December 22, 2016

REVISED REPORT

Stage 2 Archaeological Assessment Colacem L'Orignal Cement Plant, Lot 217 Geographic Township of Longueuil Prescott County Township of Champlain, Ontario

PIF Number: P385-0017-2015
Licensee: Stephen Jarrett (P385)

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REPORT

Golder Associates

Executive Summary

The Executive Summary highlights key points from the report only. For complete information and findings as well as limitations, the reader should examine the complete report.

Golder Associates Ltd. (Golder) was retained by Colacem to undertake a Stage 2 archaeological assessment on Lot 217, in the Geographic Township of Longueuil, Prescott County. This Stage 2 archaeological study was a condition for a proposed site plan approval and zoning amendment under the *Planning Act*. The assessment followed the recommendations of a Stage 1 Archaeological Assessment completed for Colacem by Golder under PIF P385-0013-2015. The Stage 1 Archaeological Assessment recommended that some portions of the property undergo Stage 2 survey via both the test pit survey and pedestrian survey methods (Map 7, p.37).

The Stage 1 background research on the area indicated that potential for both Aboriginal and post-contact Euro-Canadian archaeological materials existed within the study area. The general natural context of the area would indicate a moderate potential for the discovery of First Nations' materials due to the presence of the Ottawa River in relatively close proximity. However, the historic maps of the area show no creeks or drainage channels within the project area.

The historic background research on the area indicated that the potential for Euro-Canadian archaeological resources is low. The history of the township indicates that settlement of the township was limited during the late eighteenth century and early nineteenth century to the best parts of the township by a small number of settlers. The late nineteenth century saw an influx of French settlers to the remainder of the township; however, no settlement is indicated within the study area during the nineteenth century.

Between May 9 and 11, 2016, both test pit and pedestrian surveys were completed for all the areas of archaeological potential to be impacted by the proposed development within a reduced Stage 2 study area based on the zoning amendment. The Stage 2 survey resulted in the discovery of two historic artifact find spots. Upon analysis, both find spots date to the late nineteenth and early twentieth century and are of insufficient cultural heritage value to warrant further archaeological work.

This Stage 2 archaeological assessment has provided the basis for the following recommendations:

1) Both Find Spot 1 and Find Spot 2 are of insufficient cultural heritage value to warrant further archaeological investigation; and

2) That no further archaeological work is required for the project under the current zoning application dated March 2016.

Project Personnel

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Abbreviations

Golder	Golder Associates Ltd.
m	metre(s)
MTCS	Ministry of Tourism, Culture and Sport

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1.0 PROJECT CONTEXT

1.1 Development Context

Golder Associates Ltd. (Golder) was retained by Colacem Canada Inc. (Colacem) to undertake a Stage 2 Archaeological Assessment on Lot 217, Geographic Township of Longueuil, Prescott County, Township of Champlain (Map 1, p. 31). This Stage 2 archaeological study was triggered by the *Planning Act* as a requirement for site plan approval of the proposed cement plant (Map 2, p. 32). Permission to access the site was given by the client with no restrictions.

This study included the review of available archaeological and environmental literature relevant to the property, consultation with the Ministry of Tourism, Culture and Sport's (MTCS) database of registered archaeological sites, as well as a review of primary historic documentation including land abstract records, census documentation, aerial photographs and historic maps.

This Stage 2 study follows the findings of a Stage 1 Archaeological Assessment completed in the previous year (2015) under PIF# P385-0013-2015 (Golder 2015). The Stage 1 study included the entirety of Lot 217 over a total area of 55.85 hectares (138 acres), however the zoning amendment as applied for by Colacem to the Township of Champlain only includes the southernmost 39.9 hectares. The zoning in the remaining northernmost 15.95 hectares will remain rural, whereas the application will rezone the area subject to this study as Industrial Heavy (Map 2, p. 32). A letter from the Township of Champlain and the United Counties of Prescott and Russell is included in the supplementary documentation which states that the Township does not require an archaeological assessment for the lands to remain zoned rural.

1.1.1 Objectives

The objectives of this Stage 2 Archaeological Assessment follow the MTCS' *Standards and Guidelines for Consultant Archaeologists* (2011: 27);

1) To document all archaeological resources on the property;

2) To determine whether the property contains archaeological resources requiring further assessment; and

3) To recommend appropriate strategies for Stage 3 strategies for archaeological sites identified.

2.0 HISTORIC CONTEXT

2.1 Pre-European Contact History

The Ottawa valley was covered by the Laurentide Ice sheet up until approximately 11,000 before present (BP). Following deglaciation, the Ottawa Valley was covered by the Champlain Sea. This sea extended from the Rideau Lakes in the south, along the Ottawa Valley, St. Lawrence area ending at approximately Petawawa in the west. The exact western boundary is unknown as current elevation levels reflect the isostatic rebound of the land after the melting of the glaciers, and cannot be used to accurately determine the location of the Champlain Sea. The eastern portion of the Sea extended into the Atlantic.

The earliest possible settlement in the area would have been after the Champlain Sea disappeared and vegetation and wildlife had sufficiently occupied the area to sustain humans (Watson G.D. 1999a, p.28). The pre-European contact sequence of occupation for the Ottawa Valley is not completely understood. During the early and middle Paleo-Indian period (12,000 to 10,000 BP) the study area and environs would have remained inundated by the Champlain Sea, or may not have had the land resources required for occupation. However, during the late Paleo-Indian period (10,000–9,000 BP) as the Champlain Sea receded, it is possible that Paleo-Indians migrated along the changing waterfront eventually moving into the Ottawa Valley (Watson G. D. 1999a, p.38).

Paleo-Indians were characterized by their nomadic lifestyle. These highly mobile hunter and gatherers relied on the caribou, small game, fish and wild plants found in the sub-arctic environment of the time. Although evidence exists of Paleo-Indian occupation in Ontario as early as 11,000 BP, there is very little of it for the occupation of the Ottawa Valley by Paleo-Indians. Significant occupation of the lower Ottawa Valley did not occur until the Archaic Period (9,500–2,500 BP). By 8,000 BP the lakes and rivers were approximately in their present locations and deciduous forests would have been established. Evidence of earlier occupation by Paleo-Indians in the Ottawa Valley consists of two bi-facially fluted projectile points found near Rideau Lakes and a dovetail point found in Ottawa South (Pillon and Fox 2015). This location would have been near the shore of the Champlain Sea during the time fluted points were being used (Watson 1999b, p.35). Also, Ken Swayze has found what he believes to be Paleo-Indian material near Greenbank Road (Swayze 2003) and, possibly, at Albion Road and Rideau Road (Swayze 2004).

Pre-European contact sites in the Ottawa Valley provide evidence of occupation during the Archaic Period. While hunting and gathering was still the main subsistence strategy, migration was more restricted to local areas. Lithic technologies also changed during this period. Although there were a broader range of tool types, the necessary skill and workmanship decreased from the Paleo-Indian standards. Ground stone tools appeared, such as adzes and gouges, tool types which indicate increased wood working.

The Archaic Period included the development of trade networks over large areas. Two sites which demonstrate this network include Morrison's Island and Allumette Island in the Outaouais region of the Ottawa River (Clermont 1999, pp. 45-46). Other sites with Archaic Period components in the Ottawa Valley during the Archaic Period include; Jessup Falls and Pendleton, along the South Nation River and at Rideau Lakes.

The Archaic Period was followed by the Woodland Period, beginning around 2,500 BP in Ontario, and lasting until 450 BP. This period is characterized by the introduction of pottery. There is evidence of ceremonial rituals including the inclusion of elaborate grave goods with Early Woodland burials. Early Woodland subsistence strategies were still based on hunting and gathering. Although Woodland people were nomadic, their migratory

routes followed seasonal patterns to proven hunting locations rather than following migrating herds (Watson G.D. 1999b, p. 56). Trade networks continued to flourish through the Woodland Period. By 1,800 BP the trade networks had reached their peak and covered much of North America.

Initial pottery forms were crude and imitated vessels made in the Archaic Period out of steatite. One example of this type of pot was located along the Ottawa River at a site (CaGi-1) in Hull Quebec (Watson G.D. 1999b, p. 59). Over time pottery became more refined and began to include elaborate decorative patterns. These decorative styles are distinct for specific regional populations as well as specific date ranges (Laliberté 1999, p. 73). The decorative styles found in eastern and south-central Ontario during this period are part of what has been identified as the 'Point Peninsula' Tradition. The western region of Ontario was occupied by Saugeen populations and the north-western area was occupied by the Laurel populations (Laliberté 1999, p. 73).

Towards the end of the Middle Woodland Period (approximately 1,500 BP), agriculture was introduced and began to take on a larger role in subsistence. It began with the cultivation of corn, beans and tobacco and eventually led to the establishment of semi-permanent and permanent villages. Many of these villages were surrounded by large palisades, indicating increased hostilities between neighbouring groups. By the end of the Late Woodland period distinct regional populations occupied specific areas of southern Ontario separated by vast stretches of largely unoccupied land. This settlement pattern was more common in regions of arable land such as southern Ontario, while many groups in other regions retained a semi-nomadic lifestyle.

2.2 Post-European Contact History

At the time of initial contact, in the seventeenth century, the French documented three Algonquin groups residing in the vicinity of the study area (Heindenreich & Wright 1987). These included the Matouweskarini along the Madawaska River to the west, the Onontchataronon in the Gananoque River Basin to the southwest, and the Weskarini, the largest of the three, situated in the petite River Basin north of the study area. The Algonquin groups may not have created permanent settlements in the area as a result of hostilities with Iroquoian speaking populations to the south; however, it is known that the northern reaches of the South Nation River basin were used as hunting territories by the Algonquin at this time. Algonquin people continue to be a presence in the Ottawa Valley.

Etienne Brulé is reported to be the first European in the region. He travelled up the Ottawa River in 1610, three years before Champlain visited the area. The first significant European settlement of the region did not occur until 200 years following this visit, although the Ottawa River continued to be a major fur trade route providing access to the upper Great Lakes and Hudson Bay. Prior to 1820 the only method of transportation into the area was by river. The lack of roads hindered the settlement of the region; however, in the eighteenth century fur trading posts were erected along the shores of the Ottawa River to trade with the Algonquin, including a post at present day Buckingham.

The region was initially under the jurisdiction of France until the end of the Seven Year War, in 1763, when it was ceded to Britain. During the American revolutionary war, many British subjects moved to British North America (Canada). Those who moved prior to the *Treaty of Separation*, in 1783, were United Empire Loyalists and many of them were granted tracks of land along the Ottawa, Rideau and St. Lawrence Rivers. Most of those who were granted land along the Ottawa River remained absentee land owners having already settled along the St. Lawrence. The scarcity of roads and poor state of transportation beyond the Ottawa River shore slowed settlement in other parts of the townships.

Seigniory of Longueuil

The Seigniory of Longueuil was granted to a Francois Provost in 1674. Through time it passed to the de Longueuil family but due to the distance from the Longueuil's other seigniories along the St. Lawrence River it was not settled by the early owners. The property was put up for sale multiple times in the 18th century until purchased by a Nathaniel Hazard Treadwell in 1796 for the sum of one thousand guineas (Thomas 1896, pg. 502).

Treadwell settled in the seigniory near the location of L'Orignal immediately and began recruiting settlers by 1800. When the War of 1812 broke out, Treadwell refused to take the oath of allegiance to the British crown and was detained until he was escorted across the war lines back to the United States (Thomas 1896, pg. 505). Nathan Treadwell continued to grow his lumber business near Plattsburgh, New York until he returned to L'Orignal in 1840.

In the intervening time while Nathan Treadwell remained in the US, Nathan's eldest son Charles Treadwell returned to L'Orignal in 1823 and continued the family interests there (Thomas 1896, pg. 505). In 1834, Charles Treadwell was given the title of High Sheriff (a lifetime appointment) which carried his duties far and wide throughout Eastern Ontario. Charles was also part of a number of railway projects within Ontario.

As a result of the Treadwell's control over the early settlement of the township the majority of the initial settlers were from upper New York State and settled on the best lands within the township. By the mid to late 19th century French settlers began settling in the township and much of eastern Ontario due to the fact that land was becoming scarce in Quebec by this time. With the majority of the best agricultural land taken by the early settlement, the majority of the French settlers had to improve marginal lands to begin farming.

