FIGURES

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(A) Rewak Sandstone Formation

(B) Tura Sandstone Formation

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Section 1
At the left bank of Simsong River (Songmong Siju)

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- **Sandstone & Shale**
- **Nummulitic Limestone**
- **Sandstone**

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[1] Siju Limestone Formation
[2] Rewak Limestone Formation
Fig. 22 A. Capillary-pressure curves of limestones of the Siyu Limestones Formation.

$N_1$, etc. = sample numbers.
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$M_3$ etc. = Sample Numbers.
FIG. 22C. CAPILLARY PRESSURE CURVES OF LIMESTONES OF THE SIJU LIMESTONE FORMATION.

M12 ETC. = SAMPLE NUMBERS.
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M_16, M_2, M_3, M_4, M_5, M_6, M_7, M_8 - SAMPLE NUMBERS.
FIG 22 E. CAPILLARY-PRESSURE CURVES OF LIMESTONES OF THE SISU LIMESTONE FORMATION

S115 etc. = SAMPLE NUMBERS
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Si18 etc. = SAMPLE NUMBERS.
Fig. 23. Showing the porosity and permeability as a function of the average pore diameter of the limestone from the (A) situ and (B) rewwak limestone formations.
### Table: Insoluble Chemical Elements

<table>
<thead>
<tr>
<th>Soil Sample</th>
<th>Chemical Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MgO</td>
</tr>
<tr>
<td>M₁₅</td>
<td></td>
</tr>
<tr>
<td>S. St. M₁₄</td>
<td></td>
</tr>
<tr>
<td>M₁₃</td>
<td></td>
</tr>
<tr>
<td>M₁₂</td>
<td></td>
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<tr>
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<td>M₅</td>
<td></td>
</tr>
<tr>
<td>M₄</td>
<td></td>
</tr>
<tr>
<td>M₃</td>
<td></td>
</tr>
</tbody>
</table>

### Graph

- **Top Section**: Soil and insoluble residues.
- **Bottom Section**: Nummulitic limestone and sandstone.

- **Legend**:
  - M₃ - M₁₅ = Nummulitic Limestone
  - S. St. = Sandstone

**Graph Showing Stratigraphical Distribution of Insoluble Residues and Chemical Elements of the Siju Limestone Formation**

**Vertical Scale**
- 0'-12' = 18 Metres
- 0'-4' = 6 Feet
FIG. 2.4. GRAPH SHOWING STRATIGRAPHICAL DISTRIBUTION OF INSOLUBLE RESIDUES AND CHEMICAL ELEMENTS OF THE SIJU LIMESTONE FORMATION.
Fig. 25. Mutual relationships between insoluble residues and MgO (a), iron contents and insoluble residues (b), MgO and Fe (c), MnO and Fe (d), MgO and MnO (e), and P$_2$O$_5$ and MnO (f) of the Siju limestone formation.
Fig. 26. Frequency distribution of Ca/Mg ratios of the (A) Siju and (B) Rewak limestone formations.
<table>
<thead>
<tr>
<th>TERRESTRIAL CARBON AND PETROLEUM</th>
<th>MARINE ORGANIC CARBON</th>
<th>CARBONATE</th>
<th>CARBON</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRESENT STUDY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIJU LIMESTONE FORMATION</td>
<td></td>
<td></td>
<td>DREWITE + ALGAE</td>
</tr>
<tr>
<td>REWAQ LIMESTONE FORMATION</td>
<td></td>
<td></td>
<td>OÖLITHIB (1)</td>
</tr>
</tbody>
</table>
1. LOWENSTAM AND EPSTEIN (1956)    |                     |           | (1)    |
2. JEFFREY'S et al. (1954)        |                     |           |        |
3. CLAYTON AND DEGENS (1959)      |                     |           |        |
4. CRAIG (1953)                    |                     |           |        |
5. LANDERGREN (1954)              |                     |           |        |
6. SILVERMAN AND EPSTEIN (1958)   |                     |           |        |

1. LAND PLANTS (4)                |                     |           |        |
2. MARINE ORGANISMS (4)           |                     |           |        |
3. ANcient FRESH WATER LIMESTONES |                     |           |        |
4. MARINE LIMESTONE               |                     |           |        |
5. MARINE LIMESTONE               |                     |           |        |
6. INTERMIXING FRESH-WATER AND MARINE LIMESTONE | | |

**Fig. 27. Showing the distribution $\delta^{13}C$ in carbonates and in nature (after, Lloyd 1964, p. 105)**
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Fig. 29. RELATIONSHIPS BETWEEN THE CARBONATE MINERAL, $\delta^{13}C$ AND $\delta^{18}O$ IN THE (A) Siju AND (B) Rewak Limestone Formations.
30. MUTUAL RELATIONSHIP BETWEEN $\delta^{13}C$ AND $\delta^{18}O$ OF THE A$_1$ AND B$_1$

AND

MUTUAL RELATIONSHIP BETWEEN SPARRY CALCITE, $\delta^{13}C$ AND $\delta^{18}O$ IN THE LIMESTONE OF THE A$_\Pi$, A$_\III$ AND B$_\Pi$, B$_\III$. 

