

1972

The Impact of Kaiser Bauxite Company on Western St. Ann Parish, Jamaica

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Eastern Illinois University

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THE IMPACT OF KAISER BAUXITE COMPANY

ON WESTERN ST. ANN PARISH, JAMAICA
(TITLE)

BY

SHIRLEY A. ANDERSON HALLARON

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF

MASTER OF ARTS

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
CHARLESTON, ILLINOIS

1972
YEAR

I HEREBY RECOMMEND THIS THESIS BE ACCEPTED AS FULFILLING
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THE IMPACT OF KAISER BauxITE COMPANY ON WESTERN ST. ANN PARISH, JAMAICA

By

Shirley A. Anderson Hallaron¹

INTRODUCTION

The global distribution of international corporations² has attained great magnitude, especially in the mineral field where these corporations have literally spread around the world in an effort to obtain more profit and to tap world resources. Kaiser Aluminum and Chemical Corporation is one such international corporation with a worldwide interest in the mining and processing of bauxite ore. Kaiser Bauxite Company is a subsidiary of Kaiser Aluminum and Chemical Corporation; the company mines bauxite ore in Jamaica.

The purpose of this paper is to present a micro-study of one aspect of Kaiser Bauxite Company, the effects of the company on one of its mining areas—Western St. Ann Parish in Jamaica. The paper will discuss the socio-economic influences of Kaiser Bauxite Company on this region.

The study is presented in two parts. Part I shows pre-Kaiser days in St. Ann, with specific reference to Discovery Bay, and the changes implemented by Kaiser Bauxite in the parish. The company started buying lands in St. Ann in 1956. This part of the study will also examine the changes made by Kaiser and the effects of these changes

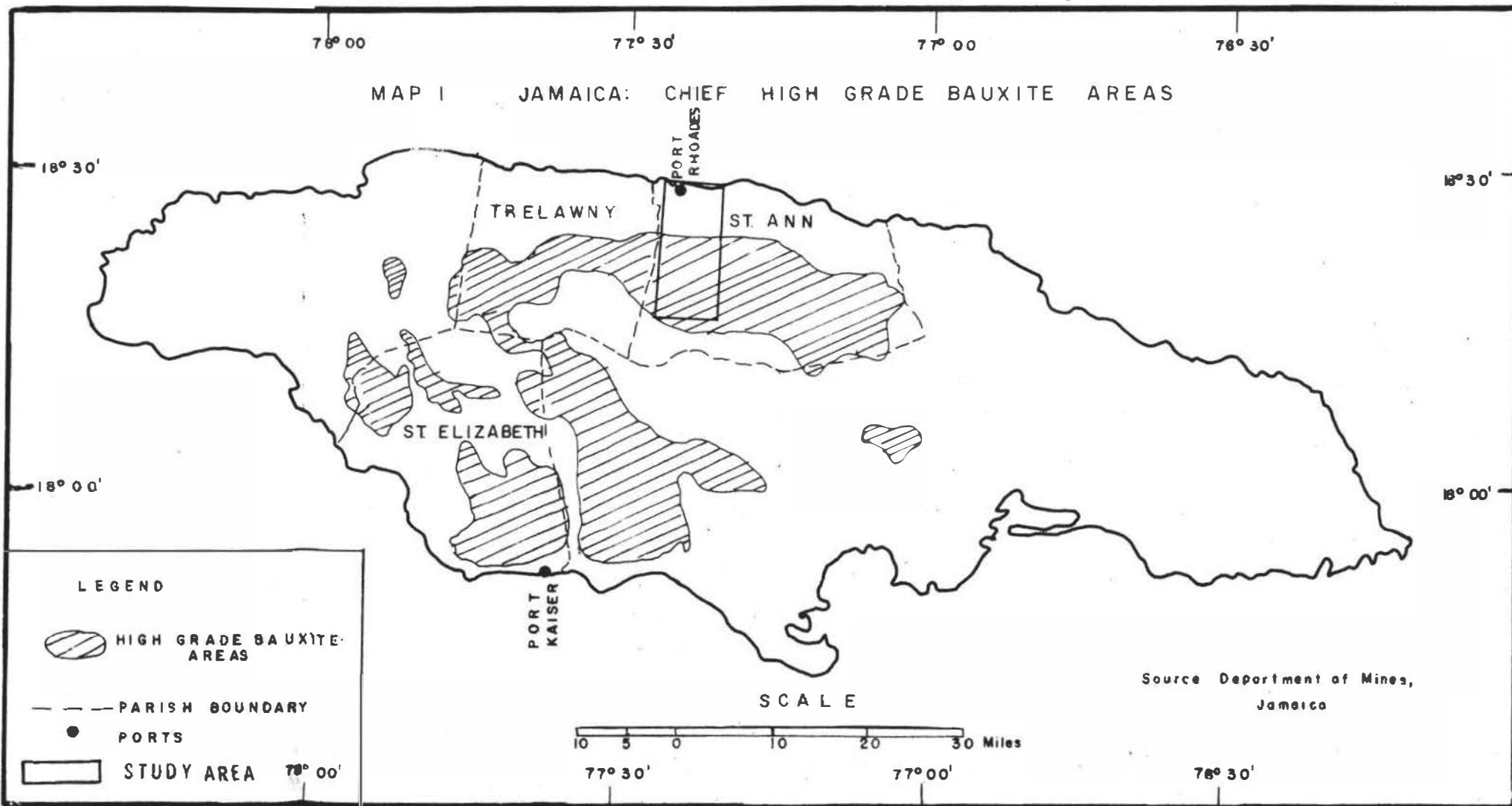
¹The writer is a native of the parish of St. Ann. She made two trips to Jamaica to do field work, for two weeks in December 1971 to January 1972 and again for 3 weeks in February to March 1972. In addition correspondences were carried on with several people in the St. Ann community for the purpose of gathering materials.

²An 'international corporation' has subsidiary companies in several countries for the purpose of mining, manufacturing, or other such purposes.

on the Discovery Bay fishing village, in which the company's offices are located, and in general on western St. Ann Parish.

Part II deals with the specific mining area of the Dry Harbor Mountain examining the effects of the company's presence on the small farmers living in the region, people who own or owned lands with high bauxite content. Kaiser relocated some of these farmers elsewhere, others whose lands were not required for mining or passage rights are still living in the mining area. Part II also examines the effects of Kaiser's presence on the farmers with non-bauxite lands in the small villages not directly associated with the mining area, but still affected by Kaiser's presence.

MAP I JAMAICA: CHIEF HIGH GRADE BAUXITE AREAS



PART I

KAISER'S IMPACT ON THE NONFARM COMMUNITIES

Introduction to St. Ann

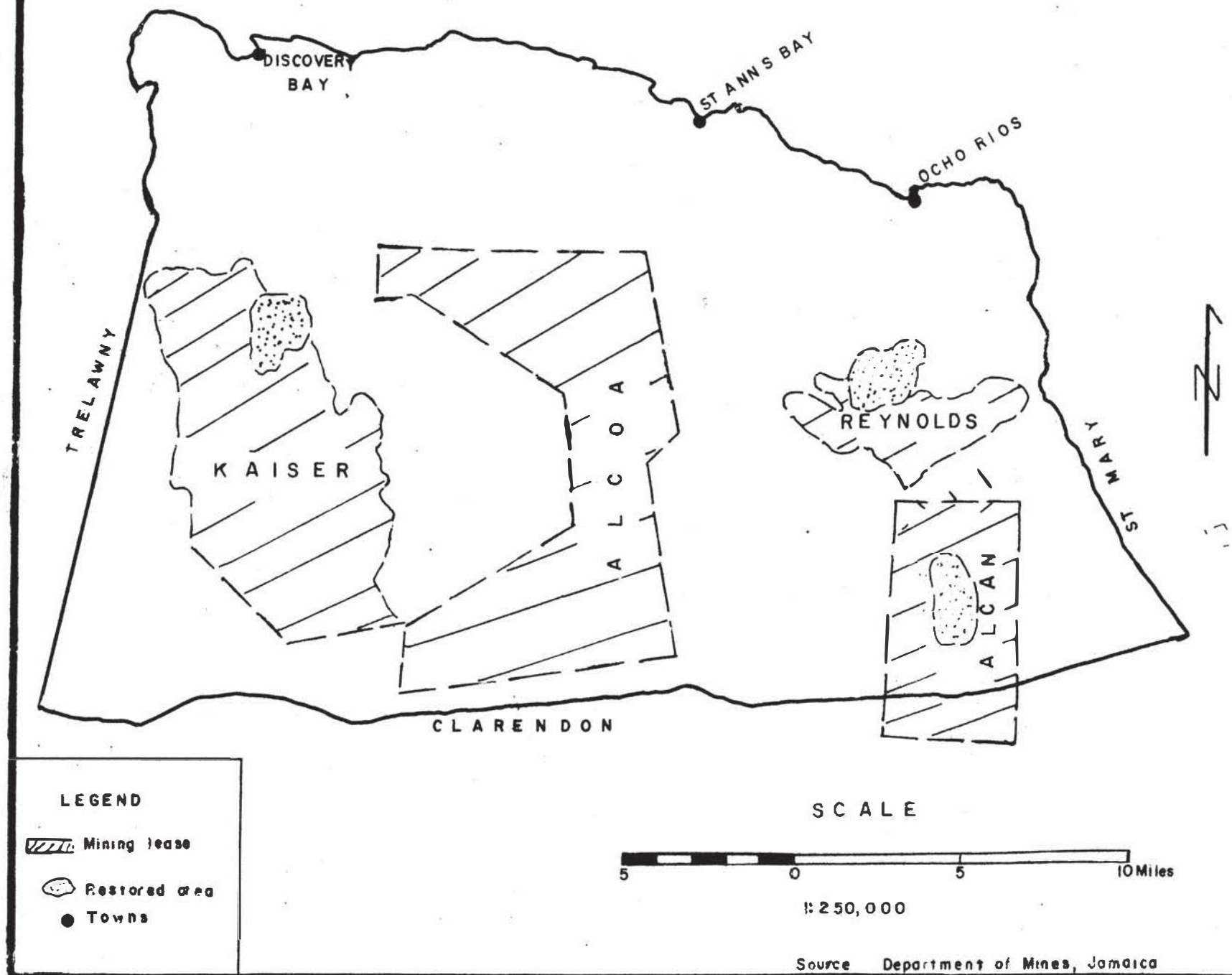
St. Ann's location in a region of high bauxite content (Map 1) makes the parish ideal for competitive mining of bauxite ore by several companies. Three bauxite companies have interest in the parish: Reynolds Jamaica Mines has mining operations in the eastern part of the parish; Alcoa owns lands in the central portion, but has not yet started to mine the ore; and Kaiser Bauxite Company (with which this study deals) has mining operations in the western portion of the parish (Map 2). Each company owns mining lease³ for the areas they occupy.

St. Ann is an agricultural parish producing sugar cane, citrus, coconuts, bananas, and pimento on a large scale basis and other tropical crops on a small scale basis for the local markets or for home use. Because of its rough terrain and narrow coastal plain a large portion of the parish is occupied by undrained pasture, unimproved forests on the mountain slopes and ruins.⁴ Therefore, much of the lands not owned by the bauxite companies in St. Ann are either cropland,

³In Jamaica, mining lease is held in perpetuity by a mining company. After the ore is removed the land is returned to the government only if the company wishes to do so.

⁴Large areas are sometimes cleared of forest, burned and used for cultivation. The lack of forest cover exposes the land to tropical weathering and erosion which renders the land unsuitable for crops. The land is then abandoned and the scant vegetation which grows on the land is called ruins.

MAP 2 ST ANN BAUXITE MINING LEASE



unimproved pasture, ruinat, or forested. At the same time several hundred acres of agricultural lands are owned by the bauxite companies. Other than bauxite mining tourism is the only major industry in the parish. Ocho Rios is the chief tourist center.

