OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org
FINAL REPORT

ESCOLA CENTRAL DE PETROLEOS SUMBA - ANGOLA.

Reference: UNIDO Contract No. 82/13
Project No. DP/ANG/82/014
Activity Coe. DP/01/32.1

Period: 1/1/82 - 31/1/83
## Index

<table>
<thead>
<tr>
<th>Activity</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. FOREWORD</td>
<td>1</td>
</tr>
<tr>
<td>2. MANAGEMENT ACTIVITIES</td>
<td>2</td>
</tr>
<tr>
<td>2.1 Maintenance Sector</td>
<td>2</td>
</tr>
<tr>
<td>2.2 Administrative and Logistic Sector</td>
<td>3</td>
</tr>
<tr>
<td>3. EDUCATIONAL AND ORGANIZATIONAL ACTIVITIES</td>
<td>4</td>
</tr>
<tr>
<td>3.1 Educational Activities</td>
<td>4</td>
</tr>
<tr>
<td>3.2 Planning and Organization</td>
<td>6</td>
</tr>
<tr>
<td>4. ANGOLAN TEACHING PERSONNEL</td>
<td>7</td>
</tr>
<tr>
<td>5. OTHER ACTIVITIES</td>
<td>8</td>
</tr>
<tr>
<td>5.1 Seminars</td>
<td>8</td>
</tr>
<tr>
<td>5.2 Cultural and Recreational Activities</td>
<td>9</td>
</tr>
<tr>
<td>5.3 Outside Contacts</td>
<td>9</td>
</tr>
</tbody>
</table>
1. **FOREWORD**

This report refers to the management activities of the ECP of Sumbe during the period from 1/1/82 to 31/1/83 in conformity with the agreement 82/13 UNIDO Project No. DP/ANG/81/014 and DP/ANG/82/011, activity code DP/01/32.1.

The services estimated at 114 man/months concerned managing and maintenance assistance of the ECP, completion of training courses, research into training requirements for the oil industry sector, assistance with coordination of practical training courses and conducting seminars.

In the following pages the activities of the CSOIW during the above period, and the action of UNIDO personnel in the various planned types of assistance are illustrated (see table 1).
2. MANAGEMENT ACTIVITIES

The personnel charged with the management of the ECP during the above period had to face a series of logistic and organizational problems of some significance as a consequence of the increase in number of students. The work carried out within the framework of close cooperation between Angolan and Unido personnel enabled very satisfactory results to be obtained.

2.1 Maintenance Sector

The maintenance activities of the ECP were performed regularly. Routine and periodic maintenance actions in the various fields (mechanical, electrical, civil engineering) were carried out.

In the mechanical field maintenance of the vehicle fleet as well as the water supply system (pumps, filters, line) and workshop and laboratory equipment for practical exercises, was also carried out.

Besides this activity, the training action of the Angolan personnel in charge of this field was continued.

Although some good results, particularly in the field of vehicle maintenance, were achieved; the level of autonomy attained so far cannot be deemed satisfactory owing to the high turn-over which did not permit the training activity to achieve the required continuity.

Generally, the problem of total "cultural and technical" acquisition of preventive maintenance action is still to be solved, and cannot be solved in the short term. In the electrical field, maintenance concerning the refrigerating and air-conditioning units as well as the generating sets and motive power lighting plants installed in the school was performed.
In this field, contrary to the mechanical field, and so far as training is concerned, more satisfactory results were achieved thanks to greater stability of the Angolan personnel.

In fact, during 1982 electric maintenance was above all carried out by local personnel.

In the civil sector, maintenance work was carried out on buildings, houses and in particular hydraulic and WC units, frames, painting, etc.

As for this sector, from the training standpoint the results may be summarized as follows:

Although satisfactory levels of skill were achieved, as in the mechanical sector, the problem of full acquisition of preventive maintenance has still to be solved.

2.2 Administrative and Logistic Sector

The ECP's administrative sector fully managed by Angolan personnel, performed its activity even with the present difficulties in processing materials, in a very satisfactory way. The action of the Unido personnel with the ECP was directed above all towards optimizing management procedures for personnel and materials.
3. EDUCATIONAL AND ORGANIZATIONAL ACTIVITIES

3.1 Educational Activities

The training course of the ECP's students includes:

- A 1st theoretical-practical training phase in the ECP of Sumba, for 7 to 12 months

- A 2nd practical training phase with the petroleum companies lasting 6-9 months, at the end of which students obtain a certificate.

