

# Processing Notes: Geochemical Tool String

First leg logged: Leg 101 Last leg logged: Leg 185

#### **Tools Used**

The following summarizes the major changes that took place in the history of the geochemical tool string in the ODP.

#### Leg 101

The GST tool was run for the first time. No boron sleeve was used due to drill pipe and BHA constraints (narrow diameter).

#### **Leg 109**

The ACT tool was run for the first time as part of the geochemical tool string. Again, no boron sleeve was used due to drill pipe and BHA constraints (narrow diameter).

#### **Leg 126**

The boron sleeve was modified by Schlumberger to fit into drill pipe and BHA. From this leg on the geochemical tool string was always run with the boron sleeve.

#### **Leg 185**

Hole 1149B was the last hole where the geochemical tool string was run.

## **Data Processing**

The geochemical data were all processed on a Vax machine using Logos software. Processing was performed at the LDEO-BRG log analysis center. A detailed description of the technique used is included in each of the geochemical data reports available online, which are largely based on the data reports published in the IR or SR volumes of the ODP Proceedings. All these reports were thoroughly revised in the spring of 2003 before they were put online.

# **Processing History**

Due to the absence of the ACT tool and boron sleeve, most of the geochemical data collected before Leg 126 are of questionable quality. Some of them however, were included in the online database. They are:

Leg 118, Hole 735B

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Leg 121, Hole 758A
Leg 122, Holes 761C, 762C, and 764B
Leg 123, Hole 765D
Leg 125, Holes 782B and 786B
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Some of the pre-Leg 126 data are available in analog form only (ODP Scientific Results publication). They are:

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Leg 112, Hole 679E
Leg 117, Holes 723B, 728A, and 731C
Leg 123, Hole 766A
Leg 124, Holes 767B, 770C
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In a few holes no processing was performed, due to malfunction of one or more of the components of the geochemical tool. These are:

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Leg 130, Holes 803D, 805B, 807A, and 807C
Leg 143, Holes 865A and 866A
Leg 149, Hole 899B
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## **Data storage**

The geochemical proprietary data in LIS format are saved on CD-ROM, along with other logging data recorded during each leg, and in the archive directory on the LDEO-BRG file server. Processed geochemical data are available through the online database, along with any related documentation. They are also saved on 4-mm DAT tapes.

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# **GEOCHEMICAL DATA SUMMARY TABLE**

| Logging<br>Date | LEG | HOLE | Data online | Documentation | Documentation online | Remarks  | Processor    |
|-----------------|-----|------|-------------|---------------|----------------------|--|--------------|
| 1985            | 101 | 634A |             |               |                      | NO ACT. Data recorded through drill pipe and BHA. No processing performed. |              |
| 1985            | 105 | 646B |             |               |                      | NO ACT. Original yields. No processing performed.                          |              |
| 1986            | 107 | 652A |             |               |                      | NO ACT. Original yields. No processing performed.                          |              |
| 1986            | 109 | 395A |             |               |                      | Poor quality data. No data in data base.                                   | Greenberg    |
| 1986            | 111 | 504B |             |               |                      | see Leg 140 for better quality data.                                       | Dove         |
| 1986            | 112 | 679E |             | SR            |                      | Processing geoch. data not backed up. Raw data in data base.               | Greenberg    |
| 1986            | 112 | 685A |             |               |                      | Processing geoch. data not backed up. Raw data in data base.               | Greenberg    |
| 1987            | 114 | 704B |             |               |                      | Proprietary tapes missing.   |              |
| 1987            | 115 | 715A |             |               |                      | Processing geoch. data not backed up. Raw data in data base.               | Dove         |
| 1987            | 116 | 718C |             |               |                      | Poor quality data. Raw data in data base.                                  | Dove         |
| 1987            | 116 | 719B |             |               |                      | Poor quality data. Raw data in data base.                                  | Dove         |
| 1987            | 117 | 723B | *           | SR            |                      | NO ACT. No standard processing performed. See paper.                       | Jarrard/Lyle |
| 1987            | 117 | 728A | *           | SR            |                      | NO ACT. No standard processing performed. See paper.                       | Jarrard/Lyle |
| 1987            | 117 | 731C | *           | SR            |                      | NO ACT. No standard processing performed. See paper.                       | Jarrard/Lyle |
| 1987            | 118 | 735B | Х           | Х             | Х                    | general processing document  | Dove         |
| 1988            | 121 | 752B |             | Х             |                      | Proprietary tape damaged. Partial data.                                    | Pratson      |
| 1988            | 121 | 754B |             | Χ             |                      | Data not revised.  | Pratson      |
| 1988            | 121 | 758A | Х           | Х             | Х                    |  | Pratson      |
| 1988            | 122 | 761C | Х           | Χ             | Х                    |  | Pratson      |
| 1988            | 122 | 762C | Х           | Х             | Х                    |  | Pratson      |
| 1988            | 122 | 764B | Х           | Χ             | Х                    |  | Pratson      |
| 1988            | 123 | 765D | Х           | Х             | Х                    | Data recorded through drill pipe and casing.                               | Pratson      |
| 1988            | 123 | 766A |             | X             |                      | Data recorded through drill pipe and casing. No raw data in data base.     | Pratson      |

