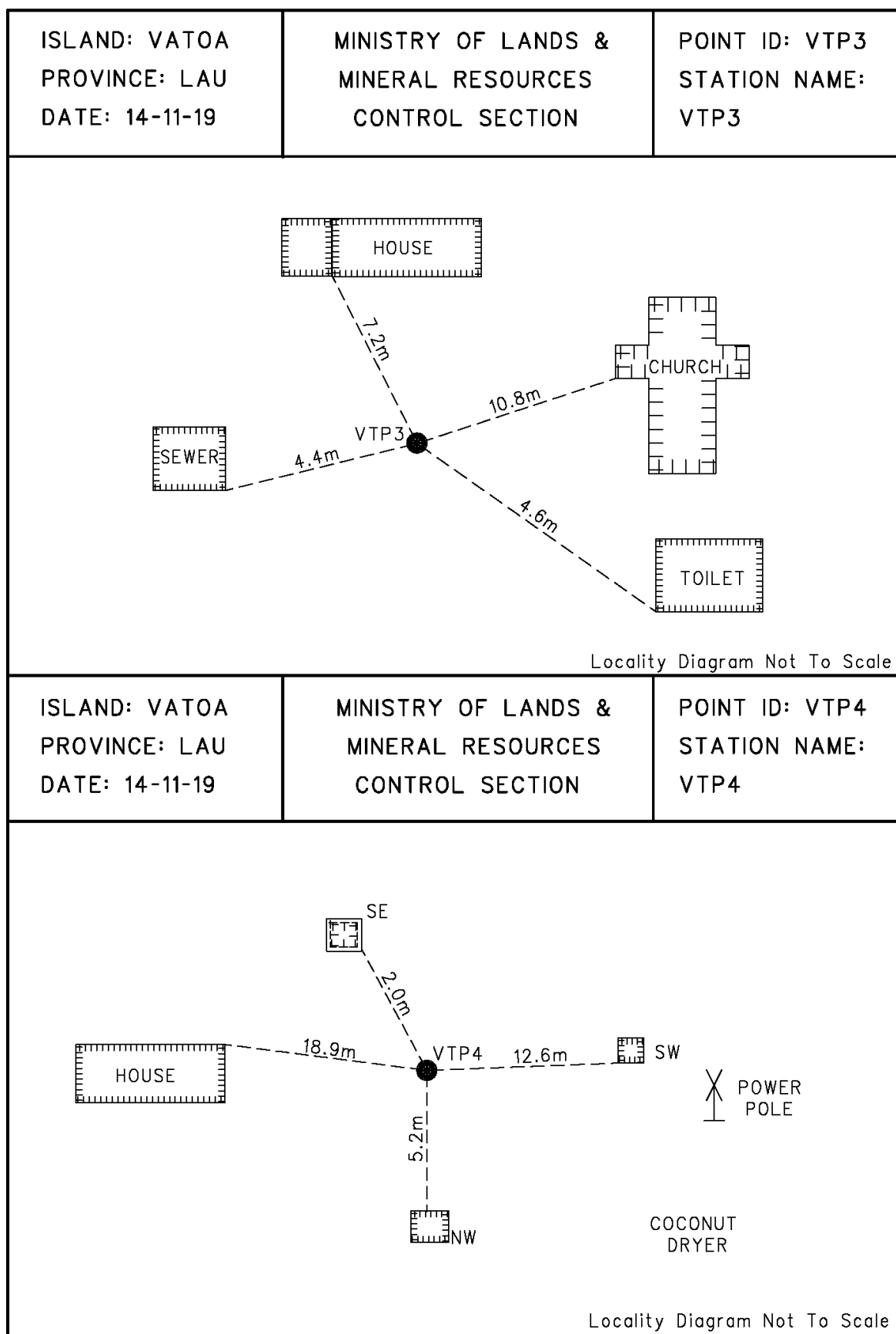
ISLAND: VANUABALAVU PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: VBJ1 STATION NAME: VBJ1
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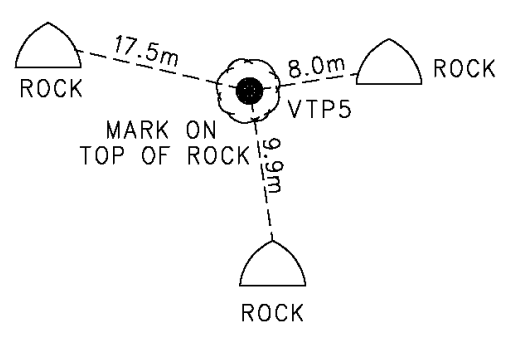
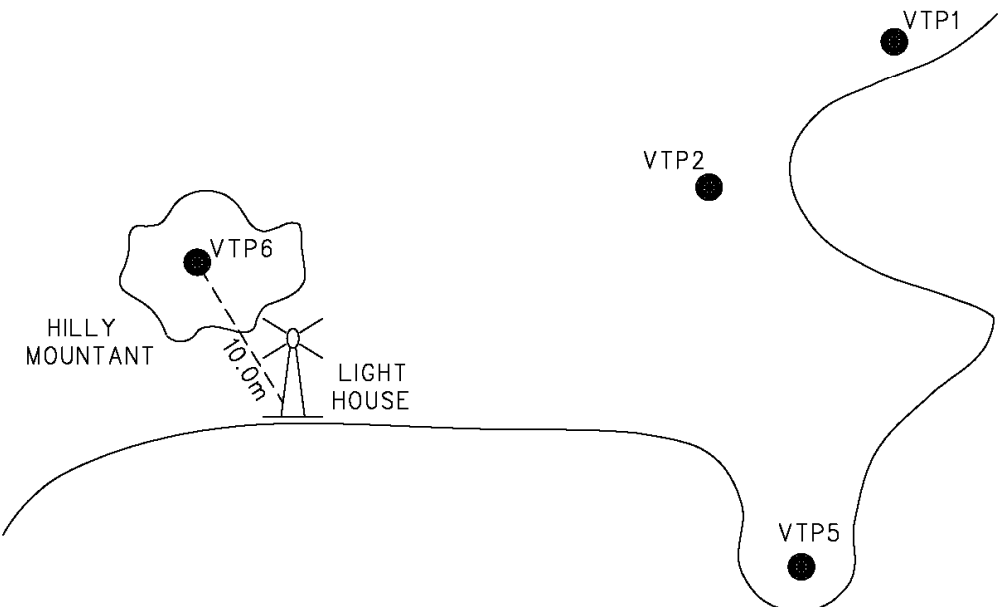
Locality Diagram Not To Scale

ISLAND: VANUABALAVU PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: VBJ2 STATION NAME: VBJ2
 <p>Locality Diagram Not To Scale</p>		
ISLAND: VANUABALAVU PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: VBJ3 STATION NAME: VBJ3
 <p>Locality Diagram Not To Scale</p>		

ISLAND: VATOA PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: VTP1 STATION NAME: VTP1
 <p>A hand-drawn locality diagram for station VTP1. It shows a profile of a hill with a peak labeled 'HILL'. A point 'VTP1' is marked on the hill. A dashed vertical line from VTP1 to the 'SEA' (represented by a wavy line) is labeled '11.4m'. To the right of VTP1, a 'WIRIWIRI TREE' is shown, with a horizontal dashed line between them labeled '4.0m'. The area to the left of the hill is labeled 'VATOA VILLAGE'. Below the hill is a 'BEACH' area. The text 'Locality Diagram Not To Scale' is at the bottom right.</p>		
ISLAND: VATOA PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: VTP2 STATION NAME: VTP2
 <p>A hand-drawn locality diagram for station VTP2. It shows a profile of a hill. A point 'VTP2' is marked on the hill. A dashed vertical line from VTP2 to the top of the hill is labeled '8.6m'. To the right of VTP2, a tree is shown, with a horizontal dashed line between them labeled '7.0m'. Below VTP2, a dashed line leads to a rectangular box labeled 'CEMETRY', with the label '21.6m' along this line. The area to the right of the hill is labeled 'VATOA VILLAGE'. The text 'Locality Diagram Not To Scale' is at the bottom right.</p>		





