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| Serotype: O                              | Report date: 16/09/2008                |
| WRL Ref No: TAI/4/2007                   | Reported by: N.J. Knowles              |
| Sender Ref: 10/07 R1B1                   | Checked by: D.P. King                  |
| Date collected: 10/09/2007               |  |
| Date received by WRLFMD: 24/07/2008      | Topotype: SEA                          |
| Date received for sequencing: 15/08/2008 | Genotype/strain: Mya98                 |
| Species: Cattle                          | Sequence filename: TAI07-04.SEQ        |
| Material used: LK1 BHK1 BTy1             | Date sequence last updated: 16/09/2008 |
| Region sequenced: VP1                    | Total no. of comparisons: 1790         |
| RT-PCR primers: O-1C244F/EUR-2B52R;      | Min. no. of nt for comparison: 300     |
| O-1C272F/EUR-2B52R                       | Total turn-around time: 54 days        |
| No. of Nt determined: 639                | Sequencing time: 32 days               |
| No. of ambiguities: 0                    |  |
| Gene length: 639                         |  |

Comments:

#### Ten Most Closely Related Viruses

| Pos. | Virus name    | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|---------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/13/2007 | TAI07-13 | 639             | 639            | 0                  | 100        | 0            |
| 2    | O/TAI/5/2007  | TAI07-05 | 639             | 638            | 0                  | 99.84      | 0.16         |
| 3    | O/LAO/2/2007  | LAO07-02 | 639             | 637            | 0                  | 99.69      | 0.31         |
| 4    | O/LAO/4/2007  | LAO07-04 | 639             | 637            | 0                  | 99.69      | 0.31         |
| 5    | O/LAO/3/2007  | LAO07-03 | 639             | 635            | 0                  | 99.37      | 0.63         |
| 6    | O/LAO/1/2008  | LAO08-01 | 639             | 634            | 0                  | 99.22      | 0.78         |
| 7    | O/TAI/10/2005 | TAI05-10 | 639             | 624            | 0                  | 97.65      | 2.35         |
| 8    | O/TAI/9/2005  | TAI05-09 | 639             | 624            | 0                  | 97.65      | 2.35         |
| 9    | O/MAY/5/2006  | MAY06-05 | 639             | 620            | 0                  | 97.03      | 2.97         |
| 10   | O/TAI/8/2007  | TAI07-08 | 639             | 614            | 0                  | 96.09      | 3.91         |

#### Relationships to Reference Virus Strains

| Pos. | Virus name                  | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|-----------------------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/189/87* [TRRL]        | TAI87-AC | 639             | 572            | 0                  | 89.51      | 10.49        |
| 2    | O/IND/R2/75* [AF204276]     | IND75--A | 639             | 546            | 0                  | 85.45      | 14.55        |
| 3    | O/TAW/2/99 (AJ294927)       | TAW99-02 | 639             | 545            | 0                  | 85.29      | 14.71        |
| 4    | O/IND/53/79 [AF292107]      | IND79A53 | 639             | 542            | 0                  | 84.82      | 15.18        |
| 5    | O1/Manisa/TUR/69 (AJ251477) | TUR69--E | 639             | 540            | 0                  | 84.51      | 15.49        |
| 6    | O/MOR/1/91                  | MOR91-01 | 639             | 535            | 0                  | 83.72      | 16.28        |
| 7    | O/ISR/2/88 (DQ164899)       | ISR88-02 | 639             | 532            | 0                  | 83.26      | 16.74        |
| 8    | O1/BFS 1860/UK/67 (J02185)  | UKG67--A | 639             | 514            | 0                  | 80.44      | 19.56        |
| 9    | O/PHI/5/95 (DQ164946)       | PHI95-05 | 639             | 502            | 0                  | 78.56      | 21.44        |
| 10   | O/HKN/6/83 (AJ294919)       | HKN83-06 | 637             | 498            | 2                  | 78.18      | 21.82        |

nt, nucleotides

\*, not a WRLFMD reference number

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| Serotype: O                              | Report date: 16/09/2008                |
| WRL Ref No: TAI/5/2007                   | Reported by: N.J. Knowles              |
| Sender Ref: 9-1/07 R2B1                  | Checked by: D.P. King                  |
| Date collected: 12/09/2007               |  |
| Date received by WRLFMD: 24/07/2008      | Topotype: SEA                          |
| Date received for sequencing: 15/08/2008 | Genotype/strain: Mya98                 |
| Species: Buffalo                         | Sequence filename: TAI07-05.SEQ        |
| Material used: LK2 BHK1 BTy1             | Date sequence last updated: 16/09/2008 |
| Region sequenced: VP1                    | Total no. of comparisons: 1790         |
| RT-PCR primers: O-1C244F/EUR-2B52R;      | Min. no. of nt for comparison: 300     |
| O-1C272F/EUR-2B52R                       | Total turn-around time: 54 days        |
| No. of Nt determined: 639                | Sequencing time: 32 days               |
| No. of ambiguities: 0                    |  |
| Gene length: 639                         |  |

Comments:

#### Ten Most Closely Related Viruses

| Pos. | Virus name    | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|---------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/13/2007 | TAI07-13 | 639             | 638            | 0                  | 99.84      | 0.16         |
| 2    | O/TAI/4/2007  | TAI07-04 | 639             | 638            | 0                  | 99.84      | 0.16         |
| 3    | O/LAO/2/2007  | LAO07-02 | 639             | 636            | 0                  | 99.53      | 0.47         |
| 4    | O/LAO/4/2007  | LAO07-04 | 639             | 636            | 0                  | 99.53      | 0.47         |
| 5    | O/LAO/3/2007  | LAO07-03 | 639             | 634            | 0                  | 99.22      | 0.78         |
| 6    | O/LAO/1/2008  | LAO08-01 | 639             | 633            | 0                  | 99.06      | 0.94         |
| 7    | O/TAI/10/2005 | TAI05-10 | 639             | 623            | 0                  | 97.5       | 2.5          |
| 8    | O/TAI/9/2005  | TAI05-09 | 639             | 623            | 0                  | 97.5       | 2.5          |
| 9    | O/MAY/5/2006  | MAY06-05 | 639             | 619            | 0                  | 96.87      | 3.13         |
| 10   | O/TAI/8/2007  | TAI07-08 | 639             | 613            | 0                  | 95.93      | 4.07         |

