Bishopton Royal Ordnance Factory, Renfrewshire: Archaeological Evaluation LQMA11

Data Structure Report

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Overview

- 1. This Data Structure Report is for one part of a programme of works required by BAE Systems Plc in respect to the proposed remediation and enabling development of the Bishopton Royal Ordnance Factory. These archaeological works are designed to inform the mitigation of any impact on archaeological remains within the northern end of the area designated LQMA11 within the larger development area.
- 2. Renfrewshire Council have required a programme of archaeological works to be undertaken as a requirement of the granted planning consents. The West of Scotland Archaeology Service (WoSAS) who advise Renfrewshire Council on archaeological matters has provided guidance on the structure of archaeological works required on this site during development works.
- 3. The area examined during these works was subject to the terms described in the Archaeological Mitigation Strategy (Rees & Talbot 2010). More specifically the work described in this report is covered by the section describing Greenfield development (Rees & Talbot 2010, Pages 11 to 15). This report covers only those evaluation works undertaken in LQMA11 in compliance with the terms of the Archaeological Mitigation Strategy.
- 4. The field at the northern end of LQMA11, although within the boundary of Bishopton Royal Ordnance Factory, was not a part of the built factory complex. The site remained Greenfield and in use as grazing for animals. The assessment of the potential for adverse impact on previously unknown archaeological remains within this area of LQMA11 was the purpose of this evaluation work. However, no archaeological sites are known to exist within the development area.
- 5. Rathmell Archaeology Ltd has been appointed to act with regard to the archaeological issue by BAE Systems Plc. The design and scope of the works has been agreed in consultation with the West of Scotland Archaeology Service.

Project Works

- 6. A programme of archaeological works was undertaken from Tuesday the 15th to Monday the 21st of September 2011 and included the excavation by machine of a series of evaluation trenches within the defined portion of LQMA11 due to be subject to development. The trenching was designed to examine approximately 8% of that area (Figure 1). Typically the trenches were 50m or 100m long by 2m wide and placed in accordance with the terms of the Archaeological Mitigation Strategy (Rees & Talbot 2010) and according to a layout approved by the West of Scotland Archaeology Service. In all 1525 linear meters of trenching were excavated (3050m²), slightly exceeding the 1500 linear meters described by the trench layout.
- 7. In general the trenches were placed according to the layout referred to above. Trenches 9, 10, 11 and 12 were moved approximately 4-8m east due to the presence of two manholes on site which indicated the line for a known water main to sit slightly east of what had previously been thought.
- 8. Some of the trenches were also affected by the discovery of services across the area which had previously been unknown. Until it could be certain that these services were no longer live, the locations of excavated trenches were changed to avoid the line of them. Trenches 14 and 15 were shortened slightly at their southern end to avoid two water pipes running along the southern side of the field. Trench 11 jumped a gap of approximately 4m near its western end to avoid a gas pipe. To make up for any potential shortage in the sample area an extra trench, 8, was placed within the southeast area of the field and some of the remaining trenches were lengthened. At a later stage during the works, the staff at BAE Systems Plc confirmed that all services across the site were no longer live and as such no further trenching was affected after this point.

