



APPENDIX S

ARCHAEOLOGY AND CULTURAL HERITAGE TECHNICAL SUPPORT DOCUMENTS

- S-1 Stage 1 Archaeological Assessment (Mine Site)
- S-2 Stage 2 Archaeological Assessment (Mine Site)**
- S-3 Stage 1 Archaeological Assessment (Transmission)
- S-4 Stage 1 Archaeological Assessment (Pipeline/Road)
- S-5 Archaeology Chance Find Procedure
- S-6 Cultural Heritage Research Report: Built Heritage and Cultural Heritage Landscapes
- S-7 Cultural Heritage Evaluation Report Baseline
- S-8 Cultural Heritage Evaluation Report CHR1 Travel Route
- S-9 Cultural Heritage Evaluation Report CHR3 Cabin
- S-10 Cultural Heritage Evaluation Report CHR4 Cabin
- S-11 Cultural Heritage Evaluation Report CHR5 Cabin

Northwest Archaeological Assessments

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Stage 2 Archaeological Assessment of the Mine Site Development Area, First Mining Gold, Ltd. Springpole Gold Project, Unorganized Territory, District of Kenora, Ontario.

Stage 2
Original Report
November 17, 2021

Archaeological Assessment Report
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Archaeological Licence P236
PIF P236-0170-2021

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Executive Summary

First Mining Gold (FMG) proposes the development of a mine at Springpole Lake, District of Kenora, Ontario. The proposed Springpole Gold Project (the Project) is located 105 km northeast of Red Lake, Ontario, and 150 km north of Sioux Lookout, Ontario, in unorganized territory within the District of Kenora (Maps 1). The Project will include the mine facility and associated infrastructure (Map 2); however, this assessment is concerned only with the Mine Site Development Area (MSDA) described in Map 3. The hydro-electric transmission line and mine access road are addressed in separate reports. This report summarises the results of a Stage 2 archaeological assessment of the MSDA conforming to the direction set out in the S&Gs. Stage 2 assessment focussed on areas of archaeological potential identified at Stage 1.

Planning for the Project includes completing a comprehensive assessment of the archaeological resources present in the Project area, and an evaluation of the potential impacts to these resources from the development, construction, operation and decommissioning of the mine. In Ontario, archaeological assessment is directed by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) Standards and Guidelines for Consultant Archaeologists (S&Gs), developed under the *Ontario Heritage Act* (RSO 1990, c O.18). The S&Gs allow for a four-stage process for the evaluation, identification, and mitigation of impacts to archaeological resources in development.

A Stage 1 archaeological assessment of the Springpole Gold Project area was carried out in 2020 under archaeological licence P236 (P236-0141-2020). The purpose of the Stage 1 assessment was to evaluate the archaeological potential of the Primary Development Area and make recommendations regarding any additional studies that would be required. As a result of the Stage 1 assessment, the following recommendations were made:

1. The subject property includes extensive areas evaluated as holding mixed or complex archaeological potential. For these areas, Stage 2 property assessment is recommended. The Stage 2 assessment must conform to the direction set out in the *Standards and Guidelines for Consultant Archaeologists*, Section 2.1, 2.1.2, 2.1.3 and 2.1.6.
2. As the property is located on the Canadian Shield and northern Ontario (S&Gs Section 1.3.3, s. 1 and s. 2), it is recommended that fieldwork for the Stage 2 property assessment conform to the direction set out in the *Standards and Guidelines for Consultant Archaeologists*, Section 2.1.5.
3. It is recommended that as part of the Stage 2 fieldwork, the methodologies, and results of the Stage 1 evaluation of archaeological potential, and the fieldwork strategies proposed for Stage 2 are reviewed with representatives of the affected First Nations. New information arising from this review should be considered in the fieldwork, and the field crew staffed by First Nation members, wherever possible.
4. It is recommended that archaeological sites registered or reported in earlier assessments to the north and east of the subject property be located, registered with MHSTCI, and appropriate recommendations (S&Gs Section 7.8.4, s. 1) and protective buffers (S&Gs Section 7.8.5, s. 1(e)(i)) established.

5. Areas of extensive and intensive disturbance, including the current operations base on Springpole Lake, are considered to hold low archaeological potential and it is recommended that no further archaeological work is required in these areas prior to development.

Stage 2 archaeological assessment, directed by the recommendations of the Stage 1 report, was completed for parts of the MSDA (Map 3) in 2021. Stage 2 fieldwork was carried out in response to the archaeological potential of the Project area in conformance with the S&Gs direction in Section 2.1, Section 2.1.2, Section 2.1.5 and Section 2.1.6. Stage 2 fieldwork within the MSDA was completed under PIF P236-0170-2021.

The results of the Stage 2 fieldwork are:

- Areas of steeply sloped bedrock were not tested as they hold low potential for the identification of archaeological resources.
- Areas of moderately sloped to level bedrock were examined for archaeological resources during pedestrian survey of the areas of exposure. No archaeological materials or features were identified during surface review.
- Several small areas of sand beach are present in the MSDA. The beach areas were examined during pedestrian survey, and subsurface testing was completed for all level inland areas within 50 m of shore. No archaeological materials or features were identified during surface review or subsurface testing of these areas.
- Additional areas of level terrain within 50 m of Springpole and Birch Lakes were noted. Subsurface testing was completed for these areas, and no archaeological materials or features were identified.
- Areas with cobble or broken bedrock at shore were observed to have irregular terrain and thin soils among cobbles and bedrock inland from shore. These areas were not tested as they hold low potential for the identification of archaeological resources.
- Earlier archaeological assessment completed in 2011 and 2012 reported several areas where archaeological resources were identified; however, these locations were not registered as sites with MHSTCI. These areas, including locations on Birch and Dole Lakes, were located, and testing was completed where possible within 300 m of these locations. Testing of the site locations reported in 2012 did not result in the identification of archaeological resources or features.
- Stage 2 assessment of the bay surrounding the pictograph site was completed to determine whether an archaeological component to this cultural landscape element existed. No archaeological resources were identified during subsurface testing.
- Stage 2 testing was also completed in undisturbed areas along existing or former portages, where possible. Testing identified small quantities of mid- to late 20th century refuse, hinting at continuous use of the portages for travel, but did not point to longer term habitation of the locations.

As a result of the archaeological assessment, including background study and property inspection, the following recommendation is made:

1. Based on the background study and property assessment completed for the subject property, no archaeological resources were identified, and no further archaeological assessment work is required for the areas assessed.