#### Relationships to Reference Virus Strains

| Pos. | Virus name                  | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|-----------------------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/189/87* [TRRL]        | TAI87-AC | 639             | 571            | 0                  | 89.36      | 10.64        |
| 2    | O/IND/R2/75* [AF204276]     | IND75--A | 639             | 545            | 0                  | 85.29      | 14.71        |
| 3    | O/TAW/2/99 (AJ294927)       | TAW99-02 | 639             | 544            | 0                  | 85.13      | 14.87        |
| 4    | O/IND/53/79 [AF292107]      | IND79A53 | 639             | 541            | 0                  | 84.66      | 15.34        |
| 5    | O1/Manisa/TUR/69 (AJ251477) | TUR69--E | 639             | 539            | 0                  | 84.35      | 15.65        |
| 6    | O/MOR/1/91                  | MOR91-01 | 639             | 534            | 0                  | 83.57      | 16.43        |
| 7    | O/ISR/2/88 (DQ164899)       | ISR88-02 | 639             | 531            | 0                  | 83.1       | 16.9         |
| 8    | O1/BFS 1860/UK/67 (J02185)  | UKG67--A | 639             | 514            | 0                  | 80.44      | 19.56        |
| 9    | O/PHI/5/95 (DQ164946)       | PHI95-05 | 639             | 501            | 0                  | 78.4       | 21.6         |
| 10   | O/HKN/6/83 (AJ294919)       | HKN83-06 | 637             | 498            | 2                  | 78.18      | 21.82        |

nt, nucleotides

\*, not a WRLFMD reference number

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| Serotype: O                              | Report date: 16/09/2008                |
| WRL Ref No: TAI/6/2007                   | Reported by: N.J. Knowles              |
| Sender Ref: 11/07 R2B2                   | Checked by: D.P. King                  |
| Date collected: 24/09/2007               |  |
| Date received by WRLFMD: 24/07/2008      | Topotype: SEA                          |
| Date received for sequencing: 15/08/2008 | Genotype/strain: Mya98                 |
| Species: Cattle                          | Sequence filename: TAI07-06.SEQ        |
| Material used: LK2 BHK1 BTy1             | Date sequence last updated: 16/09/2008 |
| Region sequenced: VP1                    | Total no. of comparisons: 1790         |
| RT-PCR primers: O-1C244F/EUR-2B52R;      | Min. no. of nt for comparison: 300     |
| O-1C272F/EUR-2B52R                       | Total turn-around time: 54 days        |
| No. of Nt determined: 639                | Sequencing time: 32 days               |
| No. of ambiguities: 0                    |  |
| Gene length: 639                         |  |

Comments:

#### Ten Most Closely Related Viruses

| Pos. | Virus name    | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|---------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/7/2007  | TAI07-07 | 639             | 637            | 0                  | 99.69      | 0.31         |
| 2    | O/MAY/6/2007  | MAY07-06 | 639             | 636            | 0                  | 99.53      | 0.47         |
| 3    | O/LAO/1/2007  | LAO07-01 | 639             | 635            | 0                  | 99.37      | 0.63         |
| 4    | O/MAY/4/2007  | MAY07-04 | 639             | 635            | 0                  | 99.37      | 0.63         |
| 5    | O/MAY/5/2007  | MAY07-05 | 639             | 635            | 0                  | 99.37      | 0.63         |
| 6    | O/MAY/7/2007  | MAY07-07 | 639             | 635            | 0                  | 99.37      | 0.63         |
| 7    | O/TAI/12/2007 | TAI07-12 | 639             | 635            | 0                  | 99.37      | 0.63         |
| 8    | O/TAI/14/2007 | TAI07-14 | 639             | 634            | 0                  | 99.22      | 0.78         |
| 9    | O/TAI/9/2007  | TAI07-09 | 639             | 634            | 0                  | 99.22      | 0.78         |
| 10   | O/MAY/9/2007  | MAY07-09 | 639             | 633            | 0                  | 99.06      | 0.94         |

#### Relationships to Reference Virus Strains

| Pos. | Virus name                  | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|-----------------------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/189/87* [TRRL]        | TAI87-AC | 639             | 567            | 0                  | 88.73      | 11.27        |
| 2    | O/IND/R2/75* [AF204276]     | IND75--A | 639             | 545            | 0                  | 85.29      | 14.71        |
| 3    | O1/Manisa/TUR/69 (AJ251477) | TUR69--E | 639             | 542            | 0                  | 84.82      | 15.18        |
| 4    | O/TAW/2/99 (AJ294927)       | TAW99-02 | 639             | 541            | 0                  | 84.66      | 15.34        |
| 5    | O/IND/53/79 [AF292107]      | IND79A53 | 639             | 539            | 0                  | 84.35      | 15.65        |
| 6    | O/MOR/1/91                  | MOR91-01 | 639             | 535            | 0                  | 83.72      | 16.28        |
| 7    | O/ISR/2/88 (DQ164899)       | ISR88-02 | 639             | 532            | 0                  | 83.26      | 16.74        |
| 8    | O1/BFS 1860/UK/67 (J02185)  | UKG67--A | 639             | 508            | 0                  | 79.5       | 20.5         |
| 9    | O/HKN/6/83 (AJ294919)       | HKN83-06 | 637             | 496            | 2                  | 77.86      | 22.14        |
| 10   | O/PHI/5/95 (DQ164946)       | PHI95-05 | 639             | 494            | 0                  | 77.31      | 22.69        |

nt, nucleotides

\*, not a WRLFMD reference number

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| Serotype: O                              | Report date: 16/09/2008                |
| WRL Ref No: TAI/7/2007                   | Reported by: N.J. Knowles              |
| Sender Ref: 14/07 R3B1                   | Checked by: D.P. King                  |
| Date collected: 15/10/2007               |  |
| Date received by WRLFMD: 24/07/2008      | Topotype: SEA                          |
| Date received for sequencing: 15/08/2008 | Genotype/strain: Mya98                 |
| Species: Cattle                          | Sequence filename: TAI07-07.SEQ        |
| Material used: LK3 BHK2 BTy1             | Date sequence last updated: 16/09/2008 |
| Region sequenced: VP1                    | Total no. of comparisons: 1790         |
| RT-PCR primers: O-1C244F/EUR-2B52R;      | Min. no. of nt for comparison: 300     |
| O-1C272F/EUR-2B52R                       | Total turn-around time: 54 days        |
| No. of Nt determined: 639                | Sequencing time: 32 days               |
| No. of ambiguities: 0                    |  |
| Gene length: 639                         |  |

Comments:

#### Ten Most Closely Related Viruses

| Pos. | Virus name    | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|---------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/MAY/6/2007  | MAY07-06 | 639             | 638            | 0                  | 99.84      | 0.16         |
| 2    | O/LAO/1/2007  | LAO07-01 | 639             | 637            | 0                  | 99.69      | 0.31         |
| 3    | O/MAY/4/2007  | MAY07-04 | 639             | 637            | 0                  | 99.69      | 0.31         |
| 4    | O/MAY/5/2007  | MAY07-05 | 639             | 637            | 0                  | 99.69      | 0.31         |
| 5    | O/MAY/7/2007  | MAY07-07 | 639             | 637            | 0                  | 99.69      | 0.31         |
| 6    | O/TAI/12/2007 | TAI07-12 | 639             | 637            | 0                  | 99.69      | 0.31         |
| 7    | O/TAI/6/2007  | TAI07-06 | 639             | 637            | 0                  | 99.69      | 0.31         |
| 8    | O/TAI/14/2007 | TAI07-14 | 639             | 636            | 0                  | 99.53      | 0.47         |
| 9    | O/TAI/9/2007  | TAI07-09 | 639             | 636            | 0                  | 99.53      | 0.47         |
| 10   | O/MAY/9/2007  | MAY07-09 | 639             | 635            | 0                  | 99.37      | 0.63         |

#### Relationships to Reference Virus Strains

| Pos. | Virus name                  | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|-----------------------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/189/87* [TRRL]        | TAI87-AC | 639             | 569            | 0                  | 89.05      | 10.95        |
| 2    | O/IND/R2/75* [AF204276]     | IND75--A | 639             | 545            | 0                  | 85.29      | 14.71        |
| 3    | O/TAW/2/99 (AJ294927)       | TAW99-02 | 639             | 543            | 0                  | 84.98      | 15.02        |
| 4    | O1/Manisa/TUR/69 (AJ251477) | TUR69--E | 639             | 542            | 0                  | 84.82      | 15.18        |
| 5    | O/IND/53/79 [AF292107]      | IND79A53 | 639             | 541            | 0                  | 84.66      | 15.34        |
| 6    | O/MOR/1/91                  | MOR91-01 | 639             | 535            | 0                  | 83.72      | 16.28        |
| 7    | O/ISR/2/88 (DQ164899)       | ISR88-02 | 639             | 532            | 0                  | 83.26      | 16.74        |
| 8    | O1/BFS 1860/UK/67 (J02185)  | UKG67--A | 639             | 508            | 0                  | 79.5       | 20.5         |
| 9    | O/HKN/6/83 (AJ294919)       | HKN83-06 | 637             | 496            | 2                  | 77.86      | 22.14        |
| 10   | O/PHI/5/95 (DQ164946)       | PHI95-05 | 639             | 496            | 0                  | 77.62      | 22.38        |

nt, nucleotides

\*, not a WRLFMD reference number

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| Serotype: O                              | Report date: 16/09/2008                |
| WRL Ref No: TAI/8/2007                   | Reported by: N.J. Knowles              |
| Sender Ref: 16/07 R2B1                   | Checked by: D.P. King                  |
| Date collected: 19/10/2007               |  |
| Date received by WRLFMD: 24/07/2008      | Topotype: SEA                          |
| Date received for sequencing: 15/08/2008 | Genotype/strain: Mya98                 |
| Species: Cattle                          | Sequence filename: TAI07-08.SEQ        |
| Material used: LK2 BHK2 BTy1             | Date sequence last updated: 16/09/2008 |
| Region sequenced: VP1                    | Total no. of comparisons: 1790         |
| RT-PCR primers: O-1C244F/EUR-2B52R;      | Min. no. of nt for comparison: 300     |
| O-1C272F/EUR-2B52R                       | Total turn-around time: 54 days        |
| No. of Nt determined: 639                | Sequencing time: 32 days               |
| No. of ambiguities: 0                    |  |
| Gene length: 639                         |  |

Comments:

#### Ten Most Closely Related Viruses

| Pos. | Virus name            | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|-----------------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/10/2005         | TAI05-10 | 639             | 625            | 0                  | 97.81      | 2.19         |
| 2    | O/TAI/9/2005          | TAI05-09 | 639             | 625            | 0                  | 97.81      | 2.19         |
| 3    | O/MAY/5/2006          | MAY06-05 | 639             | 623            | 0                  | 97.5       | 2.5          |
| 4    | O/LAO/2/2007          | LAO07-02 | 639             | 614            | 0                  | 96.09      | 3.91         |
| 5    | O/LAO/4/2007          | LAO07-04 | 639             | 614            | 0                  | 96.09      | 3.91         |
| 6    | O/TAI/13/2007         | TAI07-13 | 639             | 614            | 0                  | 96.09      | 3.91         |
| 7    | O/TAI/4/2007          | TAI07-04 | 639             | 614            | 0                  | 96.09      | 3.91         |
| 8    | O/TAI/5/2007          | TAI07-05 | 639             | 613            | 0                  | 95.93      | 4.07         |
| 9    | O/MYA/1/98 (AJ303521) | MYA98-01 | 630             | 603            | 9                  | 95.71      | 4.29         |
| 10   | O/MYA/3/04* [TRRL]    | MYA04-AC | 639             | 611            | 0                  | 95.62      | 4.38         |

#### Relationships to Reference Virus Strains

| Pos. | Virus name                  | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|-----------------------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/189/87* [TRRL]        | TAI87-AC | 639             | 577            | 0                  | 90.3       | 9.7          |
| 2    | O/IND/R2/75* [AF204276]     | IND75--A | 639             | 554            | 0                  | 86.7       | 13.3         |
| 3    | O/TAW/2/99 (AJ294927)       | TAW99-02 | 639             | 551            | 0                  | 86.23      | 13.77        |
| 4    | O/IND/53/79 [AF292107]      | IND79A53 | 639             | 548            | 0                  | 85.76      | 14.24        |
| 5    | O1/Manisa/TUR/69 (AJ251477) | TUR69--E | 639             | 540            | 0                  | 84.51      | 15.49        |
| 6    | O/ISR/2/88 (DQ164899)       | ISR88-02 | 639             | 537            | 0                  | 84.04      | 15.96        |
| 7    | O/MOR/1/91                  | MOR91-01 | 639             | 535            | 0                  | 83.72      | 16.28        |
| 8    | O/PHI/5/95 (DQ164946)       | PHI95-05 | 639             | 506            | 0                  | 79.19      | 20.81        |
| 9    | O1/BFS 1860/UK/67 (J02185)  | UKG67--A | 639             | 506            | 0                  | 79.19      | 20.81        |
| 10   | O/HKN/6/83 (AJ294919)       | HKN83-06 | 637             | 504            | 2                  | 79.12      | 20.88        |