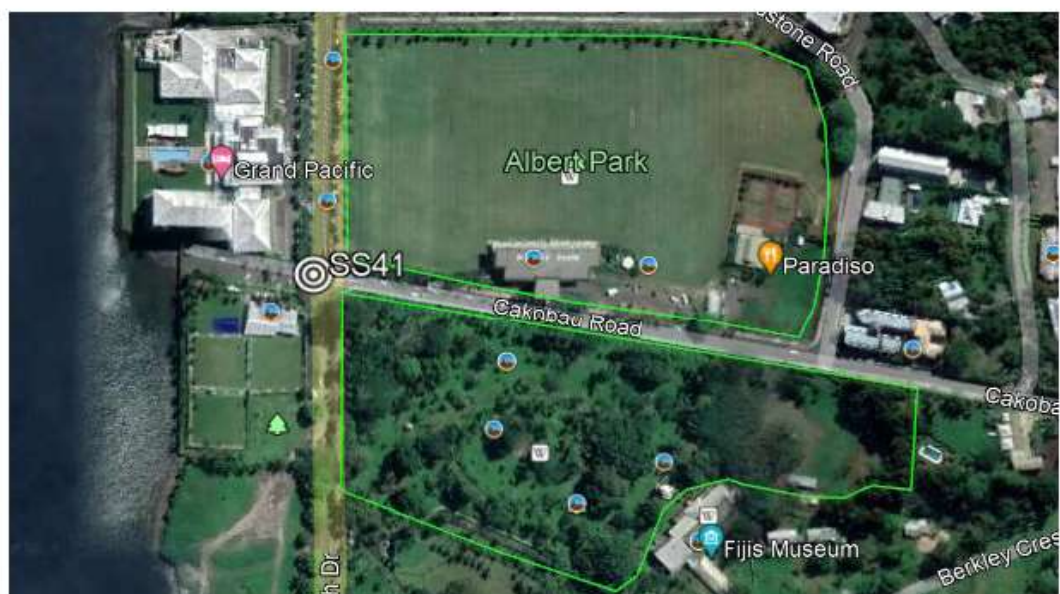
ISLAND: VATOA PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: VTP5 STATION NAME: VTP5
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;"> VATOA NURSING STATION </div>  </div> <p style="text-align: right;">Locality Diagram Not To Scale</p>		
ISLAND: VATOA PROVINCE: LAU DATE: 14-11-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: VTP6 STATION NAME: VTP6
 <p style="text-align: right;">Locality Diagram Not To Scale</p>		

ISLAND: VITI LEVU PROVINCE: REWA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: SLP1 STATION NAME: LONG ITUDINAL PILLAR
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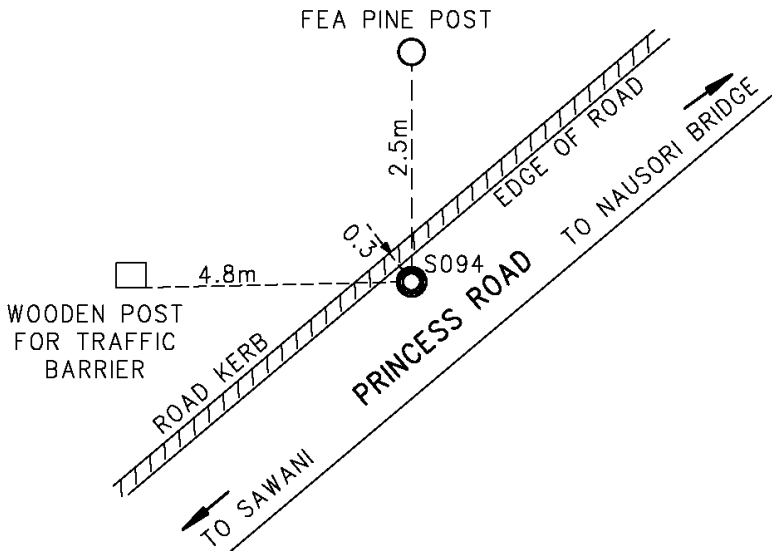
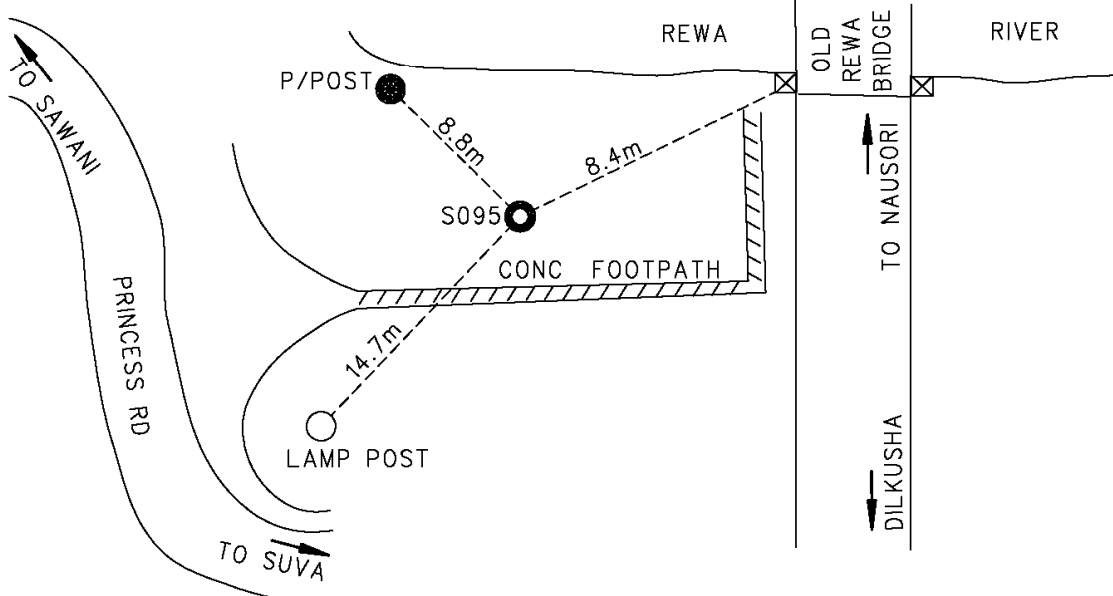
Locality Diagram Not To Scale

ISLAND: VITI LEVU PROVINCE: REWA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: SS41 STATION NAME: SS41
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Locality Diagram Not To Scale



ISLAND: VITI LEVU PROVINCE: REWA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: S094 STATION NAME: SS10094
 <p style="text-align: right;">Locality Diagram Not To Scale</p>		
COUNTRY: FIJI ISLAND: VITI LEVU DATE: 12-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: S095 STATION NAME: SS10095
 <p style="text-align: right;">Locality Diagram Not To Scale</p>		

ISLAND: VITI LEVU PROVINCE: REWA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: NVIA STATION NAME: KORONIVIA
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Locality Diagram Not To Scale

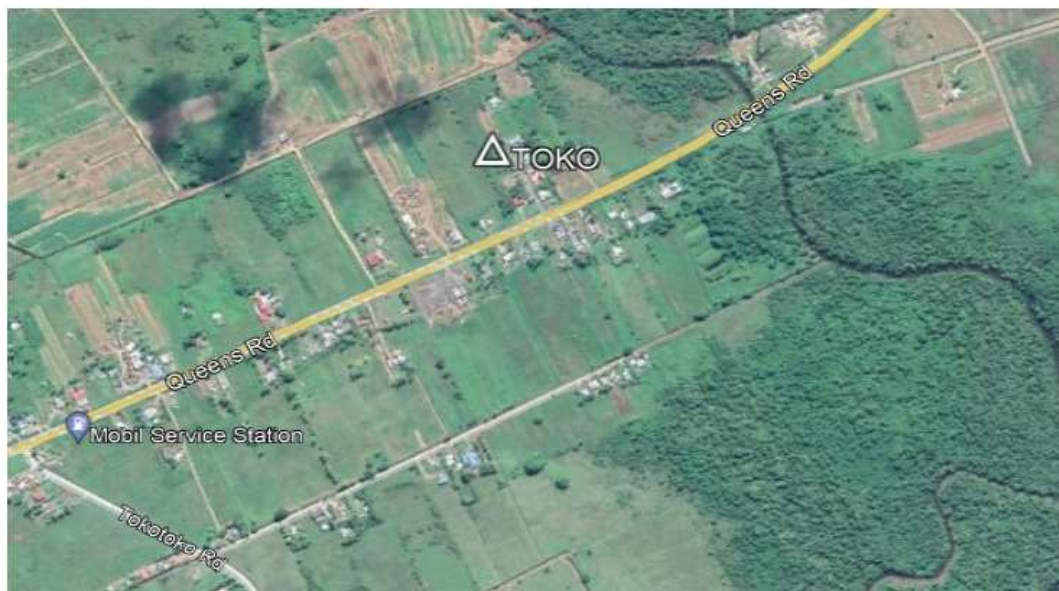
ISLAND: VITI LEVU PROVINCE: REWA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: VANT STATION NAME: VANUALEVU
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Locality Diagram Not To Scale



