Information of
APPLIED RESEARCHES

University of Pembangunan Nasional “Veteran” Yogyakarta
• Geoheritage of Yogyakarta
• Old Oil Well (Suspended Well) Management
• New Natural Coloring for Batik
Geoheritage of Yogyakarta and Surrounding Area
Objective:
To identify areas of Yogyakarta and surroundings that can be promoted as Geoheritage

Aspects to be considered

Education & Research:
Natural laboratory for education and research especially in the subject of earth science

Information Source:
Socialization of “geo-heritage” in order to develop public appreciation and awareness on ancient natural prints, siap dan waspada to facing future geo-disasters
Aspects

→ **Culture:** Earth conservation

→ **Tourism:** Special interest of tourism

→ Triggering economic development → Sustainable development

Monumen Watuadeg Berbah
5. Manganese Mining of Kliripan
Geo-sites of Yogyakarta Special Territory

... one day fieldtrip ...

1. Lava Berbah
2. Candi Ijo
3. & 4. Basement Rock, Bayat
4. Ancient Volcano Nglanggran
5. Panorama Jurangjero
6. Karst Landscape
7. Bioturbation Kali Ngalang

Mt. Merapi
6. Ancient Volcano: Nglanggran
Since 1 decade ago, the national oil production constantly declines. It caused by:
1. The existing oil fields have been already “mature”
2. No more significant oil field discoveries
3. Drilling development activity cannot be realized as that of the planning (due to regulations conflict)

There are many suspended (old) wells in Indonesia (developed during Dutch colonization), arround 13,000 old wells spreaded from Aceh, Riau, South Sumatera, West Java, Central Java, East Java, east Kalimantan, Moluccas, and Papua. Now about 1020 have been reactivated, the rest are not managed yet.

The potency of suspended (old) wells that can be reactivated is arround 1200, in KTI
OBJECTIVE OF THE RESEARCH

To introduce and apply a simple technology that is nowadays developed by UPN “Veteran” Yogyakarta, in order to contribute to the increasing of National oil production.
MAP SHOWING THE DISTRIBUTION OF OLD WELLS IN INDONESIA

Well Location

ACTIVE = 1020 HOLES
NON ACTIVE = 12,334 HOLES
TOTAL = 12,050 HOLES
Evaluation and modification in order to optimize the performance are continuously done.

Now the RIG is used to reactivated the suspended wells in Cepu field, and has been got the operational approval by Ditjen Migas (Oil & Gas Directorate General).
USE OF SIMPLE RIG
KDD-04 WELL, KEDINDING FIELD (2009)
USE OF SIMPLE RIG
KDD-04 WELL, KEDINDING FIELD (2009)
USE OF SIMPLE RIG
NG-06 WELL, NGUDAL FIELD
USE OF SIMPLE RIG
NG-06 WELL, NGUDAL FIELD
REACTIVATION OF SUSPENDED WELL by HAMMER DRILLING (2009)
THE USE OF ESP (ELECTRIC SUBMERSIBLE PUMP/175 TO REACTIVATE SUSPENDED WELL
OBJECTIVES

• To avoid the environment from negative effect of the use of chemical compound coloring.
• To optimize the function of critical land for sustainable development
• To increase the economic value of local vegetation.
• To increase the prosperity of rural community
<table>
<thead>
<tr>
<th>No</th>
<th>Name of Plant</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Indigofera tinctoria</strong> <em>(Javanese: Tarum)</em> producing blue color</td>
<td>Blue</td>
</tr>
<tr>
<td></td>
<td>Kingdom : Plantae</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Division : Magnoliophyta</td>
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<tr>
<td></td>
<td>Class : Magnoliopsida</td>
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<tr>
<td></td>
<td>Family : Fabaceae</td>
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</table>
Pinang (Areca Cathecu)

Kingdom : Plantae
Division : Magnoliophyta
Class : Liliopsida
Family : Arecaceae

Pinang is a plant that widely spread in various regions of Indonesia. Natural colors produced by it is red. The color obtained from the powder of the pinang seeds. The plant is cultivated by planted. Planting takes a long time, because these plants like palm trees, and therefore these plants can only be used if the plant is already mature enough.
TANK YOU
FOR YOUR ATTENTION