nt, nucleotides

\*, not a WRLFMD reference number

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| Serotype: O                              | Report date: 16/09/2008                |
| WRL Ref No: TAI/9/2007                   | Reported by: N.J. Knowles              |
| Sender Ref: 3-1/08 R2B1                  | Checked by: D.P. King                  |
| Date collected: 07/11/2007               |  |
| Date received by WRLFMD: 24/07/2008      | Topotype: SEA                          |
| Date received for sequencing: 15/08/2008 | Genotype/strain: Mya98                 |
| Species: Cattle                          | Sequence filename: TAI07-09.SEQ        |
| Material used: LK2 BHK1 BTy1             | Date sequence last updated: 16/09/2008 |
| Region sequenced: VP1                    | Total no. of comparisons: 1790         |
| RT-PCR primers: O-1C244F/EUR-2B52R;      | Min. no. of nt for comparison: 300     |
| O-1C272F/EUR-2B52R                       | Total turn-around time: 54 days        |
| No. of Nt determined: 639                | Sequencing time: 32 days               |
| No. of ambiguities: 0                    |  |
| Gene length: 639                         |  |

Comments:

#### Ten Most Closely Related Viruses

| Pos. | Virus name    | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|---------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/14/2007 | TAI07-14 | 639             | 637            | 0                  | 99.69      | 0.31         |
| 2    | O/LAO/1/2007  | LAO07-01 | 639             | 636            | 0                  | 99.53      | 0.47         |
| 3    | O/MAY/4/2007  | MAY07-04 | 639             | 636            | 0                  | 99.53      | 0.47         |
| 4    | O/MAY/7/2007  | MAY07-07 | 639             | 636            | 0                  | 99.53      | 0.47         |
| 5    | O/TAI/7/2007  | TAI07-07 | 639             | 636            | 0                  | 99.53      | 0.47         |
| 6    | O/MAY/6/2007  | MAY07-06 | 639             | 635            | 0                  | 99.37      | 0.63         |
| 7    | O/MAY/5/2007  | MAY07-05 | 639             | 634            | 0                  | 99.22      | 0.78         |
| 8    | O/MAY/9/2007  | MAY07-09 | 639             | 634            | 0                  | 99.22      | 0.78         |
| 9    | O/TAI/12/2007 | TAI07-12 | 639             | 634            | 0                  | 99.22      | 0.78         |
| 10   | O/TAI/6/2007  | TAI07-06 | 639             | 634            | 0                  | 99.22      | 0.78         |

#### Relationships to Reference Virus Strains

| Pos. | Virus name                  | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|-----------------------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/189/87* [TRRL]        | TAI87-AC | 639             | 572            | 0                  | 89.51      | 10.49        |
| 2    | O/IND/R2/75* [AF204276]     | IND75--A | 639             | 546            | 0                  | 85.45      | 14.55        |
| 3    | O/TAW/2/99 (AJ294927)       | TAW99-02 | 639             | 545            | 0                  | 85.29      | 14.71        |
| 4    | O1/Manisa/TUR/69 (AJ251477) | TUR69--E | 639             | 544            | 0                  | 85.13      | 14.87        |
| 5    | O/IND/53/79 [AF292107]      | IND79A53 | 639             | 542            | 0                  | 84.82      | 15.18        |
| 6    | O/MOR/1/91                  | MOR91-01 | 639             | 534            | 0                  | 83.57      | 16.43        |
| 7    | O/ISR/2/88 (DQ164899)       | ISR88-02 | 639             | 531            | 0                  | 83.1       | 16.9         |
| 8    | O1/BFS 1860/UK/67 (J02185)  | UKG67--A | 639             | 507            | 0                  | 79.34      | 20.66        |
| 9    | O/PHI/5/95 (DQ164946)       | PHI95-05 | 639             | 498            | 0                  | 77.93      | 22.07        |
| 10   | O/HKN/6/83 (AJ294919)       | HKN83-06 | 637             | 496            | 2                  | 77.86      | 22.14        |

nt, nucleotides

\*, not a WRLFMD reference number

|  |  |
|--|--|
| Serotype: O                              | Report date: 16/09/2008                |
| WRL Ref No: TAI/10/2007                  | Reported by: N.J. Knowles              |
| Sender Ref: 4-2/08 R1B1                  | Checked by: D.P. King                  |
| Date collected: 14/11/2007               |  |
| Date received by WRLFMD: 24/07/2008      | Topotype: SEA                          |
| Date received for sequencing: 15/08/2008 | Genotype/strain: Mya98                 |
| Species: Cattle                          | Sequence filename: TAI07-10.SEQ        |
| Material used: LK2 BHK1 BTy1             | Date sequence last updated: 16/09/2008 |
| Region sequenced: VP1                    | Total no. of comparisons: 1790         |
| RT-PCR primers: O-1C244F/EUR-2B52R;      | Min. no. of nt for comparison: 300     |
| O-1C272F/EUR-2B52R                       | Total turn-around time: 54 days        |
| No. of Nt determined: 639                | Sequencing time: 32 days               |
| No. of ambiguities: 0                    |  |
| Gene length: 639                         |  |

Comments:

#### Ten Most Closely Related Viruses

| Pos. | Virus name              | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|-------------------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/3/2003 (DQ164981) | TAI03-03 | 639             | 620            | 0                  | 97.03      | 2.97         |
| 2    | O/MAY/2/2005            | MAY05-02 | 639             | 616            | 0                  | 96.4       | 3.6          |
| 3    | O/MAY/1/2005            | MAY05-01 | 639             | 614            | 0                  | 96.09      | 3.91         |
| 4    | O/VIT/6/2005            | VIT05-06 | 639             | 613            | 0                  | 95.93      | 4.07         |
| 5    | O/MYA/7/2002 (DQ164928) | MYA02-07 | 639             | 612            | 0                  | 95.77      | 4.23         |
| 6    | O/MYA/4/2004            | MYA04-04 | 639             | 611            | 0                  | 95.62      | 4.38         |
| 7    | O/MYA/5/04* [TRRL]      | MYA04-AE | 639             | 611            | 0                  | 95.62      | 4.38         |
| 8    | O/LAO/7/2003 (EU667448) | LAO03-07 | 639             | 610            | 0                  | 95.46      | 4.54         |
| 9    | O/LAO/4/2001 (DQ164907) | LAO01-04 | 639             | 607            | 0                  | 94.99      | 5.01         |
| 10   | O/LAO/2/2001 (EU667445) | LAO01-02 | 639             | 606            | 0                  | 94.84      | 5.16         |