ISLAND: VITI LEVU PROVINCE: NAMOSI DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: TOKO STATION NAME: TOKOTOKO
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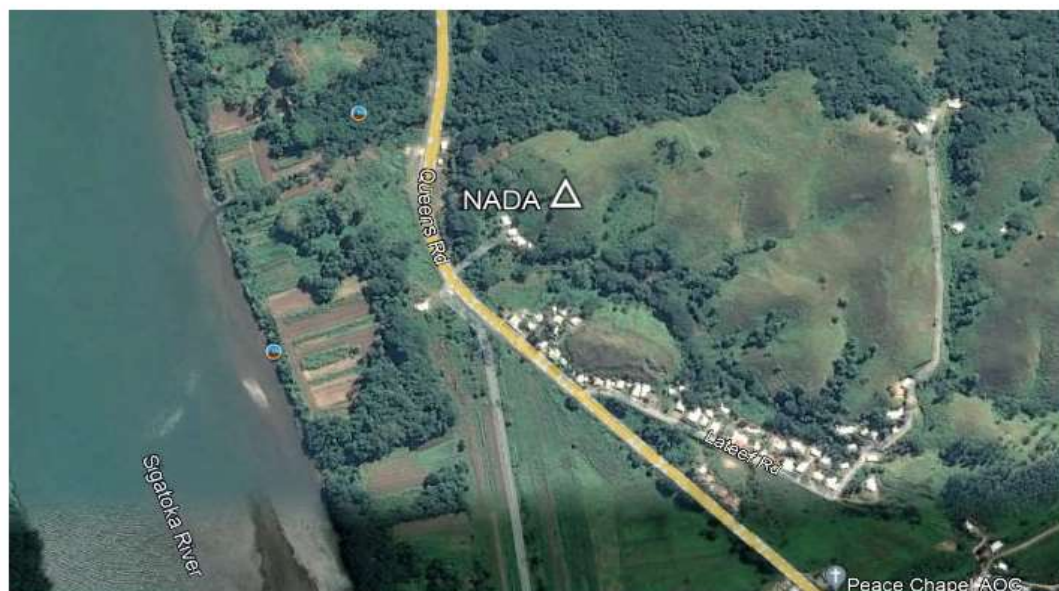
Locality Diagram Not To Scale

ISLAND: VITI LEVU PROVINCE: SERUA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: WALU STATION NAME: NABOUWALU 2
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Locality Diagram Not To Scale

ISLAND: VITI LEVU PROVINCE: NADROGA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: NADA STATION NAME: NADAI
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Locality Diagram Not To Scale

ISLAND: VITI LEVU PROVINCE: NAMOSI DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: 2007 STATION NAME: SS2007
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Locality Diagram Not To Scale



ISLAND: VITI LEVU PROVINCE: NADROGA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: 2718 STATION NAME: SS2718
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Locality Diagram Not To Scale

ISLAND: VITI LEVU PROVINCE: REWA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: TBM9 STATION NAME: SS2010
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Locality Diagram Not To Scale

ISLAND: VITI LEVU PROVINE: NADROGA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: 1923 STATION NAME: SS1923
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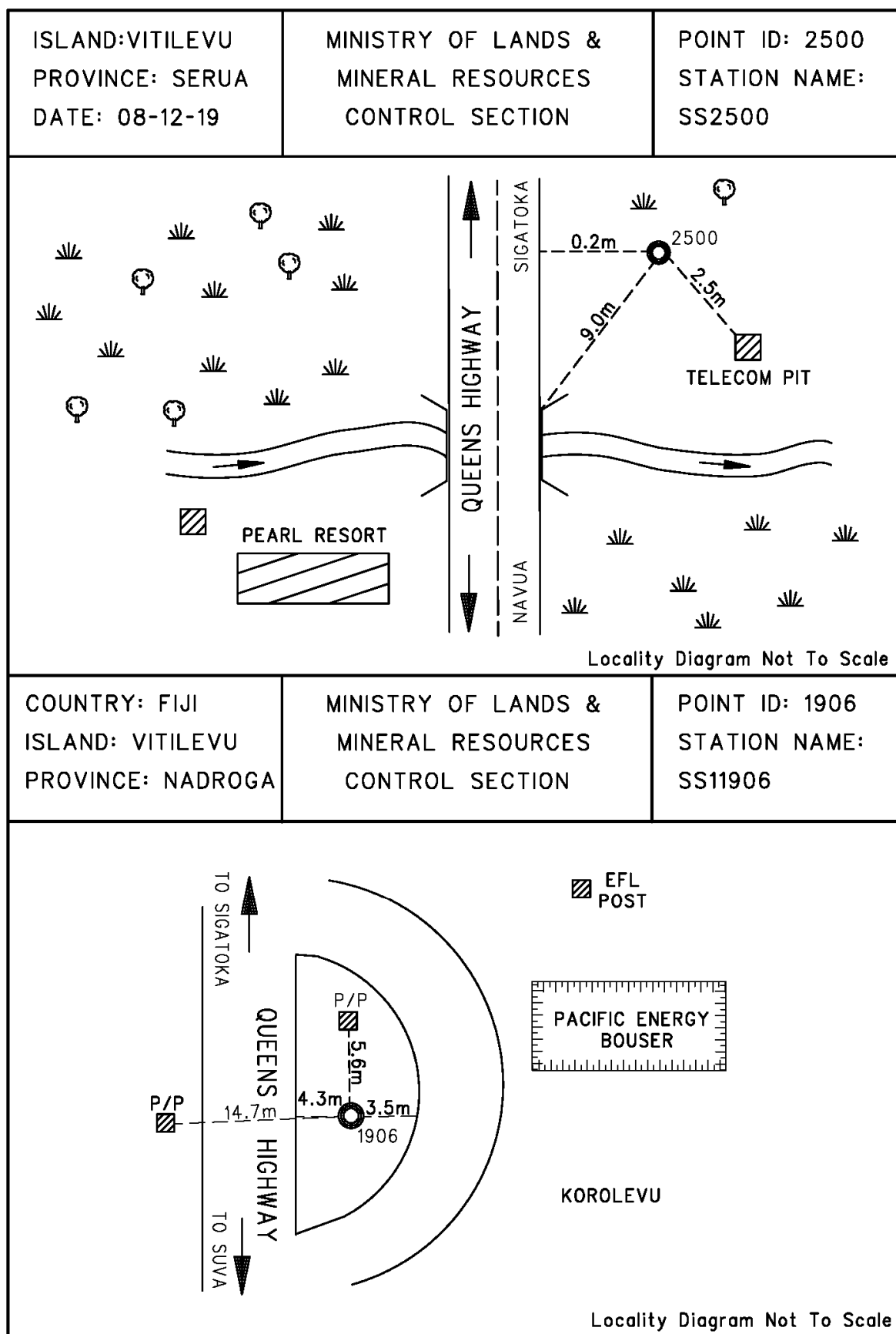


Locality Diagram Not To Scale

ISLAND: VITI LEVU PROVINE: SERUA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: 2750 STATION NAME: SS2750
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Locality Diagram Not To Scale