2.3 Property History

The first land registry records for the lot begin in 1958 when the County Court of the United Counties of Prescott and Russell formed the lot from the A section of Longueuil township. As the township was a seigniory when surveyed the area did not conform to British survey standards and the area in question was not given a lot and concession but was instead an irregular section as seen in the Walling map of 1862 for the county (Map 3, p. 33).

The 1862 Walling map shows no occupation of any of the lots within the vicinity of the study area and indicates that there was likely no road along the route of the modern Highway 17 at this point (Map 3, p. 33). The occupation of the township as shown is along the Ottawa River to the north and a considerable distance south along the modern Ritchance Road. The 1881 Belden map of the township also shows no occupation within the vicinity of the study area but does indicate the presence of a roadway along the path of the modern Highway 17 at this time (Map 4, p. 34).

3.0 ARCHAEOLOGICAL CONTEXT

3.1 Subject Property Environment

The property is part of Ottawa Valley Clay Plains (Chapman and Putnam 1984, p.209). The project area is located in soil conditions classified primarily as Farmington loam with muck in the northeast corner of the study area and a small area of bearbrook clay at the south end of the study area (Map 5, p. 35). Farmington loam consists of a stony loam with shallow limestone bedrock beneath in undulating terrain with good drainage. Muck typically consists of high organic poorly drained to saturated soils. Bearbrook clay typically consists of stone free dark grey clay soils in level terrain with poor drainage.

The property currently consists primarily of active and fallow agricultural fields which vary from moderately well drained soil conditions at the south end of the project area to poorly to saturated soil conditions throughout most of the property. The majority of the property currently consists of low-lying fields cropped with soybeans and corn with the remainder at the south end of the property on a slightly elevated area cropped with winter wheat. All areas of the property contain deep artificially cut drainages to reduce the wet conditions within the fields. A small abandoned quarry pit is located in the southeast corner of the property.

An aerial image of the property from 1927 shows that the entire lot was used for agriculture with two possible structures present (Map 6, p. 36). The first appears on the edge of the abandoned quarry at the southeast corner of the property indicating that possibly some small quarrying was happening on the property at that time. The second possible structure is located at the north end of the property along a field edge. The image also shows that the present complex of artificial drainages along the field edges appears in place at this time.

An aerial image of the property from 1946 shows the same two possible structures with two more located in the southwest corner of the property along the modern Highway 17 (Map 6, p. 36). Further activity is visible at the location of the modern abandoned quarry pit in the southeast corner of the property. The remainder of the property is still visible as agricultural fields.

An aerial image of the property from 1962 shows the same agricultural use with the removal of all structures except the two in the southwest corner of the property (Map 6, p. 36). The abandoned quarry appears full of water in the image.

Of note, the soils map shows a 25 foot increase in elevation to a sizable hill immediately north and northwest of the property (Map 5, p. 35). This appears to be the highest elevated area along the south side of the river along this small stretch of river. In particular, it is the highest elevated area overlooking Azatika Bay which would be an ideal natural harbour.

3.1.1 Known Archaeological Sites and Previous Archaeological Investigations

A search of the MTCS sites database indicated that there are no known archaeological sites previously identified within a 1 km radius of the study area (MTCS 2015). During the Stage 1 Archaeological Assessment for this project a single celt was observed at the north end of Lot 217 and registered as BjFq-3.

3.1.2 Stage 1 Archaeological Assessment

The Stage 1 Archaeological Assessment of the property determined that some areas contained both pre and post-European contact potential for the recovery of archaeological materials (Golder 2015). Pre-contact potential was based on a conservative edge for a large area of wetland and swamp which would have resided within the majority

of the property as indicated by the site conditions and the presence of peat/muck over much of the project area. This pre-contact potential was defined for the north and south end of the lot, with the discovery of a celt at the north edge of the property confirming this potential (Map 7, p. 37). Historic potential was noted for the 100 m north of the current Highway 17 as it represents a historic transportation corridor. An old quarry pit is present in the southeast corner of the property which has created a large pool of water in the old pit with disturbance evident around the pit's parameters in the form of scraped soil and several berms.

The reduced Stage 2 study area (Map 2, p. 32) removes the area of archaeological potential at the north end of the property from this study. This Stage 2 Archaeological Assessment is therefore only concerned with the southern area of archaeological potential designated Section 3 in the Stage 1 Archaeological Assessment of the property (Golder 2015).

4.0 FIELD METHODS

Field work for this Stage 2 Archaeological Assessment was conducted between May 9 and 11, 2016. Weather conditions under which the fieldwork was conducted were typical cool spring days with clear to mixed sun and cloud and temperatures cool in the morning (~3˚C) increasing in temperature to +10˚C to +18˚C in the late afternoon. The weather conditions did not affect the archaeologist's ability to complete the archaeological assessment. All relevant GPS data was recorded using a Garmin GPS Map 64 handheld unit at +/- 3m accuracy.

Both pedestrian survey and test pit survey were completed within the project area on all areas identified as having archaeological potential. Pedestrian survey was completed over the majority of the project area; in soils classified as Farmington loam and formerly cropped with winter wheat. The fields were furrow ploughed then small disked to produce the conditions required for pedestrian survey under Section 2.1.1.5 of the *Standards and Guidelines for Consultant Archaeologists.* Due to the very shallow soil conditions over bedrock within the field (~5 cm to 15 cm) some areas did not have sufficient soil depth to completely mix the plant remains and significant amounts of limestone are evident throughout the field (Image 1 and 2, p. 19). In some areas the process of ploughing exposed the bedrock entirely (Image 3, p. 20). Small areas with sufficient plant remains or rock to reduce visibility were walked at 2 or 3 m intervals as the conditions required to account for the reduced visibility. However, the majority of the ploughed area was surveyed at 4 or 5 m intervals as good visibility was achieved from the ploughing (Image 4 and Image 5, p. 20-21). When archaeological resources were discovered via the pedestrian survey method, survey transects were decreased to 1 m intervals within 20 m of all finds to define the scatter. Once the extent of the scatter was determined the artifacts were collected and the scatter extent recorded with all relevant data.

Test pit survey was completed on a long fallow agricultural field (Image 6, p. 21) and the meadow areas (Image 7, p.22) adjacent to the active agricultural fields within the area of archaeological potential. Test pit survey was completed at 5 m intervals with test pits measuring at least 30 cm in diameter, completed by hand 5 cm into subsoil with soils screened through 6 mm mesh. All test pits were backfilled after they were examined for stratigraphy, cultural features or fill. Soil conditions within the meadow environments adjacent to the agricultural fields were uniformly shallow (~5 to 20 cm) grey brown loamy clay over limestone bedrock (Image 8, p. 22). Soil conditions within the fallow agricultural field were 15 to 25 cm of dark brown clay loam over light brown sandy clay subsoil with moist soil throughout the field (Image 10, p. 23). When archaeological resources were discovered during test pit survey which did not clearly warrant a Stage 3 Archaeological Assessment of the area a 1 m by 1 m unit was placed within the find spot area with a further eight test pits excavated within 2.5 m of the unit in the direction of the eight principal points of the compass as per MTCS Standard 2.1.3 (2011) to provide a greater sample of the find spot. Test pitting continued along the 5 m grid noting when three negative test pits had been completed, in order to help determine possible boundaries of a site or artifact cluster. All artifacts were collected and labelled according to their provenience including GPS coordinates.

As indicated above a large abandoned quarry is located in the southeast part of the lot. The quarry pit was noted as having no potential in the Stage 1 background study, however more defined limits are included in the mapping for this study including the extend of the scraping and berming around the pit itself. Directly north of the pit an area of approximately 15 m is disturbed from the removal of soil and creation of a berm (Image 11, p. 24). Along the south and west edges of the pit minimal soil is present for approximately 10 to 15 m (Image 12, p. 24). At the southeast corner of the pit, a large berm has been artificially created, likely to reduce the noise and disruption to the residences which are in place to the southeast of the pit on the adjacent property (Image 13, p. 25).

A field log was maintained during the fieldwork detailing the pertinent information and digital photographs were taken of the general area and representative test pits. A map indicating the area test pitted and pedestrian surveyed is included as Map 8 (p. 38). A detailed photographic catalogue is included in the report as Appendix A with the locations of photos used in this report shown on Map 8 (p.38). Artifacts were returned to the Golder laboratory for cleaning, inventory and analysis. A complete inventory of all artifacts found during the Stage 2 Archaeological Assessment is included in the report as Appendix B. A total of five pages of field notes were generated by this work supported by the taking of 65 digital photographs. These notes and photos are stored digitally on the Golder server.

5.0 RECORD OF FINDS

The Stage 2 test pitting of the property resulted in the discovery of two artifact find spots, the specific locations of which are provided in the supplemental documentation submitted as part of the report package to the MTCS. These find spots are discussed in detail below.

Find Spot 1 – Concrete Foundation Adjacent to Highway 17

Find Spot 1 consisted of material identified in both test pit and pedestrian survey in addition to the presence of a concrete foundation. The concrete foundation consists of three sections totaling an area approximately 20 m by 10 m (Image 10, p.23). The interior of the foundation has been filled with modern debris and rests on a concrete base. The exposed height of the concrete above grade is roughly 50 cm, with clear window cells and a door space visible. The foundation walls are parged, ~40 cm thick and may have been constructed with concrete blocks.

Test pits were completed to within 1 m of the foundation. A total of four positive test pits were discovered within 5 m of the foundation with two additional positive test pits to the northeast. These test pits link into a scatter of material immediately north at the edge of the agricultural field and extending over an area approximately 25 m north-south and 15 m east-west (Map 9, p.39). A single 1 m by 1 m test unit was placed immediately south of the foundation towards the road. The unit was placed over TP4, which contained a mix of structural, faunal and ceramic materials, to gather a better sample of the materials within the find spot. No additional artifacts were recovered from the intensified test pits around the test unit, as concrete and rock material south of the unit prevented excavation there and the test pits north of the unit were against the foundation.

Table 1: Artifact distribution in Find Spot 1

Provenience	# of Artifacts
SP	43
TP 01	2
TP 02	7
TP 03	5
TP 04	4
TP 05	9
TP 06	13
TU 01	36
	119

Table 2: Artifact distribution by material from Find Spot 1

Material	# of Artifacts
Ceramic	17
Fauna	12
Glass	24
Metal	63
Mortar	1
Plastic	2
	119

Table 3: Artifact Distribution by function in Find Spot 1

Function	# of Artifacts
Food/Beverage	12
Indeterminate	37
Personal/Societal	9
Structural	59
Tools/Equipment	2
	119

Find Spot 1 consisted of 119 artifacts including those made of ceramic, fauna, glass, metal, plastic and a sample of mortar. Six sherds of vitrified white earthenware tableware were collected, all of them plain, but one which was moulded (Image 14, p. 25). A sherd of yelloware and a sherd of coarse red earthenware were also in the food/beverage function group. A total of five fragments of smoking pipe were found, one was impressed with the mark “MONTREAL/BANNERMAN”. This mark provides a date range of 1888 to 1907, when the Bannerman Company was operational (Bradley 2000: 117). Two fragments of brick were kept as samples, one was discarded. A sherd of coarse grey stoneware and a sherd of porcelain of indeterminate function were also found. The porcelain is likely of an electrical function.

Glass artifacts included sherds of window pane, mirror, various hollowware, an insulator, a button and sherds from four bottles (Image 15, p. 26). Two bottles were identified as machine made, which would date them to post 1889, when narrow mouthed vessels were first produced by machine. One of the sherds is a classic Coke soda bottle, ribbed with “Coke” written in enamel or applied colour labelling, which dates the bottle to after 1934 (Lindsey 2016).

The majority of the metal artifacts were nails (42), both machine cut and wire (Image 16, p. 26). Other metal artifacts included: spikes, staples, a threaded cap, a piece of a knife, a screw, a spool and a possible shovel socket. Of the most interest was a small religious medallion, which read “JESUS L'IMMACULEE COCEPTO/PENITENCE//BASILIQUE DE N. D. DE LOURDES”.

