

| Drilling disturb. | Color | Grain-size |      | Sed. struct. / contact | Bioturb. | Samples | Comments             | Logged by: | Date:      |
|-------------------|-------|------------|------|------------------------|----------|---------|----------------------|------------|------------|
|                   |       | Avg.       | Max. |                        |          |         |                      | YASM       | 16/05/2011 |
| -- 0 --           |       |            |      |                        |          |         | ① Mud                |            |            |
| -- 10 --          |       | clay       | M-S  |                        |          |         |                      |            |            |
| -- 20 --          |       |            |      |                        |          |         |                      |            |            |
| -- 30 --          |       |            |      |                        |          |         | - 32 pyrite vein (?) |            |            |
| -- 40 --          |       |            |      |                        |          |         |                      |            |            |
| -- 50 --          |       |            |      |                        |          |         |                      |            |            |
| -- 60 --          |       |            |      |                        |          |         | - 55 pyrite vein (?) |            |            |
| -- 70 --          |       |            |      |                        |          |         |                      |            |            |
| -- 80 --          |       |            |      |                        |          |         |                      |            |            |
| -- 90 --          |       |            |      |                        |          |         |                      |            |            |
| -- 100 --         |       |            |      |                        |          |         |                      |            |            |
| -- 110 --         |       |            |      |                        |          |         |                      |            |            |
| -- 120 --         |       |            |      |                        |          |         |                      |            |            |
| -- 130 --         |       |            |      |                        |          |         |                      |            |            |
| -- 140 --         |       |            |      |                        |          |         |                      |            |            |
| -- 150 --         |       |            |      |                        |          |         |                      |            |            |

10Y4/1

label on cap ?

CAUTION  
DISTURBED

intensively sheared / fragmental mudstone.

?

MAJOR LITHOLOGY:

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|-------------------|----------------------|------------|------|------------------------|----------|---------|------------------|------------|-------------|
|                   |                      | Avg.       | Max. |                        |          |         |                  |            |             |
|                   | 10Y<br>4/1           |            |      |                        |          |         | SAA              | MASA       | 16/DEC/2011 |
|                   | undisturbed.         |            |      |                        | ?        |         | 10-15 cm pyrite. |            |             |
|                   |                      |            |      |                        |          |         | VOID             |            |             |
|                   | 10Y<br>4/1           | clay       | m.s. | massive                | Z        |         | ① mud            |            |             |
|                   | CAUTION<br>DISTURBED |            |      |                        |          |         |                  |            |             |



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|-----------|----------------------|-----------|------------|------|------------------------------|----------|---------|----------|------------|-------------|
|           |                      |           | Avg.       | Max. |                              |          |         |          |            |             |
| -- 0 --   |                      |           |            |      |                              |          |         |          | mas        | 16/DEC/2011 |
|           |                      | dy<br>4/1 |            |      |                              |          |         | S. A. A. |            |             |
| -- 10 --  |                      |           |            |      |                              |          |         |          |            |             |
| -- 20 --  |                      |           | clay       | M.S. | massive                      | 2        |         |          |            |             |
| -- 30 --  |                      |           |            |      | parallel<br>laminae          |          |         |          |            |             |
| -- 40 --  |                      |           |            |      |                              |          |         |          |            |             |
| -- 50 --  |                      |           |            |      |                              |          |         |          |            |             |
| -- 60 --  |                      |           |            |      | massive                      |          |         |          |            |             |
| -- 70 --  |                      |           |            |      |                              |          |         |          |            |             |
|           | CAUTION<br>DISTURBED |           |            |      |                              |          |         |          |            |             |
| -- 80 --  |                      |           |            |      |                              |          |         |          |            |             |
|           |                      |           |            |      | 85<br>Parallel<br>lamination |          |         |          |            |             |
| -- 90 --  |                      |           |            |      | 91                           |          |         |          |            |             |
| -- 100 -- |                      |           |            |      |                              |          |         |          |            |             |
| -- 110 -- |                      |           |            |      | massive                      |          |         |          |            |             |
| -- 120 -- |                      |           |            |      |                              |          |         |          |            |             |
| -- 130 -- |                      |           |            |      |                              |          |         |          |            |             |
| -- 140 -- |                      |           |            |      |                              |          |         |          |            |             |
| -- 150 -- |                      |           |            |      |                              |          |         |          |            |             |