During the period 1/1/82 - 31/1/83 the following vocational training courses were carried out in the ECP:

- Electricians
- Outside operators (3rd course - underway)
- Vehicle motor mechanics
- Mechanical fitters
- Rotary machine mechanics
- Pipe welders
- Accident prevention and safety operators
- Oil storage and transportation operators
- Chemistry laboratory operators (2nd course underway)
- Outside refinery operators (4th course underway).

47 students finished the practical courses in that period with the companies, and obtained a certificate as skilled:

- Tool operators
- Production operators
- Refinery operators
- Electricians.

Moreover, a seminar for the selection and recruiting of personnel was held.
A general schedule on the above is shown in Table II. Also, for every course an information sheet stating the main details is attached therewith.

In connection with educational activities in the ECP, the following general considerations may be made:

- At present the level of preparation attained by ECP's students may be deemed satisfactory, as may be seen from the companies' reports on the courses and the intake of the students into the various companies.

- Also, from a quantity standpoint, the ECP obtained excellent results; this is supported by the fact that during the period 1/1/81 - 31/1/83 10 courses took place out of the 13 that the ECP is equipped to handle with an average number of 90 students/month.

- As for the period of the practical course, which is particularly important for the completion of the training cycle, the sector, aided by the educational teaching staff, at the end of each course drew up some course guidance literature relating to each skill with a view to assimilating both theoretical and practical notions acquired by the students during the courses at the ECP with the professional capacities that they will acquire with the companies.

- Finally, it should be noted that:

Contacts between ECP-MINPET-user companies are increasingly improving, and this to the advantage of a better use of the ECP and of the human resources of the country for training executives.
3.2 Planning and Organization

An analysis and an educational planning exercise were carried out with a view to optimizing the results of the courses, while bearing in mind the requirements of both companies and bodies concerned.

In addition, periodic meetings between monitors and management executives took place, so that the educational and organizational activities might be better coordinated.

The library archives were organized, and the consumption materials of workshops and laboratories arranged.

Texts and forms relating to the external refinery operator, production operator and chemistry laboratory operator courses were re-printed.
4. **ANGOLAN TEACHING PERSONNEL**

The teaching personnel was also involved in a high turn-over. This entailed a number of problems, some of which were solved both by backing up the Italian instructors and by continuing some training spot actions in the educational technique and engineering up-dating field.

To date, the overall results may be regarded as highly satisfactory; many specific subjects have been completely managed by Angolan instructors as well as all other basic subjects.

During 1982, particular attention was given to the periodic supervision of educational actions through weekly meetings between Italian instructors and monitors; this allowed a substantial uniformity to be achieved in conducting the activities and a thorough investigation of pedagogical and engineering subject matter.

The training action of the teaching personnel, particularly that intended for conducting the 2nd phase courses, is implemented through an "instructors course".
5. OTHER ACTIVITIES

5.1 Seminars

As estimated, the Unido personnel in the period 1-12 February 1982, carried out a theoretical-practical seminar at the ECP, concerning selection and recruitment activities of the personnel, in which the following representatives of the Angolan companies and ministries participated:

- Cabinda Gulf
- Cimangola
- Escola Central de Petróleos
- Engineering laboratory
- Building Ministry
- Industrial Petroleum Ministry
- Planning Ministry
- State Safety Ministry
- Paviterra
- Sonefe - Cambambe
- Sonangol
- Texaco

Jacinto Munto Pio
Manuel Ferreira dos Santos
Frederico Sapalo
Ana Paula da Conceição Campina
Domingas Paulo Alexandre
João Carlos Manuel
Mariana de Jesus da Silva
José Antonio Gaspar
Pedro Neto
Antonio Matias
Elias Godinho Carlos
José da Silva Gomes
Antonio José Domingos
Jorge Candrebe Cuandeca
Laurentino da Silva

This seminar took place in two phases, a theoretical phase and a practical phase, with a view to selecting and recruiting future ECP instructors.
5.2 Cultural and Recreational Activities

During 1982, the following cultural and recreational initiatives were performed:
- UNICEF seminars
- Football matches vs. various local teams
- Film shows
- Table-tennis and baby-football matches.