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Project Personnel

Personnel involved in this project included the licensee (Andrew Hinshelwood, P236), who acted as field director. Scot Kyle provided field assistance. Heather Hopkins acted as project manager.

Project Context

First Mining Gold (FMG) proposes the development of a mine at Springpole Lake, District of Kenora, Ontario. As part of the planning for the proposed Springpole Gold mine, archaeological studies leading to the preparation of a comprehensive report have been commissioned. The proposed Springpole Gold Project (the Project) is located 105 km northeast of Red Lake, Ontario, and 150 km north of Sioux Lookout, Ontario, in unorganized territory within the District of Kenora (Map 1).

Development Context

Planning for the mine includes completing a comprehensive assessment of the archaeological resources present in the Project area, and an evaluation of the potential impacts to these resources from the development, construction, operation and decommissioning of the mine. Currently, FMG is preparing a coordinated environmental assessment to meet the federal (*Canadian Environmental Assessment Act, 2012*) and provincial (*Ontario Environmental Assessment Act*) requirements.

In Ontario, archaeological assessment is directed by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) Standards and Guidelines for Consultant Archaeologists (S&Gs), developed under the *Ontario Heritage Act* (RSO 1990, c O.18). The S&Gs allow for a four-stage process for the evaluation, identification, and mitigation of impacts to archaeological resources in development. Stage 1 evaluation of archaeological potential was completed in 2020 under PIF P236-0141-2020. Fieldwork for the Stage 2 archaeological assessment was completed between June 25 and July 5, 2021, under PIF P236-0170-2021. Andrew Hinshelwood, operating as Northwest Archaeological Assessments, was retained to complete the archaeological assessment and acted as field director.

The Project will include the mine facility and associated infrastructure (Map 2); however, this assessment is concerned only with the Mine Site Development Area (MSDA) described in Map 3. The hydro-electric transmission line and mine access road are addressed in separate reports. This report summarises the results of a Stage 2 archaeological assessment of the MSDA conforming to the direction set out in the S&Gs. Stage 2 assessment focussed on areas of archaeological potential identified at Stage 1.

Historic Context

The Springpole Gold Project property is centered on a large bay in the northwestern part of Springpole Lake.

The subject property lies within the Traditional territories of Cat Lake First Nation, Slate Falls Nation and Lac Seul First Nation, and is within the Treaty No. 9 area. Treaty No. 9 was signed in 1905 by several First Nations. Both Cat Lake

and Slate Falls became signatories through Osnaburgh (Mishkeegogamang) First Nation.¹ Cat Lake were recognized by the Treaty commission in 1906, although annuities may have been paid in 1905 also (Long 2010). It is commonly understood that the Treaty was precipitated by an interest by the Canadian government to expand resource extraction north of the Robinson-Superior 1850 Treaty area. The value of the Treaty to the Crown appears to have been realised when gold was discovered north of Osnaburgh, east of the subject property, in the 1920's. It is interesting to note that the discovery is generally attributed to an unnamed member of Cat Lake First Nation (Long, 2010:159). Lac Seul First Nation is signatory to Treaty No. 3, signed in 1873.

Archaeological Context

Regionally, the archaeological sequence is defined in relation to material culture. From existing archaeological reports, and the author's own knowledge of the collections, it is understood that all pre-contact and post-contact cultures are present in the region. These include:

- Late Palaeo (from 9,500 to 7,000 years before present [B.P.])
- Archaic (7,500 to 2,000 years B.P.)
- Middle Woodland (2,500 to 1,000 years B.P.)
- Late Woodland (1,500 to 300 years B.P.)
- Contact (including fur trade, Treaty, and colonisation period) (post-300 years B.P.)

It was noted that archaeological resources representing any of these cultural periods could be present in the MSDA.

Summary of Stage 1

The outcome of the Sage 1 assessment was the evaluation of archaeological potential for the MSDA and a series of recommendations directing additional work at Stage 2.

As a result of fieldwork and analysis, five recommendations were made:

1. The subject property includes extensive areas evaluated as holding mixed or complex archaeological potential. For these areas, Stage 2 property assessment is recommended. The Stage 2 assessment must conform to the direction set out in the *Standards and Guidelines for Consultant Archaeologists*, Section 2.1, 2.1.2, 2.1.3 and 2.1.6.
2. As the property is located on the Canadian Shield and northern Ontario (S&Gs Section 1.3.3, s. 1 and s. 2), it is recommended that fieldwork for the Stage 2 property assessment conform to the direction set out in the *Standards and Guidelines for Consultant Archaeologists*, Section 2.1.5.

¹ Cat Lake and Slate Falls First Nation have historic ties to Osnaburgh First Nation (Mishkeegogamang). Cat Lake acquired (Indian Act) band status about 1970, while Slate Falls acquired band status in 1985 (Long 2010).

3. It is recommended that as part of the Stage 2 fieldwork, the methodologies and results of the Stage 1 evaluation of archaeological potential, and the fieldwork strategies proposed for Stage 2 are reviewed with representatives of the affected First Nations. New information arising from this review should be considered in the fieldwork, and the field crew staffed by First Nation members, wherever possible.
4. It is recommended that archaeological sites registered or reported in earlier assessments to the north and east of the subject property be located, registered with MHSTCI, and appropriate recommendations (S&Gs Section 7.8.4, s. 1) and protective buffers (S&Gs Section 7.8.5, s. 1(e)(i)) established.
5. Areas of extensive and intensive disturbance, including the current operations base on Springpole Lake, are considered to hold low archaeological potential and it is recommended that no further archaeological work is required in these areas prior to development.

Archaeological Potential

The Stage 1 archaeological assessment identified parts of the MSDA to hold of archaeological potential. Archaeological potential is an informed determination of whether archaeological resources (materials and features) of a certain magnitude are present on a property. The evaluation of archaeological potential does not mean that archaeological sites are present. Similarly, Stage 2 fieldwork may not be able to identify all resources present, based on the visibility or density of archaeological resources across a property relative to standard archaeological field techniques.

Based on the direction found in the S&Gs an evaluation of archaeological potential was made for the MSDA including areas within:

- 300 metres of modern water sources within the subject property (S&Gs Section 1.4.1, s. 1(c))
- 300 metres of previously identified archaeological sites (S&Gs Section 1.4.1, s. 1(c))
- 300 metres of areas of early Euro-Canadian settlement, and
- 100 metres of early historic transportation routes (S&Gs Section 1.4.1, s. 1(d)).