LIMESTONE FORMATION

REWAK LIMESTONE FORMATION.
SECTION III
AT 18.5 M.P.
ALONG T-D

IN/IX:
FERRUGINOUS SANDSTONE
SHALE
FOSSILIFEROUS LIMESTONE
FOSSILIFEROUS SHALE

VERTICAL SCALE
0 4 12 18 METRES
0 2 4 6 FEET

FIG 31A. GRAPHS SHOWING THE STRATIGRAPHICAL DISTRIBUTION OF INSOLUBLE RESIDUES, ALLOCHENS AND ORTHOCHENS OF THE REWAH LIMESTONE FORMATION
Figure 32A. Cumulative frequency curves showing sieve-size distribution plotted from thin-section data of the limestone of the Rewak limestone formation.
Cumulative Frequency Curves showing sieve-size distribution plotted from thin-section data of the Limestone of the Rewak Limestone Formation.
Figure 33. Cumulative frequency curves showing sieve-size distribution drawn from thin-section data of the crystal of the Rewak Limestone Formation.
Fig. 34A. Capillary pressure curves of limestones of the Pewak limestone formation.

*K3 etc. = Sample Numbers*
FIG. 34B. CAPILLARY-PRESSURE CURVES OF LIMESTONES OF THE RENAISSANCE LIMESTONE FORMATION.

$T_6$ etc. = SAMPLE NUMBERS.
### Section at 18:5 P.M. Along Tura-Dalu Road

<table>
<thead>
<tr>
<th>Insoluble Residues</th>
<th>Chemical Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\text{MgO}$</td>
</tr>
<tr>
<td><strong>SOIL</strong></td>
<td></td>
</tr>
<tr>
<td><strong>$S_{13}$</strong></td>
<td></td>
</tr>
<tr>
<td><strong>SHALE $S_{12}$</strong></td>
<td></td>
</tr>
<tr>
<td><strong>$S_{11}$</strong></td>
<td></td>
</tr>
<tr>
<td><strong>UNFOSSILIFEROUS SHALE</strong></td>
<td></td>
</tr>
<tr>
<td><strong>$S_{10}$</strong></td>
<td></td>
</tr>
<tr>
<td><strong>$S_{9}$</strong></td>
<td></td>
</tr>
<tr>
<td><strong>$S_{8}$</strong></td>
<td></td>
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<tr>
<td><strong>$S_{7}$</strong></td>
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<tr>
<td><strong>SHALE $S_{6}$</strong></td>
<td></td>
</tr>
<tr>
<td><strong>$S_{5}$</strong></td>
<td></td>
</tr>
<tr>
<td><strong>SHALE $S_{3}$</strong></td>
<td></td>
</tr>
<tr>
<td><strong>$S_{2}$</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 35A.** Graph showing stratigraphical distribution of insoluble residues and chemical elements of the Rewak Limestone Formation.
**SECTION AT 13:5 P.M.**
**ALONG TURA-DALU ROAD**

<table>
<thead>
<tr>
<th>INSOLUBLE RESIDUES</th>
<th>CHEMICAL ELEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MgO</td>
</tr>
<tr>
<td><strong>TOP</strong></td>
<td></td>
</tr>
<tr>
<td>Soil</td>
<td></td>
</tr>
</tbody>
</table>
| Unfossili
erous Shale |       |     |             |            |     |           |         |             |
| $K_7$              |       |     |             |            |     |           |         |             |
| Unfossili
erous Shale | S.St. |     |             |            |     |           |         |             |
| $K_6$              |       |     |             |            |     |           |         |             |
| Unfossili
erous Shale |       |     |             |            |     |           |         |             |
| $K_5$              |       |     |             |            |     |           |         |             |
| $K_4$              |       |     |             |            |     |           |         |             |
| $K_3$              |       |     |             |            |     |           |         |             |
| $K_2$              |       |     |             |            |     |           |         |             |
| $K_2$              |       |     |             |            |     |           |         |             |
| $K_1$              |       |     |             |            |     |           |         |             |

$K_1 - K_7 =$ FOSSILIFEROUS LIMESTONE.
$K_6 =$ SANDSTONE (S.St.)

**Fig. 358.** GRAPH SHOWING STRATIGRAPHICAL DISTRIBUTION OF INSOLUBLE RESIDUES AND CHEMICAL ELEMENTS OF THE REWAK LIMESTONE FORMATION.
Fig. 36. Mutual relationships between insoluble residues and 
MgO (a), iron contents and insoluble residues (b), MgO 
and Fe (c), MnO and Fe (d), MgO and MnO (e), and 
P2O5 and MnO (f) of the Rewak Lime Stone Formation.
Fig. 37A. Cumulative curves of the sandstone of the Rewak sandstone formation.
Fig. 37. Cumulative curves of the sandstone of the Rewak Sandstone formation.
Fig. 37c. Cumulative curves of the sandstone of the Rewak Sandstone Formation.
Fig. 37D. CUMULATIVE CURVES OF THE SANDSTONE OF THE REWARE SANDSTONE FORMATION.
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FIG. 3. CM PATTERN OF THE REWAK SANDSTONE FORMATION