5.3 Outside Contacts

Many contacts between the ECP and various Angolan and international bodies and organisms took place.

Particularly, the ECP was visited by international delegations (UNDP-UNIDO-UNICEP-SADCC, Italian, Norwegian delegations) as well as by the members of the various ministries and institutions of the People's Republic of Angola (International Mini Cooperation: Education Ministry, Health Ministry, Sports Ministry, Party) and of the oil companies.

The Team Leader

22.3.83
INFORMATION CARD
REGARDING COURSES IN 1982

COURSE: MECHANICAL FITTERS

PHASE 1 - Theoretical and practical part in the ECP

BEGINNING: 1/1/82 END: 4/12/1982

PROFESSORS:

UNIDO ANGOLAN

FLORIS
BARRUCCI
ERMOSINI

TRAINEES:

<table>
<thead>
<tr>
<th>NAME</th>
<th>FROM</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALMEIDA JONAS FERNANDO</td>
<td>HUAMBO</td>
</tr>
<tr>
<td>ANTONIO CIDÉ</td>
<td>K. SUL</td>
</tr>
<tr>
<td>DOMINGOS CANOQUELA</td>
<td>CABINDA</td>
</tr>
<tr>
<td>JOSE MABIALA</td>
<td>CABINDA</td>
</tr>
<tr>
<td>JUSTO SUKA</td>
<td>HUAMBO</td>
</tr>
<tr>
<td>MAURICIO ELAVOCO</td>
<td>HUAMBO</td>
</tr>
<tr>
<td>RAUL ALBERTO LAFAYETT RODRIGUES</td>
<td>BENGUELA</td>
</tr>
<tr>
<td>BICTOR NETO JUNIOR</td>
<td>LUANDA</td>
</tr>
</tbody>
</table>
INFORMATION CARD

REGARDING COURSES IN 1982

COURSE: MECHANICAL FITTERS

PHASE 2 - PRACTICAL TRAINING c/o COMPANIES

BEGINNING: 20/12/82

END: UNDERWAY

COORDINATOR:

UNIDO ANGOLAN
GIULIO CORRAINI SIMAO

N° OF TRAINEES

1
4
1
1

COMPANY

SONEFE
PETRANGOL
SONANGOL
GULF OIL
INFORMATION CARD
REGARDING COURSES IN 1982

COURSE: VEHICLE MOTOR MECHANICS

PHASE 1 - Theoretical and practical part in the ECP

BEGINNING: 1/1/82 END: 4/12/82

PROFESSORS:
UNIDO ANGOLAN
FLORIS MONTEIRO
BARRUCCI
ALOTTA

TRAINEES:

NAME FROM

ANTONIO CUBILA LUANDA
ANTONIO LUCIANO MANUEL K.SUL
ANTONIO PAULO PINGI CABINDA
CANDIDO MINEZES HUAMBO
DOMINGOS DE SOUSA KIAKU VASONIA LUANDA
FRANCISCO CARDOSO MANUEL CABINDA-GUL
GERALDO CASITICA HUAMBO
INANCIO ALBERTO CAGANJO SONAN LOBI
LOURENCO MANUEL DONDO
SALOMAO ISALINO DOS SANTOS LUANDA
SANTOS TOLVE VIGE
VIRGILIO PAULO DOMINGOS VELASCO LUANDA
INFORMATION CARD

REGARDING COURSES IN 1982

COURSE: VEHICLE MOTOR MECHANICS

PHASE 2 - PRACTICAL TRAINING c/o COMPANIES

BEGINNING: 20/12/82 END: UNDERWAY

COORDINATOR:

UNIDO ANGOLAN
GIULIO CORRAIN SIMAO

N° OF TRAINEES COMPANY
2 MOBIL OIL
4 SONANGOL
2 GULF OIL
1 TEXACO
2 PETRANGOL
INFORMATION CARD
REGARDING COURSES IN 1982

COURSE: ROTARY MACHINE MECHANICS

PHASE I - Theoretical and practical part in the ECP

BEGINNING: 1/1/82 END: 4/12/82

PROFESSORS:
UNIDO ANGOLAN
FLORIS
BARRUCCI
ALOTTA
CAPONERA

TRAINEES:
NAME FROM FROG
ADELIO LUIS BASTOS HUAMBO
ANTONIO PAULO DA COSTA LUANDA
BENJAMIN A DA COSTA HUAMBO
CARLOS MANUEL RICARDO LUANDA
DESLANDES RAFAEL LUANDA
DOMINGOS ANTONIO TEXEIRA LUANDA
FERNANDO JORGE BORJA DOS SANTOS LUANDA
JOAO BALTAZAR DA SILVA PETRANGOL
JOAO CASSEQUelo PETRANGOL
JOEGE JAIME WAKO KUNGO
KIALA MAVA SIMAO LUANDA
LUTERO SACHOLOMBO HUAMBO
FEDRO ZAU GIMBI CABINDA-GUL
JOAO ANDRE AFONSO SONEFE
INFORMATION CARD

REGARDING COURSES IN 1982

COURSE: ROTARY MACHINE MECHANICS

PHASE 2 - PRACTICAL TRAINING c/o COMPANIES

BEGINNING: 20/12/82 \hspace{1cm} END: UNDERWAY

COORDINATOR:

<table>
<thead>
<tr>
<th>UNIDO</th>
<th>GIULIO CORRAIN</th>
<th>ANGOLAN</th>
<th>SINGAO</th>
</tr>
</thead>
</table>

Nº OF TRAINEES | COMPANY
--- | ---
10 | PETRANGOL
1 | GULF OIL
1 | SONANGOL
INFORMATION CARD
REGARDING COURSES IN 1982

COURSE: PIPE WELDERS

PHASE 1 - Theoretical and practical part in the ECP

BEGINNING: 1/2/82

END: 3/10/82

PROFESSORS:

UNIDO

MINOLDO

PICCALUGA

FOGLI

ANGOLAN

QUARESMA

KEMBO

TRAINNEES:

NAME

CARLOS NAPOLEAO PITRA

DANIEL MAVONGO

DANIEL PESCELA

FIGUEREDO FIRMINO LOURENGO

JOAO BAPTISTA

JOAO J'CANHO DE ARAUJO

JOAQUIM ANTONIO

NORBERTO DE ALMEIDA FERREIRA

FROM

LUANDA

CABINDA

HUAMBO

HUAMBO

ZAIRE

K SUL

BENGUELA

LUANDA
INFORMATION CARD

REGARDING COURSES IN 1982

COURSE: PIPE WELDERS

PHASE 2 - PRACTICAL TRAINING c/o COMPANIES

BEGINNING: 18/10/82 END: UNDERWAY

COORDINATOR:

UNIDO ANGOLAN
GIULIO CORRAINI SIMAO

№ OF TRAINEES COMPANY
2 PETRANGOL
1 GULF OIL
1 SONEFE
2 MOBIL OIL
2 SONANGOL
INFORMATION CARD
REGARDING COURSES IN 1982

COURSE: INDUSTRIAL SAFETY OPERATORS

PHASE 1 - Theoretical and practical part in the ECP

BEGINNING: 1/3/82 END: 10/10/82

PROFESSORS:

UNIDO ANGOLAN
RUTIGLIANO QUARESMA
ROLA MENDEZ
KEMBO

TRAINEES:

NAME                FROM
AFONSO SALONBONGO   HUAMBO
BERNARDO SUKETE     HUAMBO
DAMIÃO BUITI        CABINDA
DOMINGOS ANTONIO MASSANGA HUAMBO
FRANCISCO ANTONIO   CATUMBELA
INÁCIO FRANCISCO PIRES CABINDA
JOSE SUNDA FRANCISCO CABINDA
JOSE VICTORINO      HUAMBO
INFORMATION CARD

REGARDING COURSES IN 1992

COURSE: INDUSTRIAL SAFETY OPERATORS

PHASE 2 - PRACTICAL TRAINING c/o COMPANIES

BEGINNING: 25/10/82  END: UNDERWAY

COORDINATOR:
UNIDO  ANGOLAN
GIULIO CORRAINI  SIMAO

Nº OF TRAINEES  COMPANY

1  PETRANGOL
3  GULF
1  ELF AQUITAINE
3  SONANGOL
INFORMATION CARD
REGARDING COURSES IN 1982

COURSE: OIL STORAGE AND TRANSPORT OPERATORS

PHASE 1 - Theoretical and practical part in the ECP

BEGINNING: 1/2/82   END: 8/10/82

PROFESSORS:
UNIDO ANGOLAN
GRASSO QUARESMA
CAMBI ROLA MENDEZ

TRAINNEES:

<table>
<thead>
<tr>
<th>NAME</th>
<th>FROM</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALBERTO SANJAMBELA</td>
<td>HUAMBO</td>
</tr>
<tr>
<td>LUIS COSTANTINO</td>
<td>SONANGOL K. NORTE</td>
</tr>
<tr>
<td>MATEUS BRAZ CHOCOLATE</td>
<td>CABINDA</td>
</tr>
<tr>
<td>MIGUEL PADO</td>
<td>CABINDA</td>
</tr>
<tr>
<td>N'DOMASI</td>
<td>LUANDA</td>
</tr>
<tr>
<td>NICOLAU MULATO</td>
<td>UIGE</td>
</tr>
<tr>
<td>ZUZI LUVETAMO</td>
<td>PETRANGOL</td>
</tr>
<tr>
<td>PAULO FRANCISCO SEBASTIANO</td>
<td>CABINDA</td>
</tr>
</tbody>
</table>
INFORMATION CARD

REGARDING COURSES IN 1982

COURSE: OIL STORAGE AND TRANSPORT OPERATORS

PHASE 2 - PRACTICAL TRAINING c/o COMPANIES

BEGINNING: 25/10/82  END: UNDERWAY

COORDINATOR:

UNIDO ANGOLAN
GIULIO CORRAINI SIMAO

N° OF TRAINEES

2
3
1
2

COMPANY

PETRANGOL
GULF
MOBIL
SONANGOL
INFORMATION CARD
REGARDING COURSES IN 1982

COURSE: EXTERNAL REFINERY OPERATORS (3° Course)

PHASE I - Theoretical and practical part in the ECP

BEGINNING: 7/6/82 END: UNDERWAY

PROFESSORS:

<table>
<thead>
<tr>
<th>Name</th>
<th>From</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIDO</td>
<td>ANGOLAN</td>
</tr>
<tr>
<td>GIOVANNONE</td>
<td>KEMBO</td>
</tr>
<tr>
<td>GRASSO</td>
<td>ROLA MENDES</td>
</tr>
<tr>
<td></td>
<td>N'SIMBA</td>
</tr>
<tr>
<td></td>
<td>MAYKA</td>
</tr>
</tbody>
</table>

TRAINEES:

<table>
<thead>
<tr>
<th>Name</th>
<th>From</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTONIO MANUEL JOAO</td>
<td>PETRANGOL</td>
</tr>
<tr>
<td>ANTONIO N'GUNSONI</td>
<td></td>
</tr>
<tr>
<td>CRISTOVAO MPANZO MONIZ</td>
<td></td>
</tr>
<tr>
<td>DOMINGOS DIOGO AUGUSTO</td>
<td></td>
</tr>
<tr>
<td>JOSE MANUEL MARIO</td>
<td></td>
</tr>
<tr>
<td>LUSAUJKWENA DOMINGUF</td>
<td></td>
</tr>
<tr>
<td>MBIANANGO DAMBAXE</td>
<td></td>
</tr>
<tr>
<td>MUSSA WENGU</td>
<td></td>
</tr>
<tr>
<td>NERCIO ANDRE</td>
<td></td>
</tr>
<tr>
<td>N'ZAU LANGO ANTONIO</td>
<td></td>
</tr>
<tr>
<td>PAULO MORAIS VITA</td>
<td></td>
</tr>
<tr>
<td>PEDRO BAPTISTA</td>
<td></td>
</tr>
<tr>
<td>PEDRO YAKALOOGA</td>
<td></td>
</tr>
<tr>
<td>ROBETO ALEX</td>
<td>TANZANIANO</td>
</tr>
<tr>
<td>SOMARI SAIDI GOMA</td>
<td></td>
</tr>
<tr>
<td>TOMAS FAMOROSO</td>
<td>PETRANGOL</td>
</tr>
<tr>
<td>TONDO MBOLOSO</td>
<td></td>
</tr>
<tr>
<td>TUSSEYO TUAKANDO</td>
<td></td>
</tr>
</tbody>
</table>
INFORMATION CARD
REGARDING COURSES IN 1982

COURSE: EXTERNAL REFINERY OPERATORS (4° Course)