This evaluation was modified in accord with S&Gs Section 2.5.1, s. 1, reducing the Stage 2 requirement to areas within 50 metres of a modern water source water for properties located in northern Ontario and on the Canadian Shield.

Registered Archaeological Sites

The *Ontario Archaeological Sites Database* (OASD), maintained by MHSTCI, was consulted prior to fieldwork. OASD lists 10 registered archaeological sites within 25 kilometres of the subject property (Table 1). Three sites lie within five (5) kilometres of the subject property, and no (0) sites are within one kilometre of any of the alternate routes for the proposed transmission line.

Table 1: Registered archaeological sites within 25 km of the subject property (OASD).

<u>Borden Number</u>	Site Name	Time Period	Affinity	Site Type	Current Development Review Status
EjJx-1	KAPIKIK LAKE	N/A	N/A	N/A	N/A
EiKd-3	Fox Bay Point	N/A	N/A	N/A	N/A
EiKd-2	Little Shabumeni Lake	N/A	N/A	N/A	N/A
EiKd-1	Shabumeni Rapids 1	N/A	N/A	N/A	N/A
EiKc-1	POTATO ISLAND	N/A	N/A	N/A	N/A
EiKb-5	Birch Creek Portage 1	N/A	N/A	N/A	N/A
EiKb-3	Carpenter 1	N/A	N/A	N/A	N/A
EiKb-2	LOWER SPRINGPOLE 1	N/A	N/A	N/A	N/A
EiKb-1	PECK'S POINT	N/A	N/A	N/A	N/A
EhKd-1	OKANSE LAKE 1	N/A	N/A	N/A	N/A

N/A: Not Available

Stage 1 research also noted that the OASD data does not appear to include archaeological site data reported in two assessment reports prepared for the Project in 2012 (P335-015-2012 and P335-016-2012). These reports suggest at least 14 sites on Springpole and Birch Lakes; however, these sites were never registered, and only approximate locations are available for them (Map 4).

From the two reports from 2012, there may be additional archaeological resources in or near the MSDA. One site was reported on Birch Lake in the small bay north of the present service centre, and four sites were reported from the western end of Dole Lake. Stage 2 fieldwork included attempting to locate these sites to determine appropriate buffers for use in planning.

Stage 2 Property Assessment

In Ontario, archaeological assessment is directed by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) Standards and Guidelines for Consultant Archaeologists (S&Gs), developed under the *Ontario Heritage Act* (RSO 1990, c O.18). The S&Gs allow for a four-stage process for the evaluation, identification, and mitigation of impacts to archaeological resources in development. Stage 1 evaluation of archaeological potential was completed in 2020 under PIF P236-0141-2020. Fieldwork for the Stage 2 archaeological assessment of the Mine Site Development Area (MSDA) was carried out between June 25 and July 5, 2021, under PIF P236-0170-2021. Andrew Hinshelwood, operating as Northwest Archaeological Assessments, was retained to complete the archaeological assessment and acted as field director.

This report summarises the results of a Stage 2 archaeological assessment conforming to the direction set out in the S&Gs. Stage 2 fieldwork focussed on areas evaluated as holding archaeological potential at Stage 1, and followed the recommendations made in that report (Northwest Archaeological Assessments, 2020). The MSDA is the subject property investigated for the Stage 2 assessment. Shoreline areas within the MSDA were a primary focus of fieldwork, although other areas of archaeological potential were examined where ground disturbance may occur.

Currently, the subject property is forested with mature conifer-dominated stands that vary in size and composition based on local soil and moisture conditions. The terrain generally shows low relief, but is variable at the site level, ranging between moderate to steeply sloped bedrock to low, moist to wet sites. Strong soil development is present in dispersed locations where glacial deposits are relatively thick over bedrock.

Disturbance is limited to areas of past or current exploration and development activity. Disturbance is present at the existing mine camp at the northern end of the bay, and at locations around the bay where machine trails and drill sites have been constructed. A small number of locations on the bay have been subject to light development where outpost camps have been built. These generally consist of small buildings, trails, and shoreline facilities.

Observations and Fieldwork

Fieldwork confirmed that the shoreline areas of the MSDA were primarily rocky, comprised of:

- smooth, steeply sloped bedrock (such as observed on the west side of Springpole)
- broken bedrock, cobbles, low and wet areas of sedge or marsh (alone or in combination)
- shorelines backed by areas of disturbance resulting from site preparation
- small areas of sand beach.

As noted in the Stage 1 report, terrain at the subject property is of a few general types, and each type relates to archaeological potential. Areas may be underlain by bedrock, rocky / boulder deposits, or deposits of silty sand. The resulting shoreline expression in these areas influenced Stage 2 testing decisions. Exposed bedrock at shore and within the first 50 of the shore were visually inspected, save where the slope was $>20^\circ$. Steeply sloped areas had been evaluated as holding low archaeological potential. Areas where shorelines were comprised of boulders or fragmented bedrock were examined to determine if finer sediments formed the soils inland. Areas where soils were present were

tested at Stage 2. It is interesting to note that in areas where small sand beaches were noted, they were flanked by areas of boulder and dense shrub growth. Disturbed areas were only noted inland, and soil disturbance did not extend to the water's edge.

Stage 2 testing was completed for several locations evaluated as holding archaeological potential at Stage 1.

Portages

Four portages were examined, with test pitting completed in areas where local conditions supported the evaluation of archaeological potential based on proximity to water. The first portage is a known portage between Springpole Lake and Birch Lake immediately west of the main camp area. The portage trail has been partly disturbed where service road has crossed it but is otherwise undisturbed. The current portage ("P5" on Map 5) begins in the northwest part of Springpole Lake at a steep rock shoreline (Figure 1) and crosses through an area of irregular terrain marked by both bedrock outcrops and boulder field terrain (Figures 2 and 3). At the northern end of the portage, the terrain is slightly more level (Figure 4). This area was tested at Stage 2 and no archaeological resources were identified. A total of 14 test pits were excavated in this area, with no archaeological resources identified. We note that the portage is not the location marked on the historical map of the area, which crosses through the existing camp and service area and is intensively and extensively disturbed (Figure 5).

A second portage trail between Springpole Lake and Birch Lake was examined ("P2" on Map 5). This portage was marked on the 1936 Harding Map (Map 6). Examination of the location did not identify evidence of an existing portage. The terrain in the area was generally low and wet (Figure 6), with only small rises providing for dry ground. No testing was completed for this area due to the wet conditions. We assume from the conditions observed that the portage was a winter trail given that the overall relief was low and, during periods of low vegetation cover, would have provided a clear traverse to the neighbouring lake. No test pits were excavated, and no archaeological resources were identified.