Plastic artifacts included a fragment of hair comb and an indeterminate fragment (Image 17, p. 27). Plastics became of common use in the 1920s (Hillman 1986: 20). Twelve fragments of mammal bone were found, two of them with obvious butchering marks.

Find Spot 2 – Concrete Foundation in Middle of Agricultural Field

Find Spot 2 consisted of a concrete foundation with a small scatter of material in the surrounding field. Find Spot 2 is located 50 m north of Find Spot 1 and 125 m north of the foundation in Find Spot 1. The foundation consists of what appears to be a single course of roughly hewn limestone which is resting on bedrock with a concrete pad covering the entire foundation area (Image 18 and 19, p. 27-28). Two additional test pits were excavated within the small unploughed area to the east of the foundation. Neither test pit uncovered any archaeological material. All artifacts recovered as part of this find spot were in the agricultural field and were recovered within 10 m of the foundation.

Find Spot 2 consisted of nine artifacts. The majority were metal and included: a wire spike, a cut spike, a crown cap, a fragment of soda can and a fragment of possible iron machinery (Image 20, p. 28). Wire nails became common in the 1860s, but did not exceed the production of machine cut nails until 1892 (Smith 1966). Crown caps were patented in 1892 (Jones & Sullivan 1989:163). The soda can is marked Coke, which was first sold in 1959 (Busch 1981:101). Other artifacts included a sherd of stoneware tile, a sample of asphalt, an indeterminate fragment of plastic and an indeterminate fragment of rubber. Synthetics such as plastic and rubber became of common use in the 1920s (Hillman 1986: 20).

Other Concrete Foundations

As noted in the Stage 1 Archaeological Assessment two other concrete foundations were present on the property and within the area of archaeological potential. The first foundation is located along the active gravel drive which runs from Highway 17 to the abandoned quarry pit. This foundation consists of a pair of thick (75 cm) parallel concrete tracks approximately 2 to 3 m apart and 25 m long with an additional 5 m by 10 m concrete foundation attached at the west end (Image 21, p. 29). Test pits were completed to within 1 m of the foundation and did not result in the recovery of archaeological materials. The foundation appears to have been related to the quarry pit and could have been a site office with the long concrete foundation serving as a potential weight scale.

The second foundation, located south of the abandoned quarry pit, consists of two ramp structures facing one another to form potential abutments for a bridge with a gap of approximately 6 m (Image 22, p. 29). Test pits were completed to within 1 m of the foundation and resulted in the recovery of no archaeological materials. The foundation also appears to have been related to the quarry pit with an unknown purpose.

6.0 ANALYSIS AND CONCLUSIONS

Two find spots were identified over the course of this Stage 2 Archaeological Assessment.

Find Spot 1 – Concrete Foundation Adjacent to Highway 17

Find Spot 1 appears to be a late nineteenth century to early twentieth century residence with associated domestic scatter. All of the definitively dateable materials fall within the 1888 to 1930s at their earliest manufacture with the exception of several cut nails. This late nineteenth century to early twentieth century date is consistent with the history of the township which experienced limited English settlement in the late eighteenth and early nineteenth century on the ideal agricultural lands away from this property. When new land became difficult to acquire in Quebec; French settlers moved into eastern Ontario in the late nineteenth and early twentieth century, settling on the more marginal lands which earlier settlers had avoided. The area around this property in Longueuil Township is shown as unsettled in the 1862 and 1881 maps (Maps 3 and 4, pgs. 33 and 34). The presence of a Roman Catholic medallion in the test unit dedicated to the Basilique de Notre-Dame de l'Immaculée-Conception de Lourdes (BASILIQUE DE N. D. DE LOURDES) likely indicates that the domestic habitation of the property was by a French settler, placing his probable settlement into the period of French settlement in Eastern Ontario. The settlement of the lot by a French settler is supported by the land registry; with a Philiffe Poirier registered as owning the property in 1958 when Lot 217 was created out of the irregular “A” section of Longueuil Township.

The recovered artifacts in conjunction with the history of the area indicate that this modern concrete foundation and domestic scatter likely date to the late nineteenth and/or early twentieth century. As this Stage 2 survey did not find sufficient material to date the entire site or part of the site to the period pre-1900 as per Standard 2.2.1c of the *Standards and Guidelines for Consultant Archaeologists* (2011) it is recommended that Find Spot 1 has insufficient cultural heritage value to merit further work.

Find Spot 2 – Concrete Foundation in Middle of Agricultural Field

Find Spot 2 appears to be the foundation of a farm outbuilding associated with the domestic residence of Find Spot 1. Of the minimal material recovered from the location the only domestic material was the crown cap from a bottle and a modern soda can. The remainder of the material was structural or potential related to farm equipment. If this was the location of a domestic residence it would be expected that further domestic material would have been found within the surrounding agricultural field.

As this Stage 2 survey did not find sufficient material to date the entire site or part of the site to the period pre-1900 as per Standard 2.2.1c of the *Standards and Guidelines for Consultant Archaeologists* (2011) it is recommended that Find Spot 2 has insufficient cultural heritage value to merit further work.

7.0 SUMMARY AND RECOMMENDATIONS

Golder was retained by Colacem to undertake a Stage 2 Archaeological Assessment on Lot 217, in the Geographic Township of Longueuil, Prescott County. This Stage 2 archaeological study was a condition for a proposed site plan approval under the *Planning Act.* The assessment followed the recommendations of a Stage 1 Archaeological Assessment completed for Colacem by Golder under PIF P385-0013-2015. The Stage 1 Archaeological Assessment recommended that some portions of the property undergo Stage 2 survey via both the test pit survey and pedestrian survey methods (Map 7, p.37).

The Stage 1 background research on the area indicated that potential for both Aboriginal and post-contact Euro-Canadian archaeological materials existed within the study area. The general natural context of the area would indicate a moderate potential for the discovery of First Nations' materials due to the presence of the Ottawa River in relatively close proximity. However, the historic maps of the area show no creeks or drainage channels within the project area.

The historic background research on the area indicated that the potential for Euro-Canadian archaeological resources is low. The history of the township indicates that settlement of the township was limited during the late eighteenth century and early nineteenth century to the best parts of the township and a small number of settlers. The late nineteenth century saw an influx of French settlers to the remainder of the township; however, no settlement is indicated within the study area during the nineteenth century.

Between May 9 and 11, 2016, test pit survey and pedestrian survey was completed for all the areas of archaeological potential to be impacted by the proposed development within a reduced Stage 2 study area based on the zoning amendment. The Stage 2 survey resulted in the discovery of two historic artifact find spots. Upon analysis, both find spots date to the late nineteenth and early twentieth century and are of insufficient cultural heritage value to warrant further archaeological work.

This Stage 2 archaeological assessment has provided the basis for the following recommendations:

1) Both Find Spot 1 and Find Spot 2 are of insufficient cultural heritage value to warrant further archaeological investigation; and

2) That no further archaeological work is required for the project under the current zoning application dated March 2016.

8.0 ADVICE ON COMPLIANCE WITH LEGISLATION

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, requires that any person discovering or having knowledge of a burial site shall immediately notify the police or coroner. It is recommended that the Registrar of Cemeteries at the Ministry of Consumer Services is also immediately notified.

9.0 IMPORTANT INFORMATION AND LIMITATIONS OF THIS REPORT

Golder Associates Ltd. (Golder) has prepared this report in a manner consistent with that level of care and skill ordinarily exercised by members of the archaeological profession currently practicing under similar conditions in the jurisdiction in which the services are provided, subject to the time limits and physical constraints applicable to this report. No other warranty, expressed or implied, is made.

This report has been prepared for the specific site, design objective, developments and purpose described to Golder by Colacem Canada Inc. (the Client). The factual data, interpretations and recommendations pertain to a specific project as described in this report and are not applicable to any other project or site location.

The information, recommendations and opinions expressed in this report are for the sole benefit of the Client. No other party may use or rely on this report or any portion thereof without Golder's express written consent. If the report was prepared to be included for a specific permit application process, then upon the reasonable request of the client, Golder may authorize in writing the use of this report by the regulatory agency as an Approved User for the specific and identified purpose of the applicable permit review process. Any other use of this report by others is prohibited and is without responsibility to Golder. The report, all plans, data, drawings and other documents as well as all electronic media prepared by Golder are considered its professional work product and shall remain the copyright property of Golder, who authorizes only the Client and Approved Users to make copies of the report, but only in such quantities as are reasonably necessary for the use of the report by those parties. The Client and Approved Users may not give, lend, sell, or otherwise make available the report or any portion thereof to any other party without the express written permission of Golder. The Client acknowledges the electronic media is susceptible to unauthorized modification, deterioration and incompatibility and therefore the Client cannot rely upon the electronic media versions of Golder's report or other work products.

Unless otherwise stated, the suggestions, recommendations and opinions given in this report are intended only for the guidance of the Client in the design of the specific project.

Special risks occur whenever archaeological investigations are applied to identify subsurface conditions and even a comprehensive investigation, sampling and testing program may fail to detect all or certain archaeological resources. The sampling strategies incorporated in this study comply with those identified in the MTCS' *Standards and Guidelines for Consultant Archaeologists* (2011).

10.0 BIBLIOGRAPHY AND SOURCES

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11.0 IMAGES

Image 1: View northeast of area with large amount of limestone material (1529718-2).

Image 2: View southwest of area with large amount limestone material (1529718-6).

Image 3: View down of plough exposed bedrock at edge of secondary field (1529718-7).

Image 4: View southwest of field conditions in main agricultural field (1529718-1).

Image 5: View east of field conditions of small field adjacent to highway (1529718-3).

Image 6: View northeast of crew test pitting in fallow agricultural field (1529718-16).

Image 7: View east of meadow environment adjacent to ploughed field and highway (1529718-56).

Image 8: View down of typical test pit from meadow environments adjacent to the agricultural fields (1529718-23).

Image 9: View down of example test pit in fallow agricultural field (1529718-14).

Image 10: View north of concrete foundation with agricultural field behind (1529718-31).

Image 11: View east of berm and soil removal north of abandoned quarry pit (1529718-20).

Image 12: View east of exposed bedrock and minimal soil near abandoned quarry pit (1529718-47).

Image 13: View east of exposed bedrock and large artificial berm to the southeast of the quarry pit (1529718-48).

Image 14: Ceramic artifacts from Find Spot 1 (clockwise from bottom left): electrical porcelain, yelloware, coarse stoneware, moulded VWE, CRE, BANNERMAN smoking pipe.

Image 15: Glass artifacts from Find Spot 1 (clockwise from bottom left): manganese glass insulator, Prosser buttons, mirror, window pane, enamel label COKE bottle, machine made bottle finish.

Image 16: Metal items from Find Spot 1 (clockwise from bottom left): screw, cut nail, wire nail, staple, threaded cap, spool, medallion, shovel fragment, knife.

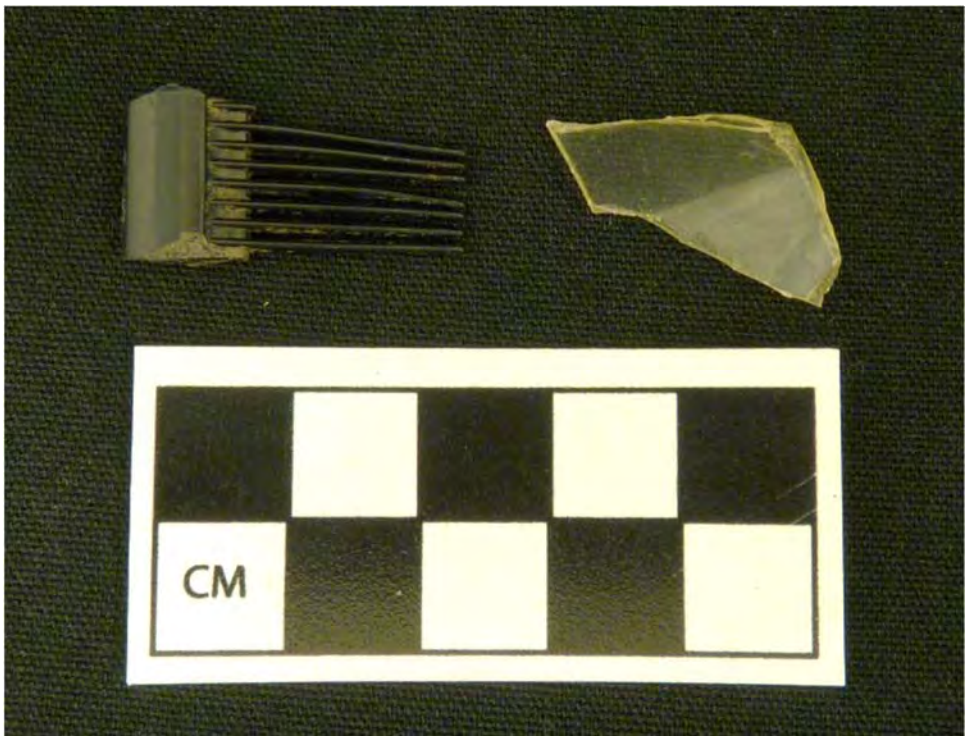


Image 17: Plastic items from Find Spot 1 (left to right): comb, indeterminate plastic.

