Green Route
The far western portion of the proposed Green Route mirrors that of the other pipeline routes previously discussed. However, the majority of the route is unique. Furthermore, the proposed options for the New Glasgow off-shoots differ slightly from the others.

The desktop study of the proposed Green Route, including the New Glasgow off-shoots, identified 12 areas of elevated archaeological potential (***Figure 8***). Of these 12 areas, six are exclusive to the proposed Green Route.

Areas 1 & 2
Areas 1 & 2 correspond with Areas 1 & 2 of the Red and Magenta Routes discussed in Subsection 4.1.5 of this report (***Figures 5, 6 & 8***).

Area 3
Location: See ***Figure 8***

Description:
Area 3 is located on the west side of Middle River and is bounded by Douglas Road in the west and Alma Road in the east, both of which are historic road alignments. Historic mapping of this area indicates a number of dwellings in the vicinity of both Alma and Douglas roads (***Figures 3 & 4***).

Potential:
The area is considered to have high potential for encountering historic archaeological resources.

Recommendation: The area should be subjected to a detailed pedestrian survey.

Area 4
Location: See ***Figure 8***

Description:
Area 4 is located on either side of the Middle River. At this location, the proposed pipeline route crosses Middle River to the north of the old Highway 104, and north of the other potential routes. Any level, dry areas in this vicinity would be suitable for both Precontact and historic settlement. Considering the significance of the Middle River in both Precontact and historic times, this area is deemed to be high potential.

Potential:
These areas are considered to have high potential for encountering both Precontact and/or historic archaeological resources.

Recommendation: The area should be subjected to a detailed pedestrian survey.

Areas 5-7
Location: See ***Figure 8***

Description:
These three small areas are located in the vicinity of Granton Road, an historic road alignment. Areas 5 and 6 are situated where the potential New Glasgow off-shoot crosses Granton Road,

while Area 7 is located just to the north where the potential Green Route crosses Granton Road. Historic mapping of this area indicates a number of dwellings on either side of Granton Road (***Figures 3 & 4***).

Potential:
The area is considered to have high potential for encountering historic archaeological resources.

Recommendation: The area should be subjected to a detailed pedestrian survey.

Area 8
Area 8 corresponds with Area 5 of the Red and Magenta Routes (**Subsection 4.1.5**; ***Figures 5, 6 & 8***).

Area 9
Area 9 corresponds with Area 6 of the Red and Magenta Routes (**Section 4.1.5**; ***Figures 5, 6 & 8***).

Area 10
Location: See ***Figure 8***

Description:
Area 10 consists of a small creek crossing near the northern extent of the proposed pipeline route. Areas adjacent to this crossing may have been suitable for Precontact and/or historic settlement.

Potential:
These areas are considered to have high potential for encountering Precontact and/or historic archaeological resources.

Recommendation: The area should be subjected to a detailed pedestrian survey.

Areas 11 & 12
Areas 11 & 12 correspond with Areas 10 & 11 of the Red and Magenta routes (**Subsection 4.1.5**).

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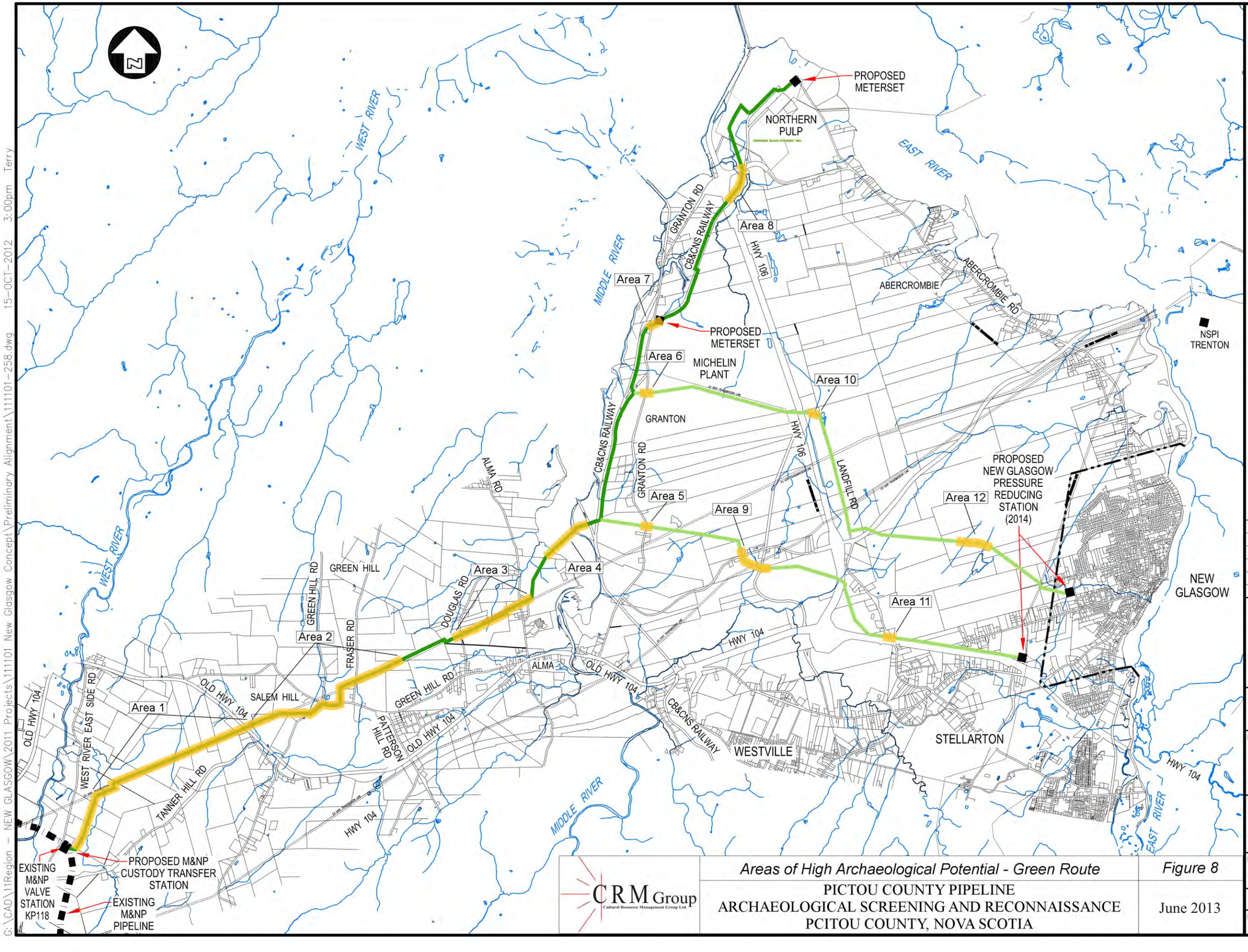


LEGEND

- STEEL PIPELINE (2013)
- STEEL PIPELINE (2014)
- EXISTING M&NP STEEL PIPELINE
- PROPOSED HGL STATION SITE
- HIGH POTENTIAL AREA

NO.	REVISIONS	DATE	DWN	APP
1	ISSUED FOR REVIEW	12/10/15	TLM	

Heritage Gas

AREA: NEW GLASGOW PICTOU CO., N.S.