The third portage examined in 2021 is a contemporary portage on the Birch River, between the west end of Springpole Lake and Cromarty Lake ("P1" on Map 5). A portage is noted in the 1936 Harding map, and information provided by FMG staff suggested that there had been someone who had summered at or near the portage in the later part of the 20th Century. Stage 2 fieldwork was completed along the north side of the area where local conditions allowed. The portage was visible both as a trail through the area (Figure 7), and a fairly dense accumulation of refuse along the trail (Figure 8). Testing further from the water and the trail identified additional refuse, although no materials dating to before approximately 1950 were noted. Testing was also completed, where conditions allowed, on the south side (Figure 9), and no archaeological resources were identified. There were no indications of a building at the portage. A total of 47 test pits were excavated in this area, with no archaeological resources identified.

The fourth portage area examined was noted on the 1936 Harding map and located east of the main camp. The portage is connected to a stream and a pair of small ponds linking the northern shore of Springpole Lake to Birch Lake ("P3" on Map 5). Stage 2 fieldwork was carried out at the portage route, including testing at the northern and southern ends of the portage and a detailed inspection of the potential route. At the south end the portage is located on a small inlet from Springpole which becomes increasingly shallow and vegetated moving north (Figure 10). The portage is illustrated as being a short route ("6 chains" or 120 m) to the east of the stream feeding into the inlet from

the first pond. The shores of the inlet were noted as being level, but rocky shores with few good landing spots. The streams connecting the two ponds and the northern pond to Birch Lake were quite narrow and rocky (Figure 11). Careful examination of the area, and limited test pitting at the southern end of the route did not lead to the identification of a clear or obvious route for the portage, or any archaeological resources. We assume, based on the nature of the channel and ponds, that the portage may have occupied a central position in the streams and treated as 'pull-overs' despite their length.

Archaeological potential areas

Additional areas of archaeological potential were investigated during the Stage 2 assessment. A large island will form the base for the southern boundary to the open pit. Cofferdams, connecting the island to the mainland, will complete the boundary. A low 'saddle' was noted between two small bays on either side of the island ("AR7" on Map 5). The location was noted as having low slope shores, silt-loam soil and relatively level terrain inland from the lake. The bays were deep and would have afforded good protection and access during episodes of inclement weather (Figures 12 and 13). Stage 2 testing was completed in this area where conditions permitted within 50 m of water throughout this area. A total of 37 test pits were excavated in this area, with no archaeological resources being identified.

Another area of archaeological potential was identified adjacent to the fourth portage, discussed above ("AR5" on Map 5). The landscape through this area addresses all the criteria for evaluating potential: it is relatively level, soils are a silt-loam with limited interruption from bedrock outcrops or an abundance of boulder, and well drained. The shorelines in this area are rocky at the shore. Generally, the shoreline area rises sharply for 2 to 3 metres (Figure 14), levelling off inland (Figure 15), although there are lower sections. Due to earlier exploration and drilling work, this area has seen extensive and intensive disturbance in places (Figure 16). An outpost camp is also present in this area, situated behind a small sand beach (Figure 17). Camp construction and maintenance appears to have caused a small amount of limited and localised disturbance. A total of 73 test pits were excavated through this area, with no archaeological resources identified.

Locating reported archaeological sites

A previous archaeological assessment of the Project area was carried out in 2012. Work under PIF P335-016-2012 reportedly identified several small archaeological sites on Birch Lake and Dole Lake, however documentation of the sites is limited. In 2021, Stage 2 fieldwork included the areas where the sites were reported (Map 4). A detailed examination of the south shore of Birch Lake and Dole Lake in the areas indicated in the earlier reports was conducted. The shoreline areas of Birch and Dole Lakes were noted as being a mix of bedrock, boulder/till, and low, wet areas interspersed with a limited number of areas where finer textured soil was present and available for testing.

Map 3 shows the location of known or presumed archaeological resources in the vicinity of the Project. There are eight locations ("4" through "11" on Map 4) indicated on the south shores of Birch Lake and on Dole Lake. There is the potential for these sites to be impacted directly or indirectly by future development plans for the mine, although there are no plans to develop shoreline areas. Using the information available from the earlier reports, the field crew navigated using GPS to the location indicated. From these locations, property inspection and, where possible, test pitting was carried out. Surface inspection of exposed bedrock and soils, and examination of windthrown trees was completed. The entire shoreline was covered in this fashion. Observations made in the field confirmed that in

locations 11, 4 and 6 (Map 4) the shorelines were rocky (Figures 17, 18 and 19), and the terrain behind the shores low and uneven. Testing was completed where possible in these areas, but the conditions were generally poor, with thin, rocky soil and uneven terrain. A total of 13 test pits were excavated through this area, with no archaeological resources identified.

Earlier survey had also noted two locations near the channel between Birch and Dole Lakes (5 and 6 on Map 4; Figures 20 and 21). Examination of this area and limited testing did not lead to the identification of archaeological materials, and the location was viewed as generally poor for habitation. The channel was a narrow, un-navigable stream flanked on both sides by low, cobble rich shores. An examination of the interior areas identified only a few locations for testing. A total of 6 test pits were excavated through this area, with no archaeological resources identified.

Further east, a southerly bay on Birch Lake was noted as having three archaeological locations. Two of these were also examined and testing completed where possible. A small point midway down this bay was examined, and behind the rocky shore the interior areas were uneven and rocky (Figure 22). Testing did not recover any archaeological materials. Eight test pits were excavated through this area, with no archaeological resources identified. At the southern end of the bay, there was a location ("8" on Map 4) that appeared to hold characteristics of archaeological potential (Figures 23 and 24). This area was a narrow, high point of land separating the main body of the lake from an area of marsh. The point was relatively steep sided, but the top was mostly level and consisted of a deep silt-loam. A total of 43 test pits were excavated through this area, with no archaeological resources identified.

The general condition of the shoreline through this area was noted as being either exposed bedrock, or closely packed cobbles. In from the shore, the terrain rose sharply in the areas of bedrock and more gently in the cobble areas. It was noted that the cobble shorelines represented water sorted till, and that there were level pockets of well drained silt-loam available for testing. However, the common conditions were terrain that was irregular, hummocky and generally did not provide good opportunities for testing.

Given that these locations have not been registered with MHSTCI as archaeological sites, we do not recommend adding them to the OASD as no confirmation of the locations or that additional resources are present could be obtained.

