

GEOCHRON LABORATORIES

a division of Krueger Enterprises, Inc.

711 Concord Avenue ♦ Cambridge, Massachusetts 02138-1002 ♦ USA
t (617) 876-3691 f (617) 661-0148 www.geochronlabs.com

RADIOCARBON AGE DETERMINATION

REPORT OF ANALYTICAL WORK

Our Sample No. **GX-30481**

Date Received: 09/05/2003

Your Reference:

Date Reported: 10/06/2003

Submitted by: Prof. Andrés Velásquez
Observatorio Sismológico del SurOccidente
Universidad del Valle
Edificio Torre de Ingenierías – Piso 3
Ciudad Universitaria – Meléndez – Apartado Aéreo 25360
Santiago de Cali - COLOMBIA

Sample Name: **TSF- P1**

AGE = **21570 ± 440 ¹⁴C years BP (¹³C corrected)**

Description: Sample of soil

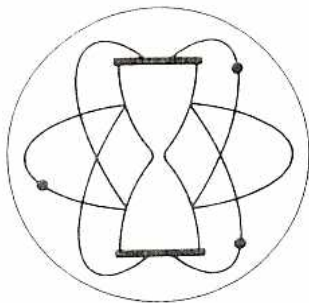
Pretreatment: The soil sample was dispersed in a large volume of water and passed through a fine nylon mesh to filter out any rootlets and sandy particulate. The clay/organic fraction was then treated with hot dilute 1N HCl for one hour to dissolve any carbonates. After filtering, washing, and drying, the clay/organic fraction was then combusted in pure oxygen to produce carbon dioxide for the analysis.

Comments:

$\delta^{13}\text{C}_{\text{PDB}}$ = **-30.7 ‰**

Notes: This date is based upon the Libby half life (5570 years) for ¹⁴C. The error is +/- 1 s as judged by the analytical data alone. Our modern standard is 95% of the activity of N.B.S. Oxalic Acid.

The age is referenced to the year A.D. 1950.



GEOCHRON LABORATORIES

a division of Krueger Enterprises, Inc.

711 Concord Avenue ♦ Cambridge, Massachusetts 02138-1002 ♦ USA
t (617) 876-3691 f (617) 661-0148 www.geochronlabs.com

RADIOCARBON AGE DETERMINATION

REPORT OF ANALYTICAL WORK

Our Sample No. **GX-30480**

Date Received: 09/05/2003

Your Reference:

Date Reported: 10/06/2003

Submitted by:

Prof. Andrés Velásquez
Observatorio Sismológico del SurOccidente
Universidad del Valle
Edificio Torre de Ingenierías – Piso 3
Ciudad Universitaria – Meléndez – Apartado Aéreo 25360
Santiago de Cali - COLOMBIA

Sample Name: **CPL 55**

AGE = **19710 ± 830 ¹⁴C years BP (¹³C corrected)**

Description: Sample of soil

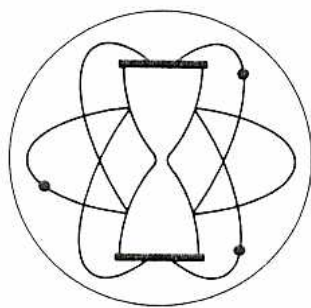
Pretreatment: The soil sample was dispersed in a large volume of water and passed through a fine nylon mesh to filter out any rootlets and sandy particulate. The clay/organic fraction was then treated with hot dilute 1N HCl for one hour to dissolve any carbonates. After filtering, washing, and drying, the clay/organic fraction was then combusted in pure oxygen to produce carbon dioxide for the analysis.

Comments: The sample was counted for an extended period of time.

$\delta^{13}\text{C}_{\text{PDB}}$ = **-27.6 ‰**

Notes: This date is based upon the Libby half life (5570 years) for ¹⁴C. The error is +/- 1 s as judged by the analytical data alone. Our modern standard is 95% of the activity of N.B.S. Oxalic Acid.