Discovery Bay Before Kaiser

Prior to 1960 Discovery Bay was a small north coast fishing village of about 900 people similar to the numerous other fishing villages located in the bays on the island's north coast. Its historical development is comparatively simple. When Columbus landed there in 1494 he named the place Puerto Seco because he found no water. Later when the English came they translated the name to English--Dry Harbor; the name extended to the mountains south of the village and even after the village was renamed Discovery Bay the mountain region was still called Dry Harbor Mountain. It was in 1947 that Jamaican-born Hal Peat, in the hopes of building the area into a prosperous tourist resort, renamed the village Discovery Bay and formed the Discovery Bay Company. This company built a 34 room luxury hotel, Columbus Inn, on the hill overlooking the bay. Peat's other plans for Discovery Bay never materialized; the tourist business never grew to any great extent, probably because the trend at that time was to locate the hotels on the beach and Columbus Inn was placed on the hill away from the beach. It was this hotel and property that was purchased by Kaiser in 1956.

Before Kaiser came several Discovery Bay residents objected to having a bauxite loading dock in the area. When Reynolds Jamaica Mines (Map 2) constructed its loading dock at Ocho Rios, not much was done about dust control and as a result escaping dust from the port

resulted in the depreciation of homes and properties in the immediate surroundings. It was on this fact that the objection was based. Foreigners and wealthy Jamaicans owning beach houses along the coast were the chief objectors. These were the people who were not in need of the jobs that the company would provide and had only to lose from the depreciation of their homes and property. On the other hand there were many who lived in the area who were in need of jobs and welcomed the idea of a new company in the area.

Kaiser's Coming To St. Ann

Kaiser Aluminum and Chemical Corporation came to Jamaica in the 1940's. In 1947, the Corporation started buying lands and setting up mining operations in the parish of St. Elizabeth (Map 1). Donald A. Rhodes in whose honor Port Rhodes is named, realized the potentials of Jamaican bauxite and endeavored to develop the resources. He succeeded in establishing the Kaiser Bauxite Company, in 1950, as a wholly owned subsidiary of Kaiser Aluminum and Chemicals. The company then located in St. Elizabeth using Port Kaiser as its shipping port.

The idea for the North Coast program came about in the early 1950's and by 1955 actual planning and basic surveying commenced in the parishes of St. Ann and Trelawny.⁵ Lands were bought in both parishes but at present lands in Trelawny are only used for resettlement purposes. In 1956, two important purchases were made in Discovery Bay: the Discovery Bay Estate including the hotel, Columbus Inn, was purchased for the setting up of administrative offices, and Puerto Seco

⁵"North Coast expansion program." Kaisphauxco News, Mandeville, Jamaica. November 1963, p. 6.

Beach was purchased, improved, and opened to the public.

On April 29, 1963, Kaiser Bauxite Company announced plans to spend \$30,000,000 (U.S.) on the north coast program.⁶ The first phase was to include the provision of mining facilities, a bauxite drying and storage plant, a 12 mile long railroad, and a deep water pier for company use; also included in the first phase was the development of the village of Discovery Bay and its environs as a tourist area. Hoping to complete this expansion in five years the company stated, this would "mean more jobs for the people. For many who are employed it will mean more opportunities for earning a livelihood. For many of those skilled persons seeking advances in their field it will present a challenge to go forward."⁷

The Discovery Bay natural harbor was dredged deeper to facilitate the entry of large ore carriers. Test dredging was done in 1959 and in 1963 actual construction dredging began. The coral reef at the mouth of the bay was submerged only 14 feet below the surface and the depth inside the bay was 165 feet. Kaiser's plans called for a channel 1,200 feet long, 400 feet wide, and 40 feet deep through the coral reef. The construction of such a channel involved moving 400,000 cubic yards of coral limestone.⁸ Construction began on a bauxite drying plant in 1965. At the same time ~~construction~~ of the railroad and mining facilities

⁶"Kaiser to make Discovery Bay Tourist area: 10½ million pounds bauxite expansion planned." The Daily Gleaner, Kingston, Jamaica. April 30, 1963, p. 1.

⁷"North Coast Development." Kaisbauxco News, Discovery Bay, Jamaica. February-March 1965, p. 1.

⁸"The North Coast expansion program." Kaisbauxco News, Mandeville, Jamaica. October-November, 1963, p. 7.

began in the Tobolski area in the Dry Harbor region. By 1967, facilities were ready for full scale operations and that year marked the official inauguration of Kaiser Bauxite Company in St. Ann.

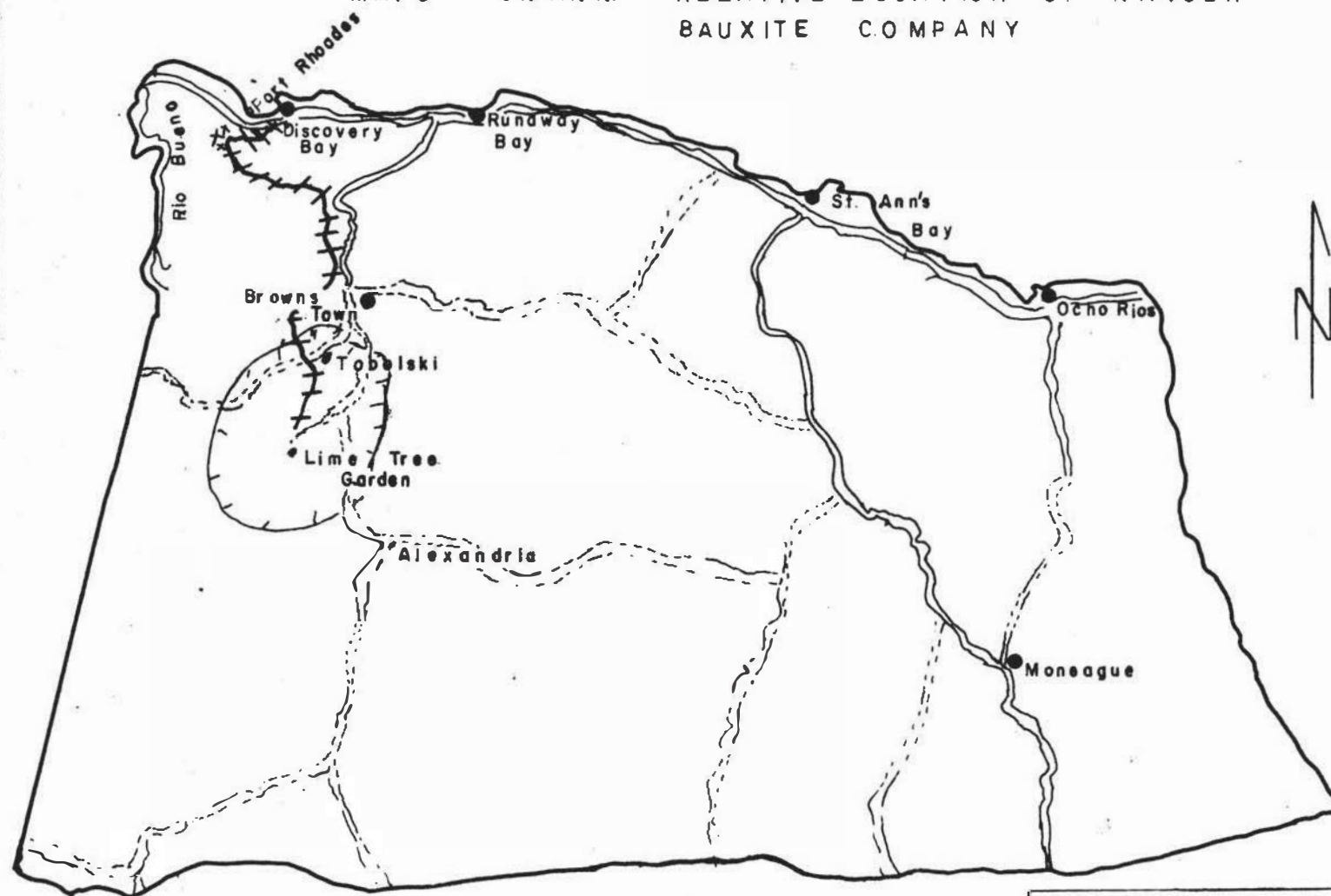
Mining is currently carried out in Tobolski, located 13 miles southwest of Port Rhoades and $\frac{1}{2}$ miles west of Browns Town (Map 3). Numerous peaks in this part of Dry Harbor Mountain rise to 2,250 feet and 3,000 feet; local relief is over 1,000 feet in several places. A 12 mile railroad passing through this rugged terrain transports the ore to stockpile at Port Rhoades. The railroad is built and operated by Kaiser and used solely for the transportation of bauxite ore.

Port Rhoades serves two other affiliated purposes besides providing shipping facilities. The bauxite ore is stockpiled at the pier so that in the event that heavy rains or any other disaster should stop mining operations, ore will be readily available for loading the ships. The storage dome (Figure 1) which has a 125,000 tons storage capacity, and is connected to the loading gantry by a conveyor

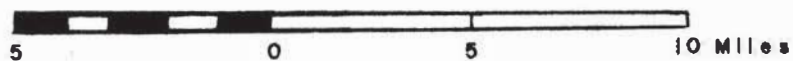


Figure 1. Bauxite storage dome

MAP 3 ST. ANN. RELATIVE LOCATION OF KAISER
BAUXITE COMPANY



S C A L E



1:250,000

LEGEND

- TOWNS & VILLAGES
- ⬭ DRY HARBOR MT. AREA
BAUXITE DRYING PLANT
- MAIN ROADS
- - - SECONDARY ROADS
- +++ KAISER RAIL ROAD

belt was built for its aesthetic quality and for the provision of a large storage space.

The second function of the port is oil storage. With the importance of oil in the mining operations it is highly necessary for Kaiser to have enough storage capacity. All three storage tanks (Figure 2) together have a capacity of 109,000 barrels. In addition to using the oil for road building and other purposes, Kaiser refuels its own ships.



Figure 2. Oil storage tanks

The North Coast project provides Kaiser with fully integrated mining, drying, and shipping facilities. But this is not the complete picture nor the full extent of its involvement. Mr. Don C. Tretzel, Vice President and resident manager of Kaiser Bauxite Company in Jamaica, in an effort to show what Kaiser means to the St. Ann area spoke of the "unending effort of Kaiser Bauxite Company to develop in

the Discovery Bay area an industrial complex, the reputation of which will stand shoulder to shoulder with any such endeavour in any part of the world."⁹ An 'industrial complex' comparable to any such 'in any part of the world' are not words that describe this area at this time, but for the future this is something that Kaiser can try to accomplish. In doing so the company will be fulfilling its slogans "In partnership with Jamaica" and "Together we build."