Earlier Stage 1 fieldwork did not include a detailed property inspection of the Birch Lake shore on the western edge of the MSDA. In 2021 a detailed examination of this shore was conducted as a Stage 1 – 2 combined assessment. The shore was observed first from a small boat that could approach quite close to the shore, followed by pedestrian review of interior areas that held some promise of level, well drained soils. This shore was observed predominantly to be moderately to steeply sloped, bedrock controlled inland (Figures 25 and 26) and densely vegetated at the shore by cedar dominated forest cover (Figures 27 and 28). The water near the shore was quite shallow, bedrock with occasional boulders present (Figure 29). In one small bay, the shallow water was matched inland by low relief (Figure 30). This area was wet and dominated by boulders and/or fractured bedrock. Based on observation and limited testing, the entire area was bedrock with a thin soil cover holding low archaeological potential and no further testing is recommended.

Pictographs

Two pictograph sites are reported on a small bay on the north shore of Springpole Lake ("15" on Map 4). Archaeological site registration was initiated in 2012, but not completed. The pictograph site is referenced as Springpole Lake Pictograph site (EiKb-4). To facilitate planning and the completion of cultural heritage reporting, the bay was the focus of Stage 2 assessment. Fieldwork noted that the areas adjacent to the pictographs was a steeply sloped to vertical bedrock outcrop, rising approximately eight metres from the water (Figure 31). At the top of the outcrop, the bedrock-controlled surface is irregular and shows little accumulation of soil (Figure 32). Overall, it would be unsuited for habitation. The northern shore of the bay is marked by steeply sloped and bedrock-controlled shore that is interrupted by a small stream channel draining a series of small ponds further north (Figures 33 and 34). Across from the pictographs are a few locations where the terrain appeared to be level (Figure 35), but on closer examination was seen to be hummocky and irregular (Figure 36). Testing in these level areas, where possible, did not result in the identification of archaeological materials.

Using the field data collected in 2021, the MHSTCI archaeological site registration for this location will be completed. The pictograph site will be registered as an archaeological resource, and the bay, including the pictographs and surrounding shoreline, will be evaluated as a cultural heritage landscape in the Cultural Heritage reports being prepared for the Project.

Results

The results of the Stage 2 fieldwork are:

- Areas of steeply sloped bedrock were not tested as they hold low potential for the identification of archaeological resources.
- Areas of moderately sloped to level bedrock were examined for archaeological resources during pedestrian survey of the areas of exposure. No archaeological materials or features were identified during surface review.
- Several small areas of sand beach are present in the MSDA. The beach areas were examined during pedestrian survey, and subsurface testing was completed for all level inland areas within 50 m of shore. No archaeological materials or features were identified during surface review or subsurface testing of these areas.
- Additional areas of level terrain within 50 m of Springpole and Birch Lakes were noted. Subsurface testing was completed for these areas, and no archaeological materials or features were identified.
- Areas with cobble or broken bedrock at shore were observed to have irregular terrain and thin soils among cobbles and bedrock inland from shore. These areas were not tested as they hold low potential for the identification of archaeological resources.
- Earlier archaeological assessment completed in 2011 and 2012 reported several areas where archaeological resources were identified; however, these locations were not registered as sites with MHSTCI. These areas, including locations on Birch and Dole Lakes, were located, and testing was completed where possible within 300 m of these locations. Testing of the site locations reported in 2012 did not result in the identification of archaeological resources or features.
- Stage 2 assessment of the bay surrounding the pictograph site was completed to determine whether an archaeological component to this cultural landscape element existed. No archaeological resources were identified during subsurface testing.
- Stage 2 testing was also completed in undisturbed areas along existing or former portages, where possible. Testing identified small quantities of mid- to late 20th century refuse, hinting at continuous use of the portages for travel, but did not point to longer term habitation of the locations.

Record of Finds

Table 4: Documentary records associated with P236-0163-2021.

<i>Documentation</i>	<i>N</i>	<i>Description</i>	<i>Location</i>
Photographs	600	digital images	digital storage
GPS readings	73	property, context	digital storage
Notes	12	page of notes	digital storage
Report	1	copy (.pdf)	digital storage

Analysis

Stage 2 archaeological assessment was completed for areas of archaeological potential within the subject property (Map 4). Stage 2 property assessment conformed to the direction in the S&Gs. The Stage 1 review, conducted commensurate with Stage 2 testing, was informed by the S&G direction in Section 2.1, s. 2. The subject property was examined by the crew following transects spaced five metres apart. As suitable locations for testing were encountered, test pits were excavated. As noted, observations of the local terrain and attempts at shovel testing revealed that the landscape was irregular with thin to no soils over bedrock.

S&Gs Section 1.4.1, s. 1(c)(i) requires that no areas within 300 metres of a registered site may be exempted from Stage 2 in the recommendations of a Stage 1 report. In the present assessment, Stage 2 testing was completed for areas within 300 metres of unregistered site locations noted in an earlier report on the property. Fieldwork associated with this testing did not identify the locations of the findspots and determined that much of the local terrain was thin soils over bedrock or boulder rich till. As a result, these locations were not located, and it is assumed that any archaeological materials identified in the earlier assessment was removed at that time.

Two areas south of the MSDA continue to hold cultural heritage concern. A historic portage was tested during the Stage 2 assessment and no archaeological resources were identified; however, the continued use of the portage was clear from the recent refuse found at the site. This confirmed the 1936 map indication of the portage as being part of a significant travel route.

A small bay southwest of the MSDA was shown to contain two pictograph sites on a near vertical rock face. Other areas of the bay were examined at Stage 2 with no archaeological materials being identified. However, the place of pictographs in Indigenous culture history extends beyond the location and the images themselves. Long term management of the location should be determined in consultation with affected Indigenous communities.

Conclusions

Stage 2 archaeological assessment of the areas evaluated as holding archaeological potential at Stage 1, including areas where archaeological resources were reported previously, was completed. No archaeological resources were identified. Local topography in the subject property suggests that the area was generally undesirable for habitation given that the MSDA occupies a large bay closed off from the larger lakes to the south and north. Most of the subject property is comprised of steep, rocky shorelines, punctuated by low lying, wet and bouldery sections.

The fieldwork and analysis leading to the conclusions in this report satisfy the conditions set out in S&Gs Section 2.1, 2.1.2, and 2.1.5. Areas examined at Stage 2 area shown in Map 4, with the results of Stage 2 fieldwork shown in Map 5. The location and direction of photographs used in the report are indicated on Map 6.

