PIRBRIGHT LABORATORY
Ash Road, Pirbright, Surrey GU24 ONF
Tel: +44 (0)1483 232441 Fax: +44 (0)1483 232448
Email: iah@iah.ac.uk
Website: www.iah.bbsrc.ac.uk

## FMD Detection And Serotyping Results

Lab Reference WRL batch Number: WRLFMD/2012/00010
Sender Details:


Date Received:
Country of Origin:

27/02/2012
LIBYA

Dear Dr Milad E Farhat,

Diagnostics work has now been completed in respect of the samples you submitted and the details are as attached.

Results Approved By:
Official Stamp


Date:


To help us improve the quality of our service, please send any suggestions or requests to the Reference Laboratory by fax (+44 (0)1483 232621) or email (gareth.shimmon@iah.ac.uk). IAH actively seeks and appreciates feedback, if you would like to offer feedback please complete the WRLFMD survey: http://www.surveymonkey.com/s/WRLFMD


Date Received: 27/02/2012 Country Of Origin: LIBYA

PIRBRIGHT LABORATORY
Ash Road. Pirbright. Surrey GU24 ONF
Tel: +44 (0)1483232441
Fax: +44 (0)1483232448
Email: iah@iah.ac.uk
Website: www.iah.bbsrc.ac.uk
Date Tests Completed 08/03/2012
PCR Serotyping Result by Result Cell Culture/ELISA

| C3 | LIB 18/2012 | CATTLE, epithelium, Collected | POS | NVD |
| :--- | :--- | :--- | :--- | :--- |


| CI | LIB 19/2012 | CATTLE, serum, Collected <br> $15 / 02 / 2012$ | NEG | NVD |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
| C2 | LIB 20/2012 | CATTLE, blood, Collected <br> $15 / 02 / 2012$ | NEG | NVD |


| B1 | LIB 21/2012 | CATTLE, blood, Collected | NEG | NVD |
| :--- | :--- | :--- | :--- | :--- |
|  |  | $15 / 02 / 2012$ |  |  |


| A2 | LIB 22/2012 | CATTLE, serum, Collected | NEG | NVD |
| :--- | :--- | :--- | :--- | :--- |
|  |  | $15 / 02 / 2012$ |  |  |


| AI | LIB 23/2012 | CATTLE, serum, Collected <br> $15 / 02 / 2012$ | NEG | NVD |
| :--- | :--- | :--- | :--- | :--- |
| J2 | LIB 24/2012 | CATTLE, serum, Collected <br> I6/02/2012 | NEG | NVD |
| J1 | LIB 25/2012 | CATTLE, serum, Collected <br> I6/02/2012 | NEG | NVD |
| H | LIB 26/2012 | SHEEP, blood, Collected 16/02/2012 | NEG | NVD |
| H2 |  |  | SHEEP, serum, Collected $16 / 02 / 2012$ | NEG |

NVD - No Virus Detected POS - FMDV Genome Detected NEG - No FMDV Genome Detected FMDVGD - FMDV Genome Detected SOPs - WRL. 026 (PCR). WRL 002 (Cell Culture), WRL 006 (ELISA)

A UKAS accredited testing laboratory No. 4025.

| Your Reference | WRL Reference | Description of Sample | PCR Result | Serotyping Result by Cell Culture/ELISA |
| :---: | :---: | :---: | :---: | :---: |
| 11 | LIB 28/2012 | SHEEP, blood, Collected 16/02/2012 | NEG | NVD |
| H1 | LIB 29/2012 | SHEEP, serum, Collected 16/02/2012 | NEG | NVD |
| GI | LIB 30/2012 | SHEEP, swab + epithelium, Collected $16 / 02 / 2012$ | POS | NVD |
| F5 | LIB 31/2012 | SHEEP, blood, Collected 16/02/2012 | NEG | NVD |
| F4 | LIB 32/2012 | SHEEP, blood, Collected 16/02/2012 | NEG | NVD |
| F3 | LIB 33/2012 | SHEEP, blood, Collected 16/02/2012 | NEG | NVD |
| F2 | LIB 34/2012 | SHEEP, blood, Collected 16/02/2012 | NEG | NVD |
| FI | LIB 35/2012 | SHEEP, blood, Collected 16/02/2012 | NEG | NVD |
| D3 | LIB 36/2012 | CATTLE, blood, Collected 16/02/2012 | POS | NVD |
| E3 | LIB 37/2012 | CATTLE, swab + epithelium, Collected 16/02/2012 | POS | NVD |
| E2 | LIB 38/2012 | CATTLE, epithelium, Collected 16/02/2012 | POS | NVD |
| D2 | LIB 39/2012 | CATTLE, blood, Collected 16/02/2012 | POS | SAT 2 |
| El | LIB 40/2012 | CATTLE, epithelium, Collected 16/02/2012 | POS | SAT 2 |