Changes Implemented In St. Ann By Kaiser

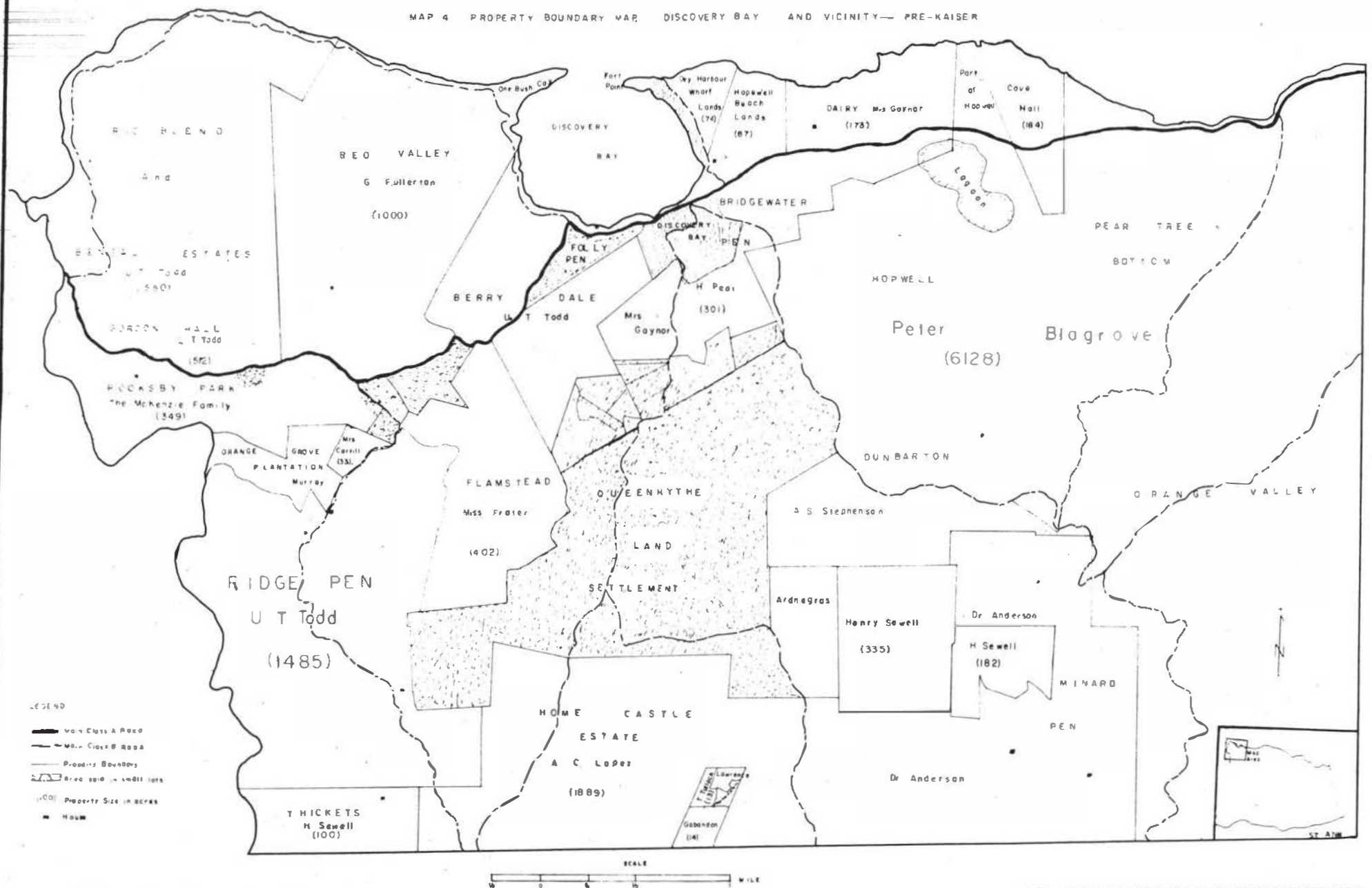
Changes in Land Ownership: One of the important changes made by Kaiser when it moved into the parish of St. Ann was changes in ownership of land and property. After Columbus Inn proved unsuccessful as a tourist attraction, Kaiser bought the hotel and property from the Discovery Bay Company and the beach along with it. The beach was named Puerto Seco after Kaiser bought and improved it, and then it was opened to the public. Changing rooms and a clubhouse were added. Present facilities at Puerto Seco include water slide, water skiing, tennis court, and a snack bar. The hotel complex was used for administrative offices after some changes were made. These purchases were made in 1956 and later when activities started Kaiser referred to its Columbus Inn Administrative center as the "beating nerve center of Kaiser's... 30 million dollar Port Rhoades development."¹⁰

Much of the land in Discovery Bay and vicinity prior to Kaiser's coming (Map 4) was owned by large estates. Kaiser bought Barrydale

⁹"Comparable to any in the world: Tretzel tells of Kaiser's plans for industrial complex." The Daily Gleaner, Kingston, Jamaica. April 25, 1967, p. 23.

¹⁰"Columbus Inn Offices Today." Caribbean News, Mandeville, Jamaica. December, 1956, p. 1.

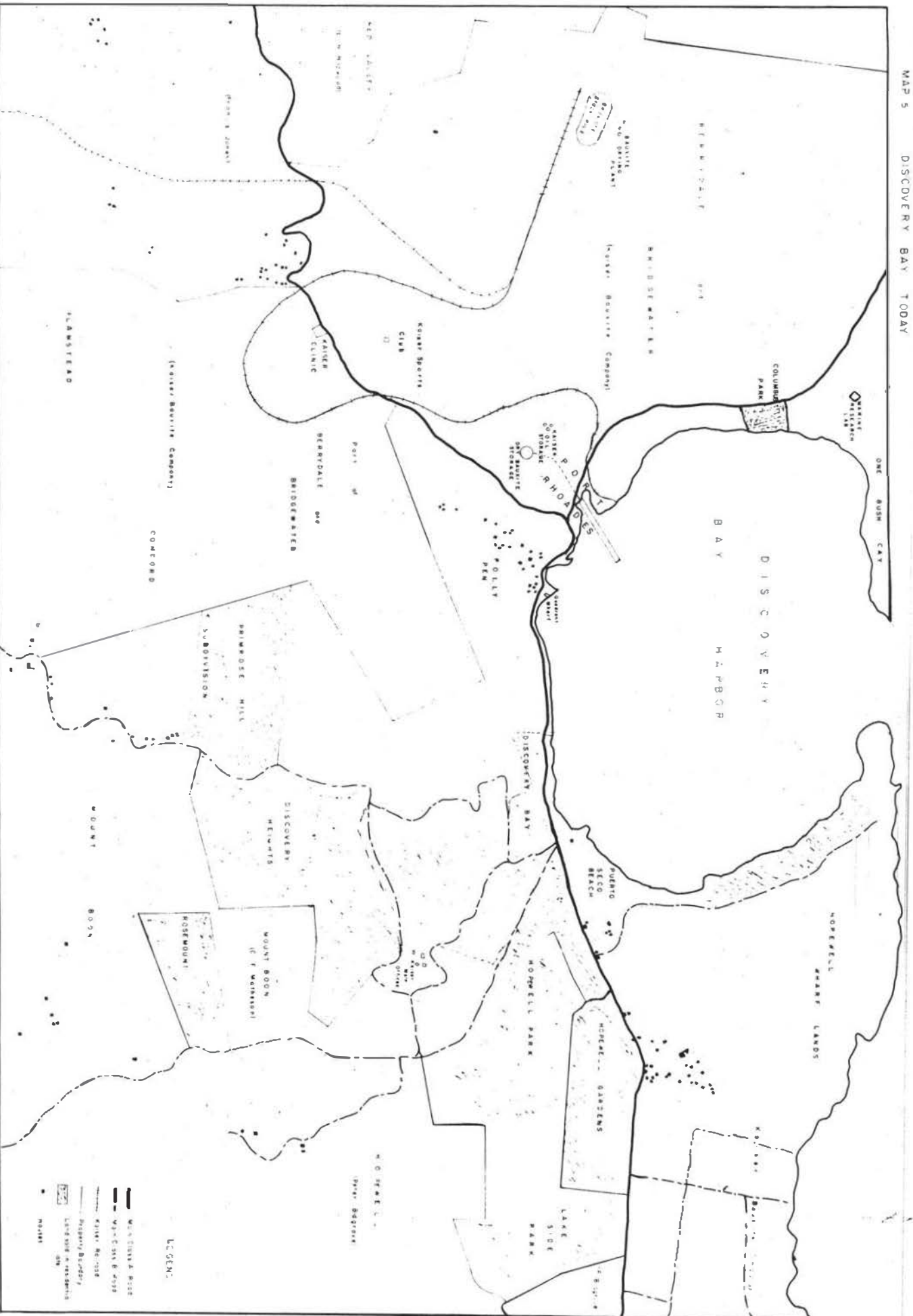
MAP 4 PROPERTY BOUNDARY MAP, DISCOVERY BAY AND VICINITY — PRE-KAISER



Estate west of Discovery Bay and used the property along with others adjacent to it for the construction of a bauxite drying plant, port facilities, storage facilities, and a sports club (Map 5).

Outside of Discovery Bay Kaiser made three types of land purchases: lands with high bauxite content for mining; non-bauxite lands for railroad and haulroads; and lands for resettlement of the farmers removed from the bauxite lands. Kaiser was one of the first companies to purchase its bauxite mining lands from small farmers. Its neighbor company in St. Ann, Reynolds Jamaica Mines, had its bauxite ore located on lands owned by large estates which did not involve the purchasing of so many 'mosaic pieces.' Kaiser had to purchase these 'mosaic pieces' before mining could commence. This type of transaction is complex. Many of these small farmers do not have a land title to the land they own and many of the farms are owned jointly by the entire family or by more than one member. The land tenure situation posed a major problem in selling of the land, and that is one reason why Kaiser Bauxite, after starting to purchase lands two decades ago in the Dry Harbor Mountain area, is still in the process of purchasing lands in the same area today.

Reynolds Jamaica Mines held mining lease and had previously purchased bauxite lands in western St. Ann. Kaiser offered to purchase some of these bauxite lands from Reynolds. When Reynolds agreed to sell the land, Kaiser purchased it on the basis of estimated tonnage of bauxite ore in the land, but from the small farmers who owned bauxite lands the purchase was made on the basis of acreage. This brought much dissatisfaction to many of the small farmers when



they returned to the area and saw how much bauxite Kaiser had removed from the land. The second type of land purchased was also from small farmers and again was fragmented. The company had to purchase strips of land for passage rights to build haulroads and railroads.

The third type of land purchase made by the company, the resettlement land, was purchased from large estate owners. These were chiefly unimproved pasture that had never been cultivated, except in some cases where there were a few citrus trees, coconuts, or a few other valuable tree crops. Some of this land is good agricultural lands but was never cultivated because they were used for cattle rearing during colonial days. The estates were purchased in various parts of St. Ann and Trelawny, and subdivided for the purpose of selling to the small farmers.

Landscape Changes: Port Rhoades (Figure 3) located in the Discovery Bay Harbor, occupies a natural harbor formerly used by small fishing boats and before that used by 18th century ships carrying war implements.



Figure 3. Entrance to Port Rhoades

The facilities constructed at Port Rhoades are the most significant changes along the highway.

In spite of its much improved facilities the Port Rhoades pier is used only by ore carriers for the shipment of bauxite ore. As return cargo the ships carry fuel oil, machinery, and supplies to be used by Kaiser. Occasionally an organization in the community will ask Kaiser to bring equipments from the United States. This is the only type of goods that the company will carry as part of its public and community relations. The company explains that the ore carriers are not able to serve the community more since the ships are in port for only 10½ hours each time they dock. This limits them to company use and would not allow time for customs clearance and other formalities that would involve goods brought for the community. Consequently only the bauxite sector of the Discovery Bay industrial expansion uses the port, and the community does not benefit from the pier directly.

Kaiser was aware that the dust from the plant and loading dock would affect the Discovery Bay residents and therefore took precaution against dust escape by planning control measures into the loading area. The company maintains a dust free operation from the drying plant to the ship.

"The dryers are equipped with cyclones which discharge the partially cleared gasses into a Cottrell electrostatic precipitator for final dust removal. The enclosed conveyor system from plant to pier ensures against dust escape, while a telescopic chute on the shiploading gantry is fitted with air tumblers for dust suppression."¹¹

¹¹ Kaiser Bauxite: In Partnership With Jamaica, Port Rhoades. Discovery Bay, Jamaica: Kaiser Bauxite Company, 1970, p. 7.

If anything goes wrong and the dust control system should break causing escaping dust to damage property in the community, Kaiser is likely to face law suits from residents in Discovery Bay, and the company may have to pay thousands of dollars for damage.

Kaiser has maintained that "every effort has been made to preserve the area's natural beauty."¹² When the Company's drying plant and storage facilities were constructed the company described their position in the landscape as follows:

"The plant site is constructed on a split level above Port Rhoades so as to blend with the hillside. The dry storage dome has been situated to create a low silhouette amid the surrounding foliage. The oil storage tanks and conveyor lines are painted green and the conveyor built to cause no disruption of the shore area, by having it pass beneath the Queen's Highway¹³ enroute to the pier—a project which involved construction of a highway overpass."¹⁴

Through efforts to preserve the area's natural beauty, changes of some sort are unavoidable. The construction of the plant site, the pier, the storage facilities, and other structures are in themselves major changes.