Image 18: View southeast of concrete foundation in agricultural field (1529718-26).

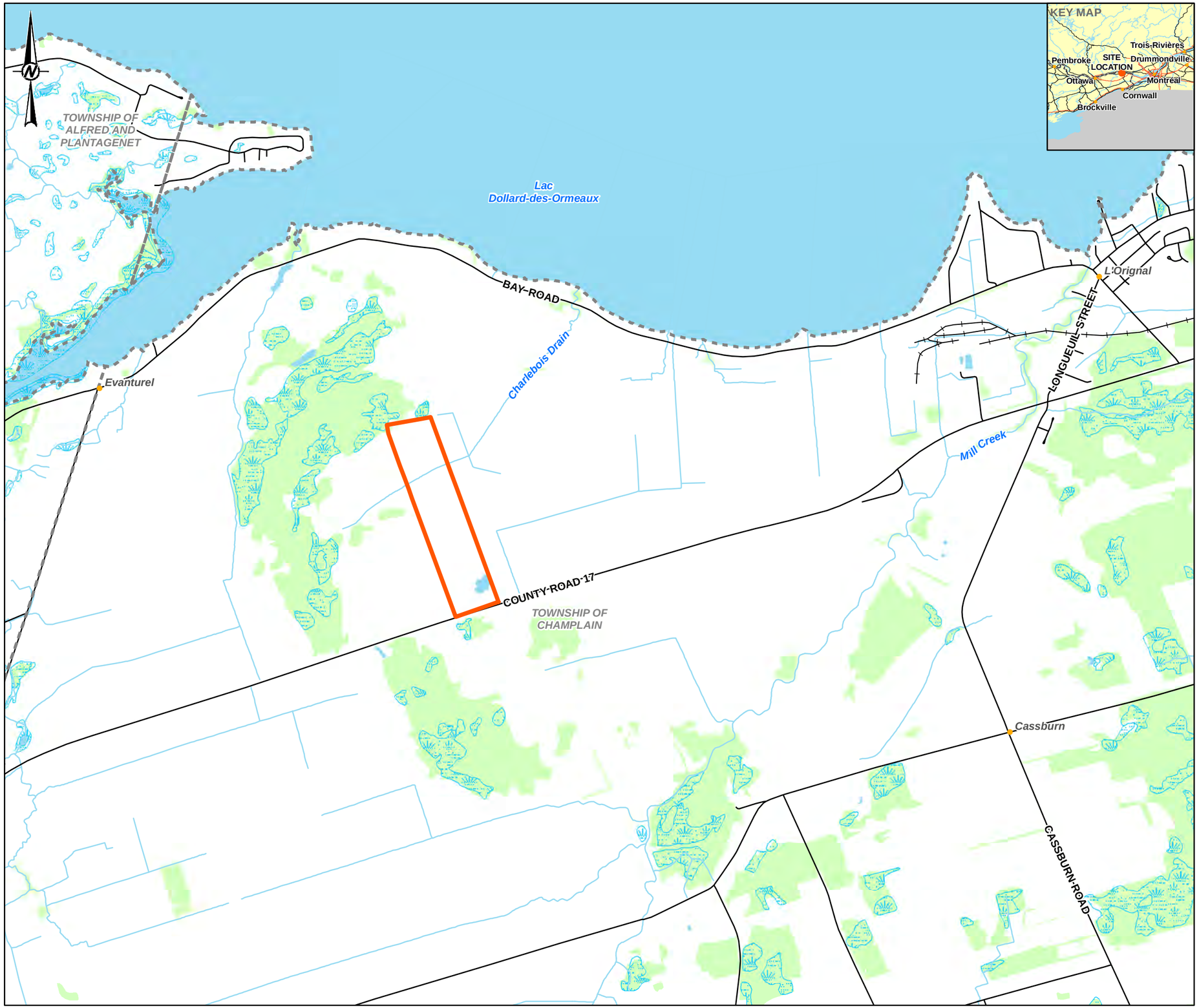
Image 19: View northeast of concrete foundation in agricultural field (1529718-27).

Image 20: Artifacts from Find Spot 2 (clockwise from bottom left): wire spike, cut spike, crown cap, rubber, Coke can.

Image 21: View southeast of long concrete foundation (1529718-38).

Image 22: View southeast of concrete ramp structure (1529718-55).

12.0 MAPS



LEGEND

- ROAD
- WATERCOURSE
- WATERBODY
- WETLAND
- WOODED AREA
- MUNICIPAL BOUNDARY
- SITE BOUNDARY

0 1,000 2,000

1:30,000 METRES

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CLIENT
COLACEM CANADA

PROJECT
L'ORIGINAL CEMENT PLANT SITE
STAGE 2 ASSESSMENT

TITLE
KEY PLAN

CONSULTANT
Golder Associates

YYYY-MM-DD	2016-09-07
DESIGNED	JMC
PREPARED	JMC
REVIEWED	SJ
APPROVED	HJD

PROJECT NO.	CONTROL	REV.	MAP
1529718	-	1	1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM:
25mm
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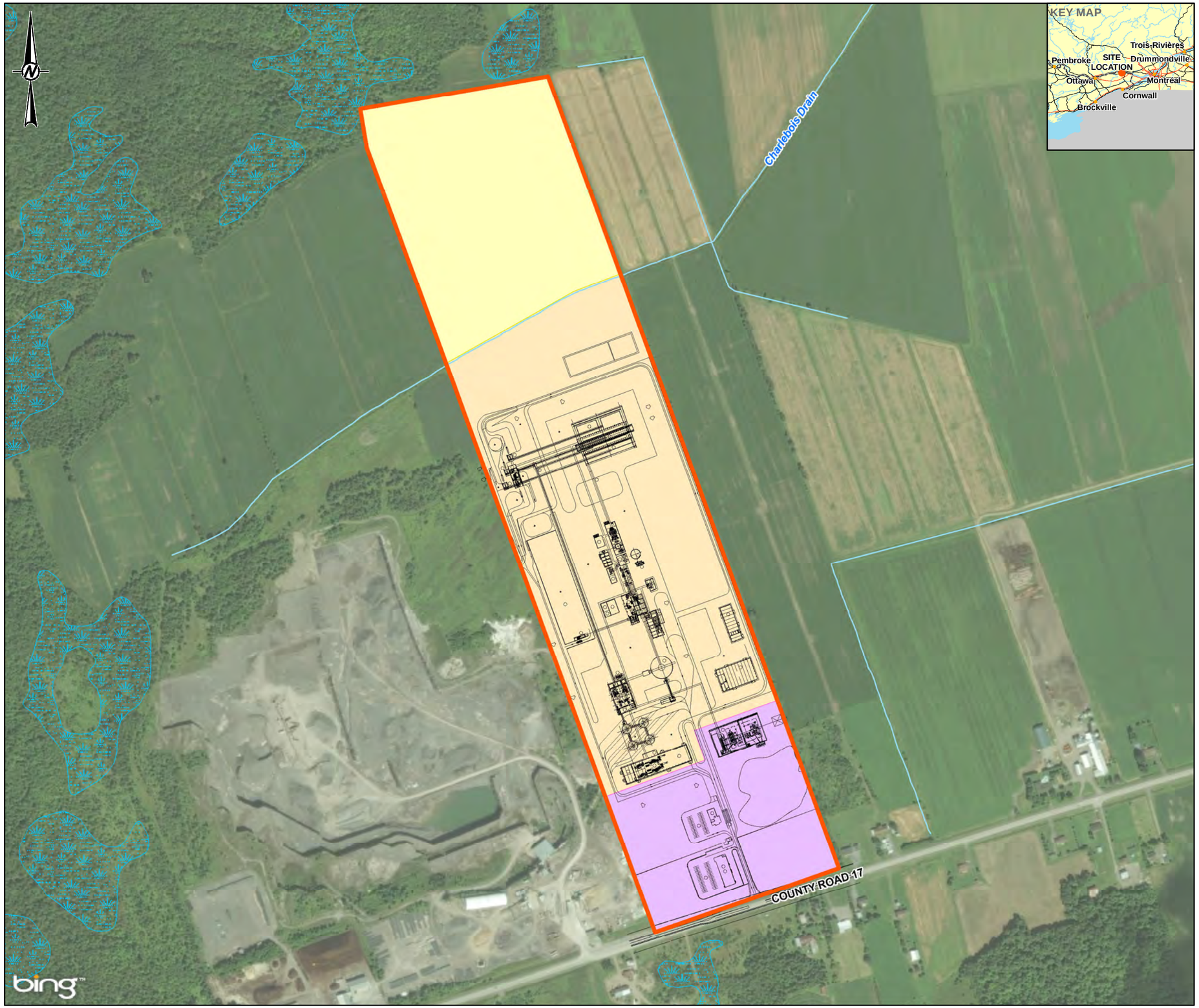

LEGEND

- WATERCOURSE
- WETLAND
- LAYOUT
- SITE BOUNDARY
- INDUSTRIAL HEAVY (MG) SPECIAL EXEMPTION ZONE A
- INDUSTRIAL HEAVY (MG) SPECIAL EXEMPTION ZONE B
- RURAL (RU)