NVD - No Virus Detected POS - FMDV Genome Detected NEG - No FMDV Genome Detected FMDVGD - FMDV Genome Detected SOPs - WRL. 026 (PCR). WRL 002 (Cell Culture), WRL 006 (ELISA)

A UKAS accredited testing laboratory No. 4025

| Your Reference | WRL Reference | Description of Sample | PCR <br> Resuit | Serotyping Result by Cell Culture/ELISA |
| :---: | :---: | :---: | :---: | :---: |
| D1 | LIB 41/2012 | CATTLE, blood, Collected 16/02/2012 | POS | SAT 2 |
| M3 | LIB 42/2012 | SHEEP, serum, Collected 17/02/2012 | NEG | NVD |
| M2 | LIB 43/2012 | SHEEP, serum, Collected 17/02/2012 | NEG | NVD |
| M1 | LIB 44/2012 | SHEEP, serum, Collected 17/02/2012 | NEG | NVD |
| LI | LIB 45/2012 | CATTLE, epithelium, Collected 17/02/2012 | POS | NVD |
| K2 | LIB 46/2012 | CATTLE, serum, Collected 17/02/2012 | NEG | NVD |
| K1 | LIB 47/2012 | CATTLE, serum, Collected 17/02/2012 | NEG | NVD |
| Q1 | LIB 48/2012 | CATTLE, epithelium, Collected 18/02/2012 | POS | O |
| PI | LIB 49/2012 | SHEEP, epithelium, Collected 18/02/2012 | NEG | NVD |
| O2 | LIB 50/2012 | SHEEP, serum, Collected 18/02/2012 | NEG | NVD |
| $\overline{\mathrm{Ol}}$ | LIB 51/2012 | SHEEP, serum, Collected 18/02/2012 | NEG | NVD |
| $\overline{\mathrm{Nl}}$ | LIB 52/2012 | CATTLE, swab + epithelium, Collected 18/02/2012 | NEG | NVD |


|  |  | S 3 A | $60^{-}$ | 93 N | 0 | 1 | so | 96000／210z／817 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ON | 880 | 2 IVS | 8 | 1 | $1 \times 1$ | 1t000221021817 |
|  |  | S3A | $60^{\circ}$ | 93N | 0 | 1 | so |  |
|  |  | ON | 860 | てIVS | 80 | $\downarrow$ | 1218 | 06000R102／817 |
|  |  | ON | 120 | てIVs | 8 | 1 | 118 | 680001210z／817 |
|  |  | S3A | 60 | 93n | 0 | $\downarrow$ | so | 88000\％210z／日17 |
|  |  | S3 | 60 | 93n | 0 | b | so | ＜8000\％210z／817 |
| ．．- － |  | S3A | $60^{\circ}$ | 93 N | 0 | b | So | 0¢0001210z／917 |
|  |  | S 3 入 | $60^{\circ}$ | 93N | 0 | $\checkmark$ | SO | 81000\％2102／819 |
| 18 0ヨ1母ロI7VA |  | BAIIVO3N | SL7nS34 | 3d시OXヨS | Y OOH | IdWヨ」1V | Эd 1 1 1S31 | ON $\ddagger \exists y$ 7 7 M |