Kaiser created Columbus Park (Figure 4) located west of Port Rhoades on the Queen's Highway. The park represents a "repository for historical artifacts." Also included in this small park are

¹²Port Rhoades: Discovery Bay, Jamaica. A 1960 publication of Kaiser Bauxite Company. Mandeville, Jamaica. No pages.

¹³The Queen's Highway is the main highway through Discovery Bay. See Map 6.

¹⁴Port Rhoades: Discovery Bay, Jamaica, no pages



Figure 4. Columbus Park

memorial stones erected in memory of important people who lived in the area.

In describing its efforts to restore historical sites in Discovery Bay Kaiser stated:

"Such historical sights as the 18th century canoes, partially rebuilt walls of the old fort, the remains of the barracks where English soldiers were once housed, the customs house and the quadrant wharf have been left intact and remain as part of the island's public attraction."¹⁵

¹⁵Port Rhoades: Discovery Bay, no pages.

Kaiser's coming to western St. Ann provided needed employment for many people in the community. More money was put in circulation, which in turn created new demands for goods and services and attracted new commercial businesses to the area.

The company employs many local people but reports that skilled technicians are not always available and these have to be imported from other areas. Such skills as draftsmen and surveyors are always in demand. Kaiser like several other industrial concerns in Jamaica, sets up training programs to help train the unskilled or 'under-skilled' people seeking employment. Training programs are not unique to Kaiser since the government encourages all business firms to set up some. One such program is Training Within Industry (TWI) which started in 1970 and is run by the company in Discovery Bay to instruct new employees in personnel administration, employee management, and industrial relations. The purposes of the TWI training are:¹⁶

1. To equip participants with the basic tools of supervision;
2. To stimulate a fresh and thoughtful look at supervisory responsibilities; and
3. To stimulate the right attitude for the best results in the supervision of others.

Some management and supervisory personnel are sent overseas for further training after completing courses in Discovery Bay. In addition to TWI, schools are set up by the company to instruct some mechanics and specialised workers. Also the company gives time off to its

¹⁶"First Company-Consolidated TWI course ends." Kaisbauco News, Vol. 15, No. 80, December 12, 1970.

employees to work on correspondence courses. The current employment figure is about 900 including staff and hourly paid workers.

Some workers at Port Rhoades came with the company from its Mandeville plant, but exact figures of the employees from Mandeville are not easily kept since these workers do not always remain in St. Ann. Some may request to be sent back to Mandeville if living conditions in St. Ann are not suitable. Consequently workers keep going back and forth between St. Elizabeth and St. Ann. About 100 of the 900 employees presently at Port Rhoades came from the Mandeville plant. The others are from various parts of Jamaica. Workers on construction sites and in road building are mainly from St. Ann.

Outside the company new demands are created in the form of household help for Kaiser's employees and for the other families moving into the community, construction workers, and clerical help for variety stores, banks, and grocery stores among others.

Community Changes Associated With Kaiser's Coming

Housing and Related Changes: The most significant change in Discovery Bay is the improvement in housing. When Kaiser moved to Discovery Bay, not enough houses were available for its employees. The company invited a construction firm, Prestige Homes, Inc., to develop Hopewell and Lakeside subdivisions (Map 5). Kaiser guaranteed the developers 50 percent sales in both subdivisions and the developers in turn gave first choice to the company's employees. The houses in both subdivisions consist of three bedroom, two-bathroom units of block and steel construction. In Hopewell there are two types of houses: Type A with 1700 square feet floor space

and Type B with 1500 square feet. In Lakeside the houses consist of Type C houses--3 bedroom units of 900 square feet floor space.¹⁷ Kaiser's supervisory personnel were some of the first to purchase homes in Hopewell subdivision which was built primarily for staff workers. Lakeside, unlike Hopewell, was not equipped with a maid's quarters and was built chiefly for hourly paid workers. Both subdivisions started in 1964 and the first family moved into Hopewell in July of that same year. The majority of the residents moved into both subdivisions between 1964 and 1968.

About 40 percent of the people living in Hopewell and Lakeside are not employees of Kaiser Bauxite Company. Two reasons prompted people to purchase homes in this locality. The basic snob appeal brought many upper middle class people to the area. The second reason is the lure of the north coast and the desire to be near the sea coast. The availability of houses made it possible for many to fulfill that desire. With the building of these Prestige Homes came more police protection and this further encouraged people to move into the area.

There were a large number of good quality homes in Discovery Bay before Kaiser came (Figure 5): these were owned by wealthy Jamaicans and foreigners. Some of these homes are owned by Jamaicans and rented to tourists who do not wish to spend their vacation in hotels. Others are beach houses and cottages that serve as the winter homes of the English and American families that own them. After Kaiser came the

¹⁷"North Coast Housing: First Kaiser family in at Hopewell." Kaisbauco News, Vol 13, No. 11. August 27, 1966, p. 1.



Figure 5. Pre-Kaiser upper middle class house

style, quality, and size of the upper middle class homes (Figure 6) remained basically the same.



Figure 6. Post-Kaiser upper middle class house

The number of housing permits granted by the St. Ann Parish Council for building homes in Discovery Bay, Runaway Bay, and Browns Town (Table 1) reached a record high in 1966, just about the time when Kaiser commenced mining operations in the parish, after that a steady decrease was experienced. Several of the homes were built in subdivisions rather than in the town proper. Some of the subdivisions that had an increase in housing are: Bridgewater, Discovery Bay Heights, and Primrose Hill (Map 5). In 1966 the 168 housing permits granted for Discovery Bay included those for Hopewell and Lakeside subdivisions. With the exception of 1970, Runaway Bay maintained a comparatively steady increase in the number of houses added to the town. The increase was not experienced only because of the addition of Kaiser's employees to the area but because the town is a larger tourist center than Discovery Bay, consequently Runaway Bay has a larger percentage of its population engaged in the tourist industry; working in hotels and guest houses. Also several of the homes in Runaway Bay and Cardiff Hall are built and rented to tourists. Cardiff Hall is a suburb of Runaway Bay. Some of the increase in Browns Town can be attributed to the addition of Kaiser's employees to that town.

TABLE 1
NUMBER OF BUILDING PERMITS ISSUED¹⁶

1966-1970

Towns	1966	1967	1968	1969	1970
Discovery Bay	168	11	18	9	6
Runaway Bay	24	19	23	16	3
Browns Town	19	8	11	8	6

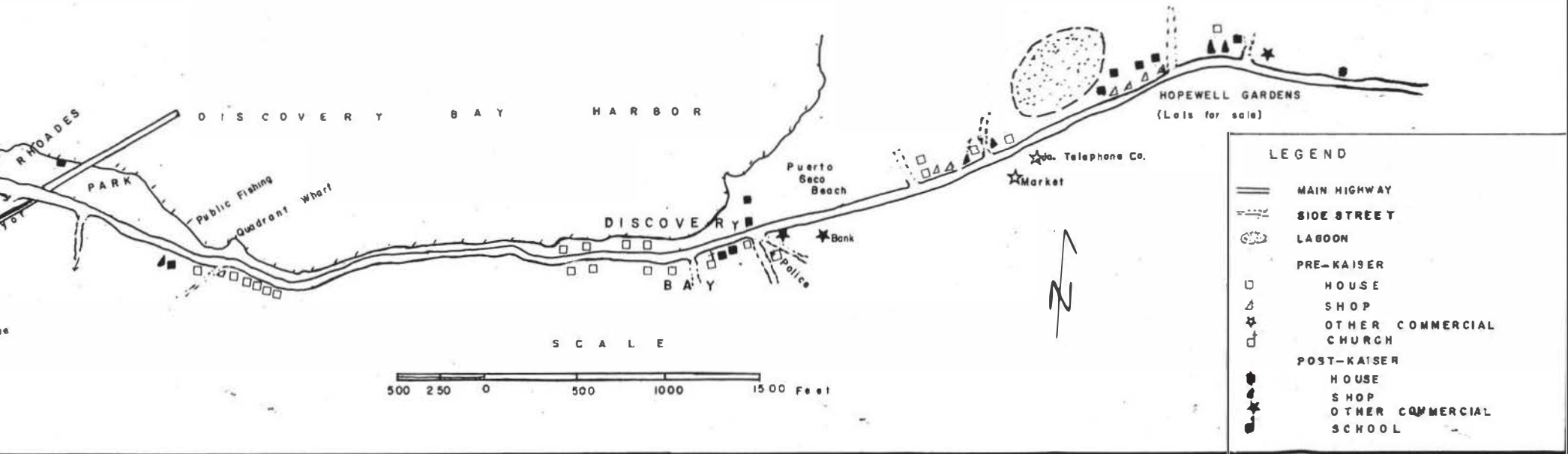
¹⁶ Compiled from St. Ann Parish Council records. The permits are granted but records of how many houses are actually built are not kept.

Housing structures adjacent to the main highway through Discovery Bay (Map 6) have not changed a great deal. Slight improvements have been made in some areas. Structures west of the center of the town are upper middle class homes chiefly, and east of the town are mainly small grocery stores and one or two bedroom houses. The upper middle class section remains almost unchanged while many of the small grocery stores have been remodeled or new ones built. Several small buildings (Figure 7) are rather old but are still occupied, and others have been remodeled or completely rebuilt on new sites.

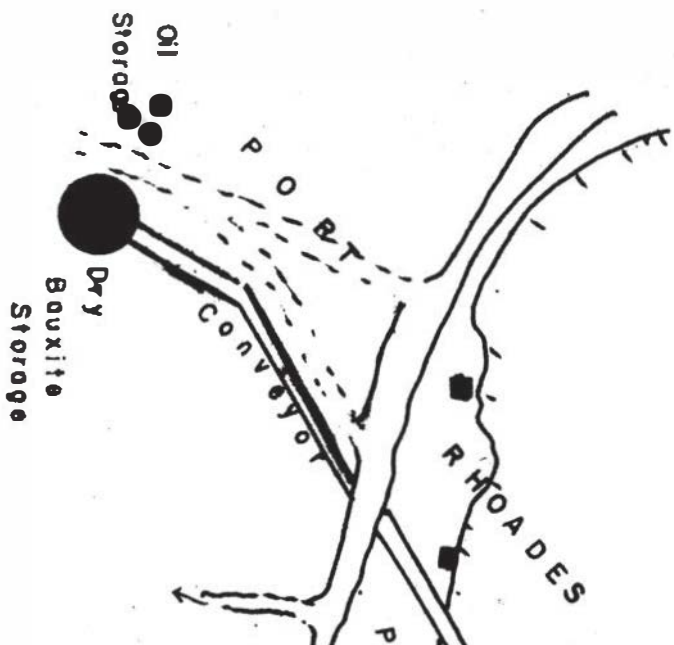


Figure 7. Pre-Kaiser house

HIGHWAY THROUGH DISCOVERY BAY



MAP 6 HIGHWAY



Several of the new or remodeled buildings, including grocery stores (Figure 8), are not much larger than they were before Kaiser came; the aesthetic quality, however, has greatly improved.



Figure 8. Post-Kaiser grocery store

Some of the new buildings along the Discovery Bay highway include the new Post Office and the New Discovery Bay Primary School. The land for the Primary School was provided by Kaiser Bauxite and the company donated some of the equipments for the school.

Along with the additional housing came increased population. The increase created the need for more commercial activities and expansion of the already existing ones: For example the Texaco

Service Station (Figure 9) remodeled its old building constructing one of the most modern structures in the area. Remodeling was done in 1967. The small grocery stores in the area were not enough to serve the needs of the larger population. Nearby villages also were



Figure 9. Texaco Service Station

not able to supply the demands of the Discovery Bay residents. As a result in 1969 a new shopping center was opened to serve the shopping needs of the area. Columbus Plaza (Figure 10) was built in the center of the town close to the main highway.