#### Relationships to Reference Virus Strains

| Pos. | Virus name                  | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|-----------------------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/189/87* [TRRL]        | TAI87-AC | 639             | 575            | 0                  | 89.98      | 10.02        |
| 2    | O/IND/R2/75* [AF204276]     | IND75--A | 639             | 548            | 0                  | 85.76      | 14.24        |
| 3    | O/TAW/2/99 (AJ294927)       | TAW99-02 | 639             | 548            | 0                  | 85.76      | 14.24        |
| 4    | O/IND/53/79 [AF292107]      | IND79A53 | 639             | 543            | 0                  | 84.98      | 15.02        |
| 5    | O1/Manisa/TUR/69 (AJ251477) | TUR69--E | 639             | 538            | 0                  | 84.19      | 15.81        |
| 6    | O/MOR/1/91                  | MOR91-01 | 639             | 530            | 0                  | 82.94      | 17.06        |
| 7    | O/ISR/2/88 (DQ164899)       | ISR88-02 | 639             | 528            | 0                  | 82.63      | 17.37        |
| 8    | O1/BFS 1860/UK/67 (J02185)  | UKG67--A | 639             | 512            | 0                  | 80.13      | 19.87        |
| 9    | O/PHI/5/95 (DQ164946)       | PHI95-05 | 639             | 508            | 0                  | 79.5       | 20.5         |
| 10   | O/HKN/6/83 (AJ294919)       | HKN83-06 | 637             | 500            | 2                  | 78.49      | 21.51        |

nt, nucleotides

\*, not a WRLFMD reference number

|  |  |
|--|--|
| Serotype: O                              | Report date: 16/09/2008                |
| WRL Ref No: TAI/12/2007                  | Reported by: N.J. Knowles              |
| Sender Ref: 25/07 R1B1                   | Checked by: D.P. King                  |
| Date collected: 20/11/2007               |  |
| Date received by WRLFMD: 24/07/2008      | Topotype: SEA                          |
| Date received for sequencing: 15/08/2008 | Genotype/strain: Mya98                 |
| Species: Cattle                          | Sequence filename: TAI07-12.SEQ        |
| Material used: LK1 BHK1 RS2              | Date sequence last updated: 16/09/2008 |
| Region sequenced: VP1                    | Total no. of comparisons: 1790         |
| RT-PCR primers: O-1C244F/EUR-2B52R;      | Min. no. of nt for comparison: 300     |
| O-1C272F/EUR-2B52R                       | Total turn-around time: 54 days        |
| No. of Nt determined: 639                | Sequencing time: 32 days               |
| No. of ambiguities: 0                    |  |
| Gene length: 639                         |  |

Comments:

#### Ten Most Closely Related Viruses

| Pos. | Virus name    | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|---------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/7/2007  | TAI07-07 | 639             | 637            | 0                  | 99.69      | 0.31         |
| 2    | O/MAY/6/2007  | MAY07-06 | 639             | 636            | 0                  | 99.53      | 0.47         |
| 3    | O/LAO/1/2007  | LAO07-01 | 639             | 635            | 0                  | 99.37      | 0.63         |
| 4    | O/MAY/4/2007  | MAY07-04 | 639             | 635            | 0                  | 99.37      | 0.63         |
| 5    | O/MAY/5/2007  | MAY07-05 | 639             | 635            | 0                  | 99.37      | 0.63         |
| 6    | O/MAY/7/2007  | MAY07-07 | 639             | 635            | 0                  | 99.37      | 0.63         |
| 7    | O/TAI/6/2007  | TAI07-06 | 639             | 635            | 0                  | 99.37      | 0.63         |
| 8    | O/TAI/14/2007 | TAI07-14 | 639             | 634            | 0                  | 99.22      | 0.78         |
| 9    | O/TAI/9/2007  | TAI07-09 | 639             | 634            | 0                  | 99.22      | 0.78         |
| 10   | O/MAY/9/2007  | MAY07-09 | 639             | 633            | 0                  | 99.06      | 0.94         |

#### Relationships to Reference Virus Strains

| Pos. | Virus name                  | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|-----------------------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/189/87* [TRRL]        | TAI87-AC | 639             | 567            | 0                  | 88.73      | 11.27        |
| 2    | O/IND/R2/75* [AF204276]     | IND75--A | 639             | 544            | 0                  | 85.13      | 14.87        |
| 3    | O/TAW/2/99 (AJ294927)       | TAW99-02 | 639             | 542            | 0                  | 84.82      | 15.18        |
| 4    | O1/Manisa/TUR/69 (AJ251477) | TUR69--E | 639             | 541            | 0                  | 84.66      | 15.34        |
| 5    | O/IND/53/79 [AF292107]      | IND79A53 | 639             | 540            | 0                  | 84.51      | 15.49        |
| 6    | O/MOR/1/91                  | MOR91-01 | 639             | 534            | 0                  | 83.57      | 16.43        |
| 7    | O/ISR/2/88 (DQ164899)       | ISR88-02 | 639             | 531            | 0                  | 83.1       | 16.9         |
| 8    | O1/BFS 1860/UK/67 (J02185)  | UKG67--A | 639             | 509            | 0                  | 79.66      | 20.34        |
| 9    | O/HKN/6/83 (AJ294919)       | HKN83-06 | 637             | 497            | 2                  | 78.02      | 21.98        |
| 10   | O/PHI/5/95 (DQ164946)       | PHI95-05 | 639             | 497            | 0                  | 77.78      | 22.22        |

nt, nucleotides

\*, not a WRLFMD reference number



|  |  |
|--|--|
| Serotype: O                              | Report date: 16/09/2008                |
| WRL Ref No: TAI/13/2007                  | Reported by: N.J. Knowles              |
| Sender Ref: 31/07 R1B1                   | Checked by: D.P. King                  |
| Date collected: 21/11/2007               |  |
| Date received by WRLFMD: 24/07/2008      | Topotype: SEA                          |
| Date received for sequencing: 15/08/2008 | Genotype/strain: Mya98                 |
| Species: Cattle                          | Sequence filename: TAI07-13.SEQ        |
| Material used: LK1 BHK1 BTy1             | Date sequence last updated: 16/09/2008 |
| Region sequenced: VP1                    | Total no. of comparisons: 1790         |
| RT-PCR primers: O-1C244F/EUR-2B52R;      | Min. no. of nt for comparison: 300     |
| O-1C272F/EUR-2B52R                       | Total turn-around time: 54 days        |
| No. of Nt determined: 639                | Sequencing time: 32 days               |
| No. of ambiguities: 0                    |  |
| Gene length: 639                         |  |

Comments:

