

Ref:	NR/L2/TRK/4239
Issue:	1
Date:	05/12/2015
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## 1 BALLAST

### a) With no subgrade erosion

- |   |  |                                   |
|---|--|-----------------------------------|
| 1 |  | Clean Ballast                     |
| 2 |  | Slightly Dirty Ballast            |
| 3 |  | Dirty Ballast                     |
| 4 |  | Very Dirty Ballast (non-cohesive) |
| 5 |  | Very Dirty Ballast (cohesive)     |
| 6 |  | Very dirty ballast (slurried)     |

### b) With subgrade erosion

- |    |  |  |
|----|--|--|
| 7  |  | Slurried Ballast < 10% fines               |
| 8  |  | Slurried Ballast > 10% fines               |
| 9  |  | Ballast - Voids filled with silt/fine sand |
| 10 |  | Ballast - Voids Filled with soft/firm clay |

## 2 TRACKBED LAYERS/FILLS

### a) Derived from naturally occurring Sands and Gravels.(% refers to clay/ silt content)

- |    |  |  |
|----|--|--|
| 11 |  | Fine/Medium Sand (<5%)                     |
| 12 |  | Coarse Sand (<5%)                          |
| 13 |  | Sand and Gravel (<5%)                      |
| 14 |  | Clayey/silty Sand and/or Gravel (5 to 20%) |
| 15 |  | Slurried Sand and/or Gravel (5 to 20%)     |

### b) Quarry Products

- |    |  |   |
|----|--|---|
| 16 |  | Stone dust (<5%)                                |
| 17 |  | Coarse Crushed stone aggregate (<5%)            |
| 18 |  | Clayey/silty Crushed Stone Aggregate (5 to 20%) |
| 19 |  | Slurried Crushed Stone Aggregate                |

### c) Ash

- |    |  |                                     |
|----|--|-------------------------------------|
| 20 |  | Fine ash (sand sized) (<5%)         |
| 21 |  | Coarse ash (gravel sized) (<5%) and |
| 22 |  | Clayey/silty Ash (5 to 20%)         |
| 23 |  | Slurried Ash                        |

### d) Other granular trackbed materials

- |    |  |  |
|----|--|--|
| 24 |  | Fine grained, susceptible to erosion (<5%) |
| 25 |  | Coarse Granular Layer (<5%)                |
| 26 |  | Clayey/silty Granular Layer (5 to 20%)     |
| 27 |  | Slurried Granular Layer                    |
| 28 |  | Any of 2 a-d in a clay matrix (20 to 50%)  |

## 3 SUBGRADE

Use legends from section 2 where appropriate,  
legend with bold outline indicates natural ground

### a) Homogenous Fine Soils (Clay and Silt)

- |    |  |  |
|----|--|--|
| 31 |  | Organic/Very Soft                                    |
| 32 |  | Soft Cu < 40kN/m²                                    |
| 33 |  | Firm Cu = 40 to 75kN/m²                              |
| 34 |  | Stiff Cu = 75 to 150kN/m²                            |
| 35 |  | Very Stiff / Hard / Very weak Mudstone Cu > 150kN/m² |

### b) Mixed (Fine and Coarse) Soils

- |    |  |   |
|----|--|---|
| 36 |  | Unstratified (clayey/silty Coarse Soil OR sandy or gravely Fine Soil) |
| 37 |  | Interbedded or weathered/ weakly cemented fine grained rocks          |

### c) Rock or Rockfill

- |    |  |  |
|----|--|--|
| 38 |  | Weak fine grained (mudstone, limestone, chalk, fine sandstone) |
| 39 |  | Moderately strong to hard rock                                 |

## 4 PITCHING LAYERS

- |    |  |                   |
|----|--|-------------------|
| 29 |  | Clean pitching    |
| 30 |  | Slurried Pitching |

## 5 SAMPLE LOSS IN ABS

- |    |  |  |
|----|--|--|
| 0x |  | Soil penetrated by ABS, but not recovered            |
| 0d |  | Soil displaced by ABS – indicative of very soft soil |

## 6 ADDITIONAL INFORMATION

- g** – permeable geotextile separator
- c** – permeable geocomposite
- m** – reinforcing mesh (geogrid)
- p** – impermeable membrane (polythene)
- h** – impermeable geocomposite
- w** – water level (wet samples)
- ws** – standing water (recorded in drill hole)
- hs** – historical slurring
- 34** – shear strength kN/m²
- e** – likely chemical contamination
- L** – >10 % limestone ballast

Figure 2 - Network Rail Logging Key - Version 3