Prior to Kaiser's coming there was only a small branch office of the Bank of Nova Scotia in Discovery Bay. In 1967 the branch was abolished and a complete bank constructed housed in its own building. Barclay's Bank also opened a new building in the town that



Figure 10. Columbus Plaza shopping center: south wing

same year. Barclays Bank handles a part of Kaiser Baurite's local accounts including employees' payroll checks.

Population Changes: Kaiser has directly and indirectly resulted in a population shift in St. Ann. (For the purpose of discussing population shifts the resettlement areas are included in Table 2.)

The village of Lime Tree Garden experienced a decrease of 637 people. This decrease, which is highly unusual for a small farm community, is due to the fact that Kaiser removed the small farmers from this village and resettled them in other areas such as Moneague, which experienced an increase of 1,700. (The resettlement area is not in Moneague proper but in Phoenix Park. Phoenix Park's population is included with Moneague's.) The growth of the Discovery Bay popula-

TABLE 2

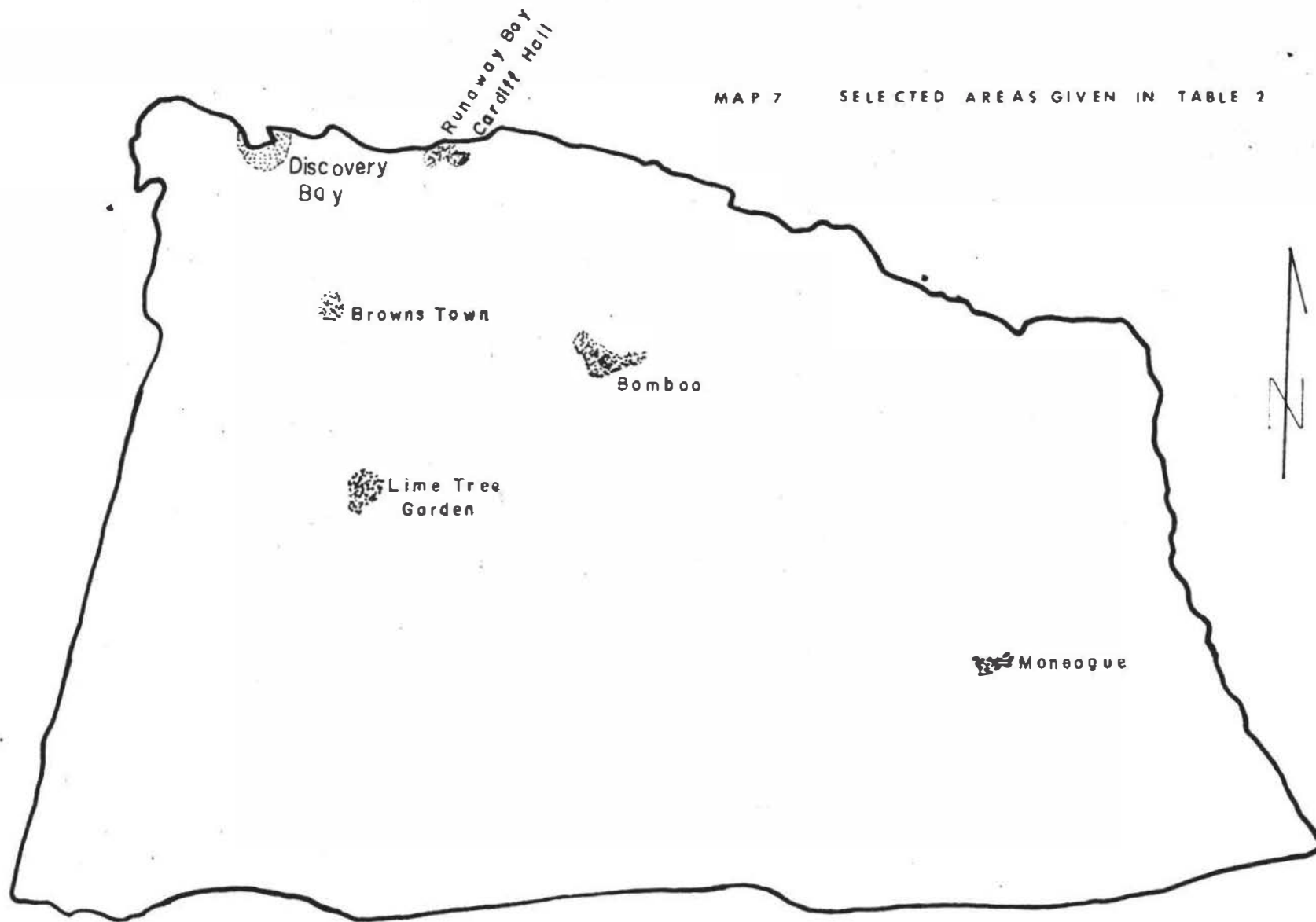
POPULATION FOR SELECTED AREAS IN ST. ANN¹⁹

Selected Areas	Population	
	1960	1970
Bamboo	2,660	3,002
Browns Town	3,899	4,693
Cardiff Hall	639	732
Discovery Bay	900*	1,592
Lime Tree Garden	1,495	858
Moneague	1,669	3,002
Runaway Bay	914	1,109
Parish of St. Ann	114,400	121,300
*Estimated—exact figures were not available.		
Selected Areas given above are shown on Map 7.		

tion is definitely due to the coming of Kaiser Bauxite Company to the area; likewise Runaway Bay, Cardiff Hall, and Browns Town are areas in which some of Kaiser workers live, consequently these towns owe some of their increase in population to the presence of Kaiser employees. Bamboo's increase resulted from the resettled farmers in Lilyfield—Lilyfield and Bamboo are both included in the same population census figures.

¹⁹The figures for above table were compiled by the Bureau of Statistics in Kingston.

MAP 7 SELECTED AREAS GIVEN IN TABLE 2



SCALE



MAP 8 MAJOR AREAS FROM WHICH KAISER EMPLOYEES COMMUTE



In addition to residing in Discovery Bay, Runaway Bay, and Browns Town some of Kaiser's employees live outside the parish of St. Ann: such areas are represented by Falmouth, Duncans, and Clarks Town in Trelawny. When the company moved to Discovery Bay there was a resultant inflation in rent prices, it was therefore less expensive for some employees to commute from towns outside the area (Map 8). Others tied emotionally to their home towns remained there and commute to Discovery Bay rather than purchasing homes or renting at high prices from the home owners in Discovery Bay and vicinity. A few employees leave their family in Kingston, 65 miles away, and board with families in Discovery Bay returning to Kingston on weekends.

Public and Community Relations

Kaiser states that the company's policy is to 'help Jamaicans to help themselves.' The idea behind the company's assistance to the public is to get away from the situation during the sugar estate-colonial days when workers were not encouraged to 'help themselves,' but were tied to the estates only to work for the estate owners.

Before Kaiser came to Discovery Bay the homes were supplied with water from individual tanks and small wells: there was no central water system. Kaiser established the Discovery Bay Company which provides water for the entire town of Discovery Bay and vicinity, Lakeside and Hopewell subdivisions, and the company offices at Columbus Inn. The water is supplied to these areas from wells. The bauxite drying plant does not use this central water system but has its own water supply system.

The company has built one of the most modern clinics on the north

coast and equipped it with a resident doctor, consulting specialists, nurses, pharmacist, and lab and x-ray technicians. The x-ray department and laboratories are geared to carry out a number of functions which in the past were available only in Kingston.²⁰ This medical center was built to serve the health requirements of the company's employees and members of their families and emergency cases of the public. The company will allow an employee's personal physician to come to the clinic and use the facilities there while treating that particular employee. However, along with the first rate facilities and staff go first rate prices. This is not a free clinic, consequently the high prices force the company's employees to seek medical help elsewhere. Members of the public are not denied the use of the clinic but are most likely to turn elsewhere because of the high rates. Opened in 1966, this is undoubtedly one of the best equipped clinics anywhere in the island.

In addition to having its own clinic, Kaiser gives donations in the form of cash and technical services to other hospitals. Local hospitals in St. Ann's Bay and Alexandria are the chief beneficiaries. Kaiser gave cash donations and the services of some of its employees toward the construction of the new traumatological and orthopedic wing for the St. Ann's Bay Hospital. The facilities were badly needed since this hospital, built in 1926, was intended to serve a small rural community. There is not another hospital within a 30 mile radius of it and with the growing population in Ocho Rios, St. Ann's Bay, and

²⁰The Daily Gleaner, April 25, 1967.

surrounding areas and with the additional people who work for the bauxite companies in the parish, the hospital was unable to cope with its growing problems. Kaiser provided the funds along with donations from other private firms. Harvard University, in Cambridge, Massachusetts and the University of the West Indies in Jamaica provided training for the orthopedic surgeons and other medical help that will be needed.

In helping to preserve some of the old fishing village life in Discovery Bay Kaiser sponsors the Annual Fishermen's Regatta at Puerto Seco Beach. The company first sponsored the regatta in 1968 and continues to do so as part of the national festivals celebrating Independence Day in Jamaica. In August 1970, three challenge cups and \$1,000 in cash prizes were awarded.

Kaiser often makes sizeable donations to educational institutions in the island. A 12 acre plot of land on the waterfront was given to the University of the West Indies and the New York State University jointly for the establishment of a Marine Science Laboratory. The faculty of Marine Science now occupying the research lab is a joint venture of both universities: New York State University provided most of the financing. The facilities include marine laboratories, lecture rooms, libraries, work rooms, and residences for staff and students.²¹ The facilities are used for teaching and research in marine biology and related sciences.

Kaiser Bauxite helps to build and equip public schools in St. Ann. The company gives land to the government and also assist in fund raising

²¹"Marine Science Station for Discovery Bay." Kaisbauxco News, Volume 14, No. 38, April 27, p.1. Year missing on copy.

programs to purchase equipment. The company provides scholarships to students at preparatory, secondary, and college levels. In addition, boys scouts, youth clubs, and 4-H clubs among other organizations, receive occasional assistance from Kaiser in the form of cash, equipment, or services.

In spite of the many changes in Discovery Bay, many people still look to Montego Bay, 50 miles away, Ocho Rios, 20 miles, and to Kingston for large scale shopping and social enjoyment, because of the lack of large department stores and entertainment centers. The town of Discovery Bay is still comparatively small, having a population of 1,592 in 1970.²² In Jamaica, a town of this size does not usually carry on many commercial or recreational activities. There is a Kaiser Sports Club at Port Rhoades; the grounds and buildings were paid for by the company and the employees contributed some money towards the purchasing of sports equipment. However, this sports club is not opened to the company's employees nor to the public for after-work enjoyment and relaxation, but is used only for sponsored, organized games. Many of the Kaiser employees living in Discovery Bay and nearby communities express the need for an after-work amusement center, but without success since nothing of that nature currently exists in the town.

Other than cash donations, equipment, and land the amount of contributions and so forth made by Kaiser, is not always stated in exact figures. The company states that there is the 'hidden value'

²²Population figure for 1971 or 1972 were not available. The Department of Statistics does not have annual population census.

contributions made to the north coast community and organizations which cannot be expressed in dollars and cents. One such contribution is employees' services to help in community activities and fund raising programs.

"It would be impossible to list the several donations in cash, goods or services made by the company to various community and service agencies throughout the island and especially in the operational area of the North Coast. The public relations functions ...are a broad outline of the Company's policy "In partnership with Jamaica."²³

²³ Kaiser Bauxite: In Partnership with Jamaica, 1970, p. 19.