VIVOLS3IVSI7ヨ



| TISSUE CULTURE TEST DATA |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WRL REF NUMBER | TC TEST <br> TYPE | ATTEMPT NUMBER | HOUR | NUMBER OF TUBES | READING | DATE <br> READ | DATE VALIDATED | VALIDATED BY |
| LIB12012000018 | BTY1 | 1 | 24 | 5 | - |  |  |  |
|  | BTY1 | 1 | 48 | 5 | - |  |  |  |
|  | BTY1 | 1 | 72 | 5 | - |  |  |  |
|  | BTY1 | 1 | 96 | 5 | - |  |  |  |
|  | RS1 | 1 | 24 | 5 | - |  |  |  |
|  | RS1 | 1 | 48 | 5 | - |  |  |  |
|  | RS1 | 1 | 72 | 5 | - |  |  |  |
|  | RS1 | 1 | 96 | 5 | - |  |  |  |
| LIB12012:00019 | BTY1 | 1 | 24 | 5 | - |  |  |  |
|  | BTY1 | 1 | 48 | 5 | - |  |  |  |
|  | BTY1 | 1 | 72 | 5 | - |  |  |  |
|  | BTY1 | 1 | 96 | 5 | - |  |  |  |
| LIB2012/00020 | BTY1 | 1 | 24 | 5 |  |  |  |  |
|  | BTY1 | 1 | 48 | 5 | - |  |  |  |
|  | BTY1 | 1 | 72 | 5 | - |  |  |  |
|  | BTY1 | 1 | 96 | 5 | - |  |  |  |
| LIB12012/00021 | BTY1 | 1 | 24 | 5 | - |  |  |  |
|  | BTY1 | 1 | 48 | 5 | - |  |  |  |
|  | BTY1 | 1 | 72 | 5 | - |  |  |  |
|  | BTY1 | 1 | 96 | 5 | - |  |  |  |
| LIB/2012/00022 | BTYY | 1 | 24 | 5 | - |  |  |  |
|  | BTY1 | 1 | 48 | 5 | - |  |  |  |
|  | BTY1 | 1 | 72 | 5 | - |  |  |  |
|  | BTY1 | 1 | 96 | 5 | - |  |  |  |
| LIBR2012000023 | ETY1 | 1 | 24 | 5 | - |  |  |  |
|  | BTY1 | 1 | 48 | 5 | . |  |  |  |
|  | BTY1 | 1 | 72 | 5 | - |  |  |  |
|  | BTY1 | 1 | 96 | 5 | - |  |  |  |
| LIB/2012/00024 | BTY1 | 1 | 24 | 5 | - |  |  |  |
|  | BTY\% | 1 | 48 | 5 | - |  |  |  |
|  | BTY1 | 1 | 72 | 5 | - |  |  |  |
|  | BTY1 | 1 | 96 | 5 | . |  |  |  |
| LIB12012/00025 | BTY1 | 1 | 24 | 5 | - |  |  |  |
|  | BTY1 | 1 | 48 | 5 | . |  |  |  |
|  | BTY1 | 1 | 72 | 5 | - |  |  |  |
|  | BTY1 | 1 | 96 | 5 | - |  |  |  |
| L1812012/00026 | BTY1 | 1 | 24 | 5 | - |  |  |  |
|  | BTY1 | 1 | 48 | 5 | - |  |  |  |
|  | BTY1 | 1 | 72 | 5 | - |  |  |  |
|  | BTY1 | 1 | 96 | 5 | - |  |  |  |
| L18/2012100027 | BTY1 | 1 | 24 | 5 | - |  |  |  |
|  | BTY 1 | 1 | 48 | 5 | - |  |  |  |
|  | BTYY | 1 | 72 | 5 | - |  |  |  |
|  | BTY\% | 1 | 96 | 5 | - |  |  |  |
| L18/2012/00028 | BTY1 | 1 | 24 | 5 | - |  |  |  |
|  | BTY1 | 1 | 48 | 5 | - |  |  |  |






