Regional Six-monthly Report of Descriptive Bovine TB Epidemiology for the Low Risk (Four Yearly Testing) Areas of England

Regional Office:
This report contains bovine tuberculosis (TB) information related to the counties of Cumbria (county number 8), Lancashire (21), Greater Manchester (44) and Merseyside (25), all of which make up the low incidence (4-yearly testing) region of the North West of England.

Year-end report for 2015

1. Cattle Industry in the Region

The low incidence area of the North West of England is formed by four counties and several Metropolitan district local authorities. From a bovine TB point of view and for simplicity, we have divided the region into three geographical areas.

1.1 The county of Cumbria has approximately about 3,600 cattle herds. There is approximately a similar number of beef and dairy herds. The size of herds is very variable, ranging from smallholding with one or two animals to large dairy herds with up to 1,000 animals per herd.

A great majority of the farms in Cumbria were depopulated during the FMD epidemic and hence the majority of the herds were re-formed by restocking and buying animals from other areas. Cumbrian farmers tended to buy cattle for restocking purposes from the Southwest of England where TB was and is endemic and the price of live cattle at that time was very low.

Compulsory pre-movement TB testing of cattle as a precautionary measure was established in 2006, so cattle moving into Cumbria before this date were not subjected to pre-movement TB testing. In recent years, farmers are becoming more aware of the risk of buying cattle from high incidence areas of bovine TB. So, most herd owners do not buy in many animals, or they source them from local area via local livestock markets.

However, there are some cattle dealers who bring animals from the high risk areas to be sold through local markets, in relatively high numbers. Purchasers of these animals are not aware of the origin until after animals have been bought, although they have to be pre-movement tested for TB with negative results.

Also a substantial number of Irish imports (Northern Ireland and Republic of Ireland) come through the county, generally ending on beef finishing/fattening herds.

Approximately an average of four to five hundred live cattle movements from other parts of England to Cumbria takes place every month. APHA carry out tracing tests on cattle moved into Cumbria from herds that are found to be infected with bTB after the cattle movement took place.

There are twelve livestock markets in Cumbria. There is an important trade of movement of cattle from Cumbria into Scotland.

There are no pre-movement testing Exempt Finishing Units (EFUs), Licensed Finishing Units (LFUs), or TB Isolation Units in Cumbria.

There are eleven cattle city farms in Cumbria.
1.2 The county of Lancashire has approximately 2,200 cattle herds. There are a similar number of beef and dairy herds. The size of herds is very variable, ranging from smallholding with 1 or 2 animals to large dairy herds with up to 1000 animals per herd.

The larger dairy herds tend to source their dairy replacements, usually in-calf heifers, from Germany and The Netherlands.

In general terms, most herds do not buy in many animals and replacements are often sourced from local areas or via local livestock markets.

Large intensive beef units try to source cattle locally, but often go further afield into high bTB incidence areas, as cattle prices are cheaper in the high risk (endemic) TB areas.

There is currently one LFU in Lancashire, but no EFUs or TB Isolation Units. There are four livestock markets in Lancashire and 14 city farms in the county.

1.3 The counties of Greater Manchester and Merseyside have a very small population of cattle. Both counties encompass two of the biggest cities of England and their surrounding metropolitan Boroughs. By contrast, the number of equine premises has increased significantly during recent years.

The number of cattle herds in Greater Manchester is approximately 520 and in Merseyside only about 90 cattle herds. Most of the herds are very small holdings, with an average herd size of 30 to 60 animals. There is an approximately 50-50 split between beef and dairy herds.

A great proportion of herds in these two counties are small herds, with little investment in cattle housing, machinery and equipment.

There is one large finishing unit in Merseyside which sources animals from high risk areas. Fortunately, this unit is surrounded by urban areas and has no neighbouring cattle farms. Many holdings rarely buy in replacements, as the cattle keepers consider their cattle as non-commercial pet animals.

There are no EFUs, LFUs or TB Isolation Units in Greater Manchester and Merseyside. Likewise, there are no Livestock markets in Greater Manchester and Merseyside.

Number of cattle premises by size band in the division at 1 January of the reporting year

<table>
<thead>
<tr>
<th>Cattle per premises</th>
<th>0</th>
<th>1 - 50</th>
<th>51 - 100</th>
<th>101 - 200</th>
<th>201 - 350</th>
<th>351 - 500</th>
<th>501+</th>
<th>All</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUMBRIA 08</td>
<td>23</td>
<td>1229</td>
<td>500</td>
<td>630</td>
<td>451</td>
<td>177</td>
<td>156</td>
<td>3166</td>
<td>145</td>
<td>82</td>
</tr>
<tr>
<td>LANCASHIRE 21</td>
<td>33</td>
<td>881</td>
<td>271</td>
<td>299</td>
<td>207</td>
<td>105</td>
<td>73</td>
<td>1869</td>
<td>123</td>
<td>54</td>
</tr>
<tr>
<td>MERSEYSIDE 25</td>
<td>2</td>
<td>41</td>
<td>11</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>70</td>
<td>94</td>
<td>29</td>
</tr>
<tr>
<td>GREATER MANCHESTER 44</td>
<td>7</td>
<td>317</td>
<td>62</td>
<td>50</td>
<td>22</td>
<td>3</td>
<td>1</td>
<td>462</td>
<td>53</td>
<td>24</td>
</tr>
</tbody>
</table>

Cattle breed purpose - numbers and percentages at 1 January of the reporting year.

<table>
<thead>
<tr>
<th>County</th>
<th>Beef</th>
<th>Dairy</th>
<th>Dual Breed</th>
<th>Unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUMBRIA 08</td>
<td>209559 (45.8%)</td>
<td>234997 (51.3%)</td>
<td>13084 (2.9%)</td>
<td>62 (0.0%)</td>
<td>457702</td>
</tr>
<tr>
<td>LANCASHIRE 21</td>
<td>69691 (30.3%)</td>
<td>149130 (64.9%)</td>
<td>11046 (4.8%)</td>
<td>19 (0.0%)</td>
<td>229886</td>
</tr>
<tr>
<td>MERSEYSIDE 25</td>
<td>3432 (52.1%)</td>
<td>3000 (45.5%)</td>
<td>159 (2.4%)</td>
<td>- ( - )</td>
<td>6591</td>
</tr>
<tr>
<td>GREATER MANCHESTER 44</td>
<td>14478 (59.6%)</td>
<td>9119 (37.6%)</td>
<td>659 (2.7%)</td>
<td>24 (0.1%)</td>
<td>24280</td>
</tr>
</tbody>
</table>
Density of cattle and cattle premises at 1 January of the reporting year.

2. Geographical Distribution of Bovine TB Breakdowns in the Region
3. Summary of the Regional Headline Cattle TB Statistics

<table>
<thead>
<tr>
<th>Herd-level statistics</th>
<th>CUMBRIA</th>
<th>LANCASHIRE</th>
<th>MERSEYSIDE</th>
<th>GTR MANCHESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Total number of cattle herds live on Sam at the end of the reporting period</td>
<td>3598</td>
<td>2169</td>
<td>88</td>
<td>521</td>
</tr>
<tr>
<td>(b) Total number of cattle herds subject to annual TB testing at the end of the reporting period (any reason)</td>
<td>544</td>
<td>214</td>
<td>17</td>
<td>50</td>
</tr>
<tr>
<td>(c) Total number of herd tests carried out in the period</td>
<td>1829</td>
<td>1027</td>
<td>52</td>
<td>344</td>
</tr>
<tr>
<td>(d) Total number of OTF cattle herds TB tested during the period for any reason</td>
<td>866</td>
<td>666</td>
<td>38</td>
<td>297</td>
</tr>
<tr>
<td>(e) Total number of OTF cattle herds at the end of the report period (i.e. herds not under any type of TB2 restrictions)</td>
<td>3571</td>
<td>2148</td>
<td>88</td>
<td>516</td>
</tr>
<tr>
<td>(f) Total number of cattle herds that were not under restrictions due to an ongoing TB breakdown at the end of the report period.</td>
<td>3588</td>
<td>2165</td>
<td>88</td>
<td>520</td>
</tr>
<tr>
<td>(g) Total number of new TB breakdowns detected in cattle herds during the report period</td>
<td>30</td>
<td>17</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>• OTF status suspended (OTFS)</td>
<td>20</td>
<td>15</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>• OTF status withdrawn (OTFW)</td>
<td>10</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>(h) Of the new OTFW herd breakdowns, how many:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• occurred in a holding affected by another OTFW breakdown in the previous three years?</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• could be considered secondary to a primary breakdown based on current evidence?</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>• were triggered by skin test reactors or 2xIRs at routine herd tests?</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• were triggered by skin test reactors or 2xIRs at other TB test types (forward and back-tracings, contiguous, check tests, etc.)?</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>• were first detected through routine slaughterhouse TB surveillance?</td>
<td>2</td>
<td>2*</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(i) Number of new breakdowns revealed by enhanced TB surveillance (radial testing) conducted around those OTFW herds</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• OTFS</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• OTFW</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(j) Number of OTFW herds still open at the end of the period (including any ongoing OTFW breakdowns that began in a previous quarter)</td>
<td>8</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>(k) New confirmed (positive M. bovis culture) incidents in non-bovine species detected during the report period (indicate host species involved)</td>
<td>1 - Pig</td>
<td>0</td>
<td>0</td>
<td>1 - Pig</td>
</tr>
</tbody>
</table>
### Animal-level statistics (cattle)

<table>
<thead>
<tr>
<th></th>
<th>CUMBRIA</th>
<th>LANCASHIRE</th>
<th>MERSEYSIDE</th>
<th>GTR MANCHESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Total number of cattle tested in the period (animal tests)</td>
<td>220005</td>
<td>106757</td>
<td>4083</td>
<td>10180</td>
</tr>
<tr>
<td>(b) Reactors detected:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- tuberculin skin test</td>
<td>96</td>
<td>18</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>- additional IFN-gamma blood test reactors (skin-test negative or IR animals)</td>
<td>58</td>
<td>31</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>(c) Reactors per breakdown</td>
<td>5.13</td>
<td>2.58</td>
<td>1.00</td>
<td>1.67</td>
</tr>
<tr>
<td>(d) Reactors per 1000 animal tests</td>
<td>0.7</td>
<td>0.46</td>
<td>0.24</td>
<td>0.98</td>
</tr>
<tr>
<td>(e) Additional animals identified for slaughter for TB control reasons (DCs, including any first-time IRs)</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>(f) SLH cases (tuberculous carcases) reported by FSA</td>
<td>2*</td>
<td>2*</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(g) SLH cases confirmed by culture of M. bovis</td>
<td>2</td>
<td>2*</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### 2014 (for comparison purposes)

<table>
<thead>
<tr>
<th>Herd-level statistics</th>
<th>Cumbria</th>
<th>Lancashire</th>
<th>Merseyside</th>
<th>Greater Manchester</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Total number of cattle herds live on Sam at the end of the reporting period*</td>
<td>3551</td>
<td>2170</td>
<td>88</td>
<td>516</td>
</tr>
<tr>
<td>(b) Total number of cattle herds subject to annual TB testing at the end of the reporting period (any reason)</td>
<td>441</td>
<td>425</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>(c) Total number of herd tests carried out in the period</td>
<td>1523</td>
<td>1158</td>
<td>65</td>
<td>278</td>
</tr>
<tr>
<td>(d) Total number of OTF cattle herds TB tested during the period for any reason</td>
<td>1034</td>
<td>704</td>
<td>43</td>
<td>250</td>
</tr>
<tr>
<td>(e) Total number of OTF cattle herds at the end of the report period (i.e. herds not under any type of TB2 restrictions)</td>
<td>3537</td>
<td>2148</td>
<td>88</td>
<td>511</td>
</tr>
<tr>
<td>(f) Total number of cattle herds that were not under restrictions due to an ongoing TB breakdown at the end of the report period.</td>
<td>3547</td>
<td>2165</td>
<td>88</td>
<td>514</td>
</tr>
<tr>
<td>(g) Total number of new TB breakdowns detected in cattle herds during the report period</td>
<td>20</td>
<td>21</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>- OTF status suspended (OTFS)</td>
<td>16</td>
<td>15</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>- OTF status withdrawn (OTFW)</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

TR397 (Rev. 07/15)
Of the new OTFW herd breakdowns, how many:

- occurred in a holding affected by another OTFW breakdown in the previous three years? 0 0 0 0
- could be considered secondary to a primary breakdown based on current evidence? 0 3 0 0
- were triggered by skin test reactors or 2xIRs at routine herd tests? 1 1 0 0
- were triggered by skin test reactors or 2xIRs at other TB test types (forward and back-tracings, contiguous, check tests, etc.)? 1 2 0 0
- were first detected through routine slaughterhouse TB surveillance? 1 1 0 0

Number of new breakdowns revealed by enhanced TB surveillance (radial testing) conducted around those OTFW herds:

- OTFS 3 1 0 0
- OTFW 1 2 0 0

Number of OTFW herds still open at the end of the period (including any ongoing OTFW breakdowns that began in a previous quarter)

Reactors per breakdown

Reactors per 1000 animal tests

Additional animals identified for slaughter for TB control reasons (DCs, including any first-time IRs)

SLH cases (tuberculous carcasses) reported by FSA

SLH cases confirmed by culture of M. bovis

Animal-level statistics (cattle)

Total number of cattle tested in the period (animal tests)
Reactors detected:
- tuberculin skin test
- additional IFN-gamma blood test reactors (skin-test negative or IR animals)
Reactors per breakdown
Reactors per 1000 animal tests
Additional animals identified for slaughter for TB control reasons (DCs, including any first-time IRs)
SLH cases (tuberculous carcasses) reported by FSA
SLH cases confirmed by culture of M. bovis
Density of TB reactors and slaughterhouse cases in TB breakdowns per km²

4. Suspected Sources of *M. bovis* Infection for all the New OTFW Breakdowns Identified in the Report Period

<table>
<thead>
<tr>
<th>Most likely origin</th>
<th>Provisional</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction (e.g. purchase) of infected animal(s)</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Local - lateral spread from neighbouring holdings:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>• exposure to infected wildlife e.g. badgers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• other farmed species</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• recrudescence of residual infection from a previous TB breakdown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• infected human source</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undetermined/obscure</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Other (explain)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please attempt to categorise all new OTFW TB breakdowns identified in your region using the following risk matrix, according to (a) the probability of them being the result of introduced infection (inward cattle movements) and (b) the strength of evidence that we are dealing with an isolated incident without further propagation from the index farm to neighbouring herds (or vice versa). Enter the corresponding numbers of breakdowns in the relevant boxes.
Any OTFW breakdowns falling in the greyed-in boxes may be removed from the county bTB incidence calculations for the purposes of EU reporting:

| Probability of introduced M. bovis infection introduced via cattle movements | Probability of isolated, sporadic ('one-off') breakdown, without secondary local spread from the index case |
|---|---|---|
| Definite | 2 | |
| Likely | 5 | 1 |
| Possible | | 6 |
| Not likely (indigenous infection in the locality) | | |

5. Overview of the bTB Control Programme in the Region

The enhanced TB surveillance (radial testing) regime has been instigated for all new OTFW breakdowns, with very few exceptions. The specific details can be seen in the reports of each individual breakdown (please see below).

Regular communication/meeting with local NFU representatives ongoing regarding the disease situation. In addition close liaison with the veterinary practices in the affected areas which has been well received.

Liaison and educational meetings with NFU and local farmers rerding the regional bTB situation and control have been held in Cumbria and in Lancashire .

6. Wildlife

Three ‘potential hotspot’ areas of enhanced TB surveillance in cattle herds and wildlife are in force in this region, following the identification in 2014 of OTFW TB breakdowns of obscure origin, namely:

- HS – 15, Lune Valley, Lancashire (ongoing):
  - 23 submissions to date. 19 badgers and 3 deer. 10 culture negative results received. 13 Culture results still pending

Wildlife surveillance zones were established in Goosnargh, Lancashire, and Millom, Cumbria. Although stakeholders were notified outside the reporting period, they were as a result of breakdowns disclosed within it:

- HS – 16, Goosnargh, Lancashire (notification 04/04/2014):
  - 1 deer submission to date, culture still pending

- HS-17, Millom, Cumbria (notification 17/04/2014):
  - 4 submissions to date, 1 deer and 3 badgers. Cultures pending
7. Other Susceptible Species

In 2015, we have had two culture-confirmed cases on *M.bovis* infection in pigs:

**Bolton, Lancashire**

A homebred fat pig, showed typical lesions post mortem which was subsequently confirmed as *M.bovis* spoligotype 11. This pig had been continually housed since birth and has been the only confirmed case ever in a medium throughput herd. Also on the premises is a small herd of fattening cattle but they are considered to be epidemiologically separate from the pig herd. The cattle have been TB tested with negative results following the positive pig culture. There are no badgers reported in the area, but deer are seen quite regularly. The origin of this case is obscure. Premises has a clear TB history and no history of pigs being purchased from the SW of England. Restrictions have now been lifted on the pig herd.

**Grange over sands, Cumbria**

This case involved a purchased pig (Yorkshire origin) which was kept outside for a period before being sent into slaughter in August 2015. Typical lesions were seen and *M.bovis* cultured, spoligotype 12:a. This premises is located within a 3km radial testing zone for incident 15/04489 (Mr Park, 08/373/0016), where the same spoligotype, 12:a, has also been identified. No direct or indirect link between these two holdings has been established to date.

There is a also herd of cattle located at the po, which is kept separate from the pigs. This herd passed its first radial TB test in Feb 2016. There is a high density of badgers in the area and badgers have been seen in very close proximity to the outdoor pigs. This TB incident has now been resolved as all the pigs on the holding were slaughtered with no further evidence of infection detected through post-mortem meat inspection. The resident cattle herd continues to be subject to enhanced TB surveillance (radial testing) until the whole cycle of three tests is completed.

8. Individual summaries of new OTFW breakdowns detected in the region during the report period and ongoing breakdowns from previous years still open at the end of the report period, grouped by county

**Cumbria**

At the start 2015, there were two ongoing OTFW breakdowns that had begun in 2014:

**Morland, Penrith**

Closed dairy herd with 160 milking cows, 144 Heifers and followers and 54 veal calves sold at 6 months old direct to slaughter. It’s a traditionally run herd, with dairy cows grazing during summer and housed in the winter. Veal calves are sold direct to slaughter at 6 to 8 months old, having been housed all the time. The original herd, before FMD in 2001, had a culture negative test reactor dairy cow disclosed in 2002 on a check test (CT). No animal from the herd of 2002 is still alive on the premises. Last clear test was a routine hed test (RHT48) on the-24 March 2014.

For the last 2 years around 20 dairy heifers have been winter-housed at another premises from Dec to May. A complete CT on the premises has been conducted on the 30th January 2015, with negative results clear.

Initial SLH suspect case was on the 17th Nov 2014 and was confirmed as positive on the culture on the 5th Jan 2015. Spoligtype result: 17:6-4-5-4*-3-3.1 – unique, not seen in UK.

The infected animal was a homebred male veal calf 6 months old, born on the 13th April 2014. The animal was kept continually inside with a group of another 10 veal bulls. The SLH case was sent to slaughter on the 19th Nov 2014 with lesions found subsequently on the BM nodes.

A 1st SIT was conducted on the 23rd Feb 2015, 342 animals tested out of 350, with a severe reactor (R) disclosed. An interferon-gamma test was performed at the same time and revealed 2 gamma Rs. Skin R and IFN-gamma Rs all slaughtered on the 06th March 2015 and NVL on post-mortem inspection (PME).
The skin test reactor was a homebred heifer, born on the 19th Aug 2013 and has never been TB tested previously. Likewise, both the gIFN Rs heifers, homebred, born in Nov 2013 and March 2014, had never had a skin test. There is no evidence of a close contact with the initial infected animal.

A 2nd SIT was conducted, with negative results, on the 5th May 2015 with 335 animals tested out of 339.

A 3km radial testing regime has been established following this breakdown and revealed 71 premises. (Please see radial table at end of the report for full details) The source of infection was still unknown at the time of writing. Genotype is so rare and unlikely to have been generated from one of the common type 17s found in GB.

