



TOGETHER
for a sustainable future

OCCASION

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



TOGETHER
for a sustainable future

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.

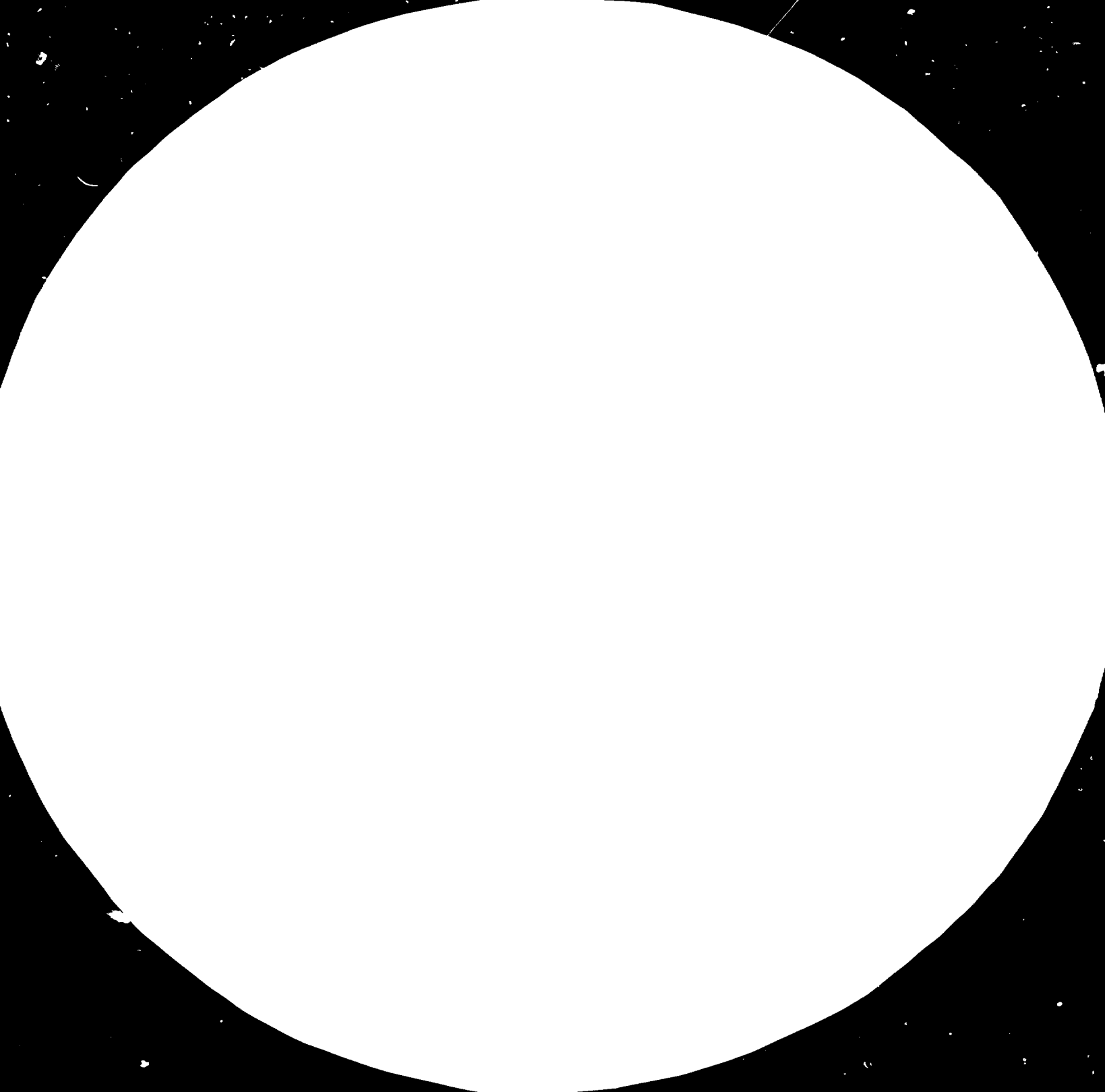
FAIR USE POLICY

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



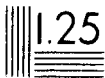


1.0 25

1.1 22



1.2 20



1.8 18
2.0 16
2.5 14
3.2 12
4.0 10
5.0 9
6.3 8
8.0 7
10 6
12.5 5
16 4
20 3
25 2

Resolution Test Chart
1.0 25
1.1 22
1.2 20
1.4 18
1.6 16
1.8 14
2.0 12
2.5 10
3.2 9
4.0 8
5.0 7
6.3 6
8.0 5
10 4
12.5 3
16 2

Hungary Complex Utilization of Low
Grade and Secondary Raw Materials for Metallurgy and Coal
Sorts of Low Calorific Value ;

FINAL REPORT

14256

under UNIDO Contract No. 82/82 RT (Amendment No. 1)
with KRATOS Ltd. of Manchester,
U.K.