PROJECT: NATURAL GAS DISTRIBUTION SYSTEM NEW GLASGOW PIPELINE

TITLE: PROPOSED PIPELINE ROUTE

DWG NO: 111101 - 258

DESIGN:	DRAWN:	SCALE:
T.L.M.	T.L.M.	1:50,000 (0 500 1000m)

CRM Group
Cultural Resource Management Group Ltd.

Areas of High Archaeological Potential - Green Route — *Figure 8*

PICTOU COUNTY PIPELINE
ARCHAEOLOGICAL SCREENING AND RECONNAISSANCE
PCITOU COUNTY, NOVA SCOTIA

June 2013

4.2 2013 Focused Field Reconnaissance and Follow-Up Background Research

The 2012 archaeological screening and high-level reconnaissance resulted in the identification of nine areas of high archaeological potential along the Magenta route, which was selected, with slight modification, as the preferred pipeline alignment (***Figure 9***). Recommendations stemming from the 2012 reconnaissance included a focused archaeological reconnaissance and screening be conducted on all high potential areas identified within the preferred route, once that final pipeline route was chosen. This included all areas identified as being suitable for Precontact and/or historic settlement, as well as any areas situated within 100 metres of an historic road alignment

The focused archaeological reconnaissance was conducted on April 22 and 23, 2013, under clear and dry conditions, where the ground surface was clear of snow and before spring's eruption of deciduous leaf growth. This timing facilitated ground surface inspection and GPS positioning. The goal of the survey was to assess the nine areas within the preferred pipeline route that had been identified as areas of elevated potential as a result of the 2012 background research and field assessment. The reconnaissance evaluated the areas for archaeological potential and investigated any observed topographical and/or cultural features. This was achieved through focussed pedestrian transects of the identified high potential areas within the preferred pipeline route.

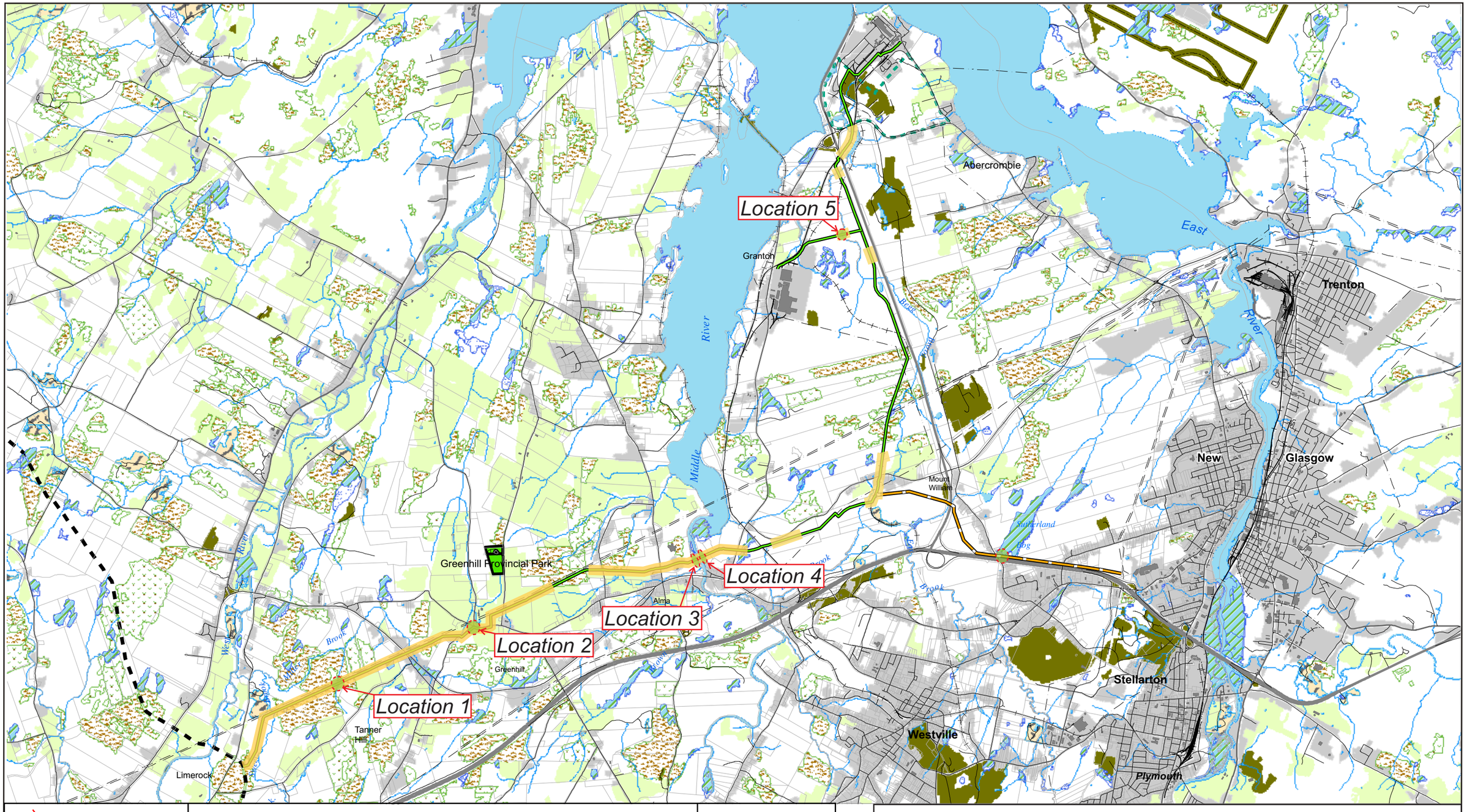
While following the pipeline route, the archaeologists searched for signs of historic land use (*e.g.* leveled ground, anomalous mounds or depressions, structural features, artifact exposures and vestige populations of domestic plants) and the presence of environmental conditions recognized as being conducive to past settlement (relatively flat, dry land close to transportation routes such as waterways, portage routes or early roads). Soil exposures within road-cuts, at the base of uprooted trees and along stream beds were examined for artifacts.