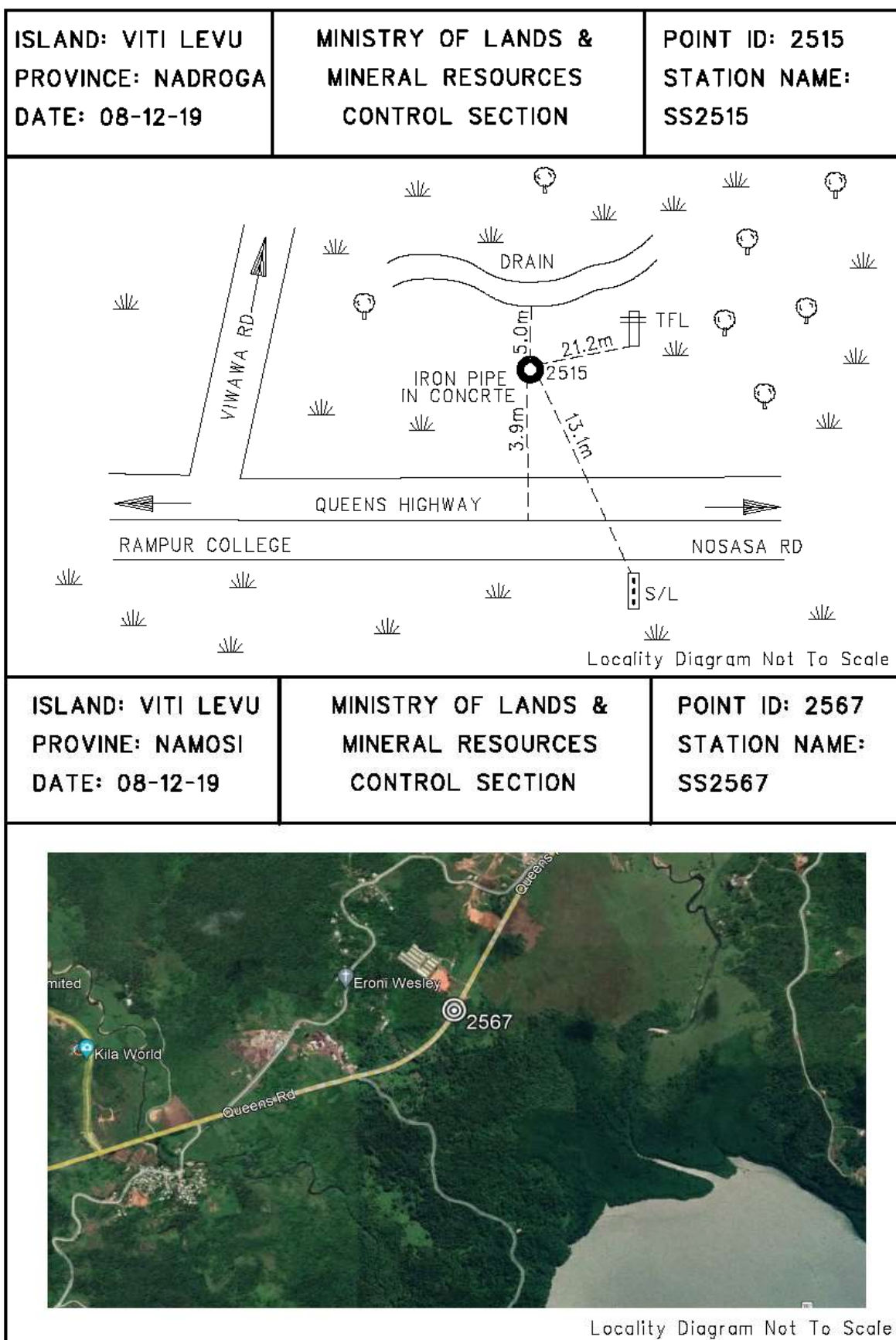


ISLAND: VITILEVU PROVINCE: NADROGA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: 1886 STATION NAME: SS11886
<div data-bbox="252 483 1121 1055"> <p>A schematic locality diagram for point 1886. It shows a curved road with arrows indicating directions: 'FUJI HIDEAWAY RESORT' at the top and 'VATUKARASA' at the bottom. A 'GATE' is marked on the road, with a 'FENCE' line crossing it. Two 'POWER POLE' symbols (circles with a 'P') are shown. Distances are marked: 32.2m from the top power pole to the gate, 21.6m from the gate to the bottom power pole, and 30.0m from the bottom power pole to point 1886. Point 1886 is marked with a circle and labeled 'IRON ROD IN CONCRTE'. A distance of 1.5m is also marked near point 1886. To the left, a hatched rectangle is labeled 'AOG CHURCH'. The text 'QUEENS HIGHWAY' is written along the curve of the road.</p> </div> <p data-bbox="970 1093 1362 1122">Locality Diagram Not To Scale</p>		
ISLAND: VITI LEVU PROVINCE: NADROGA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: 1873 STATION NAME: SS11873
<div data-bbox="272 1352 1337 1944"> <p>An aerial photograph showing a coastal village. A yellow line represents a road, with a target symbol and the number '1873' marking a specific location. The road is labeled 'Queens Rd'. The village is labeled 'Vatukarasa Village'. Other labels include 'Baravi Handicrafts' near the coast and 's Rd' on the left. The coastline and ocean are visible at the bottom of the image.</p> </div> <p data-bbox="962 1951 1356 1980">Locality Diagram Not To Scale</p>		



<b>ISLAND: VITI LEVU</b> <b>PROVINCE: NADROGA</b> <b>DATE: 08-12-19</b>	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES</b> <b>CONTROL SECTION</b>	<b>POINT ID: 2496</b> <b>STATION NAME:</b> <b>SS2496</b>
<div data-bbox="258 481 1329 1072" data-label="Image"> </div> <div data-bbox="957 1081 1362 1117" data-label="Caption"> <p>Locality Diagram Not To Scale</p> </div>		
<b>ISLAND: VITILEVU</b> <b>PROVINCE: SERUA</b> <b>DATE: 08-12-19</b>	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES</b> <b>CONTROL SECTION</b>	<b>POINT ID: 2740</b> <b>STATION NAME:</b> <b>SS2740</b>
<div data-bbox="234 1328 1351 1951" data-label="Image"> </div> <div data-bbox="957 1955 1367 1991" data-label="Caption"> <p>Locality Diagram Not To Scale</p> </div>		

<b>ISLAND: VITI LEVU</b> <b>PROVINCE: SERUA</b> <b>DATE: 08-12-19</b>	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES</b> <b>CONTROL SECTION</b>	<b>POINT ID: 2656</b> <b>STATION NAME:</b> <b>SS2656</b>
<div data-bbox="256 517 1157 1099"> </div> <p data-bbox="970 1099 1366 1126">Locality Diagram Not To Scale</p>		
<b>ISLAND: VITI LEVU</b> <b>PROVINCE: SERUA</b> <b>DATE: 08-12-19</b>	<b>MINISTRY OF LANDS &amp; MINERAL RESOURCES</b> <b>CONTROL SECTION</b>	<b>POINT ID: 1935</b> <b>STATION NAME:</b> <b>SS1935</b>
<div data-bbox="277 1352 1347 1939"> </div> <p data-bbox="967 1957 1362 1984">Locality Diagram Not To Scale</p>		





ISLAND: VITI LEVU PROVINCE: NAMOSI DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: 2595 STATION NAME: SS2595
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Locality Diagram Not To Scale

ISLAND: VITI LEVU PROVINCE: BA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: 3381 STATION NAME: SS3381
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Locality Diagram Not To Scale



ISLAND: VITI LEVU PROVINCE: BA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: 3382 STATION NAME: SS3382
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Locality Diagram Not To Scale

ISLAND: VITI LEVU PROVINCE: BA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: LOVA STATION NAME: NAILOVALOVA
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Locality Diagram Not To Scale



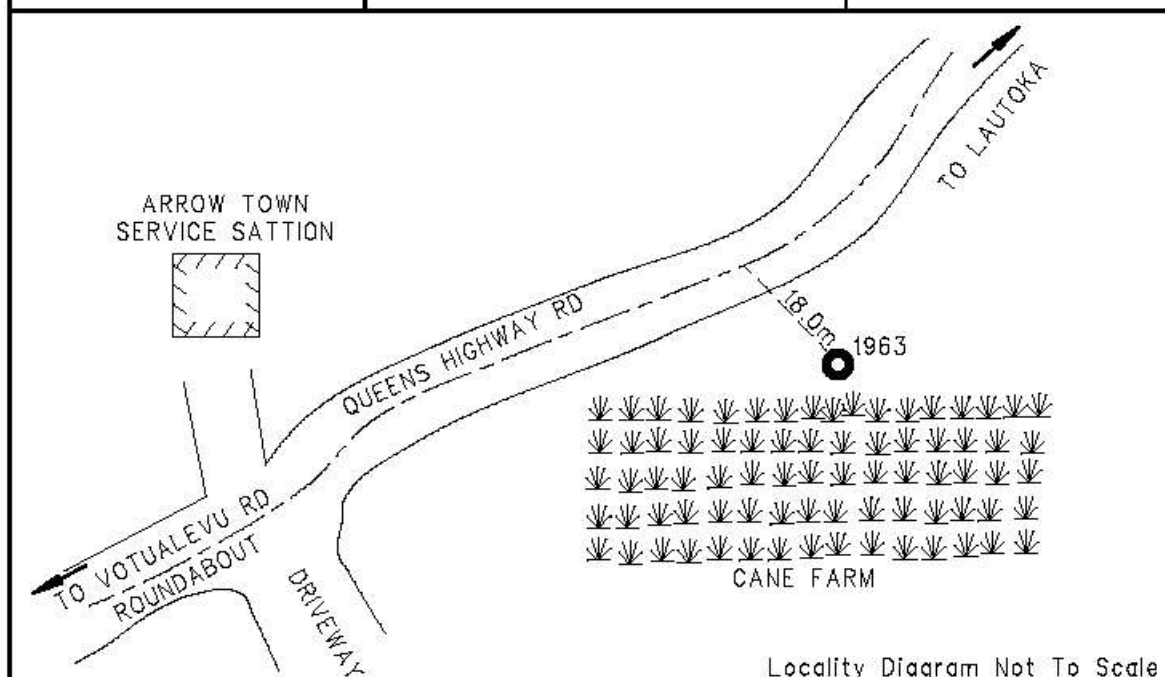
<p>ISLAND: VITI LEVU PROVINCE: BA DATE: 08-12-19</p>	<p>MINISTRY OF LANDS &amp; MINERAL RESOURCES CONTROL SECTION</p>	<p>POINT ID: VADA STATION NAME: VADRAULAILAI</p>
<div data-bbox="268 492 1337 1084" data-label="Image"> </div> <p data-bbox="970 1093 1366 1124">Locality Diagram Not To Scale</p>		
<p>ISLAND: VITI LEVU PROVINCE: BA DATE: 08-12-19</p>	<p>MINISTRY OF LANDS &amp; MINERAL RESOURCES CONTROL SECTION</p>	<p>POINT ID: YAQA STATION NAME: YAQARA</p>
<div data-bbox="256 1355 1324 1946" data-label="Image"> </div> <p data-bbox="967 1953 1362 1984">Locality Diagram Not To Scale</p>		

ISLAND: VITI LEVU PROVINCE: BA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: ADOI STATION NAME: LEKOROVUNADOI
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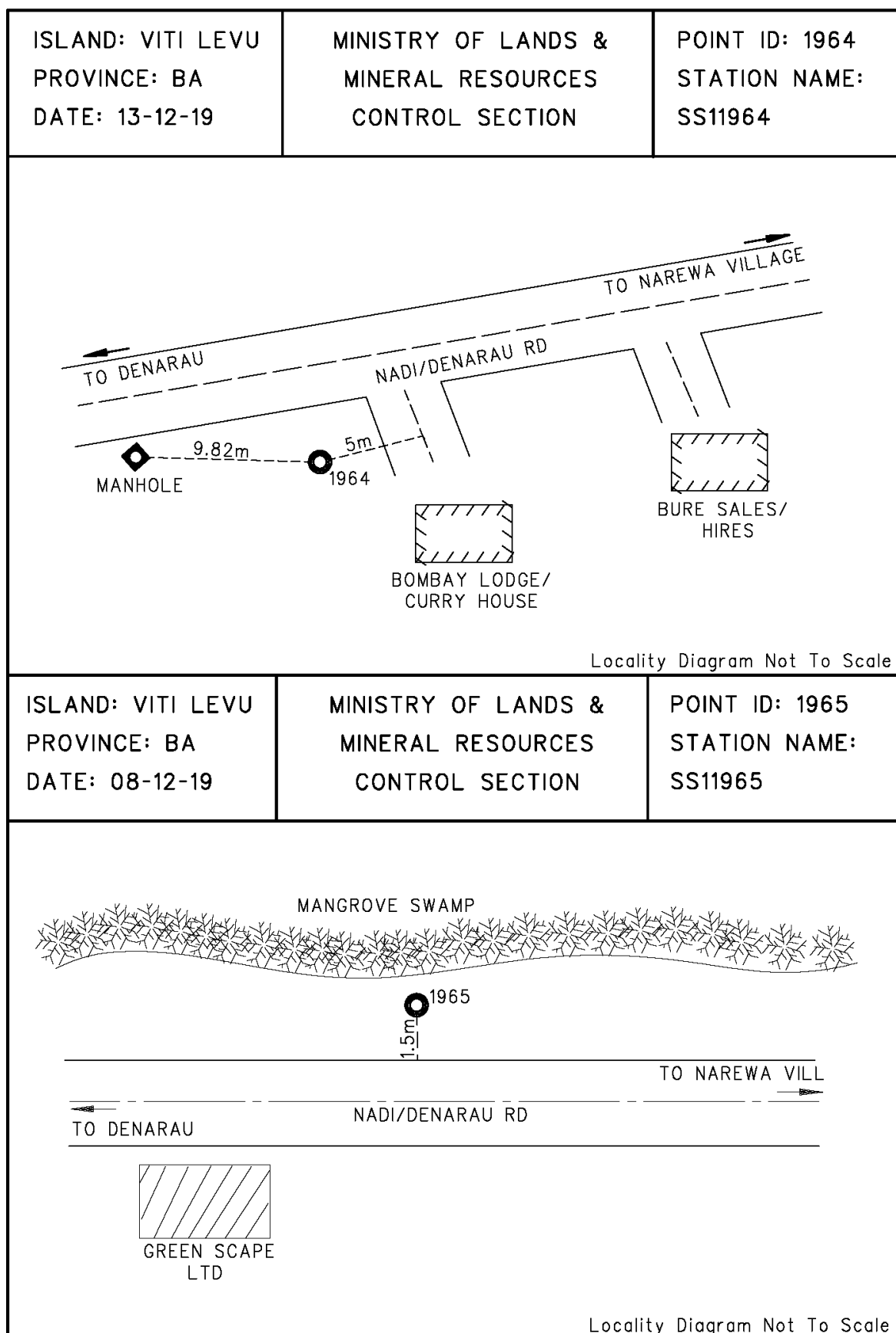


Locality Diagram Not To Scale

ISLAND: VITI LEVU PROVINCE: BA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: 1963 STATION NAME: SS11963
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Locality Diagram Not To Scale





ISLAND: VITI LEVU PROVINCE: BA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: SS20 STATION NAME: SS20
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Locality Diagram Not To Scale

ISLAND: VITI LEVU PROVINCE: BA DATE: 08-12-19	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: SS19 STATION NAME: SS19
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Locality Diagram Not To Scale

ISLAND: VANUA LEVU PROVINCE: BUA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: 4043 STATION NAME: SS4043
<div data-bbox="486 492 1061 1064"> <p>The diagram shows a coastal area with a curved line labeled 'BACKLOTS' on the left. To the right is 'NABOUWALU DEPOT'. Below the depot are several rectangular areas with diagonal hatching. Further down is 'NABOUWALU HOSPITAL', also with hatched areas. In the center is a 'KNOLL' with a station point marked '4043'. Distances from the knoll are indicated: '3.0m' to the backlots and '10.0m' to the hospital. At the bottom, three sets of 'X' marks represent 'WIND' and 'TURBINE' locations.</p> </div> <p style="text-align: right;">Locality Diagram Not To Scale</p>		
ISLAND: VANUA LEVU PROVINCE: BUA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: VUYA STATION NAME: ULUIVUYA
<div data-bbox="263 1355 1332 1960"> <p>A satellite map of a coastal region. A yellow line traces a path along the coast. Labels include 'VUYA' with a triangle symbol in the upper center, 'Nabouwalu' on the left, 'Nabouwalu Jetty' further down the coast, and 'Vuya Village' at the bottom. The coastline is labeled 'Nabouwalu Rd' in several places.</p> </div> <p style="text-align: right;">Locality Diagram Not To Scale</p>		



ISLAND: VANUA LEVU PROVINCE: BUA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: DIRI STATION NAME: DIRIYAGA
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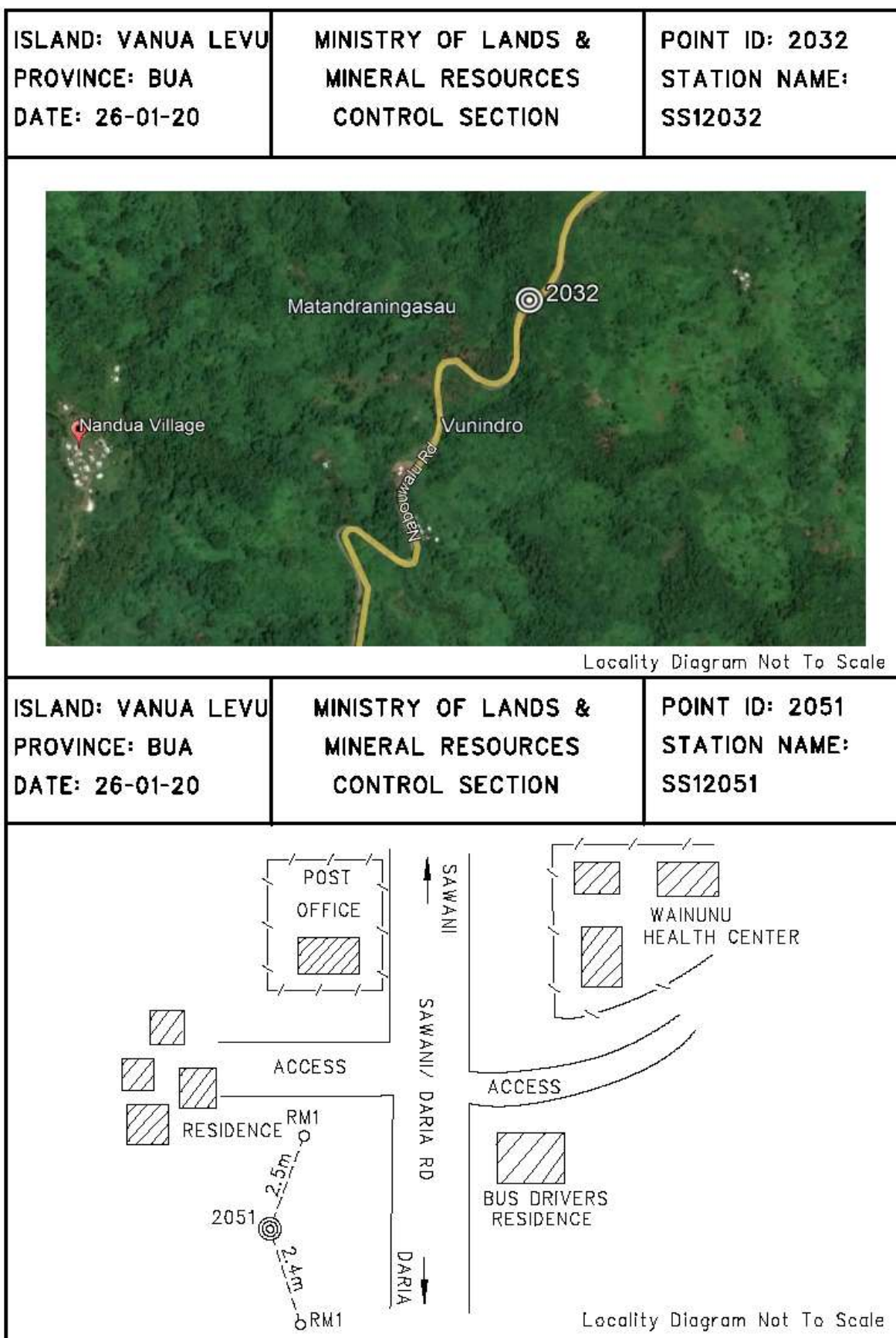


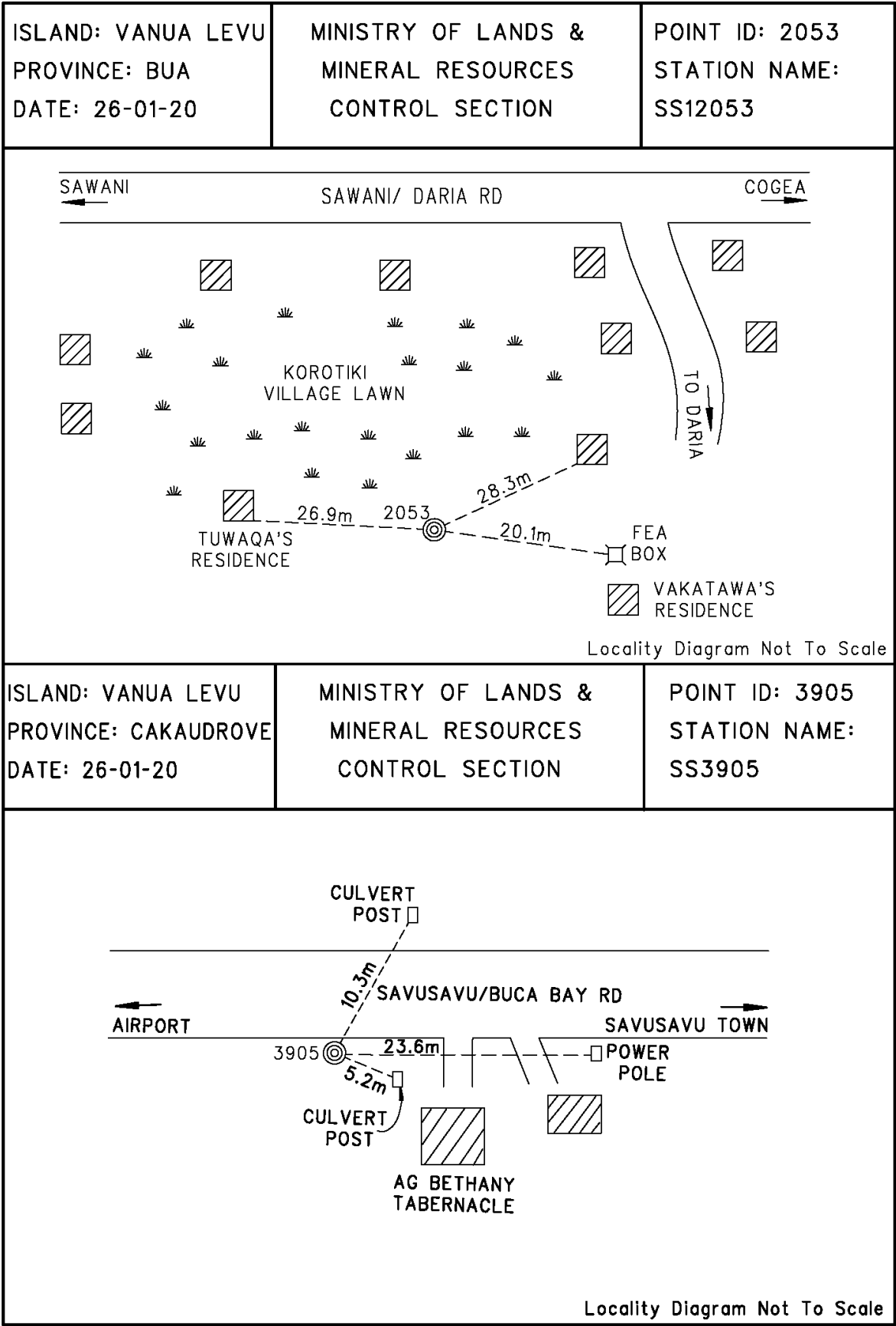
Locality Diagram Not To Scale

ISLAND: VANUA LEVU PROVINCE: BUA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: NASO STATION NAME: NASOSO A
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Locality Diagram Not To Scale







ISLAND: VANUA LEVU PROVINCE: CAKAUDROVE DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: 3925 STATION NAME: SS3925
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Locality Diagram Not To Scale