Recommendations

As a result of the archaeological assessment, including background study and property inspection, the following recommendation is made:

1. Based on the background study and property assessment completed for the subject property, no archaeological resources were identified, and no further archaeological assessment work is required for the areas assessed.

Advice on compliance with legislation

Advice on compliance with legislation is not part of the archaeological record. However, for the benefit of the proponent and approval authority in the land use planning and development process, the report must include the following standard statements:

This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.

The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

Reports recommending further archaeological fieldwork or protection for one or more archaeological sites must include the following standard statement:

“Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.”

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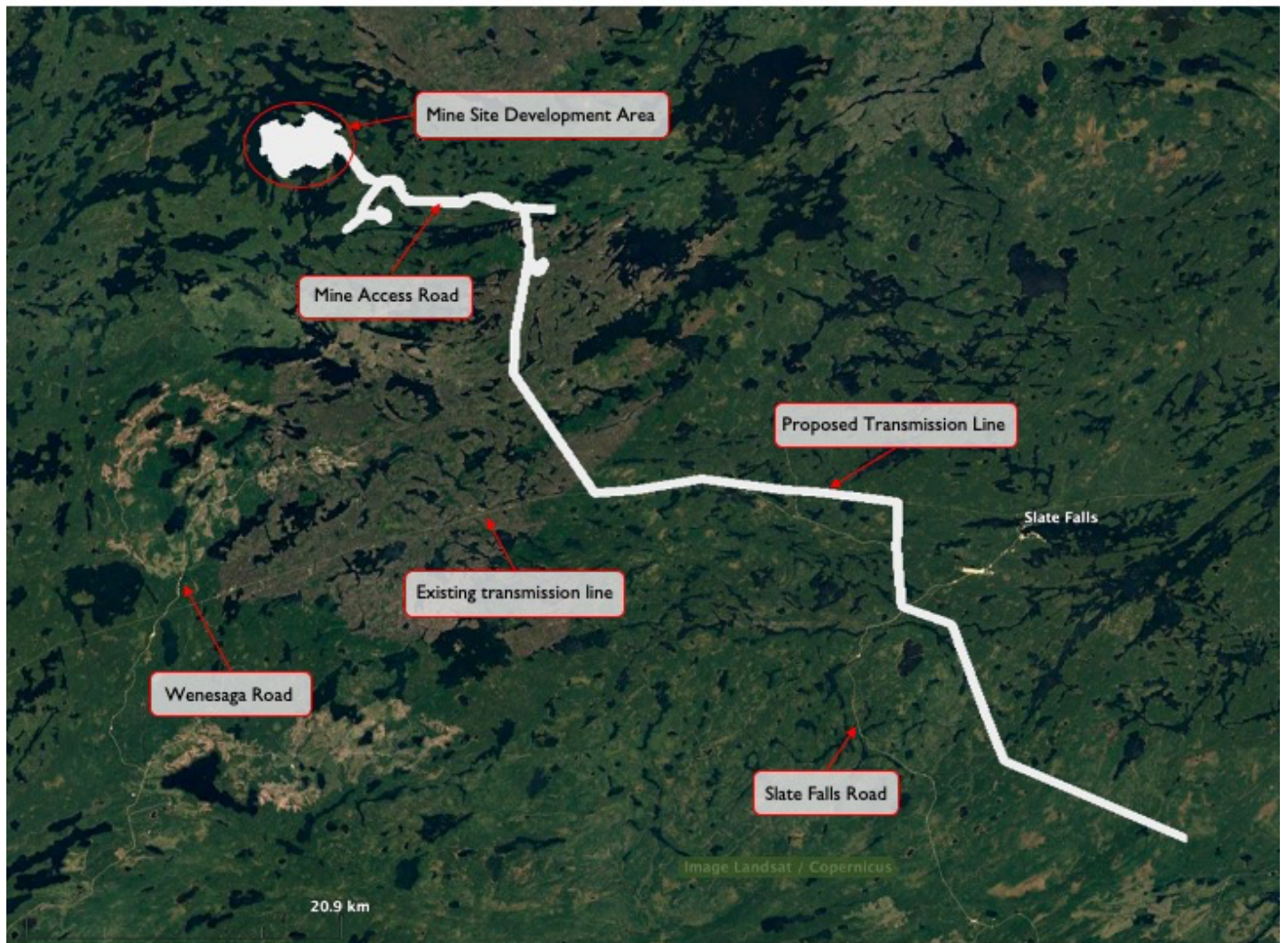
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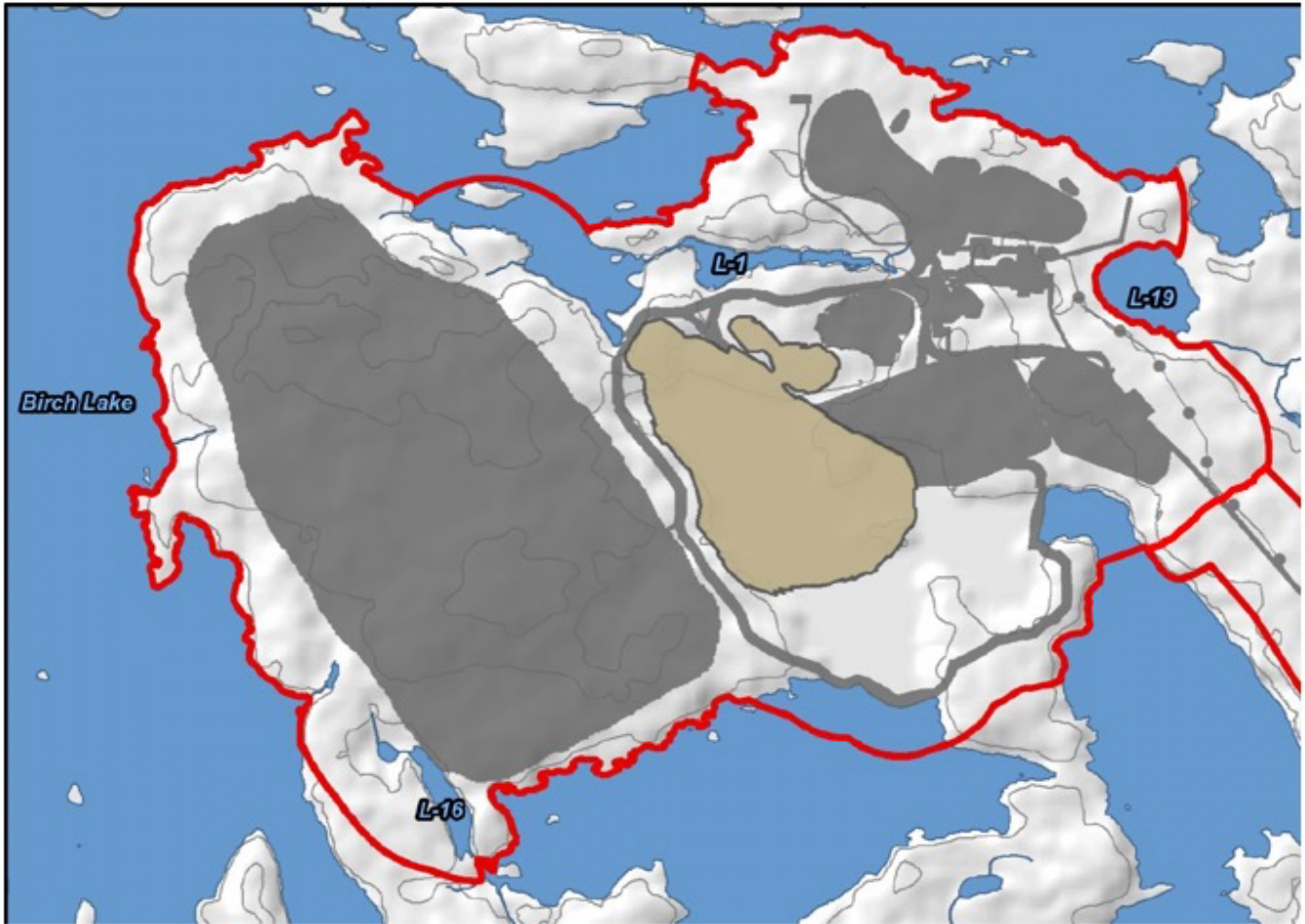
Maps