| Logging<br>Date | LEG | HOLE                    | Data online | Documentation | Documentation online | Remarks   | Processor |  |
|-----------------|-----|-------------------------|-------------|---------------|----------------------|---|-----------|--|
| 1988            | 124 | 767B                    |             | SR            |                      | Processing geoch. data not backed up. No raw data in data base.     | Pratson   |  |
| 1988            | 124 | 770C                    |             | SR            |                      | Processing geoch. data not backed up. No raw data in data base.     | Pratson   |  |
| 1989            | 125 | 782B                    | Х           | Х             | X                    |   | Pratson   |  |
| 1989            | 125 | 786B                    | X           | X             | Х                    |   | Pratson   |  |
|                 |     | BORON SLEEVE INTRODUCED |             |               |                      |   |           |  |
| 1989            | 126 | 791B                    | X           | X             | Х                    |   | Pratson   |  |
| 1989            | 126 | 792E                    | Х           | Х             | Х                    |   | Pratson   |  |
| 1989            | 126 | 793B                    | X           | X             | X                    |   | Pratson   |  |
| 1989            | 127 | 794B                    | X           | X             | X                    |   | Pratson   |  |
| 1989            | 127 | 796B                    | X           | X             | X                    |   | Pratson   |  |
| 1989            | 127 | 797C                    | Х           | Х             | Х                    |   | Pratson   |  |
| 1989            | 128 | 798B                    | X           | X             | Х                    |   | Pratson   |  |
| 1989            | 128 | 799A                    | Х           | Х             | Х                    |   | Pratson   |  |
| 1989            | 128 | 799B                    | X           | X             | Х                    |   | Pratson   |  |
| 1989            | 129 | 800A                    | Х           | Х             | Х                    |   | Pratson   |  |
| 1989            | 129 | 801B                    | Х           | Х             | Х                    | Problem in LOGOS. New depth shifts could not be incorporated.       | Pratson   |  |
| 1989            | 129 | 802A                    | Х           | Х             | Х                    |   | Pratson   |  |
| 1990            | 130 | 803D                    |             |               |                      | Only ACT data recorded due to malfunction. No processing performed. |           |  |
| 1990            | 130 | 805C                    |             | Х             |                      | Complete data recorded only in lower section. Data not revised.     | Pratson   |  |
| 1990            | 130 | 806B                    | X           | X             | Х                    |   | Pratson   |  |
| 1990            | 130 | 807A                    |             |               |                      | Only ACT data recorded due to malfunction. No processing performed. |           |  |
| 1990            | 130 | 807C                    |             |               |                      | Only ACT data recorded due to malfunction. No processing performed. |           |  |
| 1990            | 133 | 815A                    | Χ           | Χ             | Χ                    |   | Pratson   |  |
| 1990            | 133 | 817D                    | Χ           | Χ             | Х                    |   | Pratson   |  |
| 1990            | 133 | 820B                    | Χ           | Χ             | Х                    |   | Pratson   |  |
| 1990            | 133 | 822A                    | Χ           | Χ             | Х                    |   | Pratson   |  |
| 1990            | 133 | 823C                    | X           | X             | X                    |   | Pratson   |  |
| 1990            | 134 | 829A                    | Х           | Х             | Х                    |   | Pratson   |  |
| 1990            | 134 | 830C                    | Χ           | Χ             | Х                    |   | Pratson   |  |
| 1990            | 134 | 831B                    | Χ           | Χ             | Χ                    |   | Pratson   |  |