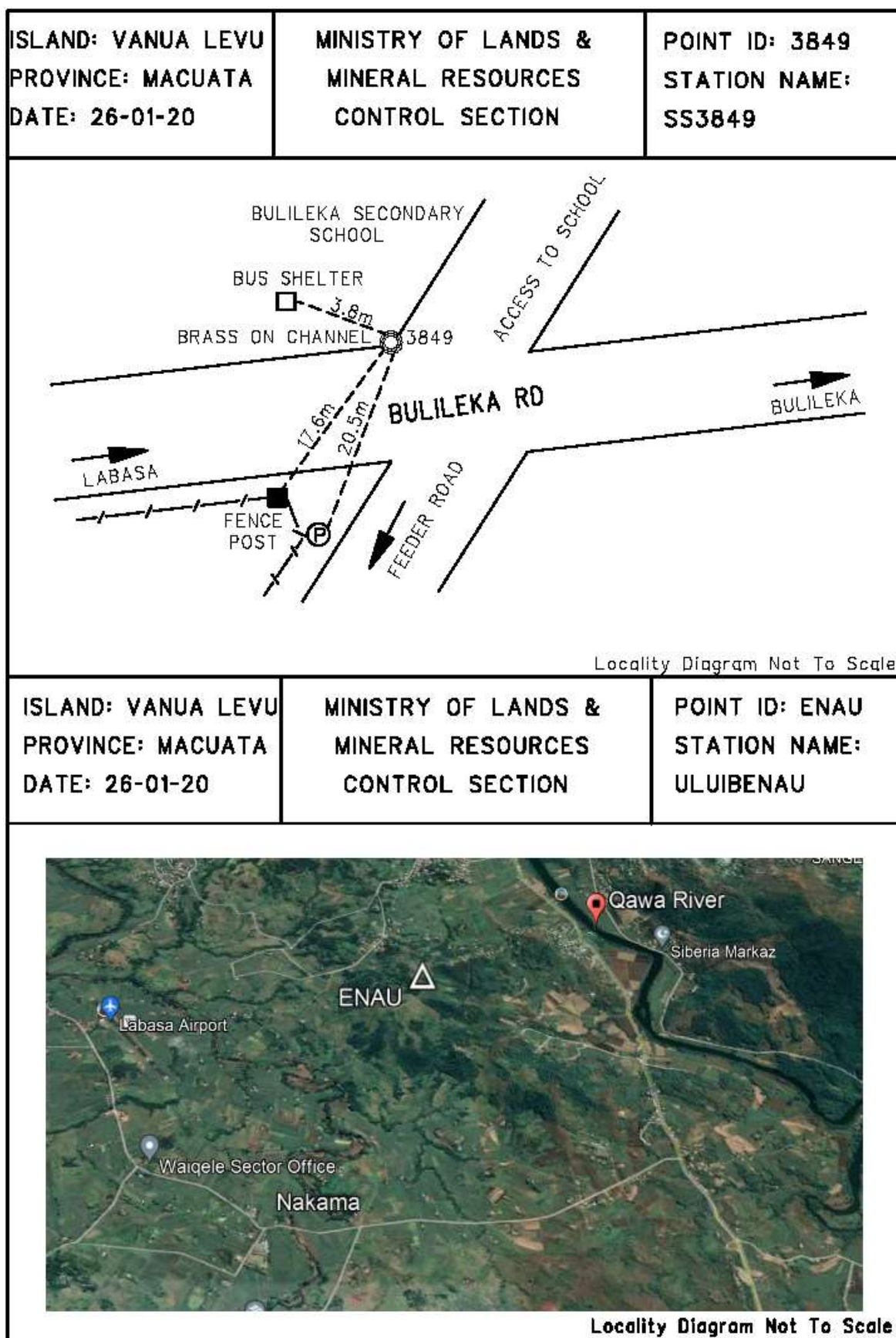
ISLAND: VANUA LEVU PROVINCE: MACUATA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: VATU STATION NAME: VATUDAMU
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Locality Diagram Not To Scale

ISLAND: VANUA LEVU PROVINCE: MACUATA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: 3848 STATION NAME: SS3848
<div data-bbox="292 544 1337 1030"> </div> <p data-bbox="975 1088 1370 1122">Locality Diagram Not To Scale</p>		
ISLAND: VANUA LEVU PROVINCE: MACUATA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: MULO STATION NAME: MULOMULO
<div data-bbox="258 1357 1324 1948"> </div> <p data-bbox="975 1951 1370 1984">Locality Diagram Not To Scale</p>		







ISLAND: VANUA LEVU PROVINCE: MACUATA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: 3873 STATION NAME: SS3873
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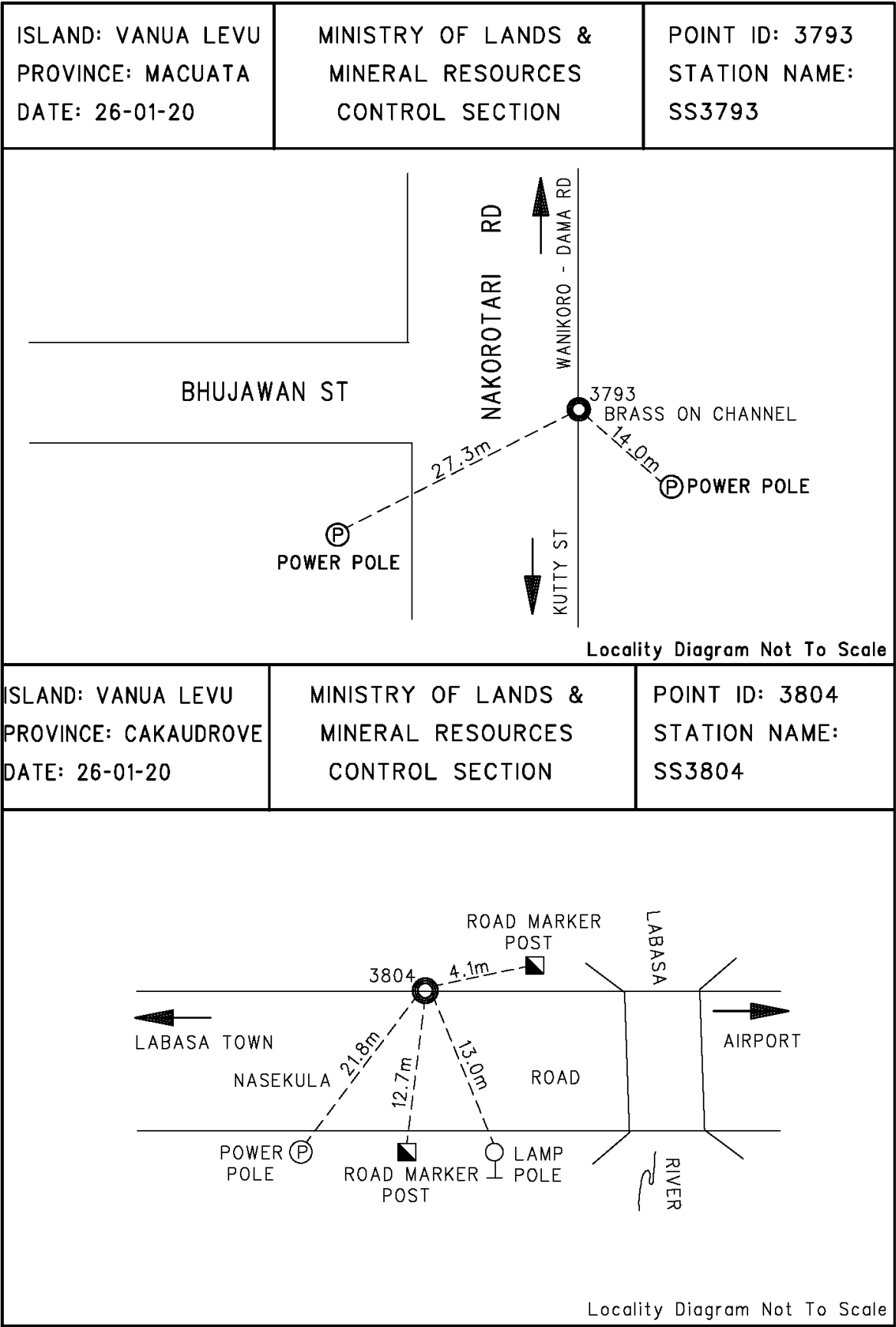


