



Heritage Survey

Proposed Bauxite Mining Operations

**Special Exclusive Prospecting Licence
(SEPL 524)**

St. Ann

WINDALCO

July 2020

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Prepared for

WINDALCO

Prepared By

Archaeology Division

Jamaica National Heritage Trust

79 Duke Street

July 2020



York Castle ruin, St. Ann

SOURCE: JNHT Sites and Monuments Record - 2020

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Table 1	Inventory of Heritage Assets
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Abandoned vernacular house, Camperdown, St. Ann
SOURCE: JNHT Sites and Monuments Record - 2020

S. NON-TECHNICAL SUMMARY

- S.1** Between July 13 and 24, 2020, the Jamaica National Heritage Trust (JNHT) Archaeology Division conducted a heritage survey of proposed bauxite mining area in the parish of St. Ann designated Special Exclusive Prospecting Licence 524 (SEPL 524). The area covers approximately 6,837 hectares of land in the south-eastern section of the parish bordering St. Catherine and Clarendon. The study was commissioned by the developer Windalco.
- S.2** Although SEPL 524 is located about 40 kilometres east of the Cockpit Country Protected Area they both share some common topographical characteristics such as conical limestone hillocks and intermediary depressions, sinkholes, caves, rock shelters, limestones cliffs and dolines. The depressions, varying in size and depth, contain varied grades of Terra Rossa soil which is usually dominated by grassland with exiguous tree scatter. Hillocks, on the other hand, are covered with forest vegetation except in cases where forest fires denude the trees to expose the highly irregular karst limestone surface.
- S.3** SEPL 524 contains numerous small communities that are primarily linear in settlement pattern. These communities emerged out of large historical properties that were engaged in cattle rearing, coffee, and pimento plantation, and to a lesser degree sugar plantation close to the Clarendon border. Each property had its fair share of enslaved Africans. Some property owners rented enslaved Africans (labour force) and stocks to other properties as their principal business and source of revenue. It was not surprising to the researchers that the majority of the depressions today, both large and small, were in pasture ruin. Many of these deserted grasslands still possess vestiges of historic cut stone water tanks with conjoined catchment. Individuals from nearby communities seize the opportunity to raise few heads of cattle on these idle lands making use of water found in the water tanks for watering the animals and fields. No other source of surface water was found except at Pedro River near the Clarendon border. A few small plots in the depressions were observed cultivating yams and

vegetables; some rocky slopes supported fields of herb (marijuana) hidden by the surrounding natural vegetation. The natural vegetation is dense on hillocks and around sinkholes but in some instances forest fire completely or partially denude some hillocks.

- S.4.** A total of 306 heritage sites were captured in the field survey. They represent remnants of our diverse ancestral heritage including the Amerindians (Taino), Europeans and Africans. Apart from historical cut stone water tanks, surficial archaeological assets are sparse in the depressions. The overwhelming majority of significant historical architecture, archaeological sites, caves, and modern communities throughout SEPL 524 are found on hillocks and limestone ridges.
- S.5** The Heritage Survey was conducted in accordance with the Jamaica National Heritage Trust stipulated standards and guidelines for Heritage Surveys. It was also guided by NEPA agreed Environmental Impact Assessment TOR which was developed by Windalco in conjunction with NEPA and other stakeholders in government and the mining and environmental sectors (Appendix 1).
- S.6** The study objective was to ascertain the presence of significant archaeological and historical assets, record their spatial distribution, describe, and appraise their worth in context of the proposed development. The findings of the study are to be incorporated in an Environmental Impact Assessment for SEPL 524. Where necessary, the JNHT will conduct further research on resources possessing national significance and or Outstanding Universal Value; with the goal of preserving and protecting them as National Monument or Protected National Heritage under the JNHT Act, 1985.
- S.7** Baseline data was captured by employing several methodologies such as literature search (consultation of relevant historical narratives, historical maps and plans, JNHT Sites and Monuments Records), Satellite image survey; for identifying visible archaeological ruins, archaeological anomalies e.g. soil mark and crop or vegetation marks, historical features (water tanks, ponds and

buildings and packed stone property boundary lines). Field Walk Survey was conducted to confirm and appraise all features identified in literature search, satellite image and map survey. In addition, Field Walk Survey was used to identify heritage sites along road networks, historical trails, and modern footpaths. Community members were interviewed and oftentimes employed as guides. All significant heritage assets were recorded using photographs, illustrations, descriptive notes, and spatial references captured using Global Positioning System (GPS). JAD 2001 datum system was utilized to record the location of heritage assets. It is important to note that geophysical or planned excavation techniques were not employed as methods to identify the presence of subsurface archaeological resources due to their time consumption nature. Instead, chance finds from soil tilling in agriculture plots, soil eroded banks, construction excavations and mining test pits were used to determine the possible location of buried archaeological sites. It is therefore understandable that the vast majority of heritage assets identified in this study is surficial. This is by no means suggesting that the quantity of subsurface archaeological vestiges is miniscule or inconsequential. *"The absence of evidence is not the evidence of absence", Professor James Robertson, 2019.* To ensure the study area was covered as far as possible within the agreed ten days field survey duration; the area (SEPL 524) was divided into eight zones. Two teams of four archaeologists were assigned to four zones each. Daily collected data was collated and inventoried at the close of each day.

S.8 The following table (Table 1) presents an inventory of heritage resources identified in the study area that may be impacted by the bauxite mining operation. The table gives a cursory description of the sites identified, images, location, and the classification of significance. Classification of significance was placed in three main groups: namely, (a) High Significance (HS), (b) Moderate Significance (MS) and (c) Low Significance (LW). Criteria used for placing sites in their respective class are as follows:

a. High Significance (HS)

- i. Aesthetical Value
- ii. Archaeological Value

- iii. Association – *with iconic figure or historical event*
- iv. Authenticity
- v. Historical Value
- vi. Rarity
- vii. Religious Value
- viii. Spiritual Value

b. Moderate Significance (MS)

- i. Natural Features
- ii. Partially modified historical assets
- iii. Disturbed archaeological site
- iv. Insular assets that has little value mentioned in section (a) and has a high representative sample




c. Low Significance (LS)




- i. Fully modified historical assets
- ii. Destroyed archaeological site
- iii. Modern features and structures





- Resources of high significance speaks to those assets which should be protected and preserved.
- Moderate significance speaks to sites that should be inventoried and key authentic elements or sample protected and preserved.
- Low significance speaks to sites which should be inventoried, relocated, or modified for adoptive re-use.











TABLE 1.





INVENTORY OF HERITAGE ASSETS – SEPL 524							
	IMAGE	SITE	DISTRICT	Coordinates (North)	Coordinates (West)	Comments	Significance
1		Water Tank	Ballimony	674830	731309	Square cut stone water tank with side by side rectangular water troughs	MS
2		Water trough	Ballimony	675153	731274	<u>Ensemble</u> Small square water trough beside ruinate of small pen/ enclosure.	LS
		Water Tank				Square cut stone water tank with raised catchment	MS




		House Ruins				Remnants of house foundations and other detached structures.	LS
3		Seasonal Spring	Ballimony	677074	730699	A seasonal spring encased in a cut stone cistern. This use to be a reliable source of drinking water.	MS
4		Small Vernacular Nog-walled House	Ballimony	677069	730426	Small vernacular nog-walled house ruin that was constructed on cut stone foundation with small circular. Water tank and graves present in the yard.	LS





5		Large vernacular house	Ballimony	677134	730389	<u>Ensemble</u>	MS
		Detached kitchen				Large vernacular nog-walled house on cut stone foundation with hipped gable roof and shed roof painted orange and black.	
		Historical Cut stone Oven				Small detached and dilapidated nog-walled kitchen with hip roof.	
		Historical cut stone water tank				Baking oven made from cut stone and lime mortar in good condition. A detached nog-walled latrine was present.	
						Historical cut stone water tank with fairly large attached catchment.	MS





6		Historical Cut stone water tank	Ballimony	676792	730561	Cut stone water tank with catchment on raised cut stone platform.	MS
7		Vernacular House	Ballimony	676733	730729	Abandoned vernacular nog-walled house with gable and pitch roof exposing original shingles. A square historical cut stone water tank in the yard.	MS
8		Sink Hole 1	Ballimony	676637	730784	Eric Carter (90s) fell into the sink hole and was missing for four days. After protracted search he was found unhurt in the sink hole. He claimed angels protected and fed him.	MS
9		Vernacular House	Ballimony	676663	730734	<u>Ensemble</u> Vernacular nog-wall house painted purple with stone steps and fretwork over windows.	MS





		Vernacular shop				Historical vernacular nog-walled shop painted cream and a light shade of pink.	MS
		Brick Oven				A degenerated historical brick oven was observed in the yard.	MS
10		Vernacular House	Ballimony	676188	730636	Small vernacular nog-walled house with zinc shed and gable roof on raised cut stone foundation with cellar and glass louvres windows. A circular cut stone water tank present in the yard.	MS
		Graveyard				Small graveyard with seven historical graves and 5 modern graves within property walls.	HS




11		Historical Vernacular House	Ballimony	676137	730568	<u>Ensemble</u> Nog-walled house on raised cut stone foundation with cellar. It has a deteriorated zinc hip roof exposing original shingle roofing underneath. Vestiges of detached kitchen and barbecue were observed.	MS
		Historical water tank (Square)				Square cut stone water tank made with red dirt tempered lime mortar.	MS
		Historical water tank (circular)				Circular cut stone water tank.	MS
		Graveyard				Three modern graves are also located within the property boundary.	HS





12		Historical Water Tank	Ballimony	676591	730716	Historical cut stone water tank with catchment.	HS
13		Vernacular Shop	Ballimony	676962	730454	Vernacular nog-walled shop with zinc shed roof.	LS
14	 	Historical water tank Historical brick oven	Ballimony	676962	730454	<u>Ensemble</u> Refurbished cut stone water tank with date engraved (9/11/1937). Remnants of historical brick oven with lime mortar rendering.	MS LS





15		Ballimony Seventh Day Adventist Church	Ballimony	676962	730454	<u>Ensemble</u> Historical restored church.	HS
		Vernacular Building				 This building was used as the community school. It is a nog-wall building on a raised stone platform with gable roof.	HS
		Graveyard				 Graveyard with five modern graves.	HS
		Detached historical Building				 Detached nog-walled structure.	HS

18		Vernacular Nog Wall House	Ballimony	676609	730093	<u>Ensemble</u> Nog wall house with zinc shed roof and concrete block attachment to the back. It is on raised foundations with cellar.	<u>MS</u>
		Out house				Ruinate latrine constructed with nog wall material	LS
		Tank and catchment				Cut stone circular water tank with raised catchment and conjoined water trough	MS
		Graveyard				Two historical graves dating back to 1925. (European earthenware sherds on surface).	HS





19		Sink Hole	Ballimony	676469	730071	Deep sinkhole inundated by dense vegetation cover.	MS
20		Historical water tank and burnt out house	Ballimony	676739	730113	A circular cut stone water tank with two conjoined rectangular water troughs, A small nog wall outhouse, burnt remains of a house and three historical graves were present.	LS
21		Vernacular House	Ballimony	676894	730189	Nog wall house with gable roof, raised cut stone foundation, painted aquamarine, cream and white. The structure is abandoned.	HS
22		Vernacular house	Ballimony	676918	730416	Renovated historical house with hip roof, painted grey and brown; located atop conical hill with historical property wall. Historical cut stone barbecue is present.	HS




23		Vernacular House	Ballimony	675878	730807	Nog wall house with sections painted light blue and other section unpainted. Wooden door with fretwork. Has a gable roof, glass louvre windows.	MS
24		Vernacular House	Ballimony	675827	730794	Small nog walled house with zinc gable roof painted light pink with French/ sash windows. Four panel light blue door with fret work on cut stone foundation.	MS
25		Historical water tank	Ballimony	675370	730956	Circular cut stone water tank with cut stone catchment slightly raised located at the base of a stony conical hillock.	MS
26		Historical water Tank	Ballimony	674901	731728	Cut stone water tank with affixed cut stone trough.	MS





27		Small trough	Ballimony	674803	731536	Cut stone trough	LS
28	 	Vernacular House Water Tank	Ballimony	674794	731669	Nog wall house (unpainted) on raised cut stone foundation with wooden louvre windows and shingle hip roof (abandoned) Square cut stone water tank.	LS MS
29		Historical water tank	Ballimony	674438	731625	Historical circular cut stone water tank.	MS





		House Ruin				Cut stone house ruin. The ruins known as “Mantrail House”	MS
30		Sink hole	Ballimony	674447	731751	Sink hole inundated by vegetation cover.	MS
31		Bensonton Methodist Church	Bensonton	676576	727216	Bensonton Methodist Church, a cut stone building with stained glass above sash windows. Bensonton Primary and Infant schools on premises. A Belfry located beside the church.	HS
32		Waltham Baptist Church	Bensonton	676201	727460	A cut stone church with French windows, painted in light yellow. There are two graves close to the church, and a cemetery. Two additional vernacular houses are on the land.	HS





33		Historical graves	Bensonton	676216	727428	There are four historical graves in a large yard to the front of a house ruin across from the Baptist Church.	HS
34		Vernacular House	Bensonton	676285	727416	Yellow and gray vernacular house is located on the hill in the proximity of the church. It displays a gable roof	HS
35		Catchment and tank	Bensonton	676478	727242	Large tank and catchment for serving community.	HS
36		Large Pond	Brown's Valley	679534	729238	Pond in pasture.	MS





37		Vernacular Property House	Brown's Valley	680402	728857	Vernacular Property house with sash windows, lenti, wooden verandah with wooden frame, cut stone foundation and cellar. A barbecue is also located on the property.	HS
38		Stone Ruin	Camperdown	674783	733204	Foundation of historical ruins made from cut stone. There is an abandoned concrete house located in the rear.	LS
39		Vernacular House	Camperdown	674265	733411	This nog wall vernacular house on raised cut stone foundation. The structure is abandoned. It has a degenerated zinc hip roof. Five modern graves are in the yard.	MS
40		Church	Camperdown	674235	733465	Abandoned cut stone church with zinc gable roof. There is a cut stone water tank behind the church and three modern graves in the yard.	HS


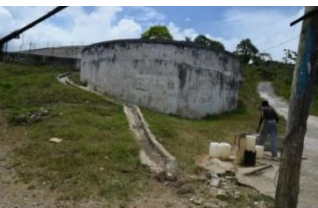


41		Foundation Ruin	Camperdown	674221	733436	Cut stone foundation of building with a cut stone water tank with lime mortar.	MS
42		Vernacular nog wall house	Camperdown	673694	733485	Large vernacular nog wall house on raised foundations with cellar. It is painted green and brown with a pitch and gable roof and has a small verandah. A square tank in front of this house.	HS
43		Vernacular nog wall house	Camperdown	673738	733471	Small vernacular house painted green with yellow door and hip roof. There is also a dilapidated unrendered nog wall structure with shed roof in the yard.	HS
44		Vernacular House	Camperdown	673754	733493	This house painted blue has nog walls but is built around by modern block and steel additions. This house was built in the 1960s.	MS





45		Historical water tank	Camperdown	673778	733527	This square cut stone water tank is believed to be built in the 1850s and is still in use.	MS
46		Vernacular house	Camperdown	673651	733497	This little abandoned nog wall house is partially inundated by vegetation. It is nestled on a ridge between two hillocks overlooking a depression.	MS
47		Sink Hole	Camperdown	673576	733575	Massive sink hole.	MS
48		Cut stone foundation	Christopher	677368	728618	Assemblage of features which include a cut stone water tank and catchment.	LS
49		Historical Grave	Christopher	677388	728604	One historical grave.	MS

50		House foundations	Christopher	677399	728626	Two cut stone house foundation.	LS
51		Grave Site	Christopher	677376	728694	A total of eight historical graves which include adults and children.	HS
52		Cut stone Foundation	Christopher	677410	728752	Cut stone foundation of a house and a square cut stone water tank.	MS
53		Historical Graves	Christopher	677407	728778	Two historical graves.	MS

54		Cave	Christopher	677484	728991	Cave which extends deep in the ground.	MS
55		Caves	Christopher	677474	728966	Two small caves, possibly chambers of the previous cave.	MS
56		Cave	Christopher	677469	728922	Cave with a large entrance.	MS
57		Historical Grave	Christopher	677126	728922	One historical grave and three cut stone foundations.	MS

58		Vernacular House	Christopher	677394	728540	Vernacular house with jalousie windows, gable roof, nog wall and cut stone foundation.	MS
59		Historical Graves	Christopher	677411	728528	Four historical graves consisting of two adults and two children.	HS
60		Vernacular house	Clover Hill	675624	733729	Vernacular nog wall house with gable and pitch roof on raised cut stone foundation.	MS
61		Cut stone ruins	Clover Hill	675861	733748	Historical cut stone foundation with one modern grave and a small, square cut stone water tank with attached catchment.	LS




62		Cut stone ruins	Clover Hill	676032	733749	Two historical cut stone foundations in ruin one of which may possibly be a detached kitchen or latrine.	LS
63		Large water tank	Clover Hill	675151	733765	Community water tank and catchment.	HS
64		Vernacular nog wall shop	Clover Hill	675118	733783	Nog wall shop has zinc shed roof painted green and yellow.	HS
65		Vernacular nog wall house	Clover Hill	675021	733736	Nog wall house with gable zinc roof, French and louvre windows. It is painted pink. There are two square water tanks: one at the front and the other at the rear.	MS

66		Cut stone water tank	Clover Hill	676059	733952	This historical water tank is square with a catchment and connected to a trough below. Located in a depression.	MS
67		Vernacular House	Concord	674937	727091	Vernacular house with jalousie windows, gable and hip zinc roof with the original shingle beneath. An outdoor latrine and a barbecue are present.	MS
68		Historical Graves	Concord	674979	727087	Three historical graves.	MS
69		Dilapidated vernacular House	Concord	674846	727345	Roofless vernacular house ruin. It has a cut stone foundation and has a cut stone tank along with five historical graves.	LS

70		Historical graves	Concord	674748	727445	Three graves one of which is historical. There are two house foundations and cut stone water tank on property.	HS
71		Cut stone house foundation	Concord	674754	727475	A vernacular house cut stone foundation with barbecue and a latrine.	LS
72		Vernacular house, cut stone foundation and graves	Concord	674709	727519	Cut stone foundation of vernacular house with three graves. Two of the graves are historical with one modern. One historical grave is elaborately decorated.	MS
73		Historical graves	Concord	674539	727711	There are four historical graves two children and two adults. The property also possesses a cut stone water tank with catchment and a cut stone house foundation.	HS

74		Historical graves	Concord	674555	727572	Three historical graves and a cut stone foundation and water tank.	MS
75		Vernacular house	Concord	674414	727752	Cream coloured nog house with gable roof on a hill.	LS
76		Grave site	Concord	674965	726945	There are fourteen historical graves of which eleven are historical.	HS
77		Historical grave site	Concord	675195	727203	A total of twenty graves, nineteen of which are historical.	HS





78		Cut stone foundation ruin	Concord	675195	727203	Vernacular house cut stone foundation ruin with steps.	LS
79		Grave site	Concord	675202	727284	There are eleven historical graves.	HS
80		Vernacular house	Concord	675119	727128	Cream colored, vernacular house with shingle under zinc hip roof and jalousie windows. The yard has a cut stone water tank with catchment. There are several historical graves.	MS
81		Historical graves	Concord	675217	727230	There are three graves two of which are historical.	HS





82		Historical graves	Concord	675224	727136	A total of four historical graves in a graveyard	HS
83	 	Vernacular house	Concord	675091	727118	<p><u>Ensemble</u> A purple vernacular house with hip roof, fretwork, lentils and cut stone foundation. It has sash windows, a cellar, and cut stone steps. A water tank with catchment is close to the house.</p> <p>An additional nog house is in yard with a gable roof. A nog kitchen and graves were observed.</p>	HS
84		Historical graves	Concord	674522	726786	A total of five historical graves in two locations on the property. A dilapidated nog house with gable roof and shingle roof is present.	HS

85		Grave site	Concord	674602	726768	A total of twenty-four graves nineteen of which are historical.	HS
86		Vernacular house	Concord	674482	726790	Vernacular house with gable roof, sash windows, cut stone foundation and water tank. Two graves are in yard.	MS
87		Vernacular shop	Concord	675091	727118	An ensemble of historical structures. A vernacular shop with cut stone foundation, a nog house with gable roof, a house ruin, and a cut stone water tank.	MS
88		Nog house	Concord	674435	726783	A nog house with gable roof and sash windows. A modified house with cut stone foundation is also present and a nog latrine.	HS





89		Vernacular shop	Concord	674271	726796	A small vernacular shop with cut stone and limestone mortar.	MS
90		Sacred Heart Church with Belfry	Concord	673936	726797	Catholic Church made with cut stone walls.	HS
91		Sacred Heart Church Cemetery	Concord	673963	726784	Extant gravesite in the Church yard.	HS
92		Sink hole and cave	Concord	673820	726965	Located behind the Sacred Heart Catholic Church.	MS



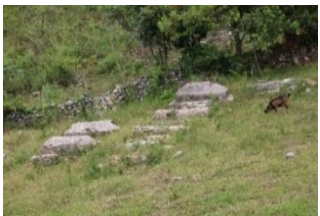
93		Depression\ Sink hole	Concord	673820	726982	Sinkhole in depression.	MS
94		Vernacular house	Concord	674010	726769	Old vernacular house with cut stone foundation and nog walls.	MS
95		Vernacular shop	Concord	673958	726752	Blue and white vernacular shop with shingle roofing.	HS
96		Cut stone tank with catchment	Concord	673808	726780	Cut stone tank.	MS





97		Vernacular house	Concord	673736	726922	Vernacular house in valley on a gradient. Has a gable roof and a cut stone foundation and a water tank in the vicinity.	MS
98		Cut stone tank	Concord	673808	726780	Small cut stone tank.	MS
99		Old church foundation	Concord	673567	726758	Old cut stone foundation of a small church. Two additional cut stone foundations.	LS
100		Rain gauge in river basin	Concord	672883	726989	Sink holes with rain gauge.	HS





101		Vernacular house	Concord	673479	726989	Vernacular house with cut stone foundation and jalousie windows, gable roof and nog walling. An additional small blue nog house with modern additions is also located nearby.	MS
102		Historical graves	Concord	673471	727013	A total of six graves cemented off to form a barbecue. There is a foundation of a latrine along with two additional modern graves.	HS
103		Foundation	Concord	673497	726978	Historical foundation rubbles. Several pieces of artefacts were identified in this location.	LS
104		Historical graves	Concord			A total of six graves, four of which are historical.	HS





105		Vernacular house foundation	Concord	673365	727090	Cut stone house foundation, water tank and six historical graves.	LS
106		Historical graves	Concord	673334	727113	Three historical graves.	HS
107		Cut stone foundation with cut stone oven/kiln	Concord	673309	727151	Historical cut stone oven with foundation and foundation for a latrine.	LS
108		Flood gate	Concord			Flood gate which is closed when the river rises.	HS





109		Historical graves	Drumily	678162	728327	Three historical graves one of which is constructed as part of a wall.	HS
110		Historical graves	Drumily	678160	728310	Two historical graves.	HS
111		Vernacular house	Drumily	678254	728316	Aquamarine vernacular house which has been abandoned. Has cut stone foundation and hip roof. A tank and barbecue are also in yard.	MS
112		Grave site	Drumily	677987	728206	Nine graves, eight of which are historical.	HS





113		Grave site	Drumily	677987	728206	<p>Nine graves, seven of which are historical, made with cut stone and limestone mortar.</p> <p>Prayer meeting house which is a nog structure.</p> <p>A vernacular house with sash windows, gable roof and cut stone foundation.</p> <p>Another vernacular structure with cut stone foundation is in the yard.</p> <p>One historical grave was seen.</p>	HS
114		Vernacular kitchen	Drumily	677928	728146	<p>Nog walled kitchen with gable roof.</p> <p>Cut stone water tank.</p> <p>A nog walled shop with wooden windows.</p>	MS
115		Graves in valley	Drumily	678028	727851	<p>A total of fifteen graves, fourteen of which are historical.</p>	HS





116		Vernacular house	Drumily	678092	728246	A pink vernacular house with cut stone foundation with french windows and french doors.	MS
117		Grave site	Drumily	678103	728228	A total of eight graves, five of which are historical. A small cane field surrounds these graves. A vernacular house is located behind.	HS
118		Grave site	Drumily	678046	728242	Eleven graves, nine of which are historical.	HS
119		Grave site	Drumily	677959	728187	A total of six graves, five of which are historical.	HS





120		Dilapidated vernacular house	Drumily	677949	728164	Vernacular house with shingle roofing, sash windows, nog walling, cut stone foundation and gable roof. It is in ruin.	MS
121		Cut stone tank	Drumily	677943	728181	Cut stone water tank.	LS
122		Nog latrine	Drumily	677970	728105	Nog walled latrine.	LS
123		Vernacular house	Drumily	678009	727983	Vernacular house with sash windows, hip roof, french and jalousie windows to rear. It also boasts shingle roofing and cut stone foundation.	MS





124		Vernacular house	Drumily	678028	727851	Peach, green and grey vernacular house. It displays french windows, cellar and cut stone foundation. There is a catchment and water tank present in yard.	HS
125		Edinburgh Castle	Drumily	678007	727655	Cut stone foundation ruin of the renowned Edinburgh Castle. Declared National Monument.	HS
126		Nog house	Drumily	677994	727859	Nog walled structure with hip roof and a wooden door.	MS
127		Grave site	Drumily	677936	727800	A cluster of historical graves.	HS





128		Historical graves	Drumily	677960	727737	Five graves, four of which are historical.	HS
129		Graves	Drumily	677960	727737	Five historical graves.	HS
130		Vernacular house	Forsa	679922	730214	Vernacular house on hill with terrazzo tiled verandah. Four graves on site.	MS
131		Vernacular house ruin	Forsa	680056	730386	Dilapidated house ruin with a cut stone foundation.	LS





132		Historical grave site	Forsa	679933	730191	Large split-level grave which represents a number of graves sealed together.	MS
133		Vernacular house foundation ruin	Forsa	679907	730256	High cut stone foundation.	LS
134		Grave site	Forsa	680066	730361	Three graves one of which is historical.	HS
135		Water tank	Forsa	680068	730390	Cut stone water tank connected to house.	MS




136		Dilapidated house	Forsa	680078	730333	Light blue abandoned vernacular house ruin with cut stone foundation. There is a cut stone water tank with a yam field in the vicinity.	MS
137		Vernacular house ruin	Forsa	680051	730329	Dilapidated vernacular house ruin.	LS
138		Cattle water tank	Forsa	679371	730714	Rectangular in shape made of cut stone with lime mortar	MS
139		Unidentified historical cut stone structure	Forsa	679282	730896	Ruined semi-circular cut stone structure, it was destroyed by a fig tree that is growing out of it. Local farmer indicated that a white lady plant flower in it.	LS




140		Large water tank	Friendship	680701	732585	Very large cut stone water tank with semi-circular catchment.	HS
141		Historic cut stone grave	Friendship	681068	732676	This historical grave is located in the Friendship Seventh Day Adventist church.	HS
142		Small nog wall house	Friendship	680974	732972	This structure has nog wall with a wooden shingled gabled roof. It has four glass windows, french doors with lintel and cut stone steps.	MS
143		Historical graves	Friendship	680911	732494	<u>Ensemble</u> Seven historical cut stone and nog material graves. Seems to have been a family plot.	HS





		Modern graves				There are also five modern graves located just outside the fence which are believed to be part of the same family.	
144	 	Historical cut stone graves	Friendship	680950	732864	<p>Five historical graves and one tomb located on private property. Two modern graves were also identified close by.</p> <p>Nine modern graves and two historical graves were located on the other side of the road.</p>	MS
145		Water tank	Gibraltar	677450	735069	Square cut some water tank rendered with lime mortar.	