The field assessment began at Limerock, which forms the western end of the proposed pipeline routes, and proceeded eastward (***Figure 9***). Access to the preferred alignment was gained from various provincial, municipal and private roads. Along the route, several areas of past land use were identified in the form of artificially levelled fields, historic roads, driveways and paths, historic lumbering activity, stone piles related to historic field clearing, vestigial domestic plant growth and historic fencing (***Plates 8-10***).

The flattened ground surfaces, fencing and stone piles generated by past field clearing are elements of the general cultural landscape, but are not, in themselves, considered to represent archaeological resources worthy of site registration and detailed investigation or documentation. Wherever these landscape features were detected within the study area, they were searched for traces of more significant archaeological resources. Prominent examples were photographed and recorded in notes and by GPS.

The concrete foundation of a barn, located at UTM 20 T 519482 5047694 (northeast corner), was found approximately 13 metres south of the construction corridor in 2012 High Potential Area 3 (***Plates 11-12***). The material scattered at the site was indicative of twentieth century use, including automobile parts, tin cans and modern glass. It measured approximately 22 metres long by 11 metres wide.

At various places within 2012 High Potential Area 6 (*e.g.* UTM 20 T 520337 5047821), pieces of coal were recorded on the ground surface (***Plate 13***). The coal was located along a length of former rail bed, south of the study area intersection with Mt. William Road, and is attributed to the presence of the former railway.



C R M Group	*Locations of High Archaeological Sensitivity - Preferred Route*	*Figure 9*
	PREFERRED PICTOU COUNTY PIPELINE ARCHAEOLOGICAL RECONNAISSANCE & SCREENING PICTOU COUNTY, NOVA SCOTIA	June 2013 Scale 1:50 000

Legend

- Preferred Route
- Proposed New Glasgow Extension
- 2012 Area of High Archaeological Potential
- 2013 Location of Archaeological Sensitivity

PLATE 8: **Historic fencing (left) and detail of barbed wire grown into tree (right). 2012 High Potential Area 1. April 22, 2013.**

PLATE 9: **Historic road or driveway, 2012 High Potential Area 1, facing north, April 22, 2013.**

PLATE 10: **Vestigial apple trees (right) and linear stone pile (left) adjacent to ploughed field (background) in 2012 High Potential Area 2. Facing north. April 22, 2013.**

PLATE 11: **Concrete barn foundation near the construction corridor in 2012 High Potential Area 3. Western foundation wall, facing south. April 23. 2013.**

PLATE 12: **Steel cattle stanchions and modern debris within barn foundation, facing southeast, April 23, 2013.**

PLATE 13: **Coal scattered on the ground surface along former rail bed, 2012 High Potential Area 6. April 23, 2013.**

A modern cemetery, located approximately 10 metres east of the construction corridor, was located at the intersection of the preferred pipeline route and Mt. William Road (UTM 20 T 521964 5048834). Photo not available.

Within the nine areas of high archaeological potential along the preferred pipeline route identified in 2012, focused reconnaissance reduced the areas of potential to five specific locations that exhibited high archaeological sensitivity. Level and dry plateaus at the banks of three water-crossings made up four of these locations while the other was the possible remains of a historic barn foundation. Moving west to east these locations were: Location 1, the west bank of Miller Brook, a tributary of West River, within 2012 High Potential Area 1 (UTM 20T 0512835N 5045290E); Location 2, the remains of a suspected historic barn, near the intersection of Green Hill Road and McLean Road within 2012 High Potential Area 2 (UTM 20T 0515810N 5046523E); Location 3, the west bank of Middle River, within 2012 High Potential Area 3 (UTM 20T 0519482N 5047694E); Location 4, the east bank of Middle River, within 2012 High Potential Area 3 (UTM 20T 0519277N 5047616E); and Location 5, the west bank of the water-crossing at 2012 High Potential Area 8, a tributary of Begg Brook (UTM 20T 0521390N 5052475E). These locations are detailed in ***Subsections 4.2.1*** to ***4.2.5***.

4.2.1 Location 1 (West Bank of Miller Brook), 2012 High Potential Area 1

2012 High Potential Area 1 extends between Limerock and Salem Hill at the western extent of the preferred pipeline route. At this location, the proposed pipeline originates from the existing valve station and crosses a number of small tributaries to the West River, including Miller Brook. The eastern limits of Area 1 are bounded by steeply sloping terrain deemed unsuitable for habitation. Furthermore, the proposed pipeline is located in the vicinity of West River East Side Road and crosses the old Highway 104, both of which are historic road alignments.

Location One overlies the west bank of Miller Brook, a tributary of the West River, within High Potential Area 1 (UTM 20T 0512835 5045290) (***Plate 14***). It consists of a low, but level plateau that extends back from the water's edge, to the west, for a distance of approximately 15 metres, before sloping upward. The pipeline corridor at this section of the route runs parallel and approximately 15 metres to the south of the existing transmission line cut. The vegetation within the plateau consisted of a mixed stand of fir and spruce, as well as birch, alder and other deciduous trees. The eroded bank and exposed river bed formed a narrow beach and was a mix of sand and cobble. The combined plateau and watercourse indicate potential for Precontact archaeological resources.

PLATE 14: Location 1, west bank of Miller Brook. Level plateau on the right. Facing south, April 22, 2013.

4.2.2 Location 2 (Former Livestock Feeding Area), 2012 High Potential Area 2

2012 High Potential Area 2 is located near Salem Hill and Green Hill between the West and Middle Rivers. In this area, the preferred pipeline route alignment follow an existing transmission line, as well as following and crossing two historic road alignments – Green Hill Road and Fraser Road. The terrain in the area is mostly level, making it suitable for historic occupation.

Location Two is approximately 73 metres southwest of the intersection of Green Hill Road and McLean Road within High Potential Area 2 (UTM 20T 0515810 5046523). It consists of an arrangement of stones in a rough three-sided configuration, with two sides measuring six metres in length and a third side measuring two metres (***Plate 15***). Upon initial inspection, the stones were suspected to be the remains of a historic structure, possibly a barn.

Subsequent background research, including a review of historic mapping and aerial photography, revealed no evidence of structures at that location and that the area had been heavily impacted in the twentieth century. The Ambrose Church map of Pictou County (Church 1864) and the Illustrated Historical Atlas of Pictou County (Meacham 1879) show a number of structures in the vicinity of the Green Hill and McLean Road intersection, but none at location of the stone arrangement. Aerial photography of the location dating back to 1924 also show no evidence of a structure (DNR 1924 KA23-40). The area was heavily impacted sometime between 1964 and 1990 with the construction of a livestock feeding area (DNR 1964 18445-177; 1990 90319-71) (***Figure 10***). The suspected structural remains identified during the survey stem from this twentieth century activity and are therefore not considered to be archaeological in nature.