Following a second clear SIT, this premises regained OTF status 14/08/2015.

**Update end 2015**

The six-month check test on the index holding was completed with negative results on 19/2/2016.

**Stainton, Penrith, Cumbria**

This farm is run as one single premises with around 50 beef animals and 1200 sheep. Cattle stay on the premises until slaughter weight, being sent to West Yorkshire.

The farmer buys 95% of his cattle form the South West England and Wales. Many tracing tests have been carried out on the premises. However, there has not been a TB breakdown before on this premises.

The 1st reactor, disclosed during a TR test was NVL and culture negative (17 month old Lim X). This animal originated from premises in Devon, (confirmed genotype 11:a), and is now under TB2 and has had several cases of confirmed TB.

The 1st SIT was carried out on the 20th Jan 2015, with 40 out of 41 animals tested and disclosed two reactors, both NVL but subsequently culture positive. Both of these animals were brought onto the farmer’s premises from Exeter on the 4th June 2014.

The 2nd SIT and IFN-gamma test were carried out on the 24th March 2015, with 28 out of 28 animals skin tested and 23 IFN-gamma sampled. This disclosed 4 skin Rs: two VLs and two NVLs; and 2 IFN-gamma Rs: one VL (RP M1YCft) and the other NVL.

A 3km radial testing regime was instigated (Please refer to radial table at the end of the report).

Source of infection still unknown with further data pending, but is most likely that the infection was brought in from infected animals from the South west England.

This premises has been depopulated of cattle voluntarily and has undergone satisfactory cleansing and disinfection. OTF status will be regained in the near future (+ 60 days post animal removal and C/D)

**Update end 2015**

Premises regained OTF status 30/9/2015. Premises has not restocked with cattle.
Cumbria 2015 Report

There were ten new OTFW breakdowns in Cumbria in 2015:

Kendal, Cumbria

Suckler herd with a total of 110 cattle: 3 stock bulls, 50 suckler cows and the rest will be offspring’s and stores. Most of the herd is homebred; sometimes heifers and calves are bought from local marts, always coming from 4 year interval testing herds. Store cattle are sold through Kendal/Lancashire mart when 14 to 20 months old.

This is the 1st Breakdown at the farmer’s premises. Last clear test was a routine herd test (RHT) in Mar 2011.

Reactors disclosed on a RHT48 (5th Jan 2015), F, LIMX, born on the 20/08/2007. R slaughtered on the 15/01/2015 with VL on the ronchial lymphnode (S2CCfT) and on the Lungs (S2CCfT). The R had tested clear on previous farm in 23rd October 2012.

Reactor animal had two movements recorded.

1st SIT and IFN-gamma carried out on the 17th March 2015, 108 animals skin tested and 105 IFN-gamma tested with one skin test reactor and two interferon-gamma reactors disclosed, all NVL.

Culture results from all reactors were negative.

Following a second clear SIT in May, this premises regained OTF status 17/7/2015

A 3km radial testing regime has been established following this breakdown. Please see radial testing summarybelow (44 cattle holdings in the zone, all tested with negative results at the first and second RAD tests).

Source of infection is still obscure but likely to be due to purchase of an infected animal.

Update end 2015:

VE-6M was undertaken on 11 December 2015 and disclosed 1 x IR which was retested negative on 12 February 2016

Hawshead, Ambleside

Carnforth, Cumbria

SLH case positive homebred, female, HFx, with no movements from the holding, and kept always with the same group of milking cows. TB02 served on the same day of slaughter, 12th Jan 2015. No illness history or any specific treatments recorded for this animal. A positive culture result was received on the 3rd March 2015 as Spoligotype: 25. Last herd test with negative results was an RHT on the 20th March 2012.

Hawshead - Suckler herd (120 animals) -15 miles away from Holme Park and is surrounded by forest, no direct contact with any other cattle herd

Carnforth - Dairy herd (around 500 animals).

The only movements between these two premises are of calf suckler heifers from Hawshead to Carnforth. There are no movements back to Carnforth.

- Hawshead, was a dairy herd until 1999 when all cattle were moved to HPF. Since that date only a few bulling heifers were move to Grizedale to be finished on the premises. At the moment Grizedale has a suckler herd with 120 head of cattle. Bullocks are sold at 15 months of age direct to slaughter. The only movement onto this premises was on the 30th April 2014 - stock bull from a mart. Last clear test RHT48 on the 20th March 2012.

- Carnforth herd was created in 1999 with the dairy herd from Grizedale. It has 500 animals, comprising milking cows, heifers/followers and calves (dairy and suckler). Positive SLH animal was born on this premises in 2002 and has never been moved from this holding. No movements in, with exception of 2 stock bulls moved on the 9th Sept and 8th Oct 2014 from a mart. In calf suckler heifers move to Grizedale
(8 to 10 animals every year) and never return to Carnforth. This year for the first time 80 heifers went to for wintering to a neighbour's farm.

- Note: The neighbours completed an immediate a clear CT on the 20th March 2015.

Hawshead and Carnforth are run as two separate epidemiological herds.

There is no previous history of TB in the herd. The last TB test before this slaughterhouse case was a RHT on 20th March 2012 in which 240 of 568 cattle tested clear.

- **Carnforth** - The Part1 SIT & IFN-gamma carried out on the 16th March 2015 on 70 Heifers winter housed at Duckett's premises: disclosed 1 IFN-gamma R. Part2 SIT & IFN-gamma carried out on the 7th April 2015 on the Heifers and Young stock, 216 of 314, disclosed 1 skin R and 6 IFN-gamma Rs. Complete SIT carried out on the 14th April 2015 on the milking cows, 231 of 269, disclosed 28 skin Rs and 27 IFN-gamma Rs (only 12 extra ones) – 18 with VL.

Spoligotype 25, genotypes 25a and 25x have been isolated

July 2015 SIT disclosed 4 skin Rs one of which was VL
Sept 2015 SIT disclosed 6 skin Rs – all NVL
Nov 2015 SIT disclosed 5 skin Rs – all NVL
Feb 2016 SIT disclosed 6 skin Rs – all NVL

- **Hawshead** – SIT carried out on the 6th March 2015 clear. After high numbers of Rs disclosed at HPF, a further check test at severe and IFN-gamma test was undertaken at Grizedale, carried out on the 5th of May 2015 with no skin Rs disclosed but with 12 IFN-gamma Rs all NVL. TB 10 served.

A radial testing regime has been implemented around each premises – please see later summary (117 holdings with cattle, all with negative test results at the first and second radial surveillance tests).

Source of infection still unknown. High wildlife activity, mainly deer and badgers, could potentially be also a source of infection, but at the moment TB status of wildlife on this area is unknown.

**Keswick, Cumbria**

Family suckler herd with a total around 130 beef animals, mainly Lim and LimX.