0 120 240
1:7,000 METRES

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CLIENT
COLACEM CANADA

PROJECT
L'ORIGINAL CEMENT PLANT SITE
STAGE 2 ASSESSMENT

TITLE
ZONING AMENDMENT

CONSULTANT
Golder Associates

YYYY-MM-DD	2016-09-07
DESIGNED	JMC
PREPARED	JMC
REVIEWED	SJ
APPROVED	HJD

PROJECT NO.	CONTROL	REV.	MAP
1529718	-	1	2

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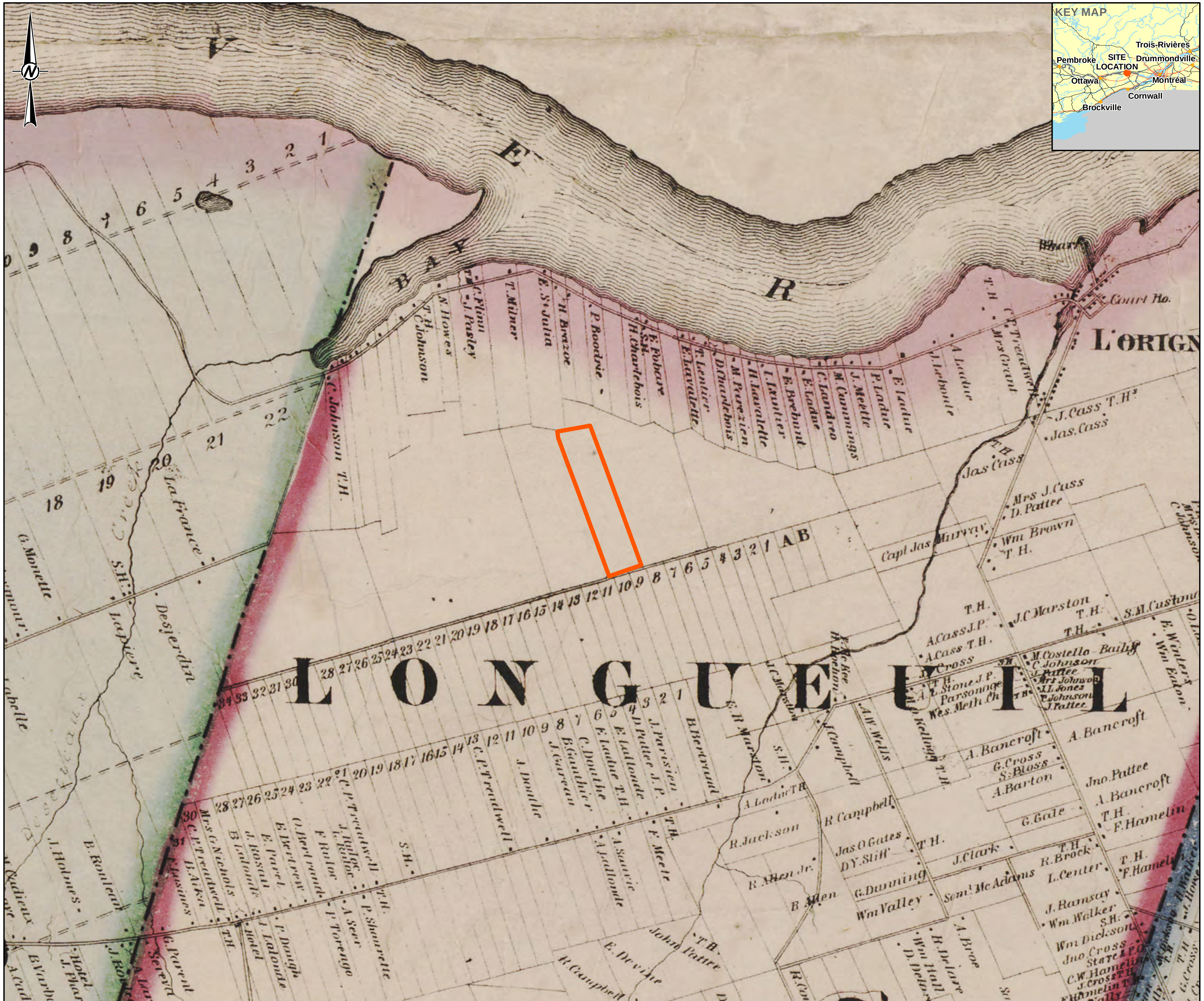

LEGEND

SITE BOUNDARY

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CLIENT
COLACEM CANADA

PROJECT
L'ORIGINAL CEMENT PLANT SITE
STAGE 2 ASSESSMENT

TITLE
1862 WALLING MAP

CONSULTANT

Golder Associates

YYYY-MM-DD	2016-09-07
DESIGNED	JMC
PREPARED	JMC
REVIEWED	SJ
APPROVED	HJD

PROJECT NO.	CONTROL	REV.	MAP
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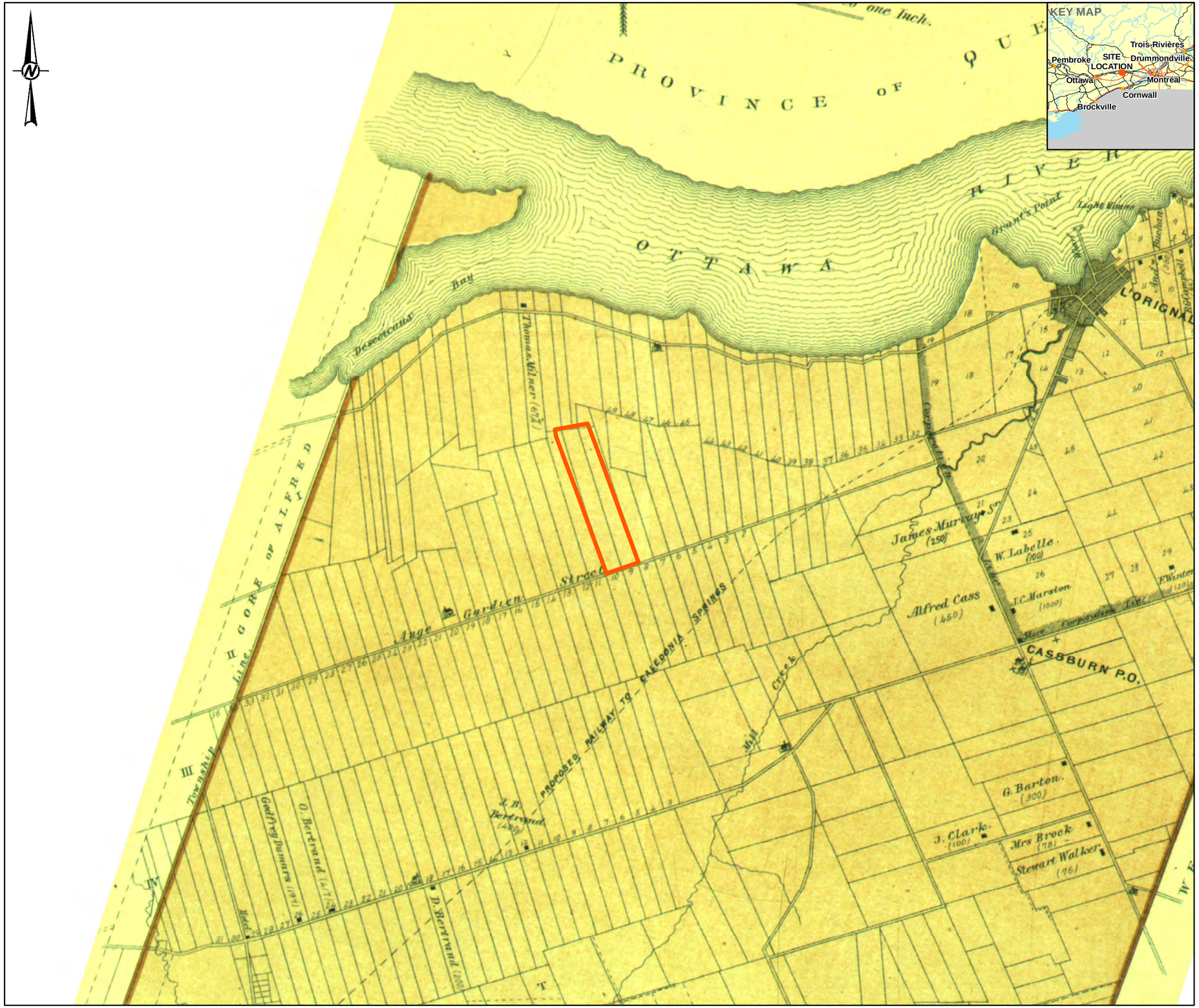

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CLIENT
COLACEM CANADA

PROJECT
L'ORIGINAL CEMENT PLANT SITE
STAGE 2 ASSESSMENT

TITLE
1881 BELDEN MAP

CONSULTANT
Golder Associates

YYYY-MM-DD	2016-09-07
DESIGNED	JMC
PREPARED	JMC
REVIEWED	SJ
APPROVED	HJD

PROJECT NO.	CONTROL	REV.	MAP
1529718	-	1	4

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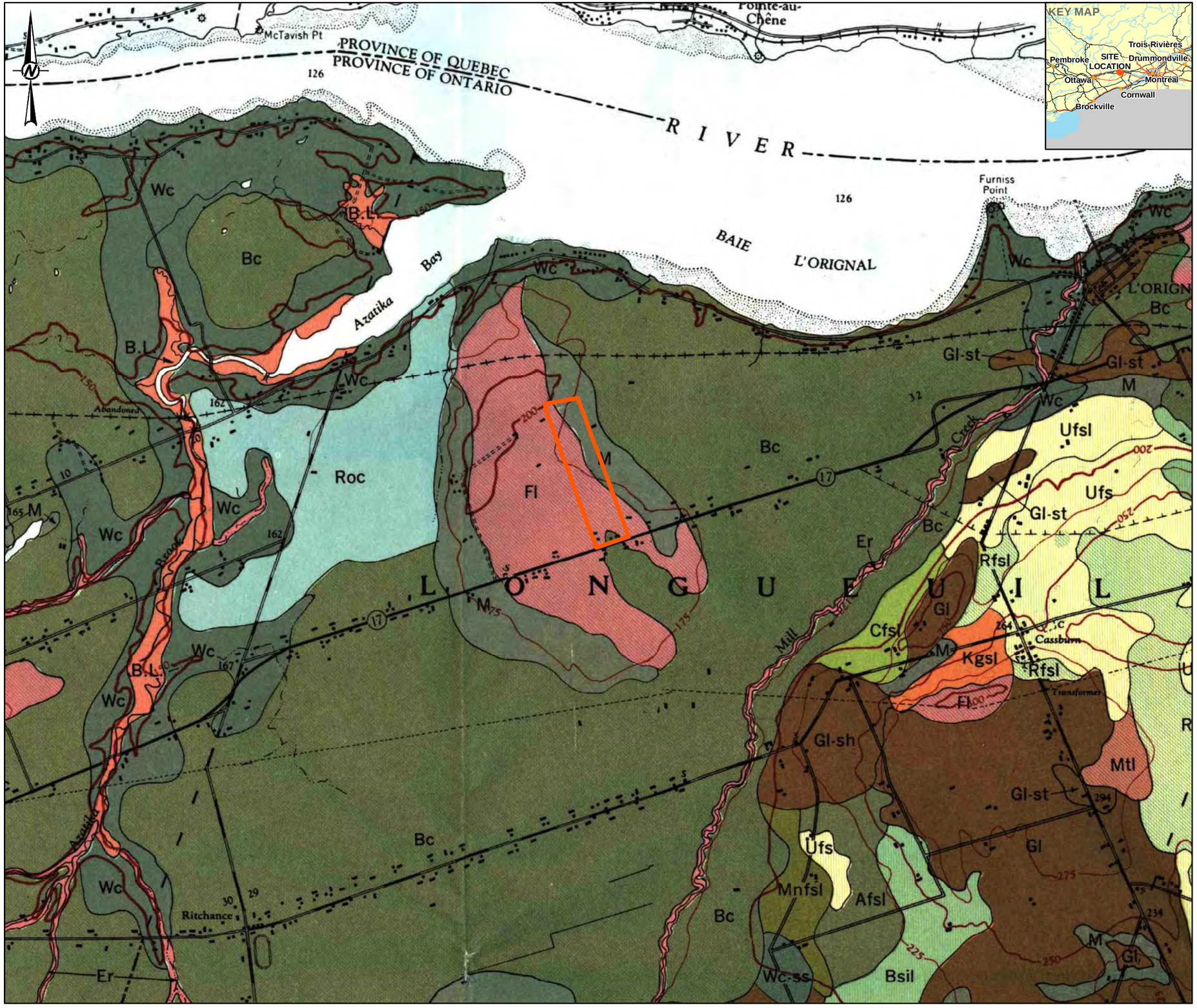

LEGEND

- SITE BOUNDARY

SOIL TYPE

- FL – FARMINGTON LOAM – STONY, LOAM SOILS WITH LIMESTONE BEDROCK AT 6" TO 18"
- M - MUCK – ORGANIC SOILS
- BC - BEARBROOK CLAY – STONEFREE DARK GREY CLAY SOILS WITH LAYERED RED AND GREY CLAY PARENT MATERIALS

0 800 1,600

1:40,000 METRES

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SOIL MAP - SOIL MAP OF PRESCOTT COUNTY ONTARIO, SOIL SURVEY REPORT NO. 33, SOIL SURVEY BY THE DEPARTMENT OF SOILS, ONTARIO AGRICULTURAL COLLEGE, GUELPH AND THE RESEARCH BRANCH, CANADA DEPARTMENT OF AGRICULTURE, OTTAWA.
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CLIENT
COLACEM CANADA

