

Skares Water Main Rehabilitation, East Ayrshire: Archaeological Monitoring

Data Structure Report

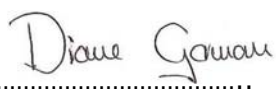


by Diane Gorman
issued 23rd November 2012

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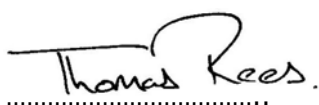
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Signed 

Date ...23rd November 2012...

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Introduction and Planning Context

1. This Data Structure Report has been prepared for Scottish Water Shared Services Delivery in support of the Water Main Rehabilitation work at Skares, East Ayrshire. The archaeological works were designed to mitigate the impact on the archaeological remains within their development area to the standards expected under the release of Permitted Development rights.
2. The West of Scotland Archaeology Service, who advises East Ayrshire Council on archaeological matters, provided guidance on the structure of archaeological works appropriate for this site. Rathmell Archaeology Limited was appointed by Scottish Water Shared Services Delivery to undertake the archaeological monitoring of relevant works.
3. The Method Statement (Rees, 2012) provided the detail of the works (archaeological monitoring, exclusion, excavation, post-excavation analyses and publication) for the mitigation pertaining to ground breaking within the defined archaeologically sensitive areas and hence the direct physical impact on buried sediments. This Data Structure Report provides the details of the works for the mitigation pertaining to all ground-breaking works and hence the direct physical impact on buried sediments.

Historical and Archaeological Background

4. The proposed study area comprises part of a much longer route for a pipeline running in close proximity to Skares Road, between Bent Burn Bridge in the west to Milzeoch farm in the east. Evidence for nineteenth century industrial and agricultural activities is present along much of the extent of this proposed route, often taking the form of mining and quarrying remains and upstanding farm steadings (see Figures 1a, 1b, 2a and 2b).
5. In addition to this evidence for modern land use, there is a roughly 2km stretch along the route, incorporating the extent of the proposed pipeline running between Garallan Bridge in the east and to the west of Skares, which has revealed evidence of land use and occupation dating back to the prehistoric period.
6. In most instances, this evidence has to date taken the form of buried features revealed as cropmarks on aerial photographs. One such concentration has been noted in the vicinity of Garlaff farm: those identified include three annular cropmarks (NMRS No: NS51NW34/Canmore ID: 134376) and an unspecified enclosure (NMRS No: NS51NW13/Canmore ID: 134311). Two similar features have been identified at Ward (NMRS No. NS51NW 33/Canmore ID. 134375), in this case comprising a circular trace and a sub-circular trace respectively. A third group has been identified at Skares (NMRS No. NS41NW40/Canmore ID. 134391), with – once again – both a circular and a sub-circular trace revealed on aerial photographs.
7. Investigation of such features invariably reveals them to be of prehistoric date, and while the route of the pipeline may not have any direct physical impact on these features, it is possible that there will be associated remains located in the vicinity which may inform upon them. The comparatively recent discovery of a Middle Bronze Age rapier from an area of boggy ground in the vicinity of Skares (NMRS No. NS51NW33, Canmore ID: 81490) augments earlier antiquarian reports of discoveries at Ochiltree Mote (NMRS No. NS42SE4/Canmore ID 42748) which included a Middle Bronze Age looped spearhead, a stone axe-hammer and a cinerary urn (potentially recovered from within a burial mound). While the Ochiltree Mote finds lie to the north of the study area, they serve to support the possibility that the area around Skares formed a focus for activity and occupation in the prehistoric period.



Figure 1a: Extract from First Edition Ordnance Survey 1860 (covering areas in Drawings 14, 20 and 21)



Figure 1b: Extract from First Edition Ordnance Survey 1860 (covering areas in Drawings 9, 12 and 13)



Figure 2a: Extract from First Edition Ordnance Survey 1860 (covering areas in Drawings 6, 7 and 8)



Figure 2b: Extract from First Edition Ordnance Survey 1860 (covering areas in Drawings 1, 2, 3, 4 and 5)

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Project Works

8. The archaeological works consisted of intermittent monitoring of ground breaking works during ground reduction necessitated by the Water Main Rehabilitation works, carried out by Barhale, on behalf of Scottish Water. Rathmell Archaeology Ltd was appointed by Scottish Water to undertake archaeological monitoring designed to mitigate the impact on the archaeological remains within the development area, to the standards expected under the release of Permitted Development rights.
9. Works undertaken by Rathmell Archaeology Ltd were consistent with the terms described in the Method Statement (Williamson, 2012). Monitoring, recording and excavation were carried out in conjunction with the terms of this document.
10. Archaeological monitoring took place concerning ground breaking works on site and were undertaken between 10th July and 7th November 2012. The existing 16" steel water main within Skares Road required rehabilitation but due to the condition of the pipe the majority of the existing route was abandoned and a new pipe laid along the majority of the route. This therefore necessitated ground reduction to enable the construction of a new pipe trench. Archaeological monitoring was carried out to either; sterile drift geology, the uppermost level of archaeologically sensitive material or alternatively the full extent of ground reduction required for the installation of the pipeline. The new pipeline follows the existing main for the most part, and is generally located in the fields lying to the north and south of the existing main, crossing the tarmac road at intervals.
11. Excavations were carried out by 360° mechanical excavator. Any potentially significant archaeological features, structures or deposits encountered were recorded by the archaeologist on site, using Rathmell Archaeology Ltd standard method. All contexts, small finds and environmental samples were given unique numbers with bulk finds collected by context.
12. All works complied with West of Scotland Archaeology Service Standard Conditions, the Institute for Archaeologists' Standards and Policy Statements and Code of Conduct and Historic Scotland Policy Statement.

Findings

13. Ground reduction works for the construction of the pipeline began in Area 1 in the east (NGR 257283 616118) and worked westwards towards Area 21 (NGR 249596 617591). Ground reduction continued from Area 1 through to Area 21 intermittently, with the majority of the works being monitored (Figure 3). Works on the pipeline also included the northern branch (mapped as areas 10 and 11); this area was not monitored due to the close proximity to the pre-existing tarmac road, which rendered the area unlikely to encounter any significant archaeology.
14. The majority of the area reduced for the construction of the new pipeline was located within the fields either to the north or south of the position of the main existing pipeline. Small areas of the pipeline were located within tarmac road, but these were not monitored (this is contained within Area 5).
15. The ground reduction works involved the stripping of topsoil and turf to reveal the subsoil below (Figure 4a). The depth of the ground reduction varied according to the nature of the topsoil, and the location. The width of the stripped area also varied slightly according to location, but generally was 5m-6m wide. This area was stripped to accommodate the construction and installation of the new pipeline, which took place after the main linear area had been stripped. The monitoring works encountered no significant archaeological deposits or features during ground reduction.
16. The uppermost deposits encountered during the course of the works consisted of turf and topsoil, as the majority of the works took place in grassy fields. A number of turf and topsoil deposits were encountered, which varied according to location. Topsoil (001) was encountered from Area 4 to the beginning of Area 8. This was loose, mid-dark brown waterlogged silty clay, and contained abundant rootlets and small stone inclusions.



Figure 4a: Ground reduction through turf and topsoil



Figure 4b: Shot of deposit (002)



Figure 5a: Deposit (004)



Figure 5b: Subsoil (008)

Generally this deposit measured 0.2m – 0.4m in thickness. Topsoil (011) was found from the beginning of Area 8 to mid way through Area 9. This was friable, light brown (mottled yellow and orange) clayey sand with frequent coal and shale inclusions, and frequent rootlets. Topsoil (011) measured 0.1-0.2m in thickness. The remainder of the ground reduction revealed the uppermost context to be turf and topsoil (013), which was located from mid way in Area 9 to the end of monitoring of Area 21. Deposit (013) was friable, light to mid brown silty clay (mottled orange). It contained frequent root inclusions, and was revealed to be 0.1m-0.2m in thickness.

17. Removal of topsoil (001), (011) and (013) exposed a number of different subsoils, none of which displayed any evidence of significant archaeology. The nature of the subsoil varied depending on the location along the route of the pipeline.
18. Subsoil (002) was encountered within Areas 4 and 5 (Figure 4b) and was firm, light orange to light brown clayey silt (mottled grey). Within this deposit were abundant small stones and frequent coal inclusions. Also found within this subsoil were chunks of cracked bedrock (003); in nature the exposed bedrock was sedimentary and likely to be interstratified with beds of coal and shale (this is further indicated by the abundant quantity of coal deposits found locally in the area). Bedrock was exposed only within a small area of Area 4.
19. Also found within Area 4, located in the same place as (003), was deposit (004) (Figure 5a). The visible extent of this deposit covered a small area measuring 12m by 5.5m; the southern limits were obscured by the limits of excavation, so it is possible it extended further. Deposit (004) consisted of a variety of small to medium sub-angular and sub-rounded stones, in addition to rounded natural field stones. It was mixed in (003), but consisted of a different type of stone. Also within (004) were red ceramic field drain fragments in addition to various small to medium and mixed stones.
20. Deposit (006) was found in a waterlogged area of the site, located within Area 4. This was soft, dark brown and grey fibrous peaty clay, containing an abundance of roots. Rare finds of animal bone fragments (most likely to be sheep) were found within this deposit, which was located around a waterlogged culvert area. The deposit covered an area measuring 5m by 15m in extent; in some places this deposit formed the topsoil and was situated above gravel subsoil (007), in other areas it sat below topsoil (001).
21. Encountered in sporadic places along the pipeline was subsoil (007); this was found within Areas 4, 5 and 12. This deposit comprised loose, light orange and yellow (mottled grey) gravel in a clay matrix, with the gravel consisting of small to medium rounded stones. This deposit was exposed in waterlogged areas of the site.
22. The majority of the area stripped for the pipeline was dominated by subsoil (008), which was exposed along the pipeline to varying degrees (Figure 5b). This deposit was found within Areas 4 and 5, along with subsoil (002) and within Area 8, along with subsoil (009) (see below). In addition, this subsoil dominated Areas 9, 12, 13, 14 and 20; it was also found within Area 21, but was interspersed with other subsoil. Deposit (008) consisted of friable, orange and grey clay and included frequent naturally occurring coal veins and chunks and rare inclusions of naturally occurring red and blonde sandstone. Also found within this deposit were occasional small to medium sub-angular and sub-rounded stones, as well as rare inclusions of natural boulders and field stones. This deposit was located in the areas of the pipeline which spanned higher ground, rather than the lower waterlogged areas.
23. Subsoil (009) was found in Areas 4, 5 and 8 and comprised loose, light brown (tinged yellow) clayey sand. Included within this deposit were abundant small to medium rounded and sub-angular stones, along with frequent unevenly distributed and formed lenses of dark yellow sand. Subsoil (012) was found with Areas 9, 12 and 21; in nature this was friable, light to mid grey, slightly sandy clay and contained frequent roots and angular and sub-angular small to medium stones.



Figure 6a: Field drain [005]



Figure 6b: Plough Furrows [010]

24. Towards the western terminal of the stripped pipeline linear area, a small area of subsoil (014) was encountered (less than 20m in length), within Area 21. This was firm, mid to dark grey (mottled orange) slightly sandy clay. Included within this deposit were frequent rootlets and occasional small to medium rounded and angular stones.
25. Subsoil (015) was also found in Area 21, as well as Area 20. This deposit was very light brown silty clay containing frequent roots as well as abundant small to medium rounded and angular stones. Also within Area 20 was an area measuring less than 20m length of subsoil (016). This deposit consisted of firm, light grey (mottled orange) sandy clay and contained rare roots and frequent naturally occurring coal inclusions in addition to frequent small to medium rounded and angular stones. Subsoil (017) was exposed below topsoil (013) within Area 21 within a 20m stretch of the stripped linear area. This deposit was firm, mid orange silty sand with sporadic, uneven and improperly formed mid grey inclusions. Included within this deposit were occasional roots and occasional small to medium stone inclusions.
26. Modern ceramic field drains [005] were exposed at various locations along the route of the new pipeline, generally exposed immediately below the topsoil once removed (Figure 6a). The depth at which they were found varied according to location. The density of the field drains also varied, becoming more frequent in waterlogged areas of the site. The field drains were unglazed red terracotta, and consisted of two parts with the upper U-shaped part sitting on top of a flat tile at the base. The width of the cuts for these varied, but on average were 0.2m wide; the orientation of the field drains varied.
27. Further agricultural activity was noted in sporadic areas throughout the pipeline, mostly limited to the eastern side. These appeared to be modern plough furrows [010] which were orientated north-west to south-east, exposed below the topsoil (Figure 6b). These features were 0.13-0.22m wide, with a maximum depth of 0.05m; in section they were U-shaped, and filled with topsoil (001).
28. Sporadic coal and shale deposits (018) were exposed within the beginning of Area 8 within and below the topsoil. This covered the width of the trench in places, and ran for a distance of approximately 15m along the route of the pipeline.
29. In addition, located within Area 9 was a stretch of made-up ground (019); this covered the entire width of the stripped area and was roughly 50m in length. This deposit consisted of a layer of turf and topsoil (013) above made-up ground consisting of a variety of debris. The deposit consisted of quarried bedrock (003), with broken and intact modern red brick; abundant glazed white earthenware pottery jars and fragments; modern glass bottles, jars and sherds; abundant tree and plant roots, slate fragments and areas covered by bitumen. The full depth of this deposit was unknown, but reached 0.8m thickness as excavated; the deposit was not fully excavated as the required depth for the construction of the pipeline had been reached.

Discussion

30. Archaeological monitoring of the ground reduction required for the construction of a new pipeline along Skares Road did not expose any features of archaeological significance. Evidence of human interference within the landscape was evident, but this related to modern activity, and can be attributed to late 18th or early 19th century onwards.
31. The presence of features [005] and [010] along the pipeline are indicative of modern human interference in the landscape, carried out to better drain and prepare the land for farming activities. It is likely that deposit (004) found within Area 4 is the result of clearing stones from the surrounding area in preparation for use of the land for farming or arable use.
32. The waterlogged material (006) found within Area 4 is a peaty fibrous material, which seems likely to result from water running through the area or from the generally waterlogged nature of this portion of the land in the area. It is perhaps due to the accumulation of water in this location due to the naturally undulating topography of the land. This is further supported by the close proximity of the adjacent culvert, and by the

gravelly subsoil (007) below, which is most likely to represent the bed of a narrow river channel which once flowed through this area.

33. The coal and shale spread (018) found within Area 8 seems most likely to be man made, relating to 19th century industrial coal mining activities which were present along much of the extent of this route, but particularly prevalent around Area 8. The made-up ground (019) which was encountered in Area 9 is likely to be the product of a 19th century farm midden, combined with a general dump of material relating to modern works in the area.
34. The sterile drift geology which is represented by natural subsoil bearing context numbers (002), (008), (009), (012), (014), (015), (016), and (017) did not reveal any archaeological features which can not be attributed to modern agricultural features associated with late 17th to present day activities.

Recommendations

35. The archaeological monitoring works did not recover any significant archaeological material from within the area of the new pipeline. As a result, no further works are recommended as a direct consequence of these phases of monitoring.
36. However, the previously recorded evidence of land use and occupation of the areas to the north and south of the route of the pipeline, dating back to the prehistoric period, should be taken into account. These areas located around the extent of the route of the pipeline demonstrate the potential for further works in this area to encounter sensitive and significant archaeology. We recommend the areas to the north and south of the route of the pipeline should continue to be considered archaeologically sensitive.
37. The appropriateness and acceptability of our recommendations rest with East Ayrshire Council and their advisors, the West of Scotland Archaeology Service.

Conclusion

38. A programme of archaeological monitoring was carried out from 10th July to 7th November 2012 on behalf of the Scottish Water, in respect to the rehabilitation of the existing water pipe at Skares Road, East Ayrshire.
39. The archaeological works were designed to monitor the ground reduction in preparation for the rehabilitation of the existing mains and the installation of the new water pipes.
40. In the course of the works, evidence of modern agricultural and industrial activities which can be attributed to a date ranging from late 18th century until the present day were encountered throughout the route of the pipeline. No significant archaeological finds were recovered during the course of these works.

References

Documentary

Williamson, C, 2012, *Skares Water Main Rehabilitation, East Ayrshire: Archaeological Monitoring, Method Statement* unpublished commercial report by Rathmell Archaeology Ltd)

Cartographic

Ordnance Survey 1860 1st Edition.

Appendix 1: Registers

Within this appendix are all registers pertaining to the intrusive evaluation works.

Context Register

| Context No. | Area/ Trench | Type | Description | Interpretation |
|-------------|-----------------|---------|---|-----------------------------|
| 001 | - | Deposit | Loose mid-dark brown silty clay. 0.2m-0.7m thick. Roots and small stone inclusions present. | Topsoil |
| 002 | - | Deposit | Firm mixed light orange brown silty clay with abundant small stone inclusions and frequent coal. | Natural Subsoil |
| 003 | - | Deposit | Bedrock | Bedrock |
| 004 | - | Deposit | 12m x 5.5m visible extents. Amongst bedrock deposit. Contains fragments of broken clay drain and mixed stone. Could be clearance activity. | Rubble Deposit |
| 005 | - | Deposit | Modern field drain | Field Drain |
| 006 | Area 4 | Deposit | Dark brown and grey mottle mid-brown waterlogged fibrous clay. 0.3m deep as excavated. | Natural waterlogged deposit |
| 007 | Area 4 | Deposit | Orange and grey gravel, occasional small-medium rounded stones in clay matrix. 20m long x 5.5m wide. | Natural subsoil |
| 008 | Area 4 / 5 | Deposit | Orange and grey clay with frequent coal, occasional small-medium stones. | Natural subsoil |
| 009 | Area 4 / 5 | Deposit | Light brown tinged yellow sandy clay and clayey sand, abundant stone and patches of sand. | Natural subsoil |
| 010 | - | Deposit | 0.13m-0.22m depth (0.05m thick) WSW-ENE orientation, bowl-shaped furrows. | Modern plough furrows? |
| 011 | Area 8 | Deposit | Light brown (tinged yellow, mottled orange) clayey sand with frequent rootlet inclusions. 0.1-0.2m thickness, with occasional coal/shale deposits | Topsoil. |
| 012 | Area 9 | Deposit | Light to mid grey slightly sandy clay. Frequent roots and angular | Natural subsoil. |

| Context No. | Area/ Trench | Type | Description | Interpretation |
|-------------|--------------|---------|--|------------------|
| | | | stone inclusions. | |
| 013 | Area 9 | Deposit | Light to mid brown silty clay, mottled orange. Frequent root inclusions. 0.1-0.2m thickness. | Topsoil. |
| 014 | Area20/21 | Deposit | Firm, mid-dark grey (mottled orange) slightly sandy clay, frequent rootlets, occasional small to medium rounded and angular stones. | Natural subsoil. |
| 015 | Area20/21 | Deposit | Very light brown silty clay, frequent rootlets, and abundant small to medium rounded and angular stones. | Natural subsoil. |
| 016 | Area20/21 | Deposit | Firm light grey (mottled orange) sandy clay, rare roots, frequent small-medium rounded and angular stones, frequent coal inclusions. | Natural subsoil. |
| 017 | Area20/21 | Deposit | Firm mid orange silty sand (mottled mid-grey clay inclusions) occasional roots, occasional small to medium stones. | Natural subsoil. |
| 018 | Area 8 | Deposit | Loose, black coal and shale deposit, spread below topsoil (001) | Coal deposit |

Photographic Register

| Image No. | Print | | Slide | | Digital | Description | From | Date |
|-----------|----------|----------|----------|----------|---------|---|------|----------|
| | Film No. | Neg. No. | Film No. | Neg. No. | | | | |
| 001 | - | - | - | - | 001 | General shot of area stripped (unmonitored) | N | 10/07/12 |
| 002 | - | - | - | - | 002 | General shot of area stripped (unmonitored) | SE | 10/07/12 |
| 003 | - | - | - | - | 003 | Shot of (002), (003), (005). | SE | 10/07/12 |
| 004 | - | - | - | - | 004 | Working shot | SE | 10/07/12 |
| 005 | - | - | - | - | 005 | Working shot | NW | 10/07/12 |
| 006 | - | - | - | - | 006 | Close up of (004) | N | 10/07/12 |

| Image No. | Print | | Slide | | Digital | Description | From | Date |
|-----------|----------|----------|----------|----------|---------|---|------|----------|
| | Film No. | Neg. No. | Film No. | Neg. No. | | | | |
| 007 | - | - | - | - | 007 | Close up of (004) | SE | 10/07/12 |
| 008 | - | - | - | - | 001 | Starting point – topsoil stripping between areas 4 and 5. | ENE | 16/07/12 |
| 009 | - | - | - | - | 002 | Location shot of above. | ENE | 16/07/12 |
| 010 | - | - | - | - | 003 | As above, showing farm. | N | 16/07/12 |
| 011 | - | - | - | - | 004 | Showing culvert on Dwg#4 | S | 16/07/12 |
| 012 | - | - | - | - | 005 | As above | ENE | 16/07/12 |
| 013 | - | - | - | - | 006 | Topsoil stripping from culvert. | ENE | 16/07/12 |
| 014 | - | - | - | - | 007 | Facing culvert – showing (006) at bottom. | WSW | 16/07/12 |
| 015 | - | - | - | - | 008 | Facing from area 4 to area 5. | NE | 16/07/12 |
| 016 | - | - | - | - | 009 | Start of topsoil stripping – West side of gate. | NE | 16/07/12 |
| 017 | - | - | - | - | 010 | General – (002) field drain (005) to fore. | NE | 16/07/12 |
| 018 | - | - | - | - | 011 | Area between 2 gates topsoil stripped. | WSW | 16/07/12 |
| 019 | - | - | - | - | 012 | As above, zoomed in to subsoil (002). | WSW | 16/07/12 |
| 020 | - | - | - | - | 013 | Location shot of above. | WSW | 16/07/12 |
| 021 | - | - | - | - | 014 | Area not dug due to pipes (goal posts to rear). | WSW | 17/07/12 |
| 022 | - | - | - | - | 015 | Area stripped, W. of above. | ENE | 17/07/12 |
| 023 | - | - | - | - | 016 | Topsoil stripping between GPS points 895 and 896 | ENE | 18/07/12 |
| 024 | - | - | - | - | 017 | Looking E from GPS points 899. | WSW | 18/07/12 |
| 025 | - | - | - | - | 018 | Looking SW from GPS point 899. | NE | 18/07/12 |
| 026 | - | - | - | - | 019 | Looking at possible plough furrows (010) | ENE | 18/07/12 |
| 027 | - | - | - | - | 020 | As above, within (008) and (009) | NE | 18/07/12 |
| 028 | - | - | - | - | 021 | Looking NE from GPS point 902. | WSW | 18/07/12 |

| Image No. | Print | | Slide | | Digital | Description | From | Date |
|-----------|----------|----------|----------|----------|---------|--|------|----------|
| | Film No. | Neg. No. | Film No. | Neg. No. | | | | |
| 029 | - | - | - | - | 022 | General location shot east end area 4 stripping. | NNW | 18/07/12 |
| 030 | - | - | - | - | 023 | As above, crossroads leading to farm. | NE | 18/07/12 |
| 031 | - | - | - | - | 001 | End of strip, north side of road where pipe came broken. | S | 27/07/12 |
| 032 | - | - | - | - | 002 | Strip with Mossback in back right. | E | 27/07/12 |
| 033 | - | - | - | - | 003 | As above. | E | 27/07/12 |
| 034 | - | - | - | - | 004 | Strip from GPS points 902 and 903. | E | 27/07/12 |
| 035 | - | - | - | - | 005 | As above. | W | 27/07/12 |
| 036 | - | - | - | - | 001 | From GPS point 908 pipe and backfilling. | W | 04/09/12 |
| 037 | - | - | - | - | 002 | From GPS point 908 pipe and backfilling. | W | 04/07/12 |
| 038 | - | - | - | - | 003 | S Facing section pipe trench GPS 908. | SW | 04/07/12 |
| 039 | - | - | - | - | 004 | S Facing section pipe trench GPS 908. | SE | 04/07/12 |
| 040 | - | - | - | - | 005 | Continuation west side of GPS point 908. | W | 04/07/12 |
| 041 | - | - | - | - | 006 | Backfilled area W of GPS point 908. | SE | 04/09/12 |
| 042 | - | - | - | - | 007 | S facing section pipe trench (as above). | S | 04/09/12 |
| 043 | - | - | - | - | 008 | S facing section pipe trench (with field drains). | SE | 04/09/12 |
| 044 | - | - | - | - | 009 | General, pipe trench within backfilled area. | SE | 04/09/12 |
| 045 | - | - | - | - | 010 | S facing section pipe trench within backfilled area. | SE | 04/09/12 |
| 046 | - | - | - | - | 011 | Terminal – GPS 909. | SW | 04/09/12 |
| 047 | - | - | - | - | 012 | Terminal – GPS 909. Proximity to Road. | SW | 04/09/12 |
| 048 | - | - | - | - | 013 | GPS 910 S side of road. | NE | 04/09/12 |
| 049 | - | - | - | - | 014 | GPS 911 – 910 Tracked over area. | W | 04/09/12 |
| 050 | - | - | - | - | 015 | GPS 911 – 912 Tracked over area. | E | 04/09/12 |

| Image No. | Print | | Slide | | Digital | Description | From | Date |
|-----------|----------|----------|----------|----------|---------|--|------|----------|
| | Film No. | Neg. No. | Film No. | Neg. No. | | | | |
| 051 | - | - | - | - | 016 | From GPS 913 – 912 | W | 04/09/12 |
| 052 | - | - | - | - | 017 | From GPS 913 – 914 | E | 04/09/12 |
| 053 | - | - | - | - | 018 | Towards 914 – showing area still in topsoil. | E | 04/09/12 |
| 054 | - | - | - | - | 019 | From 914 – 913 trample. | NW | 04/09/12 |
| 055 | - | - | - | - | 020 | Substation 914 (GPS) behind it. | SW | 04/09/12 |
| 056 | - | - | - | - | 021 | General topsoil stripped from GPS 916. | N | 04/09/12 |
| 057 | - | - | - | - | 022 | From GPS 916. | NNW | 04/09/12 |
| 058 | - | - | - | - | 023 | From GPS 917 – 916. | SSW | 04/09/12 |
| 059 | - | - | - | - | 024 | Showing black deposit above subsoil. | SSE | 04/09/12 |
| 060 | - | - | - | - | 025 | From GPS 918. | S | 04/09/12 |
| 061 | - | - | - | - | 026 | From GPS 918 | S | 04/09/12 |
| 062 | - | - | - | - | 027 | Shows coal deposits between 916 and 917. | NE | 04/09/12 |
| 063 | - | - | - | - | 028 | As above. | SE | 04/09/12 |
| 064 | - | - | - | - | 001 | Topsoil stripping, area 8/9 (GPS 921) | SE | 13/09/12 |
| 065 | - | - | - | - | 002 | Subsoil stripping, area 8/9 (GPS 921) | SE | 13/09/12 |
| 066 | - | - | - | - | 003 | Subsoil stripping, area 8/9 (GPS 922) | SE | 13/09/12 |
| 067 | - | - | - | - | 004 | General, stripped area 8/9. | W | 13/09/12 |
| 068 | - | - | - | - | 005 | Pre-ex General, Pre-stripping area 8/9. | E | 13/09/12 |
| 069 | - | - | - | - | 006 | Landscape shot. | SE | 13/09/12 |
| 070 | - | - | - | - | 007 | Bad shot. | ESE | 13/09/12 |
| 071 | - | - | - | - | 008 | General, ground reduction (GPS 923) | ESE | 13/09/12 |
| 072 | - | - | - | - | 001 | Ground reduction from GPS 925 – 924 | WNW | 19/09/12 |

| Image No. | Print | | Slide | | Digital | Description | From | Date |
|-----------|----------|----------|----------|----------|---------|--|------|----------|
| | Film No. | Neg. No. | Film No. | Neg. No. | | | | |
| 073 | - | - | - | - | 002 | Ground reduction from GPS 925 – 924 onwards. | ESE | 19/09/12 |
| 074 | - | - | - | - | 003 | General, terminus of reduction at GPS 927. | SE | 19/09/12 |
| 075 | - | - | - | - | 004 | General of ground reduction from 927 – 926. | SW | 19/09/12 |
| 076 | - | - | - | - | 001 | Made-up ground Area 9 (GPS point 948) | WNW | 02/10/12 |
| 077 | - | - | - | - | 002 | Made-up ground Area 9 (GPS point 948) | NNE | 02/10/12 |
| 078 | - | - | - | - | 003 | Made-up ground Area 9 (GPS point 948) | ENE | 02/10/12 |
| 079 | - | - | - | - | 004 | Made-up ground Area 9 and grey clay backfill | NE | 02/10/12 |
| 080 | - | - | - | - | 005 | Made-up ground Area 9 looking towards GPS 948 | WNW | 02/10/12 |
| 081 | - | - | - | - | 006 | Made-up ground Area 9 | ESE | 02/10/12 |
| 082 | - | - | 001 | 001 | - | ID shot | - | 03/10/12 |
| 083 | - | - | 001 | 002 | 007 | Pre-ex shot of modern feature (no context number assigned) | ENE | 03/10/12 |
| 084 | - | - | - | - | 008 | Pre-ex shot of field west end of Area 9 | E | 03/10/12 |
| 085 | - | - | - | - | 009 | Working shot, Area 9 at GPS 957 | SE | 03/10/12 |
| 086 | - | - | - | - | 010 | General shot, as above, showing shallow bedrock | SE | 03/10/12 |
| 087 | - | - | - | - | 011 | Landscape shot | S | 03/10/12 |
| 088 | - | - | - | - | 012 | Landscape shot | SSW | 03/10/12 |
| 089 | - | - | - | - | 013 | Working shot, Area 9 (past the burn) | E | 04/10/12 |
| 090 | - | - | - | - | 014 | Working shot, Area 9 (past the burn) | W | 04/10/12 |
| 091 | - | - | - | - | 015 | Working shot, Area 9/12 (past the burn) | E | 04/10/12 |
| 092 | - | - | - | - | 016 | Working shot, Area 9/12 | NE | 04/10/12 |
| 093 | - | - | - | - | 017 | Working shot, Area 9/12 | W | 04/10/12 |

| Image No. | Print | | Slide | | Digital | Description | From | Date |
|-----------|----------|----------|----------|----------|---------|---|------|----------|
| | Film No. | Neg. No. | Film No. | Neg. No. | | | | |
| 094 | - | - | - | - | 001 | General shot at GPS 965 | SW | 15/10/12 |
| 095 | - | - | - | - | 002 | General, topsoil stripping at GPS 966 | ENE | 15/10/12 |
| 096 | - | - | - | - | 003 | General, topsoil stripping at GPS 968 | E | 15/10/12 |
| 097 | - | - | - | - | 004 | General, topsoil stripping at GPS 971 | SW | 16/10/12 |
| 098 | - | - | - | - | 005 | General, topsoil stripping at GPS 971 | SE | 16/10/12 |
| 099 | - | - | - | - | 006 | General, topsoil stripping at GPS 974 | W | 16/10/12 |
| 100 | - | - | - | - | 007 | General, topsoil stripping at GPS 975 | E | 16/10/12 |
| 101 | - | - | - | - | 008 | Area between two diggers stripping simultaneously | NW | 17/10/12 |
| 102 | - | - | - | - | 009 | Burn at GPS 976 | NW | 17/10/12 |
| 103 | - | - | - | - | 010 | General, topsoil stripping at GPS 976 onwards | E | 17/10/12 |
| 104 | - | - | - | - | 011 | General, topsoil stripping at GPS 978 | W | 17/10/12 |
| 105 | - | - | - | - | 012 | General, topsoil stripping at GPS 978 | NE | 17/10/12 |
| 106 | - | - | - | - | 013 | General shot, topsoil stripping | W | 18/10/12 |
| 107 | - | - | - | - | 014 | Topsoil stripping at GPS 988 to 987 | WNW | 19/10/12 |
| 108 | - | - | - | - | 001 | General shot, topsoil stripping at GPS 990 | E | 24/10/12 |
| 109 | - | - | - | - | 002 | General shot, topsoil stripping at GPS 992 | W | 24/10/12 |
| 110 | - | - | - | - | 003 | General, topsoil stripping at GPS 993 | W | 24/10/12 |
| 111 | - | - | - | - | 004 | General, topsoil stripping at GPS 993 | E | 24/10/12 |
| 112 | - | - | - | - | 005 | General shot, topsoil stripping | W | 24/10/12 |
| 113 | - | - | - | - | 006 | General, topsoil stripping at GPS 998 (end of day) | W | 24/10/12 |
| 114 | - | - | - | - | 007 | General shot, topsoil stripping | NE | 26/10/12 |
| 115 | - | - | - | - | 008 | General shot, topsoil stripping at GPS 619 (end of day) | WSW | 26/10/12 |

| Image No. | Print | | Slide | | Digital | Description | From | Date |
|-----------|----------|----------|----------|----------|---------|--|------|----------|
| | Film No. | Neg. No. | Film No. | Neg. No. | | | | |
| 116 | - | - | - | - | 009 | General, topsoil stripping at GPS 620 | WSW | 29/10/12 |
| 117 | - | - | - | - | 010 | General, topsoil stripping crossing road into Quarry | NE | 29/10/12 |
| 118 | - | - | - | - | 011 | General, topsoil strip and GPS 629. Area 20/21 | WSW | 5/11/12 |
| 119 | - | - | - | - | 002 | General, subsoil 017 and GPS 633. Area 20/21 | ENE | 6/11/12 |
| 120 | - | - | - | - | 003 | General, stripped area 635-636. | NE | 7/11/12 |

Sample Register

| Sample No. | Context | Sample Type | Description / Quantity | Excavator | Date |
|------------|---------|-------------|--|-----------|----------|
| 001 | 002 | Control | 1x medium bag (002) subsoil orangey clay | DG | 17/07/12 |
| 002 | 001 | Control | 1x medium bag topsoil (001) | DG | 17/07/12 |

Appendix 2: Discovery & Excavation in Scotland

| | |
|--|--|
| LOCAL AUTHORITY: | East Ayrshire |
| PROJECT TITLE/SITE NAME: | Skares Water Main Rehabilitation |
| PROJECT CODE: | RA12016 |
| PARISH: | Old Cumnock |
| NAME OF CONTRIBUTOR: | Diane Gorman |
| NAME OF ORGANISATION: | Rathmell Archaeology Limited |
| TYPE(S) OF PROJECT: | Archaeological Monitoring |
| NMRS NO(S): | None |
| SITE/MONUMENT TYPE(S): | None |
| SIGNIFICANT FINDS: | None |
| NGR (2 letters, 6 figures) | NS 57283 16118 (eastern extent) |
| START DATE (this season) | 10 th July 2012 |
| END DATE (this season) | 7 th November 2012 |
| PREVIOUS WORK (incl. DES ref.) | None |
| MAIN (NARRATIVE) DESCRIPTION: (may include information from other fields) | <p>Archaeological monitoring was undertaken between 10th July and 7th November 2012 at Skares Road, East Ayrshire. The works were undertaken on behalf of Scottish Water Shared Services, in support of the rehabilitation of the existing water mains along Skares Road.</p> <p>In the course of the works evidence of modern agricultural and industrial activities which can be attributed to a date ranging from late 18th century until the present day were encountered. No significant archaeological finds were recovered.</p> |
| PROPOSED FUTURE WORK: | No |
| CAPTION(S) FOR ILLUSTRS: | None |
| SPONSOR OR FUNDING BODY: | Rathmell Archaeology Ltd |
| ADDRESS OF MAIN CONTRIBUTOR: | Unit 8 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PU |
| E MAIL: | contact@rathmell-arch.co.uk |
| ARCHIVE LOCATION (intended/deposited) | Report to North Ayrshire Council Ranger Service, West of Scotland Archaeology Service and archive to RCAHMS Collections. |

Contact Details

42. Rathmell Archaeology can be contacted at our Registered Office or through the web:

| | |
|---------------------------|--|
| Rathmell Archaeology Ltd | www.rathmell-arch.co.uk |
| Unit 8 Ashgrove Workshops | |
| Kilwinning | t.: 01294 542848 |
| Ayrshire | f.: 01294 542849 |
| KA13 6PU | e.: contact@rathmell-arch.co.uk |

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

| | |
|--------------------------------------|--|
| West of Scotland Archaeology Service | www.wosas.org.uk |
| 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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