						There is evidence of cut stone rubble believed to be foundation of a house.	MS
146	  	<p>Vernacular nog wall house</p> <p>Water tank</p> <p>Foundation</p>	Gibraltar	677413	735067	<p><u>Ensemble</u></p> <p>The roof was recently restored, and the house painted.</p> <p>Cut stone tank with catchment.</p> <p>Cut stone foundation of what was once a kitchen next door to a house.</p>	HS





147		Concrete marker	Gibraltar	677258	734933	Concrete marker possible survey station.	MS
148		Water tank	Gibraltar	676827	734642	Large cut stone water tank with catchment for the community.	HS
149	 	Vernacular nog wall house	Gibraltar	676819	734594	House on raised cut stone foundation with hip roof. Small graveyard with modern graves.	HS

150		Historical grave	Gibraltar	676844	734559	One historical grave.	MS
151		Vernacular house	Gibraltar	677157	734011	Nog wall house with gable and hip roof on cut stone foundation.	
152		Jeffreyville Methodist Church	Gibraltar	676749	734713	This church was built in 1895. It is made from cut stone with a zinc gable roof. The cemetery has both modern and historical graves.	HS
153		Historical House	Gibraltar	677195	734809	<u>Ensemble</u> Extant vernacular nog wall house with modern additions on raised cut stone foundation painted green and square, cut stone water tank in yard.	HS




		House and foundation of ruin				Vernacular house and detached cut stone foundation.	
154		Historical House	Gibraltar	677167	734847	Extant. Vernacular nog wall house painted cream with raised cut stone foundation and gable and pitch roof, two doors painted red with two stone steps.	MS
155		Historical house and water tank	Gibraltar	677282	734694	Abandoned vernacular nog wall house with modern additions to the front and back on raised cut stone foundation with cellar. A square, cut stone water tank in the yard.	MS


156	 	<p>Historical water trough</p> <p>Water Trough</p>	Gibraltar	676458	734123	<p>Ellipse-shaped cut stone water trough.</p> <p>Small, rectangular cut stone water trough.</p>	MS
157		Historical water trough	Gibraltar	676477	734373	Ellipse-shaped cut stone water trough.	MS
158		Taino village site	Gibraltar (Taylors Corner)	677020	733985	Taino pottery sherds commingled with Afro Jamaican pottery sherds and European ceramic sherds observed on the surface.	HS





159		Historical graves	Gibraltar (Taylors Corner)	677104	734033	Two single historical graves made from cut stone with lime mortar. One large grave appears to be two in one.	HS
160		Sink Hole	Gibraltar (Taylors Corner)	676701	733869	Series of sink holes that are connected.	MS
161		Cut stone foundation	Gravel Hill	678990	726877	Cut stone foundation in ruin with a cut stone water tank.	LS
162		Vernacular house	Gravel Hill	678747	721053	Light yellow cut stone foundation, sash windows and cut stone water tank.	MS





163		Vernacular house	Gravel Hill	678203	721053	Two small yellow and green vernacular houses with cut stone foundation.	MS
164		Historical graves	Gravel Hill	677426	726946	There are eight graves four of which are historical.	HS
165		Vernacular house	Gravel Hill	677321	726886	Vernacular house with cut stone foundation. Nog kitchen and a cut stone tank.	HS
166		Cut stone foundation	Gravel Hill	678035	726967	Cut stone foundation.	LS





167		Vernacular house	Gravel Hill	677321	726886	Vernacular house with jalousie windows, hip roof and nog walling.	HS
168		Vernacular house	Gravel Hill	676556	726783	Abandoned house with cut stone foundation, french doors, sash windows and partial hip roof.	MS
169		Vernacular house	Gravel Hill	675431	726794	Vernacular house with jalousie windows, cut stone foundation and gable roof. A cut stone water tank is also present.	MS
170		Vernacular house	Grierfield	680434	733898	<u>Ensemble</u> Extant vernacular nog wall house with modern additions with gable roof and raised cut stone foundation. It conjoins a modern building.	MS





		Historical graves				There is a blend of historical and modern graves to the front and back of the property. Three of the graves are historical.	
171		Historical ruins	Grierfield	680201	733995	Historical ruins made of cut stone and nog material.	LS
172		Water trough	Grierfield	678309	734852	Constructed with stone rendered with lime mortar.	LS
173		Cut stone water tank	Grierfield	678552	734762	Square tank constructed with cut stone and lime mortar.	LS





174		Fortified structure	Grierfield	678732	735194	<p>This fortified structure is located at the top of a conical hill. There are six-gun holes on standing wall. The structure is estimated to be 14 x 23 meters.</p>	MS
		Graves					
		Stone and lime mortar foundation				<p>Located at the foot of the hill. Two modern concrete graves conjoined. They are believed to be mother and daughter.</p> <p>Remnants of a burnt historical wooden building.</p>	
175		Grierfield Great House	Grierfield	679414	735255	Extant Great House believed to be the residence of former Minister of Tourism Aloun Assamba.	HS





176		Historical cut stone water catchment	Grierfield	680599	734237	Circular cut stone water tank with conjoined catchment situated in a depression.	MS
177		Vernacular house	Harmony Vale	679395	728253	Vernacular house with cut stone foundation, sash windows, lenticular and fretwork.	MS
178		House foundation ruin	Harmony Vale	679130	728258	House foundation with stones. Artefacts were found in this rubble.	LS
179		Historical graves	Harmony Vale	679039	728292	Three historical graves with large overgrown crotons.	HS





180		Vernacular house	Harmony Vale	679162	728435	Cream coloured vernacular house with gable roof, sash and jalousie windows, cut stone foundation, fretwork and verandah with wooden railing.	HS
181		Kiln	Harmony Vale	679098	728499	Historical cut stone kiln/oven. In addition, a nog walled toilet structure was identified.	MS
182		Vernacular house	Harmony Vale	679032	728481	Aquamarine vernacular house with an elevated cut stone foundation and cellar, verandah with wooden rails, sash windows, french doors and lenti.	MS
183		Historical graves	Harmony Vale	678813	728466	There are five graves in yard, four of which are historical.	HS





184		Vernacular shop	Harmony Vale	678765	728534	Cream and brown vernacular shop with piazza.	HS
185		Grave site	Harmony Vale	679480	727990	Five graves were identified, three of which are historical.	HS
186		Cave	Harmony Vale	679848	728468		MS
187		Vernacular house	Harmony Vale	679382	728245	Vernacular house which is over 100 years old. Cut stone foundation with french windows and jalousie windows. A barbecue and cut stone tank are also present.	HS





188		Grave site	Harmony Vale	679356	728259	Extant family plot with thirty-two graves, thirteen of which are historical.	HS
189		Historical grave	Harmony Vale	679280	728300	Five historical graves in front of modern house.	HS
190		Basic school ruin	Harmony Vale	679227	728285	Cut stone foundation of former basic school.	LS
191		Historical graves	Harmony Vale	679039	728292	Two historical graves.	HS





192		House foundation	Harmony Vale	679055	728294	Cut stone foundation ruin of house.	LS
193		Historical graves	Harmony Vale	679039	728292	Three historical graves.	HS
194		Coffee Complex	Harmony Vale	678993	728326	Large cut stone structure with chimney.	HS
195		Historical graves	Harmony Vale	679105	728524	Seven historical graves made from nog and cut stone. An additional three were identified, two of which are historical.	HS




196		Vernacular house	Harmony Vale	678946	728431	Cream vernacular house with nog walling and a shop.	MS
197		Vernacular house	Harmony Vale	678925	728445	Pink vernacular house with cut stone foundation, gable roof and sash windows.	MS
198		Grave site	Harmony Vale	678873	728422	Seventeen graves, fifteen of which are historical. Eight of these are graves of children. Cut stone foundation is located behind these graves.	HS
199		Grave site	Harmony Vale	678758	728477	An ensemble of fourteen graves, nine of which are historical.	HS




						Cut stone tank in yard and vernacular house with cut stone foundation. The house displays sash window, double hip roof and a cellar.	
200		Vernacular house	Harmony Vale	678780	728492	Cream coloured house with nog out house which has a modern addition. It displays sash windows, lentils, wooden doors, hip roof and has a cut stone wall along the road.	HS
201		Historical graves	Harmony Vale	678571	728382	A total of twelve graves, seven of which are historical and made from cut stone.	HS
202		Harmony Vale Square	Harmony Vale	679549	728263	Vernacular shop with nog wall and gable roof. Additional nog wall shop with wooden windows and door	MS





203		Grave site	Harmony Vale	679486	727993	A total of twelve graves were identified, nine of which are historical. Five of the graves are that of children.	HS
204		Kiln\oven	Harmony Vale	679491	728014	Kiln made of cut stone. It is in ruin.	LS
205		Historical graves	Harmony Vale	679162	727856	Two historical graves made from cut stone and nog.	HS
206		Cut stone foundation	Harmony Vale	679124	727872	Cut stone foundation ruin with cut stone water tank.	LS





207		Historical graves	Harmony Vale	679034	728059	Three historical graves made from cut stone and lime mortar.	MS
208		Cut stone foundation	Harmony Vale	679048	728094	Cut stone foundation with nog wall, hip roof and a cut stone water tank. A barbecue is also on the property with an additional cut stone foundation to the rear.	MS
209		Historical grave site	Harmony Vale	678028	728403	Twenty-three graves were recorded, twenty-one of which are historical.	HS
210		Grave site	Harmony Vale	678015	728281	A cluster of graves, five are historical.	HS





211		Harmony Vale Parish water catchment	Harmony Vale	679472	728371	Water Catchment and tank.	HS
212		Harmony Vale Baptist Church	Harmony Vale,	679625	728299	Baptist Church with Basic School in yard. The former church ruin of the Baptist church is in close proximity.	HS
213		Cut stone foundations	Hope Hill/ Pleasant Hill	674124	729357	Two cut stone foundations with cut stone boundary walls.	LS
214		Extant vernacular nog wall house	Lincoln	678857	731358	Vernacular house in good condition. Painted green over white with red zinc roof. It has a square water tank and five modern graves in the yard.	HS


215		Stone wall landscaping	Lincoln	678788	731419	Packed stone property boundary wall was meticulously engineered to depict outstanding landscaping.	HS
216		Small vernacular nog wall house	Lincoln	678951	731474	Partially destroyed nog wall house with gable roof. According to one resident, it is called a saddle top house. There are fourteen modern graves located in the yard.	LS
217	<p>Not Shown</p> 	<p>Historical nog wall shop</p> <p>Vernacular nog wall shop</p>	Lincoln	679296	731547	<p><u>Ensemble</u></p> <p>This extant historical structure in very good condition. Evidence of restoration. The doors and windows are painted brown and the rest of the structure painted green.</p> <p>This abandoned structure is in very poor condition. The degenerated zinc roof exposes the original shingled roof underneath.</p>	HS




		Restored vernacular nog wall house				An extant vernacular house painted pink on white. The structure has been recently repaired.	
218	 	<p>Square water tank</p> <p>Vernacular nog wall kitchen</p>	Lincoln	678860	731444	<p>Historical water tank made from cut stone.</p> <p>A degenerated nog wall kitchen in the yard of a modern concrete house. Five modern graves are in the yard.</p>	MS





219		Historical graveyard	Lincoln	679300	731451	<u>Ensemble</u> A total of nine historical graves made from cut stone.	HS
		Circular cut stone water tank				Made cut stone and lime mortar.	
		Historical cut stone foundation				Foundation of what use to be a nog wall house	
220		Historical house ruin	Lincoln	679424	731619	<u>Ensemble</u> This structure in ruin appears to be nog wall with cut stone foundation.	HS





	 	<p>Circular water tank</p> <p>Small graveyard</p>				<p>Circular water tank made from cut stone has a conjoined animal water trough.</p> <p>Eight graves found in the yard; five of which are historical. The graveyard is extant.</p>	
221	 	<p>Cut stone house ruin</p> <p>Circular cut stone water tank</p>	Lincoln	679679	731655	<p><u>Ensemble</u></p> <p>This ruin is attached to a nog wall house.</p> <p>Water tank made of cut stone with lime mortar. Located just before a modern square concrete tank on stilts.</p>	HS





		Nog wall shop				This structure has nog walls with saddle top roof (gabled roof). This structure is also extant.	
222		Cut stone foundation	Lincoln	679823	731820	A square raised cut stone foundation which may been the remains of a small shop. There were also four modern concrete graves on site.	MS
223		Vernacular house	Mount Waddy	680743	733845	Vernacular nog wall house on raised cut stone foundation with zinc gable roof, cut stone water tank and adjoined trough. The structure is painted blue with red door.	HS
224		Vernacular nog wall house	Mount Waddy	680718	733906	This degenerated nog wall house has a conjoined kitchen and a small water tank.	MS

225		<p>Vernacular house</p> <p>Water tank</p>	Mount Waddy	680764	733477	<p>Large two storey vernacular house on pillars with partially wrap around verandah. It is painted blue with four panel wooden doors, french windows and zinc roofing.</p> <p>A cut stone water tank is in the yard.</p>	HS
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226	  	<p>Historical graves</p> <p>Square water tank</p> <p>Historical circular water tank</p>	Mount Waddy	680763	733394	<p><u>Ensemble</u></p> <p>There are ten graves in all. Four are historic and the rest seem to be mid-20th century.</p> <p>There is a water tank overlooking the Praise Worship Centre Church.</p> <p>Circular cut stone water tank located behind the church.</p>	MS
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227	   	<p>Historical nog wall house (1)</p> <p>Detached historical kitchen</p> <p>Historical nog wall house (2)</p> <p>Small graveyard</p>	Mount Waddy	680761	733271	<p><u>Ensemble</u> This nog wall building is painted peach with a zinc gable roof. A small, square cut stone water tank with catchment is present.</p> <p>There is a dilapidated detached kitchen on a cut stone platform.</p> <p>This nog wall house is painted blue with a combined hip and shed roof. A small, square historical cut stone water tank conjoins the house.</p> <p>There are a number of modern graves located in the yard.</p>	MS
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		Historical House				An abandoned, unpainted nog wall house on raised cut stone foundation with combined gable and shed roof with a detached nog wall kitchen.	
228		Mount Waddy Methodist Church	Mount Waddy	680832	733184	Cut stone church painted cream with zinc gabled and hip roof. The Mount Waddy primary school is in the same courtyard.	HS
229	 	Historical house ruin Historical water tank	Mount Waddy	680782	733183	<p><u>Ensemble</u> This ensemble of house foundations is located atop a conical hill with remains of a barbecue.</p> <p>Historical circular water tank made from cut stone with lime mortar. Remnants of a cut stone latrine are also present.</p>	MS

	 	Graveyard				<p>There are three modern graves enclosed with concrete fencing.</p> <p>Abandoned historical, unpainted nog wall shop with gable roof made from zinc.</p>	
230		Graveyard site	Mountain Hall/ Pleasant Hill	672918	727682	Approximately forty historical graves.	HS
231		Grave	Mountain Hall/ Pleasant Hill	672998	727662	One historical grave.	HS





232		Cut stone foundation	Mountain Hall/ Pleasant Hill	673025	727653	Old cut stone foundation ruin.	LS
233		Historical grave	Mountain Hall/ Pleasant Hill	673228	727608	One historical grave.	HS
234		Cut stone foundation	Mountain Hall/ Pleasant Hill	673250	727566	Cut stone foundation ruin.	LS
235		Historical graves	Mountain Hall/ Pleasant Hill	673245	727537	Four historical graves.	HS





236		Historical graves	Mountain Hall/Pleasant Hill	673267	727469	A total of four historical graves.	HS
237		Grave site	Mountain Hall/Pleasant Hill	672832	727549	Four graves, one of which is historical.	HS
238		Cut stone foundation	Mountain Hall/Pleasant Hill	672835	727560	Cut stone foundation ruin of house. There is also a foundation of a latrine present.	LS
239		Vernacular house	New Hall	673235	730724	<u>Ensemble</u> Nog wall house with gable roof, painted peach, and cream on cut stone foundation with louver windows.	





	 	<p>Kitchen foundation</p> <p>Tank and catchment</p>				<p>There are the remains of a kitchen located to the side of the house. There are visible remains of barbecues that were once used for drying coffee.</p> <p>There is also a square water tank with raised catchment.</p>	MS
240		Sink hole	New Hall	673703	730473		MS
241		Vernacular house	New Hall	672124	731264	<p><u>Ensemble</u> Small historical nog wall house on cut stone foundation with cellar. It has a four-panel front door, louvre windows, and decorated fretwork above door. It has a zinc hip roof.</p>	HS





						A circular historical water tank, barbecue, an unpainted kitchen and modern grave on the premises.	
242	  	<p>Vernacular house</p> <p>Detached nog wall structure</p> <p>Water tank</p>	New Hall	673154	730833	<p><u>Ensemble</u> Nog wall house with hip and gable roof. It has wooden jalousie windows and glass french widows.</p> <p>There is a small detached unpainted nog wall structure with zinc hip roof to the side.</p> <p>There is a large square historical water tank made of cut stone at rear of the house.</p>	MS





245		Historical vernacular house	New Hall	673939	730592	Small nog wall house ruin painted red with hip and pitch roof. Square and circular water tanks with catchment and troughs are in the yard	MS
246		Shed	New Hall	674540	730869	Shed made with wood and zinc at the base of a packed stoney hillock.	LS
247		Water tank	New Hall	674349	731257	Small square cut stone water tank with degenerated catchment and attached trough	MS
248		Community water tank with catchment	New York	678451	731312	Large square community water tank made with cut stone.	HS

249		Sink Hole	New York	678446	731708	<p><u>Ensemble</u></p> <p>Both sink holes are about fifteen metres apart and appeared to be part of one central system.</p> <p>Family graves on the property.</p>	MS
		Sink Hole					
		Graveyard					
250		Vernacular house and detached Kitchen	New York	678422	731564	<p><u>Ensemble</u></p> <p>Vernacular nog-wall house painted peach on raised cut stone foundation. There is also a detached nog-wall kitchen on cut stone foundation. The remains of a pimento barbecue are close by.</p>	MS

		Small water tank				Small circular cut stone water tank with attached animal trough.	
251		Sink Hole	New York	678063	731762		MS
252		Sink hole	New York	678826	731561		MS
253		Basin with Cave	Pedro River	672973	727093	Small cave in the depression.	MS
254		Cave two in adjoining basin	Pedro River	673001	727142		MS





255		Depression	Pedro River	672881	726993	This depression is used for farming.	MS
256		Depression with rain gauge	Pedro River	672881	726993	Depression is subjected to serious flooding	MS
257		Depression	Pedro River	672828	727119	The depression floods during prolonged rainfall.	MS
258		Pedro Methodist Church	Pedro River	672249	727065	Cut stone church with red roof. A belfry is in front of the church. There are some modern sash windows and stained glass to the top.	HS

259		Water wheel housing	Pedro River	671636	726979	Located in the vicinity of the bridge which borders St. Ann and Clarendon is the remnants of a water wheel.	HS
260		Slave market building	Pedro River	671680	727042	Large cut stone remains of the slave market.	HS
261		Cave	Pedro River	671117	727725	Extremely large cave with chambers. Citizens say it leads to Luidas Vale in St. Catherine.	MS
262		Sugar works building	Pedro River	671955	727122	Building made from cut stone with two brick chimneys. Wide cut stone steps.	HS

263		Large vernacular Property House	Pennys Pen	680060	728848	WINDALCo property house with cut stone foundation, jalousie windows, cellar, garage and cut stone chimney. Split level cut stone foundation.	HS
264		Vernacular house	Pennys Pen	679644	730228	Dilapidated house ruin with cut stone foundation and water tank. Also referred to as Corn House.	MS
265		Grave site	Richards Lane, Gravel Hill	677426	726946	Extant cemetery with sixteen graves and four of which are historical.	HS
266		Vernacular house	Road Pasture	677960	727737	Vernacular house with hip roof, jalousie windows, wooden double door and cut stone foundation.	HS





267		Kenky Hole	Road Pasture	677409	727579	Cenote/sinkhole	MS
268		Vernacular house	Road Pasture	677216	727365	Vernacular house with hip roof, sash and jalousie windows, fretwork and cut stone foundations.	MS
269		Vernacular house	Road Pasture	677057	727220	Cream coloured vernacular house on hill with brown jalousie and sash windows on cut stone foundation.	MS
270		Vernacular house	Road Pasture	677047	727216	Green vernacular house with cut stone foundation. It displays lentil over the door, a cellar and french doors.	MS




271		Vernacular shop	Roadside	680310	728841	Vernacular shop with gable roof and grilled windows.	MS
272		Cut stone wall	Roadside	680262	728837	Cut stone boundary wall with steps.	LS
273		Historical graves	Roadside	680442	728855	Two historical graves.	HS
274		Vernacular house ensemble	Roadside	680400	728838	<u>Ensemble</u> Blue and white vernacular house with shingled roof, sash windows. Verandah to the rear with fretwork. Cut stone storehouse, garage, latrine, kitchen and pantry.	MS





275		Vernacular house	Roadside	680442	728855	Vernacular nog wall house with jalousie windows, wooden door, cut stone foundations and hip roof and a barbecue to the front.	MS
276		Vernacular house	Taylor Corner Gibraltar	677049	734023	Nog wall house with small verandah on raised cut stone foundation with cellar with gable and pitch roof. It has louvre window. Extant.	MS
277		Vernacular house	Taylor Corner Gibraltar	677081	733987	Nog wall house extant with gabled and hip roof on raised cut stone foundation worth cellar. It had square cut stone water tank at the front.	MS
278		Cave	Taylor's corner Gibraltar	676964	733904	Taino cave with pictographs and petroglyphs.	HS

279		Historical graves	York	675573	727656	Extant grave site. A total of seventeen graves five of which are historical.	HS
280		Vernacular house	York	675479	727903	This house has a hip roof with wooden verandah sash windows with a cut stone foundation. Cut stone water tank.	MS
281		Vernacular house	York	675481	728060	Green vernacular house with french and sash windows with a flight of red steps.	HS
282		House foundation	York	675485	728070	Cut stone house foundation with water tank.	LS





283		Historical graves	York	675456	728126	Nine historical graves and a cut stone water tank.	HS
284		Grave site	York	675174	728467	Five graves, three of which are historical.	HS
285		Vernacular house	York	675041	728758	This vernacular house has a hip roof, jalousie windows and cut stone foundation.	MS
286		Historical graves	York	675018	728757	One historic grave made from cut stone.	HS

287		Adventist church foundation	York	674960	728749	Former Adventist church has cut stone foundation.	LS
288		Vernacular shop	York	674960	728749	Shop in front of Adventist church foundation. Displays a gable roof with green and brown doors.	MS
289		Meeting house	York	674899	728699	Used for prayer and community meetings. Has a gable roof, walls made from stone, nog and lime mortar and has a cut stone foundation.	MS
290		Large water catchment and tank	York	674899	728699	Painted white and blue with a large base. Serves as a community reservoir.	HS

291		Vernacular house	York	674981	728642	Renovated vernacular house with a hip roof, red jalousie windows, there also a buttery and kitchen, a brick oven and water tank with catchment.	MS
292		Vernacular shop	York	674729	728735	Displays gable roof and a piazza.	MS
293		Vernacular house (not shown)	York	674729	728735	A green vernacular house with hip roof, double door, cut stone foundation and historical graves. There is also a barbecue on the property.	MS
294		Cut stone house foundation	York	674601	729031	Cut stone foundation with double steps.	LS

295		Vernacular house	York	674492	729296	Vernacular house on cut stone foundation with hip roof. There is a horseshoe on a wooden door.	MS
296		Cave	York	674598	729181	A small cave referred to as a sinkhole and used for dumping.	MS
297		Vernacular house	York	674492	729296	Displays jalousie and sash windows, cut stone foundation cellar and hip roof. There was also a water tank in the yard.	MS
298		Nog house	York	674489	729326	Small, blue nog house with restored zinc hip roof and cellar.	MS

299		Vernacular house	York	674360	729333	Blue nog house with hip roof and cut stone foundation beside modern house.	MS
300		Cut stone ruin	York	674360	729333	Dilapidated vernacular cut stone ruin with nog wall.	MS
301		Grave site	York	674336	729361	Nine graves, six of which are historical. Graves are painted blue and white.	HS
302		Nog house	York	673986	729774	Nog house with gable roof which has shingle under zinc.	MS

303		York Castle Theological College and High School	York Castle	680251	726549	Ruins of the former Theological College and High School. The cut stone and brick walls remain.	HS
304		Postal Agency	York Castle	679824	726609	Square cut stone structure with modern roofing, wooden windows, and door.	MS
305		Cut stone ruin	York Castle	679822	726585	Cut stone foundation ruin.	HS
306		Vernacular house	York Castle	679492	726881	Vernacular house with cut stone foundation and nog wall. The house has hip roof with sash windows. A barbecue is to the front and a cut stone tank at the rear. A shop is to the front.	MS



Abandoned vernacular house, tanks and catchment, New Hall, St. Ann
SOURCE: JNHT Sites and Monuments Record - 2020

1. INTRODUCTION

1.1 PURPOSE

The Jamaica National Heritage Trust (JNHT) Archaeology Division conducted a heritage survey on 6,837 hectares of land in southeast St. Ann during the period July 13 and 24, 2020. The area, designated Special Exclusive Prospecting Licence 524 (SEPL 524), is the subject of proposed bauxite mining by Windalco (see Map 1). The purpose of this report, therefore, is to present the findings of the heritage study to the pertinent decision makers about the cultural heritage resources found in the area along with their evaluated state of authenticity, integrity, national and or international significance.

1.2 OBJECTIVE

The research objectives of the study are to ascertain the presence of heritage resources, describe and assess their status along with any existing and or potential socio-economic attributes and appraise their worth in the context of the proposed development.

1.3 SCOPE OF WORK

The scope of work for this study includes the following:

Task 1: Desk-base Assessment - Research relevant historical documentations: maps, plans estate accounts, correspondents, titles and deeds (b) research published and unpublished narratives, studies and data sets of previous studies (c) analyse satellite images and aerial photographs.

Task 2: Site Survey – Conduct archaeological field walk survey, artefacts sample collection, explore caves for pictographs, petroglyph, artefacts, human and animal remains, analyze and interpret all identified archaeological contexts.

Task 3: Recording – Record all significant heritage assets by photographs, description, mapping, capturing spatial reference, and interviews.

Task 4: Inventory – Create and inventory of all significant heritage resources identified.

Task 5: Report – Prepare a report guided by Terms of Reference (TOR).

1.4 STUDY TEAM

A team of Archaeologists, conservation and GIS specialists conducted this Heritage Survey and are enumerated as follows:

Selvenious Walters, M.A.- Principal Investigator – Specialist in Field and Analytical Techniques in Archaeology with over 25 years of experience conducting Archaeological and Heritage Impact Assessments (AIA and HIA) on large development projects. He is the co-author and investigator of the Blue and John Crow Mountains World Heritage Site Nomination Dossier (2015).

Michelle Topping, M.A. – Historical and Pre-Historical Archaeology, specializing in intrusive evaluation and artifact analysis. She has managed one of the most comprehensive Taino archaeological evaluation projects (White Marl, St. Catherine) in Jamaica.

Shemicka Senior, MA. – Co-author of the revised publication Heritage in Pictures. Specializes in artefact analysis and field techniques.

Winston Abrahams, M.Sc. – Geographic Information System (GIS) and Disaster Management specialist who is responsible for spatial analysis, inventory and the mapping of identified heritage assets.

Deandre Dobson Wolfe, M.A. – Specializes in Field Archaeology and field survey with GIS qualifications.

Ashley Jones, MA. – Specializes in Field Archaeology and is the current secretary of the Archaeological Society of Jamaica.

Darrington Ferguson – Conservation Officer

Richard O'Connor – Archaeological Field Assistant

Ryan Murphy – Archaeological Field Assistant

Clive Brooks – Archaeological Field Assistant

1.5 METHODOLOGY

It is anticipated that a cornucopia of historical, archaeological, and other heritage assets will be affected by the proposed development. To this end, a multi-faceted approach was employed to identify, inventory, map and evaluate the levels of significance of heritage assets to be potentially affected.

1.5.1 Archival Research

This is a thorough review of all available written and graphic primary and secondary information relating to the area. It helps to identify the likely character, extent, and relative quality and or quantity of actual or potential archaeological, architectural and ethnographic resources present. It includes relevant historical documents, journals and books, maps, plans, wills, deeds, ledgers, correspondence and other contemporary data found in the nation's repositories such as the Island Record Office, National Archives, National Library of Jamaica, University of Technology (UTECH), University of the West Indies (UWI) and private collections. Websites were also consulted.

1.5.2 Aerial Photograph / Satellite Image Analysis

Both aerial photography and satellite images were analysed with the view of detecting soil or vegetation marks. These techniques may clearly outline buried archaeological features or indicate anomalies that may be targeted during the field walk survey. Where necessary archaeological test units may be excavated to provide clarification. In some instances, archaeological and historical assets are large enough to be clearly identified.

1.5.3 Zoning

For the convenience of the research team the study was divided into eight zones. This was done to ensure accuracy, efficiency, thoroughness and to avoid overlapping of the field walk survey. The survey team was divided into two groups of four; each group surveyed four zones over a ten-day period.

1.5.4 Field Walk Survey

In this technique the investigating teams walked trails as a group, for security reasons, but when a site was encountered all members fanned out to comb the area in search of all features and artefact assemblages associated with the site. Artefact assemblages are sometimes indicators of buried assets. The technique is also very useful in identifying the location and presence of graves, undocumented Taino and enslaved African settlement and burial grounds.

1.5.5 Interviews

Interviews were conducted as another strategy employed to bridge the cultural heritage data gap. Community members were subjectively selected, in particular senior citizens, and asked about their recollection of the site's spatial attributes and history. This method was particularly helpful in identifying the locations of grave sites, desuetude vernacular buildings, plantation vestiges, caves and sinkholes inundated by dense vegetation cover. It was also helpful in ascertaining the function and past adoptive reuse of some ruins; essentially it was useful to the researchers in understanding the diverse and complex cultural heritage profile of the property. In many instances the research team found community members uncooperative and highly suspicious of the team but by employing some members as labourers for bushing sites and as tour guide their assistance and information proved extremely valuable.

1.5.6 Data Recording

Archaeological assets in the various districts within SEPL 524 were identified and recorded using several methods. Sites and artefact assemblages were enumerated and described in the field survey notebooks and photographs and video were utilized to capture their conservation status. Global Positioning

System (GPS) was used to capture the location and a spatial distribution map was later generated. With the permission of community members, interviews were sometimes recorded, and photographs taken. The information collected will form part of the SEPL 524 Heritage Asset Inventory and will be subsequently incorporated in the National Inventory of Heritage Sites.

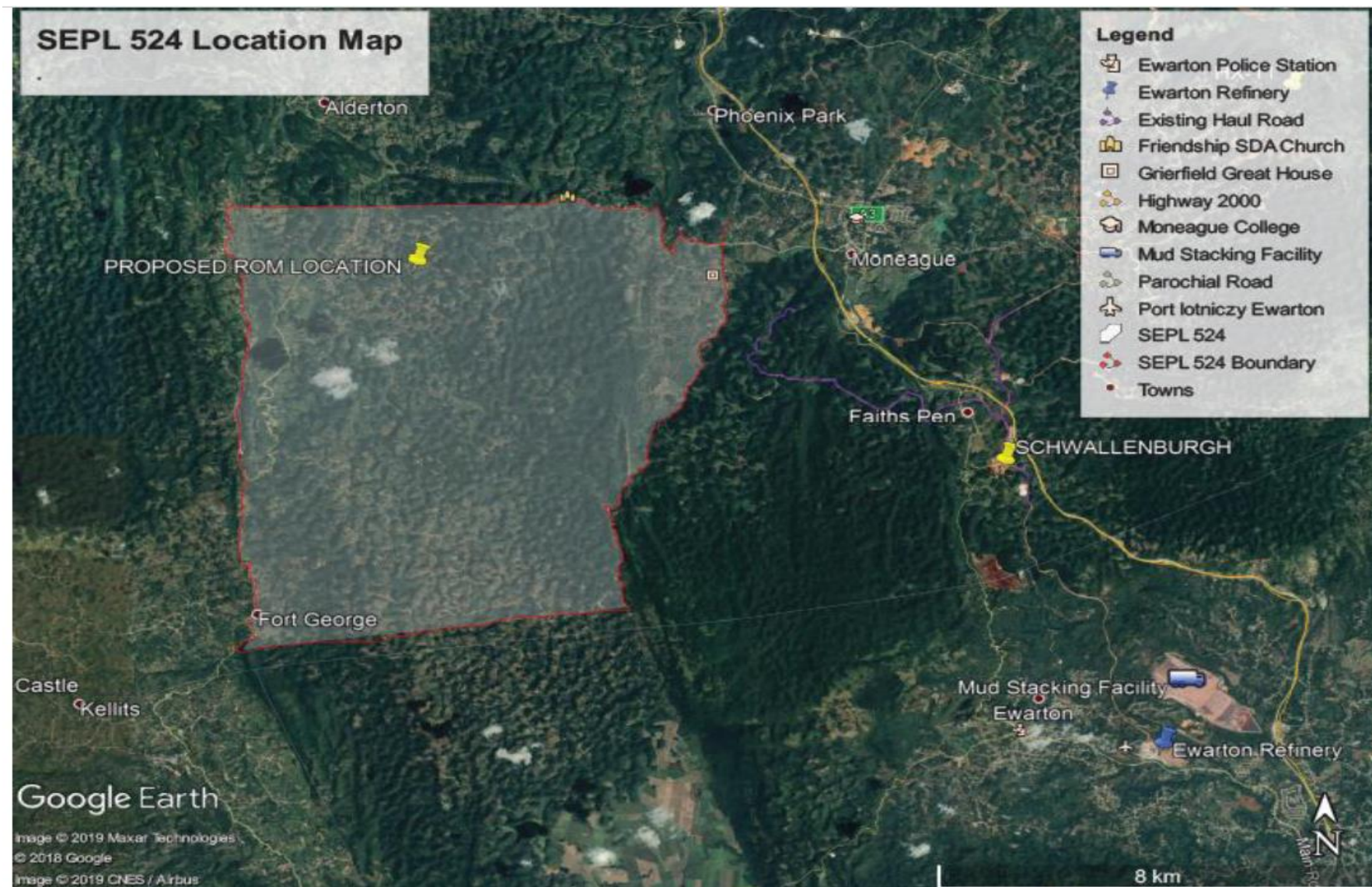
1.5.7 Artefact Sample Collection

The areas where artefact assemblages were identified, samples were collected, studied, conserved, stored for future reference, and where necessary, displayed as part of the site's heritage assets.