| Logging<br>Date | LEG | HOLE | Data online | Documentation | Documentation online | Remarks   | Processor |
|-----------------|-----|------|-------------|---------------|----------------------|---|-----------|
| 1990            | 134 | 833B | X           | X             | Х                    |   | Pratson   |
| 1991            | 135 | 834B | Х           | X             | Х                    |   | Pratson   |
| 1991            | 135 | 838B | Х           | X             | Х                    |   | Pratson   |
| 1991            | 135 | 839B | Х           | X             | Х                    |   | Pratson   |
| 1991            | 135 | 840B | Х           | X             | Х                    |   | Pratson   |
| 1991            | 136 | 843B | X           | Х             | Х                    |   | Pratson   |
| 1991            | 138 | 844B | Χ           | Χ             | Х                    |   | Pratson   |
| 1991            | 138 | 845A | Χ           | Х             | Х                    |   | Pratson   |
| 1991            | 138 | 846B | Χ           | Х             | Х                    |   | Pratson   |
| 1991            | 138 | 847B | Χ           | Χ             | Х                    |   | Pratson   |
| 1991            | 138 | 848B | Х           | Х             | Х                    |   | Pratson   |
| 1991            | 138 | 849B | X           | Х             | Х                    |   | Pratson   |
| 1991            | 138 | 850B | Х           | Х             | Х                    |   | Pratson   |
| 1991            | 138 | 851B | X           | Х             | Х                    |   | Pratson   |
| 1991            | 138 | 852D | X           | Х             | Х                    |   | Pratson   |
| 1991            | 140 | 504B | X           | Х             | Х                    |   | Pratson   |
| 1991            | 141 | 859B | Х           | Х             | Х                    |   | Pratson   |
| 1992            | 141 | 863B | X           | Х             | Х                    |   | Pratson   |
| 1992            | 143 | 865A |             |               |                      | Only ACT data recorded due to malfunction. No processing performed. |           |
| 1992            | 143 | 866A |             |               |                      | Only ACT data recorded due to malfunction. No processing performed. |           |
| 1992            | 143 | 869B | Х           | Х             | Х                    | general processing document   | Pratson   |
| 1992            | 144 | 801C | Х           | Х             | Х                    |   | Pratson   |
| 1992            | 144 | 871C | Χ           | Х             | Х                    |   | Pratson   |
| 1992            | 144 | 873A | Х           | Х             | Х                    |   | Pratson   |
| 1992            | 144 | 874B | Χ           | Χ             | Х                    |   | Pratson   |
| 1992            | 144 | 878A | Χ           | Х             | Х                    |   | Pratson   |
| 1992            | 145 | 883F | Х           | X             | X                    | ACT data only.  | Pratson   |
| 1992            | 145 | 884E | X           | X             | X                    | ACT data only.  | Pratson   |
| 1992            | 146 | 891C | X           | X             | X                    |   | Pratson   |
| 1993            | 148 | 896A | Χ           | Χ             | Χ                    |   | Pratson   |
| 1993            | 149 | 899B |             |               |                      | Only ACT data recorded due to malfunction. No processing performed. |           |
| 1993            | 150 | 906A | Χ           | Χ             | Х                    |   | Pratson   |
| 1993            | 151 | 907A | Χ           | Χ             | Χ                    |   | Pratson   |

| Logging<br>Date | LEG | HOLE  | Data online | Documentation | Documentation online | Remarks | Processor |
|-----------------|-----|-------|-------------|---------------|----------------------|---------|-----------|
| 1993            | 151 | 911A  | X           | Х             | Х                    |         | Pratson   |
| 1994            | 154 | 926B  | Х           | Х             | Х                    |         | Pratson   |
| 1994            | 154 | 929E  | X           | Х             | Х                    |         | Pratson   |
| 1994            | 155 | 931B  | X           | X             | X                    |         | Pratson   |
| 1994            | 155 | 936A  | X           | X             | X                    |         | Pratson   |
| 1994            | 157 | 950A  | X           | X             | X                    |         | Pratson   |
| 1994            | 157 | 955A  | X           | X             | X                    |         | Pratson   |
| 1994            | 157 | 956B  | X           | Х             | X                    |         | Pratson   |
| 1995            | 159 | 959D  | X           | Х             | X                    |         | Pratson   |
| 1995            | 160 | 967E  | X           | X             | X                    |         | Pratson   |
| 1995            | 161 | 974C  | X           | Х             | X                    |         | Pratson   |
| 1995            | 161 | 975C  | X           | X             | X                    |         | Pratson   |
| 1995            | 161 | 976B  | X           | X             | Х                    |         | Pratson   |
| 1995            | 162 | 984B  | X           | X             | X                    |         | Pratson   |
| 1995            | 164 | 994C  | X           | Х             | X                    |         | Pratson   |
| 1995            | 164 | 995B  | X           | X             | X                    |         | Pratson   |
| 1995            | 164 | 997B  | X           | X             | X                    |         | Pratson   |
| 1996            | 165 | 998B  | X           | X             | X                    |         | Pratson   |
| 1996            | 165 | 999B  | X           | X             | X                    |         | Pratson   |
| 1996            | 166 | 1003D | X           | X             | X                    |         | Pratson   |
| 1996            | 168 | 1032A | X           | Х             | X                    |         | Pratson   |
| 1999            | 185 | 1149B | X           | X             | X                    |         | Pratson   |

<sup>\*</sup> processing (non-standard) performed by Jarrard and Lyle.