Farm practice is to buy limited replacements and a few stock bulls through Carlisle mart (mainly from ILLIA). At the moment around 80% of the animals are homebred. Last animals were bought in March 2014: a cow and calf from H&H Carlisle Mart.

Steers are sold between 9 to 15 months old through Mitchell’s Auction mart in Cockermouth or H&H Carlisle. Last animals sold on the 9th Jan 2015: 6 steers sold through Mitchell’s Auction mart, Cockermouth, Cumbria.

This is the 1st breakdown on the premises. The index reactor was imported, for breeding, on the 20th October 2012 from Northern Ireland - Frewstown Limousin. The farm has had a clear test history since 2003. The animal was TB tested twice on this premises, on the 04th Aug 2012 and on the 06th October 2012.

The last RHT on this premises was clear and completed on the 14th Jan 2011. The index animal was post import tested with clear results on the 14th Jan 2013 and subsequently disclosed as reactor on a RHT48 on the 20th Jan 2015 - A: 12-12; B: 12-24. Slaughtered on the 28/01/2015 with VL in RP M1YCfT.

The reactor had been housed last winter with 7 cows and 7 calves. CT completed on the young stock on the 3rd February 2015 with 69 of 131 animals tested clear.

1st SIT and IFN-gamma carried out on the 13th April 2015, 118 of 123, disclosed 1 severe-interpretation reactor and 1 IFN-gamma reactor – All NVL.

Culture results were received on the 8th May 2015 and were negative.
A 3km radial testing regime has been established following this breakdown – see later update (36 cattle holdings identified, all with negative results in the first two rounds of radial testing).

Following a further clear SIT in July 2015, OTF status was regained.

**Update end 2015:**

VE-6M completed in February 2016 was clear.

Most likely source of infection was the purchase of infected animal(s) in to the holding, Initial culture results negative. Waiting for completion of RAD zone, but results so far do not indicate any spread of infection.

**Heads Nook, Cumbria**

This is a family run dairy herd with around 500 animals. Male calves are either grown and sold as stores, or finished and sold direct to slaughter. Some female calves retained as replacements. Though trying to get as close as possible to closed herd status, occasional cows and bulls are still bought in from different origins.

The test reactor animal, was one of 14 calved cows imported from the Irish Republic on the 9th September 2010. All 14 tested clear on a post-import test (done in conjunction with an RHT) on 4 January 2011. This animal was an IR at RHT, completed on the 8th Dec 2014 with 346 of 514 tested, and isolated with a second homebred IR identified at the same time. At IR retest on the 9th Feb 2015, the Irish animal was a clear reactor (A-6/7; B-10/26) while the homebred animal passed. However, in view of the risk of the homebred cow recycling infection back into the herd following 60 days shared isolation, the decision was taken to remove it as a direct Contact (DC). Both animals slaughtered on the 17th Feb 2015 with the R after PME revealed VL on the bronchial lymphnode (S2YCfT).

1st SIT carried out on the 23rd Feb 2015, 483 tested of 507 with negative results. IFN-gamma sampling carried out on the 23rd March 2015: 443 tested, 13 positive, all NVL at slaughter.

A 3km radial testing regime has been established following this breakdown – see later report (44 premises with cattle, only one OTFS incident disclosed in the first two rounds of radial testing, now resolved).

2nd SIT carried on the 27th April 2015, 479 of 483 cattle, with negative results. TB10 issued on the 1st May 2015.

*M. bovis* been isolated from the initial R. It is likely that this animal brought the infection over with it from Ireland in September 2011. Genotype has since been confirmed as 21:x.

**Update end 2015:**

Six-month check test on the index holding undertaken in December 2015 with negative results.

**Penrith, Cumbria**

Traditional suckler herd with 171 cattle on the premises, summer grazing and housed during the winter. Cattle grazing tend to remain on the same pasture all summer. The herd has a higher health status than average due to carefully decided where to buy in (only two bovines bought in the last four years), vaccination programmes and communication with neighbours, so no nose to nose grazing. Church farm had a previous breakdown, 2xIR, homebred Lim cow slaughter with NVL and culture negative. Mr Morton during 2007 bought in suckler heifers to increase the size of the herd. Most of animals bought in were from local herds. The two bovines bought in the last four years were a bull from Kings Meaburn and a heifer from Stirling. Both from 4 year testing parishes.

Herd present in two locations: Gamblesby, main premises, and Milburn 5 miles away. In both locations there is high badger activity.
Reactors, UK102172 101232 (SMX, dob 02/04/2014), homebred heifer disclosed initially as the only IR on a RHT48 carried out on the 12th Jan 2015, 81 tested of 180, and confirmed R at IR retest. Slaughter on the 19th March 2015 with VL - BM D1YCfT. Animal spent summer 2014 grazing at home premises – Gamblesby and it would have had nose to nose contact with stock from Messrs Awde - 08/169/0003 (last clear test RAD 5th May 2015) for a few days.

First short-interval and IFN-gamma tests carried out on the 31st March 2015, 156 of 171, disclosed 1 standard R (UK102172 201198) NVL and 3 Gamma Rs all NVL. The skin reactor and the two older gamma reactors are from an older group of animals - approx. 2 years old. They spent summer 2014 at Milburn.

2nd SIT was undertaken and revealed 2 x IRs which are awaiting retest.

Initial reactor disclosed has been confirmed culture positive on the 18th May 2015. Genotype was 25a.

A 3km radial testing regime has been established, in both areas, following this breakdown. – see later report but to summarise to date:

OTFS within radial now regained OTF.

OTFW – spoligotype also 25:a – see later premises report.

Update end 2015:

OTF status was regained in November 2015. Source of infection still obscure.

Ousby, Penrith, Cumbria

A traditionally run dairy farm, comprising 120 dairy cows, 2 stock bulls and 40 replacements. In addition, 40 homebred beef crosses are fattened either to slaughter weight or sold as stores. Also co-located, is a 1000 head flock of breeding sheep. The stock bulls are used exclusively – No AI is used. Replacement animals are purchased when necessary with an emphasis on sourcing from LRA.

A single reactor was disclosed following a radial test 11/5/2015 resulting from Ref 14/04865. This R was HB born February 2008 and had had a previous clear test March 2014. VL were detected on PME, culture was positive with resultant genotype 25a. (This differs from Ref 14/04865 which had a genotype 17:6-4-5-4*-3-3.1).

A SIT was undertaken in July 2015 and was clear. A parallel gamma test undertaken at this time revealed 3 reactors, all of which were NVL on PME.

A radial testing regime is being instigated. – see later summary. 123 premises were initially identified. Of these, 37 fell into this new radial zone, the remaining premises either being in an existing radial regime or exempt for other reasons.

Update end 2015:

OTF status was regained in December 2015 following the 2nd clear SIT. Source of infection is unknown at present.