1.6 REPORT STRUCTURE

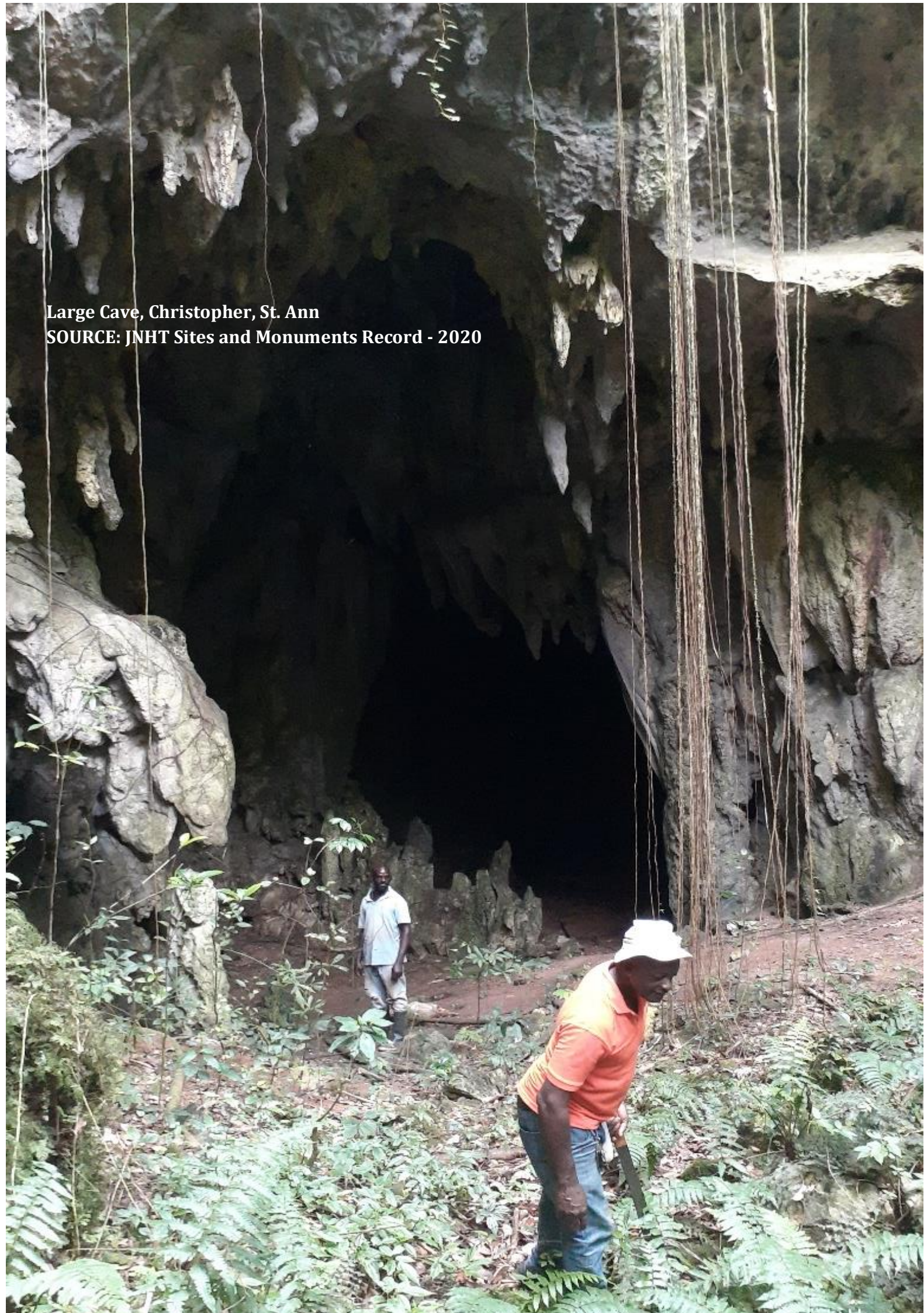
The Heritage Survey Report is a concise collation of significant cultural heritage resources identified in SEPL 524. Its main text focuses on resource identification, description and spatial referencing. The report is organized into ten (10) sections as outlined below:

- Executive Summary
- Introduction
- Policy, Legal and Administrative Framework
- Description of Project Area
- Literature Review
- Heritage
- Conclusion and Recommendations
- Glossary
- Bibliography
- Appendices



Map 1: showing the size and Location of SEPL 524
Source: Conrad Douglas & Associates Limited, 2020

Large Cave, Christopher, St. Ann
SOURCE: JNHT Sites and Monuments Record - 2020



2. POLICY AND LEGISLATIVE FRAMEWORK

2.1 BACKGROUND

There are a number of pertinent policies, legislations, regulations and environmental standards of the Government of Jamaica (GOJ) relating to environmental protection that are applicable to any development and that a developer will need to consider when embarking on a particular scale and type of development. There are several government agencies mandated with the authority to control certain types of development that may have potential negative impact on the natural and cultural environment. The powers of control and regulation are typically exercised through a system of permits that include checks and balances on what kind and form of development can occur. A developer, therefore, must be prepared to present, explain, and in some cases alter aspects of a development proposal in order to comply with the permitting requirements. This section, therefore, highlights the relevant authorities, legislations and regulations that must be considered in order to acquire the necessary permit applicable to the development.

2.2 DEVELOPMENT CONTROL

2.2.1 Building Act (2016)

This act repeals to the Kingston and St. Andrew Building Act and the Parish Council Building Act and makes provision for the regulation of the building industry. This act facilitates the adoption and efficient application of national

building standards to be called the National Building Code of Jamaica for ensuring safety in the building environment, enhancing amenities and promoting sustainable development and for connected matters.

The objectives of this Act are to:

- a) regulate the design, construction, maintenance, demolition, removal, alteration, repair and use of buildings and building works so as to protect the public's safety and health.
- b) give effect to the National Building Code of Jamaica.
- c) facilitate:
 - i. The adaptation and efficient application of internationally recognized building standards; and
 - ii. The accreditation of building products, construction, methods, building components and building systems.
- d) enhance amenities in general and require the construction of buildings that provide easy access and adequate amenities for persons with disabilities in particular.
- e) promote cost effectiveness in construction of buildings.
- f) promote the construction of environmentally and energy efficient buildings.
- g) establish an efficient and effective system for issuing building permits and certificates of occupancy and for resolving building disputes through alternative dispute resolution.

- h) regulate the standard of training and certification and provide for licensing of building practitioners and the recognition of building professionals who are regulated under other Acts; and
- i) establish a building and an appeal process.

2.2.2 Jamaica National Heritage Trust Act (1985)

The Jamaica National Heritage Trust Act of 1985 established the Jamaica National Heritage Trust (JNHT). The JNHT's functions outlined in Section 4 include the following responsibilities:

- To promote the preservation of National Monuments and anything designated as Protected National Heritage for the benefit of the Island.
 - To carry out such development as it considers necessary for the preservation of any National Monument or anything designated as Protected National Heritage.
 - To record any precious objects or works of art to be preserved and to identify and record any species of botanical or animal life to be protected.
- Section 17 further states that it is an offence for any individual to:

- i. wilfully deface, damage or destroy any national monument or protected national heritage or to deface, damage, destroy, conceal or remove any mark affixed to a National Monument or Protected National Heritage.
- ii. alter any National Monument or mark without the written permission of the Trust.
- iii. remove or cause to be removed any National Monument or Protected National Heritage to a place outside of Jamaica.

2.2.3 Land Acquisition Act (1947)

Section 3 of the Land Acquisition Act (1947) empowers any officer authorized by the Minister to enter and survey land in any locality that may be needed for any public purpose. This may also involve:

- Digging or boring into the sub-soil.
- Cutting down and clearing away any standing crop, fence, bush or woodland.
- Carrying out other acts necessary to ascertain that the land is suitable for the required purpose.

The Minister is authorized under Section 5 of the Act to make a public declaration under his signature if land is required for a public purpose provided that the compensation to be awarded for the land is to be paid out of the:

- Consolidated Fund or loan funds of the Government.
- Funds of any Parish Council, the Kingston and St. Andrew Corporation or the National Water Commission.

Once the Commissioner enters into possession of any land under the provisions of this Act, the land is vested in the Commissioner of Lands and is held in trust for the Government of Jamaica in keeping with the details outlined in Section 16. The Commissioner shall provide the Registrar of Titles with a copy of every notice published as well as a plan of the land. The Commissioner will also make an application to the Registrar of Titles in order to bring the title of the land under the operation of the Registration of Titles Act.

2.2.4 Land Development and Utilization Act (1966)

Under Section 3 of the Land Development and Utilization Act (1966), the Land Development and Utilization Commission is authorized to designate as agricultural land, any land which because of its "situation, character and other

relevant circumstances" should be brought into use for agriculture. However, this order is not applicable to land, which has been approved under the Town and Country Planning Act for development purposes other than that of agriculture. Among the duties of the Commission outlined in Section 14 of the Act is its responsibility to ensure that agricultural land is "as far as possible, properly developed and utilized".

2.2.5 Main Road Act

The Main Road Act of 1932 details the legal basis for main roads and specifically looks at management, laying out of road, taking of lands, encroachment, offenses, lights and carriages, power to arrest and other legalities. In section 5 of this Act, it states that the Minister has the power to declare other roads or parts thereof to be main roads and to also declare that a main road is no longer such. The Chief Technical Director under the Minister's directive is responsible for the laying out, making, repairing, widening, altering, deviating, maintaining, superintending and managing main roads, and controlling the expenditure of allotted moneys.

2.2.6 Municipal Corporation Act

Under the Municipal Corporation Act each Local Planning Authority may revoke or alter regulation concerning the construction and restriction as to the elevation, size and design of buildings, built with the approval of the relevant Minister. It may also make regulations concerning the installation of sewers on premises.

2.2.7 Quarries Control Act (1983)

The Quarries Control Act of 1983 established the Quarries Advisory Committee, which advises the Minister on general policy relating to quarries as well as an application for licenses. The Act provides for the establishment of quarry zones, controls licensing and operations of all quarries. The Minister may on the recommendation of the Quarries Advisory Committee declare as a specified area,

any area in which quarry zones are to be established and establish quarry zones within any such specified area.

Section 5 of the Act states that a license is required for establishing or operating a quarry though this requirement may be waived by the Minister, if the mineral to be extracted is less than 100 cubic metres. Application procedures are outlined in Section 8. The prescribed form is to be filed with the Minister along with the prescribed fee and relevant particulars. The applicant is also required to place a notice in a prominent place at the proposed site for a period of at least 21 days starting from the date on which it was filed.

2.2.8 Registration of Titles Act (1989)

The Registration of Titles Act of 1989 is the legal basis for land registration in Jamaica, which is carried out using a modified Torrens System (Centre for Property Studies, 1998). Under this system, land registration is not compulsory, although once a property is entered in the registry system the title is continued through any transfer of ownership.

2.2.9 Town and Country Planning Act

The Town and Country Planning Act provide the statutory requirements for the orderly development of land as well as guidelines for the preparation of Development Orders, stipulation for Advertisement Control Regulations, Petrol Filling Stations and Tree Preservation Orders. It establishes the Town and Country Planning Authority, which in conjunction with the Local Planning Authority are responsible for the land use zoning and planning regulations as described in their local Development Orders. The Town and Country Planning Act is administered by the National Environment and Planning Agency (NEPA).

2.3 ENVIRONMENTAL CONSERVATION

2.3.1 Endangered Species (Protection, Conservation and Regulation of Trade) Act (2000)

The Endangered Species Act deals with restriction on trade in endangered species, regulation of trade in species specified in the schedule, suspension and revocation of permits or certificates, offences and penalties, and enforcement. Many species of reptiles, amphibians and birds that are endemic to Jamaica but not previously listed under national protective legislation, or under international legislation, are listed in the Appendices of this Act.

2.3.2 Flood Water Control Act (1958)

The Flood Control Act of 1958 is administered by the National Works Agency and designates specific personnel with the responsibility of and the required power to ensure compliance with the legislation.

Any government department/agency or statutory body or authority appointed by the Minister may enter land in the flood-water control area to:

- Survey, measure, alter or regulate water courses, maintain or build tools required to undertake works.
- Clean watercourse or banks of such deposit where required.
- Construct, improve, repair or maintain floodwater works.

Wilfully or maliciously blocking, obstructing, encroaching on or damaging any watercourse, pipe or appliances used to execute works under the Act is an offence.

2.3.3 Natural Resources Conservation Authority Act (1991)

The Natural Resources Conservation Authority Act was passed in the Jamaican Parliament in 1991. This provided the basis for the establishment of the Natural Resources Conservation Authority (NRCA) with primary responsibility for ensuring sustainable development in Jamaica, through the protection and management of Jamaica's natural resources and the control of pollution. Sections 9 and 10 of the NRCA Act stipulates that an Environmental Impact Assessment (EIA) is required for new projects and existing projects undergoing expansion. The body is also responsible for investigating the effect on the environment of any activity that may cause pollution or which involves waste management. Sections of the Act that relate specifically to pollution control state that:

- (i) No person shall discharge on or cause or permit the entry into waters, on the ground or into the ground, of any sewage or trade effluent or any poisonous noxious or polluting matter.
- (ii) No person is allowed to construct or reconstruct or alter any works designed for the discharge of any effluent.

The Act also empowers the authority to require of any owner or operator of a pollution control facility to provide information on the performance of the facility, the quantity and condition of effluent discharged and the area affected by the discharge of such effluent. The Authority has the right to consult with any agency or department of Government having functions in relation to water or water resources to carry out operations to:

- (a) Prevent pollutants from reaching water bodies.
- (b) Remove and dispose of any polluting matter or remedy or mitigate any polluted water body in order to restore it.

2.3.4 The Natural Resources (Prescribed Areas) (Prohibition of Categories of Enterprise, Construction and Development) Order (1996)

The island of Jamaica and the Territorial Sea of Jamaica have been declared a Prescribed Areas. No person can undertake any enterprise, construction or development of a prescribed description or category except under and in accordance with a permit. The Natural Resources Conservation (Permits and Licenses) Regulations (1996) give effect to the provisions of the Prescribed Areas.

2.3.5 Water Resources Act (1995)

The Water Resources Act of 1995 established the Water Resources Authority (WRA). This Authority is authorized to regulate, allocate, conserve and manage the water resources of the island. The Authority is also responsible for water quality control and is required under Section 4 of the Act to provide upon request

to any department or agency of Government, technical assistance for any projects, programmes or activities relating to development, conservation and the use of water resources. It is the responsibility of the WRA as outlined in Section 16 to prepare, for the approval of the Minister, a draft National Water Resources Master Plan for Jamaica. Areas to be covered in this Draft Master Plan of 1990 included objectives for the development, conservation and use of water resources in Jamaica with consideration being given to the protection and encouragement of economic activity, and the protection of the environment and the enhancement of environmental values. Section 25 advises that the proposed user still have to obtain planning permission, if this is a requirement, under the Town and Country Planning Act. In addition, Section 21 of the Act stipulates that if the water to be used will result in the discharge of effluents, an application for a license to discharge effluents will have to be made to the Natural Resources Conservation Authority (NRCA) or any other relevant body as indicated by the Minister. With regard to underground water, Section 37 states that it is unlawful to allow this water to go to waste. However, if the underground water "interferes or threatens to interfere with the execution or operation of any underground works", it will not be unlawful to allow the water to go to waste in order to carry out the required works provided that there is no other reasonable method of disposing of the water. The Authority also has the power to determine the safe yield of aquifers (Section 38).

2.3.6 Wildlife Protection Act (1945)

The Wildlife Protection Act of 1945 prohibits removal, sale or possession of protected animals, use of dynamite, poisons or other noxious material to kill or injure fish, prohibits discharge of trade effluent or industrial waste into harbours, lagoons, estuaries and streams, and authorizes the establishment of Game Sanctuaries and Reserves. Protected under the Wildlife Protection Act are six species of sea turtle, one land mammal, one butterfly, three reptiles and several species of birds including rare and endangered species and game birds.

2.4 PUBLIC HEALTH AND WASTE MANAGEMENT

2.4.1 Clean Air Act (1964)

This act refers to premises on which there are industrial works, the operation of which is in the opinion of an inspector likely to result in the discharge of smoke or fumes or gases or dust in the air. An inspector may enter any affected premise to examine, make enquiries, make tests and take samples of any substance, smoke, fumes, gas or dust as he considers necessary or proper for the performance of his duties.

2.4.2 Country Fires Act (1942)

Section 4 of the Country Fires Act of 1942 prohibits the setting of fire to trash without prior notice being given to the nearest police station and the occupiers of all adjoining lands. In addition, a space of at least 4.5 metres (15 feet) in width must be cleared around all trash to be burnt and all inflammable material removed from the area. Section 6 of the Act empowers the Minister to prohibit, as may be necessary, the setting of fire to trash without a permit. Offences against this Act include:

- Setting fire to trash between the hours of 6.00 p.m. and 6.00 a.m. (Section 5a).
- Leaving open-air fires unattended before they have been completely extinguished (Section 5b).
- Setting fires without a permit and contrary to the provisions outlined in Section 6 (Section 8).
- Negligent use or management of a fire which could result in damage to property (Section 13a).
- Smoking a pipe, cigar or cigarette on the grounds of a plantation which could result in damage to property (Section 13b).

2.4.3 Natural Resources Conservation Authority (Air Quality) Regulations, 2002.

Part I of this Act stipulates license requirements and states that every owner of a major facility or a significant facility shall apply for an air pollutant discharge license. Part II speaks to the stack emission targets, standards and guidelines.

The Act states that no person shall emit or cause to be emitted from any air pollutant source at a new facility, any visible air pollutants the opacity or pollutant amount of which exceeds the standards. Every owner of a facility with one or more air pollutant source or activity shall employ such control measures and operating procedures as are necessary to minimise fugitive emissions into the atmosphere, and such owner shall use available practical methods which are technologically feasible and economically reasonable and which reduce, prevent or control fugitive emissions so as to facilitate the achievement of the maximum practical degree of air purity. Under this Act a "major facility" is described as any facility having an air pollutant source with the potential to emit:

- (a) One hundred or more tonnes of any one of total suspended particulate matter (TSP).
- (b) Particulate matter with a diameter less than ten micrometres (PM10).
- (c) Sulphur oxides measured as sulphur dioxide (SO₂).
- (d) Carbon monoxide (CO).
- (e) Nitrogen oxides (NO_x) measured as equivalent nitrogen dioxide.
- (f) Five or more tonnes lead.
- (g) Ten or more tonnes per year of any single priority air pollutant; or
- (h) Twenty-five or more tonnes per year of any combination of priority air pollutants.

2.4.4 The National Solid Waste Management Authority Act (2001)

The National Solid Waste Management Authority Act (2001) is "an act to provide for the regulation and management of solid waste; to establish a body to be called the National Solid Waste Management Authority and for matters connected therewith or incidental thereto". The Solid Waste Management Authority (SWMA) is to take all steps as necessary for the effective management of solid

waste in Jamaica in order to safeguard public health, ensure that waste is collected, sorted, transported, recycled, reused or disposed of, in an environmentally sound manner and to promote safety standards in relation to such waste. The SWMA also has responsibility for the promotion of public awareness of the importance of efficient solid waste management, to advise the Minister on matters of general policy and to perform other functions pertaining to solid waste management.

2.4.5 Noise Abatement Act (1997)

The Noise Abatement Act of 1997 was created in order to regulate noise caused by amplified sound and other specific equipment. This act has been said to address “some concern but is too narrow in scope and relies on subjective criterion” (McTavish). Given this, McTavish conducted a study to recommend wider and more objective criteria in accordance with international trend and standards but tailored to Jamaica’s conditions and culture. To date, apart from the Noise Abatement Act (1997) Jamaica has no other national legislation for noise.

2.4.6 Noise Standards

Jamaica has no national legislation for noise, but World Bank guidelines have been adopted by the National Environment and Planning Agency (NEPA) and are used for benchmarking purposes along with the draft National Noise Standard that is being prepared. The guidelines for daytime perimeter noise are 75 decibels and 70 decibels for nighttime noise.

2.4.7 Pesticides (Amendment) Act (1996)

The Pesticides (Amendment) Act of 1996 amended sections of the principal act, which came into effect in 1975 and established the Pesticides Control Authority. This Act gives the Authority the responsibility of controlling the importation, manufacture, packaging, sale, use and disposal of pesticides. Section 11 states that the Authority is required to keep a register or record of all relevant information such as registered pesticides, restricted pesticides, pest control operators and persons licensed to import or manufacture pesticides. Under

Section 16 of the Act, the Authority may also, with the approval of the Minister, make regulations which relate to areas such as:

- Aerial application of pesticides.
- Supervision required for the use of pesticides, the prescribed protective clothing to be worn and other precautionary measures.
- The permissible levels of pesticides to be used.
- The periods during which particular pesticides may or may not be used on certain agricultural crops.
- The disposal of pesticides and packages.

2.4.8 Public Health Act (1976)

The Public Health (Air, Soil and Water Pollution) Regulations 1976, aim at controlling, reducing, removing or preventing air, soil and water pollution in all possible forms. Under the regulations given:

- i. No individual or corporation is allowed to emit, deposit, issue or discharge into the environment from any source.
- ii. Whoever is responsible for the accidental presence in the environment of a contaminant must advise the Environmental Control Division of the Ministry of Health and Environmental Control, without delay.
- iii. Any person or organization that conducts activities which release air contaminants such as dust and other particulates is required to institute measures to reduce or eliminate the presence of such contaminants.
- iv. No industrial waste should be discharged into any water body which will result in the deterioration of the quality of the water.

2.5 INTERNATIONAL LEGISLATIVE AND REGULATORY CONSIDERATIONS

2.5.1 UNESCO World Heritage Convention 1972

The World Heritage Convention was adopted by the General Conference of the United Nations Education, Scientific and Cultural Organization (UNESCO) in 1972 to protect internationally outstanding natural and cultural heritage from a number of threats; many of which not only persist, but have intensified to date.

Article 5 of the convention states that: To ensure that effective and active measures are taken for the protection, conservation and preservation of the culture and natural heritage situated on its territory, each State Party to this convention shall endeavour, in so far as possible, and as appropriate for each country:

1. To adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community and to integrate the protection of the heritage into a comprehensive planning programme.
2. To set up within its territories, where such services do not exist, one or more services for the protection, conservation and presentation of the cultural and natural with an appropriate staff and possesses the means to discharge their function.
3. To develop scientific and technical studies and research and to work out such operating method that will make the State capable of counteracting the changes that threaten its cultural and natural heritage.
4. To take the appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage, and

5. To foster the establishment or development of national or regional centres for the training in the protection, conservation and presentation of the cultural and natural heritage and to encourage scientific research in this field.

Article 6 further states:

1. Whilst fully respecting the sovereignty of the State on whose territory the cultural and natural heritage is situated, and without prejudice to property rights provided by national legislation, the State Parties to this Convention recognize that such heritage constitutes a World Heritage for whose protection it is the duty of the international community as a whole to co-operate.
2. The State Parties undertake, in accordance with the provision of this convention, to give their help in the identification, protection, conservation and presentation of the cultural and natural heritage, if the States on whose territory it is situated so request.
3. Each State Party to this Convention undertakes not to take any deliberate measure which might damage directly or indirectly the cultural and natural heritage situated on the territory of other State Parties to this Convention.

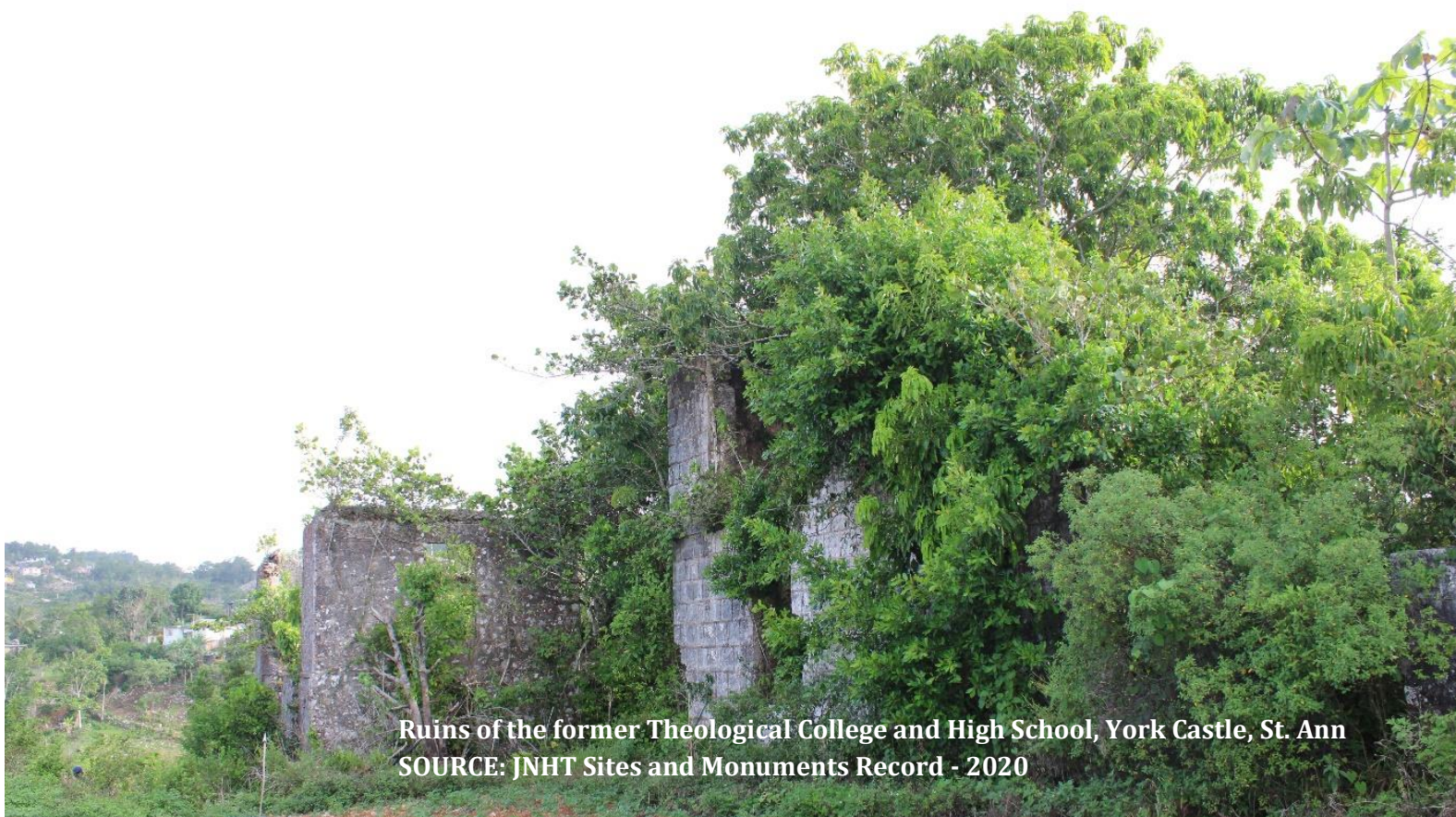
2.5.2 **Convention on Biological Diversity**

The objectives of the Convention on Biological Diversity are "the conservation of biological diversity, sustainable use of its components and the fair equitable sharing of the benefits arising out of the utilization of genetic resources". This is the first global, comprehensive agreement which as its focus, all aspects of biological diversity: genetic resources, species and ecosystems. The Convention acknowledges that the "conservation of biological diversity is a common concern of humankind and an integral part of the development process". In order to achieve its goals, the signatories are required to:

- develop plans for protecting habitat and species.

- provide funds and technology to help developing countries provide protection.
- ensure commercial access to biological resources for development.
- share revenues fairly among source countries and developers.
- establish safe regulations and liability for risks associated with biotechnology development.

Jamaica's Green Paper Number 3/01, entitled *Towards a National Strategy and Action Plan on Biological Diversity in Jamaica*, and speaks to Jamaica's continuing commitment to its obligations as a signatory to the Convention.