#### Ten Most Closely Related Viruses

| Pos. | Virus name    | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|---------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/4/2007  | TAI07-04 | 639             | 639            | 0                  | 100        | 0            |
| 2    | O/TAI/5/2007  | TAI07-05 | 639             | 638            | 0                  | 99.84      | 0.16         |
| 3    | O/LAO/2/2007  | LAO07-02 | 639             | 637            | 0                  | 99.69      | 0.31         |
| 4    | O/LAO/4/2007  | LAO07-04 | 639             | 637            | 0                  | 99.69      | 0.31         |
| 5    | O/LAO/3/2007  | LAO07-03 | 639             | 635            | 0                  | 99.37      | 0.63         |
| 6    | O/LAO/1/2008  | LAO08-01 | 639             | 634            | 0                  | 99.22      | 0.78         |
| 7    | O/TAI/10/2005 | TAI05-10 | 639             | 624            | 0                  | 97.65      | 2.35         |
| 8    | O/TAI/9/2005  | TAI05-09 | 639             | 624            | 0                  | 97.65      | 2.35         |
| 9    | O/MAY/5/2006  | MAY06-05 | 639             | 620            | 0                  | 97.03      | 2.97         |
| 10   | O/TAI/8/2007  | TAI07-08 | 639             | 614            | 0                  | 96.09      | 3.91         |

#### Relationships to Reference Virus Strains

| Pos. | Virus name                  | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|-----------------------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/189/87* [TRRL]        | TAI87-AC | 639             | 572            | 0                  | 89.51      | 10.49        |
| 2    | O/IND/R2/75* [AF204276]     | IND75--A | 639             | 546            | 0                  | 85.45      | 14.55        |
| 3    | O/TAW/2/99 (AJ294927)       | TAW99-02 | 639             | 545            | 0                  | 85.29      | 14.71        |
| 4    | O/IND/53/79 [AF292107]      | IND79A53 | 639             | 542            | 0                  | 84.82      | 15.18        |
| 5    | O1/Manisa/TUR/69 (AJ251477) | TUR69--E | 639             | 540            | 0                  | 84.51      | 15.49        |
| 6    | O/MOR/1/91                  | MOR91-01 | 639             | 535            | 0                  | 83.72      | 16.28        |
| 7    | O/ISR/2/88 (DQ164899)       | ISR88-02 | 639             | 532            | 0                  | 83.26      | 16.74        |
| 8    | O1/BFS 1860/UK/67 (J02185)  | UKG67--A | 639             | 514            | 0                  | 80.44      | 19.56        |
| 9    | O/PHI/5/95 (DQ164946)       | PHI95-05 | 639             | 502            | 0                  | 78.56      | 21.44        |
| 10   | O/HKN/6/83 (AJ294919)       | HKN83-06 | 637             | 498            | 2                  | 78.18      | 21.82        |

nt, nucleotides

\*, not a WRLFMD reference number

|  |  |
|--|--|
| Serotype: O                              | Report date: 16/09/2008                |
| WRL Ref No: TAI/14/2007                  | Reported by: N.J. Knowles              |
| Sender Ref: 5/08 R1B1                    | Checked by: D.P. King                  |
| Date collected: 19/12/2007               |  |
| Date received by WRLFMD: 24/07/2008      | Topotype: SEA                          |
| Date received for sequencing: 15/08/2008 | Genotype/strain: Mya98                 |
| Species: Cattle                          | Sequence filename: TAI07-14.SEQ        |
| Material used: LK1 BHK1 BTy1             | Date sequence last updated: 16/09/2008 |
| Region sequenced: VP1                    | Total no. of comparisons: 1790         |
| RT-PCR primers: O-1C244F/EUR-2B52R;      | Min. no. of nt for comparison: 300     |
| O-1C272F/EUR-2B52R                       | Total turn-around time: 54 days        |
| No. of Nt determined: 639                | Sequencing time: 32 days               |
| No. of ambiguities: 0                    |  |
| Gene length: 639                         |  |

Comments:

#### Ten Most Closely Related Viruses

| Pos. | Virus name    | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|---------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/9/2007  | TAI07-09 | 639             | 637            | 0                  | 99.69      | 0.31         |
| 2    | O/LAO/1/2007  | LAO07-01 | 639             | 636            | 0                  | 99.53      | 0.47         |
| 3    | O/MAY/4/2007  | MAY07-04 | 639             | 636            | 0                  | 99.53      | 0.47         |
| 4    | O/MAY/7/2007  | MAY07-07 | 639             | 636            | 0                  | 99.53      | 0.47         |
| 5    | O/TAI/7/2007  | TAI07-07 | 639             | 636            | 0                  | 99.53      | 0.47         |
| 6    | O/MAY/6/2007  | MAY07-06 | 639             | 635            | 0                  | 99.37      | 0.63         |
| 7    | O/MAY/5/2007  | MAY07-05 | 639             | 634            | 0                  | 99.22      | 0.78         |
| 8    | O/MAY/9/2007  | MAY07-09 | 639             | 634            | 0                  | 99.22      | 0.78         |
| 9    | O/TAI/12/2007 | TAI07-12 | 639             | 634            | 0                  | 99.22      | 0.78         |
| 10   | O/TAI/6/2007  | TAI07-06 | 639             | 634            | 0                  | 99.22      | 0.78         |

#### Relationships to Reference Virus Strains

| Pos. | Virus name                  | Filename | No. nt compared | No. nt matched | No. of ambiguities | % Identity | % Difference |
|------|-----------------------------|----------|-----------------|----------------|--------------------|------------|--------------|
| 1    | O/TAI/189/87* [TRRL]        | TAI87-AC | 639             | 571            | 0                  | 89.36      | 10.64        |
| 2    | O/IND/R2/75* [AF204276]     | IND75--A | 639             | 545            | 0                  | 85.29      | 14.71        |
| 3    | O/TAW/2/99 (AJ294927)       | TAW99-02 | 639             | 544            | 0                  | 85.13      | 14.87        |
| 4    | O1/Manisa/TUR/69 (AJ251477) | TUR69--E | 639             | 543            | 0                  | 84.98      | 15.02        |
| 5    | O/IND/53/79 [AF292107]      | IND79A53 | 639             | 540            | 0                  | 84.51      | 15.49        |
| 6    | O/MOR/1/91                  | MOR91-01 | 639             | 533            | 0                  | 83.41      | 16.59        |
| 7    | O/ISR/2/88 (DQ164899)       | ISR88-02 | 639             | 530            | 0                  | 82.94      | 17.06        |
| 8    | O1/BFS 1860/UK/67 (J02185)  | UKG67--A | 639             | 508            | 0                  | 79.5       | 20.5         |
| 9    | O/PHI/5/95 (DQ164946)       | PHI95-05 | 639             | 497            | 0                  | 77.78      | 22.22        |
| 10   | O/HKN/6/83 (AJ294919)       | HKN83-06 | 637             | 495            | 2                  | 77.71      | 22.29        |