Grange over Sands, Cumbria

This premises is a family run beef breeding and fattening farm, with ~270 cattle in total comprising 45 suckler cows with calves, rearing stores and a stock bull. He buys locally to make up the numbers and rears to finishing weight, slaughtering at 2 years of age on average. He also has a small group of cattle on site belonging to his son, housed in a separate building. Summer grazing is used about 2 miles away from home farm.
OTF status was lost as a result of a reactor disclosed at a spread tracing test undertaken on 11 Nov 2015. The animal in question, Lim male dob 08/12/2014, had been purchased on 21/1/2015 via market, from its natal herd in North Yorkshire, (Ref 15/03656). A positive M. bovis culture result was obtained from this traced reactor animal and the genotype of the isolate was 12:a.

A check test was undertaken on 30 Nov 2015 and disclosed 3Rs and 1 IR, which were all NVL on slaughter and culture negative. The first SIT undertaken on 2016 revealed 1 skin R and 1 IR, both NVL and parallel gamma blood test revealed 23 reactors, all of which were NVL. All culture results have been negative from samples submitted from these reactors.

A 3km radial testing regime has been instigated – see later report.

Next SIT is scheduled for May 2016.

**Longton, Cumbria**

This is a beef fattening unit comprising ~250 animals which are purchased from local markets and then finished within 5-6 months and then sold for slaughter, usually direct to the abattoir or via a slaughter market. Enterprise is split in two locations, the home premises at Dashwell Green and another site about 1.5 miles away called Low Plains. In both locations, the animals are continuously housed and can be considered as one epidemiological unit.

OTF status was lost following the positive culture of a SLH case disclosed on 27/10/2015, genotype 51:a. The animal in question, male, Charolais, DOB 04/07/2013, had been purchased only 3 months before slaughter and had tested clear on two previous occasions: post-movement test and as a tracing test on 29/04/2015 whilst located on the previous holding in Scotland.

This animal was purchased from a premises in Northern Ireland, which is now OTFW and stayed at a premises in Dunmfries and Galloway, Scotland from 24/4/2014 till 14/07/2015, when it was sold to the farmer. Slaughter was 27/10/2015.

The Scottish premises has a clear TB history although has regular trade with NI. It is likely therefore that this animal carried infection from his origin premises in NI.

The first short-interval test gave negative results on 11/1/2016 and a parallel gamma blood test revealed 12 Rs – all NVL. The 2nd VE-SIT was undertaken in March 2016 and was clear so TB restrictions were lifted.

A radial testing regime has not been instigated, as the infected animal was purchased and housed continuously during the three months it spent on the beef fattening farm in Cumbria.

**Milnthorpe, Cumbria**

This is a commercial dairy herd (part -pedigree) running between 90 -140 milkers . Currently has 100 in milk and 25 dry Holstein Friesians . DIY AI (semen sales Cogent) + one Aberdeen Angus bull. Breeds own replacement heifers. Closed herd except for replacement breeding bulls.

Male dairy calves and beef calves are reared to 18-20 months and are sold as stores at Bentham auction normally and sometimes Lancaster auction. Milk sold in Kendal (raw milk consumed on farm).
The main home premises are two linked holdings. There is a horse livery also a Kidside. There is an other location for summer grazing of dairy heifers and dairy x beef animals being fattened to sell as stores. There is also overflow calf accommodation for 20 -25 calves-usually those calves born between August and November. Dairy and beef calves are all born at Milnthorpe. When weaned they are moved. Beef animals never return to Milnthorpe but dairy heifers will return once due to calve. Another area of land is primarily used only for beef x growing animals and sheep. The index reactor would not have grazed on this land but dry cows were grazed on the land in summer 2015 and the reactor may have had contact with those animals. As this holding is linked to the main holding number and Milnthorpe it has been included in the TB2 restriction notice for the present as agreed by the farmer.

Cattle are moved between various premises and the movements are not reported to BCMS. All internal moves are recorded on the farm computer.

High yielding cattle (fluctuating epi group) are housed all year round. The main herd grazes during the day in summer but is housed at night. All dry cows are grazed day and night for 2-3 weeks .Winter housing for all stock between October and April.

In view of the cattle movements between all premises it is currently impossible to exclude any of them from the TB2 restriction notice.

OTF status withdrawn following disclosure of a reactor – VL on PME at a Rad 6 test on 1 Dec 2015. Culture result was positive, with genotype result still pending at time of writing.

The reactor was homebred, Holstein Friesian female DOB 26/08/10. During her lifetime she was housed in all buildings and grazed on land at Milnthorpe. The reactor had no previous disease problems. Her dam was homebred . Two offspring of the reactor remain on farm and have tested clear.

First short-interval test of the herd on 08/2/2016 was gave a negative result. The parallel gamma blood test undertaken at the same time revealed 8 reactors all NVL on PME. Second short-interval test is scheduled for April 2016.

Origin of this breakdown is obscure. It is in an existing radial (Ref 15/00135) and contiguous nose to nose contact is possible with neighbouring herds at several locations. Badger and deer are reported in the area, although no known badger sets are on the farmer’s land.

In addition, the farmer’ cattle (mainly beef cross youngstock and dry cows summer 2015) housed on various locations used the same handling facilities. On checking records for this other premises it would appear that cattle from annual testing areas of GB (Cheshire/Shropshire/Wales) have come and gone from the herd.

**Penrith, Cumbria**

This a family run beef fattening herd comprising ~520 animals. Animals are taken through to finishing weight. Purchases of replacement heifers/stock bulls are made from local markets. No history of TB on this premises. OTF status was lost due to the positive test of a traced animal on 04/12/2015. The animal in question, BRB, female, DOB 25/05/2015 was purchased from its natal farm in North Yorkshire on 01/07/2015. This farm of origin, 48/391/0036, has been under TB2 restrictions since 17/08/2015 due to a SLH case disclosed in Northern Ireland. 9 had not been TB tested before as ineligible. At the tracing test she was a standard reactor, VL on PME (BM M2Y CfT) and culture positive, genotype 12:a. A check test on the remainder of the herd, revealed three further reactors, one of which was VL and subsequently culture positive.

The genotype from the natal farm has now been confirmed as 25:a. The traced animal only remained on her natal farm for 5 weeks before sale, origin of this breakdown is now obscure.
The first VE-SIT and parallel gamma test in March 2016 revealed 7 skin reactors and 9 gamma reactors, 3 of which were skin reactors. One skin and gamma test reactor was VL on PM examination. The remainder of the reactors were NVL. Further sampling was taken at PME, with the culture results pending a time of writing. A radial testing regime has been instigated around this premises – see later report.

Lancashire

There were two OTFW breakdowns in the reporting period:

Melling, Carnforth, Lancashire

This premises is a family run suckler herd comprising in total 600 head of which 250 are beef cows. Stores are sold either as finished or for further fattening and there is an open replacement policy with animals purchased as needed. Cringleber is the main home premises but two other localities are used for grazing.