PLATE 15: Remnants of twentieth-century livestock feeding area near the intersection of Green Hill Road and McLean Road, High Potential Area 2, facing north. April 22, 2013.

4.2.3 Location 3 (West Bank of Middle River), 2012 High Potential Area 3

Area 3 is located on either side of Middle River. The area is bounded by Douglas Road in the west and Granton Road in the east, and crosses over Alma Road on the west side of Middle River. All three of the referenced roads are historic road alignments. Furthermore, the preferred pipeline route crosses Middle River just to the north of the old Highway 104. While the area on the east side of Middle River is mostly low and wet, any level, dry areas in this vicinity would be suitable for both Precontact and historic settlement.

Location 3 is the west bank of the Middle River crossing, within High Potential Area 3 (UTM 20T 0519482N 5047694E). A broad, flat plateau exists to the west, extending 50 metres from the high water mark (***Plate 16***) before rising in slope. Although only slightly higher than the high water mark of the river, the plateau was relatively dry. The area may have seen some artificial leveling due to historic land use, however, given its size and location along a major water course, the location is ascribed high potential for the existence of archaeological resources.

1964

1990

2007

CRM Group Cultural Resource Management Group Ltd.	*Location 2 at Green Hill & McLean Road Intersection* *Aerial Photo Comparison (1964, 1990, 2007)*	*Figure 10*
	PREFERRED PICTOU COUNTY PIPELINE ARCHAEOLOGICAL RECONNAISSANCE & SCREENING PICTOU COUNTY, NOVA SCOTIA	June 2013 Scale 1:2500

PLATE 16: Level plateau at Location 3, west bank of Middle River, High Potential Area 3. Facing north. April 22. 2013.

4.2.4 Location 4 (East Bank of Middle River), 2012 High Potential Area 3

Location 4 is the east side of the Middle River crossing, within 2012 High Potential Area 3 (UTM 20T 0519277N 5047616E). Like the west side, the east bank of Middle River is comprised of a broad flat plateau extending 50 metres east from the water's edge. Also like the west bank, it is assumed that the east bank has been subjected to some historic farming-related leveling (***Plate 17***). Its bank is steeper and higher than the west, lying approximately 1 metre above the water level at the time of the survey. A combination of naturally occurring and selected tree planting was present at this location, including a mix of hardwood and softwood. Hawthorne trees were also present in places. Considering its size, levelness and proximity to a major watercourse, the location is ascribed high archaeological potential.

PLATE 17: Level plateau at Location 4, east bank of Middle River, High Potential Area 3. Facing north. April 23. 2013.

4.2.5 Location 5 (West Bank of Begg Brook), 2012 High Potential Area 8

2012 High Potential Area 8 is a creek crossing near the northern extent of the preferred pipeline route. Areas adjacent to these crossings may have been suitable for Precontact and/or historic settlement.

Location 5 is the western side of the water-crossing at High Potential Area 8, a part of Begg Brook (UTM 20T 0521390N 5052475E). The water-crossing was located in a steep-sided ravine (***Plate 18***) that contained a level, dry plateau on its west bank. The plateau measured approximately 15 metres wide (east-west) by 47 metres long (north-south) (***Plate 19***). High archaeological potential is ascribed to the portion of the construction corridor that intersects this plateau.

PLATE 18: Location 5, Begg Brook Tributary, 2012 High Potential Area 8. Steep-sided ravine on east bank, facing north. April 23, 2013.

PLATE 19: Location 5, Begg Brook Tributary, 2012 High Potential Area 8. Level plateau on west bank, facing south. April 23, 2013.

4.3 2013 Shovel Testing of Locations of Archaeological Sensitivity

Within the nine areas of high archaeological potential along the preferred pipeline route identified in 2012, focused reconnaissance reduced the areas of potential to five specific locations that exhibited high archaeological sensitivity. Level, dry plateaus at various watercourses made up four of these locations, while the other was the foundation of a barn foundation that was later determined to not be archaeological in nature.

Communications with representatives of Heritage Gas following the 2013 focused reconnaissance of the preferred pipeline alignment indicated that planned construction methodology was such that there would be no ground disturbance within the boundaries of the four plateaus identified as locations of archaeological sensitivity. Horizontal directional drilling (HDD) will be utilized to install the pipeline under the watercourses. As such, all entry or exit points for the HDD will be positioned at least 50 metres to 120 metres from the water's edge at the various watercourses. However, to assess the presence/absence of archaeological resources possibly impacted within work areas adjacent to locations of archaeological sensitivity, and to provide value-added information for the Heritage Gas Environmental Assessment, archaeological shovel testing of the four locations of archaeological sensitivity was recommended.

The four plateaus identified as locations of archaeological sensitivity were subjected to shovel testing on a staggered five metre grid pattern, whereby shovel tests on alternating transects within the grid were offset by 2.5 metres, as outlined in the Standards for Archaeological Impact Assessment and Reporting in Debert And Belmont, Nova Scotia (2008). The four plateaus constitute a combined study area of approximately 2,600 m^2 (***Figures 11-14***).

