







|                                |  |                                      |  |                                    |  |  |  |
|--------------------------------|--|--------------------------------------|--|------------------------------------|--|--|--|
| Drilling Method Rotary Cored   |  | Borehole Diameter<br>150mm to 13.00m |  | Casing Diameter<br>150mm to 13.00m |  | BOREHOLE No. BH47300   |  |
| Equipment Hanjin               |  |                                      |  |                                    |  | Coordinates (National Grid)  E<br>N<br>m OD |  |
| Drill Fluid Air/Mist           |  | Logged by CC                         |  | Compiled by cjm                    |  | Approved by BC   |  |
| Crew/Vessel C Jones            |  | 07/10/2015                           |  | 23/09/2015                         |  | 20/01/2016   |  |
| Dates Drilled Start 21/09/2015 |  | End 04/10/2015                       |  |                                    |  |  |  |


  

| Date & Time | Casing Depth (m) | Water Depth (m)<br>(Flush Return %) | Sample/Core Recovery |      |     | SPT Blows /N | Fracture Index or Sample (Blow/Pene) or Test Result | Description of Strata   | Depth (Thickness) (m) | Level m OD | Legend  |
|-------------|------------------|-------------------------------------|----------------------|------|-----|--------------|---|---|-----------------------|------------|---|
|             |                  |                                     | Depth (m)<br>From To | Type | No. |              |   |   |                       |            |   |
| 21/09       |                  |                                     | 0.30-0.50            | ES   | 1   | PID          | 0.0   | Grass over TOPSOIL: Brown slightly gravelly sandy clay with frequent rootlets (1mm to 3mm diameter x 2mm to 100mm in length). Gravel is angular to subrounded fine to coarse of psammite, pelite and quartzite. Sand is fine to coarse.   | (0.30)                | 157.35     |  |
|             |                  |                                     | 0.30-0.50            | D    | 2   |              |   |   |                       |            |   |
|             |                  |                                     | 0.30-0.50            | B    | 3   |              |   |   |                       |            |   |
|             |                  |                                     | 0.30-0.50            |      |     |              |   |   |                       |            |   |
| 21/09       |                  |                                     | 1.00-1.20            | ES   | 4   | PID          | 0.0   | Brown gravelly slightly silty fine to coarse SAND. Gravel is angular to subrounded fine to coarse of mixed lithologies including psammite and pelite. (CQI=1).<br><br>RIVER TERRACE DEPOSIT<br>Below 0.70m: Low cobble and boulder content. Cobbles and boulders (up to 300mm x 250mm) are angular to rounded of pelite and psammite. |                       |            |  |
|             |                  |                                     | 0.30-0.50            |      |     |              |   |   |                       |            |   |
|             |                  |                                     | 0.30-0.50            |      |     |              |   |   |                       |            |   |
|             |                  |                                     | 0.30-0.50            |      |     |              |   |   |                       |            |   |
| 03/10       | 1.20             | DRY                                 | 1.20-1.60            |      |     | C50/245      |   |   |                       |            |  |
|             |                  |                                     |                      |      |     |              |   |   |                       |            |   |
|             | 2.50             | DRY                                 | 1.20-2.50            | OH   | OH  | C50/60       |   |   |                       |            |  |
|             |                  |                                     | 2.50-2.64            |      |     |              |   |   |                       |            |   |
|             |                  |                                     | (100) 2.50-3.20      | 100  | 0   |              |   |   | 0                     |            |   |
|             |                  |                                     | 3.20-4.00            | 100  | 0   |              |   |   | 0                     |            |   |
|             | 4.00             | DRY                                 | 3.75-3.85            | C    | 5   |              |   |   |                       |            |  |
|             |                  |                                     | 4.50-4.55            | C    | 6   |              |   |   |                       |            |   |
|             |                  |                                     | (100) 4.00-5.50      | 100  | 0   |              |   |   | 0                     |            |   |
|             |                  |                                     |                      |      |     |              |   |   |                       |            |   |

|                                     |   |   |
|-------------------------------------|---|---|
| Remarks<br>(See notes & key sheets) | 1 | Prior to boring a Cable Avoidance Tool (CAT) survey was carried out. An inspection pit (minimum dimension approx 400mm x 400mm) was hand-dug to 1.20m depth and rescanned using the CAT to check for services. Services were not located. |
|                                     | 2 | On completion of boring an optical and acoustic televiwer survey was carried out.   |
|                                     | 3 | See separate sheet for installation.  |
|                                     | 4 | Groundwater not encountered during boring.  |

|            |  |   |  |                          |
|------------|--|---|--|--------------------------|
| Scale 1:25 |  | <br>29/08/2016 | Project<br>A9 KILLIECRANKIE TO PITAGOWAN<br>TRANSPORT SCOTLAND | Contract No. G151043UD   |
|            |  |   |  | Figure No. FR17 (1 of 4) |