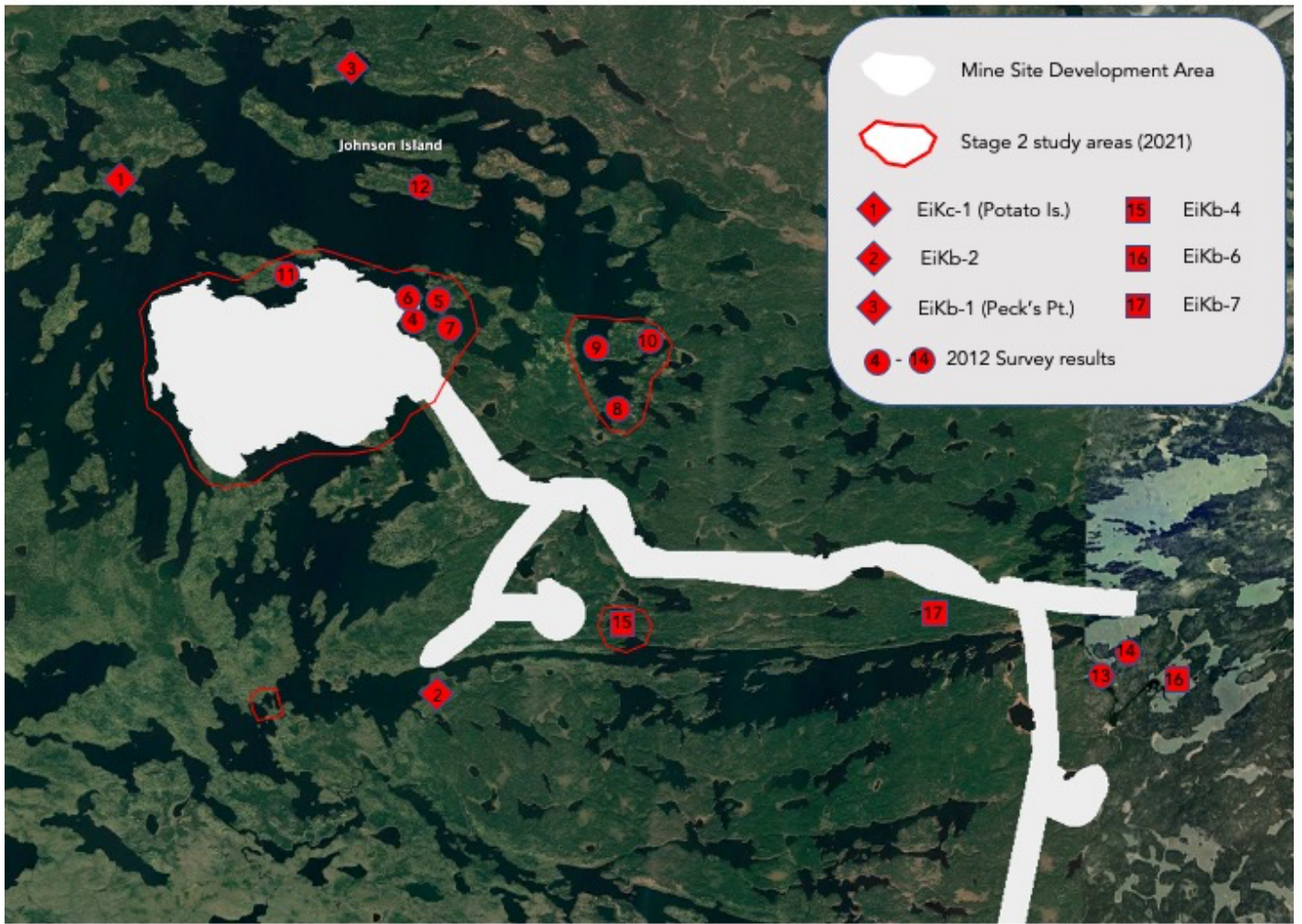
Map 1: Regional location of the Project. The red dot marks the general location of the mine site.