The age is referenced to the year A.D. 1950.



GEOCHRON LABORATORIES

a division of Krueger Enterprises, Inc.

711 Concord Avenue ♦ Cambridge, Massachusetts 02138-1002 ♦ USA
t (617) 876-3691 f (617) 661-0148 www.geochronlabs.com

RADIOCARBON AGE DETERMINATION

REPORT OF ANALYTICAL WORK

Our Sample No. **GX-28776**

Your Reference: Eje Cafetero - Colombia

Submitted by: Prof. Andrés Velasquez
Observatorio Sismológico del SurOccidente
Universidad de Valle
Sede Meléndez
Calle 13 No. 100-00
Edificio Torre de Ingenierías – Piso 3
Santiago de Cali, Colombia

Date Received: 01/07/2002

Date Reported: 01/29/2002

Sample Name: **CPL-25 Capa 9 Grieta**

AGE = **6860 ± 130 ¹⁴C years BP (¹³C corrected)**

Description: Sample of soil.

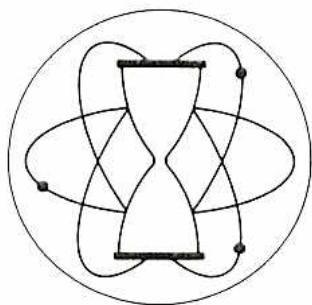
Pretreatment: The soil sample was dispersed in a large volume of water which was passed through a fine nylon mesh to filter out any rootlets and sandy particulate. The clay/organic fraction was then treated with hot dilute 1N HCl for one hour to dissolve any carbonates. After filtering, washing, and drying, the clay/organic fraction was then combusted in pure oxygen to produce carbon dioxide for the analysis.

Comments:

$\delta^{13}\text{C}_{\text{PDB}}$ = **-27.0 ‰**

Notes: This date is based upon the Libby half life (5570 years) for ¹⁴C. The error is +/- 1 s as judged by the analytical data alone. Our modern standard is 95% of the activity of N.B.S. Oxalic Acid.

The age is referenced to the year A.D. 1950.



GEOCHRON LABORATORIES

a division of Krueger Enterprises, Inc.

711 Concord Avenue ♦ Cambridge, Massachusetts 02138-1002 ♦ USA
t (617) 876-3691 f (617) 661-0148 www.geochronlabs.com

RADIOCARBON AGE DETERMINATION

REPORT OF ANALYTICAL WORK

Our Sample No. **GX-28774**

Date Received: 01/07/2002

Your Reference: Eje Cafetero - Colombia

Date Reported: 01/29/2002

Submitted by: Prof. Andrés Velasquez
Observatorio Sismológico del SurOccidente
Universidad de Valle
Sede Meléndez
Calle 13 No. 100-00
Edificio Torre de Ingenierías – Piso 3
Santiago de Cali, Colombia

Sample Name: **CPL-25 Capa 9**

AGE = **2630 ± 80 ¹⁴C years BP (¹³C corrected)**

Description: Sample of soil.

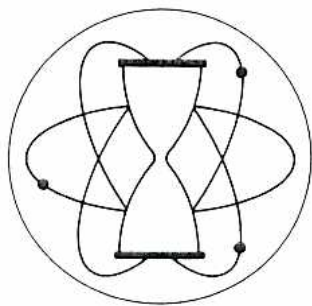
Pretreatment: The soil sample was dispersed in a large volume of water which was passed through a fine nylon mesh to filter out any rootlets and sandy particulate. The clay/organic fraction was then treated with hot dilute 1N HCl for one hour to dissolve any carbonates. After filtering, washing, and drying, the clay/organic fraction was then combusted in pure oxygen to produce carbon dioxide for the analysis.