PROJECT
L'ORIGINAL CEMENT PLANT SITE
STAGE 2 ASSESSMENT

TITLE
SOIL MAP OF PRESCOTT COUNTY

CONSULTANT
Golder Associates

YYYY-MM-DD	2016-09-07
DESIGNED	JMC
PREPARED	JMC
REVIEWED	SJ
APPROVED	HJD

PROJECT NO.	CONTROL	REV.	MAP
1529718	-	1	5

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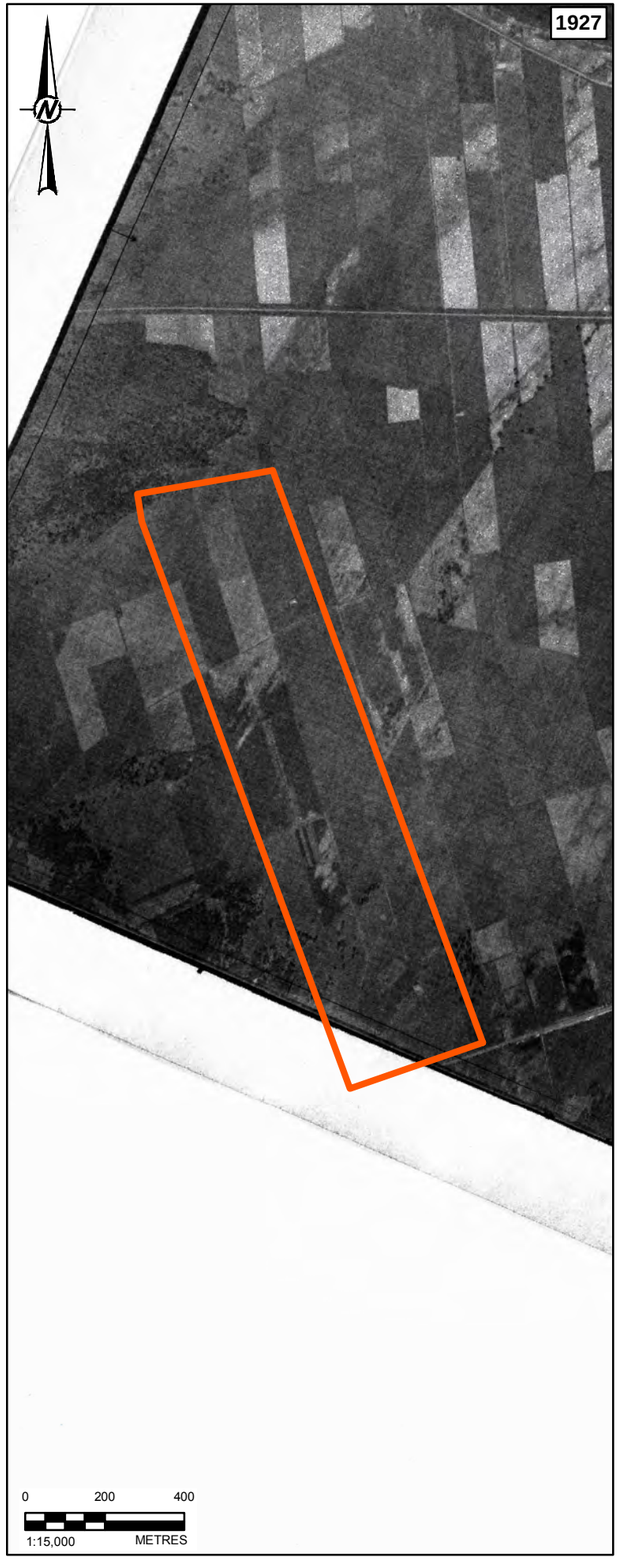

