

Serotype: O	Report date: 15/10/2007						
WRL Ref No: YEM/3/2006	Reported by: N.J. Knowles						
Sender Ref: C. 386/89	Checked by: D.P. King						
Date collected: 01/03/2006							
Date received by WRLFMD: 31/08/2007	Topotype: EA-3						
Date received for sequencing: 13/09/2007	Genotype/strain: none designated						
Species: Cattle	Sequence filename: YEM06-03.SEQ						
Material used: BTy2	Date sequence last updated: 15/10/2007						
Region sequenced: VP1	Total no. of comparisons: 1674						
RT-PCR primers: O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 300						
No. of Nt determined: 639	Total turn-around time: 45 days						
No. of ambiguities: 0	Sequencing time: 32 days						
Gene length: 639							
Comments:							
<b>Ten Most Closely Related Viruses</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/YEM/4/2006	YEM06-04	639	634	0	99.22	0.78
2	O/YEM/29/2006	YEM06-29	639	630	0	98.59	1.41
3	O/YEM/4/95	YEM95-04	342	319	3	93.27	6.73
4	O/YEM/22/2003	YEM03-22	639	594	0	92.96	7.04
5	O/YEM/28/2003	YEM03-28	639	594	0	92.96	7.04
6	O/YEM/48/2004	YEM04-48	638	593	1	92.95	7.05
7	O/YEM/1/2004	YEM04-01	639	593	0	92.8	7.2
8	O/KEN/6/99 (OVI)	KEN99A06	495	459	0	92.73	7.27
9	O/KEN/3/98 (OVI)	KEN98A03	495	456	0	92.12	7.88
10	O/ETH/8/94	ETH94-08	584	534	4	91.44	8.56
<b>Relationships to Reference Virus Strains</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/IND/R2/75* [AF204276]	IND75--A	639	553	0	86.54	13.46
2	O/IND/53/79 [AF292107]	IND79A53	639	551	0	86.23	13.77
3	O1/Manisa/TUR/69 (AJ251477)	TUR69--E	639	549	0	85.92	14.08
4	O/TAW/2/99	TAW99-02	639	547	0	85.6	14.4
5	O/ISR/2/88 (DQ164899)	ISR88-02	639	535	0	83.72	16.28
6	O/MOR/1/91	MOR91-01	639	535	0	83.72	16.28
7	O/TAI/189/87* [TRRL]	TAI87-AC	639	535	0	83.72	16.28
8	O1/BFS 1860/UK/67 (J02185)	UKG67--A	639	514	0	80.44	19.56
9	O/HKN/6/83	HKN83-06	637	509	2	79.91	20.09
10	O/PHI/5/95 (DQ164946)	PHI95-05	639	499	0	78.09	21.91
nt, nucleotides							
*, not a WRLFMD reference number							

Serotype: O	Report date: 15/10/2007
WRL Ref No: YEM/4/2006	Reported by: N.J. Knowles
Sender Ref: C. 386/90	Checked by: D.P. King
Date collected: 01/03/2006	
Date received by WRLFMD: 31/08/2007	Topotype: EA-3
Date received for sequencing: 13/09/2007	Genotype/strain: none designated
Species: Cattle	Sequence filename: YEM06-04.SEQ
Material used: BTy1	Date sequence last updated: 15/10/2007
Region sequenced: VP1	Total no. of comparisons: 1674
RT-PCR primers: O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 300
No. of Nt determined: 639	Total turn-around time: 45 days
No. of ambiguities: 0	Sequencing time: 32 days
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/YEM/3/2006	YEM06-03	639	634	0	99.22	0.78
2	O/YEM/29/2006	YEM06-29	639	631	0	98.75	1.25
3	O/YEM/22/2003	YEM03-22	639	593	0	92.8	7.2
4	O/YEM/28/2003	YEM03-28	639	593	0	92.8	7.2
5	O/YEM/48/2004	YEM04-48	638	592	1	92.79	7.21
6	O/YEM/1/2004	YEM04-01	639	592	0	92.64	7.36
7	O/YEM/4/95	YEM95-04	342	316	3	92.4	7.6
8	O/KEN/6/99 (OVI)	KEN99A06	495	457	0	92.32	7.68
9	O/KEN/3/98 (OVI)	KEN98A03	495	452	0	91.31	8.69
10	O/ETH/8/94	ETH94-08	584	531	4	90.92	9.08

#### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/IND/R2/75* [AF204276]	IND75--A	639	549	0	85.92	14.08
2	O/IND/53/79 [AF292107]	IND79A53	639	547	0	85.6	14.4
3	O/TAW/2/99	TAW99-02	639	545	0	85.29	14.71
4	O1/Manisa/TUR/69 (AJ251477)	TUR69--E	639	545	0	85.29	14.71
5	O/TAI/189/87* [TRRL]	TAI87-AC	639	533	0	83.41	16.59
6	O/MOR/1/91	MOR91-01	639	532	0	83.26	16.74
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	512	0	80.13	19.87
9	O/HKN/6/83	HKN83-06	637	507	2	79.59	20.41
10	O/PHI/5/95 (DQ164946)	PHI95-05	639	497	0	77.78	22.22

nt, nucleotides

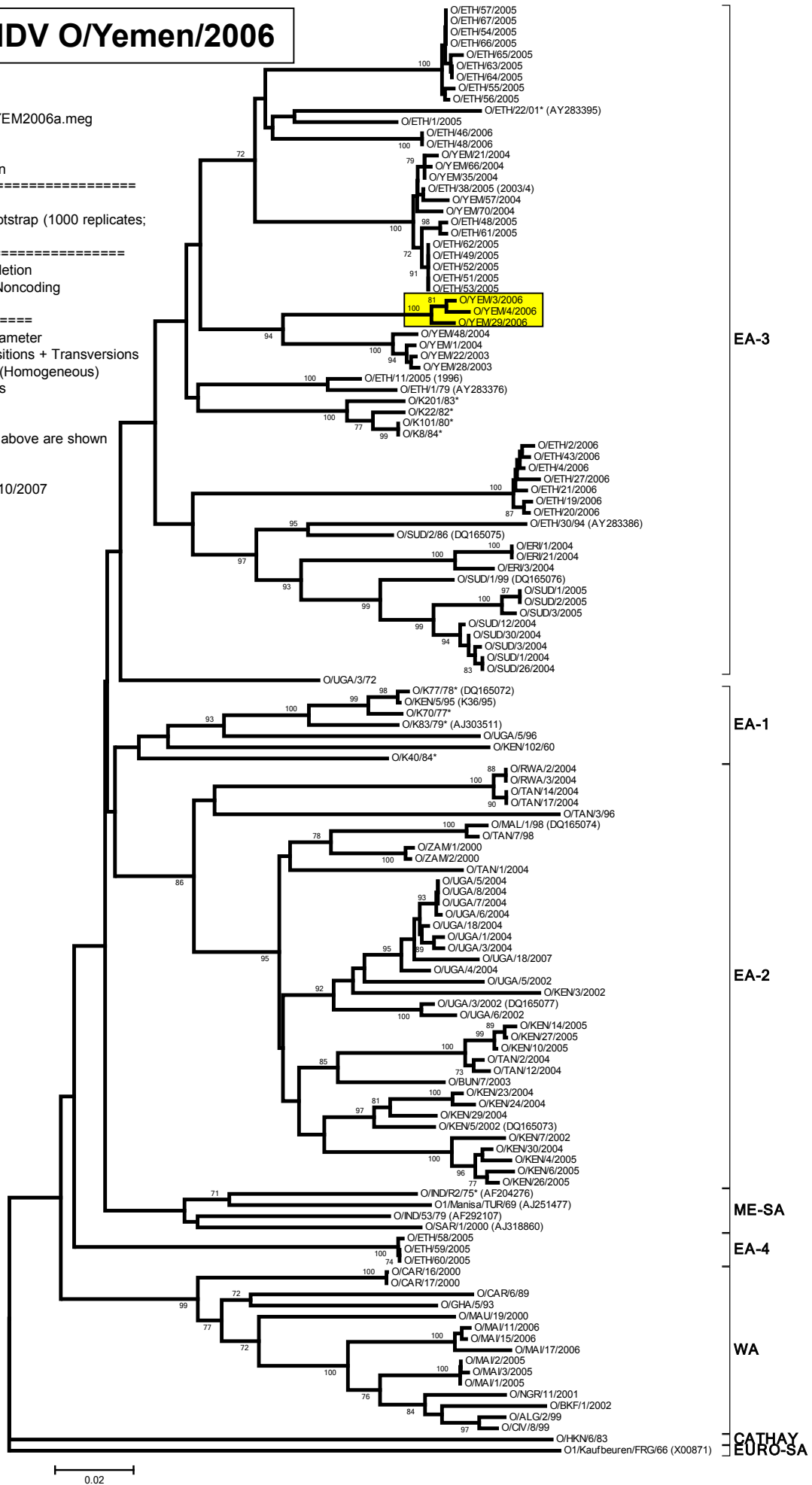
\*, not a WRLFMD reference number

Serotype: O	Report date: 15/10/2007						
WRL Ref No: YEM/29/2006	Reported by: N.J. Knowles						
Sender Ref: C. 1486/3	Checked by: D.P. King						
Date collected: 23/11/2006							
Date received by WRLFMD: 31/08/2007	Topotype: EA-3						
Date received for sequencing: 13/09/2007	Genotype/strain: none designated						
Species: Cattle	Sequence filename: YEM06-29.SEQ						
Material used: BTy1	Date sequence last updated: 15/10/2007						
Region sequenced: VP1	Total no. of comparisons: 1674						
RT-PCR primers: O-1C244F/EUR-2B52R; O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 300						
No. of Nt determined: 639	Total turn-around time: 45 days						
No. of ambiguities: 0	Sequencing time: 32 days						
Gene length: 639							
Comments:							
<b>Ten Most Closely Related Viruses</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/YEM/4/2006	YEM06-04	639	631	0	98.75	1.25
2	O/YEM/3/2006	YEM06-03	639	630	0	98.59	1.41
3	O/YEM/1/2004	YEM04-01	639	592	0	92.64	7.36