OTF status withdrawn following a positive culture SLH case. The animal in question was 6yr old, purchased in October 2014 with her calf. She had been tested several times on previous holdings with clear results. These previous holdings have no TB disease history.

Since purchase she was housed continuously.

Melling had a RAD 12 test 26/01/2015 (fell within a 3km radius of a 2013 OTF breakdown - Ref 13/01719) and again she and her calf both tested clear. She was slaughtered on 27/5/2015, five days after being sold and disclosed typical lesions in the carcase RPM2YCaT.

Culture was positive with genotype 17:a. This differs from Ref 13/01719, which had genotype 25:a, meaning that the TB incident is not epidemiologically related to the one that triggered the radial surveillance tests.

Following a first SIT in August 2015, 2 x IRs were disclosed one of which was a gamma positive, NVL. This animal was purchased in 2013 from a herd with clear TB testing history.

The gamma test revealed 8Rs in total, one of which, was skin negative but PME disclosed VL. This animal was not sampled at PME. This animal was 12 years old and stayed on its natal farm until May 2015 before coming to Melling.

There is a clear TB history at the natal farm.

There is very limited nose to nose contact with neighbouring cattle and contact with wildlife is thought to be low.

A 3km radial testing regime is being established – see later report

Update end 2015:

OTF status was regained following clear testing of the 2 x IRs at the 2nd VE-SIT which was also clear. However, TB movement restrictions were re-imposed following disclosure of an IR at a premovement test on 1/3/2016. It’s retest is scheduled.

Preesall, Lancashire

This is a large flying diary herd comprising ~650 milkers inc about 30 store animals. Approx 1/3 of the herd replaced on an annual basis. Replacements sought from market and privately. Limited imported animals. Small number of rare breeds kept as a hobby but run as part of the one epi group essentially. Limited consideration to buying from only LRA until recently. He also has a small group of British rare breed cattle and Longhorns which are kept as a hobby. These have limited contact with the main dairy herd but same personnel and equipment utilised for both.
Adult cattle are kept indoors after calving but would be in contact with incoming newly calved animals coming in from grazing. Bull calves sold for further fattening with approximately 20-30 retained on farm depending on capacity.

OTF herd status withdrawn due to a positive TB culture from a purchased animal: DOB 6/11/2012. Purchased by the farmer as a new calved heifer on 10/2/2015 (seven months before diagnosis of TB) via market from natal farm located approximately 6 miles away. The animal presented suddenly with severe nasal and oral bleeding and was euthanased by PVS in Sept 2015. PME on farm showed suspicious lesions in the chest and lungs which were subsequently confirmed *M. bovis* by Penrith. Genotype 17:a. Farm of origin has a clear testing history and has been most recently tested clear at a RHT in March 2015 and a whole herd check test in July 2015.

At the farm a CT was undertaken with clear results on 21 Sept 2015 to enable licensing on of stock to keep throughput going. First SIT on 30 Nov was clear with parallel gamma revealing 9 reactors all NVL. 2nd SIT was undertaken on 1st Feb and was clear, resulting in TB10 being served. Radial testing has been implemented - see later report.

Breakdown suspected to be caused by purchase of an infected animal. Although the index animal was purchased and housed since its purchase, the natal farm has a clear TB history. A RHT completed in March 2015 was clear and the herd was later check tested again with clear results in July 2015, as part of a 3km check test regime in the area.

**Greater Manchester**

There were two new OTFW breakdowns in the reporting period, both of them linked to incidents in the annual testing county of Cheshire (Edge Area of England):

**Hazel Grove Stockport**

This breakdown will be reported as Rainow, Macclesfield (Cheshire), a farm in the Edge Area. The Stockport incident relates only to a cattle shed on this premises that was used as additional housing for some of the cattle from the main (primary incident) herd in Cheshire.

**Cheadle, Cheshire SK8 3PE**

This breakdown will be reported under the Edge Area, as main premises is located in Cheshire and this breakdown relates to animals moving between these linked holdings. A radial test has been implemented with seven eligible premises identified. Results will be available for next report.

A one-off additional skin test of 36 cattle herds took place in the Stockport area of Greater Manchester during March-May 2015, with negative results. This round of ad hoc TB testing was conducted in response to an OTFW incident of uncertain origin detected in a local herd in 2014 and to rule out any spread of bTB into this part of Greater Manchester from the adjoining Edge Area of Cheshire.

**Merseyside**

There were **no new OTFW breakdowns** in the reporting period
North West radial Overview 2013 to date (March 2016)

(2013 Radial are now all closed and their premises returned to 48m UMR)
### 2014 OTFW Breakdowns – Resultant Radial Zones (as of March 2016)

<table>
<thead>
<tr>
<th>OTFW</th>
<th>TB Incident Status</th>
<th>Immediate Rad</th>
<th>Rad 6</th>
<th>Rad 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>14/00523</td>
<td>OTFW 28/01/2014</td>
<td>69 premises identified, of which 6 in existing radial and 10 exempted. Out of the 53 premises remaining, 47 tested clear, 5 are NES, 1 disclosed an OTFS (2xIR) breakdown.</td>
<td>1 x OTFS now resolved</td>
<td>Due from 11/2015 All tested clear</td>
</tr>
<tr>
<td>14/01304</td>
<td>OTFW 07/03/2014</td>
<td>47 premises in the radial. Of these 47 premises, 39 have tested clear, 3 were in existing radials, 4 NES and one test disclosed an IR but this has tested clear.</td>
<td>All tested clear</td>
<td>Due from 10/2015 All tested clear</td>
</tr>
<tr>
<td>14/01303</td>
<td>OTFW</td>
<td>Originated from 14/1304 and housed since purchased, so not being instigated at present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/01310</td>
<td>OTFW</td>
<td>Originated from 14/1304 and housed since purchased, so not being instigated at present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/00449</td>
<td>OTFW</td>
<td>129 premises in radial, but excluding those already in existing radials, NES and exempted herds 45 premises due for testing from 04/2014.</td>
<td>Due from 10/2014 All tested clear</td>
<td>Due from 04/2015</td>
</tr>
<tr>
<td>14/00626</td>
<td>OTFW</td>
<td>64 premises initially identified. 9 were exempted, 11 were in exiting radials and 2 had NES. Of the 42 premises then remaining, 4 had NES, 36 tested clear but 14/01971 - disclosed as OTF(W).</td>
<td>Due from 11/2014 All tested clear</td>
<td>Due from 05/2015 All tested clear to date</td>
</tr>
<tr>
<td>14/01971</td>
<td>OTFW</td>
<td>72 Premises initially identified. 50 already in existing radials, 7 exempted from testing &amp; 1 premises with no cattle livestock unit. 13 premises tested clear. 1 premises disclosed an IR with a target date for re-test of 09/11/14 (now clear)</td>
<td>Due from 03/2015 1 x OTFS premes (now resolved) – rest clear All tested clear to date</td>
<td></td>
</tr>
<tr>
<td>14/04865</td>
<td>OTFW</td>
<td>71 premises identified of which 7 are exempt and 2 have no recorded cattle All tested clear</td>
<td>Due from 09/2015 All tested clear</td>
<td>Due from 09/2016</td>
</tr>
<tr>
<td>14/04743</td>
<td>OTFW</td>
<td>71 premises in radial – 1 x OTFS culture pending. All others tested clear</td>
<td>Due from ~10/2015 All tested clear</td>
<td>Due from ~10/2016</td>
</tr>
</tbody>
</table>
### 2015 – OTFW Breakdowns – Resultant Radial Zones as of September 2015