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|                                |  |  |  |                                      |  |                                    |  |                                      |  |
|--------------------------------|--|--|--|--------------------------------------|--|------------------------------------|--|--------------------------------------|--|
| Drilling Method Rotary Cored   |  |  |  | Borehole Diameter<br>150mm to 13.00m |  | Casing Diameter<br>150mm to 13.00m |  | BOREHOLE No. BH47300                 |  |
| Equipment Hanjin               |  |  |  |                                      |  |                                    |  | Coordinates (National Grid) E N m OD |  |
| Drill Fluid Air/Mist           |  |  |  | Logged by CC                         |  | Compiled by cjm                    |  | Approved by BC                       |  |
| Crew/Vessel C Jones            |  |  |  | 07/10/2015                           |  | 23/09/2015                         |  | 20/01/2016                           |  |
| Dates Drilled Start 21/09/2015 |  |  |  |                                      |  |                                    |  |                                      |  |
| End 04/10/2015                 |  |  |  |                                      |  |                                    |  |                                      |  |

| Date & Time | Casing Depth (m) | Water Depth (m)<br>(Flush Return %) | Sample/Core Recovery   |            |           | SPT Blows /N | Fracture Index or Sample (Blow/Pene) or Test Result | Description of Strata                                 | Depth (Thickness) (m) | Level m OD | Legend |
|-------------|------------------|-------------------------------------|------------------------|------------|-----------|--------------|---|---|-----------------------|------------|--------|
|             |                  |                                     | Depth (m)<br>From To   | Type TCR % | No. SCR % |              |   |   |                       |            |        |
|             | 5.50             | DRY                                 |                        |            |           |              |   |   |                       |            |        |
|             | (100)            |                                     | 5.50-7.00              | 100        | 0         | 0            |   |   |                       |            |        |
|             |                  |                                     | 6.40-6.50              | C          | 7         |              |   |   |                       |            |        |
|             | 7.00             | DRY                                 |                        |            |           |              | AZCL  | Between 7.00m and 7.55m: Assumed zone of core loss.   |                       |            |        |
|             | (100)            |                                     | 7.00-8.50              | 63         | 0         | 0            |   | Between 7.55m and 9.05m: Non intact.                  | (10.50)               |            |        |
|             | 8.50             | DRY                                 |                        |            |           |              | NI  |   |                       |            |        |
|             | (100)            |                                     | 8.50-9.25<br>8.90-9.00 | 100<br>C   | 19<br>8   | 0            |   |   |                       |            |        |
| 03/10       | 9.25             | DRY                                 |                        |            |           |              |   |   |                       |            |        |
| 04/10       | 9.25             | DRY                                 |                        |            |           |              | 7   |   |                       |            |        |
|             | (100)            |                                     | 9.25-10.00             | 100        | 79        | 79           |   |   |                       |            |        |
|             |                  |                                     |                        |            |           |              |   | Between 10.00m and 10.40m: Assumed zone of core loss. |                       |            |        |

Remarks  
(See notes & keysheets)

Scale 1:25



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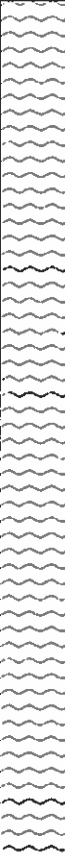
Project  
A9 KILLIECRANKIE TO PITAGOWAN  
TRANSPORT SCOTLAND

Contract No. G151043UD

Figure No. FR17 (2 of 4)


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|   |  |                                      |  |                                    |  |  |  |
|---|--|--------------------------------------|--|------------------------------------|--|--|--|
| Drilling Method Rotary Cored                  |  | Borehole Diameter<br>150mm to 13.00m |  | Casing Diameter<br>150mm to 13.00m |  | BOREHOLE No. BH47300   |  |
| Equipment Hanjin                              |  | Drill Fluid Air/Mist                 |  | Crew/Vessel C Jones                |  | Coordinates (National Grid)  E N m OD |  |
| Dates Drilled Start 21/09/2015 End 04/10/2015 |  | Logged by CC 07/10/2015              |  | Compiled by c1m 23/09/2015         |  | Approved by BC 20/01/2016  |  |