Ruins of the former Theological College and High School, York Castle, St. Ann
SOURCE: JNHT Sites and Monuments Record - 2020

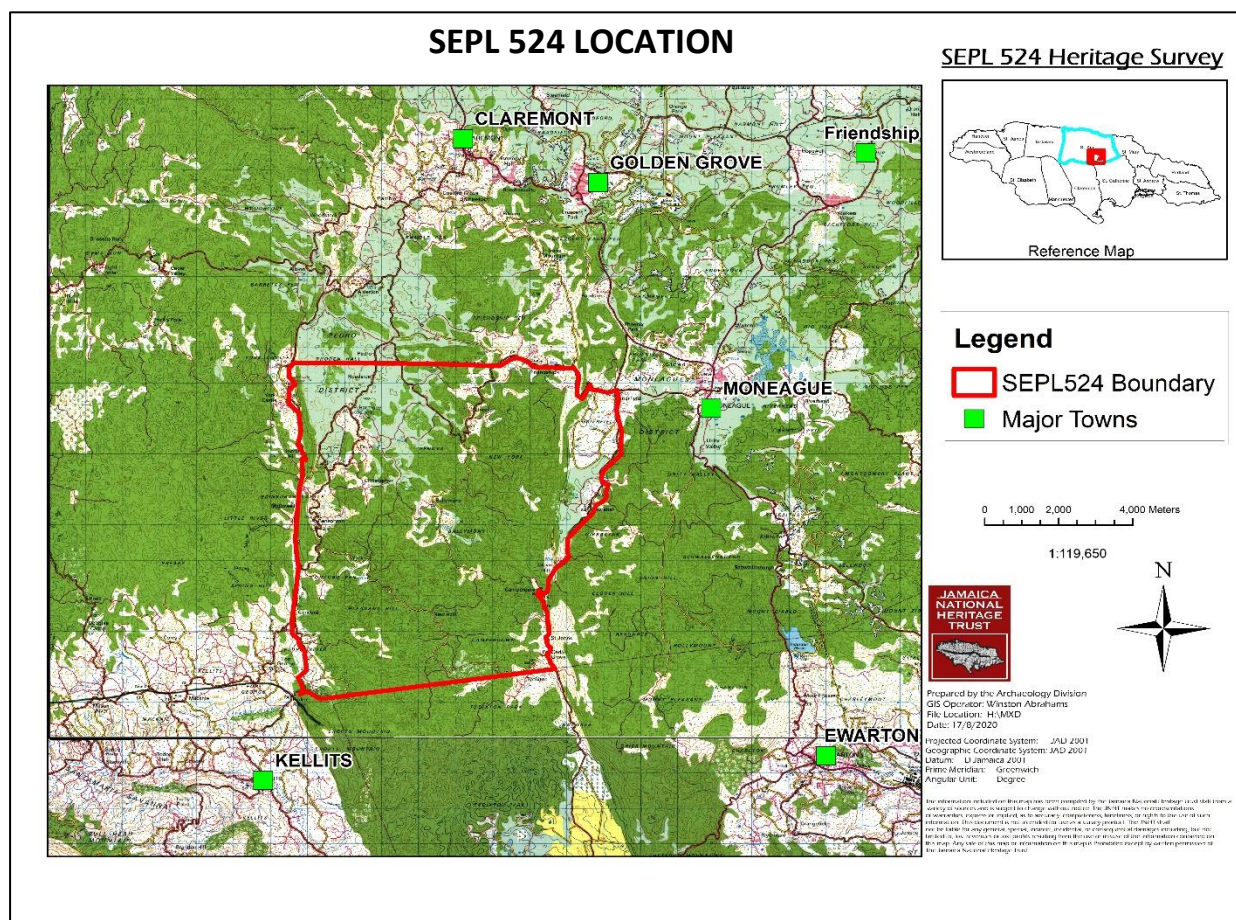


JNHT Archaeology Team survey areas of Mountain Hall / Pleasant Hill, St. Ann
SOURCE: JNHT Sites and Monuments Record - 2020

3. PROJECT AREA

3.1 LOCATION

The proposed bauxite mining area SEPL 524 is located in southeast St. Ann, adjoining the northern boundary of St. Catherine. It is situated approximately 2.5 kilometers west of Moneague, 9 kilometers southeast of Ewarton, 9.2 kilometers north of Lluidas Vale, 3.6 kilometers east north east of Kellits and 16 kilometers east of Cave Valley. The area is also estimated to be 40 kilometers east of the Cockpit Country Protected Area and 18 kilometers southwest of St. Ann's Bay on the North Coast. It is bordered by the main road from Grierfield to Tydixton on the east, St. Catherine, and Clarendon Parish Boundary to the south, Kellits to York Castle main road to the west and Friendship, Grier Park, Pedro Districts to the north.



Map 2: Location of SEPL 524 in relation to its environs and townships
Source: Winston Abrahams - JNHT Sites and Monument Records, 2020

3.2 TOPOGRAPHY

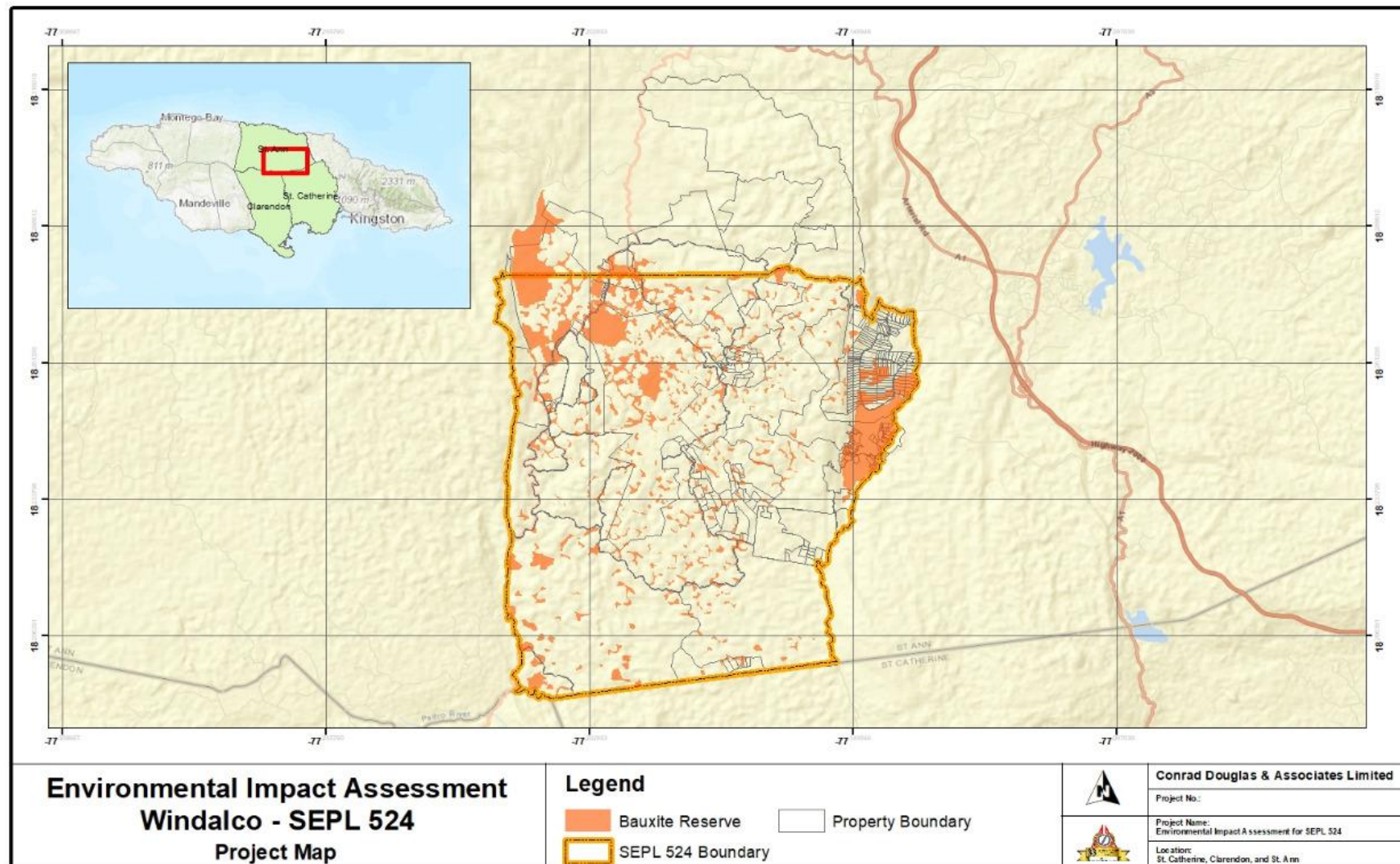
SEPL 524 is about 6837 hectares in dimension; occupying upland terrain that may be interpreted as geomorphological landform characteristic of the Cockpit Country. The northeast quadrant of the study area is dominated by a *polje* that stretches from Grierfield to Clover Hill. Pedro District is another *polje* that occupies the northwest quadrant of the area. It also possesses a fault line extending from Grierfield in the north to Cedar Grove in the south and beyond. Essentially the topography is *karstic* in nature, punctuated by juxtaposed limestone hillocks of varying sizes and converse depressions containing varied grades of bauxite ore deposits. Apart from the fault line and *poljes* this rugged terrain is pervaded by sinkholes, caves, rock shelters, caverns, and limestone cliffs. The absence of surface water is quite noticeable, except for some estate ponds, seasonal springs, and wells primarily in the *poljes* and Ballimony doline. In addition, there is a disappearing stream, Pedro River, observed on the southwest border.



Plate 1: Topography of SEPL 524 depicting the rugged karstic terrain with limestone hillocks and depression for as far as the eyes can see (Hope Hill/Pleasant Hill).

Source: JNHT Sites and Monument Records, 2020.

BAUXITE ORE DEPOSITS



Map 3: Highlights depressions with bauxite ore deposits in SEPL 524

Source: Conrad Douglas & Associates Limited, 2020

3.3 VEGETATION

For the most part, vegetation cover may be described as mixed natural and cultural plants. Nearly all the rugged limestone hillocks are covered with natural Tropical Marine Limestone Forest vegetation. In some communities the hillocks are denuded for the construction of houses and other structures. Some natural vegetation identified are sweet wood (*Nectandra coriacea*), trumpet tree (*Tabebuia*), red birch (*Bursera simaruba*), cedar (*Guazuma ulmifolia*), guinep (*Melicoccus bijugatus*), fern (*Cyathea species*), cola nut (*Cola Nitida* and some bamboo (*Bambusoideae*). While anthropogenic plants are pimento (*Pimenta dioica*), ackee (*Blighia sapida*), guava (*Psidium guajava*), breadfruit (*Artocarpus altilis*), avocado (*Persea Americana*), jackfruit (*Artocarpus heterophyllus*), star apple (*Chrysophyllum cainito*), mango (*Mangifera indica*), West Indian almond (*Terminalia catappa*), june plum (*Spondias dulcis*), sweet sop (*Annona squamosa*), sour sop (*Annona muricata*), and otaheiti apple (*Syzygium malaccense*). Depressions including polje and dolines are dominated by pasture ruinate grassland with few sporadic trees such as guava and cedar.



Plates 2 and 3: Illustrates the natural vegetation in Camperdown and pasture ruinate land in Penny's Pen respectively.

Source: JNHT Sites and Monument Records, 2020



3.4 LAND USE

Over several centuries of occupation, a peculiar land-use pattern emerged throughout the area. Settlers used the less fertile limestone hillocks for the establishment of villages, plantation domaciles, water catchment, tanks and other structures. The arable depressions were reserved for crop cultivation and animal grazing. Today, this general land-use pattern prevails.

After emancipation, villages developed and population in the area increased. Some villages stretched into small contiguous depressions and adjoining hillocks where families interred their deceased relatives to the front, back or side of their homes. Nearly all historical graveyards in villages are extant. They are sheltered by a grove of fruit trees and sometimes adjunct to small yam, corn, vegetable, or banana fields. Though crop cultivation is not a widescale feature of the study area, community members do plant small plots of yam, banana, scotch bonnet pepper, sweet potato, sweet pepper, carrot and cabbage in their yards. Sometimes, these crops and herb (marijuana) are cultivated in depressions and hillside far from home in the interior.



Plates 4 and 5: The top picture captures a family graveyard on lands immediately behind the house in a banana grove at Concord and the photo below shows a small plot of land in a depression before the house in Pedro River.

Source: *JNHT Sites and Monument Records*, 2020.



JNHT Archaeology Team and community member survey areas of Mountain Hall/Pleasant Hill, St. Ann
SOURCE: JNHT Sites and Monuments Record - 2020



4. LITERATURE REVIEW

4.1 Ballimony

Ballimony was formerly known as Chigury Hut according to the Thomas Harrison 1879 map. James Robertson's 1804 map reflects this area as being unoccupied / vacant at that time with the names Chigury Hut and Ballimony absent. The property is situated between Lincoln and New Hall. The Ballimony property which was utilized for cattle rearing had an acreage of 840 in 1844 and was owned by C. Brown. An advertisement in the Daily Gleaner dated May 28, 1931 advertised the land as "a fine property of 40 acres... suitable for pasture or cultivation.... Can be sold at £200".

4.2 Bensonton

Bensonton is a small community which is nestled between Harmony Vale and Concord. This community was non-existent on James Robertson's 1804 map, however, the Thomas Harrison's 1879 map indicates that the Bensonton lands once formed part of Concord. The community was named after the Reverend Joseph Benson who was headmaster of Trevecca College in Wales. The Rev. William S.F. Moss (1817-1870) built a large chapel here at a cost of over £1,000. The Methodist Society at York Castle, which is in close proximity to Bensonton, was moved to this location.

4.3 Brown's Valley

The property is located between Grier Park and Penny's Pen. In 1879, the area was referred to as Santa Anna, with a total of 129 acres. The land was passed into the hands of Reynolds Jamaica Limited in the mid 1900s.

4.4 Camperdown

Property between Ballimony and Tydixton Park was owned in 1817 by Sarah Duncan with 49 slaves and no stock. The 1824 Almanac listed the allotted land belonging to George Duncan who possessed 14 slaves and 5 stock and Charles G. Reade with 10 slaves and 9 stock. By 1831 there were 9 slaves and 3 stock and in 1844 this 10-acre property was owned by Sarah R. Nicholson. The Settlement of Camperdown took the name of the originating property.

4.5 Clovers Hill

This property falls between Gibraltar and Resource. In 1879 this large property was subdivided into small lots. The remainder of the land settlement accounted for 247 acres, which was owned by the heirs of John Chamney.

4.6 Concord

Concord consists of a property and a settlement. The property was owned in 1817 by Julia A Ladebat who owned 31 slaves and 15 stock, and this has resulted in the original section of the community now referred to as Ladebat. It was later owned in 1824 by George W. McKay with 62 slaves and 3 stock, then owned by James Minot in 1831 with 49 slaves & 21 stock. By 1831 the ownership was in the hands of Peter McAlister with 8 slaves and 14 stock.

In 1845, Concord consisted of a total of 650 acres according to the Jamaica Almanacs. Thomas Harrison's 1897 map reflects Concord as a large property with 257 acres segmented to form the York community. In addition to this, Bensonton was also formed from the Concord lands. The community of Concord is now between Bensonton and Pedro River.

In 1769 a patent was made for Concord Plantation by Lewis Hutchinson, proprietor of Edinburgh Castle, whose property shared a boundary with Concord Plantation. This patent signified that there was a land dispute which was settled in 1827 long after his death. The Sacred Heart Church which presently exists in Concord was

founded in 1931 in a wattle hut on a ¼ acre of land. It was later reconstructed with cut stone in 1942.

4.7 Drumily

Drumily was owned by John Hanlon with 14 slaves and 1 stock in 1817. In 1824 Drumily had 13 slaves and 1 stock. This is a settlement between Harmony Vale and Bensonton and the Edinburgh castle is situated in close proximity.

4.8 Edinburgh Castle

The property is located on the main roads between Concord Pen and York Castle. In 1768 Captain Lewis Hutchinson came to Jamaica and built his “castle” on his 500-acre estate on a hill 15m (50ft) high. Legend has it that Hutchinson was a mass murderer who disposed of his victims in an 84m (275ft) sinkhole called “Hutchinson’s Cave” (Kenky Hole) near his castle. He had a good view of the roads from his castle, he would kill his victims by shooting them or invited them into his home and shoot them as they left. He was sure that he would not get caught as his witnesses were slaves. They were not allowed to give evidence against Whites.



Plates 6: Previews the ruin of Edinburgh Castle on a hillock overlooking the community of Drumily.

However, in 1771 one of his victims, a neighbour named Dr. Johnathon Hutton, who was a retired naval doctor was wounded and lived to tell the tale. He was treated in England for his severe conditions. Upon the neighbour’s arrival from England a warrant was served. No one wanted to take this warrant to Hutchinson. Mr.

Callender, a brave soldier, took the warrant to Hutchinson. After, Mr. Callender told him of the nature of his mission, Hutchinson with his tyrannical character shot Mr. Callender, where he died on the spot. This was done in the presence of the authorities. Hutchinson hurriedly escaped to Old Harbour where he was captured. The Castle was searched and forty-three watches as well as clothing were discovered. On March 16th, 1773, he was tried, found guilty and hanged in the Parade, Spanish Town.

In 1818, the property was owned by Hon. John Lewis. There were 21 slaves and 5 stocks according to the Jamaica Almanacs. The 1828 Jamaica Almanac lists the property as belonging to Ralph Bernal with 68 slaves and 100 stock. Edinburgh Castle Estate in 1840 land acreage stood at 1317, under the proprietorship of Ralph Bernal. By 1912 the acreage was significantly reduced to 69 acres and was in wood and ruin. In 1920 the acreage remained at 69 with the proprietor listed as the property of Onfroy Thomas. In 1930 Edinburgh Castle changed hands to H. Redway with the acreage reduced to 60. The land at this time was used for grazing and woodland. In 1944/1945 the land was used for grazing cattle with the owner at that time being W. Conron. The number of cattle was approximately 443 according to the Jamaica Almanac. Most of the Edinburgh property is owned by a bauxite company and the castle is now owned by the Jamaica National Heritage Trust.

4.8 Friendship

Friendship was owned in 1810 by John Gayner with 233 slaves and 622 stock along with Redswater, Culloden, Hyde Park and Dairy. It is situated between Grier Park and Grier field. The ownership remained in the hands of John Gayner in 1817, with 139 slaves and 238 stock. However, in 1817, the records indicated that the heirs of David Mignott, as joint proprietor owned 34 slaves and 362 stock. Honourable S.C Burke in 1897 owned the land.

James Edwin Duerden, Curator of the Natural History Museum at the Institute of Jamaica reported in 1897 that there is a Taino site present. A Taino kitchen midden

was excavated which revealed marine shells and pottery sherds. The historic Friendship Pen property was subdivided, and the southern section sold to small settlers.

4.9 Gibraltar

Gibraltar is located between Grierfield and Clover Hill. In 1840 Gibraltar was owned by Robert Taylor who was in possession of 640 slaves. In 1882 this property along with Mount Olivet was 280 acres and was owned by William Carlton Taylor. Forty acres were in Guinea grass, 10 in common pasture and pimento, 230 acres was in wood and ruinate. The settlement also took the name of the associated property. The Baptist church at Gibraltar was founded in 1859.

4.10 Grierfield

Grierfield took the name of the originating property. The settlement developed around the crossroads formed by the meeting of the roads between Phoenix Park and Lluidas Vale, and Moneague to Friendship.

This 1,198-acre estate located between Moneague and New York was owned by the Grier Family. Robert G. Hamilton owned the property between 1810-1824 with slaves and stocks listed respectively. In 1810 there were 46 slaves and 130 stock, in 1817 46 slaves and 157 stock and in 1824 with 42 slaves and 167 stock. The property was owned in 1831 by his heirs with 37 slaves and 171 stock. It should be noted that Colonel Hamilton Brown, the founder of Brown's Town, owned 1508 acres here. In 1844 this 1508-acre property was owned by J.G. Vidal.

Findlater Roper owned Grierfield and New York in 1881 with a combined acreage of 1,769 acres with 10 acres in coffee, 264 acres in Guinea grass, 200 acres in common pastures and pimento and 1,295 in wood and ruinate.

In 1912, Geo Royes owned 80 acres valued at £149 with land usage being woodland

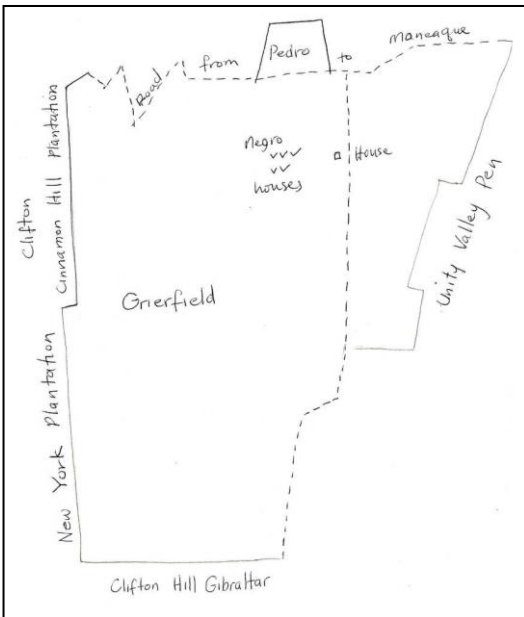
and ruinate and another 148 acres valued at £101, land usage

was also woodland and ruinate. It was then owned by cattleman and horse racing fancier Judge Findlater Roper. It was later passed on to his son Frank

Roper. Frank Roper owned land totalling 1,488 ½ acres valued at £5,000 at Grierfield between the years 1930-1938. In 1930, land usage was grazing, pimento, coffee and in 1938 grazing and pimento.

The property is now owned and occupied by Aloun N'Dombet Assamba, former minister of Tourism.

Plan 1: Illustration depicting the extent of the Grierfield Estate property



4.11 Harmony Vale

The Accounts Produce shows that in 1791 the land known as Harmony Vale Pen was owned by Frances Breary, a mulatto woman, and the heirs of Stephen Breary, however, the property was overseen by Esquire John Packharnis. They were in the business of leasing enslaved people, cattle and horses. In 1793, the estate continued to be owned by the Brearys and overseen by John Packharnis. The use of the estate was listed as being cattle and horse grazing and the cultivation of corn and coffee. In 1794, the ownership was now that of a deceased Stephen Breary and the land used for cattle and horse grazing, the cultivation of corn and coffee and for rents. By 1800, the land was solely being used for rents under the care of the executor, Packharnis.

James Robertson's 1804 map shows the Harmony Vale land as owned by Breary with a house at the location though not mentioning the name Harmony Vale. Since 1822, the land was registered to Onffroy and Simpson along with Little River and in 1825 returns were filed for both Little River and Harmony Vale as being in the possession of 181 slaves and 44 stock. Thomas Harrison's 1897 map displays a large

area being labelled as the Harmony Vale settlement which would have been named after the original property of Harmony Vale Pen. The Baptist Church in this community was founded in 1835. An advertisement in the *Daily Gleaner* of the 28th May 1931 reads: “FOR SALE: Harmony Vale, St. Ann. A fine property consisting of a house of 5 apartments, outbuildings, Barbicue, a small tank, pulper for coffee, 2½ acres of land bearing fruit trees of all descriptions, situated 6 miles from Claremont by the way to Pedro on the Main Road on a street about 6 chains in. Price £250”.

4.12 Lincoln

Lincoln was owned by John Packharnis in 1792 with 10 slaves and 29 stock. James Robertson’s 1804 map displays this area also as owned by Packharnis with a house at this location. By 1810, the land was in the ownership of William Nash with 45 slaves and 15 stock, later owned by Margaret Nash with 55 slaves and 17 stock. By 1824, there was a decrease in slaves and stock to 51 slaves and 10 stock respectively. By 1844, the property was registered to T. Meller. The settlement, which shows a town, took the name of the originating property. Thomas Harrison’s 1897 map shows the acreage being 380 acres at the time.

4.13 New York

New York lies between Grierfield and Ballimony. In 1879, the property possessed an acreage of 1695 ½. By 1912, the land reduced in size to 1455 acres under the ownership of Patrick Marr. It was valued at £400 and covered in woodland and ruinate. The land was later entrusted to Patrick Marr Jr. with 943 ¼ acres valued at £400 used for grazing and woodlands. George Royes had a further 108 acres in grazing valued at £101. The proportion of land in 1930 remained to the same owners with slight changes to the acreage. Marr’s property was valued at £500 whilst Royes’ property now 113 acres was valued at £160. In 1938, Marr’s property was in ruinate; James Green owned 92 acres in ruinate valued at £60. By 1957, the land had been further subdivided to E.G. Barrett (200 acres), M.C.C. Farquharson (114

acres), F. Roper (300 acres), William B. Neilson (216 acres) and the balance was owned by Messrs. Neilson.

4.14 Pedro River

The 1807 Accounts Produce indicates that Pedro River was an Estate producing sugar, rum, wainage of coffee, livestock, and logwood. James Robertson's 1804 map indicates the presence of a waterwheel and works in Pedro. Thomas Harrison's 1897 map also reiterates the fact that there was a sugar works in the area.

The community of Pedro River is named after the river that traverses the community. The settlement located on a ridge was described by Edward Long in 1774 as *"This district, not many years ago, was without a single settlement. ... It is spread for an extent of many miles with an infinite number of little round hills, whose surface is covered with a loose lime stone, or honeycomb rock, clothed with fine cedar, and other trees of enormous bulk; the dales, or cockpits, as they are called, which meander between these hummocks, contain a very good soil, of great depth, which is so well appropriated to the culture of Guiney grass ... that the plant forms here a perfect sod, circumstance I have observed in no other part of the island... An enterprising man, who was the first settler here, patented 300 acres of land, built a defensible house upon a rising ground, and formed pastures; his success attracted others, so that there are now thirty-four settlers there, who at their own expense chiefly, have made a very good road, almost due North and South, for several miles, and, their buildings being dispersed on each side of the road, it has the appearance of*

a long straggling street". A List of slaves and stock from the 1792 Almanacs outlines



Plates 7: Shows a section of Pedro River, a disappearing stream. The estate and subsequently the community acquire their name from the river. The river once powered the waterwheel of the sugar works that was established on it's banks.

James Dick as owning 72 slaves and 166 stock in Pedro. The 1820 Jamaica Almanac later shows part of Pedro River as owned by Mary Ann Dick. with 5 slaves. By 1822, Mary Ann's slaves increased to 8. The 1825 Almanac also shows Mary Ann Dick as owning 4 slaves. The 1827 Almanacs indicate that both Dick and Frederick Nembhard filed returns for the Pedro Property with Frederick Nembhard owning 188 slaves and 282 stock. Thomas Harrison's 1897 map indicates that the of Pedro River

lands were sold to Nembhard. Up to 1828, it is observed that Mary Ann Dick filed returns however that name is not seen in records after this date. The name Frederick Nembhard is registered as continuing to hold ownership of the land and up until 1832, the land was registered to the Estate of Nembhard owning 163 slaves and 53 stock.

The ownership changed hands in 1844 to J. Anderson with 720 acres of land. In 1847 it had been abandoned. While, in 1879 this property was 512 acres. In 1882, this 614-acre property was owned by Thomas Atkinson and contained 5 acres of ground provisions and 495 of common pasture.

4.15 Penny's Pen

Penny's Pen as seen on James Robertson's 1804 map was owned by Hon Alexander Fullerton. This Pen adjoins the property known as Brown's Valley also known as Santa Anna where the Jamaican Vernacular property House remains with several ponds said to have been built by slaves. By 1810, the Crop Produce shows that Penny's Pen was owned by George

Plates 8 and 9: Depict the main property house and rolling pasture ruiate landscape with one of several man-made ponds for watering cattle.



Alexander Fullerton who had 425 slaves and 564 stock with Hopewell another Estate. According to the Jamaica Almanacs, in 1815 Penny's was still owned by Mr. Fullerton and was in possession of 136 slaves and 489 stock. In 1827, the ownership remained the same with the enslaved population being 102 and stock being 435. By 1832, the enslaved amounted to 112 slaves and 525 stock. By 1839, after slavery ended, the size of the property was shown as being 2319 acres. A Property House and adjoining structures made of cut stone remain. Dried up ponds which were said to be constructed by slaves are also witnessed on the property along with two small animal mills. In 1883, this 2,000-acre pen was put up for sale: *"The Commons consist of rich Pimento Grass, and the Pastures are divided and sub-divided by substantial Stone Walls. The property is capable of carrying 500 head of Cattle. The residence is commodious and possesses every convenience for a family; and also, for sale at the same time and place, the herd of cattle of the same Penn, numbering 280 head"*.

Historically, Roadside was part of the Penny's Pen property. This is a settlement which was formed from the Penny's Pen land.

4.16 Pleasant Hill

Pleasant Hill is between Concord Pen and Camperdown. Owned in 1831 by Richard Coombs with 15 slaves and 27 stock. By 1844, Pleasant Hill consisted of 872 acres and was owned by W. Brown. Pleasant Hill was also referred to as 'Hope Hill' as seen on the Thomas Harrison's 1879 map and was a total of 800 acres.

4.17 Roadside

The small settlement of Roadside once formed part of Penny's Pen. Thomas Harrison's 1879 map does not mention Roadside. However, in the 1982 1:50,000 map presents roadside as a separate property from Penny's Pen.

4.18 York

In 1822, York was owned by Joseph Whittaker with 14 stock and 3 slaves. Joseph Whittaker was born in York, Yorkshire, England, UK and subsequently, the name York was adopted here. A total of 257 acres of the Concord property was used to form this community. It was owned in 1824 by the heirs of Joseph Whittaker with 15 slaves and no stock and in 1831 with 24 slaves and no stock. The 1844 Almanacs indicates that York was owned by Humber and Cates with 263 slaves. The settlement took the name of the associated property.

4.19 York Castle

A Taino midden site was identified on the York Castle property in 1965 by the geologist / avocational archaeologist James Lee in 1965. The site was surveyed and the plan indicating the location of the site is approximately 1 kilometre northeast of the York Castle House (see Plan 2).

York Castle originally consisted of five hundred (500) acres and was used as a coffee and pimento plantation with a Great House. James Robertson's 1804 map indicates the area which is known as York Castle as being owned by Sicard with the house,

possibly the Great House. Thomas Harrison's 1879 map displays York Castle and shows the York Castle House. The Jamaica Almanacs indicate that in 1809 Jacques Sicard was in ownership of the Estate with slaves amounting to 198 and stock being 87. In 1820, the Estate still in the possession of Jacques Sicard had 198 slaves and 87 stock. York Castle was the property of Jacques Sicard up to his death circa 1823. In 1824, the property was registered to the estate of Jacques Sicard with 127 slaves and 81 stock. In 1840, the estate was registered as being 1888 acres and still being Sicard's Estate. By 1844, however, the land was in the ownership of J. Mais with the acreage remaining the same.