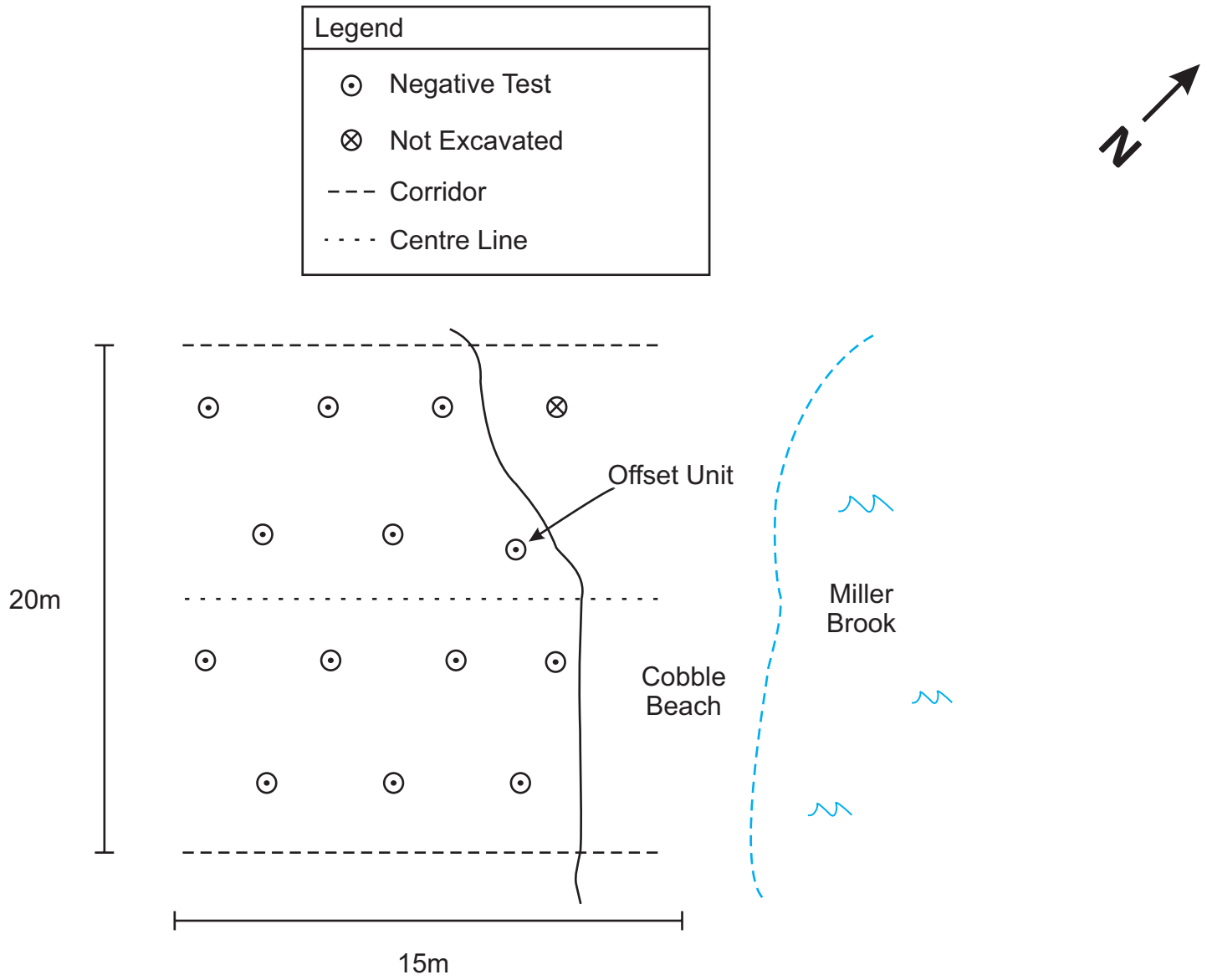
The planned construction footprint for the Heritage Gas Pictou County pipeline corridor is 20 metres wide. Dimensions of the plateaus identified in this study are measured from the bank of the watercourse at the time of the reconnaissance.

Moving west to east the locations of the four plateaus are as follows: Plateau 1, the west bank of Miller Brook, a tributary of the West River, within 2012 High Potential Area 1 (UTM 20T 0512835N 5045290E); Plateau 2, the west bank of the Middle River crossing, within 2012 High Potential Area 3 (UTM 20T 0519482N 5047694E); Plateau 3, the east bank of the Middle River crossing, within 2012 High Potential Area 3 (UTM 20T 0519277N 5047616E); and Plateau 4, the west side of the water-crossing at 2012 High Potential Area 8, a part of Begg Brook (UTM 20T 0521390N 5052475E).

Shovel testing was conducted between June 17 and 19, 2013. A total of 110 shovel test were excavated within the study area with 34 (31%) registering as positive for artifact recovery. However, none of the artifacts recovered are considered archaeologically significant or represent a significant archaeological deposit. Detailed results of each plateau are presented below in ***Subsections 4.3.1*** to ***4.3.4***.

4.3.1 Plateau 1 (West Bank of Miller Brook)

Plateau 1 overlies the west bank of Miller Brook, within High Potential Area 1 (UTM 20T 0512835 5045290) (***Plate 20***). It consists of a low, but level plateau that extends back west from the edge of the watercourse for a distance of approximately 15 metres, before sloping upward. The centre of the pipeline corridor at this section of the route runs parallel and approximately 15 metres to the south of the existing Nova Scotia Power transmission line. A total of 13 shovel tests were excavated within Plateau 1 with none registering as positive for artifact recovery (***Figure 11***).



CRM Group Cultural Resource Management Group Ltd.	*Miller Brook (West Bank) Archaeological Shovel Testing*	*Figure 11*
	PREFERRED PICTOU COUNTY PIPELINE ARCHAEOLOGICAL SHOVEL TESTING PICTOU COUNTY, NOVA SCOTIA	June 2013 Scale 1:25

In general, the stratigraphic profile revealed through the shovel testing at Plateau 1 consisted of a thin sod and forest matt overlying approximately 30 to 45 centimetres of medium brown sandy loam that in turn overlay undisturbed subsoil. The subsoil consisted of a silty sand with water-worn gravel and cobbles. There were no major deviations from this profile and no other distinctive soil deposits were encountered.

PLATE 20: Shovel testing at Plateau 1, the west bank of Miller Brook. Facing west, June 17, 2013.