1984

for the provision of services relating to the Complex Utilization of Low Grade and Secondary Raw Materials for Metallurgy and Coal Sorts of Low Calorific Value in the Hungarian People's Republic.

UNIDO Project: DP/HUN/82/008.

National Implementing Institute: The Research Laboratories for Natural Sciences of the Hungarian Academy of Sciences at Budapest.

- 1/ The original contract based on UNIDO Terms of Reference dated 17 September 1982 and on the associated Work Plan (Székely-Richardson) dated 21 December 1982 called for the supply by the Contractor (Kratos Limited) to the National Implementing Institute of computer programmes and materials together with instruction and training for the operation of a XSAM800/DS300 Surface Analysis System for Complex Electron Spectroscopy for Chemical Applications (ESCA) with associated analysis computer and display (all of which equipment was supplied by the Contractor under a separate contract with UNIDO). The price of such services was UK £ 31,070.
- 2/ All the programmes, materials, instruction, training and other services due under the original contract were fully and satisfactorily supplied/rendered. Full account of this performance is contained in the following reports submitted to UNIDO:
 - a/ Draft Final Report by Kratos Ltd. dated 19 August 1983;
 - b/ Report of Training in England by Bertóti/Tóth dated 7 July 1983;
 - c/ Letter of Prof.Dr. T.Székely to UNIDO of 1 September 1983;
 - d/ Report of Tripartite Review Meeting Government/UNDP/UNIDO Budapest 30 March 1984, which expressed satisfaction at the very effective achievements of the project to date.

- 3/ By Amendment No.1. to the UNIDO/KRATOS Contract, adopting additional/amended Terms of Reference dated 30 January 1984, further technical information, instructions, training, overhaul and other services together with some additional parts were agreed to be supplied by Kratos to the Implementing Institute at a price of UK £ 12,360. The additional information (instructions) training related inter alia to certain additional equipment supplied by the Contractor under another separate contract with UNIDO (namely an XYZ Manipulator and a Low Temperature/Pressure Gas Reaction Cell), also on the usage of new software systems for the XSAM DS800, and related subjects.

- 4/ A full account of the satisfactory rendering/performance of the further technical information, instructions and training required under the Amendment No.1. is contained in the attached Report by Dr. T.Székely, Dr. I. Bertóti and Dr. A.Tóth dated 10 May 1984, covering training courses at Kratos, Manchester, study tours at three English Universities and the installation and operation of the new equipment. These aspects of the Contract are accordingly complete.

- 5/ The overhaul visit by the Contractor's expert in connection with certain of the ESCA systems and fittings was also duly completed.

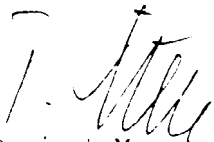
- 6/ The further equipment parts supplied under the Amendment No.1. (to a value of UK £ 4,000) are as follows:
 - a/ Residual Gas Analyser
 - b/ View port with light

- These have been duly delivered except for the Mechanical Hand, which is due to arrive at the Implementing Institute at the end of September or early October 1984.

- 7/ Upon the arrival of this last-mentioned item of equipment, all the obligations of the Contractor under the whole contract including Amendment No.1. will have been entirely performed and satisfied.

- 8/ It should also be mentioned that Kratos Ltd's representative, at the final review meeting in Budapest on 19 September 1984, expressed their approval and appreciation of the way in which the equipment was set up and maintained in the Laboratory of the Implementing Institute and also of the fact that it was being utilized so fully and effectively. This facilitates their own li~~es~~son work with the Institute.
- 9/ For its part, the Institute records its satisfaction and appreciation of the co-operation and services received from Kratos throughout this Contract.
- 10/ The Institute is glad to emphasize and express it's gratitude, that during all the period of work full help and assistance of UNIDO formed the solid base of smooth and effective implementation of the subcontracts and the technical works based thereon.

Dated: 19 September 1984.


Project Manager T. Székely

Director of the Implementing Institute, the
Research Laboratories for Natural Sciences
of the Hungarian Academy of Sciences,
1112. Budapest, Budaörsi ut 45.