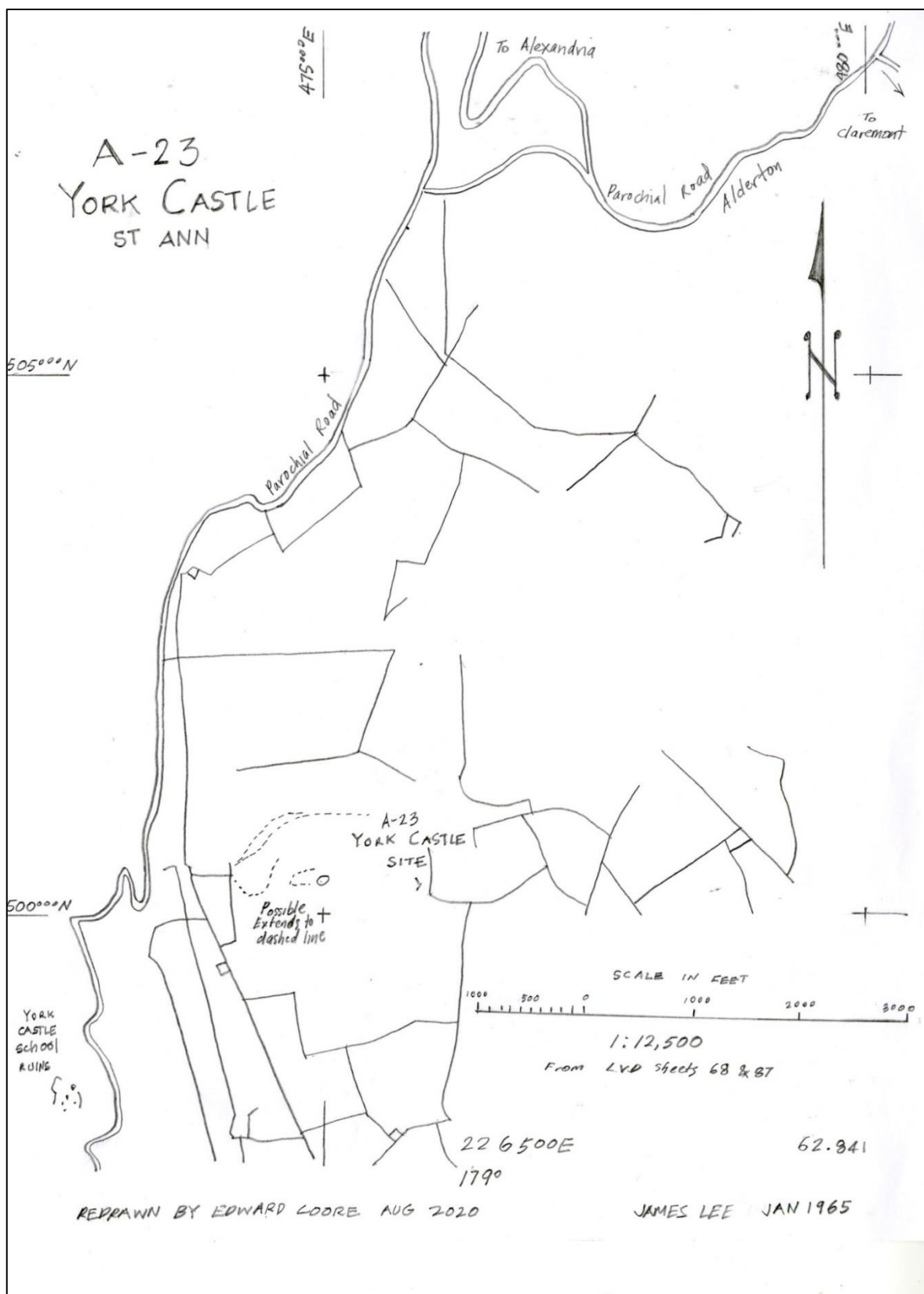
The *Falmouth Post and Daily Advertiser* of July 14th, 1874 reported that the York Castle property was bought "*by the Wesleyan Body, as a College Site, for £600*". In 1882, this 668-acre property was owned by what was called the Wesleyan Missionary Society and contained 268 acres of common pasture. The settlement was between Alderton and Edinburgh Castle and took the name of the originating property. This was a thriving community in which the Methodist Church was well established and in 1875 the York Castle Theological Hall was established in the Great House at York Castle, St. Ann, on 800 acres of pimento and pasture. The first headmaster was the Rev. Andrew Kessen LLB from 1814-1879, a most distinguished Methodist missionary scholar. In 1876, the Methodist church started the York Castle High School. Findlay and Holdsworth stated that York Castle "*was the first High School in Jamaica, if not in the West Indies, without the colour bar; its opening excited universal attention*". A two-storey stone building named "Osborn Hall" was built, named after the Rev. Marmaduke C. Osborn, Secretary of the Methodist Conference in England, who visited the school in 1878; furnished downstairs with desks and chairs and upstairs with beds; total sleeping accommodation in this building and the old York Castle Great House was 60 boys. Ansell Hart wrote this memoir:

"...There was a great to do. The old house, which appears to have been the original Great House of the Coffee property, formerly owned by a French family of the name of Curtis, was built on the side of a lofty hill. In the basement, called the Corridor, were

housed the First Form and the storeroom and Post Office which were managed by Mr. Murray's Sister, whom the Boys called Prascovie. From the Corridor, steps led up to the Boys' Dining Room on the first floor. A passageway separated the Boys' Dining Room from kitchen and bakery, On the second or topmost floor was the old dormitory. To the South, reached by a footbridge from the Osborn House level, was the 'Piano-case', housing in front on the lower floor a small Boys' Dormitory; in the back some other Theological Students, among whom were Sherlock, Clark, and later Surgeon and Cresser and others. On the top floor were Masters' quarters. In the Basement was a small Bathhouse. The School was well supplied with tanks for drinking water and for the weekly bath, and the nightly footpan at each bedside accompanied by the urge to work.... Supplies came to us by dray from the Railway depot at Ewarton". The York Castle boys school had one hundred and twenty boys at its peak, and was closed by the Methodist Church in 1906 due to financial difficulties, even though it was an excellent school; nine of whose students had won the Jamaica Scholarship, the Gilchrist Scholarship in 1888, and seventeen graduates had matriculated at the University of London. Students at the present York Castle High School in Brown's Town come here in pilgrimage.



Figure 1: Illustrates a portrait of 19th century York Castle - Courtesy of An Encyclopaedia of Geographical Place and Street Names in Jamaica, Past and Present, (Peter Espeut forthcoming).



Plan 2: The plan illustrates the location of a Taino Midden site on York Castle estate identified as A23 (James Lee 1965). Broken line was used to show the path to the site.

SOURCE: JNHT Sites and Monuments Record - 2020

Members of JNHT Archaeology survey team climbs steep hill to explore
Taino cave, Taylor's Corner, Gibraltar, St. Ann
SOURCE: JNHT Sites and Monuments Record - 2020



5 HERITAGE

This section presents information on the sites identified in the heritage field survey. As a strategy to ensure efficiency, avoid overlapping and for ease of reference, the study area (SEPL 524) was divided into eight (8) zones and surveyed by two teams of archaeologists from the JNHT. Description of heritage assets below is presented by zones. Also included in this section are maps illustrating the spatial distribution of heritage assets both by zones and SEPL in general.

5.1 Zone 1.

Brown's Valley

The Browns Valley lands consist chiefly of open land space which are used for the grazing of cattle. The ponds seen on the premises are for the watering of the cattle present. These ponds were said to have been built by slaves

according to



Plate 10: Brown's Valley pond referred to as slave ponds by residents



Plate 11: Vernacular Property house at Brown's Valley

residents. The Jamaican vernacular Property House on the premises is unoccupied but is in fairly good condition and can be restored. The house has a cut stone foundation with cellar. It is situated atop a hill, a vantage point on the premises which would have been suitable for monitoring activities on the property. The house carries two wooden verandas with rails to the rear and the front. Sash windows punctuate all walls for ventilation. A zinc hip roof secures the interior and bodice of the house. A boundary marker was also identified on this property.

Penny's Pen

Penny's Pen is an estate that is characterized by extensive pastureland used for the grazing of cattle. The property now owned by WINDALCO, possesses a complex containing a property house and other detached cut stone buildings, vestiges of a



Plate 12: Penny's Pen property house

small animal mill, water tank, rain gauge, a stable and blacksmith shop. The vacant property house has a cut stone foundation, sash windows with jalousie, gable and hip roof and a brick chimney. There were several ponds on the property, some of which are dried. These ponds, called slave ponds, are believed to have been built by enslaved Africans. Evidenced by one of the ponds, they were created with the bottom sealed with a cut stone base. This would have prevented or

significantly reduced the rate of water seepage. The circular feature shown in Plate 13 represents the possible remains of a small animal mill. They were essential in the processing of wet sugar for local consumption and were referred to as a "John Crow sugar mill".

Plate 14: Dried up pond with a cut stone base



Plate 13: Outline of old animal mill



Roadside

Roadside is a small settlement that contains a few vernacular structures in a linear pattern. One yard had an entire ensemble of vernacular structures which were recently vacated. The vernacular house in the yard displays hip and gable roofing, and sash and jalousie windows. The house is also embellished with fretwork around a wooden veranda at the rear.

Another vernacular building contains a pantry, kitchen, storage with gable roofing, nog walling and solid wooden windows. The cut stone water tank would have served a domestic purpose and a rectangular cut stone structure may have been used for storage. The remnants of a cut stone and brick latrine was also observed. A

vernacular nog wall shop forms part of the ensemble of structures. It has a gable roof with piazza and double wooden doors.



Plates 15 and 16: Images showing the front and rear of the vernacular house



Plate 17: Vernacular building used as kitchen, pantry, and store house



Place 18: Square cut stone water tank with steps

Plate 19: Cut stone storeroom



Plate 20: Remains of latrine made from brick and stone

Plate 21: Vernacular house with gable and pitch roof



Harmony Vale

Harmony Vale is chiefly a residential community. The shell of the former Baptist church founded in 1845 is unmistakably visible. The nog wall ruin had a gable roof and possible jalousie louvre windows. The skeleton of the church also displayed some amount of alteration at the side. The current Baptist church has a red gable roof and sash windows which are complimented by stained glass arches and elaborate sprawling steps to accentuate its elevated foundation.



Plate 22: Former Baptist church building in Harmony Vale



Plate 23: Present Harmony Vale Baptist Church

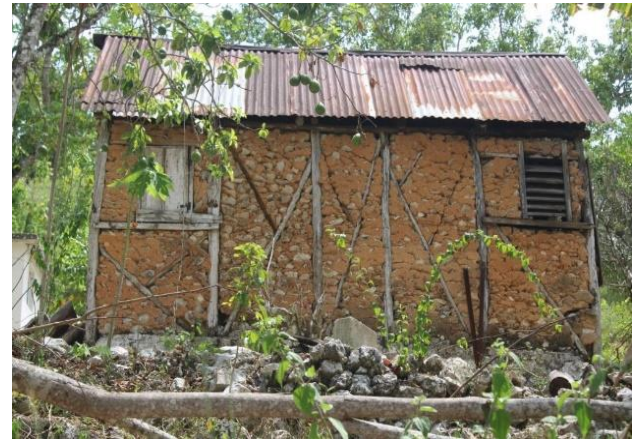
Harmony Vale also has a number of vernacular buildings and structures. At least one vernacular house is over one hundred years old as stated by the occupant. It carries



Plate 24: Vernacular house with sash and jalousie windows

a gable and hip roofing, sash and jalousie windows, a cut stone foundation, and a small veranda. A barbecue, water tank and other features are seen in the yard. Another residence presented a well-kept vernacular house with a detached nog kitchen. The house has hip roofing, cut stone foundation with a cellar, a veranda with wooden rails, sash and jalousie windows and is complemented by fretwork and red

ascending steps. The kitchen has a gable roof with red nog walling, jalousie windows and cut stone foundation.



Plates 25 and 26: Vernacular house with gable roof with a pitch and cut stone foundation along with a detached nog kitchen

Harmony Vale also has the remains of what appears to be a coffee works building with a cut stone chimney and other works ruins. At this location were also historical graves, cut stone house foundations and a large assemblage of artefacts. The area is



used for raising goats and the cultivation of cash crops. A large cut stone water tank with conjoined catchment is also a feature used by residents of adjoining communities. One cave was identified, a kiln/oven which is made of cut stone and several historical graves on the property.

Plate 27: Remnants of an abandoned cut stone works building with a chimney



Plate 28: Cut stone kiln formerly used for baking



Plate 29: Extant grave site with several historical graves



Plate 30: Extant three part cut stone water tank system



Plate 31: Harmony Vale community catchment and tank

York Castle

York Castle boasts the site of the former Methodist Theological College and the early York Castle High School building. It is situated on a hill and some of the walls of the former Great House and Hall are visible. The cut stone walls of a chimney ruin along with 18th century artefact assemblages were identified at the location. The artefact sherds include earthenware, creamware, pearlware, olive green glass and metal implements.



Plate 32: Cut stone walls of the Former Great House turned Methodist Theological College and High School

A monument has been erected on the premises as a memory to the founding fathers of the York Castle High School. A concrete boundary marker is also located on the premises. There is however evidence of cash crops being cultivated within the walls of the former College.

Plate 33:
Monument in
honour of the
former founding
fathers of the York
Castle High School



Plate 34: Boundary marker on the
York Castle College Site

Among other vernacular buildings is the post office, which is a small square shaped structure constructed with cut stone walls and foundation but has a modern concrete slab roof. It has a single entrance door with a deposit slot in the door and a wooden window. Another vernacular structure was a house with a red hip roof, nog walling, jalousie windows, cut stone foundation and ascending red steps at the entrance. The premises also possess a barbecue, a cut stone water tank,

and a vernacular nog walled shop to the front.



Plate 35: Vernacular house with hip
roof, sash windows and cut stone
foundation

Plate36: Side and front
view of York Castle Postal
Agency made of cut stone



5.2 Zone 2.

Grierfield

The Grierfield Great House is a Jamaican Georgian vernacular house with single to double, split level residence with its lower storey being constructed of flat cut stone and protruding masonry joints. It has a series of hip and lean-to roofs with a green galvanized zinc finish. Also seen are variances of windows ranging from awning, casement, and jalousie louvres. It is painted yellow with green emphasis on architectural elements such as windows, roofs and building lines.



Plate 37: Grierfield Greathouse a historical Georgian vernacular architecture.

Located on the top of a conical hill is a fortified structure made from crude cut stone and it appears to have had a gabled roof. One wall has six loopholes and in one corner it had a cylindrical tower with a large gun hole. It measures 22 metres in length by 14 metres width. It is located approximately 1270 feet above sea level. There was no visible ruin of any other structures in the vicinity of this fortification.



Plate 38: Cylindrical tower located in one corner of the fortified structure.



Plate 39: Section of fortified structure showing six loopholes.

Situated at the foot of the hill where the fortified structure was found, were remnants of a destroyed wooden structure, presumably a house. The



Plate 40: Stone foundation rendered with lime mortar

stone foundation rendered with lime mortar was visible along with the foundations of a small kitchen in the back. In close proximity were also two graves believed to be a mother and daughter.

Made from cut stone and lime mortar is a historical cut stone tank with large elevated water catchment. It is about 9 feet deep with around 3 feet of water inside. This tank was isolated and located in a depression.

It was noticed that a majority of the houses in Grierfield were made with modern concrete blocks and steel while a few others had remnants of nog out building (bathrooms and kitchen).



Plate 41 and 42: Views of cut stone water tank and catchment



Plate 43: Nog wall house with concrete additions with small family plot with three historical graves made from cut stone and nog material

This extant vernacular nog wall house on raised cut stone foundation, has a zinc gable roof. It also has a conjoined modern addition made from concrete blocks with steel which also had a gabled roof.

There are a set of graves found to the back of the house where three were identified as being historical.

Friendship

The community of Friendship had mostly modern houses constructed with block, steel, and cement. There were also several historical graves that were recorded in the area.



Plate 44: Small abandoned vernacular house located on a slight incline.

This historical nog wall house has its original wooden shingled gabled roof. It is painted cream with red french doors with fretwork lintel and has four glass windows. This house is built on a raised cut stone foundation and has cut stone steps at the entrance.

Plate 45: Historical grave with cut stone foundation

This historical grave is located in the Friendship Seventh Day Adventist church yard. The grave is made from a cut stone base with nog material at the top forming a dome like shape. This was the only grave identified in the church yard.





This family cemetery is located in a depression on lands used to graze animals, primarily cows. Seven cut stone graves with nog material were identified, enclosed in a barbed wire fence. In close proximity, outside the enclosure, is another set of graves

Plate 46: Seven historical graves

which seemed to be modern. A resident who lives in a house overlooking the graves states that all graves both (modern and

historical) are from the same family.

Plate 47: Six modern graves outside of the enclosure



Plate 48: Very large cut stone water tank with semi-circular catchment. Also located in a depression

Forsa

This structure is located in a depression at the foot of a stoney conical hillock on land that had been cleared to facilitate agricultural activity. The structure was constructed using both small and large pieces of cut stone and lime mortar which were then packed to form walls. However, its structural integrity was severely compromised



Plate 49: Front profile of the unknown structure found in Forsa. St. Ann.

by the roots of a fig tree growing within it. The feature is about 4-5 feet tall with a wide girth. From the front, the structure appears to have two levels constructed in a semi-circular fashion. The rear and the middle of the structure are severely damaged by the fig tree. Due to these conditions, it remains unclear what the structure is and what purpose it served. According to a local farmer, a caucasian woman used it for planting flowers.

There were several abandoned, dilapidated vernacular houses observed in the district, each of which had their own cut stone water tank.

This vernacular house was situated on a slight gradient near to the roadway. It is a light blue abandoned house ruin with cut stone foundation and is overgrown with vegetation. There is a cut stone water tank with a yam field in the vicinity.



Plate 50: Vernacular nog-wall house with circular cut stone water tank.



Lands in Forsa were used for cattle resting and grazing. There were several water troughs identified. This rectangular trough made from cut stone and rendered with lime mortar was seen from the dirt roadway.

Plate 51: Historical square cut stone water tank on depression slope. These tanks were used to water cattle.

New York

New York is a small district between Lincoln and Penny's Pen in the north eastern section of SEPL 524. The area displays a higher forest to settlement ratio with most of its hinterland being characterized by limited vehicular accessibility. Nevertheless, it was apparent from those sections that were accessible that the area was mainly utilized for mixed farming.



This cut stone water tank is located at the foot of a hill with a large catchment resting on the hillside. This water tank and catchment serves New York and the surrounding communities such as Lincoln, Forsa and part of Penny's pen.

Plate 52: Circular water tank with large elevated catchment

Three sinkholes were identified in New York. All three are located on private residential properties. These sinkholes are about fifteen metres apart and appeared to be part of a singular central system.

Sinkholes 1 and 2 are located in close proximity to each other in the back of a yard along with some modern graves. Sinkhole 1 was being used as a cesspool. They are located on the edge of a depression in open land that is used as cattle feeding ground. Sinkhole 3 is



Plates 53 and 54: Twin sinkhole in the back of a yard. The homeowner is discharging effluent in the sinkholes., New York, St. Ann.



located approximately 50 metres south of sinkholes 1 and 2 but appears to be connected.

Plate 51: This sinkhole is identified about 50 meters south of the others and at the end of a cultivated plot of land., New York, St. Ann.

Lincoln

Lincoln displayed a much denser settlement pattern than its neighbouring districts. Agricultural subsistence activities were significantly less apparent on the landscape than in Forsa. However, commercial activity was represented by the number of shops present there. The district exhibited many of the common features of the historical rural landscape such as nog wall houses and outbuildings, historical property boundaries and cut stone water tanks and animal troughs. Of note, is the hillside public water tank with large catchment that serves the community.



Plate 56: Nog wall shop with gable and pitch roof (original wooden shingles exposed) built atop raised cut stone foundation. (Lincoln, St. Ann)

This structure has been recently renovated. The gable roof is now zinc as the original shingles were removed. The

Nog wall shops are common in these rural communities and were often on the property of the owner within range of the family house. This structure appears to be abandoned and is in very poor condition. The degenerated zinc roof exposes the original shingled roof underneath. The structure is painted pink on white.



Plate 57: Nog house on raised cut stone foundation with a gable roof. (Lincoln, St. Ann)

structure is painted pink with brown door with white sash windows. A Large circular water tank is located in the yard.

House yards within the SEPL boundary have many arrangement patterns that can range from simple to complex depending on the number of historical features present on the property. This property was part of a settlement located in a depression alongside the main road. It features a nog wall house painted green on white with red gable roofing and a square cut stone and lime mortar water tank.

Other properties featured outbuildings like this dilapidated nog wall kitchen with gable roof and exposed original wooden shingles located at the base of a rocky, elevation on the hillside.



Plate 58: Small nog wall house with stone water tank in depression in Lincoln, St. Ann.

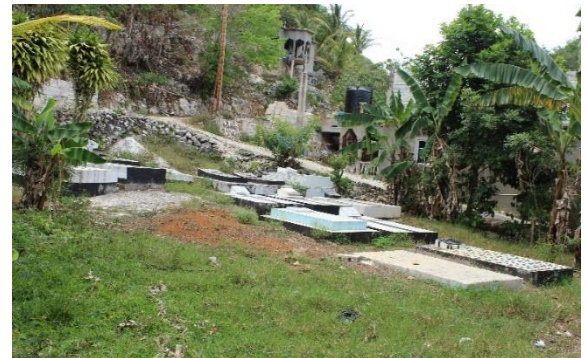


Plate 59: Small extant, dilapidated nog wall kitchen at the back of a modern house



Plate 60: Small nog wall house on raised cut stone foundation. (Lincoln, St. Ann)

Plate 61: Family graveyard with several historic and modern graves in the front of the yard on the hillside in Lincoln, St. Ann.



This property was located on the hillside and featured a number of historical structures including a cut stone water tank and cut stone foundation ruinate. However, the most significant aspect of the property was the small graveyard which

featured a mix of modern and historical graves on a slight incline just beside the main road. Nine of the graves here are historical. They are made of cut stone and lime mortar and they display about two or three different styles of funerary architecture. They have been painted white.

Plate 62: Circular cut stone water tank in Lincoln, St. Ann.



Plate 63: Historical house with a graveyard containing a mix of historic and modern graves in Lincoln, St. Ann

This ensemble of historical ruins were within a historical property wall. The main building appeared to have been a nog wall structure with cut stone foundation. On the property too was a small cut stone water



Plate 64: Cut stone ruins and cut stone water tank. (Lincoln, St. Ann)

tank with conjoined animal trough and small graveyard with a blend of modern and historical graves which again showcased variations in decorative funerary architecture. The graveyard and property is extant as exemplified by the three modern graves and the property's current usage as a cattle pen.

Plate 65: Photograph of cut stone foundation and ruins in Lincoln, St. Ann.



Mount Waddy

Mount Waddy is a hillside settlement between Grierfield and Friendship. Subsistence activities like farming, char coal burning and cattle rearing were not immediately apparent on the landscape and may have been on a much smaller scale than they were in areas like Forsa, Lincoln and Friendship that had more open, unsettled lands to be used in such capacities.



Plate 66: Large two-story vernacular house in Mount Waddy, St. Ann.

This large two-storey vernacular house on pillars has a partial wrap-around veranda. It has an elevated step with an arch. It is painted blue with a four panel



wooden door with french windows made of glass with wooden frame. There is also a circular cut stone

Plate 67: Side profile of historical house in Mount Waddy, St. Ann.

water tank and another detached nog walled structure with gable and shed roof.

The Mount Waddy Methodist Church is located in a valley in the Mount Waddy settlement. It shares the same property boundary as the primary school but it is a



Plate 68: Historic cut stone church with cut stone water tank. (Mount Waddy, St. Ann)

much older structure than the buildings surrounding it. It is built of cut stone on top of a raised cut stone foundation. It features arched windows and a gable roof. A cut stone water tank is also associated with the church.

Across from the church at the top of a conical hill was an ensemble of structural ruins.

This yard featured several cut stone foundations. The structures included raised cut stone foundations for a house as well as a variety of outbuildings and structural features.



Plate 69: Ruins of possible toilet/latrine on raised cut stone foundation. (Mount Waddy, St. Ann)

Plate : 70: Nog structure atop cut stone foundation. (Mount Waddy, St. Ann)





Plate 71: Raised cut stone foundation with possible terraced, semi-circular barbecue feature. (Mount Waddy, St. Ann)



Plate 73: Ruins of cut stone foundations. (Mount Waddy, St. Ann)



Plate 72: Small cut stone water tank associated with the ensemble of residential-related ruins atop a conical hill in Mount Waddy, St. Ann.

Plate 74: Structural remains of an outbuilding in Mount Waddy, St. Ann.



5.3 Zone 3

Drumily

Drumily is located in a valley and consists of a series of vernacular houses and historical grave sites. It is in close proximity to Edinburgh Castle which is clearly visible from there. Drumily comprises of a property and a settlement; several plots of historical graves and graveyards were recorded. Some of these were made from cut stone with limestone mortar whilst others were from nog wall material. One of the vernacular structures recorded was utilized as a meeting house.



Plates 75 and 76: Extant graveyards with historical graves recorded in Drumily



Plate 77: Degenerated nog walled meeting house



Plate 78: Orange and green vernacular house with hip roof and french windows. The house is occupied, and the yard is cultivated in banana.



This small vernacular house was made from nog walling and has a gable roof and is abandoned. Another was a well-preserved large orange vernacular house with partial hip roof and gable to the front. The house also displayed french windows, cut stone foundation with a cellar which was also adorned with french windows. The structure has nog walling and a cut stone water tank is in yard.

Plate 79: Side view of abandoned vernacular house with hip roofing, french and jalousie windows and cut stone foundation

Amongst other vernacular dwelling was also this green house with a split level therefore bearing double roofing, nog walling, cut stone foundation, french and jalousie windows, and a double wooden door. The style of roofing is that of a hip roof. A cut stone water tank is also situated in the yard. Another structure of interest is a nog walled cabin with the exposed cut stone and nog. It also has a cut stone foundation, and jalousie windows and a hip roof.

Edinburgh Castle



Plate 80: Jamaica National Heritage Trust Declared National Monument, Edinburgh Castle



Plate 81: One of the loopholes in the Edinburgh Castle Wall

The infamous Edinburgh Castle stands atop a fifty - foot hill on lands also known as Edinburgh Castle. The former two-storey structure is now an agape shell of what existed. A large portion of the first floor however remains intact and still commands attention from its lofty stance. The thick walls are made from cut stone along with its sturdy foundation. The castle still carries two cylindrical columns. The south west and north west walls have square central loopholes which would have been for muskets. The surface had a scatter of artefacts which include horseshoe, ceramics consisting of creamware, pearlware, metals and olive- green glass bottle sherds.

Bensonton

Bensonton Methodist Church is a Georgian building with cut stone walls and foundation. Lodged on a hillock, it is complimented by sash windows on all sides with stained glass arches above. It displays a red, gable roof with the gable also having sash windows. There are two crosses at both ends of the roof: to the rear and front. A belfry is also located in the church yard.



Plate 82: Bensonton Methodist Church



Plate 83: A degenerated vernacular nog wall structure on an adjoining hillock to the Bensonton Methodist Church

foot of the hill and children from Bensonton and all the surrounding communities are educated here.

A vernacular house which is also located on a hill was of interest as it has nog walling, a hip roof which has shingle protected by zinc. The house has a cut stone foundation. The nog and limestone mortar with stone are visible. Bensonton also has a large community tank with a huge catchment. This would have served the community and surrounding areas.



Plate 84: Large water catchment and water that supply the Bensonton community

Kenky Hole/ Hutchinson's hole

Located in a valley at Road Pasture, this mysterious sink hole is associated with Lewis Hutchinson of Edinburgh Castle. Presently surrounded by a number of trees, the legend has it that when Hutchinson killed passers-by or visitors, he would dispose of them in this hole. Community members have a fear for this hole as they think it is haunted as at least one person who went missing from the community was unexplainably found here dead. What is evident however is that persons were farming on lands in the vicinity of this feature.

The Waltham Baptist Church is a cut stone building painted light yellow and grey with an elevated cut stone foundation which houses a cellar. It displays french windows with triangular arches which are accentuated by frosted glass. The entrance is complimented by sprawling red steps. There are two graves close to the church building. An extant cemetery is on the premises along with two Jamaican vernacular houses of similar hue and a cut stone water tank.



Plate 85: The Sink hole, Kenky Hole or Hutchinson's Hole



Plate 86: Waltham Baptist Church complex with water tank vernacular houses, cemetery, and basic school

Christopher

Christopher is an abandoned village which is chiefly used for the farming of cash

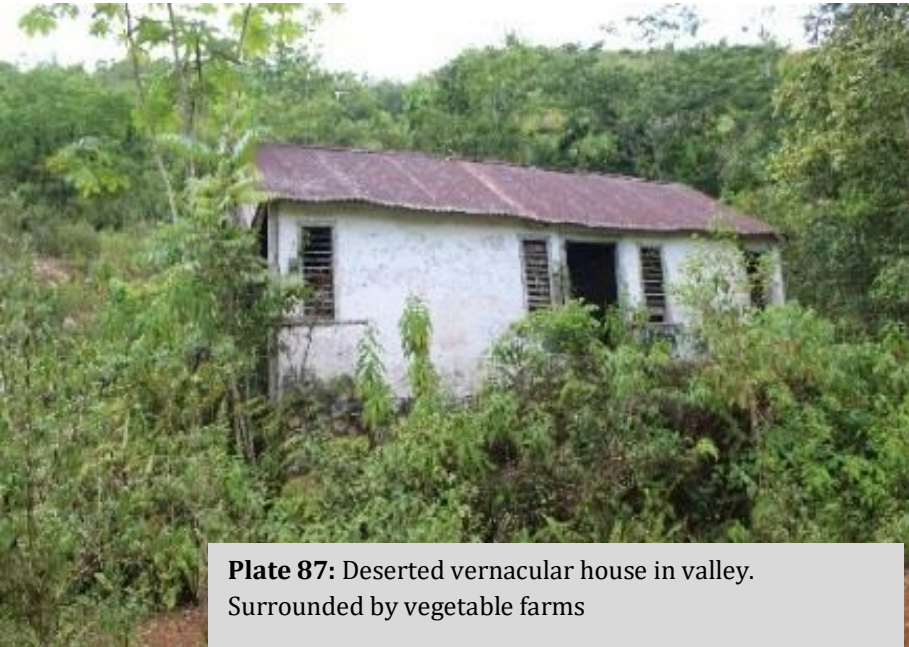


Plate 87: Deserted vernacular house in valley.
Surrounded by vegetable farms

crops and rearing of cattle. The community has remnants of vernacular houses excepting for one which still has a gable roof, cut stone foundation, jalousie windows and nog walling, however, it is not habitable. There are cut stone tanks, cut stone foundations and old historical graves. The area also carries sinkholes and caves. These vary in size as some are large and deep whilst others are small and

easily accessible. These caves bear the characteristics of most caves which are stalactites and stalagmites, columns and curtains and act as drainage for the area. This community sees a number of visitors who usually come for tours of the historical and natural assets here.



Plate 88: Small cave with graffiti on the wall



Plate 89: Historical graves in the middle of a pepper and potato field

Gravel Hill

On arriving at Gravel Hill one could notice the change in the composition of the soil resembling that of a gravel texture. It is a small settlement which possesses several vernacular houses along the roadway some of which have been abandoned. One



Plate 90: Vacant vernacular house with nog walling, jalousie windows and hip roof



Plate 91: Dilapidated vernacular house with high cut stone foundation, double swing doors and partial hip roof

vernacular house has nog walls, jalousie windows and hip roof. Another house has a high cut stone foundation with a cellar. It is characterized by a flight of steps which lead to a veranda. Double French swing doors form the entrance of this house and the roof has a double circle hip roofing. The house is adorned by french windows. A cut stone water tank is present in the yard. Another vernacular dwelling recorded, displays hip roofing, cut stone foundation, jalousie windows and nog walling which has been dressed with mortar. Historical graves made from brick and stone were identified.



Plate 92: Historical graves in extant graveyard

5.4 Zone 4

Taylor's Corner

Taino Cave (Gibraltar)

On the side of a very steep hill, nestled in lush vegetation is a cave. Located about 15 to 20 meters above ground level the cave could only be accessed by using a rope to help navigate up and down the steep incline.