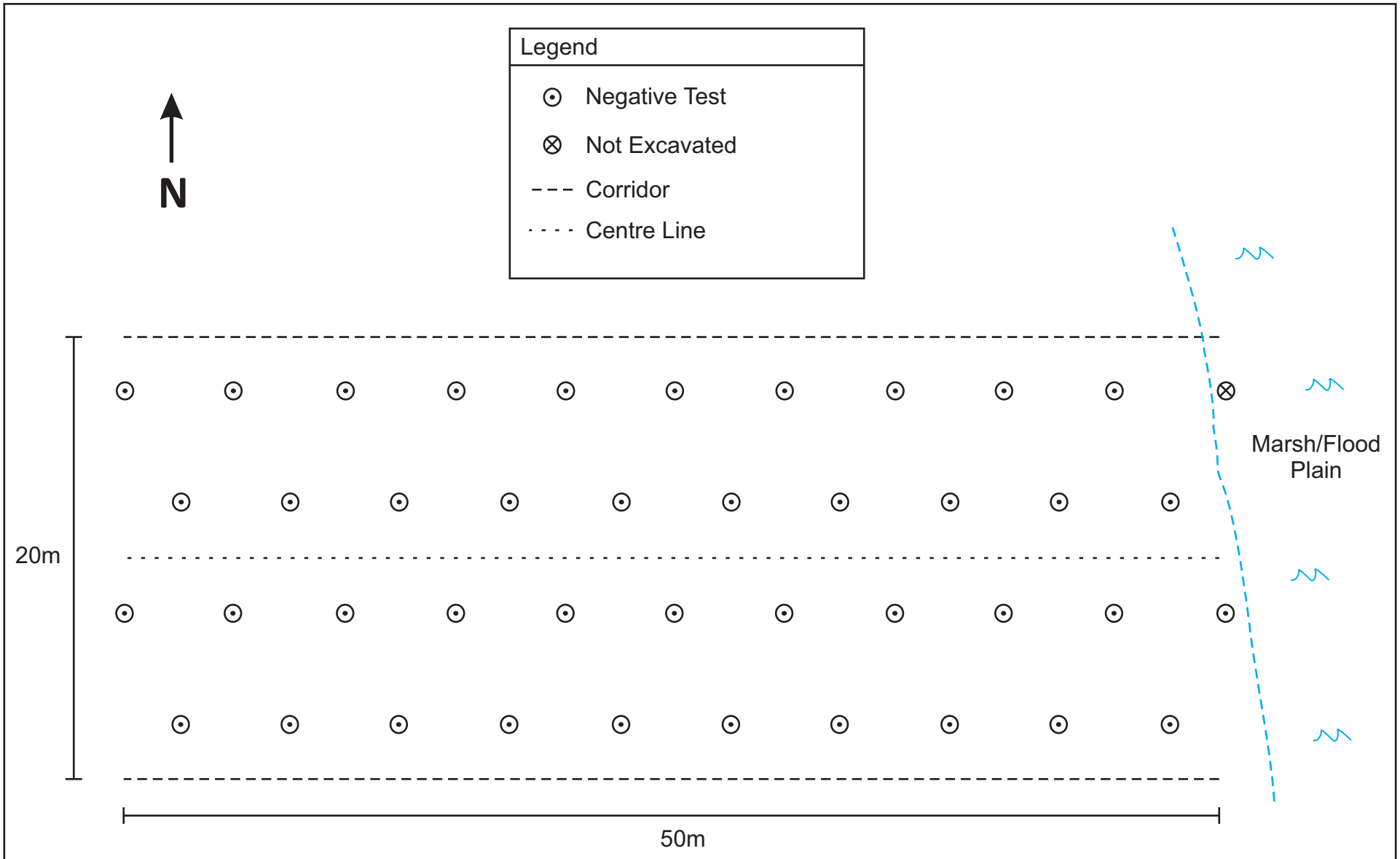
It is recommended that Plateau 1 (west bank of Miller Brook), as defined in this report, be cleared of any requirement for further archaeological investigation.

The location for the placement of a temporary bridge at the Miller Brook water-crossing is outside of the study area for the shovel testing program. Therefore, it will require the protective measures of geo-textile and granular material at 30 centimetres thickness, as recommended in CRM Group's 2013 focused reconnaissance and screening HRP Report.

4.3.2 Plateau 2 (West Bank of Middle River)

Plateau 2 overlies the west bank of Middle River, within High Potential Area 3 (UTM 20T 0519482N 5047694E). A broad, flat plateau exists on the west side of Middle River extending 50 metres back (west) from the high water mark (***Plate 21***), before rising in slope. Although only slightly higher than the high water mark of the river, the plateau was relatively dry.

A total of 41 shovel tests were excavated within Plateau 2 with none registering as positive for artifact recovery (***Figure 12***).



CRM Group Cultural Resource Management Group Ltd.	*Middle River (West Bank) Archaeological Shovel Testing*	*Figure 12*
	PREFERRED PICTOU COUNTY PIPELINE ARCHAEOLOGICAL SHOVEL TESTING PICTOU COUNTY, NOVA SCOTIA	June 2013 Scale 1:25

In general, the stratigraphic profile revealed through the shovel testing at Plateau 2 consisted of a thin layer of sod and forest matt overlying approximately 1.2 metres of light brown silt loam that represents alluvial sedimentation. This thick layer in turn overlays undisturbed subsoil consisting of glacial till with small to medium water-worn cobbles. There were no major deviations from this profile and no other distinctive soil deposits were encountered. Due to the depth of the soil column, shovel tests on the west side of Middle River were dug to a depth of 50 centimetres with 25% being dug to a depth of 1 metre before being closed. Plate 22 shows the thickness of river sediment and underlying cobbles at a creek bed on the east side of Middle River.

PLATE 21: Shovel testing at Plateau 2 at the west bank of Middle River. Facing south. June 17, 2013.

PLATE 22: Thickness of sediment and underlying cobble layer at a creek bed on the east side of Middle River, facing east. June 18, 2013

It is recommended that Plateau 2, (west bank of Middle River), as defined in this report, be cleared of any requirement for further archaeological investigation.