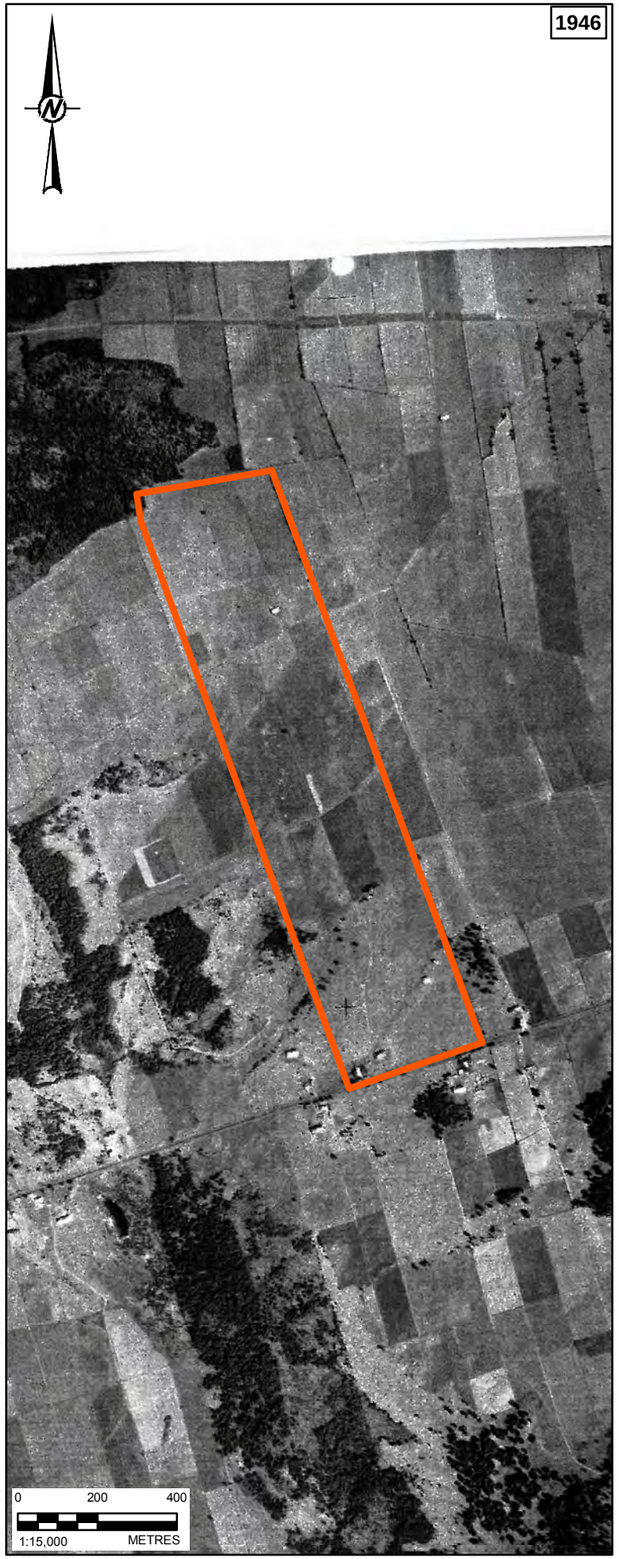

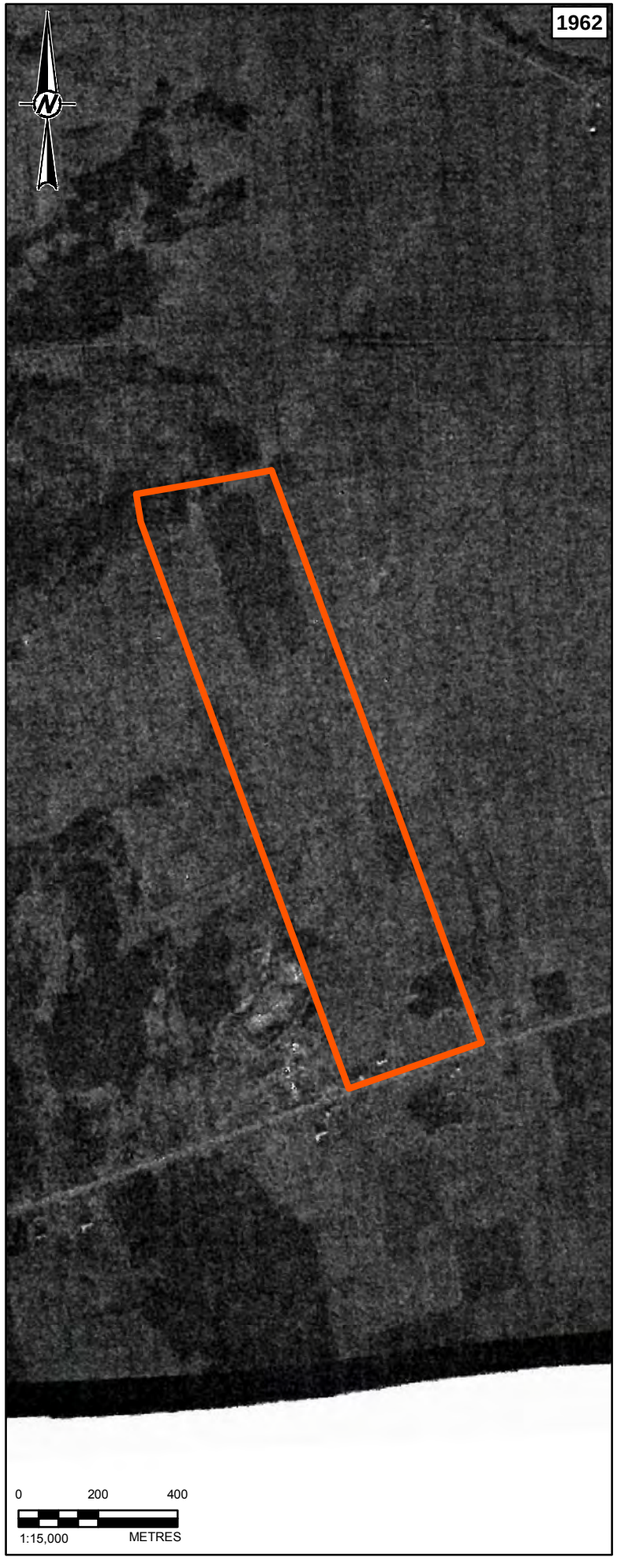

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CLIENT
COLACEM CANADA

PROJECT
L'ORIGINAL CEMENT PLANT SITE
STAGE 2 ASSESSMENT

TITLE
HISTORIC AERIAL PHOTOGRAPHS

CONSULTANT
Golder Associates

YYYY-MM-DD	2016-09-07
DESIGNED	JMC
PREPARED	JMC
REVIEWED	SJ
APPROVED	HJD

PROJECT NO.	CONTROL	REV.	MAP
1529718	-	1	6

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM:
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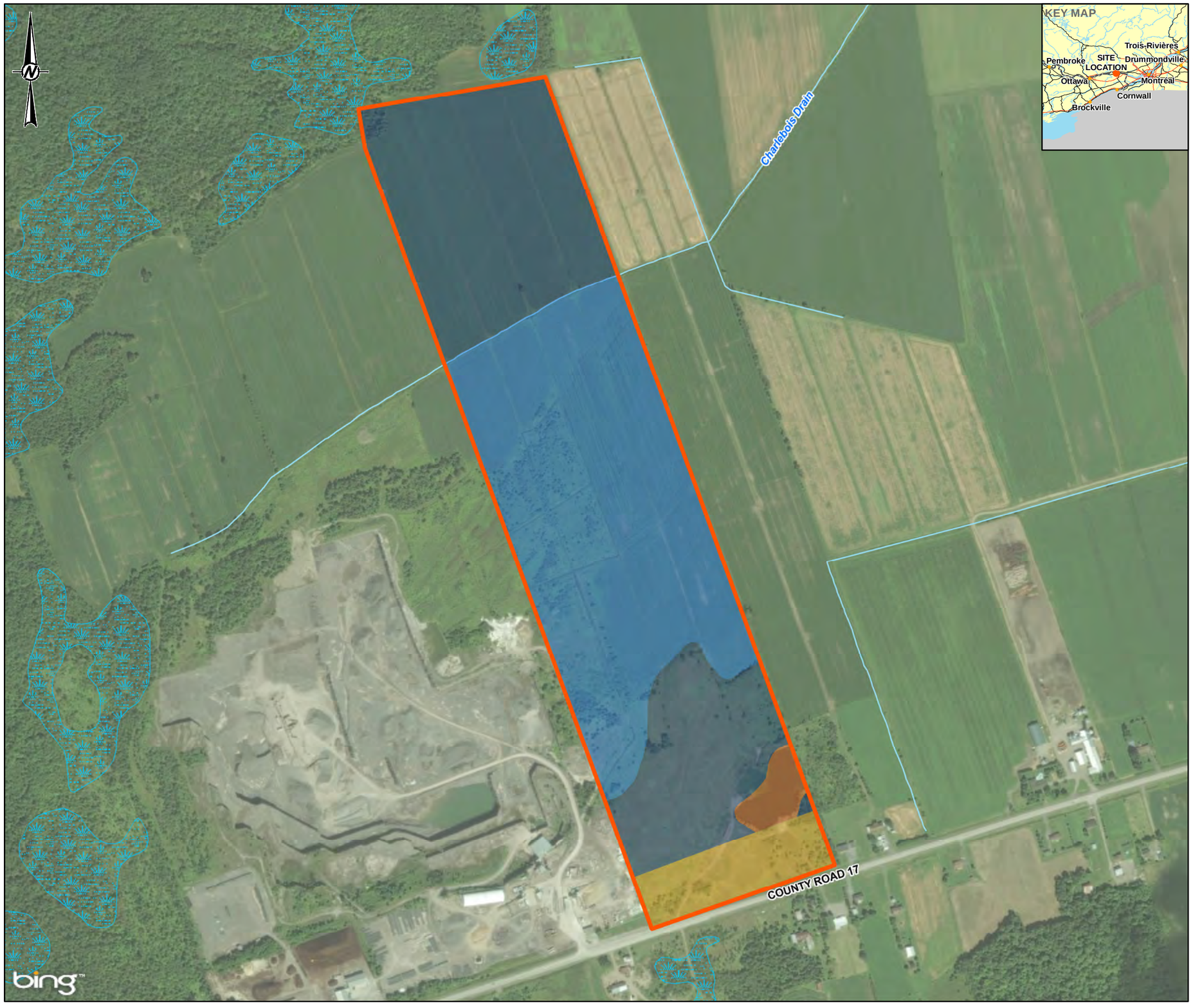

LEGEND

- WATERCOURSE
- WETLAND
- SITE BOUNDARY
- HISTORIC ARCHAEOLOGICAL POTENTIAL
- PRE-CONTACT ARCHAEOLOGICAL POTENTIAL
- NO POTENTIAL POORLY DRAINED TO SATURATED FORMER SWAMP/WETLAND
- ABANDONED QUARRY

0 120 240

1:7,000 METRES

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CLIENT
COLACEM CANADA

PROJECT
L'ORIGINAL CEMENT PLANT SITE
STAGE 2 ASSESSMENT

TITLE
STAGE 1 AREAS OF ARCHAEOLOGICAL POTENTIAL

CONSULTANT
Golder Associates

YYYY-MM-DD	2016-09-07
DESIGNED	JMC
PREPARED	JMC
REVIEWED	SJ
APPROVED	HJD

PROJECT NO.	CONTROL	REV.	MAP
1529718	-	1	7

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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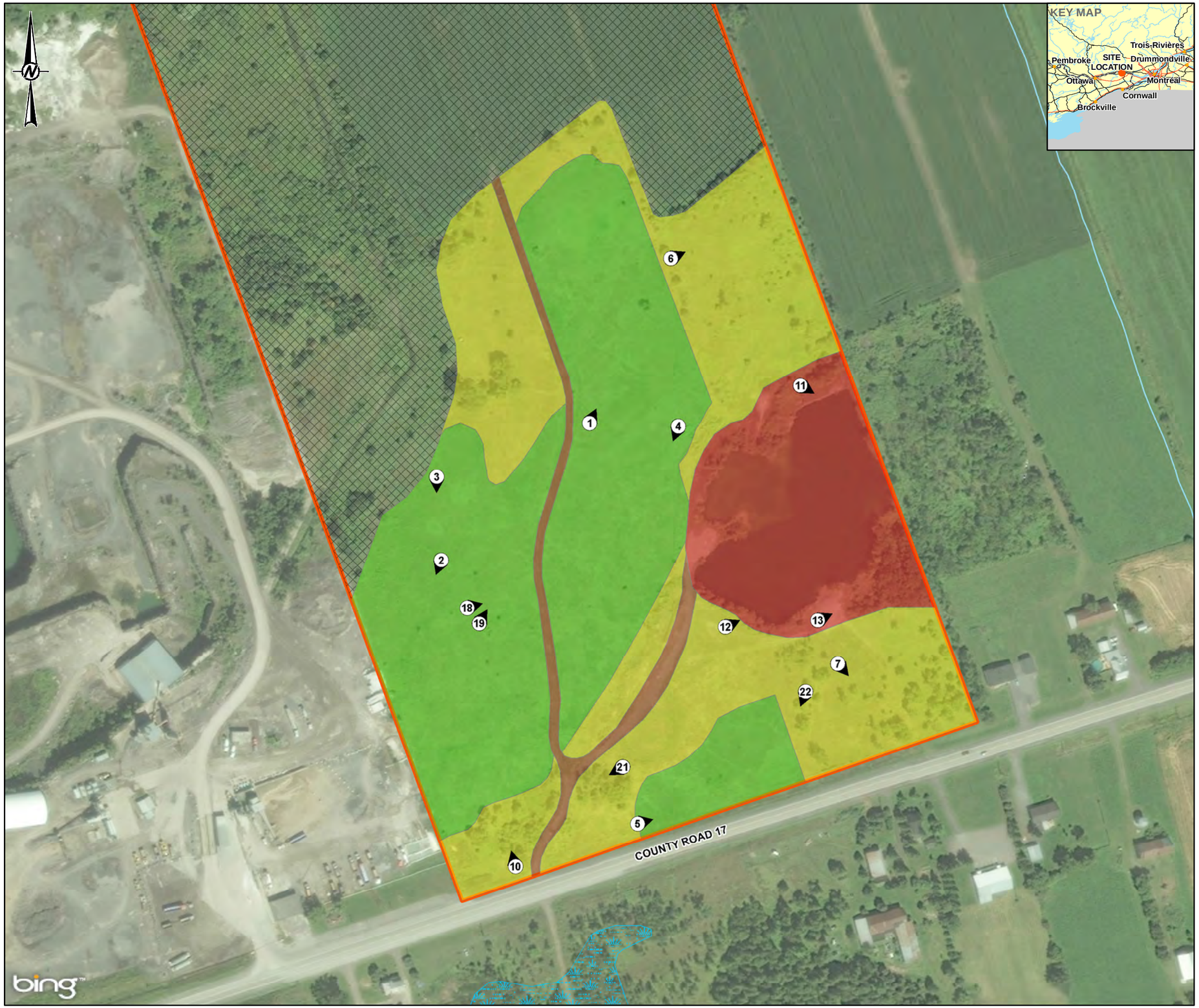

LEGEND

- PHOTO LOCATION
- PEDESTRIAN SURVEY AT 2 TO 5M INTERVALS
- DISTURBED
- DISTURBED ROAD
- TEST PIT SURVEY AT 5M INTERVAL
- NO POTENTIAL FROM STAGE 1
- WATERCOURSE
- WETLAND
- SITE BOUNDARY

0 100 200

1:2,500 METRES

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PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 18

CLIENT
COLACEM CANADA

PROJECT
L'ORIGINAL CEMENT PLANT SITE
STAGE 2 ASSESSMENT

TITLE
AREAS OF SURVEY AND PHOTO LOCATIONS

CONSULTANT
Golder Associates

YYYY-MM-DD	2016-09-07
DESIGNED	JMC
PREPARED	JMC
REVIEWED	SJ
APPROVED	HJD

PROJECT NO.	CONTROL	REV.	MAP
1529718	-	1	8

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM:
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LEGEND

- TEST PIT LOCATION
- FIND LOCATION
- SURFACE SCATTER
- FOUNDATION
- WATERCOURSE
- WETLAND
- SITE BOUNDARY

0 100 200

1:2,500 METRES

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PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 18

CLIENT
COLACEM CANADA

PROJECT
L'ORIGINAL CEMENT PLANT SITE
STAGE 2 ASSESSMENT

TITLE
FIND SPOT LOCATIONS

CONSULTANT
Golder Associates

YYYY-MM-DD	2016-09-07
DESIGNED	JMC
PREPARED	JMC
REVIEWED	SJ
APPROVED	HJD

PROJECT NO.	CONTROL	REV.	MAP
1529718	-	1	9

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM:
0 25mm

S:\Clients\Colacem_Canada\L_Original_Cement_Plant\69_PROJ\1529718_EIS\40_PROD\0012_Archaeology\Stage2\1529718-0012-HA-0009.mxd

CLOSURE

We trust that this report meets your current needs. If you have any questions, or if we may be of further assistance, please contact the undersigned.

Report Signature Page

GOLDER ASSOCIATES LTD.

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SRJ/HJD/mvrd/wlm
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APPENDIX A

Photographic Catalogue

Photo Number	Description	Direction	Date	Photographer
1529718 - 01	View of main ploughed field from north end	SW	42499	SJ
1529718 - 02	View of main ploughed field from central area	NE	42499	SJ
1529718 - 03	View of small ploughed field at the south end of the property	E	42499	SJ
1529718 - 04	View of crew fieldwalking small field	NE	42499	SJ
1529718 - 05	View of crew fieldwalking secondary field	S	42499	SJ
1529718 - 06	View of secondary ploughed field from central area	SE	42499	SJ
1529718 - 07	View of bedrock in ploughed field	N/A	42499	SJ
1529718 - 08	View of secondary ploughed field from north end	S	42499	SJ
1529718 - 09	View of secondary ploughed field from north end	E	42499	SJ
1529718 - 10	View of crew testpitting at the north edge of the primary agricultural field	NE	42499	SJ
1529718 - 11	View of north edge of area of potential	N	42499	SJ
1529718 - 12	View of north edge of area of potential	NW	42499	SJ
1529718 - 13	View of slope down from test pit area to area without potential	W	42499	SJ
1529718 - 14	View of example test pit in fallow agricultural field	N/A	42499	SJ
1529718 - 15	View of example test pit in fallow agricultural field	N/A	42499	SJ
1529718 - 16	View of crew testpitting in fallow agricultural field	W	42500	SJ
1529718 - 17	View of fallow agricultural field from north edge of old quarry	N	42500	SJ
1529718 - 18	View of edge of testing in fallow agricultural field north of old quarry	W	42500	SJ
1529718 - 19	View of general environment in fallow agricultural field	S	42500	SJ
1529718 - 20	View of scraped area along edge of quarry pit	E	42500	SJ
1529718 - 21	View of crew testpitting in meadow north of the secondary agricultural field	W	42500	SJ
1529718 - 22	View of example test pit in meadow	N/A	42500	SJ
1529718 - 23	View of example test pit in meadow	N/A	42500	SJ
1529718 - 24	View of meadow at north edge of secondary agricultural field	SW	42500	SJ
1529718 - 25	View of concrete foundation in middle of secondary agricultural field	SW	42500	SJ
1529718 - 26	View of concrete foundation in middle of secondary agricultural field	SE	42500	SJ
1529718 - 27	View of concrete foundation in middle of secondary agricultural field	NE	42500	SJ
1529718 - 28	View of concrete foundation adjacent to Highway 17	SE	42500	SJ