Upon investigation by the team of archaeologists, it was determined that the cave was a Taino cave as there was evidence of both pictographs and a petroglyph which were found at the entrance of the cave which

looks like a rock shelter. The pictographs were images of a bird and a turtle which were both painted with a dark coloured ink/dye (black). The petroglyph had anthropomorphic features which was a

head with a face resembling the Taino Moon Goddess Atabeya. The team went down into a cavity which ended in a dome like chamber. There were no visible paintings or carvings on the cave wall, however there was evidence of graffiti on the walls. Residents say that there was an opening in the roof that appears to have been closed over the years. There were no artefact assemblages seen inside the cave.



Plate 93: Rock shelter close to the entrance of the cave, the petroglyph is located on the wall.



Plate 94: Petroglyph with anthropomorphic features resembling Taino Moon Goddess.



Plate 95: Taino Pictograph-Turtle



Plate 96: Taino Pictograph- Bird



Plate 97: Surface scatter of artefacts flagged with yellow tape to show the distribution.

Located a few meters away from the foot of the hill where the cave was found, was what the team identified as the Taino village site. Scattered on the surface was an assemblage of Taino earthenware sherds. Also found on the surface were pieces of decorated Afro-Jamaican earthenware, European ceramic sherds and olive-green wine bottle sherds.



Plate 98: Taino earthenware pottery sherd



Plate 99: Afro-Jamaican earthenware Yabba rim sherd with punctuated decoration

The Jefferyville Methodist Church was built in 1895. It is made from cut stone, painted grey and white with eleven white french windows. It also has a zinc gable roof with concrete addition to the back. Located to the rear of the church is a cemetery which has over forty graves both modern and historical graves.

Plates 100 and 101: Front view of the Jefferyville Methodist church along with small graveyard to the rear containing both modern and historical graves.



Plate 102: Small vernacular nog house with two entrances at the front

Houses in Gibraltar were made with the nog tradition. This extant vernacular nog wall house is painted cream on raised cut stone foundation with a dilapidated zinc gable and pitch roof with small veranda. Unlike many of the other vernacular domiciles observed, this structure has two entrances (doors painted red) each with stone steps with a small wooden window.

In the community of Gibraltar this large water tank made from cut stone and rendered with lime mortar is being used as the community tank as there is no piped water. It has a large catchment affixed to it and is fenced around by a chain linked fence.



Plate 103: Large community water tank with catchment

It should also be noted that there were several water tanks and troughs located in depressions in the district, they range in different shapes and sizes. The isolated tanks were used by animals mainly cows as these lands are being used as pastures.



Plate 104: Unusually shaped water tanks elliptical in shape located in depressions on lands used as cow pastures.

Sink holes were found in the depression at the foot of a hill. Community members state that when it rains heavily, these series of sinkholes are filled with water, inundating a section of the valley and houses taking days to recede.

Plate 105: Cavity leading down into the sink hole



Located in an open field in Taylor's

Corner is a set of historical graves. Two of these are single graves made from cut stone and lime mortar, another is large and appears to be multiple graves.

Plate 106: Images of four historical graves in Taylor's Corner



Ballimony

The survey revealed that a large portion of the district of Ballimony is no longer inhabited with residents. There were several abandoned vernacular houses with their own water tanks along with other historical tanks found in depressions, sink holes and a number of historical graves.

A seasonal rock spring was identified by a resident. It is built around with stone and lime mortar with a small trough attached. It is said, that due to construction further up the hill, the channel for

Plate 107: Rock Spring built around with cut stone and mortar.



the spring has been blocked. The depression below the location of the spring is cleared and currently being cultivated.

On this property is an ensemble of heritage assets including a large vernacular house made with nog material on cut stone foundation. The house has a hip and gable roof



Plate 108: Detached degenerated nog wall kitchen with zinc gable roof.

and was painted orange and black. There is also a small detached and dilapidated unrendered nog-walled kitchen with hip roof near the house. Also seen in the yard is a baking oven made from cut stone and lime mortar in fairly good condition. This oven is said to have baked bread that was sold throughout the community. Observed was a large cut stone water tank across the road from this property.

Plate 109: Cut stone baking oven in good condition



Plate 110: Circular cut stone water tank with elevated catchment.

This sink hole holds the story of an elderly man by the name of Eric Carter who allegedly fell into the sink hole and was missing for seventy-two hours. After protracted search for him, he was found unhurt sitting on a stone in a cavity in the sink hole. He claimed angels in the sinkhole protected and fed him while being there. There are three other sink holes recorded in the district. Including this sinkhole, there is a large vernacular house, a nog wall shop and a degenerated cut stone and brick oven.



Plate 111: A sinkhole in the back of a yard in which a blind old man fell in and was missing for nearly four days.

This small nog wall church on cut stone foundation appears to have been restored



Plates 112 and 113: Restored Ballimony Church with graves in the foreground

recently. It is painted yellow with white trim and glass louvre windows. It has wooden french doors and a cut stone step at the main entrance. Located to the back of the church is another nog wall building that is used as the community school. It is on a raised stone platform and is completed with a gable roof. There is also a detached latrine and five modern graves in the church yard.

Immediately across from the church on the adjoining property is an ensemble of an oven ruin, cut stone foundation of a house and other structures but there is a large circular water tank that was being repaired at the time of our visit.



Plate 113: A historic nog building at the back of the church used as a school

On a conical hillock behind the church is a large extant property house overlooking the community. According to one community member, the house is the vacation home of a wealthy family from the community now living in the United States of

America. In the yard is an ensemble of water tanks (square and circular),

garage, other buildings, and large pimento barbecue.

In venturing deeper into the district of Ballimony, it became apparent that many of the houses were abandoned. Many of the houses were vernacular and made from nog material raised on cut stone foundation and had their own water tank, graveyard and some had their own oven. Some remnants of abandoned properties are visible along the roadside such as shops, oven, water tanks, catchment and graveyards. Some depressions on large properties are occupied by a few grazing



cattle, small water troughs, and water tanks with conjoined water catchment.

Plate 114: Oven made from cut stone with brick inside

5.5 Zone 5

York

The York community is seated within a valley and stretches from Concord to New Hall. It consists chiefly of vernacular houses. In

addition to this, there are old historical graves which would have been associated with this settlement. One set of graves recorded were those at the beginning of the York main road leading from Concord. This is an extant grave site containing some historical graves. These graves are made from cut stone and mortar.

Some of the vernacular houses are highlighted below.



Plate 116: Vernacular house with gable roof and sash. Cut stone and red flight of stairs water tank present

1. Vernacular house with a hip-gable and shed roof, cut stone foundation and a veranda with wooden rail and double swing doors. The house bears sash windows and a cellar. A square cut stone water tank is in the yard.

2. Large Georgian vernacular house with double gable roofing facing the front and hip roofing to the centre and back. The

house has a flight of red steps which lead to the small veranda. The house symmetrically holds sash windows on either side, and it displays a double swing door at the entrance. The house has a high cut stone foundation which holds a cellar.



Plate 117: Vernacular house with hip and pitch roof, sash windows and a cut stone water tank



Plate 115: Historical stone and limestone mortar graves



Plate 118: Vernacular house with hip roof and jalousie windows, cut stone foundation and red steps

3. House three is a nog walled vernacular house which is over a hundred years old. It has a cut stone foundation and jalousie windows. The house has a hip roof with a gutter. It is the home of persons of Indian decent whose progenitors were brought here as indentured labourers.

4. An abandoned nog wall

house without a dressing. It has a gable roof and a cut stone foundation and plain wooden windows.

5. Poorly maintained vernacular house with a hip-gable roof, sash and jalousie windows. The house has nog walling with cut stone foundation with a cellar.



Plate 119: Nog walled house with gable roof

6. A small blue house with hip roofing and cut stone foundation which is painted brown.



Plate 120: Vernacular house with jalousie windows and cut stone foundation with cellar, cut stone tank in yard

Plate 121: Small well maintained nog house with hip roof and brown cut stone foundation





Plate 122: Large catchment and water tank and small nog walled Meeting house for a variety of community

prayer meetings.

There is a small cave located on the playground for the residents. Referred to as a sink hole. The land is also used for farming on adjoining property.



Plate 123: Small cave / sink hole with water. Residents use it for dumping

Concord

Concord has an abandoned village referred to as Ladebat named after one of its former owners. Located in one of the valleys, there are cut stone foundations, historical cut stone water tanks and historical graves. The property is now used for the grazing of cattle and farming of cash crops.



Plate 125: Historical stone grave at Ladebat. House foundations are also present



Plate 124: A set of abandoned. historical structures A ruined house, historical graves and a cut stone water tank



Plate 126: Blue vernacular house with hip roof which has shingle under the zinc. It has sash and jalousie windows and stone steps.

The remainder of the Concord community outlines a linear pattern which is outfitted by a number of vernacular houses, detached nog walled kitchen, latrine, cut stone

water tanks and historical graves. The first example is that of a vernacular house which has a hip roof, nog wall, cut stone foundation, a cellar with door and french windows. The roof is made of shingle with zinc (See above). The second example displays two detached buildings. To the rear is a nog structure with gable roofing and in front is a vernacular wooden shop with cut stone foundation and large wooden windows. The third example displays two vernacular structures below the level of the road. One is a nog walled kitchen



Plate 127: Two vernacular buildings in yard among other structures

with cut stone foundation and large wooden windows. The third example displays two vernacular structures below the level of the road. One is a nog walled kitchen

with gable roofing and the other is a cream coloured house with gable roofing, nog walling and sash windows.

Another structure is a vernacular house which has a high cut stone foundation with a cellar. The house is adorned with jalousie windows and the main body of the house is cream and blue in the front. The body of the house has a hip roof and rectangular section leading to the entrance has a gable roof. The premises also bear a barbecue and a cut stone water tank.

Plate 128: Vernacular house on a hill with a high cut stone foundation and hip and gable roof. Historical graves, a water tank and a barbecue are also present



This isolated vernacular house is located in a valley, in the interior away from the road. The house is an extant wooden structure on raised cut stone foundation. It has steps leading to the veranda and there is a cut stone water tank on the property.



Plate 129: Isolated vernacular house in a valley. It displays a cut stone foundation and a gable roof

The Sacred Heart Church is the only Catholic Church within the study area. It is made from cut stone walls and has a large gable roof with clear glass louvre windows which are accentuated by triangular arches. There is a Belfry at the front and a cemetery is also within the church yard.



Plate 130: The Sacred Heart Catholic Church. It is the sole Catholic Church that falls within the study area

A section of the community is characterized by sink holes/depressions. One cave was identified in the lands west of the Sacred Heart Church yard.



Concord adjoins the Pedro River community and

Plate 131: Cave found in the depression behind the Sacred Heart Catholic Church

jointly forms part of the Pedro River Basin. It has depressions with sinkholes which are frequently affected by flood waters. The 1986 June flood was a catastrophic event which is remembered and related by community members who live closer to the Pedro River community. These communities share flood gates and when flooding occurs, the gates are closed off. One community member related that flood waters rose high in his yard. He also espoused the Jamaica Defence Force Soldiers had to come to their rescue using boats to assist residents who were marooned. The waters were so high in parts that the water touched the electricity wires and caused the boat to be affected by the shock waves. This resulted in the Jamaica Public Service being called and the power cut, hence there were no casualties.

5.6 Zone 6

Clover Hill

Clover Hill is a conical limestone hillock. Heritage assets in this district were few in comparison to other districts explored during the survey. The nog vernacular architectural technique was widely utilized here as in other districts and due to the scarcity of running water, personal cut stone water tanks were also common features of the landscape.



Plate 132: Photograph of a nog-wall vernacular shop painted green and crème with brown wooden French windows and doors and the public water tank in Clover Hill.

Public water tanks tended to be larger in size and centrally positioned so as to serve one or two communities. This stone water tank is located in the centre of the district along the main road. It remains in use and at the time of our visit, members from other communities could be seen filling numerous containers of water.



Plate 133: Public water tank and catchment located at the foot of a hill in Clover Hill, St. Ann.

Smaller water tanks were more prevalent on the landscape because they were associated with residences and were therefore engaged in domestic use. In most cases, domestic use of these smaller water tanks meant that they supplied the main house with water, but it was just as common to find water tanks supplying water to crop fields or animal troughs for cattle.



Plate 134: Medium-sized nog house painted pink with square stone water tank. (Clover Hill, St. Ann)



Plate 135: Small nog-wall house on raised cut stone foundation with small cellar and square water tank. (Clover Hill, St. Ann)

This small, nog-wall house was built on raised cut stone foundation/stilts with a small cellar. It has a hip, zinc roof with its original wooden shingles intact beneath the zinc sheeting. This house has been rendered and painted. The house yard also featured a small, square stone water tank with a modern makeshift catchment using zinc.

This house overlooks the elongated fault line that stretches from Grierfield and just across the house in a very deep depression are a series of sinkholes, according to the owner of the house. Also visible from the house on the face of a cliff towering above the fault line is a large cave which is sometimes visited by community members to retrieve guano for fertilizing their crops.

Cut stone foundation ruins were found in this area which is an indication that historical buildings were present at this location. This cluster of foundation ruins were also associated with a cut stone water tank and deteriorated conjoined catchment as well as a modern grave.

Plate 136: Cut stone foundation ruins and grave. (Clover Hill, St. Ann)





Plate 137: Small square cut stone water tank and catchment in ruin. (Clover Hill, St. Ann)

Lates 138: An ensemble of several large foundation ruins of historical houses. (Clover Hill, St. Ann)



The fault line valley for the most part is utilized in the past as cattle pen and as such cut stone water tanks with conjoined catchment are visible from the high elevation at Clover Hill and the main road leading to the community.

Plate 139: Circular cut stone water tank with a small conjoined catchment and detached small rectangular animal water trough. (Clover Hill, St. Ann)



5.7 Zone 7.

Pedro River

Pedro River as the name suggests is associated with the Pedro River which flows through the community both above land and underground. The community is the heart of the Pedro River basin and is often subjected to flooding. This has however caused the land to be very fertile and is referred to as a fertile valley. The land is characterized by several basins called sinkholes. When these become inundated by flood waters it rises to over 30 feet and flooded depressions merge. The residents describe it as being like a lake and they often have to be rescued by the Jamaica Defence Force soldiers in boats. The 1986 floods saw six deaths of youngsters in Pedro River. The land is arable land for farming and at least one depression was



Plates 140 and 141: Two images showing fertile green sinkholes/basins



Plate 142: Basin / Sinkhole being used for farming





being used for the cultivation of cash crops while the rest were covered with grass, some of which had cattle grazing. Two depressions were found to have small caves.

Plate 143: Basin / Sinkhole used for the grazing of cattle

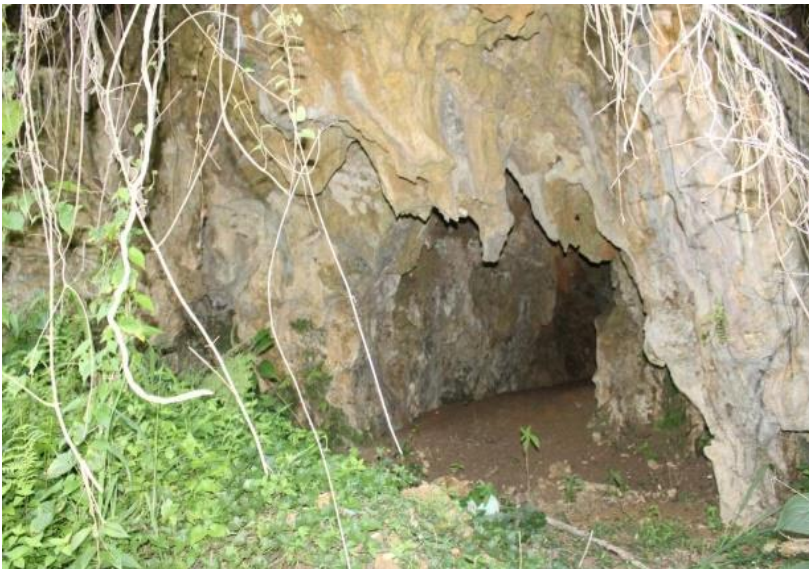


Plate 144: One of several caves identified in separate basins

Some of the depressions were equipped with rain gauges to measure the level of rain fall during flooding. Flood gates were also a feature in this community to prevent people from entering the area in times of disaster.



Plate 145: A basin which is equipped with rain gauges for measuring the rainfall when flooding occurs



Plate 146 and 147: Flood gates for the preventing of the movement of vehicular traffic and pedestrians during floods

The Pedro River sugar works was identified in this region. There are large cut stone remnants of the buildings which once existed. The residents claim this was the site of the first slave market before it was relocated to Kellits in Clarendon. The Pedro River runs alongside the works which forms part of the border between St. Ann and Clarendon. A section of the waterwheel housing and other vestiges of the sugar works are present. Additional



Plate 148: The remnants of the first slave market and works



Plate 149: A section of the cut stone waterwheel housing

sugar works structures were found a small distance away from the water wheel housing area. These include brick chimneys affixed to the boiling house and elaborate cut stone steps could

be seen leading to this structure. Additional cut stone sugar-work buildings were also identified and recorded at this location.



Plate !50: One of two brick chimneys from the works yard building



Plate 151: Cut stone steps and chimney of the works yard building



Plate 152 and 153: The second of two brick chimneys at the works yard and the main steps made from cut stone leading to the factory works



Plate 154: Wall of a building from the works yard, made of cut stone



Plate 155: Section of the Pedro River bridge made from cut stone rear of the modern structure

The remains of a pre-existing cut stone bridge can be seen at the current bridge. The Pedro river also bears several other historical features that include vernacular buildings, graves and historical features. Some of these are featured below. A vernacular house with nog walling, and wooden jalousie windows, cut stone foundation and a gable roof. The exposed nog wall rendering is unpainted .

Historical graves were recorded, and house foundations were identified nearby along with a scatter of artefacts on lands being utilized for the farming of vegetables.



Plate 156: Unoccupied vernacular nog house



Plate 157: Extant grave site at the front of house with historical graves



Plate 158: Farmlands leading into basin filled with artifact sherds

Plate 159: Scatter of artefacts at house site in Pedro River. These are glass, ceramics and metal



A stone oven/ kiln was recorded along with some cut stone foundations, historical graves, a cut stone water tank and a large assemblage of artefacts was also observed in this space.

Plate 160: Stone kiln/oven



Plate 161: The Pedro River Methodist Church, a Georgian building made from cut stone

The Pedro River Methodist Church is a cut stone building which has sash windows and gothic arches of stained glass. The church has a red gable roof with a few smaller semi-circular hip shaped additional roofs. The church has wooden swing doors which also are gothic arch shaped. There is an extant cemetery in the church yard. The Belfry to the front is an additional feature of the church.



Plate 162: Extant graveyard at the Pedro River Methodist Church

A large cave in the environs referred to as Sink-in is said to cover as much as four miles to Luidas Vale in St. Catherine and the Robertson map indicates that the Pedro River rises in the said cave. The Pedro River Cave is a huge cave where many spectacular cave features were observed. There were bats, columns, stalactites, stalagmites, and large amounts of guano present.

Plate 163: Speleothems observed in the Pedro River Cave





Plate 164: Inside the Great Pedro River cave/ Sink In

Mountain Hall/Pleasant Hill

Mountain Hall was said to be used for sugar cane cultivation by residents. Mountain Hall contains a large graveyard site amongst several other smaller grave sites. This is where an entire community once occupied, hence the presence of these historical graves. “The original community was on this land,” according to Mr. Witter, a resident of the Pedro community. Some cut stone foundations of houses and latrines were also present.

Plate 165: Graves from Mountain Hall





Plates 166, 167 and 168:
Historical Graves from
Mountain Hall and cut
stone house foundation



Hope Hill/ Pleasant Hill

Pleasant Hill has a few cut stone foundations and some European artefacts were found at this location. The view of the surrounding hillocks is spectacular. A cut stone water tank with a catchment also rest along the hillside which leads to the Hope Hill archaeological sites.



Plate 169: Cut stone foundation of
dwelling place at Pleasant Hill



Plate 170: Cut stone water tank with a long narrow catchment

5.8 Zone 8

Camperdown



A medium-sized cut stone church dating back to October 3, 1922. The church has since been refurbished but is currently run-down. One resident has expressed interest in making it a community centre.

Plate 171: Cut stone church in Camperdown, St. Ann.

This structure was one of the larger nog domiciles that was not in a state of deterioration. It had a gabled roof with a pitch over a small veranda. The house was built atop a raised stone foundation with stilts and an enclosed cellar beneath the house which appeared to be in



Plate 172: Plate Large vernacular nog-wall house and square cut stone water tank in Camperdown, St. Ann.

active use. The property also had two other nog structures – a smaller house and an outbuilding which appeared to be used for storage. Two cut stone water tanks served the property – one was medium-sized and circular, and the other was square. Associated with this home too was a small cut stone and lime mortar water tank with modern catchment on a nearby farm.



Plate 173: Small nog house on raised cut stone foundation beside square cut stone water tank. (Camperdown, St. Ann)



Plate 174: Small nog wall outbuilding and small square cut stone water tank in Camperdown, St. Ann.



St. Johns

This house sits atop a conical limestone hill. Apart from the main house, there were two other nog-wall buildings on the property to the back and side. These buildings all had gable roofing with cut stone foundation. Also observed on the property was a medium-sized barbecue.

Plate 175: Small nog-wall house on raised cut stone foundation in St. Johns, St. Ann.



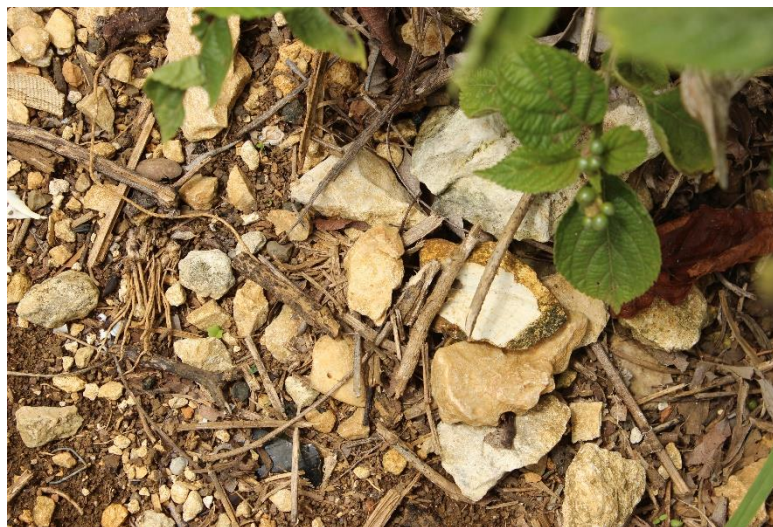
Plate 176: A degenerated Cut stone water tank with an adjoining zinc shed in St. John's,



Sitting at the foot of the hill was a cut stone and brick oven or kiln beside a modern concrete block factory.

An array of artefacts was also observed on the surface of the hill to the front of the house.

Plate 177: Brick and cut stone oven in St. John's, St. Ann.



Plates 178, 179 and 180: shows surface finds identified onsite which includes Transfer Print Pearlware plate sherd and Creamware plate sherd. (St. Johns, St. Ann)



New Hall

There was a higher incidence of renovation and expansion in Tydixton and New Hall than other districts. New Hall was significantly more modern architecturally in the sense that many homes had been so modified using concrete and block additions such that it became difficult to confirm whether the structures retained any authentic nog architecture.



Plate 181: Modern house in disrepair in New Hall, St. Ann.

It was evident, however, that historical construction methods like ‘nogging’ (Spanish wall) remained a viable option for many residents who continue to practice the technique in modern constructions.



Plate 182 and 183: New-age examples of the nogging technique in New Hall, St. Ann.





Plate 184: Extant, degenerated nog-wall house on raised cut stone foundation with zinc hip roof showing exposed original wooden shingles underneath. (New Hall, St. Ann)



Plate 185: Nog house painted green beside with zinc hip and pitch roof and detached nog-wall kitchen. (New Hall, St. Ann)

A beautiful extant Nog house raised on stone stilts with unenclosed cellar space painted cream. The house is finished with a hip and gable zinc roof and a pitch section at the back. Its windows are wooden louvre and the main door of the house is in a french-style -six-panel, painted white and gold. There is a wooden fretwork panel above the door painted in white.

The property also featured an unpainted nog-wall structure, a square cut stone water tank and catchment as well as a circular cut stone and lime mortar water tank with attached animal trough.

Plates 186 and 187: Nog house on raised stone stilts, painted cream.



This ensemble of structures stood out mostly because of its series of connected cut stone architecture. While conjoined tanks and troughs were not uncommon, a series of conjoined structures (varying in both function and size) was not. Typically, this variation was only observed with the much larger public tanks. The property featured a large barbecue seemingly connected to two rectangular animal troughs/tanks on varying levels as well as a circular water tank with large catchment.

Located in a depression, the house itself is built on raised stone foundation, has nog walls and a hip-gable and shed roof. The site also features one historical, cut stone grave and another building in ruin. The property appeared to be abandoned.



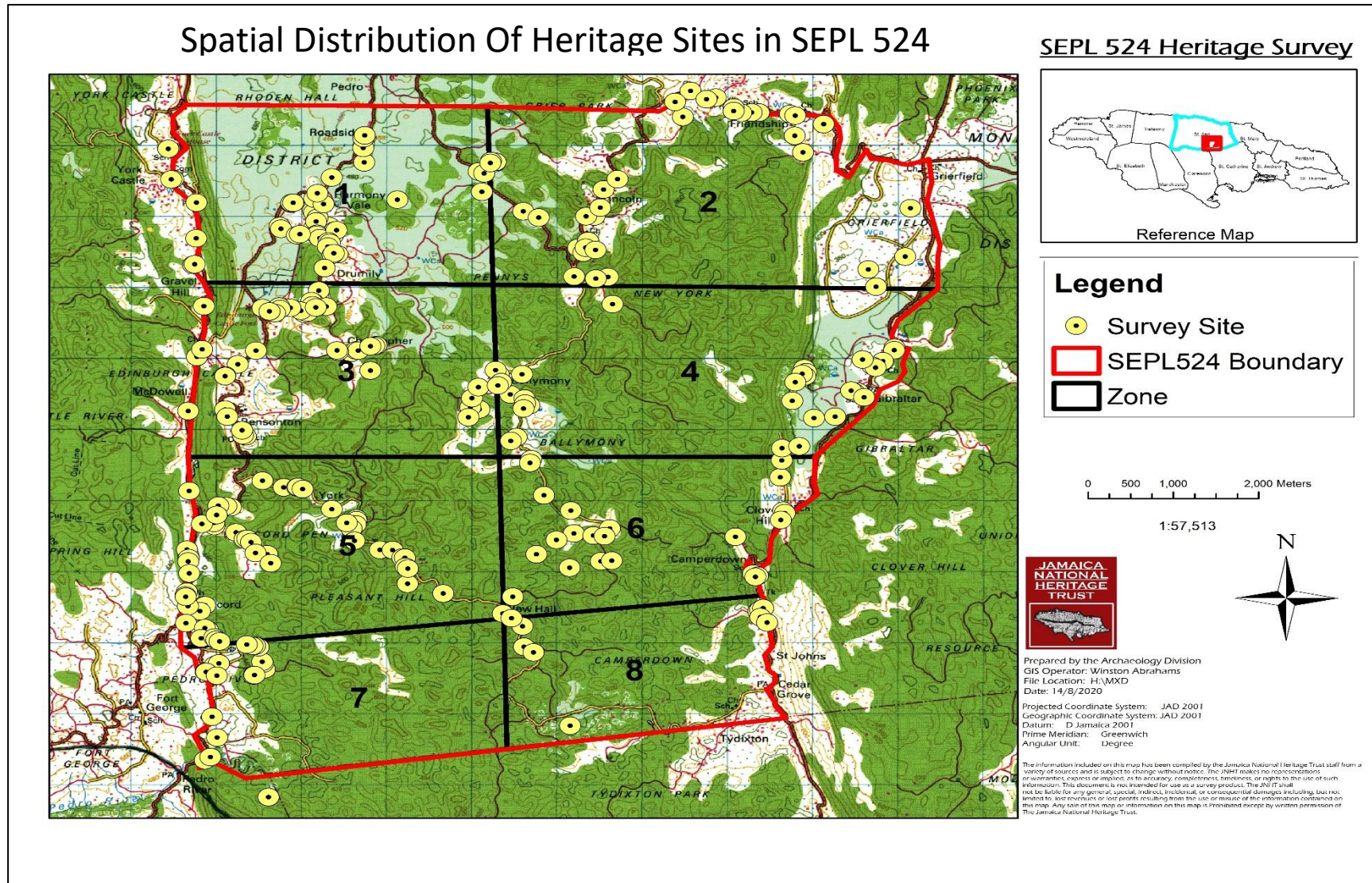
Plate 188: Yard with several historical structures in New Hall, St. Ann.

This is one of the very few large water tanks observed during the survey. The tank was large and circular with catchment and two affixed troughs – one rectangular, the other semi-circular. Another tank is present and is highlighted in the background of the photo. It is ellipse-shaped.