4	O/YEM/22/2003	YEM03-22	639	591	0	92.49	7.51
5	O/YEM/28/2003	YEM03-28	639	591	0	92.49	7.51
6	O/YEM/48/2004	YEM04-48	638	590	1	92.48	7.52
7	O/KEN/6/99 (OVI)	KEN99A06	495	455	0	91.92	8.08
8	O/YEM/4/95	YEM95-04	342	314	3	91.81	8.19
9	O/KEN/3/98 (OVI)	KEN98A03	495	450	0	90.91	9.09
10	O/ETH/8/94	ETH94-08	584	530	4	90.75	9.25
<b>Relationships to Reference Virus Strains</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/IND/53/79 [AF292107]	IND79A53	639	548	0	85.76	14.24
2	O/IND/R2/75* [AF204276]	IND75--A	639	548	0	85.76	14.24
3	O1/Manisa/TUR/69 (AJ251477)	TUR69--E	639	548	0	85.76	14.24
4	O/TAW/2/99	TAW99-02	639	544	0	85.13	14.87
5	O/TAI/189/87* [TRRL]	TAI87-AC	639	535	0	83.72	16.28
6	O/ISR/2/88 (DQ164899)	ISR88-02	639	534	0	83.57	16.43
7	O/MOR/1/91	MOR91-01	639	534	0	83.57	16.43
8	O1/BFS 1860/UK/67 (J02185)	UKG67--A	639	512	0	80.13	19.87
9	O/HKN/6/83	HKN83-06	637	508	2	79.75	20.25
10	O/PHI/5/95 (DQ164946)	PHI95-05	639	498	0	77.93	22.07
nt, nucleotides							
*, not a WRLFMD reference number							

# Report on FMDV O/Yemen/2006

Software: MEGA 3.1  
 No. of Taxa : 130  
 Data File : n:\levd\meg\db\fmdv\o\YEM2006a.meg  
 Data Title : O Yemen 2006  
 Data Type : Nucleotide (Coding)  
 Analysis : Phylogeny reconstruction  
 Tree Inference : =====  
 Method : Neighbor-Joining  
 Phylogeny Test and options : Bootstrap (1000 replicates;  
 seed=64238)  
 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 : 642  
 No Of Bootstrap Reps = 1000  
 Only bootstrap values of 70% and above are shown

N.J. Knowles & J. Wadsworth, 15/10/2007



EA-3

EA-1

EA-2

ME-SA

EA-4

WA

CATHAY  
EURO-SA