PART II

KAISER'S IMPACT ON THE FARM COMMUNITIES

St. Ann's Importance to Kaiser

"Although Kaiser Aluminum and Chemical Corporation and its subsidiaries, which include Kaiser Bauxite Company, have wide international interests and facilities in the U.S.A., Australia, England, Germany, Spain, various South American countries, etc., all the bauxite required for its North and South American and most of its European facilities is mined in Jamaica."²⁴

'All the bauxite required...is mined in Jamaica' shows just how important the Jamaican ore is to Kaiser Bauxite Company and the Kaiser Aluminum and Chemical Corporation. The Corporation is in turn important to the United States' aluminum market since it supplies a large portion of that country's aluminum output.

"Kaiser Aluminum and Chemical Corporation produces one-fourth of the entire U. S. output of primary aluminum in addition to fabricated aluminum products, chemicals and refractories in 47 U. S. plants and facilities in 22 states."²⁵

Therefore, the bauxite ore mined in Jamaica and especially in western St. Ann is of vital importance to the Kaiser Enterprises and also to a rather large segment of the United States aluminum industry. Kaiser

²⁴"Kaiser to make Discovery Bay Tourist area: 10½ million pounds expansion planned." The Daily Gleaner, April 25, 1967, p. 2.

²⁵"The Kaiser Enterprises." Kaisbauco News, Vol. 14, No. 23. September 2, 1967. Supplement.

Enterprises which represents the collection of all the Kaiser Corporations and the farmers in western St. Ann are linked by Kaiser Bauxite Company through its Port Rhoades pier (Figure 11). The bauxite lands which form the base of the entire operation is an important base without which Kaiser Aluminum and Chemical Corporation would not be able to function efficiently. The ore from St. Ann is the primary source of bauxite ore for Kaiser Bauxite to supply the Corporation and it in turn supplies primary aluminum to the fabrication plants and to the United States market. Since the St. Elizabeth mines no longer supply ore to the Corporation (the mines being turned over to the Alpart Consortium), the St. Ann mines are the chief supplier. Consequently cut off the base, St. Ann, and unless other sources are found the Kaiser organization would be greatly reduced. The following sums up the Kaiser operations:

"The inauguration of ore shipment from Jamaica gave to Kaiser a well integrated aluminum operation. The ore carriers from Port Rhoades unload directly at the piers of the Baton Rouge and Gramercy alumina plants on the Mississippi River.

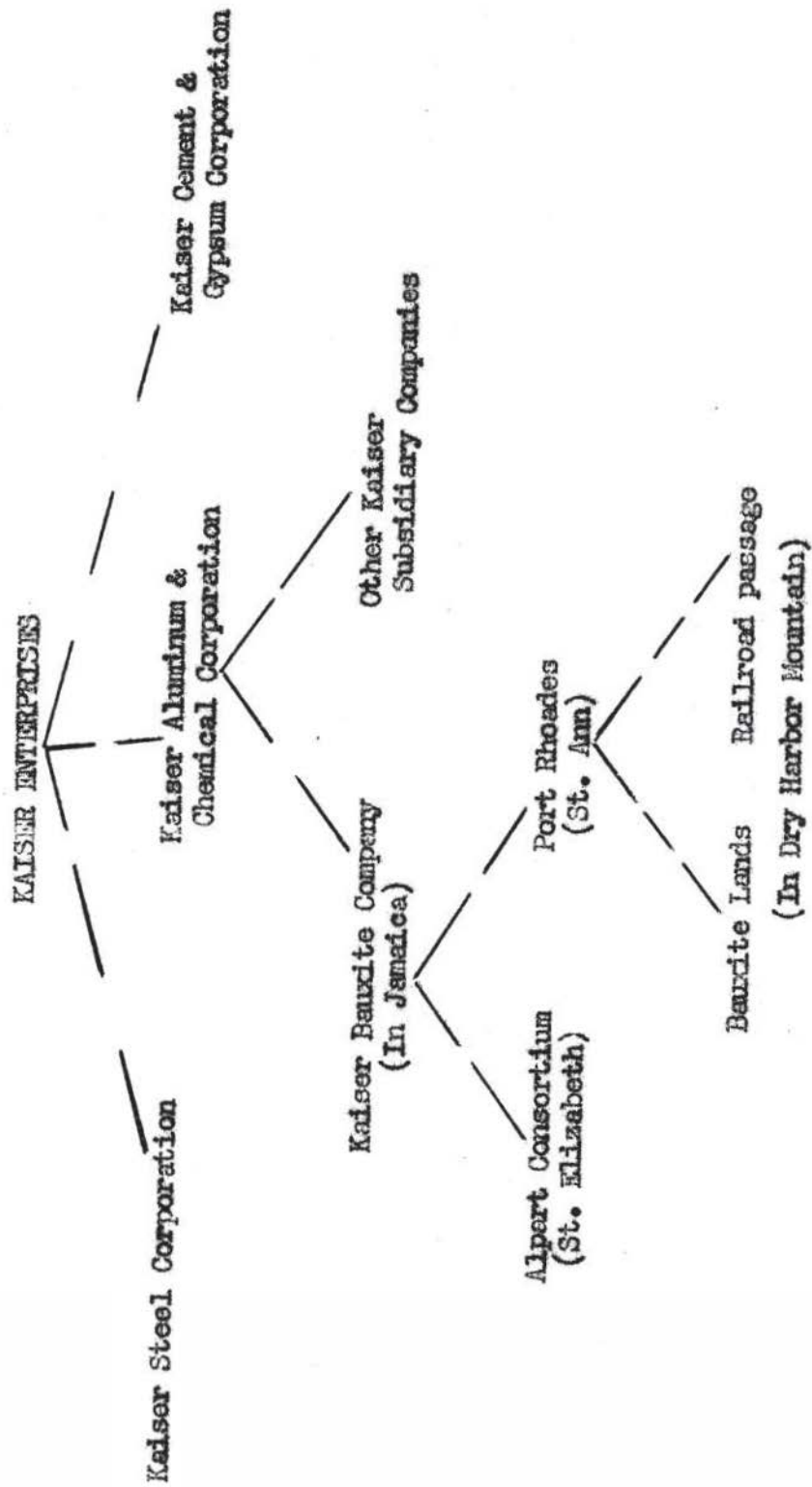
The alumina produced at these two plants is reduced to metallic aluminum at four reduction plants—Chalmette...Louisiana; Tacoma and Mead...Washington; and Ravenswood,...West Virginia.

From these plants the pig aluminum and ingots are passed on to the numerous Kaiser Aluminum plants for manufacturing process, or sold in the same basic state...."26

²⁶ Kaiser Bauxite: In Partnership with Jamaica, 1970, p. 9.

Figure 11

Diagram showing link between Kaiser Enterprises
and Dry Harbor Mountain



Purchasing the Mining Lease and the Land

During colonial days the surface of the land could be privately owned but all the minerals under the surface belonged to the Crown (The British Government). By keeping all mineral rights the Crown had the right to decide who mined it. Whoever mined the land would make payments to the Crown in the form of royalties. When Jamaica gained Independence in 1962 all mineral rights were transferred to the Jamaican Government. Since the government owns the rights, in essence the government has the right to take out the mineral, with or without the landowner's permission, and also has the right of easement or passage through any land needed for getting to the minerals. When any mining company purchases a mining lease from the ~~government~~ all mining rights are transferred to that company.²⁷

Unlike Reynolds Jamaica Mines, which mines bauxite in St. Ann and was fortunate in having all its bauxite located on large estates, Kaiser had all its ore located on small farms. Kaiser, after buying the mining lease had to negotiate with the small farmers who owned the land. Kaiser is in a good position to set the price of the land in most cases since there is no competitor. The company is able to offer more than any local buyer would, in addition to offering the small farmer another farm similar in size in another location at a lower cost, also with the option of rebuilding a house on the land. This type of

²⁷ Dr. Norman Girvan. Bauxite and the small farmer. An address given to the St. Ann Branches of the Jamaica Agricultural Society, in Browns Town, St. Ann on May 8th, 1971.

offer was very attractive to many of the small farmers and was instrumental in aiding Kaiser to purchase the land without much objections. However, recent years have seen a decline in the eagerness to sell lands to the company. The farmers who still own bauxite lands are now making new demands, asking for more than the company is offering: additional demands take the form of higher price for the bauxite land, more favorable location for resettlement lands, and resettlement land with crops on it. The majority of the crops grown in Jamaica are permanent tree crops which take anywhere from one to five years to mature. The farms are located several miles away from any market and as such the farmers need crops that are mature or are close to maturity on the land so that they can use these crops to supplement their daily food supply.

The problem of setting up prices for the farmer's land is handled by the company as follows:

"While the mining quality and the exact lines of property are being determined, so, too, is the value of the land, its crops, its farmhouse and out buildings. Company assessors set up a preliminary evaluation from survey information, and then check it by personal visits to the farm. To arrive at reasonable evaluations, a sympathetic and intimate understanding of the farmer and his way of life is involved....It is on the basis of these evaluations that an offer is made to the farmer for an option to his property."²⁸

The 'option' has been a major source of dissatisfaction. Kaiser issues an option to the farmer stating that as soon as the farmer signs it the company will offer to sell him a piece of resettlement land. He can

²⁸Kaiser Aluminum News. Kaiser Aluminum and Chemical Corporation, Oakland, California. Vol. 19, No. 3, May-June, 1961. No page number.

stay on the land optioned until he has established crops on the re-settlement land. The company pays the farmer two dollars (\$2) Jamaican at the time the option is signed. The first set of farmers who signed the option were not given enough time to plant crops on the new property before Kaiser claimed the bauxite lands. As a result farmers who currently own bauxite lands will not sign the option. One farmer had optioned nine (9) of his eleven acres to the company, the other two acres belonged to his brother in the United States (whereabouts unknown). Kaiser will not buy outright the nine acres without the other two, neither will the company offer the farmer any resettlement land. And so the farmer still lives on his land. This would not be a problem if Kaiser did not mine in the area and the farmer's property was not damaged by the blasting. The company does not pay for blast damage since it owns the option on the land. The option has been standing since 1967.

It is not uncommon in Jamaica for two or more members of the same family to own a piece of land, regardless of acreage. Sometimes a piece of land is referred to as family land when it is left for the children by the parents and it is usually not sold but passed on from one generation to another.²⁹ Such was the case when one farmer's wife in Line Tree Garden could not sell the land she lived on because it was already entailed to her children as family land, and in order to sell she

²⁹ Family land is traditionally put aside for the use of all the children regardless of their economical status. The produce of the land is shared among all the children. Some members of the family rely on the family land in old age and as security against times when living conditions may deteriorate.

needed the consent of all the children. This she was unable to obtain since some of her children were in foreign countries.

Ownership of land has to be proven before Kaiser can buy the land and the majority of the small farmers, farmers owning less than 25 acres, have no land title to the farms they own and cultivate. The land owner in such a case has to establish ownership through years of occupancy of the land. Fragmentation sometimes presents added difficulty. It is not unusual for one farmer to own three or more pieces of land in different parts of the community. One farmer interviewed was reluctant to sell when Kaiser offered to buy one piece of property and not the other piece which was less than one-fourth of a mile away.

Since Kaiser started mining in the Dry Harbor Mountain area before it had finished buying lands, many of the farmers who are still living in the area became aware of the large quantity of bauxite ore in the soil. As a result they began to ask for higher prices for the land. This demand came about because of the fact that Kaiser bought some of its bauxite lands from Reynolds Jamaica Mines on the basis of estimated tonnage of ore in the soil.

Kaiser has the right of passage or easement through any land in order to get to the bauxite ore, having purchased this right from the government. One particular farmer had refused the first offer made by the company for his farm (7½ acres). The farmer was not satisfied with the three resettlement areas that were shown to him and would rather remain on his present property where he can grow 'everything.' To the farmer 'everything' included: avocado, breadfruit, coffee, corn, sugar cane, citrus, root crops and other crops. Also he reared a few



Figure 12. Farmer's home in Lime Tree Garden. (Tank in the foreground.)

livestocks. His home stands amidst all these crops (Figure 12).

The farmer wanted Kaiser to provide him with a similar piece of land which was capable of growing all the crops he had on his present holding.