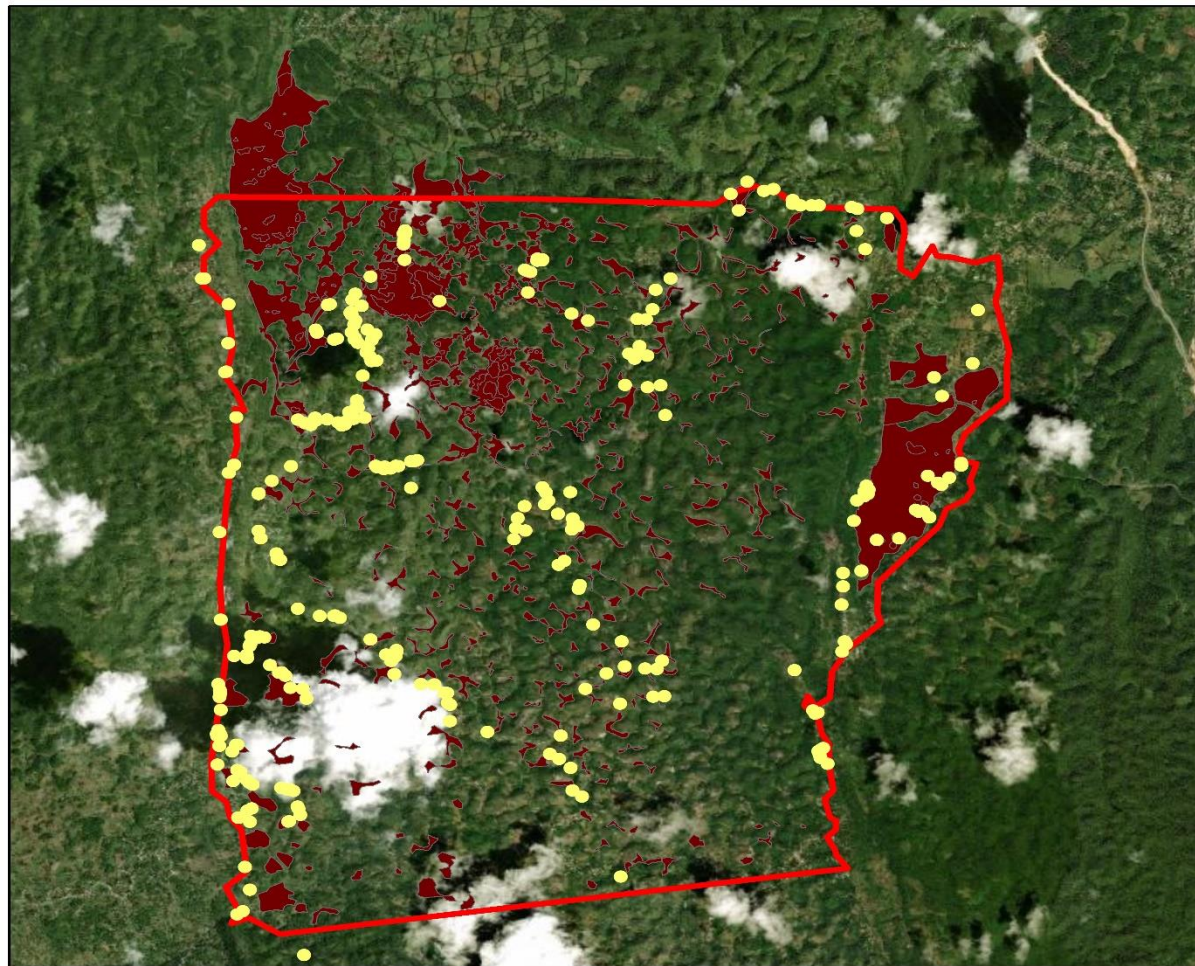
Plate 189: Large cut stone water tank in New Hall/Ballymoney, St. Ann. This water tank had small Tilapia fish growing inside that the residents would catch and eat

5.9 Spatial Distribution of Heritage Sites

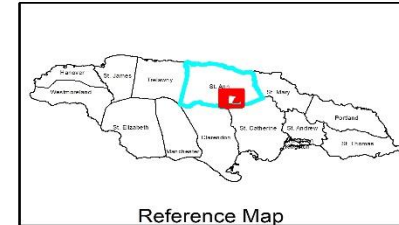


Map 4: Highlights the location and distribution of heritage sites in SEPL 524
Source: Winston Abrahams, JNHT Sites and Monument Record, 2020

Spatial Distribution of Sites and Ore Bodies



SEPL 524 Heritage Survey

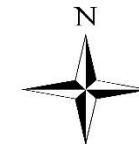


Legend

- Survey Site
- SEPL524 Boundary
- SEPL524 Orebody

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1:68,074



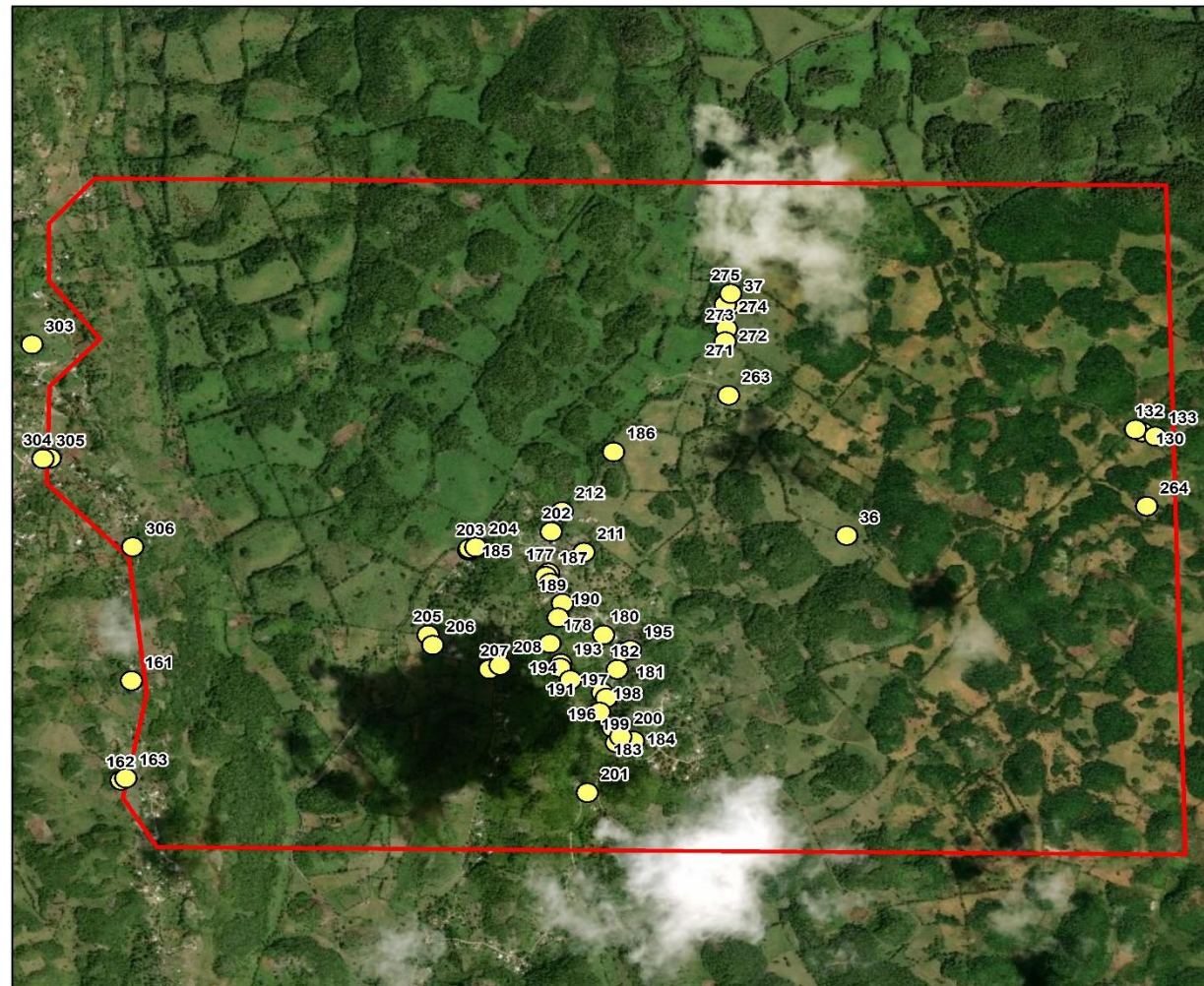
Prepared by the Archaeology Division
GIS Operator: Winston Abrahams
File Location: H:\MXD
Date: 14/8/2020

Projected Coordinate System: JAD 2001
Geographic Coordinate system: JAD 2001
Datum: D Jamaica 2001
Prime Meridian: Greenwich
Angular Unit: Degree

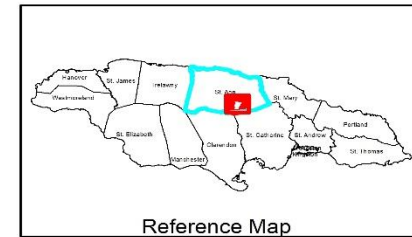
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Map 5: Shows the distribution of heritage sites in relation to bauxite ore deposits (SEPL 524)
Source: Winston Abrahams, JNHT Sites and Monument Record, 2020

Distribution of Heritage Sites in Zone 1.



SEPL 524 Heritage Survey



Legend



0 180 360 720 Meters

1:20,250



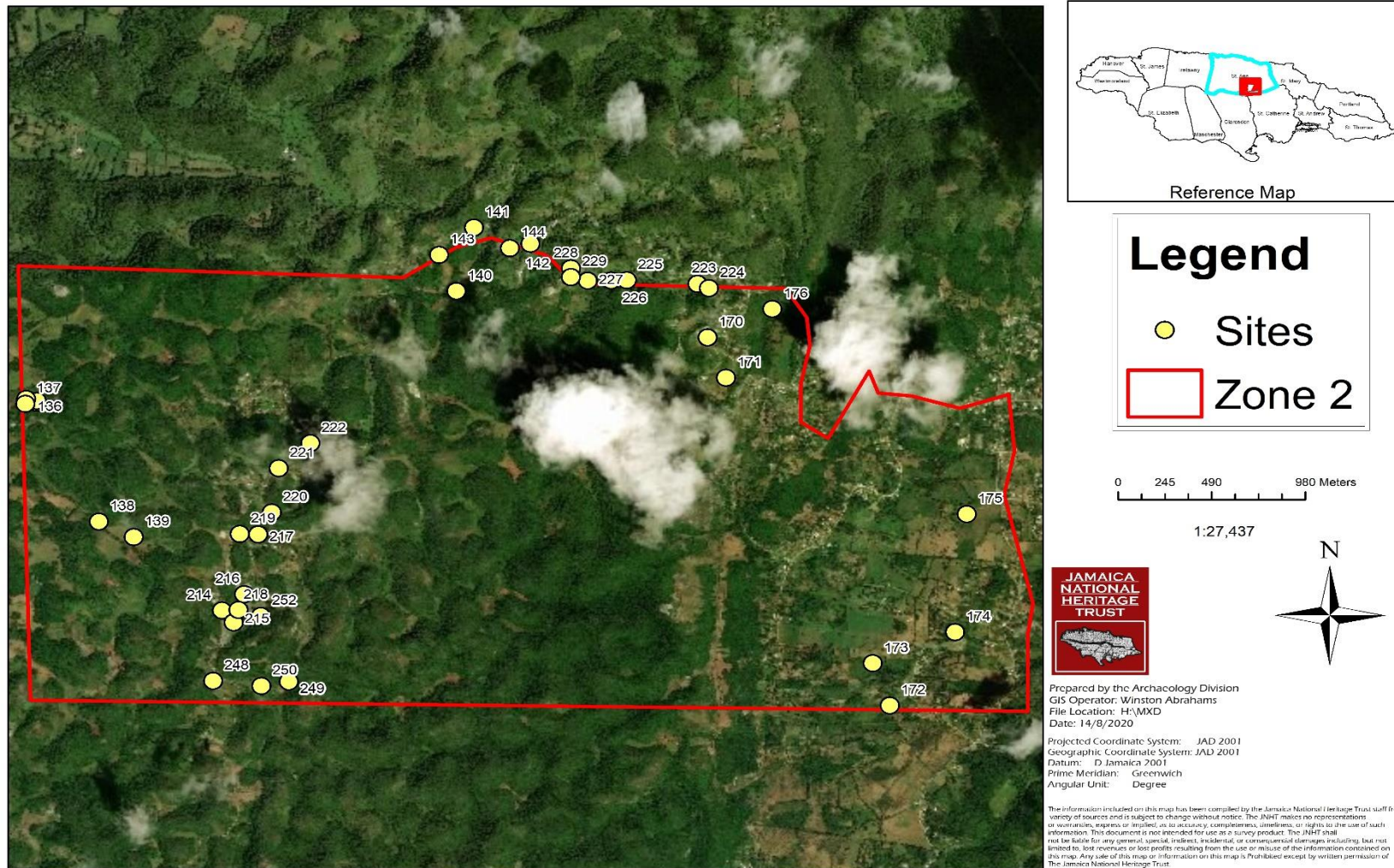
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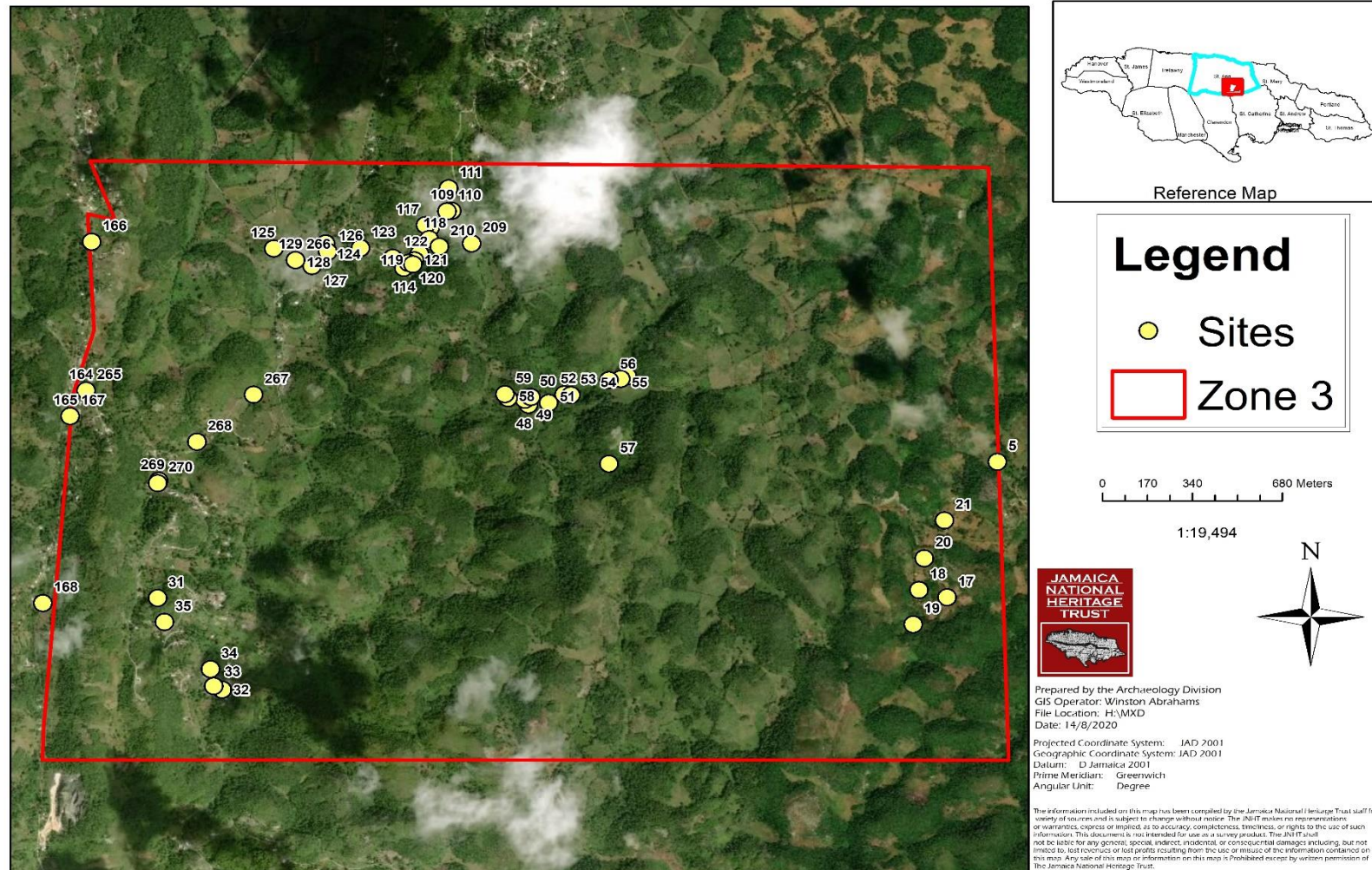
Map 6: Shows distribution of heritage sites in Zone 1
Source: Winston Abrahams, *JNHT Sites and Monument Record*, 2020

Distribution of Heritage Sites in Zone 2.



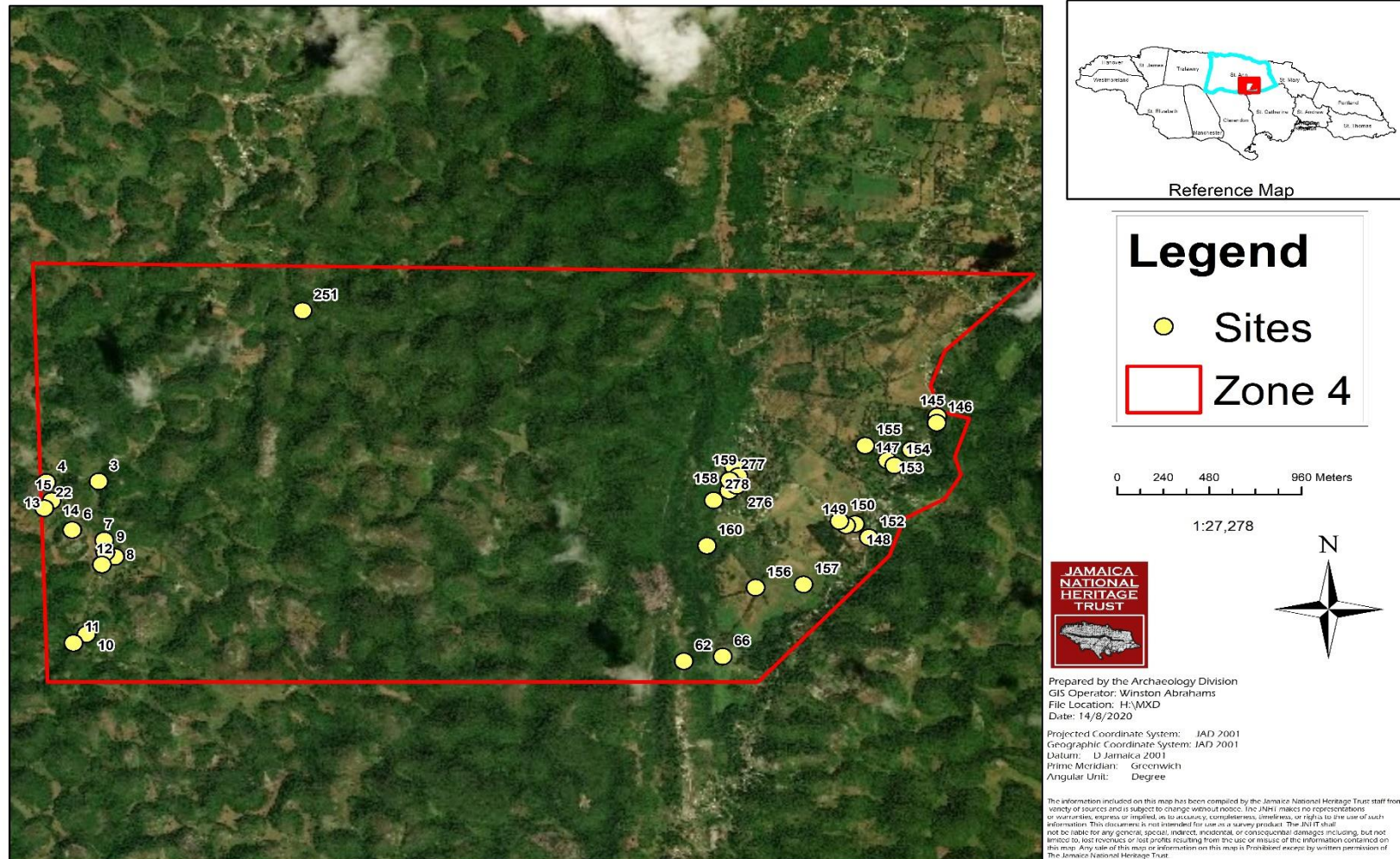
Map 7: Shows distribution of heritage sites in Zone 2
Source: Winston Abrahams, *JNHT Sites and Monument Record*, 2020

Distribution of Heritage Sites in Zone 3.



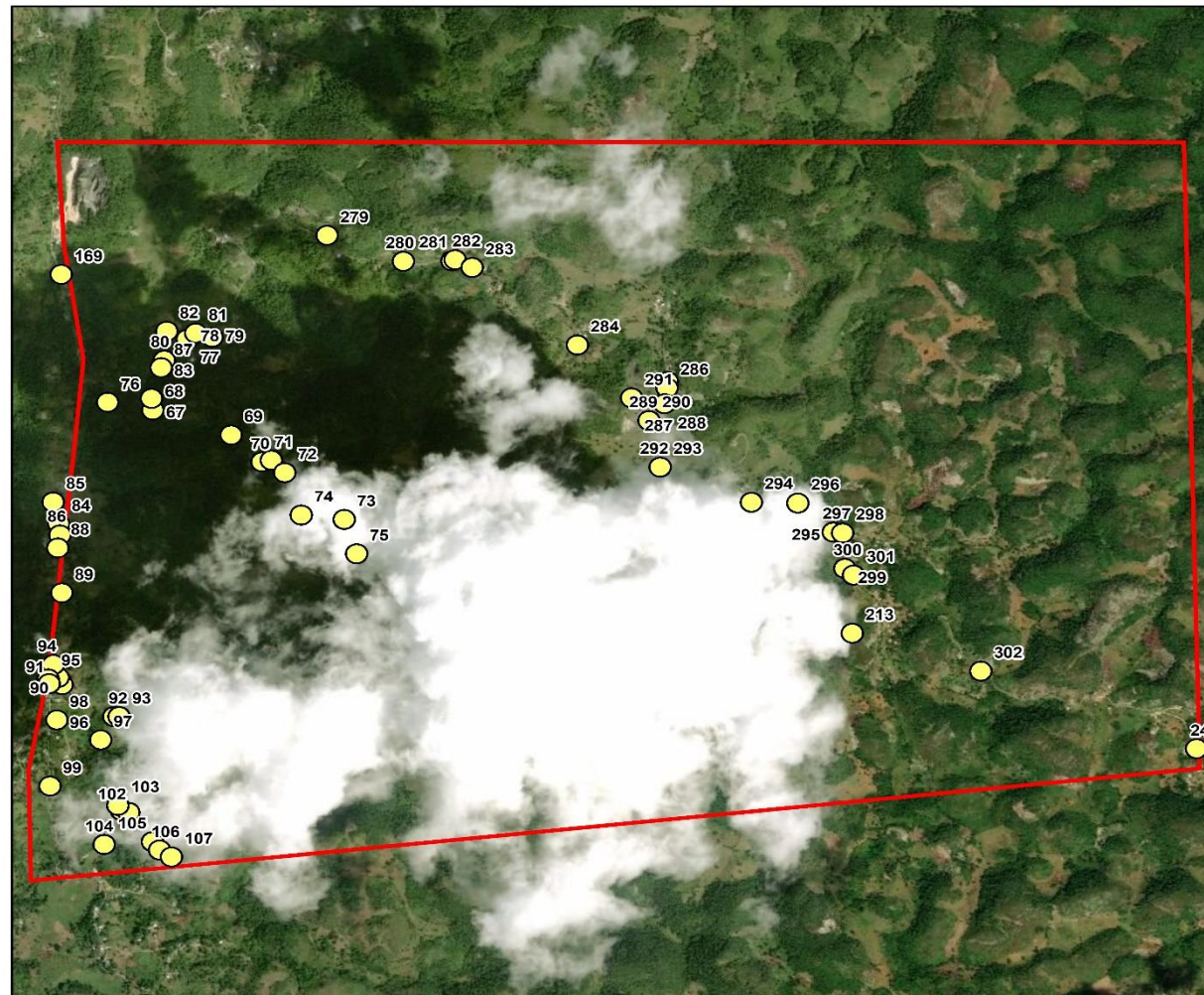
Map 8: Shows distribution of heritage sites in Zone 3
Source: Winston Abrahams, JNHT Sites and Monument Record, 2020

Distribution of Heritage Sites in Zone 4.

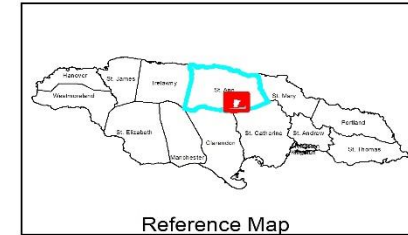


Map 9: Shows distribution of heritage sites in Zone 4
Source: Winston Abrahams, *JNHT Sites and Monument Record*, 2020

Distribution of Heritage Sites in Zone 5.



SEPL 524 Heritage Survey



Legend

- Sites
- Zone 5

0 175 350 700 Meters

1:19,857

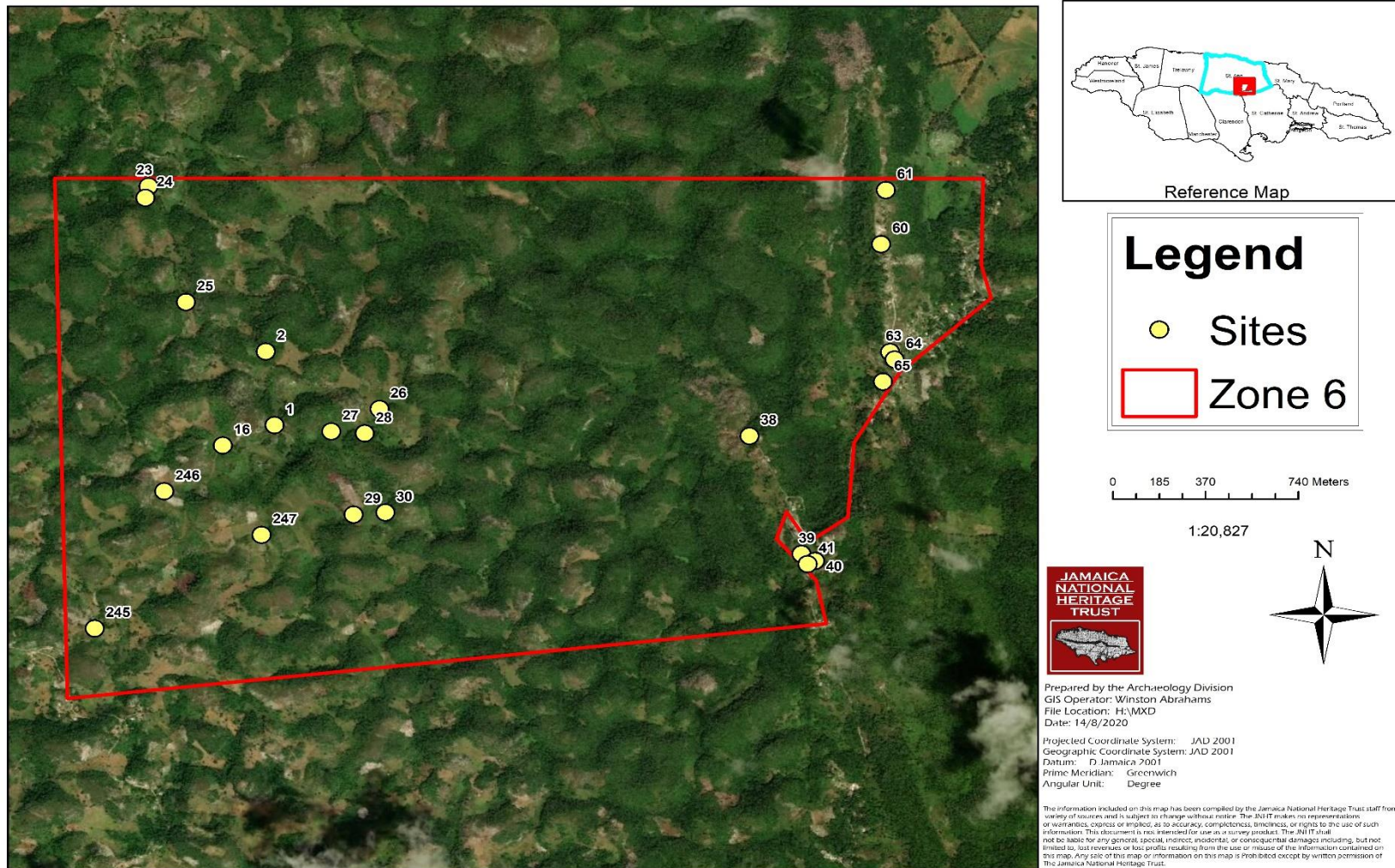


Prepared by the Archaeology Division
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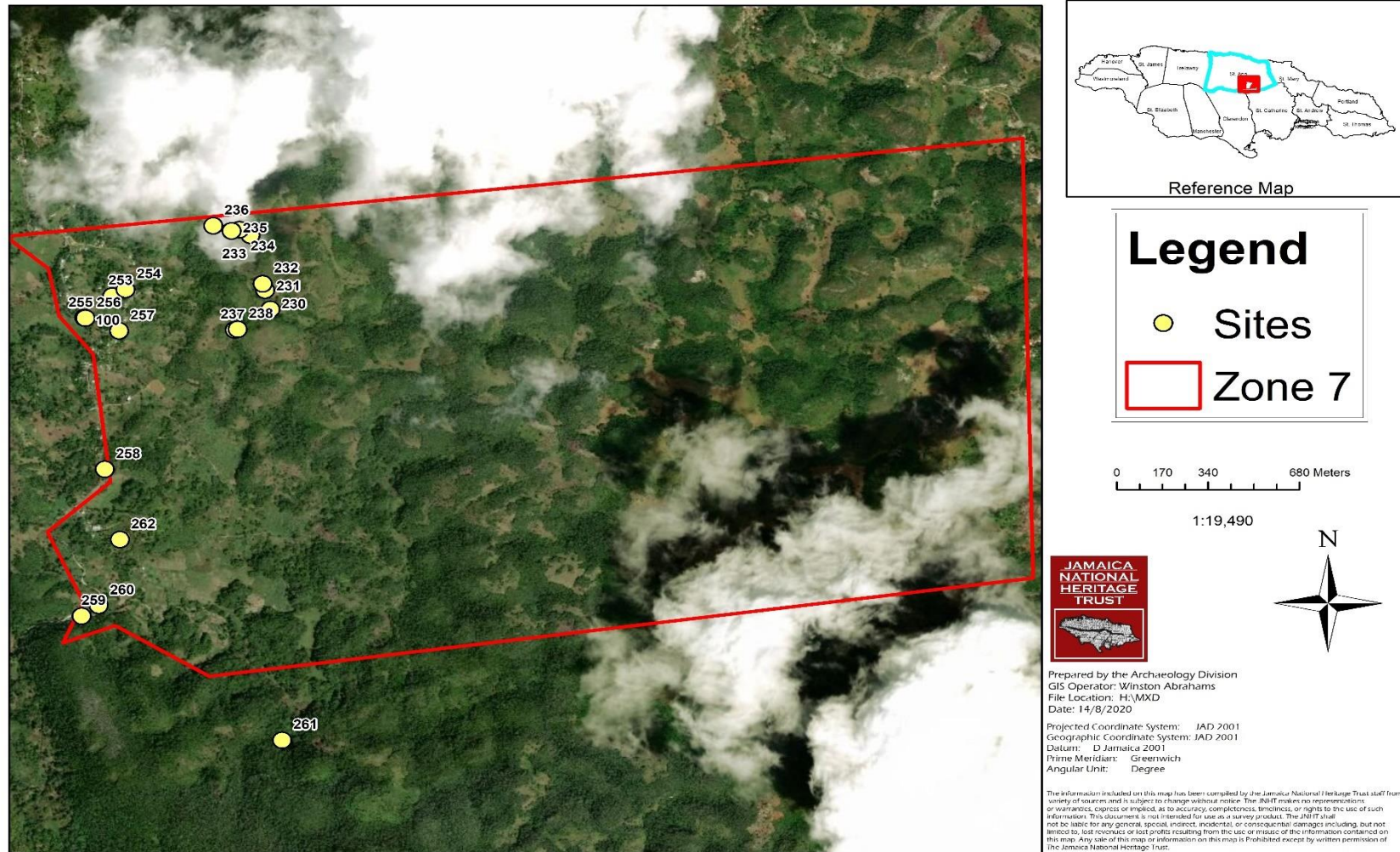
Map 10: Shows distribution of heritage sites in Zone 5
Source: Winston Abrahams, JNHT Sites and Monument Record, 2020

Distribution of Heritage Sites in Zone 6.