Validated by

$\qquad$

## FMD DETECTION AND SEROTYPING FULL RESULTS

BATCH NUMBER - WRLFMD/2012/00010 DATE RECEIVED AT SITE - 27/02/2012 FROM LIBYA
SENDER DETAILS

| Your Reference | WRL Reference | Description of Sample | Direct Antigen ELISA | Cell BTY | $\begin{gathered} \text { e/EI } \\ \text { RS } \end{gathered}$ | Other | PCR <br> Result | Final Result |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C3 | LIB 18/2012 | CATTLE, epithelium Collected 15/02/2012 | NEG | -ve | -ve |  | $\begin{gathered} 31.17 \\ 30.84 \end{gathered}$ | FMDV GD |
| Cl | LIB 19/2012 | CATTLE, serum Collected 15/02/2012 |  | -ve |  |  | 50, 50 | NVD |
| C2 | LIB 20/2012 | CATTLE, blood Collected 15/02/2012 |  | -ve |  |  | 50,50 | NVD |
| BI | LIB 21/2012 | CATTLE, blood Collected 15/02/2012 |  | -ve |  |  | 50, 50 | NVD |
| A2 | LIB 22/2012 | CATTLE, serum Collected 15/02/2012 |  | -ve |  |  | 50, 50 | NVD |
| AI | LIB 23/2012 | CATTLE, serum Collected 15/02/2012 |  | -ve |  |  | 50,50 | NVD |

NVD - No Virus Detected POS - FMDV Genome Detected NE: - No FMDV Genome Detected FMDVGD - FMDV Genome Deleeted

| Your Reference | WRL <br> Reference | Description of Sample | Direct Antigen ELISA | Cell Cu BTY | $\begin{aligned} & \text { / ELISA } \\ & \text { RS } \end{aligned}$ | Other | PCR <br> Result | Final Result |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| J2 | L/B 24/2012 | CATTLE, serum Collected 16/02/2012 |  | -ve |  |  | 50, 50 | NVD |
| J1 | LIB 25/2012 | CATTLE, serum Collected 16/02/2012 |  | -ve |  |  | 38.48, 50 | NVD |
| II | LIB 26/2012 | SIIEEP, blood Collected 16/02/2012 |  | -ve |  |  | 50,38.59 | NVD |
| H2 | LIB 27/2012 | SHEEP, serum Collected 16/02/2012 |  | -ve |  |  | $\begin{gathered} 35.24, \\ 37.21 \end{gathered}$ | NVD |
| 11 | LIB 28/2012 | SHEEP, blood Collected 16/02/2012 |  | -ve |  |  | 50, 50 | NVD |
| HI | LIB 29/2012 | SHEEP, serum Collected 16/02/2012 |  | -ve |  |  | 50, 50 | NVD |
| G1 | LIB 30/2012 | SHEEP, swab + epithelium Collected 16/02/2012 | NEG | -ve | -ve |  | $\begin{array}{r} 27.02, \\ 26.72 \end{array}$ | FMDV GD |
| F5 | LIB 31/2012 | SHEEP, blood Collected 16/02/2012 |  | -ve |  |  | 50, 50 | NVD |
| F4 | LIB 32/2012 | SHEEP, blood Collected 16/02/2012 |  | -ve |  |  | 50,50 | NVD |
| NVD - No Virus Detected WRI.FMID/2012/00010 | POS - FMDV Gienome Detected NEG - No FMDV Genome Delected <br> IAHB/2012/00192 06 March 2012 |  | FMDVGD - FMDV Genome Detected |  |  |  | MD serotyping | Full Resuhs Repors |