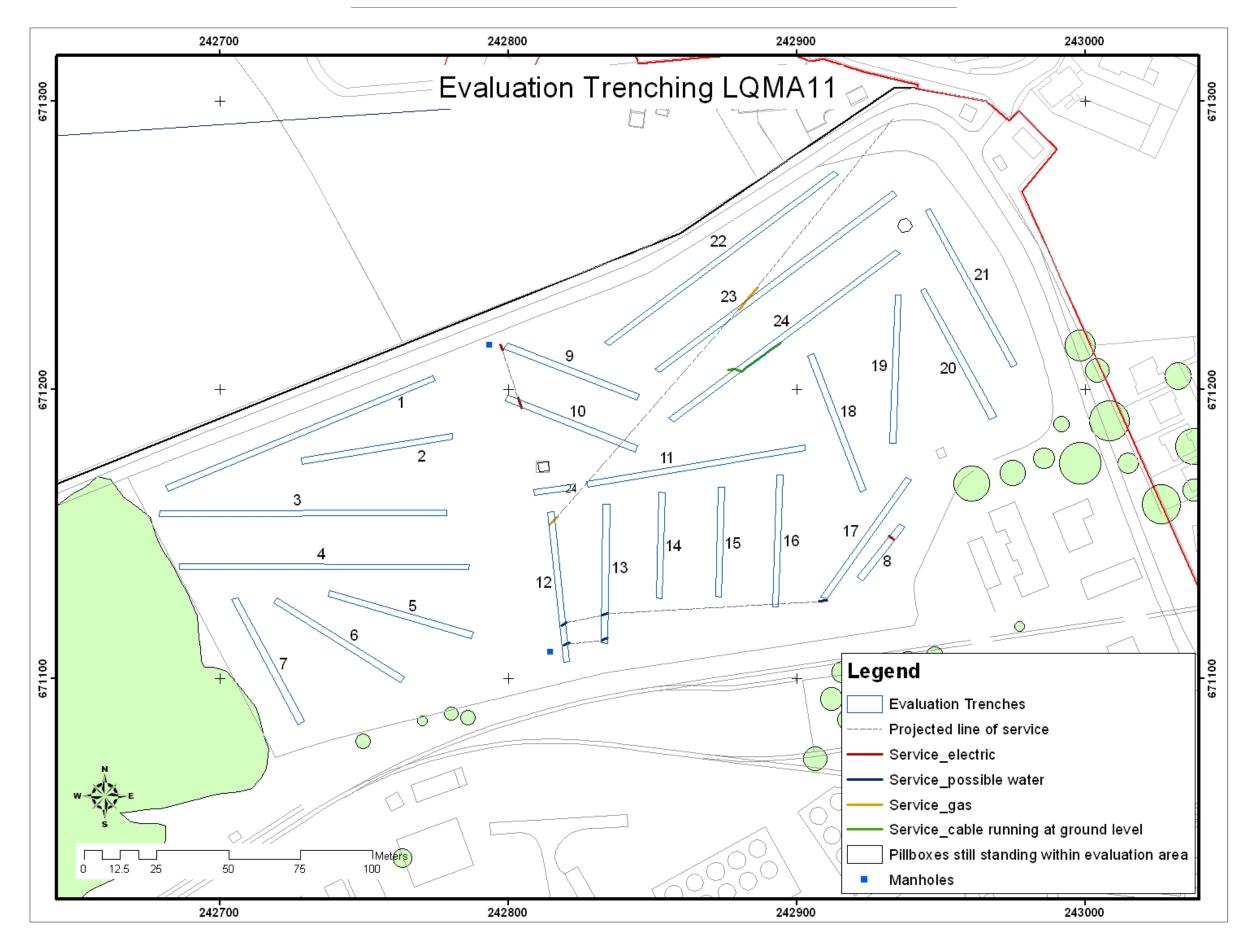


Figure 1: Trench Layout as machined



Figure 2a: Site prior to evaluation work from the northeast



Figure 2b: Site prior to evaluation work from the northwest

- 9. The agreed location of the trenches had also been affected by the location of two pillboxes which remain standing within the field. Whilst on site it was found that the layout of the trenches had successfully avoided their location and as such their presence did not affect the trenching further.
- 10. While excavating the trenches, consideration was also given to the fact that badgers were known to forage in the area. For this reason trench ends were sloped in order to prevent animals from being trapped.
- 11. Some of the evaluation works were undertaken during a period of heavy rain and although this did not hamper our assessment of the evaluation trenches the poor drainage meant that areas of standing water were created very quickly both in the field and in some of the trenches.
- 12. No significant archaeological sites were known to exist within this portion of LQMA11. The area is a peripheral element of the Bishopton Royal Ordnance Factory and the two pillboxes mentioned above are the only factory elements known to have been standing within the field. For a more detailed examination of the historical and archaeological background of Bishopton Royal Ordnance Factory and its surrounds please refer to the Archaeological Mitigation Strategy (Rees & Talbot 2010, Pages 5 to 9) and other documents relating to this project.

All works were conducted in accordance with the Institute for Archaeologists' Standards and Policy Statements and Code of Conduct and Historic Scotland Policy Statements.

Findings

- 13. In total 24 evaluation trenches were opened across the site; details of the trenches may be found in Appendix 1 of this document. The trenches were spread evenly across the development area in order to give the best possible coverage of the site. At the time of commencement of the archaeological evaluation the development area was a large field of grassland on sloping ground from north to south which had been previously used for pasture.
- 14. The topsoil across the site (001) ranged between 120mm to 490mm in depth. All trenches were excavated down to archaeologically sterile subsoil to allow for examination of any surviving archaeological features. The natural subsoil was predominantly a mixture of sand and gravel (002) although a clay subsoil (006) was also present across some areas.
- 15. Across most of the site a natural build up of hillwash deposit (008), comprising of mid to red brown clayey silt and gravel, was recorded which varied in depth from 70mm to 500mm. The deposit was deepest towards the southern end of the site, across parts of Trenches 12 to 17 and Trench 8, reflecting the natural topography of the site which sloped downwards from north to south.
- 16. The trenches also exposed a number of natural features including animal burrows, stone throws and tree boles. One such feature [003], identified as a tree bole, produced a fragment of clay tobacco pipe stem (Find No. 1). The stem fragment unfortunately does not have any markings but is identifiable as likely being 19th to 20th century in date.
- 17. The trenches all contained ceramic field drains (005), (009), (010) showing that there has been some attempt in the late 19th or 20th century to improve the drainage of the area. The comparative depths of the field drains could suggest that they have been placed in over at least two different phases of improvement works with (005) set lower into the subsoil, at 500mm, than (009), which sat at 240mm. Only modern material was found in association with these features; this included small fragments of modern glass and modern pottery.



Figure 3a: Trench 3 from the east



Figure 3b: Trench 17 from the southwest



Figure 4a: Trench 18 from the southeast



Figure 4b: Trench 23 from the southwest

- 18. Areas of possible ploughscars (007) were identified within Trench 3. This could indicate that the area may not always have been used for grazing but in fact could have a history of varied agricultural use.
- 19. As noted above, the trenches also revealed a number of modern services including gas, water and electricity which crossed the site at various points (see Figure 1). These appear to have at some point serviced buildings within the factory itself which have since been demolished. At least one of the electric cables appeared to be running towards one of the pillboxes which remain standing on site but which has long gone out of use.
- 20. Some anthropic material was recovered from the topsoil in scattered locations over the entire area. This composed of 19^{th} to 20^{th} century material with the exception of one pottery fragment of white gritty ware with green glaze on one side (Find <2>). White gritty ware dates from the 11^{th} to the 16^{th} century. Its presence here in an unstratified context is not uncommon as pottery fragments were often disposed of by dispersal across agricultural fields. It does highlight a possible presence here during that period but the discovery of only one fragment which could have travelled here by other means keeps this unclear.