Before the matter was settled Kaiser proceeded to remove soil and to

cut the needed railroad passage through the property. This brought added complications and a court order was filed against the company.

The court awarded Kaiser the right to build the railroad through the property after paying the farmer \$20,000 (Jamaican) and granted that

the farmer could stay on his land. About four other farmers had simi-

lar actions taken and were likewise rewarded. One farmer claimed that

he was shown a piece of resettlement land that contained 15 acres, he

was to receive 9 acres for the land he sold to the company. He offered

to pay for the additional six acres but the company refused his offer. As this was the only resettlement land shown to him that he liked he would not settle out of court. There are some farmers who are satisfied with the company's offer and do not get involved with court actions. These farmers state that they would rather take the cash and the resettlement land than go through the lengthy process of court proceedings.

The Resettlement Program

The reluctance of the small farmer to sell his land is partially emotional. Kaiser realized this when in its 1961 newsletter it stated: "The whole life and future of the farm family may be affected. For many small settlers, a move of ten or 15 miles is psychologically equivalent to an American family moving from San Francisco to New York."³⁰ If the farmer does sell his land it is with the desire to move to 'greener pastures.' The company tries to create these greener pastures in the form of resettlement areas.

"The Company recognizes that, although it might have no legal obligation, it had a moral obligation not to disrupt the community and it must to some extent protect the small farmer...therefore...in addition to paying for the land purchased, has always offered to a small farmer... an approximately equivalent amount of good agricultural land in one of the resettlement areas, at a nominal price per acre."³¹

The fact that the resettlement lands are in the more agriculturally

³⁰ Kaiser Aluminum News, pp. 13-14.

³¹ Ibid. pp. 15-16.

productive parts of the island and are, in most cases, of better quality than the lands sold to the company is undoubtedly true since banditic soils are known to be basically unproductive. Kaiser also states that "It is the policy of the Company to resettle small holders...to prevent possible social and economic dislocation."³²

The resettling of the small farmers includes the following:

1. careful choice of productive land; 2. building roads; and
 3. providing for community centers and sites where small local businesses can be created.³³
- Present situations in the resettlement areas show that the above three factors are important but the site and situation of each individual resettlement area will determine how successful an area will be.

In order for each farmer to get choice land Kaiser would have to pick each farm individually. Retreat property was 1,200 acres of land. The company subdivided the property into 5-10 acre farms. Although most of the land was good, not all the 1,200 acres were choice agricultural lands. Consequently some farmers will definitely get a 5 acre plot of only fair productivity. Much of the choice lands are already taken and now farmers selling to the company find it difficult to choose resettlement farms. Kaiser builds the roads in the resettlement areas thus ensuring that these are good roads. The third fact can only be provided for, since the company sells the land to private investors to set up businesses. So far the farmers have not been

³²Kaiser Bandite: In Partnership with Jamaica, 1970, p. 16

³³Kaiser Aluminum News, p. 21

purchasing the land set aside for business but have been building small grocery stores (Figure 13) and variety stores on the property purchased for farming.



Figure 13. Shop built by resettled farmer in Retreat

Kaiser states that after the resettlement land has been subdivided "each case is given individual attention." Each farmer is taken to two or three different locations in different resettlement areas and allowed to buy the farm he chooses. If there is an older person who does not wish to start a farm all over again but would rather live in a town area, he would be taken to a neighboring town and shown two or three houses from which he gets to choose the one he likes. Contrary to this fact, one farmer stated that he was shown one house in Browns Town, this he did not like but he was not shown another.

When the resettlement program first started Kaiser offered the farmer only the land, but later "as it became apparent that there might also be economic dislocation because of the shortage of housing in Jamaica, the Company also offered...to exchange any bona-fide house on the land being purchased, for a company-built, resettlement house."³⁴ And so in 1954 the company introduced the resettlement house as a part of the program. A farmer who sells land to Kaiser with a house on it may have the company build one of comparable size on the resettlement land. The resettlement houses that Kaiser builds are made to set specifications (Figure 14). "These houses are constructed with concrete



Figure 14. Small resettlement house built by Kaiser

³⁴Kaiser Aluminum News, p. 16.

blocks, aluminum louvre windows and corrugated aluminum roofs. The units are equipped with a porch and a kitchen complete with a stove. They are tiled throughout."³⁵ About 500 of these houses have been built to date in both St. Ann and Trelawny.

Farmers who own larger houses are reluctant to let Kaiser build the new houses, since there is no variation in the styles only in the sizes. If a farmer has a large family he will receive a house comparably larger (Figure 15), and he may ask for a few changes. One farmer in Retreat requested that the ground floor of the new house be partitioned so as to make an extra bedroom, a large family dining room, and a passage way in which he could build a staircase to the upper floor. (The staircase he had to build himself.) In this case he had to pay the additional cost.



Figure 15. Large family house built by Kaiser

³⁵Kaiser Baukite: In Partnership with Jamaica, 1970, p. 17

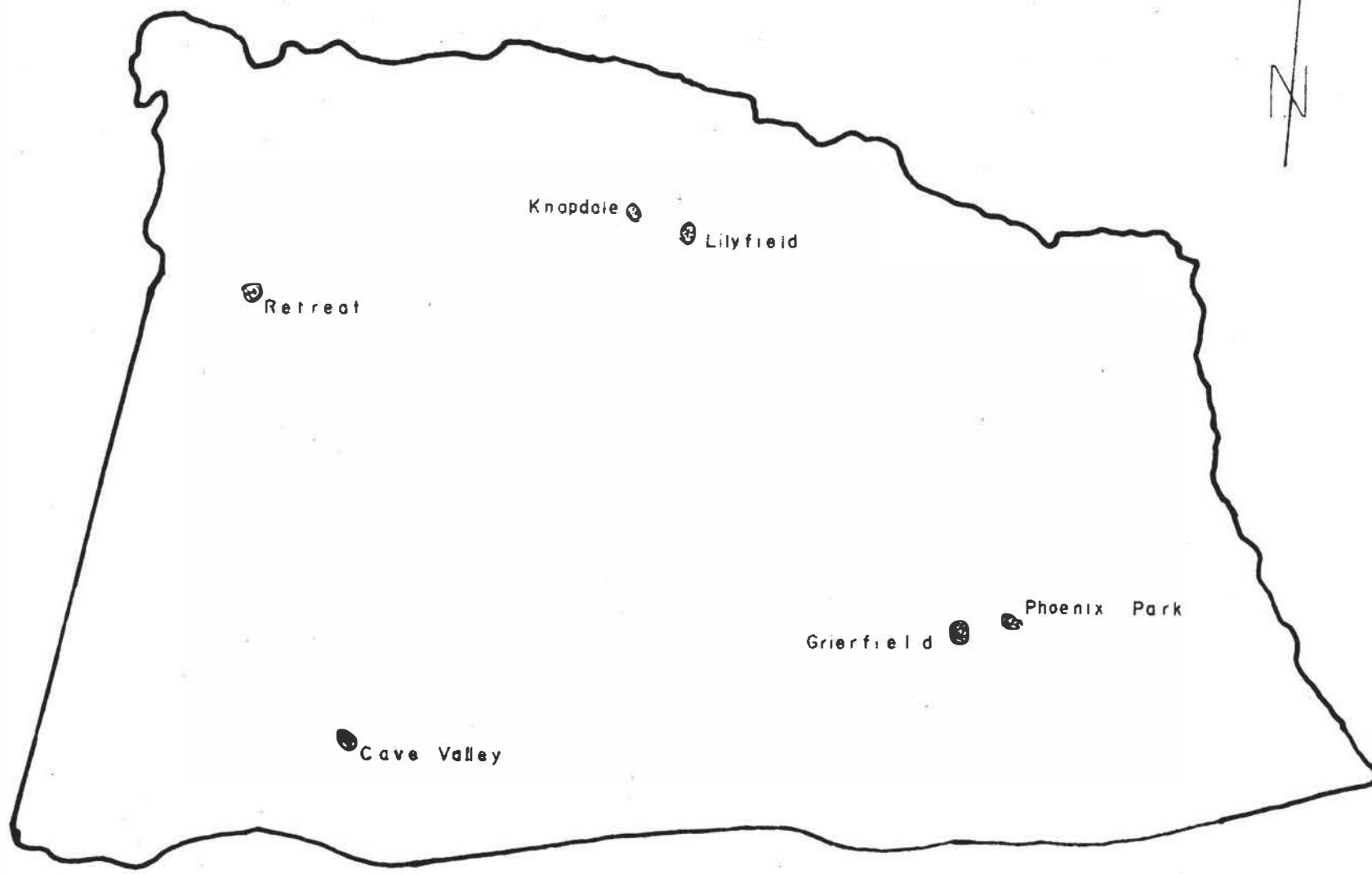
Kaiser did not build the resettlement houses in Lilyfield. This was one of the earlier resettlement areas. The farmers resettled in Lilyfield were paid for their original houses and they were able to use additional cash where available to put up any size structure they desired. Consequently the Lilyfield homes (Figure 16) were larger and had better aesthetic qualities than the ones Kaiser built. The farmers in Lilyfield were happy with the arrangement and said they were able to 'build a hotel if they so desired.'



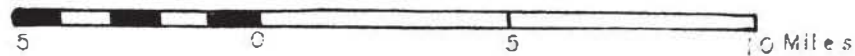
Figure 16. Lilyfield house built by the resettled farmer

In 1970 a total of 14,500 acres of resettlement lands were acquired in St. Ann and Trelawny. The resettlement areas in Trelawny were not very popular choices of the St. Ann farmers since the idea of moving to another parish did not appeal to them. Social and

MAP 9 RESETTLEMENT AREAS IN ST. ANN



S C A L E



sentimental ties keep the farmers in St. Ann. Resettlement areas in St. Ann (Map 9) include: Cave Valley, Lilyfield, Retreat, Knapdale, Grierfield, and Phoenix Park. Lilyfield and Retreat were the two most popular. Their locations (in St. Ann and not very far from the original homes of the farmers) made them popular choices. Retreat was one of the better agricultural lands: some farmers told of having received higher yields from corn and root crops than they had reaped from their former holdings. Lilyfield was favored over the others because it fitted in to what Kaiser described as "resettlement land...in organized resettlement areas with social amenities provided."³⁶ Lilyfield was already a settled community with churches, schools, and shops in the area.

Several of the farmers stated that the resettlement areas are 'cow pastures' because these areas had never been cultivated but were used for cattle grazing. Since these farmers do not intend to rear cattle they are reluctant to move to the resettlement areas. Others say that Kaiser builds a house but does not build a tank to supply water to the farmers and the money received from the company for a tank, if one was previously owned by the farmer, was not enough to rebuild one at modern prices. None of the resettlement areas has a central water system or electricity; but these do not represent a lower standard of living since none of the areas from which the farmers came had these amenities. The farmers formerly used tanks which were supplied by rain water, the roofs of the houses served as catchment areas (see Figure 12 page 45).

³⁶ Kaiser Bauxite: In Partnership with Jamaica, 1970, p. 16

One farmer who refused to sell his land to Kaiser said, "the company should provide resettlement areas with school, church, water, and roads so that when a family arrives in the area there will be something for that family to build life on." Roads are provided; water, schools, and churches are not. The farmers' children sometimes have to walk as far as three miles to get to school.³⁷ The church forms a central part of community life in many small villages in Jamaica. Since none is provided the resettled farmers have to provide what they can (Figure 17). In contrast to this galvanized zinc structure, which is very inadequate, the churches that were



Figure 17. Church built by resettled farmers in Retreat

³⁷ School buses are not provided in Jamaica, hence the children have to walk, provide their own means of transportation, or use public transportation.

used by the farmers before they sold their lands to Kaiser were large concrete structures (Figure 18). These older churches are demolished after Kaiser buys the lands.