| Your Reference | WRL <br> Reference | Description of Sample | Direct Antigen ELISA | Cell Cu BTY | $\begin{aligned} & \text { e / EL } \\ & \text { RS } \end{aligned}$ | Other | PCR <br> Result | Final Result |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| F3 | LIB 33/2012 | SHEEP, blood Collected 16/02/2012 |  | -ve |  |  | 50, 50 | NVD |
| F2 | LIB 34/2012 | SHEEP, blood Collected 16/02/2012 |  | -ve |  |  | 50,37.64 | NVD |
| FI | LIB 35/2012 | SHEEP, blood Collected 16/02/2012 |  | -ve |  |  | 50, 50 | NVD |
| D3 | LIB 36/2012 | CATTLE, blood Collected 16/02/2012 |  | -ve |  |  | $\begin{array}{r} 27.02 \\ 24.45 \end{array}$ | FMDV GD |
| E3 | L[B 37/2012 | CATTLE, swab + epithelium Collected 16/02/2012 | NEG | -ve | -ve |  | $\begin{gathered} 21.69 \\ 22.19 \end{gathered}$ | FMDV GD |
| E2 | LIB 38/2012 | CATTLE, epithelium Collected 16/02/2012 | NEG | -ve | -ve |  | $\begin{array}{r} 20.24 \\ 20.83 \end{array}$ | FMDV GD |
| D2 | LIB 39/2012 | CATTLE, blood Collected 16/02/2012 |  | SAT 2 |  |  | $\begin{array}{r} \text { 27.97, } \\ 27.37 \end{array}$ | SAT 2 |
| E1 | LIB 40/2012 | CATTLE, epithelium Collected 16/02/2012 | NEG | SAT 2 | -ve |  | $\begin{array}{r} 23.99 \\ 23.86 \end{array}$ | SAT 2 |
| D1 | LIB 41/2012 | CATTLE, blood Collected 16/02/2012 |  | SAT 2 |  |  | $\begin{gathered} 26.12 \\ 23.11 \end{gathered}$ | SAT 2 |
| NVD - No Virus Detected WRILPMD/2012/00010 | POS - FMDV Genome Detected NEG - No FMDV Genonce Deteeted 1AHB/2012/00192 06 March 2012 |  | FMIDVGD - FMDV Genome Detected Page 3 of 5 |  | Creal | $1 / 1$ infermatr | MD serotyping | whl Results Report |


| Your Reference | WRL <br> Reference | Description of Sample | Direct Antigen ELISA | Cell Cu BTY | $\begin{aligned} & \mathrm{e} / \mathrm{El} \\ & \mathrm{RS} \end{aligned}$ | Other | PCR <br> Result | Final Result |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| M3 | LIB 42/2012 | SHEEP, serum Collected 17/02/2012 |  | -ve |  |  | 50, 50 | NVD |
| M2 | LIB 43/2012 | SHEEP, serum Collected 17/02/2012 |  | -ve |  |  | $\begin{aligned} & 36.59, \\ & 36.47 \end{aligned}$ | NVD |
| MI | LIB 44/2012 | SHEEP, serum Collected 17/02/2012 |  | -ve |  |  | 50, 50 | NVD |
| LI | LIB 45/2012 | CATTLE, epithelium Collected 17/02/2012 | NEG | -ve | -ve |  | 22.36, 22.3 | FMDV GD |
| K2 | LIB 46/2012 | CATTLE, serum Collected 17/02/2012 |  | -ve |  |  | 38.09, 50 | NVD |
| K1 | LIB 47/2012 | CATTLE, serum Collected 17/02/2012 |  | -ve |  |  | 50,50 | NVD |
| Q1 | LIB 48/2012 | CATTLE, epithelium Collected 18/02/2012 | NEG | O | -ve |  | $\begin{array}{r} 23.12 \\ 23.09 \end{array}$ | 0 |
| P1 | LIB 49/2012 | SHEEP, epithelium Collected 18/02/2012 | NEG | -ve | -ve |  | 50, 50 | NVD |
| 02 | LIB 50/2012 | SHEEP, serum Collected 18/02/2012 |  | -ve |  |  | 50, 50 | NVD |
| NVD - No Virus Detected WRLFMD/2012/00010 | POS - FMDV Genome Detected NEG - No FMDV Genome Detected IAHB/2012/00192 06 March 2012 |  | FMDVGD - FMDV Genome Detected Page 4 of 5 |  |  | AH informat | FMD serolyung | Ful Results Report |


| Your Reference | WRL <br> Reference | Description of Sample | Direct Antigen ELISA | Cell BTY | $\begin{gathered} \text { e / EI } \\ \text { RS } \end{gathered}$ | Other | PCR <br> Result | Final Result |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ol | LIB 51/2012 | SHEEP, serum Collected 18/02/2012 |  | -ve |  |  | 50, 50 | NVD |
| N1 | LIB 52/2012 | CATTLE, swab + epithelium Collected 18/02/2012 | NEG | -ve | -ve |  | $\begin{gathered} 37.09 \\ 38.16 \end{gathered}$ | NVD |
| Validated by .. |  | .................. | Date ....0R15312012 |  |  |  |  |  |