Discussion

- 21. No significant archaeological remains were uncovered during the course of the evaluation works. Any potential significant archaeological features were investigated according to the terms of the Archaeological Mitigation Strategy (Rees & Talbot 2010), however, all proved to either be a result of natural disturbance in the form of animal burrows or tree boles which are present across the whole of the site, or to be modern in date.
- 22. The ground has been disturbed by a series of modern services including water, gas and electricity, some of which appear to run towards the pillboxes on site or into the Ordnance Factory itself. These services were all confirmed as being no longer live with the buildings they were linked to having been either demolished or gone out of use.
- 23. As well as these services, the field had also seen improvements by way of ceramic field drains which run across the entire area. These field drains, as well as the presence of possible ploughscars, suggest repeated and varied agricultural use of the site in recent times. It is possible that this continued disturbance may account for the lack of remaining archaeological features.
- 24. The site presented the usual array of modern 19th to 20th century artefacts including white glazed ceramic and glass. The only artefact of any potential antiquity was a fragment of white gritty ware pottery which can be dated from the 11th to the 16th century. This unstratified artefact does not provide us with any significant information other than a general suggestion that the use of this land may date back to this period.



Figure 5a: Site after work completed from the northwest



Figure 5b: Site after work completed from the northeast

Recommendations

- 25. No significant archaeological remains were located during the archaeological evaluation. All of those features investigated were the result of either natural or modern disturbance and archaeologically sterile drift geology was reached in all trenches.
- 26. Given the complete lack of significant archaeological material recovered in the course of the evaluation works Rathmell Archaeology Ltd recommend that no further archaeological works be carried out within the portion of LQMA11 studied. It is, however, possible that the fragment of white gritty ware recovered would be of value if examined in the midst of any greater assemblage recovered from the entire project. It is of limited value when viewed in isolation.

The appropriateness and acceptability of our recommendations rest with Renfrewshire Council and their advisors, West of Scotland Archaeology Service.

Conclusion

- 27. A programme of archaeological works was required by BAE Systems PLC in respect to the proposed remediation and enabling development of the Bishopton Royal Ordnance Factory. These archaeological works were designed to mitigate the impact or archaeological remains within the area designated LQMA11 of the entire proposed development area.
- 28. No significant archaeological remains were located within the development. Those few features which were uncovered related to attempts to improve the area as agricultural land.

References

HM Government, 1979, Ancient Monuments and Archaeological Areas Act, HMSO

Historic Scotland, 2008, Scottish Historic Environment Policy

Renfrewshire Council, 2006, Renfrewshire Local Plan 2006

Rees, T & Talbot, G., 2010, Bishopton Royal Ordnance Factory, Renfrewshire: Archaeological Mitigation Strategy, Rathmell Archaeology Ltd

Scottish Office: Environment Department, 2011, *Planning Advice Note 2/2011: Planning and Archaeology*

Scottish Government, 2010, Scottish Planning Policy

Appendix 1: Trench Details

Within this appendix a standardised set of data pertaining to the evaluation trenches is presented. All measurement distances quoted along the trench are started from the end quoted first in the orientation of the trench. See Figure 1 for trench locations.

| Trench | Orientation | Size | Topsoil Depth | Subsoil Character | Modern/ Agricultural Features | Significant Features | Artefacts |
|--------|---|---------------------------------------|------------------|---|--|-------------------------|--|
| 1 | Northwest to southeast | 2m by 101m 202m² | 200 to 480mm | Light to mid brown gravel in a sandy clay matrix (002). | Field drain (005) present at +31.8m, +43.8m and +69.8m all with common orientation (NE-SW). | None | Fragment of clay tobacco pipe (Find No. 1) |
| 2 | East-north-east to West-south- west | 2m by 52.6m 105.2m ² | 200 to 320mm | Light to mid brown gravel in a sandy clay matrix (002). | Field drain (005) present at +0.7m, +14.8m, +27.1m, +39.6m and +49.1 all with common orientation (NW-SE). | None | None |
| 3 | West to east | 2m by 100m 200m ² | 300 to 400mm | Light to mid brown gravel in a sandy clay matrix (002) until +45m before changing to very pale orange/pink sandy clay (006). This is present until +50.3m where it changes back to (002) before becoming (006) again at +79m. | Field drain (005) present at +2m, +10.8m, +22.2m, +34m, +44.5m, +54.5m, +65.2m, +73.3m and +75.8m all with common orientation (NW-SE). Possible ploughscars (007) present at +15m, +15.8m and +29.3m. | None | None |
| 4 | East to west | 2m by 98.4m 196.8m ² | 250 to 320mm | Very pale orange/pink sandy clay (006) present until +10m before changing to light to mid brown gravel in a sandy clay matrix (002). This changed back to (006) at +94.5m. | Field drain (005) present at +21m, +31m, +41m, +50.5m, +61.2m, +72.5m, +84.3m and +98m all with common orientation (SE-NW). Field drain (009) present at +34.7m orientated NE-SW and at +44.2m, 55.2m and +93m orientated SE-NW. | None | None |
| 5 | Northwest to southeast | 2m by 51.3m 102.6m ² | 220 to 300mm | Very pale orange/pink sandy clay (006) present until +3.4m before changing to light to mid brown gravel in a sandy clay | Field drain (005) present at +3.4m, +16.4m and +26.3m all with common orientation | None | None |

| Trench | Orientation | Size | Topsoil Depth | Subsoil Character | Modern/ Agricultural Features | Significant Features | Artefacts |
|--------|--|---------------------------------------|------------------|--|--|-------------------------|-----------|
| | | | | matrix (002). | (N-S). | | |
| 6 | Southeast to Northwest | 2m by 51.2m 102.4m ² | 250 to 300mm | Light to mid brown gravel in a sandy clay matrix (002). | None | None | None |
| 7 | North-north- west to south- south-east | 2m by 50.1m 100.2m ² | 250 to 300mm | Light to mid brown gravel in a sandy clay matrix (002). | Field drain (005) present at +39m orientated NE-SW. | None | None |
| 8 | Southwest to northeast | 2m by 25m 50m ² | 180 to 450mm | Light to mid brown gravel in a sandy clay matrix (002). | Electric cable present at +19m orientated NW-SE. Field drain (009) present at +4m, +10.2m and +16.6m all with common orientation (SE-NW). Field drain (005) present at +17.5m orientated E-W and at +22m orientated SSE-NNW. | None | None |
| 9 | Southeast to northwest | 2m by 51m 102m² | 90 to 370mm | Light to mid brown gravel in a sandy clay matrix (002). | Field drain (005) present at +5.4m and +25.7m orientated S-N. Field drain (009) present at +39m orientated E-W. Electric cable present at +50.7m orientated S-N. | None | None |
| 10 | Northwest to southeast | 2m by 50.5m 101m ² | 190 to 280mm | Light to mid brown gravel in a sandy clay matrix (002) until +14.2m before changing to very pale orange/pink sandy clay (006). This changes back to (002) again at +39.7m. | Electric cable present at +5m orientated N-S. Field drain (005) present at +37.2m orientated N-S. Gas pipe present at +43.5m orientated NE-SW. | None | None |
| 11 | East-north-east to west-south- west | 2m by 93.7m 187.4m ² | 140 to 350mm | Light to mid brown gravel in a sandy clay matrix (002) with some patches of very pale orange/pink sandy clay (006). | Modern service trench (012) present at +1m orientated SE-NW. Field drain (005) present at +4.3m, +25.5m, +36.2m, +47.2m and +69m all | None | None |

| Trench | Orientation | Size | Topsoil Depth | Subsoil Character | Modern/ Agricultural Features | Significant Features | Artefacts |
|--------|--|--------------------------------------|------------------|--|---|-------------------------|-----------|
| | | | | | with common orientation (SE-NW). | | |
| 12 | North to south | 2m by 52m 104m ² | 300 to 350mm | Very pale orange/pink sandy clay (006) present until +8m before changing to light to mid brown gravel in a sandy clay matrix (002). | Gas pipe present at +2.8m orientated NE-SW. Water pipes present at +38.7m and +45.8m orientated E-W. Field drain (005) present at +11.5m and +37m orientated SW-NE. Field drain (009) present at +12.4m orientated SW-NE. | None | None |
| 13 | South to north | 2m by 48.8m 97.6m² | 220 to 400mm | Light to mid brown gravel in a sandy clay matrix (002) until +34.6m before changing to very pale orange/pink sandy clay (006). | Water pipes present at +1.7m and +10m orientated E-W. Field drain (005) present at +25m and +38m orientated SW-NE. | None | None |
| 14 | North-north- west to South- south-east | 2m by 39.2m 78.4m ² | 200 to 300mm | Very pale orange/pink sandy clay (006) present until +10.7m before changing to light to mid brown gravel in a sandy clay matrix (002). | Field drain (005) present at +10.5m orientated NW-SE. | None | None |
| 15 | North to south | 2m by 40.4m 80.8m ² | 120 to 360mm | Very pale orange/pink sandy clay (006) present until +17m before changing to light to mid brown gravel in a sandy clay matrix (002). This changes back to (006) at +23m before becoming (002) again at +32.5m. | Field drain (005) present at +3.5m orientated SW-NE. Field drain (009) present at +25.5m orientated SW-NE. | None | None |
| 16 | North to south | 2m by 47.6m 95.2m ² | 190 to 490mm | Very pale orange/pink sandy clay (006) present until +21.5m before changing to light to mid brown gravel in a sandy clay matrix (002). | Field drain (005) present at +3.8m and +22m orientated NW-SE. Field drain (009) present at +37.7m orientated NW-SE. | None | None |
| 17 | Northeast to southwest | 2m by 52m 104m² | 240 to 400mm | Light to mid brown gravel in a sandy clay matrix (002). | Field drain (005) present at +14m orientated NNW-SSE and at +24.7m orientated ENE-WSW. Field drain (010) | None | None |

| Trench | Orientation | Size | Topsoil Depth | Subsoil Character | Modern/ Agricultural Features | Significant Features | Artefacts |
|--------|--|---------------------------------------|------------------|--|---|-------------------------|-----------|
| | | | | | present at +19.5m orientated NNW-SSE. Field drain (009) present at +22.3m, +26m, +32.4m, and +43m all with common orientation (NNW-SSE). Water pipe (011) present at +49.3m orientated ENE-WSW. | | |
| 18 | Southeast to Northwest | 2m by 50.5m 101m ² | 120 to 330mm | Light to mid brown gravel in a sandy clay matrix (002) with some patches of very pale orange/pink sandy clay (006). | Field drain (009) present at +14.2m orientated SW-NE and at +35.5m orientated ESE-WNW. Field drain (005) present at +15m orientated ESE-WNW. | None | None |
| 19 | South to north | 2m by 51.4m 102.8m ² | 240 to 300mm | Very pale orange/pink sandy clay (006) present until +23m before changing to light to mid brown gravel in a sandy clay matrix (002). | Field drain (009) present at +20.5m orientated SW-NE. Field drain (005) present at +38.5m orientated SW-NE. | None | None |
| 20 | North-north- west to south- south-east | 2m by 52.6m 105.2m ² | 300 to400mm | Light to mid brown gravel in a sandy clay matrix (002) until +8m before changing to very pale orange/pink sandy clay (006). This is present until +14.3m where it changes back to (002) before becoming (006) again at +19.5m. | Field drain (009) present at +48.5m orientated E-W. | None | None |
| 21 | South-south- east to north- north-west | 2m by 62.8m 125.6m ² | 250 to 300mm | Very pale orange/pink sandy clay (006) present until +48.3m before changing to light to mid brown gravel in a sandy clay matrix (002). | Field drain (005) present at +20m orientated SE-NW. | None | None |
| 22 | Southwest to Northeast | 2m by 98.7m 197.4m ² | 140 to 320mm | Light to mid brown gravel in a sandy clay matrix (002) with some patches of very pale orange/pink sandy clay (006). | Field drain (005) present at +11.4m, +21m, +31.7m, +34.7m, +47.3m, +51.3m, +60.5m, +70m, +83m and +93.8m all with common orientation (SE-NW). Modern service trench (012) present | None | None |

| Trench | Orientation | Size | Topsoil Depth | Subsoil Character | Modern/ Agricultural Features | Significant Features | Artefacts |
|--------|------------------------|--|------------------|--|--|-------------------------|-----------|
| | | | | | at +24.8m orientated SE-NW. | | |
| 23 | Northeast to southwest | 2m by 105.3m 210.6m ² | 240 to 340mm | Light to mid brown gravel in a sandy clay matrix (002) until +17.6m before changing to very pale orange/pink sandy clay (006). This changes back to (002) again at +65.6m. | Field drain (005) present at +14.2m, +46.8m, +48.3m, +70m, +79.2m and +99.2m all with common orientation (NW-SE). Field drain (009) present at +58.5m orientated N-S and at +39.8m orientated NW-SE. | None | None |
| 24 | Southwest to northeast | 2m by 99.3m 198.6m ² | 270 to 420mm | Light to mid brown gravel in a sandy clay matrix (002). | Field drain (005) present at +21m, +25.8m, +51.7m, +65.3m, +74.5m and +87.7m all with common orientation (NW-SE). Field drain (009) present at +40m orientated NW-SE. | None | None |

Appendix 2: Registers

Within this appendix are all registers pertaining to works on-site regardless of the process by which that information was gathered (e.g. evaluation or strip, map & sample).

Context Register

| Context No. | Area/ Trench | Туре | Description | Interpretation |
|----------------|------------------------------|---------|--|-------------------------------------|
| 001 | All | Topsoil | Loose light to mid brown slightly sandy silt with abundant small stones and roots. | Topsoil |
| 002 | All | Subsoil | Loose small to medium sized rounded and angular stone gravel in a sandy clay matrix. Light to mid brown in colour. Frequent small root inclusions. | Natural subsoil |
| 003 | 1 | Cut | Circular shaped cut with steeply sloping sides. Convex base bottoming onto large natural rounded boulder. Measures 1.43m by 1.3m by 340mm maximum depth. | Natural feature, likely a tree bole |
| 004 | 1 | Fill | Light to mid brown sandy clay with frequent small to medium sized root inclusions and frequent very small to medium sized angular and rounded stones. | Fill of [003] |
| 005 | 1-5,7-19, 21-24 | Feature | Red tile drain. Cut measures 0.36m wide. Drain sits 500mm below top of subsoil. | Ceramic field drain |
| 006 | 1,3-5, 10-23 | Subsoil | Compact very pale orange/pink sandy clay with abundant small to medium sized angular and rounded stones. | Natural subsoil |
| 007 | 3 | Feature | Shallow narrow linears. Measure 0.15m wide by 60mm deep. Filled by pale brown silty gravel. | Possible ploughscars |
| 008 | 4-19,22, 23 | Deposit | Loose mid red brown clayey silt and gravel with frequent medium sized stones | Natural build up; hillwash |
| 009 | 4,8,9,12, 14-20, 23,24 | Feature | Red tile drain. Cut measures 200mm wide. Drain sits 240mm below top of subsoil. Mid brown silty gravel fill. | Ceramic field drain |
| 010 | 17 | Feature | Blue red tile drain. 9mm diameter. Visible at surface of subsoil. | Ceramic field drain |

| Context No. | ontext Area/ Type o. Trench | | Description | Interpretation |
|----------------|--------------------------------|---------|--|------------------------------|
| 011 | 17 | Feature | Remains of cast iron water pipe. Approximately 200mm diameter. | Remains of modern water pipe |
| 012 | 11,22 | Feature | Linear feature. Vertical sides. Measures 0.84m wide. | Modern service trench |

Photographic Register

| Image | Print | | Slide | | Digital | Description | From | Date |
|-------|----------|----------|----------|----------|---------|-----------------------------------|------|----------|
| No. | Film No. | Neg. No. | Film No. | Neg. No. | | | | |
| 001 | - | - | 1 | 14 | 1 | General pre ex setting shot | NE | 15/11/11 |
| 002 | 1 | 1 | 1 | 15 | 2 | General pre ex setting shot | NNE | 15/11/11 |
| 003 | - | - | - | - | 3 | General pre ex setting shot | SW | 15/11/11 |
| 004 | - | - | - | - | 4 | General pre ex setting shot | ESE | 15/11/11 |
| 005 | - | - | - | - | 5 | General pre ex setting shot | SW | 15/11/11 |
| 006 | - | - | - | - | 6 | General pre ex setting shot | NNW | 15/11/11 |
| 007 | - | - | - | - | 7 | General pre ex setting shot | NW | 15/11/11 |
| 800 | 1 | 2 | 1 | 16 | 8 | Trench 1 | NW | 15/11/11 |
| 009 | 1 | 3 | 1 | 17 | 9 | Feature [003] pre ex | NNE | 15/11/11 |
| 010 | 1 | 4 | 1 | 18 | 10 | Feature [003] post ex | NNE | 16/11/11 |
| 011 | 1 | 5 | 1 | 19 | 11 | Feature [003] NW facing section | NW | 16/11/11 |
| 012 | - | - | - | - | 12 | General shot of pipe in Trench 13 | - | 16/11/11 |
| 013 | - | - | - | - | 13 | General shot of pipe in Trench 13 | - | 16/11/11 |
| 014 | - | - | - | - | 14 | General shot of pipe in Trench 13 | - | 16/11/11 |
| 015 | - | - | - | - | 15 | General shot of pipe in Trench 12 | - | 16/11/11 |
| 016 | - | - | - | - | 16 | Trench 1 | SW | 16/11/11 |
| 017 | - | - | - | - | 17 | Trench 2 | ESE | 17/11/11 |

| Image | Print | | Slide | | Digital | Description | From | Date |
|-------|----------|----------|----------|----------|---------|----------------------------|------|----------|
| No. | Film No. | Neg. No. | Film No. | Neg. No. | | | | |
| 018 | - | - | - | - | 18 | Trench 2 | ESE | 17/11/11 |
| 019 | - | - | - | - | 19 | Trench 3 | E | 17/11/11 |
| 020 | - | - | - | - | 20 | Trench 3 | E | 17/11/11 |
| 021 | 1 | 6 | 1 | 20 | 21 | Trench 4 | E | 17/11/11 |
| 022 | - | - | - | - | 22 | Trench 4 | E | 17/11/11 |
| 023 | - | - | - | - | 23 | Trench 5 | NW | 17/11/11 |
| 024 | - | - | - | - | 24 | Trench 5 | NW | 17/11/11 |
| 025 | - | - | - | - | 25 | Trench 6 | NW | 17/11/11 |
| 026 | - | - | - | - | 26 | Trench 6 | NW | 17/11/11 |
| 027 | 1 | 7 | 1 | 21 | 27 | Trench 7 | NNW | 17/11/11 |
| 028 | - | - | - | - | 28 | Trench 7 | NNW | 17/11/11 |
| 029 | 1 | 8 | - | - | 29 | Field drain (009) Trench 4 | SE | 17/11/11 |
| 030 | - | - | - | - | 30 | Field drain (009) Trench 4 | SE | 17/11/11 |
| 031 | 1 | 9 | - | - | 31 | Field drain (005) Trench 4 | NE | 17/11/11 |
| 032 | - | - | - | - | 32 | Field Drain (005) Trench 4 | NE | 17/11/11 |
| 033 | - | - | - | - | 33 | Trench 12 | NNW | 18/11/11 |
| 034 | - | - | - | - | 34 | Trench 13 | NNW | 18/11/11 |
| 035 | - | - | - | - | 35 | Trench 13 | NNW | 18/11/11 |
| 036 | 1 | 10 | 1 | 22 | 36 | Trench 14 | NNW | 18/11/11 |
| 037 | - | - | - | - | 37 | Trench 15 | N | 18/11/11 |
| 038 | 1 | 11 | - | - | 38 | Trench 16 | N | 18/11/11 |
| 039 | - | - | - | - | 39 | Trench 8 | SW | 18/11/11 |
| 040 | - | - | - | - | 40 | Trench 17 | SW | 18/11/11 |

| Image | Print | | Slide | | Digital | Description | From | Date |
|-------|----------|----------|----------|----------|---------|---------------------------------|------|----------|
| No. | Film No. | Neg. No. | Film No. | Neg. No. | | | | |
| 041 | 1 | 12 | 1 | 23 | 41 | Trench 18 | SE | 18/11/11 |
| 042 | - | - | - | - | 42 | Field drain (009) Trench 4 | SE | 18/11/11 |
| 043 | - | - | - | - | 43 | Field drain (009) Trench 4 | SE | 18/11/11 |
| 044 | - | - | - | - | 44 | Field drain (005) Trench 4 | NE | 18/11/11 |
| 045 | - | - | - | - | 45 | Field drain (009) Trench 4 | NE | 18/11/11 |
| 046 | - | - | - | - | 46 | Power cable, Trench 9 | SE | 18/11/11 |
| 047 | - | - | - | - | 47 | Power cable, Trench 10 | N | 18/11/11 |
| 048 | - | - | - | - | 48 | Power cable, Trench 10 | N | 18/11/11 |
| 049 | - | - | - | - | 49 | Gas pipe, Trench 12 | SW | 18/11/11 |
| 050 | - | - | - | - | 50 | Water pipe, Trench 12 | SSE | 18/11/11 |
| 051 | - | - | - | - | 51 | Southern water pipe, Trench 13 | S | 18/11/11 |
| 052 | - | - | - | - | 52 | Broken water pipe, Trench 17 | NNE | 18/11/11 |
| 053 | - | - | - | - | 53 | Broken electric cable, Trench 8 | SW | 18/11/11 |
| 054 | - | - | - | - | 54 | Cable, Trench 22 | SE | 18/11/11 |
| 055 | - | - | - | - | 55 | Cable, Trench 22 | SE | 18/11/11 |
| 056 | 1 | 13 | 1 | 24 | 56 | Trench 9 | ENE | 21/11/11 |
| 057 | - | - | - | - | 57 | Trench 23 | SW | 21/11/11 |
| 058 | - | - | - | - | 58 | Trench 22 | SW | 21/11/11 |
| 059 | - | - | - | - | 59 | Trench 10 | SE | 21/11/11 |
| 060 | - | - | - | - | 60 | Trench 11 | WSW | 21/11/11 |
| 061 | 1 | 14 | - | - | 61 | Trench 19 | N | 21/11/11 |
| 062 | - | - | - | - | 62 | Trench 20 | NNW | 21/11/11 |
| 063 | - | - | - | - | 63 | Trench 21 | NNW | 21/11/11 |

| Image | Print | | Slide | | Digital | Description | From | Date |
|-------|----------|----------|----------|----------|---------|---------------------------|------|----------|
| No. | Film No. | Neg. No. | Film No. | Neg. No. | | | | |
| 064 | - | - | - | - | 64 | Trench 24 | Е | 21/11/11 |
| 065 | - | - | - | - | 65 | General post ex site shot | NE | 21/11/11 |
| 066 | - | - | - | - | 66 | General post ex site shot | NW | 21/11/11 |
| 067 | - | - | - | - | 67 | General post ex site shot | SW | 21/11/11 |
| 068 | - | - | - | - | 68 | General post ex site shot | W | 21/11/11 |
| 069 | - | - | - | - | 69 | General post ex site shot | N | 21/11/11 |
| 070 | - | - | - | - | 70 | General post ex site shot | NE | 21/11/11 |

Drawing Register

| Drawing No. | Sheet No. | Area/ Trench | Drawing Type | Scale | Description | Drawer | Date |
|----------------|--------------|-----------------|-----------------|-------|----------------------------|--------|----------|
| 1 | 1 | 1 | Plan | 1:100 | Plan of Trench 1 | DIG | 16/11/11 |
| 2 | 1 | 2 | Plan | 1:100 | Plan of Trench 2 | CW | 17/11/11 |
| 3 | 1 | 3 | Plan | 1:100 | Plan of Trench 3 | CW | 17/11/11 |
| 4 | 1 | 1 | Section | 1:10 | NW facing section of [003] | DIG | 16/11/11 |
| 5 | 2 | 4 | Plan | 1:100 | Plan of Trench 4 | CW | 17/11/11 |
| 6 | 2 | 7 | Plan | 1:100 | Plan of Trench 7 | CW | 17/11/11 |
| 7 | 2 | 6 | Plan | 1:100 | Plan of Trench 6 | CW | 17/11/11 |
| 8 | 2 | 5 | Plan | 1:100 | Plan of Trench 5 | CW | 17/11/11 |
| 9 | 2 | 12 | Plan | 1:100 | Plan of Trench 12 | CW | 17/11/11 |
| 10 | 2 | 13 | Plan | 1:100 | Plan of Trench 13 | CW | 17/11/11 |
| 11 | 2 | 14 | Plan | 1:100 | Plan of Trench 14 | DIG | 18/11/11 |
| 12 | 2 | 15 | Plan | 1:100 | Plan of Trench 15 | DIG | 18/11/11 |

| Drawing No. | Sheet No. | Area/ Trench | Drawing Type | Scale | Description | Drawer | Date |
|----------------|--------------|-----------------|-----------------|-------|-------------------|----------|----------|
| 13 | 3 | 16 | Plan | 1:100 | Plan of Trench 16 | DIG | 18/11/11 |
| 14 | 3 | 8 | Plan | 1:100 | Plan of Trench 8 | DIG | 18/11/11 |
| 15 | 3 | 17 | Plan | 1:100 | Plan of Trench 17 | DIG | 18/11/11 |
| 16 | 3 | 18 | Plan | 1:100 | Plan of Trench 18 | DIG | 18/11/11 |
| 17 | 3 | 11 | Plan | 1:100 | Plan of Trench 17 | DIG | 18/11/11 |
| 18 | 3 | 9 | Plan | 1:100 | Plan of Trench 9 | CW + DIG | 21/11/11 |
| 19 | 3 | 10 | Plan | 1:100 | Plan of Trench 10 | CW + DIG | 21/11/11 |
| 20 | 4 | 22 | Plan | 1:100 | Plan of Trench 22 | CW + DIG | 21/11/11 |
| 21 | 4 | 23 | Plan | 1:100 | Plan of Trench 23 | CW + DIG | 21/11/11 |
| 22 | 4 | 24 | Plan | 1:100 | Plan of Trench 24 | CW + DIG | 21/11/11 |
| 23 | 4 | 19 | Plan | 1:100 | Plan of Trench 19 | CW + DIG | 21/11/11 |
| 24 | 4 | 20 | Plan | 1:100 | Plan of Trench 20 | CW + DIG | 21/11/11 |
| 25 | 4 | 21 | Plan | 1:100 | Plan of Trench 21 | CW + DIG | 21/11/11 |

Finds Register

| Find No. | Area/ Trench | Context No. | Material Type | Description | Excavator | Date |
|-------------|-----------------|----------------|---------------|--|-----------|----------|
| 1 | 1 | 004 | Ceramic | 1 fragment of clay tobacco pipe stem | DIG | 16/11/11 |
| 2 | - | Unstratified | Ceramic | 1 fragment of white gritty ware with green glaze | DIG | 18/11/11 |

Appendix 3: Discovery & Excavation in Scotland

| LOCAL AUTHORITY: | Renfrewshire |
|---|--|
| PROJECT TITLE/SITE NAME: | Bishopton Royal Ordnance Factory, Renfrewshire |
| PROJECT CODE: | RA10002 |
| PARISH: | Erskine |
| NAME OF CONTRIBUTOR: | Claire Williamson |
| NAME OF ORGANISATION: | Rathmell Archaeology Limited |
| TYPE(S) OF PROJECT: | Evaluation |
| NMRS NO(S): | NS46NW 31.00 |
| SITE/MONUMENT TYPE(S): | Explosives Factory (20 th Century) |
| SIGNIFICANT FINDS: | None |
| NGR (2 letters, 8 or 10 figures) | NS 42840 71175 (centred on) |
| START DATE (this season) | 15 th November 2011 |
| END DATE (this season) | 21 st November 2011 |
| PREVIOUS WORK (incl. DES ref.) | None |
| | |
| MAIN (NARRATIVE) DESCRIPTION: (may include information from other fields) | A programme of archaeological works was required by BAE Systems PLC in respect to the proposed remediation and enabling development of the Bishopton Royal Ordnance Factory. These archaeological works were designed to mitigate the impact or archaeological remains within the area designated LQMA11 of the entire proposed development area. No significant archaeological remains were located within the development. Those few features which were uncovered related to attempts to improve the area as agricultural land. |
| DESCRIPTION: (may include | Systems PLC in respect to the proposed remediation and enabling development of the Bishopton Royal Ordnance Factory. These archaeological works were designed to mitigate the impact or archaeological remains within the area designated LQMA11 of the entire proposed development area. No significant archaeological remains were located within the development. Those few features which were uncovered related to attempts to improve the area as |
| DESCRIPTION: (may include information from other fields) PROPOSED FUTURE | Systems PLC in respect to the proposed remediation and enabling development of the Bishopton Royal Ordnance Factory. These archaeological works were designed to mitigate the impact or archaeological remains within the area designated LQMA11 of the entire proposed development area. No significant archaeological remains were located within the development. Those few features which were uncovered related to attempts to improve the area as agricultural land. |
| PROPOSED FUTURE WORK: CAPTION(S) FOR | Systems PLC in respect to the proposed remediation and enabling development of the Bishopton Royal Ordnance Factory. These archaeological works were designed to mitigate the impact or archaeological remains within the area designated LQMA11 of the entire proposed development area. No significant archaeological remains were located within the development. Those few features which were uncovered related to attempts to improve the area as agricultural land. None |
| PROPOSED FUTURE WORK: CAPTION(S) FOR ILLUSTRS: SPONSOR OR FUNDING | Systems PLC in respect to the proposed remediation and enabling development of the Bishopton Royal Ordnance Factory. These archaeological works were designed to mitigate the impact or archaeological remains within the area designated LQMA11 of the entire proposed development area. No significant archaeological remains were located within the development. Those few features which were uncovered related to attempts to improve the area as agricultural land. None |
| PROPOSED FUTURE WORK: CAPTION(S) FOR ILLUSTRS: SPONSOR OR FUNDING BODY: ADDRESS OF MAIN | Systems PLC in respect to the proposed remediation and enabling development of the Bishopton Royal Ordnance Factory. These archaeological works were designed to mitigate the impact or archaeological remains within the area designated LQMA11 of the entire proposed development area. No significant archaeological remains were located within the development. Those few features which were uncovered related to attempts to improve the area as agricultural land. None None BAE Systems Plc |

www.rathmell-arch.co.uk

www.wosas.org.uk

Contact Details

Ayrshire

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30. The West of Scotland Archaeology Service can be contacted at their office or through the web:

West of Scotland Archaeology Service

Charing Cross Complex

20 India Street t.: 0141 287 8332/3 Glasgow f.: 0141 287 9259

G2 4PF e.: enquiries@wosas.glasgow.gov.uk

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