PHASE 1 - Theoretical and practical part in the ECP

BEGINNING: 11/10/82       END: UNDERWAY

PROFESSORS:

UNIDO  ANGOLAN
GIOVANNONE  KEMBO
GRASSO  M'BAMBI
N'SIMBA
MAYKA

TRAINEES:

NAME       FROM
ABERTO CAMPOS NICOLAU  PETRANGOL
DOMINGOS MANUEL DE JESUS NUNES
DANIEL VIEGAS
ELOI JOAO DA REISSOREICAO
LUBIENGA PAULO
LUTOLO LUYEYE JUSTINO
MAPUNJA JOSE
MANUEL VIERRA
N'SASUMUNA-SALA
M'PANZU KIAKU ARIDA RICARDO
PANDI SALVADOR JULIO
SEBASTIAO M'BONGO MATONDO
EDUARDO FRANCISCO DA SILVA MOTA
BERNARDO AFONSO SOBRINHO
## COURSE: PRODUCTION OPERATORS (3° Course)

### PHASE 1 - Theoretical and practical part in the ECP

**BEGINNING:** 19/7/82  
**PROFESSORS:**  
- UNIDO
- SALICA
- GIOVANNONE
- FRANCUCCI
- ANGOLAN
- QUARESMA
- ROLA MENDEZ
- KEMBO

**TRAINNEES:**

<table>
<thead>
<tr>
<th>NAME</th>
<th>FROM</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTONIO BAZOLA</td>
<td>CAB-GULF</td>
</tr>
<tr>
<td>ARANLDO DIOGO DO NASCIMENTO</td>
<td>PETRANGOL</td>
</tr>
<tr>
<td>BENJAMIN DOMINGOS C. GASPAR</td>
<td>&quot;</td>
</tr>
<tr>
<td>CARLOS MANUEL FERNANDES</td>
<td>&quot;</td>
</tr>
<tr>
<td>DANIEL BAPTISTA</td>
<td>&quot;</td>
</tr>
<tr>
<td>EDUARDO LUIS SENGO MACOSSO</td>
<td>CAB-GULF</td>
</tr>
<tr>
<td>HASHTMU RAJABU FENESI</td>
<td>TANZANIA</td>
</tr>
<tr>
<td>JOAO ADRIANO JUNIOR</td>
<td>PETRANGOL</td>
</tr>
<tr>
<td>JOSE PAULO ALVARO DA CUNHA</td>
<td>&quot;</td>
</tr>
<tr>
<td>JOAO JOSE</td>
<td>&quot;</td>
</tr>
<tr>
<td>JOSE DOMINGOS</td>
<td>&quot;</td>
</tr>
<tr>
<td>JOSE JULIO</td>
<td>&quot;</td>
</tr>
<tr>
<td>JOSE SUCA LONDA</td>
<td>&quot;</td>
</tr>
<tr>
<td>MANUEL BORGE SIMOES</td>
<td>&quot;</td>
</tr>
<tr>
<td>MANUEL GINGA</td>
<td>&quot;</td>
</tr>
<tr>
<td>MIGUEL GINGA</td>
<td>&quot;</td>
</tr>
<tr>
<td>OSWALDO RUI FERNANDES</td>
<td>&quot;</td>
</tr>
<tr>
<td>SALVATORI MCHONDE</td>
<td>TANZANIA</td>
</tr>
<tr>
<td>VICENTE FUTILA MAZEBO</td>
<td>PETRANGOL</td>
</tr>
</tbody>
</table>
INFORMATION CARD
REGARDING COURSES IN 1982

COURSE: CHEMISTRY LABORATORY OPERATORS

PHASE 1 - Theoretical and practical part in the ECP

BEGINNING: 15/7/82      END: UNDERWAY

PROFESSORS:

UNIDO               ANGOLAN

RICCHI               M'BAMBI

TRAINEES:

NAME                       FROM

ALVARO DAMIAO ANDRE DOS SANTOS   PETRAGOL
DOMINGOS PEDRO PANZU          "          "
EDUARDO JAIME C.D. e SILVA       "          "
GASPAR A. PITA CABOCO         "          "
JOAO DA SILVA               "          "
JOAO DIAS DOS SANTOS          "          "
JOSE LUSOTA                 GULF-OIL
LUZONZO MASSALA             PETRAGOL
PEDRO ARMANDO               "          "