Locality Diagram Not To Scale

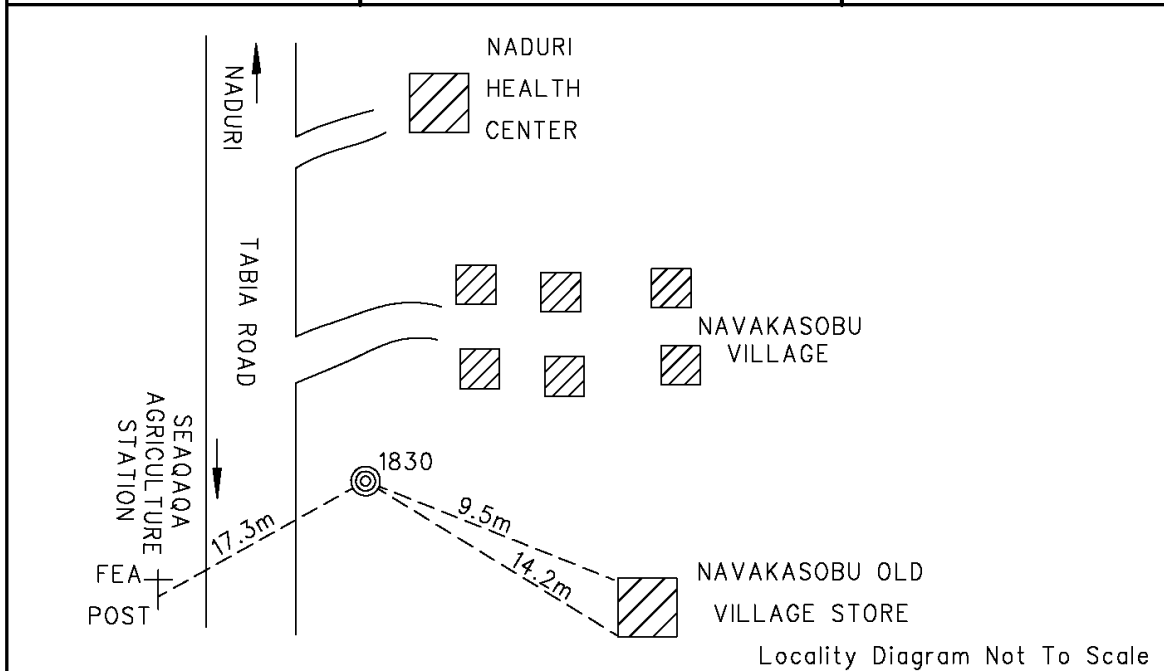
ISLAND: VANUA LEVU PROVINCE: MACUATA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: ULUI STATION NAME: ULUIVOLANAU
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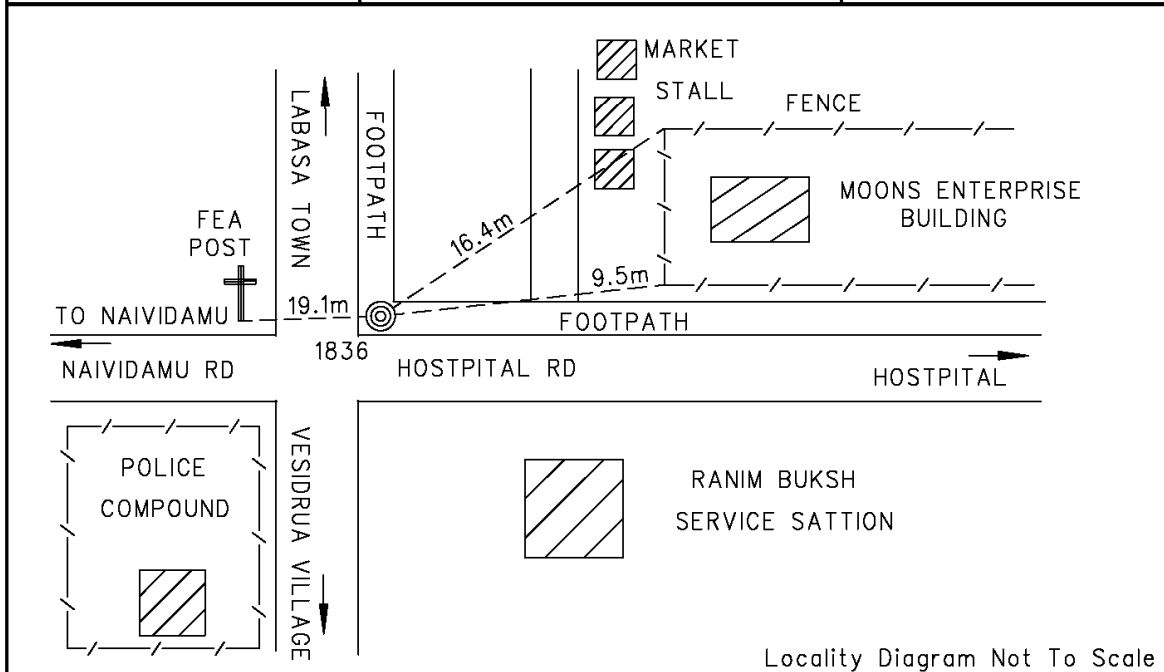
Locality Diagram Not To Scale

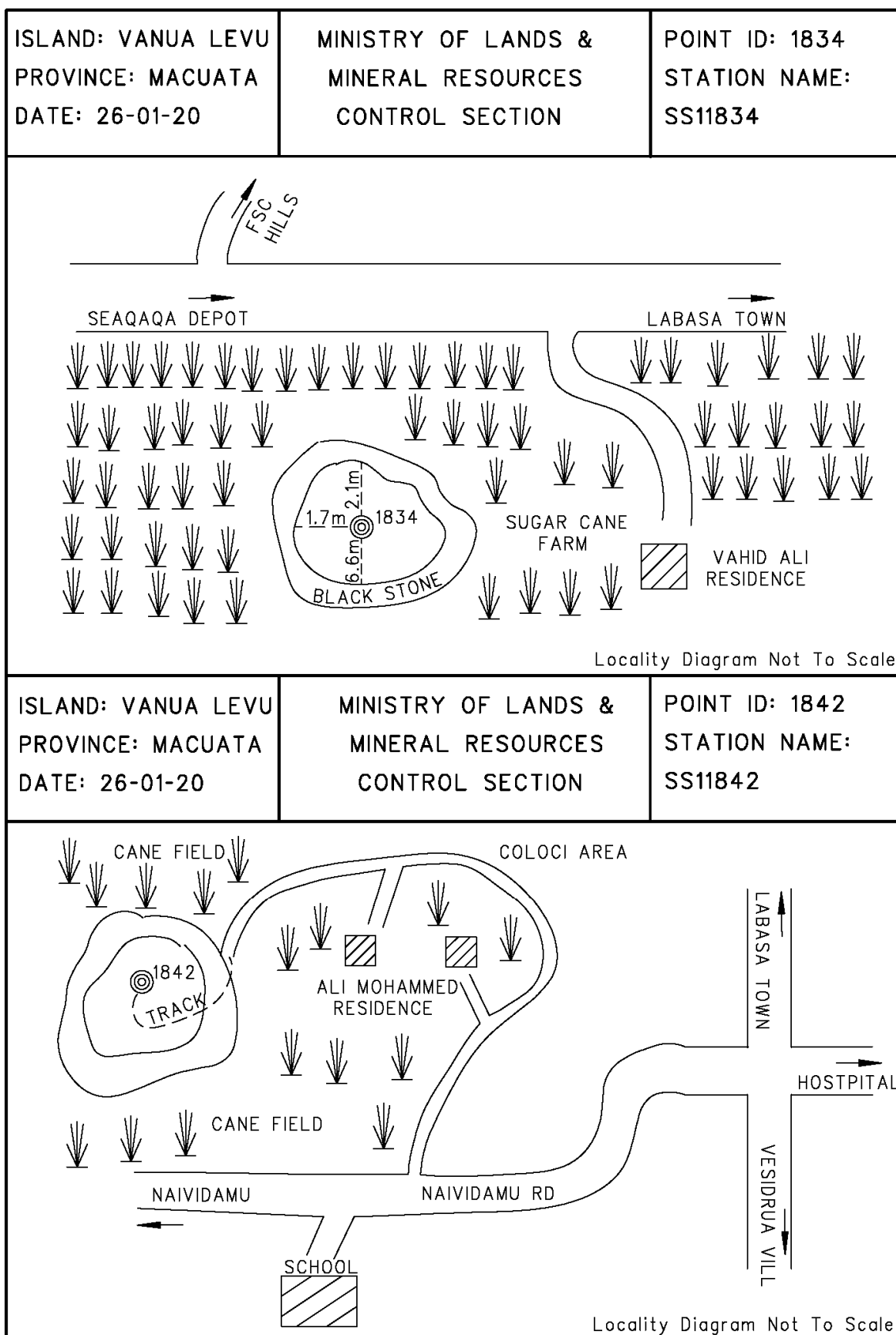


ISLAND: VANUA LEVU PROVINCE: MACUATA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: 1830 STATION NAME: SS11830
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ISLAND: VANUA LEVU PROVINCE: MACUATA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: 1836 STATION NAME: SS11836
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ISLAND: AFGAHA PROVINCE: ROTUMA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: AGFA STATION NAME: AFGAHA
 <p>Locality Diagram Not To Scale</p>		
ISLAND: HAUA PROVINCE: ROTUMA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: HAUA STATION NAME: HAUAMEAMEA
 <p>Locality Diagram Not To Scale</p>		

ISLAND: ROTUMA PROVINCE: ROTUMA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: NAFA STATION NAME: NAFA
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Locality Diagram Not To Scale

ISLAND: ROTUMA PROVINCE: ROTUMA DATE: 26-01-20	MINISTRY OF LANDS & MINERAL RESOURCES CONTROL SECTION	POINT ID: KELE STATION NAME: KELEGA
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Locality Diagram Not To Scale

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