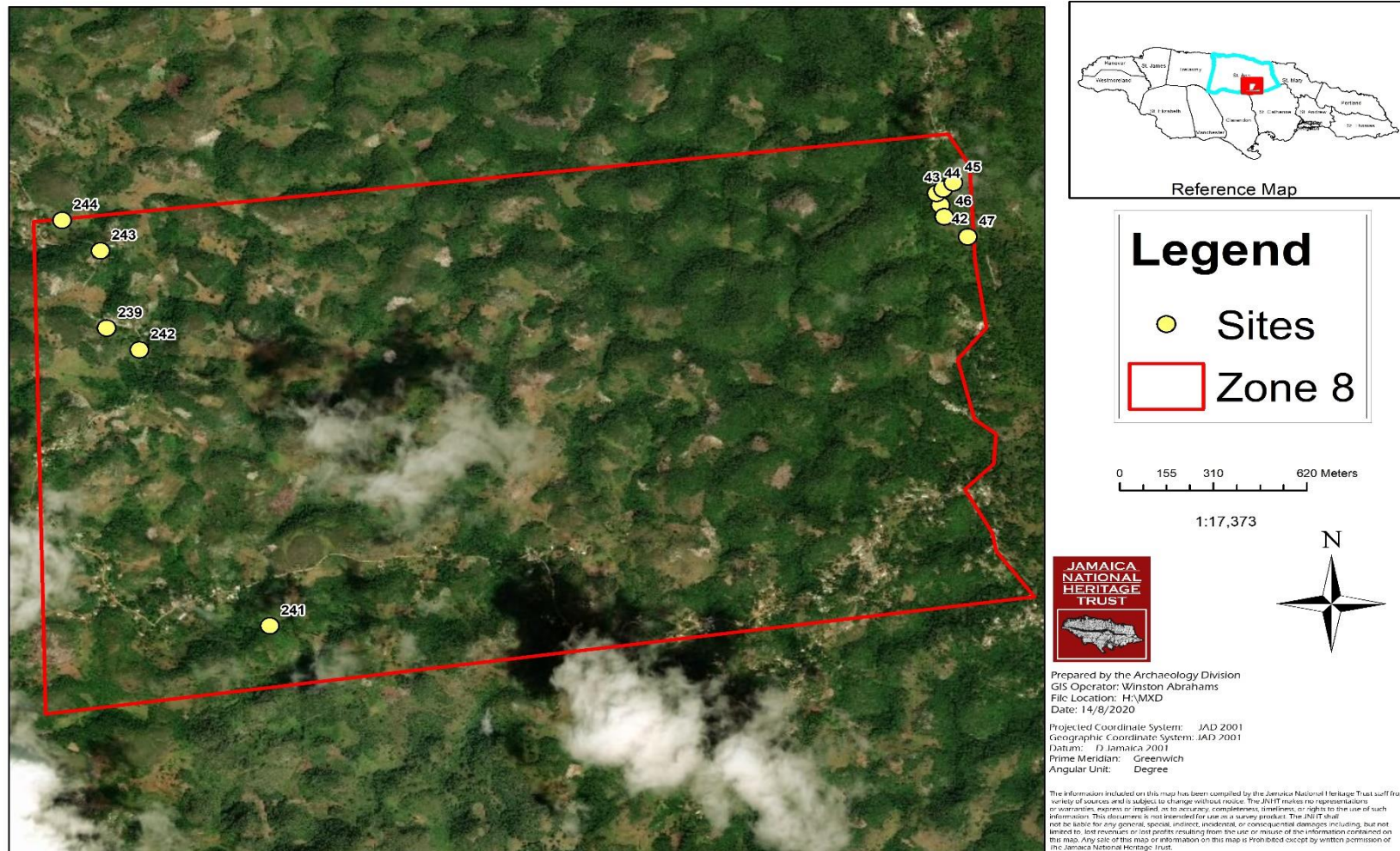
Map 11: Shows distribution of heritage sites in Zone 6
Source: Winston Abrahams, *JNHT Sites and Monument Record*, 2020

Distribution of Heritage Sites in Zone 7.



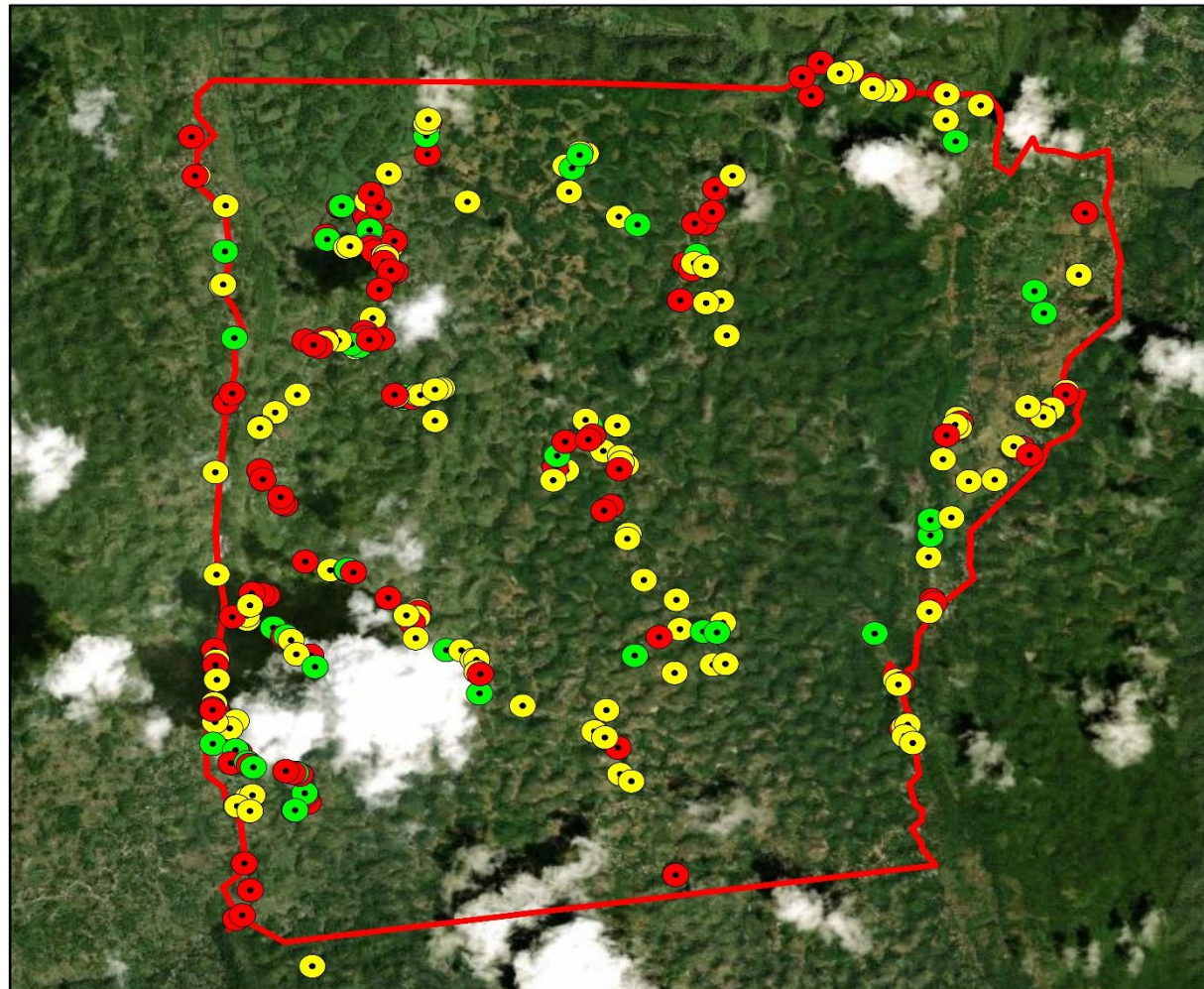
Map 12: Shows distribution of heritage sites in Zone 7
Source: Winston Abrahams, JNHT Sites and Monument Record, 2020

Distribution of Heritage Sites in Zone 8.

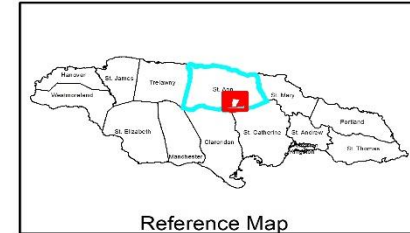


Map 13: Shows distribution of heritage sites in Zone 8
Source: Winston Abrahams, *JNHT Sites and Monument Record*, 2020

Distribution of sites by Significance



SEPL 524 Heritage Survey



Legend

Significance

● High

● Medium

● Low

□ SEPL524 Boundary

0 500 1,000 2,000 Meters

1:59,787



Prepared by the Archaeology Division
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Map 14: Highlight the distribution of heritage sites by significance
Source: Winston Abrahams, JNHT Sites and Monument Record, 2020

Historical vernacular nog wall house in Friendship, St. Ann
SOURCE: JNHT Sites and Monuments Record - 2020



6. CONCLUSION and RECOMMENDATION

6.1 Conclusion

Special Exclusive Prospecting Licence 524 (SEPL 524), is a 6,837 hectares karstic limestone terrain characterized by hillocks and intermittent bauxite ore laden depressions. The area has been occupied by settlers for over 400 years, firstly by the Amerindians (Taino), then by the European colonizers, and later by free enslaved Africans. The population grew overtime resulting in the emergence of arterial roads leading to the various communities. The rugged terrain and inaccessibility of most areas resulted in a linear settlement pattern where nearly all communities straggle the main arterial roads. The vast remote interiors are traversed by narrow precarious foot path seldomly travelled.

In conclusion, the vast interior is under-utilized. This is especially true in recent times where interior communities like Ballimony have suffered greatly from rural migration. Properties along with their tangible cultural heritage assets are unattended and are in a state of ruin (house, graveyard, oven, barbecues, pasture depressions, water catchment and tanks). The void is being exploited by a small group of squatters who use the remoteness of the interior to cultivate small fields of narcotic, vegetable, and tuber cash crops. The large conjoined depression (pastures) are used to graze a handful of cattle. The small water tanks and troughs are utilized as limited water sources to water crops and animals. Apart from these unremarkable historical vestiges, archaeological assets such as settlement and burial sites are sparse on the eastern section of the study area. However, on the western side, these resources were more abundant and significant. For the most part, significant archaeological and historical resources are found in and around extant villages, along the main arterial roads on hillocks, low rolling grass hills and intermittent depressions. Despite the scarcity of

significant cultural heritage assets in the remote interior, most conjoined depressions possess at least one consequential sinkhole. A fairly large number of caves were reported, some of which are identified in this study. Guano producing caves are critical to the communities as the fertilizer is heavily utilized in the cultivation of cash crops.

One Taino cave along with an associated Taino village site were identified at Taylor's Corner, Gibraltar. The JNHT archaeological records shows the presence of a second Taino midden site at York Castle. The archaeology team is convinced that there is a strong possibility of other Taino caves in the area. Community members, while willing to speak to the presence of consequential caves, were unwilling to take the study team to their location.

6.2 Recommendations

Recommendations to ensure the proper management and preservation of significant heritage resources are enumerated as follows:

- The JNHT should embark on a campaign to have all significant heritage assets identified in this study protected under the Jamaica National Heritage Trust Act, 1985.
- Where the declaration process of a site or an area is entrained, a Preservation Notice (sections 19 and 20, JNHT Act, 1985) must be placed on the site by the JNHT to ensure its security.
- The developer should provide the Jamaica National Heritage Trust with a work schedule so that the agency may make the necessary and appropriate arrangements to monitor National Monuments and other significant cultural heritage resources in the area.
- The use of explosive in the process of the development must be prohibited in the vicinity of communities and sensitive cultural heritage assets whether declared or undeclared under the JNHT Act, 1985.

- Lands earmarked for the construction of service roads and other bauxite mining facilities should be assessed and approved by the JNHT.
- All significant cultural heritage resources identified in areas slated to be mined must be flagged and colour coded indicating whether it is to be preserved or relocated.
- All cultural heritage sites determined to be altered, relocated or destroyed by the authorities, must be subjected to recording (photographs, videos, illustrations, survey, text description and where necessary conduct excavations) by the JNHT before such action commences.
- In the case of accidental find of significant archaeological resources; the JNHT Archaeology Division in collaboration with the developer should move swiftly by taking the appropriate action to ensure the preservation of the asset (s) in-situ or ex-situ.
- Under the JNHT Act, 1985, a Preservation Notice (sections 19 and 20, JNHT Act) must be placed on any work that is in breach of the Act to protect and preserve significant heritage asset or assets exhibiting the attributes of Outstanding Universal Value.





Vernacular house foundation, Harmony Vale, St. Ann
Source: JNHT Sites and Monuments Record, 2020

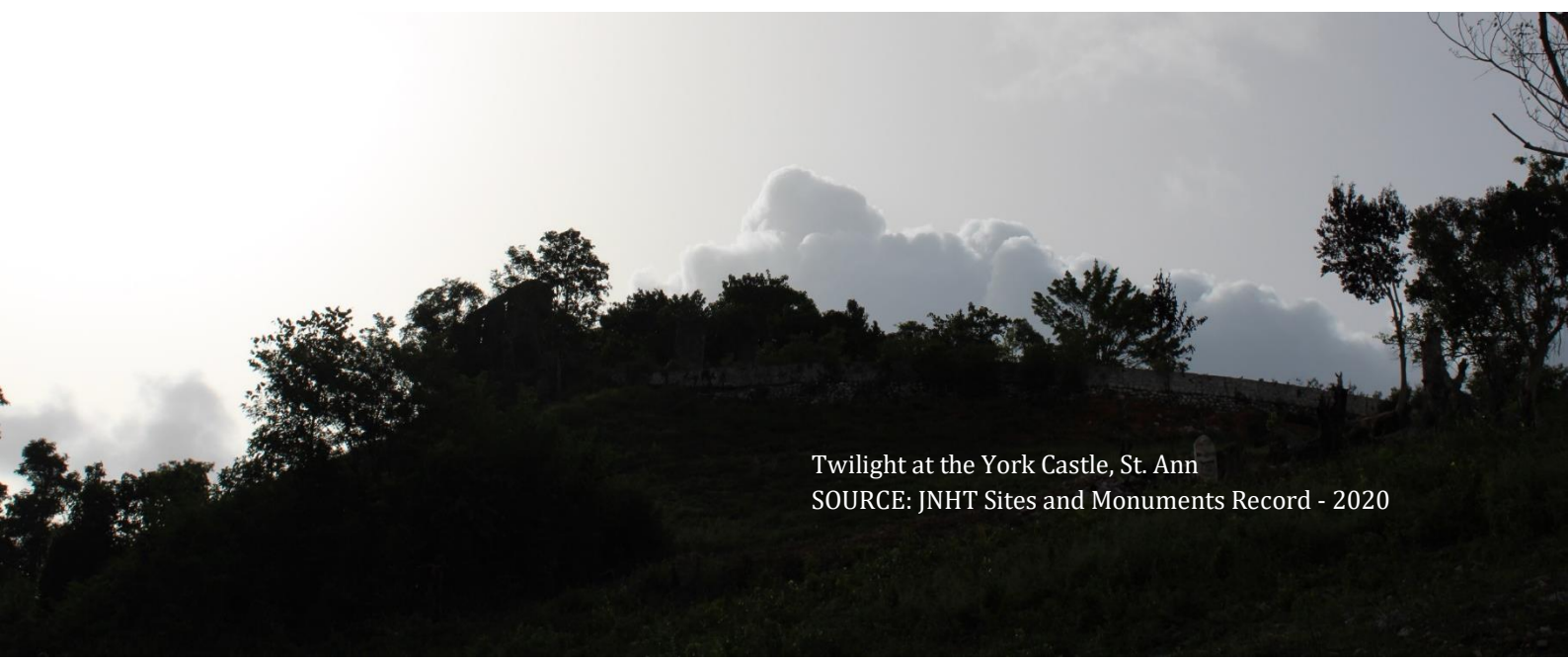
7. GLOSSARY

Adjunct	An adjunct is something added or supplementary and therefore connected to something larger or more important.
Archaeology	Archaeology is the study of the past cultures through analysis of material cultural remains. This includes all remains which were shaped by humans (artefacts), bones of early peoples, biofacts, eco facts, buildings and cultural landscapes. This is done by recording and retrieving these material culture. Archaeologists often work closely with historians and anthropologists.
Archaeological Assets / Resources	All tangible evidence of human activity that is pre-historical, historical, cultural or scientific that is of interest. It includes features, structures, objects or remains from an archaeological site.
Archaeological Field Survey	Archaeological field survey is the methodological process by which archaeologists collect information about the location, distribution and organization of past human cultures across an area.
Archaeological Impact Assessment	Archaeological Impact Assessment (AIA) is a systematic analysis of a project / development potential effect on all aspects of the material cultural heritage, in order to provide information for the deciding agency to consider in the decision-making process, and further give bodies with relevant environmental responsibilities the opportunity to comment before consent is given or denied.
Archaeological Site	A place or area where tangible evidence of human activity of pre-historical, historical, cultural or of scientific interest is or was located on, above, or below the ground or underwater. The identification, recovery and interpretation of this evidence can be carried out using archaeological research methods.

Artefact	An object produced or shaped by human craft especially a tool, weapon or ornament of archaeological or historical interest.
Barbecue	A platform made from limestone mortar used for the drying of produce such as coffee beans, corn, pimento berries and chocolate beans. It also serves a dual purpose of both drying and as a water catchment (used as a gutter).
Cultural Landscape	A cultural landscape as a geographic area (including both cultural and natural resources), that is associated with a historic event, activity or person, or exhibiting any other cultural or aesthetic values. The four general types are historical sites, historical designed landscapes, historical vernacular landscapes, and ethnographic landscapes.
Desk-based Assessment	This is an assessment of the known or potential archaeological resources within a specified area or site on land or underwater, consisting of a collection of existing written and graphic information in order to identify the likely character, extent, quality and worth of the known or potential archaeological resources in the local, regional, national or international context as appropriate.
Doline	It is a closed depression draining underground in a karst area. It can be bowl or dish shaped. The diameter ranges from a few to hundreds of meters. The name doline comes from the Dolina, the Slovenian word meaning <i>valley</i> .
Evaluation	A limited programme of non- intrusive and/ or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or eco facts within a specified area or site, and if present defines their character and extent, and relative quality. It enables an assessment of their worth in a local, national, regional or international context as appropriate.

Extant	Extant is used to refer to something very old that is still existing and still in use.
Gable roof	A roof sloping downward in two parts from a central ridge so as to form a gable at each end.
Hillock	A small conical limestone hill or mound.
Hip roof	A roof having sloping ends and sides meeting at an inclined projecting angle.
Historical	The term denotes the period after European contact as it relates to the Americas. In Jamaica all events and developments associated with this period up to the past hundred years may be classified as historical.
Karst Limestone	Karst is an area of land made up of limestone. Limestone, also known as chalk or calcium carbonate, is a soft rock that dissolves in water. Karst landscapes feature caves, underground streams and sinkholes on the surface.
Nog	This is referred to as one of a number of short and slender wooden pieces inserted between the principal members of half-timbered wall to strengthen the frame and retain a stone and mortar infill. The stone and lime mortar used to fill the spaces between the members of the timber frame is referred to as nogging.
Pen	Enclosure for animals, farm or gentleman's estate. Pens were types of estates which produced livestock and foodstuff for the local markets, but supplemented their income by the growing of pimento, cotton, logwood for export. Working cattle, horses, asses and mules were all raised for sale to estates and plantations where they were used to power mills and transport goods and people. Pens also purchased worn out cattle from estates and plantations and fattened them for the local market.

Polje	A polje, also karst polje or karst field, is a large flat plain found in karstic geological regions of the world, with areas usually 5 to 400 kilometers square.
Sinkhole	Also known as cenote, sink, swallet, swallow hole or doline, is a depression or hole in the ground caused by some collapse of the surface layer. Most are caused by karst process.
Speleothems	A variety of secondary mineral formations in a cave e.g. stalactite, stalagmite, pillars, and curtains.
Taíno	Amerindian people inhabiting Jamaica from around AD 650 into the seventeenth century. It is estimated that some 50,000- 60,000 Taínos lived in Jamaica at the arrival of the Spaniards.
Vernacular	This is a style of architecture which exemplifies the most common building techniques based on the forms and materials of a particular historical period, region or group of people.



Twilight at the York Castle, St. Ann
SOURCE: JNHT Sites and Monuments Record - 2020



Bush fire denuded hillock, Camperdown, St. Ann
SOURCE: JNHT Sites and Monuments Record - 2020

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Scenic view of small vernacular house nestled between tow hillocks in Camperdown, St. Ann
SOURCE: JNHT Sites and Monuments Record - 2020



9. APPENDICES

Terms of Reference
for
Preparation
of
Heritage Survey
in support of
An Environmental Impact Assessment
for
SEPL 524

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1.0. Introduction /Background

Windalco has engaged CD&A to conduct the EIA for the mining of bauxite in SML 524. The preparation of the EIA is guided by the agreed TORs developed by Windalco in conjunction with the NEPA and other stakeholders in government and the mining sector and environmental sector.

Figure 1-2 shows the SEPL relative to the major roadways in the vicinity as well as major towns. The area of interest for the EIA is the entire 6837 hectares of land within the SEPL.

In keeping with standard practice, the EIA has been divided into sections for its preparation based on the NEPA agreed TORs. In order to compile the EIA in an efficient manner, sub-TORs have been prepared for each section as prescribed in the NEPA agreed TORs. This sub-TOR is concerned with the Heritage Resources and outlines the tasks and outputs expected.

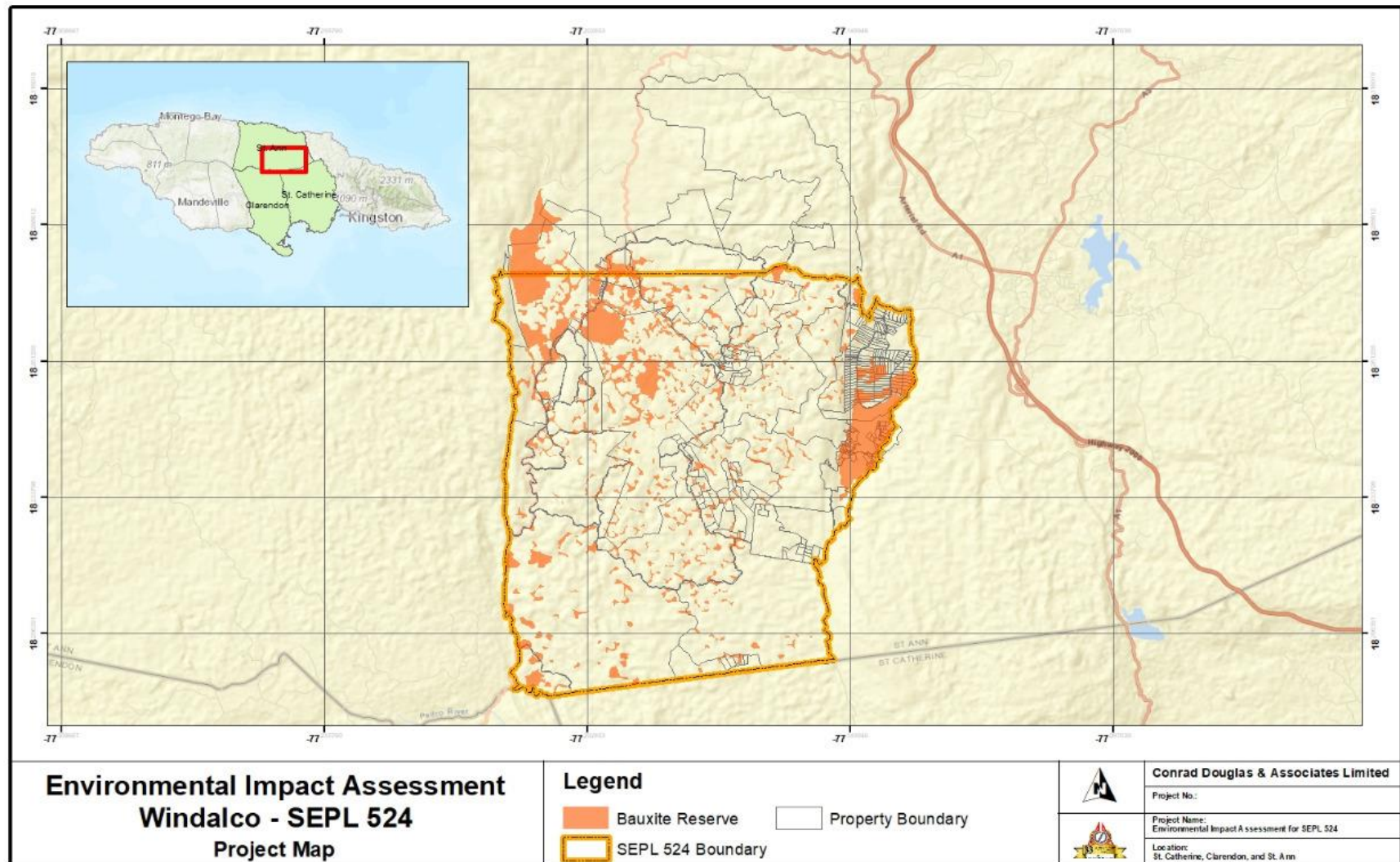


Figure 1-1: Project Map

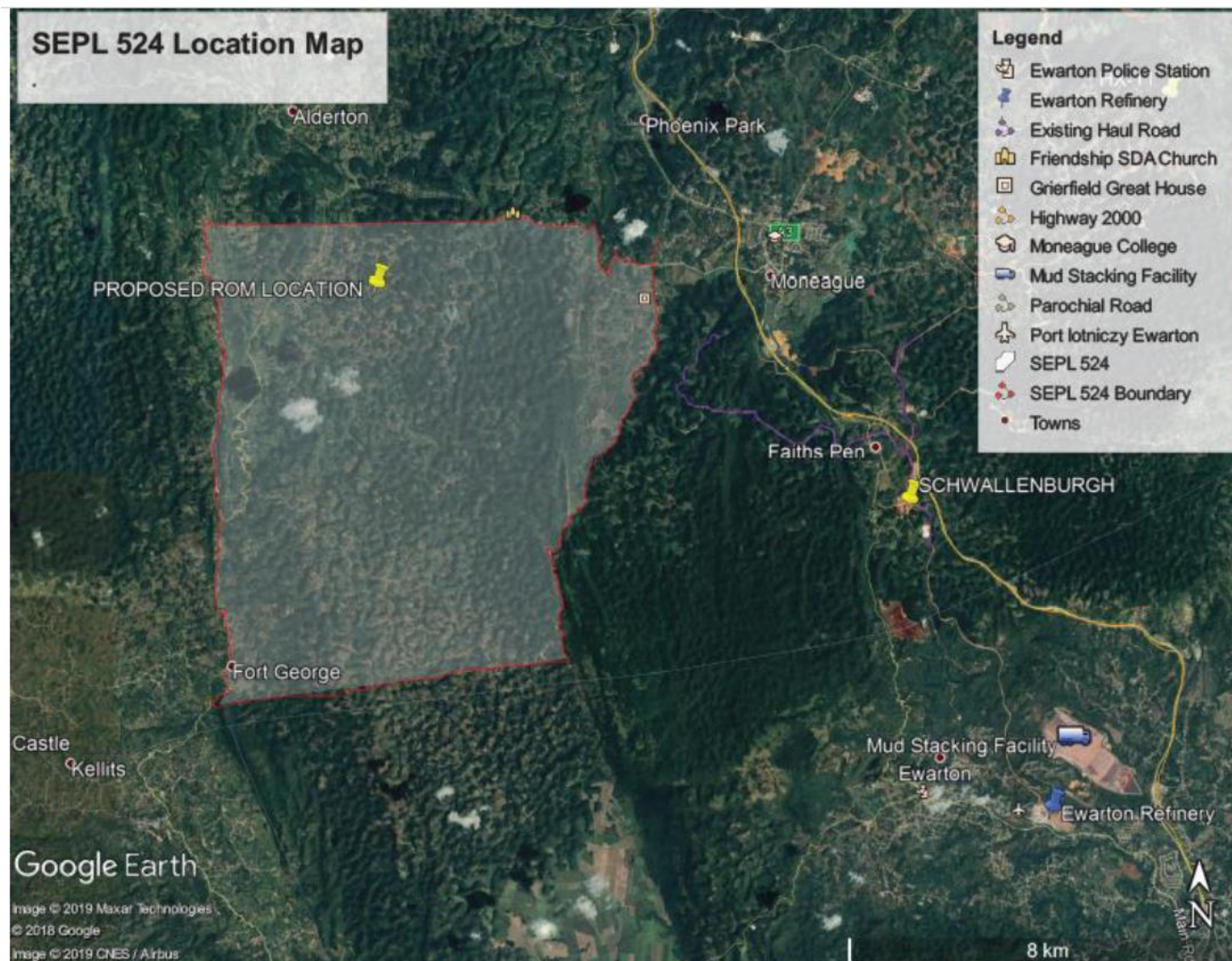


Figure 1-2. SEPL 524 in relation to main roads and major landmarks

2.0. Tasks to be Undertaken

2.1. Summary

This section will involve the generation of baseline data which is used to describe the Heritage Resources of the study and assess the potential impact of the implementation of the project on these resources in the natural environment.

The methodologies employed to obtain the data should be clearly detailed in this section. In addition.

2.2. Literature Review

The data collection process will be initiated with the collation of detailed literature reviews to be used as a basis for comparison with field-collected data. For field-collected data, the following aspects should be described in this section:

2.3. Heritage

The Jamaica National Heritage Trust will undertake a heritage survey. The historical importance of the area should be examined including identification of culturally significant features e.g, archaeological finds. An identification and mapping of the locations of artifacts, archaeological, geological and paleontological features of the site will be conducted. This should include brief descriptions of resources identified as well as their importance.

The report for this section in word format with the following formatting:

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- Text size: 12
- Spacing: 1.5
- Justified: Yes
- Paper size: letter