<table>
<thead>
<tr>
<th>OTFW</th>
<th>TB Incident Status</th>
<th>Immediate Rad</th>
<th>Rad 6</th>
<th>Rad 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>15/0068</td>
<td>OTFW</td>
<td>54 premises identified of which: 8 exempt/no cattle 2 in existing radial  All tested clear</td>
<td>Due from 09/2015 – All tested clear</td>
<td>Due from 09/2016</td>
</tr>
<tr>
<td>15/00135</td>
<td>OTFW</td>
<td>To date 127 premises identified of which: 5 exempt/no cattle 117 initial or modified radial regime 5 premises in on going incident  All tested clear</td>
<td>Due from 11/2015 All tested clear</td>
<td>Due from 11/2016</td>
</tr>
<tr>
<td>15/00360</td>
<td>OTFW</td>
<td>47 premises identified to date of which: 11 exempt  All tested clear</td>
<td>Due from 10/2015 All tested clear</td>
<td>Due from 10/2016</td>
</tr>
<tr>
<td>15/00689</td>
<td>OTFW</td>
<td>71 premises identified to date of which: 27 are exempt 2 in existing or superceded radials – 1 x OTFS – now resolved  All tested clear</td>
<td>Due from 10/2015 All tested clear ??</td>
<td>Due from 10/2016</td>
</tr>
<tr>
<td>15/01233</td>
<td>OTFW</td>
<td>82 premises identified to date with cattle – 1 premises OTFW (Ref 15/02124). All rest now clear</td>
<td>Due from Dec 2015 All tested clear</td>
<td>Due from Dec 2016</td>
</tr>
<tr>
<td>15/02124</td>
<td>OTFW</td>
<td>123 premises initially identified of which 40 were eligible for initial RAD setup 28 premises have tested clear (or NES) to date</td>
<td>Due from Feb 2016 All tested clear to date</td>
<td>Due from Feb 2017</td>
</tr>
<tr>
<td>15/02262</td>
<td>OTFW</td>
<td>164 premises identified initially of which 14 were already in a RAD. 1 has no cattle and 4 are ongoing breakdowns.  75 premises have been set RAD testing to date – the rest are pending (Due 11/2015) 1 tested to date - clear</td>
<td>Due from May 2016 1x OTFS – now regained OTF status but  1 x OTFW (Ref 15/004489)</td>
<td>Due from May 2017</td>
</tr>
<tr>
<td>15/03588</td>
<td>OTFW</td>
<td>41 herds identified of which 29 eligible for testing. 27 herds tested clear to date</td>
<td>Due from July 2016</td>
<td>Due from July 2017</td>
</tr>
<tr>
<td>Case Number</td>
<td>OTFW</td>
<td>Status</td>
<td>Due Date 1</td>
<td>Due Date 2</td>
</tr>
<tr>
<td>--------------</td>
<td>------</td>
<td>------------------------------------------------------------------------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>15/00489</td>
<td></td>
<td>84 herds identified of which 72 eligible for testing. 48 tested clear to date with 24 pending.</td>
<td>Due from July 2016</td>
<td>Due from July 2017</td>
</tr>
<tr>
<td>15/04208</td>
<td>OTFW</td>
<td>Radial testing not carried out around this holding because the infected animal was a purchased slaughterhouse case housed continuously during the three months it spent on this beef fattening farm in Cumbria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15/04869</td>
<td>OTFW</td>
<td>43 herds identified of which 27 eligible. 20 tested clear to date with 7 pending.</td>
<td>Due from July 2016</td>
<td>Due from July 2017</td>
</tr>
<tr>
<td>15/04904</td>
<td>OTFW</td>
<td>9 herds identified of which 5 are eligible. All 5 tested clear</td>
<td>Due from July 2016</td>
<td>Due from July 2017</td>
</tr>
</tbody>
</table>
Glossary

- **Edge Area (EA)** – the annual TB testing area of England situated between the High and Low Risk Areas

- **Epidemiology** – the science that studies the patterns, causes, and effects of health and disease conditions in defined populations

- **Genotype** – the genetic makeup of a cell, an organism, or an individual usually with reference to a specific characteristic under consideration

- **High Risk Area (HRA)** – the annual testing area of England comprising the South West, West Midlands and part of East Sussex, in which *M. bovis* infection is endemic in cattle herds and in badgers

- **Potential ‘Hotspots’** – a temporary area of enhanced TB cattle and wildlife surveillance that may be declared around some OTFW TB breakdowns of uncertain origin detected in a Region of historically low TB incidence

- **Low Risk Area (LRA)** – the four-yearly TB testing area of the North and East of England in which *M. bovis* infection occurs only sporadically in cattle and is not considered endemic in wildlife. Although the default testing interval for routine TB surveillance is four years, some higher risk herds in the LRA are subjected to annual testing. There is also more intensive surveillance testing (radial testing) around any herds in the LRA (and parts of the Edge Area) that have their officially TB free status withdrawn due to a TB breakdown

- **OTF** – Officially Tuberculosis Free status. Herds that are not subjected to TB movement restrictions of any type are classified as OTF

- **OTF-S** – Officially Tuberculosis Free Suspended status. In England, an OTFS breakdown is a herd in which all the reactors removed had no visible lesions (NVL) on post-mortem examination and had negative culture results for *M. bovis*

- **OTF-W** – Officially Tuberculosis Free Withdrawn status. In England, an OTFW breakdown is a herd in which at least one test reactor with visible lesions (VL) and/or an animal with *M. bovis*-positive culture result have been disclosed

- **Persistent herd breakdown** – a herd that has been under TB movement restrictions for 18 months or longer due to infection with *M. bovis*

- **bTB** – (bovine) Tuberculosis (infection of cattle with *M. bovis*)

- **IFN-γ** – interferon-gamma test. A supplementary in vitro blood test for TB used by APHA in conjunction with the tuberculin skin test in some situations, usually to improve the overall diagnostic sensitivity in infected herds with OTF status withdrawn.

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The Animal and Plant Health Agency is an Executive Agency of the Department for Environment, Food and Rural Affairs working to safeguard animal and plant health for the benefit of people, the environment and the economy.