nt, nucleotides

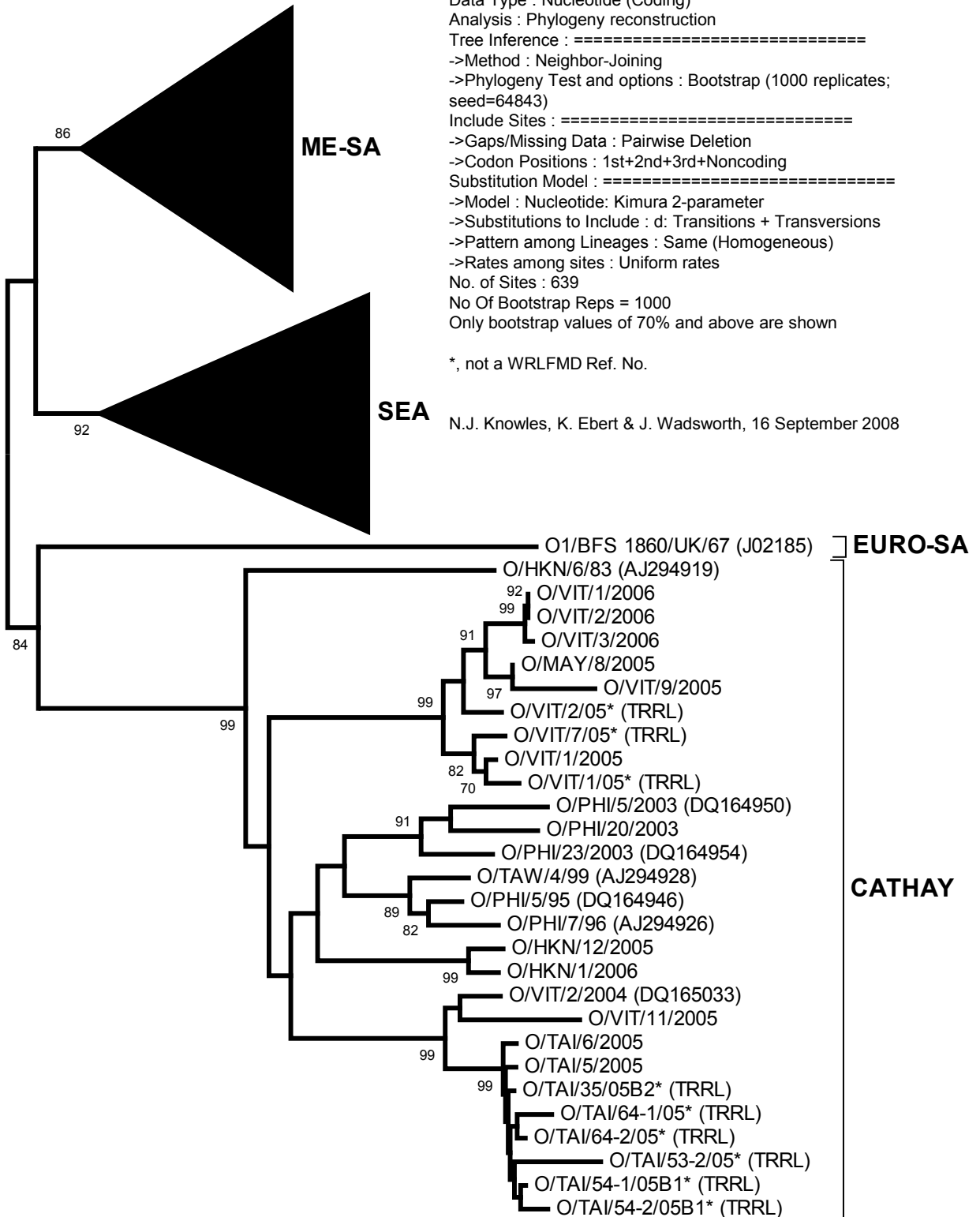
\*, not a WRLFMD reference number

# Report on FMD O viruses from Thailand and Laos in 2007

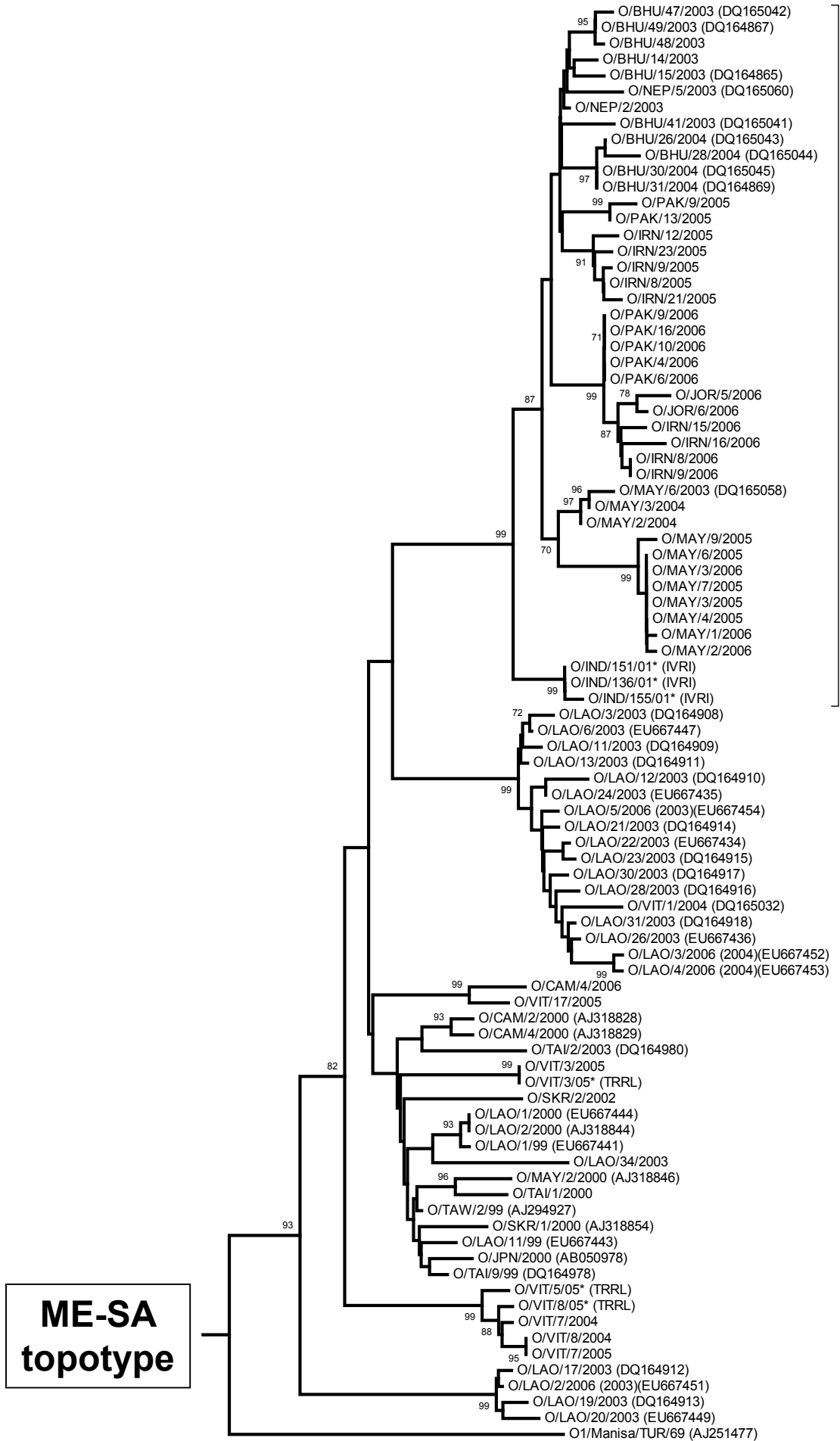
Software: MEGA 4.0  
 No. of Taxa : 195  
 Data File : n:\evd\meg\db\fmdiv\o\TAI2007a.meg  
 Data Title : Thailand 2007 & Laos 2007-08  
 Data Type : Nucleotide (Coding)  
 Analysis : Phylogeny reconstruction  
 Tree Inference : =====  
 ->Method : Neighbor-Joining  
 ->Phylogeny Test and options : Bootstrap (1000 replicates;  
 seed=64843)  
 Include Sites : =====  
 ->Gaps/Missing Data : Pairwise Deletion  
 ->Codon Positions : 1st+2nd+3rd+Noncoding  
 Substitution Model : =====  
 ->Model : Nucleotide: Kimura 2-parameter  
 ->Substitutions to Include : d: Transitions + Transversions  
 ->Pattern among Lineages : Same (Homogeneous)  
 ->Rates among sites : Uniform rates  
 No. of Sites : 639  
 No Of Bootstrap Reps = 1000  
 Only bootstrap values of 70% and above are shown