4.3.3 Plateau 3 (East Bank of Middle River)

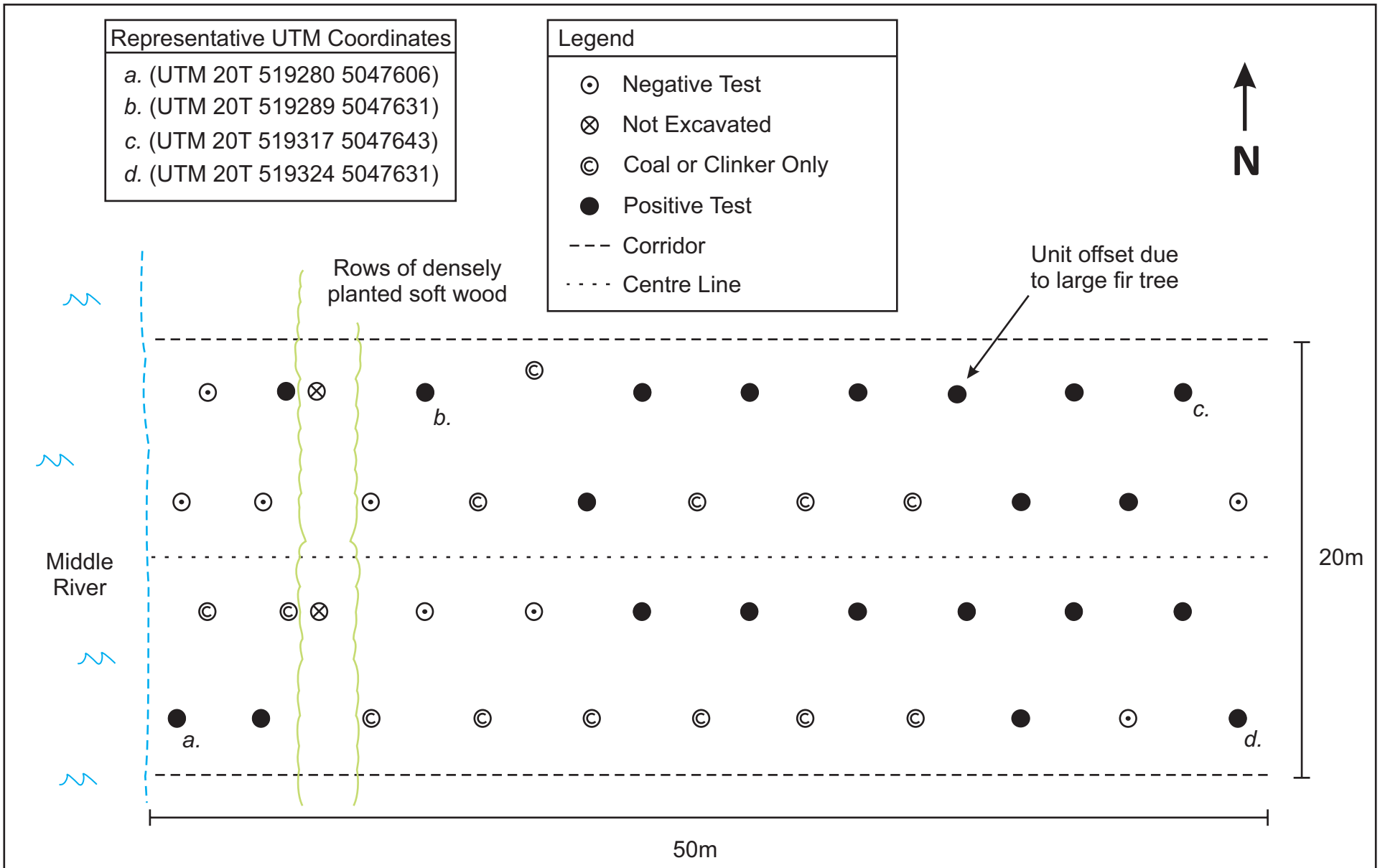
Plateau 3 overlies the east bank of Middle River, within 2012 High Potential Area 3 (UTM 20T 0519277N 5047616E). Like the west side, the east bank of Middle River is comprised of a broad flat plateau extending more than 50 metres east from the water's edge (***Plate 23***). At the time of the reconnaissance, for the purposes of ascribing archaeological potential, a distance of 50 metres was identified as reflecting the area of highest archaeological potential. However, the terrain remains relatively level for a distance of approximately 100 metres from the water's edge.

The east bank has been subjected to some historic farming-related leveling. Its bank is steeper and higher than the west side of Middle River, lying approximately 1 metre above the water level at the time of the survey.

A total of 42 shovel tests were excavated within Plateau 3, with 34 (81%) registering as positive for artifact recovery (***Figure 13***). Of the positive shovel tests, 30 (88%) contained small pieces (10 pieces or fewer) of coal or coal clinker. Twelve shovel tests (35%) contained fragments (one or two pieces) of iron nails, while three shovel tests (9%) contained small unidentifiable iron fragments. Five shovel tests (12%) contained a single piece of undecorated white refined earthenware. Two shovel tests (6%) contained a single piece of window pane glass. One shovel test (3%) contained a piece of colourless glass milk bottle finish, which was first manufactured in 1886 (Miller 2000: 9). None of the recovered ceramics or glass was considered archaeologically significant. The ceramic assemblage included refined white earthenware which was manufactured as early as the mid-nineteenth century, however that ceramic type is still in production today (Miller 2000: 9-14).

In general, the stratigraphic profile revealed through the shovel testing at Plateau 3 consisted of grass sod overlying approximately 22 to 40 centimetres of light to medium brown silt loam, free of large stones, that in turn overlay undisturbed subsoil, which was a greyish medium brown sandy silt with small to medium sized cobbles and gravel. Two units contained evidence of alluvial leaching resulting in a grey sandy silt. No other distinctive soil deposits were encountered. There was no evidence of structural remains during shovel testing and the soil profile was indicative of a ploughed field. The wide distribution of the material over a large field, the type of pottery and glass recovered and the proximity to an existing residence (PID 65092999) indicates that the material, in this context, is not considered to be archaeologically significant.

PLATE 23: Shovel testing at Plateau 3 at the east bank of Middle River. Facing south. June 18, 2013. Note residential property in background.



CRM Group Cultural Resource Management Group Ltd.	*Middle River (East Bank) Archaeological Shovel Testing*	*Figure 13*
	PREFERRED PICTOU COUNTY PIPELINE ARCHAEOLOGICAL SHOVEL TESTING PICTOU COUNTY, NOVA SCOTIA	June 2013 Scale 1:25

It is recommended that Plateau 3 (east bank of Middle River), as defined in this report, be cleared of the need for further archaeological investigation.