| Date & Time | Casing Depth (m) | Water Depth (m)<br>(Flush Return) % | Sample/Core Recovery |               |              | SPT Blows /N<br>Core Size (mm) | Fracture Index or Sample (Blows/Pene) or Test Result | Description of Strata   | Depth (Thickness) (m) | Level m OD | Legend   |
|-------------|------------------|-------------------------------------|----------------------|---------------|--------------|--------------------------------|--|---|-----------------------|------------|--|
|             |                  |                                     | Depth (m)<br>From To | Type<br>TCR % | No.<br>SCR % |                                |  |   |                       |            |  |
| 04/10       | 10.00            | DRY                                 |                      |               |              |                                | AZCL   |   |                       |            |  |
|             |                  |                                     | 10.40-10.70          | C             | 9            |                                |  |   |                       |            |  |
|             | (100)            |                                     | 10.00-11.50          | 40            | 35           | 35                             | 3  |   |                       |            |  |
|             |                  |                                     | 10.70-10.94          | C             | 10           |                                |  |   |                       |            |  |
|             |                  |                                     |                      |               |              |                                | AZCL   |   |                       |            |  |
|             |                  |                                     |                      |               |              |                                |  | Between 11.00m and 11.50m: Assumed zone of core loss. (Driller notes soft ground) |                       |            |  |
|             | 11.50            | DRY                                 |                      |               |              |                                |  |   |                       |            |  |
|             | (100)            |                                     | 11.50-13.00          | 100           | 97           | 27                             | 3  |   |                       |            |  |
|             |                  |                                     | 12.60-12.73          | C             | 11           |                                |  |   |                       |            |  |
|             |                  |                                     | 12.73-13.00          | C             | 12           |                                |  | Below 12.73m: Weak.   |                       |            |  |
|             | 13.00            | DRY                                 |                      |               |              |                                | End of Borehole                                      | 13.00   | 144.65                |            |  |

Remarks  
(See notes & key sheets)

Scale 1:25


29/06/2016

Project  
A9 KILLIECRANKIE TO PITAGOWAN  
TRANSPORT SCOTLAND

Contract No. G151043UD  
Figure No. FR17 (3 of 4)

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|  |                        |  |               |   |                     |
|--|------------------------|--|---------------|---|---------------------|
| Drilling Method Rotary Cored   |                        | Borehole Diameter<br>150mm to 13.00m                           |               | BOREHOLE No. BH47300  |                     |
| Equipment Hanjin   |                        |  |               | Coordinates<br>(National Grid) E<br>Ground Level N<br>m OD    |                     |
| Crew/Vessel<br>Dates Drilled<br>Start 21/09/2015<br>End 04/10/2015         |                        | Logged by<br>CC 07/10/2015                                     |               | Compiled by<br>clm 23/09/2015<br>Approved by<br>BC 20/01/2016 |                     |
| Installation Details   |                        | Installation<br>Depth (m)                                      | Level<br>m OD | Water<br>Strikes  | Strata<br>Depth (m) |
| Instrumentation:<br>50mm slotted<br>section (SL)<br>from 4.00 to<br>11.50m | Concrete               |  |               |   | 0.30                |
|  | Cement/Bentonite Grout | 0.50   | 157.15        |   |                     |
|  |                        |  |               |   |                     |
|  | Bentonite Seal         | 2.50   | 155.15        |   | 2.50                |
|  | Gravel Filter          | 3.50   | 154.15        |   |                     |
| SL=4.00-11.50m   |                        |  |               |   |                     |
|  |                        | 13.00  | 144.65        |   | 13.00               |
| Strata Details   |                        |  |               |   |                     |
| TOPSOIL  |                        |  |               |   |                     |
| Silty gravelly SAND  |                        |  |               |   |                     |
| Coarse/Medium grained<br>Metamorphic (SCHIST)                              |                        |  |               |   |                     |
| Base of Hole   |                        |  |               |   |                     |
| Remarks<br>(See notes<br>& keysheets)                                      |                        |  |               |   |                     |
| <input checked="" type="checkbox"/> Water Strike                           |                        |  |               |   |                     |
| <input checked="" type="checkbox"/> Water Rise                             |                        |  |               |   |                     |
| Upstanding cover.  |                        |  |               |   |                     |
| Pipe to Scale Pipe diameter 50mm to 11.50m, installed on 05/10/2015.       |                        |  |               |   |                     |
| FUGRO  |                        | Project<br>A9 KILLIECRANKIE TO PITAGOWAN<br>TRANSPORT SCOTLAND |               | Contract No. G151043UD  |                     |
| 29/06/2016   |                        |  |               | Figure No. FR17 (4 of 4)                                      |                     |
|  |                        |  |               | 309/10  |                     |