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|-----------|----------------------|-------|------------|------|------------------------|----------|---------|--|------------|-------|
|           |                      |       | Avg.       | Max. |                        |          |         |  |            |       |
| -- 0 --   |                      |       | clay       | msd  | massive                |          |         | 0-150 mud  |            |       |
| -- 10 --  |                      |       |            |      |                        | 2        |         | Strongly disturbed by gas expansion on the floor |            |       |
| -- 20 --  |                      |       |            |      |                        |          |         | 10 ss<br>None Mud                                |            |       |
| -- 30 --  |                      | 10%   |            |      |                        |          |         |  |            |       |
| -- 40 --  |                      | 4/1   |            |      |                        |          |         |  |            |       |
| -- 50 --  |                      |       |            |      |                        |          |         |  |            |       |
| -- 60 --  |                      |       |            |      |                        |          |         |  |            |       |
| -- 70 --  | CAUTION<br>DISTURBED |       |            |      |                        |          |         |  |            |       |
| -- 80 --  |                      |       |            |      |                        |          |         |  |            |       |
| -- 90 --  |                      |       |            |      |                        |          |         |  |            |       |
| -- 100 -- |                      |       |            |      |                        |          |         |  |            |       |
| -- 110 -- |                      |       |            |      |                        |          |         |  |            |       |
| -- 120 -- |                      |       |            |      |                        |          |         |  |            |       |
| -- 130 -- |                      |       |            |      |                        |          |         |  |            |       |
| -- 140 -- |                      |       |            |      |                        |          |         |  |            |       |
| -- 150 -- |                      |       |            |      |                        |          |         |  |            |       |

MAJOR LITHOLOGY:

MINOR LITHOLOGY:

Expedition 339: Mediterranean Outflow

5  
57R#A

2120



|           | Drilling disturb.    | Color | Grain-size |      | Sed. struct. / contact | Bioturb. | Samples | Comments   | Logged by: | Date: |
|-----------|----------------------|-------|------------|------|------------------------|----------|---------|------------|------------|-------|
|           |                      |       | Avg.       | Max. |                        |          |         |            |            |       |
| -- 0 --   |                      | 10Y   | clay       | msd. | massive                |          |         | 0-2l. mud. |            |       |
| -- 10 --  |                      | 4/1   |            |      |                        | 2        |         |            |            |       |
| -- 20 --  |                      |       |            |      |                        |          |         |            |            |       |
| -- 20 --  |                      |       |            |      | void.                  |          |         |            |            |       |
| -- 30 --  |                      |       |            |      |                        |          |         |            |            |       |
| -- 40 --  |                      |       |            |      |                        |          |         |            |            |       |
| -- 50 --  |                      |       |            |      |                        |          |         |            |            |       |
| -- 60 --  |                      |       |            |      |                        |          |         |            |            |       |
| -- 70 --  | CAUTION<br>DISTURBED |       |            |      |                        |          |         |            |            |       |
| -- 80 --  |                      |       |            |      |                        |          |         |            |            |       |
| -- 90 --  |                      |       |            |      |                        |          |         |            |            |       |
| -- 100 -- |                      |       |            |      |                        |          |         |            |            |       |
| -- 110 -- |                      |       |            |      |                        |          |         |            |            |       |
| -- 120 -- |                      |       |            |      |                        |          |         |            |            |       |
| -- 130 -- |                      |       |            |      |                        |          |         |            |            |       |
| -- 140 -- |                      |       |            |      |                        |          |         |            |            |       |
| -- 150 -- |                      |       |            |      |                        |          |         |            |            |       |

MAJOR LITHOLOGY:

MINOR LITHOLOGY:





|           | Drilling disturb. | Color | Grain-size |      | Sed. struct. / contact | Bioturb. | Samples | Comments  | Logged by: | Date: |
|-----------|-------------------|-------|------------|------|------------------------|----------|---------|---|------------|-------|
|           |                   |       | Avg.       | Max. |                        |          |         |   |            |       |
| -- 0 --   |                   |       | clay       | msd. | massive                |          |         | 0-73  |            |       |
| -- 10 --  |                   |       |            |      |                        |          |         | mud.  |            |       |
| -- 20 --  |                   | 10X   |            |      |                        |          |         | strongly disturbed by gas expansion on the floor. |            |       |
| -- 30 --  |                   | 4/1   |            |      |                        | 2        |         | slightly bioturbated.                             |            |       |
| -- 40 --  | CAUTION DISTURBED |       |            |      |                        |          |         |   |            |       |
| -- 50 --  |                   |       |            |      |                        |          |         |   |            |       |
| -- 60 --  |                   |       |            |      |                        |          |         |   |            |       |
| -- 70 --  |                   |       |            |      |                        |          |         |   |            |       |
| -- 80 --  |                   |       |            |      |                        |          |         |   |            |       |
| -- 90 --  |                   |       |            |      |                        |          |         |   |            |       |
| -- 100 -- |                   |       |            |      |                        |          |         |   |            |       |
| -- 110 -- |                   |       |            |      |                        |          |         |   |            |       |
| -- 120 -- |                   |       |            |      |                        |          |         |   |            |       |
| -- 130 -- |                   |       |            |      |                        |          |         |   |            |       |
| -- 140 -- |                   |       |            |      |                        |          |         |   |            |       |
| -- 150 -- |                   |       |            |      |                        |          |         |   |            |       |

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MINOR LITHOLOGY: