

PACIFIC WATER AND SANITATION PROJECT
FIELD TRIP TO LABASA
(M.R.D. - FRENCH FUNDED GROUNDWATER PROJECT)

25 - 27 June 1997

Giovanni Ricci
Hydrogeologist

This project is funded by the United Nations Development Program

PURPOSE OF THE MISSION

The aim of the trip was to carry out field training (groundwater drilling and aquifer pump testing) with Chris Ioan, Hydrogeologist from Vanuatu, attached to SOPAC for an ODA funded three months fellowship training period.

MEMBERS OF THE MISSION

Mr Chris Ioan, Department of Geology, Mines and Water Resources, Vanuatu.

Mr Giovanni Ricci, UN Associate Expert, Hydrogeologist, SOPAC Pacific Water and Sanitation Programme.

TRAVEL ITINERARY

25 July Nausori - Labasa by plane

27 July Labasa - Nausori by plane

BACKGROUND INFORMATION

The French-funded MRD Labasa groundwater project has the aim to assess potential groundwater resources that may be used for the Labasa water supply. Rural areas and nearby villages may benefit from the wells drilled during the investigation.

The geological situation is quite complicated. The exploitation zone is located in the Labasa Basin, a geological unit composed by different volcanic products and later on faulted by a regional stress event.

What allows water to circulate in this geological unit is mainly the fractures. A geophysical survey (geo-electrical and EM methods) following a first air photogrammetry maps interpretation was carried out to identify 27 sites for drilling.

All these studies were carried out by a French Consulting Bureau (A2EP, Noumea) and MRD.

ACTIVITIES OF THE TRIP

25 July

Arrived in Labasa at 9:30 am. Rented a 4 wheel drive from Avis.

Met Mr Prem Kumar, Team Manager for hydrogeology at MRD, in Labasa. With Mr Kumar we visited the Nakobo well site where MRD was carrying out a 48-hour pumping test.

Discussion with Mr Kumar and Mr Finau (MRD Team Leader on the field) on the results from the pumping test carried out the day before to determine a sustainable yield for the long term pumping test.

Later on, we moved to another site where one of the two MRD rigs was drilling.

Met the two French consultant from A2EP, one of these attached to the drilling crew for a two weeks period of training on hammer head drilling.

26 July

In the morning visited Nakobo site to follow up on the 48 hours pumping test.

After lunch, moved to the drilling site, South East of Labasa, to attend to the well boring.

After 70 m of drilling without any presence of water the bore was abandoned.

27 July

Spent all morning following the recovery test at the end of the 48-hour pumping test.

Collected all the data about the four steps of the pumping test and the 48 hours (with recovery) pumping tests (with M.R.D. and French co-ordinator approval). In the afternoon left Labasa to return to Suva.

DOCUMENT ADDED

All the pumping tests data collected and the interpretation of the results obtained from Nakobo well are included in Chris Ioan's report that is attached.