Comments:

$\delta^{13}\text{C}_{\text{PDB}}$ = **-24.6 ‰**

Notes: This date is based upon the Libby half life (5570 years) for ¹⁴C. The error is +/- 1 s as judged by the analytical data alone. Our modern standard is 95% of the activity of N.B.S. Oxalic Acid.

The age is referenced to the year A.D. 1950.



GEOCHRON LABORATORIES

a division of Krueger Enterprises, Inc.

711 Concord Avenue ♦ Cambridge, Massachusetts 02138-1002 ♦ USA
t (617) 876-3691 f (617) 661-0148 www.geochronlabs.com

RADIOCARBON AGE DETERMINATION

REPORT OF ANALYTICAL WORK

Our Sample No. **GX-28775**

Your Reference: Eje Cafetero - Colombia

Submitted by: Prof. Andrés Velasquez
Observatorio Sismológico del SurOccidente
Universidad de Valle
Sede Meléndez
Calle 13 No. 100-00
Edificio Torre de Ingenierías – Piso 3
Santiago de Cali, Colombia

Date Received: 01/07/2002

Date Reported: 01/29/2002

Sample Name: **CPL-25 Capa 8**

AGE = **6300 ± 230 ¹⁴C years BP (¹³C corrected)**

Description: Sample of soil.

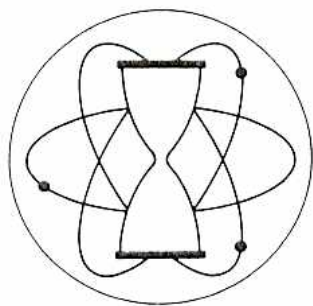
Pretreatment: The soil sample was dispersed in a large volume of water which was passed through a fine nylon mesh to filter out any rootlets and sandy particulate. The clay/organic fraction was then treated with hot dilute 1N HCl for one hour to dissolve any carbonates. After filtering, washing, and drying, the clay/organic fraction was then combusted in pure oxygen to produce carbon dioxide for the analysis.

Comments:

$\delta^{13}\text{C}_{\text{PDB}}$ = **-27.1 ‰**

Notes: This date is based upon the Libby half life (5570 years) for ¹⁴C. The error is +/- 1 s as judged by the analytical data alone. Our modern standard is 95% of the activity of N.B.S. Oxalic Acid.

The age is referenced to the year A.D. 1950.



GEOCHRON LABORATORIES

a division of Krueger Enterprises, Inc.

711 Concord Avenue ♦ Cambridge, Massachusetts 02138-1002 ♦ USA
t (617) 876-3691 f (617) 661-0148 www.geochronlabs.com

RADIOCARBON AGE DETERMINATION

REPORT OF ANALYTICAL WORK

Our Sample No. **GX-28617**

Your Reference: Valle del Cauca, Colombia

Submitted by: Prof. Andrés Velásquez
Observatorio Sismológico del SurOccidente
Universidad del Valle
Sede Meléndez
Calle 13 No. 100-00
Edificio Torre de Ingenierías – Piso 3
Santiago de Cali, Colombia

Date Received: 11/08/2001

Date Reported: 11/30/2001

Sample Name: **Estación 10 – CPL10 Muestra No. 2**

AGE = **30710 ± 1220 ¹⁴C years BP (¹³C corrected)**

Description: Sample of soil.

Pretreatment: The soil sample was dispersed in a large volume of water which was passed through a fine nylon mesh to filter out any rootlets and sandy particulate. The clay/organic fraction was then treated with hot dilute 1N HCl for one hour to dissolve any carbonates. After filtering, washing, and drying, the clay/organic fraction was then combusted in pure oxygen to produce carbon dioxide for the analysis.

Comments:

$\delta^{13}\text{C}_{\text{PDB}}$ = **-26.5 ‰**

Notes: This date is based upon the Libby half life (5570 years) for ¹⁴C. The error is +/- 1 s as judged by the analytical data alone. Our modern standard is 95% of the activity of N.B.S. Oxalic Acid.

The age is referenced to the year A.D. 1950.