Photo Number	Description	Direction	Date	Photographer
1529718 - 29	View of distance from concrete foundation to agricultural field	N	42500	SJ
1529718 - 30	View of concrete foundation adjacent to Highway 17	SE	42500	SJ
1529718 - 31	View of concrete foundation adjacent to Highway 17	N	42500	SJ
1529718 - 32	View of concrete foundation adjacent to Highway 17	NE	42500	SJ
1529718 - 33	View of concrete foundation adjacent to Highway 17	N	42500	SJ
1529718 - 34	View of crew test pitting in meadow adjacent to Highway 17	E	42500	SJ
1529718 - 35	View of trash beside concrete foundation	S	42500	SJ
1529718 - 36	View of three full buckets of wire nails	N/A	42500	SJ
1529718 - 37	View of foundation for weight scale adjacent to Highway 17	SW	42500	SJ
1529718 - 38	View of foundation for weight scale adjacent to Highway 17	SW	42500	SJ
1529718 - 39	View of primary and secondary agricultural fields from south edge	N	42500	SJ
1529718 - 40	View of foundation for weight scale adjacent to Highway 17	S	42500	SJ
1529718 - 41	View of foundation for weight scale adjacent to Highway 17	SE	42500	SJ
1529718 - 42	View of crew test pitting in grassy area adjacent to Highway 17	E	42500	SJ
1529718 - 43	View of exposed bedrock	N/A	42500	SJ
1529718 - 44	View of exposed bedrock	N/A	42500	SJ
1529718 - 45	View of disturbance from gravel road to old quarry pit	NE	42500	SJ
1529718 - 46	View of exposed bedrock	N/A	42500	SJ
1529718 - 47	View of exposed bedrock	E	42500	SJ
1529718 - 48	View of scraped area along south edge of old quarry pit	E	42500	SJ
1529718 - 49	View of old quarry pit from south edge	N	42500	SJ
1529718 - 50	View of crew test pitting in old lawn of quarry pit adjacent to Highway 17	SE	42500	SJ
1529718 - 51	View of rubble along south edge of old quarry pit	E	42500	SJ
1529718 - 52	View of scraped area along south edge of old quarry pit	N	42500	SJ
1529718 - 53	View of rubble along south edge of old quarry pit	NE	42500	SJ
1529718 - 54	View of small ploughed field at the south end of the property	W	42500	SJ
1529718 - 55	View of concrete ramp south of old quarry pit	S	42500	SJ
1529718 - 56	View of lawn environment south of old quarry pit	SE	42500	SJ

Photo Number	Description	Direction	Date	Photographer
1529718 - 57	View of example test pit in lawn south of old quarry pit	N/A	42501	SJ
1529718 - 58	View of example test pit in lawn south of old quarry pit	N/A	42501	SJ
1529718 - 59	View of example test pit in lawn south of old quarry pit	N/A	42501	SJ
1529718 - 60	View of example test pit in lawn south of old quarry pit	N/A	42501	SJ
1529718 - 61	View of 1x1m unit south of concrete foundation	N	42501	SJ
1529718 - 62	View of 1x1m unit south of concrete foundation	N	42501	SJ
1529718 - 63	View of 1x1m unit south of concrete foundation	N	42501	SJ
1529718 - 64	View of 1x1m unit south of concrete foundation	W	42501	SJ

APPENDIX B

Artifact Inventory

ID	Prov 1	Prov 2	Material 1	Material 2	Function 1	Function 2	Object	Fragment	Attribute 1	Attribute 2	Manufacture	Alteration	# of Artifacts	# of Objects	Note
13540	FS 01	SP	ceramic	clay: white	personal/ societal	smoking	smoking pipe	bowl	embossed				1	1	
13538	FS 01	SP	glass	indeterminate	food/ beverage	beverage container	bottle: soda	body	enameled/ ribbed	clear/ colourless	machine made		1	1	'[C]ok[e]'
13533	FS 01	SP	glass	indeterminate	indeterminate		bottle: indeterminate	finish: 1 part	plain	amber	indeterminate		1	1	
13532	FS 01	SP	glass	indeterminate	indeterminate		bottle: indeterminate	finish: threaded	plain	amber	machine made		1	1	
13537	FS 01	SP	glass	indeterminate	indeterminate		hollowware: cylindrical	body	plain	clear/ colourless	indeterminate		1	1	
13535	FS 01	SP	glass	indeterminate	indeterminate		hollowware: cylindrical	body	plain	white	indeterminate		3	1	
13534	FS 01	SP	glass	indeterminate	indeterminate		hollowware: indeterminate	body	plain	amber	indeterminate		1	1	
13536	FS 01	SP	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1	
13539	FS 01	SP	glass	manganese	indeterminate		hollowware: cylindrical	body	plain	purple: light	indeterminate		1	1	
13530	FS 01	SP	metal	iron	indeterminate		indeterminate	incomplete					1	1	
13523	FS 01	SP	metal	iron	indeterminate		rod	incomplete					1	1	tool, machinery? possible head at one end, squared tip
13529	FS 01	SP	metal	iron	indeterminate		spool/winder	incomplete					1	1	
13528	FS 01	SP	metal	iron	indeterminate		wire	incomplete					3	1	
13527	FS 01	SP	metal	iron	indeterminate	hardware	staple	complete			wire		3	3	
13525	FS 01	SP	metal	iron	structural	hardware	nail: common	complete	round head		wire		13	13	
13526	FS 01	SP	metal	iron	structural	hardware	nail: common	incomplete	rectangular head		cut		3	3	
13522	FS 01	SP	metal	iron	structural	hardware	spike	complete	rectangular head		cut		2	2	
13521	FS 01	SP	metal	iron	structural	hardware	spike	complete	round head		wire		2	2	
13524	FS 01	SP	metal	iron	tools/ equipment	indeterminate	tool: shovel/spade	incomplete					2	1	Concave strap, shovel socket?
13531	FS 01	SP	plastic	indeterminate	personal/ societal	health/ hygiene	comb	incomplete	plain	black	moulded: contact		1	1	
13520	FS 01	TP 01	ceramic	porcelain: hard paste	indeterminate		indeterminate	incomplete	glaze: lead	brown			1	1	Electrical?
13519	FS 01	TP 01	metal	iron	structural	hardware	spike	incomplete	rectangular head		cut		1	1	
13518	FS 01	TP 02	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		6	1	
13517	FS 01	TP 02	mortar		structural	building component	sample						1	1	
13550	FS 01	TP 03	ceramic	coarse earthenware: red	food/ beverage	indeterminate	hollowware: cylindrical	rim	glaze: lead	brown: light			1	1	

ID	Prov 1	Prov 2	Material 1	Material 2	Function 1	Function 2	Object	Fragment	Attribute 1	Attribute 2	Manufacture	Alteration	# of Artifacts	# of Objects	Note
13551	FS 01	TP 03	ceramic	coarse earthenware: red	structural	building component	brick	incomplete					1	1	
13549	FS 01	TP 03	ceramic	coarse stoneware: grey	indeterminate		hollowware: cylindrical	rim	glaze: salt	brown: light			1	1	
13548	FS 01	TP 03	ceramic	vitrified white earthenware	food/ beverage	tableware	hollowware: cylindrical	body	moulded	clear/ colourless			1	1	
13552	FS 01	TP 03	glass	indeterminate	indeterminate		hollowware: cylindrical	base	plain	clear/ colourless	indeterminate		1	1	
13553	FS 01	TP 04	ceramic	vitrified white earthenware	food/ beverage	tableware	plate: indeterminate	rim	plain	clear /colourless			1	1	
13554	FS 01	TP 04	fauna	bone	indeterminate		mammal	incomplete					2	1	
13555	FS 01	TP 04	metal	iron	structural	hardware	nail: common	incomplete	rectangular head		cut		1	1	
13541	FS 01	TP 05	fauna	bone	food/ beverage		mammal	incomplete				butchered	1	1	
13542	FS 01	TP 05	metal	iron	structural	hardware	nail: common	complete	round head		wire		8	8	
13546	FS 01	TP 06	fauna	bone	food/ beverage		mammal	incomplete				butchered	1	1	
13547	FS 01	TP 06	glass	manganese	structural	electrical	insulator	incomplete	plain	purple: light	moulded: contact		1	1	
13545	FS 01	TP 06	metal	iron	indeterminate	hardware	staple	complete			wire		1	1	
13543	FS 01	TP 06	metal	iron	structural	hardware	nail: common	complete	round head		wire		9	9	
13544	FS 01	TP 06	metal	iron	structural	hardware	nail: lath	complete	rectangular head		cut		1	1	
13492	FS 01	TU 01	ceramic	clay: white	personal/ societal	smoking	smoking pipe	bowl	TD: impressed				1	1	
13491	FS 01	TU 01	ceramic	clay: white	personal/ societal	smoking	smoking pipe	stem	Montreal: Bannerman				1	1	
13490	FS 01	TU 01	ceramic	clay: white	personal/ societal	smoking	smoking pipe	stem	plain				2	1	
13489	FS 01	TU 01	ceramic	coarse earthenware: red	structural	building component	brick	incomplete	indeterminate				1	1	
13494	FS 01	TU 01	ceramic	vitrified white earthenware	food/ beverage	tableware	flatware	base	plain	clear/ colourless			1	1	partial blk tp mark .'..PERIAL../..NE..', probably Royal Arms
13493	FS 01	TU 01	ceramic	vitrified white earthenware	food/ beverage	tableware	flatware	foot ring/ foot rim	plain	clear/ colourless			1	1	
13496	FS 01	TU 01	ceramic	vitrified white earthenware	food/ beverage	tableware	indeterminate	body	plain	clear/colourless			2	1	
13495	FS 01	TU 01	ceramic	yelloware	food/ beverage	indeterminate	hollowware: cylindrical	body	plain	clear/colourless			1	1	
13488	FS 01	TU 01	fauna	bone	indeterminate		mammal	incomplete					8	1	

ID	Prov 1	Prov 2	Material 1	Material 2	Function 1	Function 2	Object	Fragment	Attribute 1	Attribute 2	Manufacture	Alteration	# of Artifacts	# of Objects	Note
13500	FS 01	TU 01	glass	indeterminate	indeterminate		bottle: cylindrical	finish: 2 part	plain	green: light	indeterminate	patinated	2	1	
13499	FS 01	TU 01	glass	indeterminate	indeterminate		mirror	incomplete	plain	aqua: light	indeterminate		1	1	
13497	FS 01	TU 01	glass	indeterminate	personal/ societal	clothing	button: 4 hole	complete	plain	white	prosser		2	2	diff sizes
13498	FS 01	TU 01	glass	indeterminate	structural	building component	window pane	incomplete	plain	aqua: light	indeterminate		1	1	
13502	FS 01	TU 01	metal	copper alloy	personal/ societal	adornment	charm/ medallion/ pendent	complete	embossed: lettering				1	1	'JESUS L'IMMACULEE COCEPTO/ PENITENCE// BASILIQUE DE N. D. DE LOURDES'
13504	FS 01	TU 01	metal	iron	food/ beverage	tableware	knife	incomplete					1	1	flat tang, missing leaves
13503	FS 01	TU 01	metal	iron	indeterminate		closure: threaded / screw cap	incomplete					1	1	
13505	FS 01	TU 01	metal	iron	indeterminate	hardware	screw: indeterminate	complete	countersunk head				1	1	
13506	FS 01	TU 01	metal	iron	structural	hardware	nail: common	complete	round head		wire		5	5	
13507	FS 01	TU 01	metal	iron	structural	hardware	nail: common	incomplete	rectangular head		cut		2	2	
13501	FS 01	TU 01	plastic	indeterminate	indeterminate		indeterminate	incomplete	plain	clear/colourless	moulded: contact		1	1	
13515	FS 02	SP	asphalt		indeterminate		indeterminate	incomplete					1	1	
13516	FS 02	SP	ceramic	coarse stoneware: buff	structural	building component	tile	incomplete					1	1	drainage tile?
13509	FS 02	SP	metal	aluminum	food/ beverage	beverage container	soda can	incomplete	enameled	polychrome			1	1	Coke
13512	FS 02	SP	metal	iron	indeterminate		closure: crown cap	complete					1	1	
13508	FS 02	SP	metal	iron	indeterminate		indeterminate	incomplete					1	1	machinery?
13510	FS 02	SP	metal	iron	structural	hardware	spike	complete	round head		wire		1	1	
13511	FS 02	SP	metal	iron	structural	hardware	spike	incomplete	rectangular head		cut		1	1	
13513	FS 02	SP	plastic	indeterminate	indeterminate		holloware: polygonal	body	plain	black	moulded: contact		1	1	
13514	FS 02	SP	rubber	indeterminate	indeterminate		indeterminate	incomplete	plain	green			1	1	

As a global, employee-owned organisation with over 50 years of experience, Golder Associates is driven by our purpose to engineer earth's development while preserving earth's integrity. We deliver solutions that help our clients achieve their sustainable development goals by providing a wide range of independent consulting, design and construction services in our specialist areas of earth, environment and energy.

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