\*, not a WRLFMD Ref. No.

N.J. Knowles, K. Ebert & J. Wadsworth, 16 September 2008



0.02

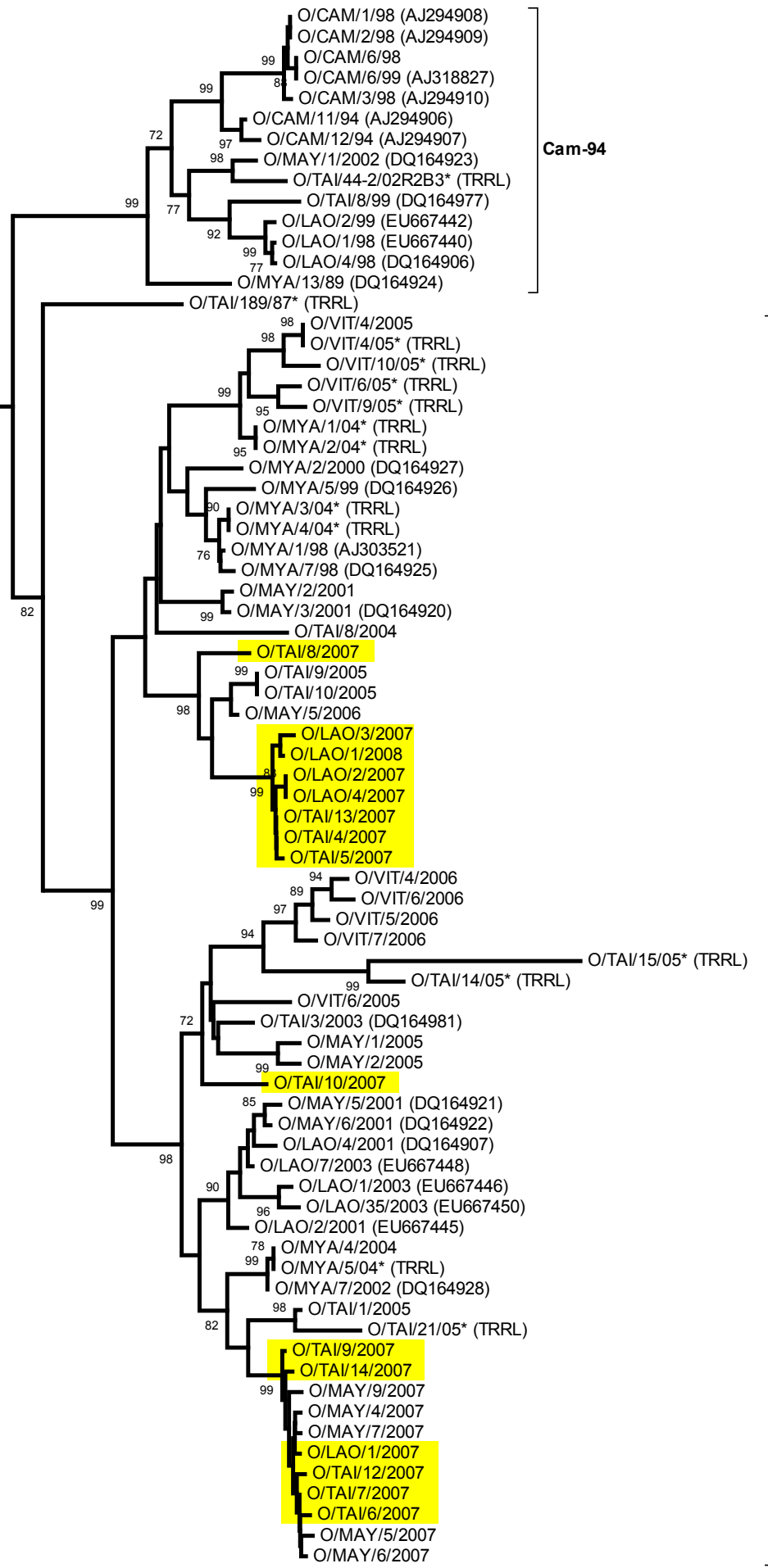


PanAsia-2

**ME-SA  
topotype**

0.01

**SEA  
topotype**



0.02