4.3.4 Plateau 4 (West Bank of Begg Brook Tributary)

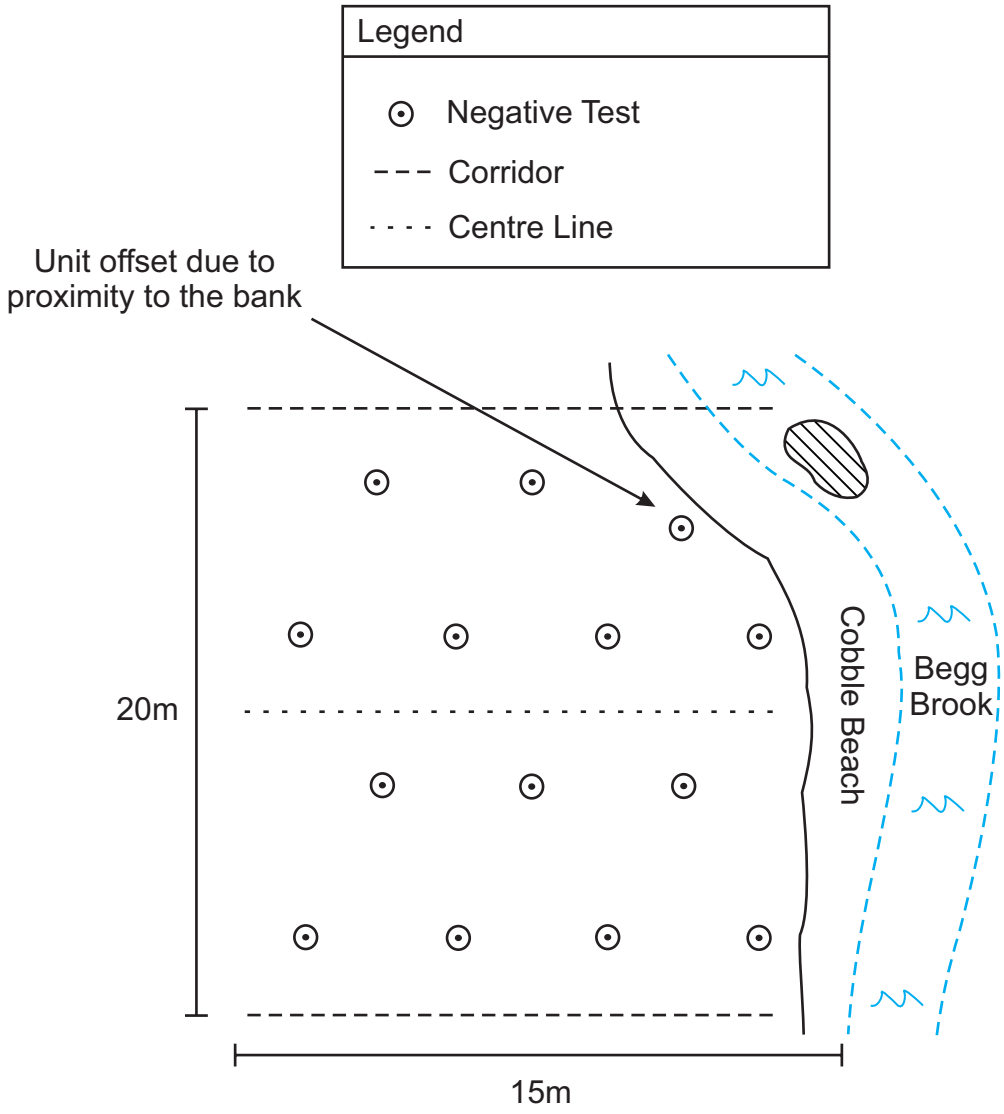
Plateau 4 overlies the western bank of a tributary of Begg Brook (UTM 20T 0521390N 5052475E). The water-crossing was located in a steep-sided ravine that contained a level, dry plateau, approximately 15 metres wide, on its west bank (***Plate 24***).

A total of 14 shovel tests were excavated within Plateau 4 with none registering as positive for artifact recovery (***Figure 14***).

In general, the stratigraphic profile revealed through the shovel testing at Plateau 4 consisted of a sod and forest matt overlying approximately 45 centimetres of medium brown silt loam that in turn overlay undisturbed subsoil, which was a light to medium orangish brown silty sand with small parcels of a reddish ferrous-like sand. No other distinctive soil deposits were encountered.

It is recommended that Plateau 4 (west bank of the Begg Brook tributary), as defined in this report, be cleared of any requirement for further archaeological investigation.

PLATE 24: Shovel testing at Plateau 4 at the west bank of the Begg Brook Tributary. Facing south, June 19, 2013.



CRM Group Cultural Resource Management Group Ltd.	*Begg Brook (West Bank) Archaeological Shovel Testing*	*Figure 14*
	PREFERRED PICTOU COUNTY PIPELINE ARCHAEOLOGICAL SHOVEL TESTING PICTOU COUNTY, NOVA SCOTIA	June 2013 Scale 1:25

5.0 CONCLUSIONS AND RECOMMENDATIONS

CRM Group's 2012 archaeological screening and reconnaissance of alternative pipeline alignments identified nine areas of high archaeological potential within what was ultimately identified by Heritage Gas as their preferred alignment. The 2013 reconnaissance and screening of areas of high archaeological potential within Heritage Gas' preferred pipeline involved a pedestrian survey of nine areas of the construction corridor, totalling an alignment distance of approximately 11 kilometres.

The survey identified five locations of high archaeological sensitivity, including four elevated plateaus at various water-crossings and the suspected remains of a barn foundation. Subsequent background research has determined that the suspected barn foundation was the result of twentieth century disturbance and is not archaeological in nature. The other four locations consisted of flat plateaus at the following locations: the west bank of Miller Brook; the west and east banks of Middle River; and, the west bank of a tributary of Begg Brook. Based on the size, level and dry topography, and proximity to water, these four plateaus were ascribed high archaeological potential.

Discussion with Heritage Gas revealed their intention to use HDD to facilitate the placement of the gas pipe under significant water-crossings throughout the proposed alignment, including the four areas of archaeological sensitivity identified in this report. This effectively removes any ground disturbance from within 50 metres to 120 metres of the watercourses and as such serves as an appropriate mitigative or avoidance strategy for the protection of any archaeological resources that may lie within the locations of high potential. However, to assess the presence/absence of archaeological resources possibly impacted within work areas adjacent to locations of archaeological sensitivity, and to provide value-added information for the Heritage Gas Environmental Assessment, archaeological shovel testing of the four locations of archaeological sensitivity was undertaken.

The archaeological shovel testing program did not recover any Precontact artifacts. No Precontact soil deposits were identified. At Plateau 3 (east bank of Middle River), 34 of 42 (81%) shovel tests contained small numbers of historic artifacts, primarily small pieces of coal and coal cinder, nail fragments and a small number of pieces of broken pottery and glass. The wide distribution of the material over a large field, the type of pottery and glass recovered and the proximity to an existing property suggests that the material in this context is not considered to be archaeologically significant.

Based on these results, CRM Group offers the following resource management recommendations:

Plateau 1 (West Bank of Miller Brook)

1. It is recommended that Plateau 1 within the proposed alignment be cleared cleared of requirement for further archaeological investigation.

Plateau 2 (West Bank of Middle River)

2. It is recommended that Plateau 2 within the proposed alignment be cleared cleared of requirement for further archaeological investigation.

Plateau 3 (East Bank of Middle River)

3. It is recommended that Plateau 3 within the proposed alignment be cleared cleared of requirement for further archaeological investigation.

Plateau 4 (West Bank of Begg Brook Tributary)

4. It is recommended that Plateau 4 within the proposed alignment be cleared cleared of requirement for further archaeological investigation.

General

5. It is recommended that the remainder of the proposed corridor for the preferred Pictou County pipeline route be cleared of further requirements for archaeological investigation.

6. It is recommended that archaeological screening be applied to address any revision of the preferred Pictou County pipeline.

7. It is recommended that additional focused archaeological reconnaissance and screening be conducted on any areas of high archaeological potential located within the preferred alignment, once selected, for the planned pipeline extension into Stellarton/New Glasgow.

8. CRM Group has been retained by Heritage Gas to provide emergency response services during the construction phase of the project. It is recommended that in the event that a suspected cultural heritage site or human remains are encountered during construction of the preferred Pictou County pipeline, work should be suspended in the immediate area of the impact and the discovery reported immediately to the inspector or site supervisor, who will in turn contact CRM Group (453-4972).

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