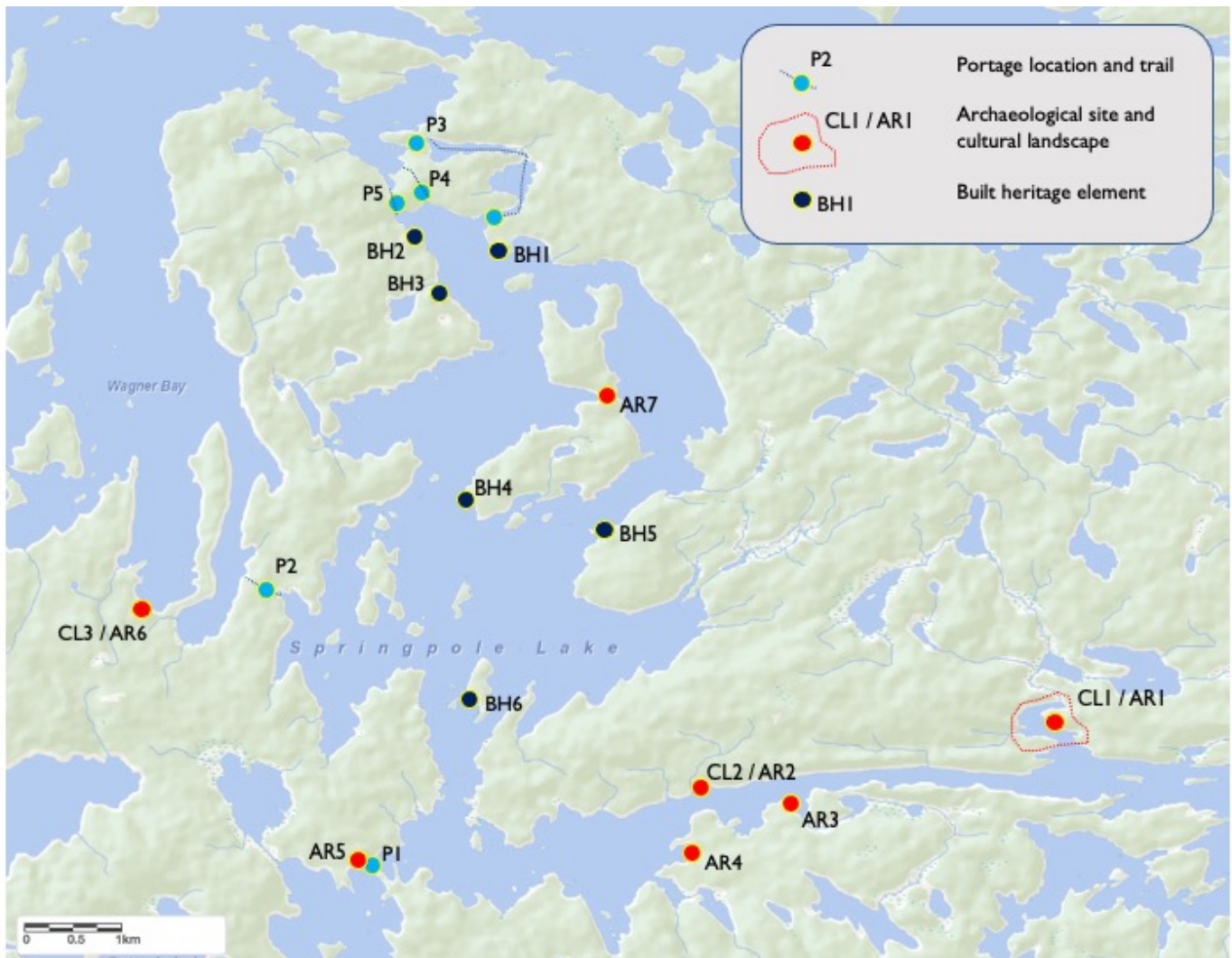
Map 2: Mine Site Development Area (MSDA), showing proposed mine site, transmission line and access road. Stage 1 assessment of the MSDA (red circle) completed under PIF P236-0141-2020. Stage 1 assessment of the transmission line and a portion of the main alignment of the mine access road has been completed under PIF P236-0163-2021. Stage 1 – 2 assessment of the Wenesaga Road crossing of the Birch River at the eastern end of Springpole Lake was completed under PIF P236-0153-2020.



Map 3: Detail of the Mine Site Development Area (MSDA), showing the area subject to Stage 2 property assessment on the basis of the recommendations made in the Stage 1 assessment report (P236-0141-2020).



Map 4: Previously reported archaeological and cultural heritage values in the vicinity of the MSDA. The MSDA is shown in white. Areas that were the focus of Stage 2 fieldwork are circled in red.



Map 5: Distribution of archaeological and cultural heritage features, centred on the proposed mine development.



Map 6: Section of Harding (1936) showing locations of archaeological and cultural heritage interest in the study area.



Map 7: Location and direction of photographs used in the report.

Figures



Figure 1: View north, portage trail entry.



Figure 3: View west, service road across portage trail.



Figure 2: View north, portage trail.



Figure 4: Area tested, north end of portage. Thin soil, shallow roots and thick moss.



Figure 5: View northwest, area 1936 mapped portage.



Figure 7: View west, Springpole to Cromarty Lake portage trail.



Figure 6: View west of 1936 mapped portage. Wet.



Figure 8: View west, 20th C refuse marks trail and portage area.



Figure 9: View east. Main portage to left (north), and area to south at narrows.



Figure 11: North end of 1936 mapped portage. Obscured by shrubs, shallow and unnavigable.



Figure 10: View north showing entry to 1936 mapped portage. Small inlet from Springpole Lake.



Figure 12: View east showing low saddle on island.



Figure 13: View west showing low saddle on island. Area tested, no archaeological resources identified.



Figure 15: View west showing area of level terrain and silt-loam soil. Note small probe, minor disturbance.



Figure 14: View north showing steep shoreline in area of silt-loam soil.



Figure 16: View south showing extensive and intensive disturbance geotechnical drilling pad.



Figure 17: View north, reported findspot, Birch Lake.



Figure 19: View southeast, reported findspot, Birch Lake.



Figure 18: View south, reported findspot, Birch Lake.



Figure 20: View east, reported findspot, Dole Lake.



Figure 21: View southwest, reported findspot, Dole Lake.



Figure 23: View west, reported findspot, Birch Lake.



Figure 22: View south, reported findspot, Birch Lake.



Figure 24: View east, area tested on high ridge.



Figure 25: View east, steep shore of Birch Lake west of MSDA.



Figure 27: View south, dense vegetation at shore.



Figure 26: View north, steep shore of Birch Lake.



Figure 28: View south, dense vegetation at shore.



Figure 29: View east, shallow water, rocky.



Figure 31: View east showing vertical rock face, Eikb-4.



Figure 30: View north, low and wet area, rocky shore.



Figure 32: View north showing terrain above pictographs.



Figure 33: View north of shoreline north of pictographs.



Figure 35: View east showing area tested at Stage 2.



Figure 34: Low, level area west shore of bay, tested.