Figure 18. Old church on land bought by Kaiser

One resettled farmer in Retreat said he could not resist the prospect of moving into a new house with his family, a little more land to farm and additional cash from the sale of his land; also the company-built roads were better for his truck. But in moving into a more modern structure has not necessarily proved to be more comfortable. Sometimes changes have to be made in the new houses to provide more comfort, for example additional painting has to be done in some places, or doors have to be altered. Sometimes the childrens' rooms in the new houses are not adequate since many families have as many as four children in

one room. Of some concern to many of the resettled farmers is the building of outdoor toilets. Without a central water system the toilets in these areas are usually built outdoors. So the farmers object not because the toilets are built outdoors, since this is no different from what they had before, but because they prove inadequate. One farmer noted that the one he had at his old home had separate facilities for the children and was much larger: the one Kaiser built for him (Figure 19) "is very small and has no separate compartment for the children."



Figure 19. Outdoor toilet built by Kaiser

One major benefit to most of these small farmers is the granting of land titles to the new properties. The land sold to Kaiser was owned by the small farmer, but in many cases he would have no title to prove it. Now along with the new property Kaiser gives a title to

show ownership.

Some small farmers do not always cultivate the resettled land but let it sit idle, so Kaiser has what are called "incentive schemes" to encourage the farmer to till the land. One such scheme, the Kaiser Small Farms Competition, was initiated in 1964. This scheme offers valuable cash awards to the farmer whose property shows most improvement in management and productivity. The company also has field days where some farmers attend training seminars and demonstrations, these farmers are expected to return to the community to assist other small farmers.

The resettlement program has good points and bad. One dissatisfied farmer said that "the only thing that Kaiser planned that can be used without improvement is a cemetery." Basically what most of the farmers are requesting from the company is a "complete package" since, as one farmer said, "Kaiser recieved a complete package when it purchased the small farmer's land and should give back same." The following are the major demands made by the farmers participating in the resettlement program: 1. land of the same agricultural potential as that sold to the company—land that can grow everything; 2. land in an area of comparatively similar site—in terms of topographic features; 3. lands with some crops planted on it instead of an 'open pasture,' so that the farmer will have something to feed his family when he arrive at the resettlement area; 4. enough money to build a house at current prices if one is not built, similarly enough money to rebuild a tank at modern cost; and 5. a church and school in a nearby community or built in the resettlement area.

If the above conditions were met many more small farmers would be less unwilling to give up the land on which they live. In examining these facts and the reluctance of the farmers to move to another parish, one should bear in mind that many of these farmers and their families have never been outside of a 30 mile radius of their farms all their lives, and when asked to leave friends and acquaintances find it very difficult to do so.

Impact of Mining Operations on the farm Communities

Kaiser took elaborate measures to control dust in Discovery Bay but in the mining areas nothing was done about escaping dust from the mines and the trucks carrying the bauxite ore. The small farmers who have to live close to the mines report that dust is a major problem. Farmers' wives are unable to keep their homes clean. The possibility of controlling dust in the mining area has not been explored. Kaiser does not pay the farmers for damages caused by dust.

Another major problem is the effects of blasting. Kaiser has to blast the land in order to mine the bauxite ore and to build roads and railroads. The blasting produces serious damages to buildings or any type of structure in the vicinity of the blast. The effects of blasting is similar to the effects of earthquake damages. Several farmers file court actions against Kaiser for damages done to buildings. In 1966, one farmer in Tobolaki asked the Supreme Court to award him...damages of 250 pounds [about \$700 U.S.] and general damages for trespass and/or breach of quiet enjoyment against Kaiser

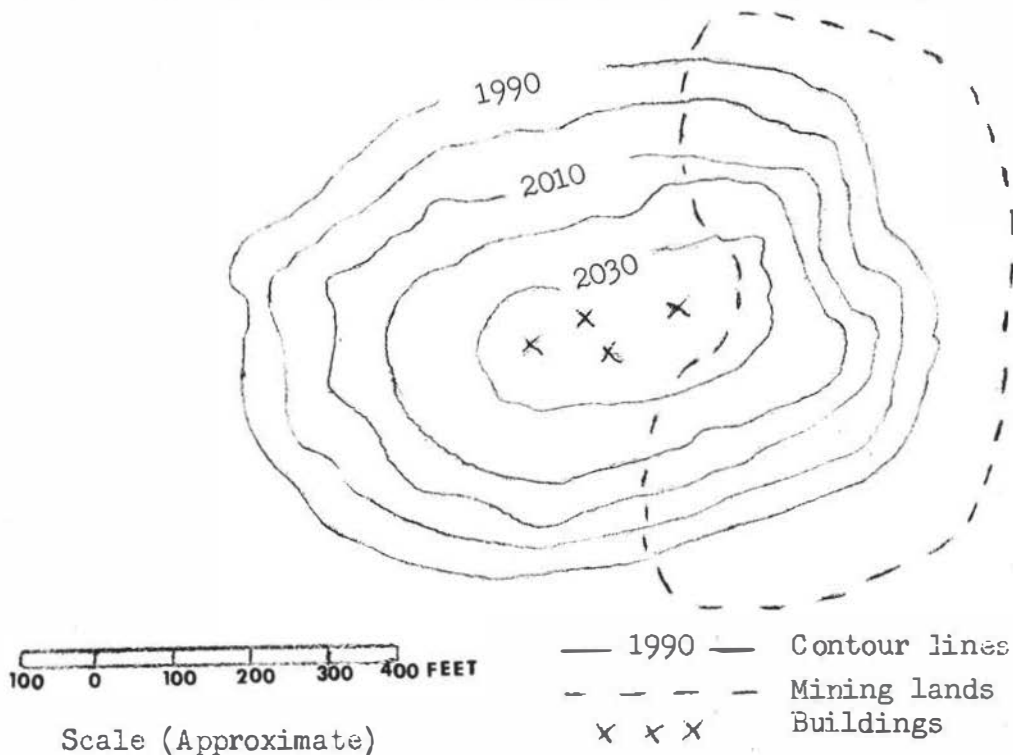
Bauxite Company...."³⁸ The court awarded him for damages. The same farmer leased some lands from the company and Kaiser had breached the lease agreement and terminated his tenancy.

There is no precaution that the farmer can take against the blast; damages are inevitable. Kaiser would have to purchase all the lands, with or without high bauxite content, in the mining area and whether or not the land is needed for passage rights so as to avoid having to pay for damages. Until the mining area is completely vacated, and as long as the company continues to blast, damages will continue to occur. Many residents in the mining area have reported damages to their houses, kitchen, toilets, and tanks. When blasting cause a tank to leak the farmer feels this most severely since this is his only source of water supply. Kaiser often pays for damages, but the farmers report that after payment is made and the tank repaired another blast may burst the tank all over again and this would call for repeated court actions. The noise from the blast can be heard for long distances away and people living immediately adjacent to the blasting area are most seriously annoyed. Very often Kaiser has to remove the residents, temporarily, from their homes and property when blasting is being carried out nearby. This is very inconvenient for the residents, especially housewives who have small children and who have to carry out their daily duties regardless of whether or not Kaiser is blasting nearby. Blasting may occur at the same site two or three times in one day.

³⁸ "Damages writ filed." The Daily Gleaner, Kingston, Jamaica. November 21, 1966, p. 21.

A farmer in Lime Tree Garden having lands adjacent to the mining area (Figure 20) was not asked to sell since his property was not needed for mining or passage. Blasting in the mining area resulted in damages to his house, kitchen, tank, and toilet. This particular farmer reported that damages had not been paid for in spite of the fact that blasting started in this area in 1970. He has written to the company to inform Kaiser of the damage done; the damage has been inspected by a company representative, but no compensation has been made to this land owner.

Figure 20. Diagram showing buildings surrounded by mining lands



In addition to the direct adverse impact of mining on the farmers not involved in selling lands to Kaiser, the company's public and community relations efforts also extend into the interior of the farming communities and the following are some of the compensatory actions which affect the people living in the mining areas. The company makes annual presentations of primary school scholarships to boys and girls based on attendance, behavior, and good educational record; farm equipments such as tractors are sometimes given to a community to aid in good farm practices; and Kaiser offers residential courses with special emphasis on homemaking for the wives of farmers. The company sometimes sponsors Christmas parties for children in the rural communities, for example in Lime Tree Garden and vicinity.

Kaiser's road building activities have direct impact on all farmers in the mining areas. The building of haul roads provide additional employment for farmers seeking part time work. Haul roads are not black top roads but are made of crushed and compacted limestone. Even though they are still dusty the new roads are a definite improvement over the old winding, narrow roads. Many of the haul roads in the mining areas are built for permanent use and after mined-out areas are rehabilitated, the roads are turned over to the parish for general use. Hence the farmers have the use of better roads to take their produce to markets. Haul roads constructed in Tobolaki have opened up much of the area to automobile traffic. In addition to building haul roads for the ore trucks Kaiser also use the already existing roads, and in most cases since these were not built for heavy vehicles or intensive use the heavy ore trucks create pot holes.

Rehabilitation of mined-out lands

In compliance with government regulations every acre of land mined by a bauxite company has to be rehabilitated. That means it has to be reclaimed—brought back to, or as close as possible to, its original shape, and it has to be restored—brought back to its original productivity. In keeping with this regulation Kaiser has established a rehabilitation program which "not only restores the land to its original productivity, but increases the fertility of the soil by fertilization and scientific agricultural methods."³⁹ In most cases this is not hard to do since the topography of the area is basically mountainous, hence after reclamation, the land is more level than before it was mined and less sloping. Also the bauxitic soil that was there before was not very good for agricultural purposes and so after it is removed the soil remaining with a little fertilization, should be much more productive. The three-step method utilized by Kaiser for restoration and reclamation is as follows:

1. "Prior to commencement of mining, the first foot of top soil is stripped off and stored to the side of the ore body for future use.
2. Upon completion of mining, the sides of the mined-out pits are graded by bulldozers and rippers.
3. After suitable grades have been achieved, the top soil is taken up by scrapers and spread over the slopes of the reclaimed pits to an average depth of at least six inches. After this a survey is made to determine the best type of crops to be grown. Then the area is...contour ploughed to avoid erosion. When the top soil has been firmly

³⁹Kaiser Bauxite: In Partnership with Jamaica, 1970, p. 16

established the area is planted out with grass and/or economic fruit trees. In addition, experiments have been carried out with small farm crops including corn, casseava, congo peas, peanuts, and yams.⁴⁰ [Kaiser plants these crops only on small plots, since not much agriculture is done by the company.]

Kaiser has not been mining long enough in western St. Ann to have reclaimed much of its mined-out lands (Figure 21). The Tobolski mining area, the first area in which mining started, was the first to be rehabilitated. Rehabilitation started in Tobolski in 1969.



Figure 21. Mined-out area in Tobolski

⁴⁰G. W. Morgan. "Reclamation and restoration research on bauxite mined lands in Jamaica." The Journal of the Geological Society of Jamaica. Bauxite/Alumina Symposium, 1971. Special Issue, p. 14

The rehabilitation of mined-out lands so far has been in small lots of 2 to 8 acres. After reclamation (Figure 22) experimental crops are planted.



Figure 22. Reclaimed and restored area in Tobolski

Land Leasing Programs

In helping to satisfy the great need for more agricultural lands in Jamaica, Kaiser leases to small farmers land not yet required for mining or resettlement, not being reclaimed or restored, and that which is not required for road or railroad building. In justifying its land leasing programs Kaiser stated that "given the proper incentives, small farmers cannot only produce the food necessary to feed our ever-growing population, but also to make a substantial

contribution to stabilizing the country's economy.⁴¹

The company has various types of land lease programs such as the Amortization Capital Development Plan which provides a "lease contract of not less than 10 years' duration and if during the 10 years period Kaiser should require the land for its own use then the tenant farmer would be reimbursed for any capital development on the farm."⁴² Another such program is based on a 1-3 acre lease geared toward increasing Jamaica's supply of wood and to demonstrate the advantages of planned forest management.⁴³ In this program farmers referred to as 'cultivation contractors' lease the land for 3 years. The cultivation contractor must clear the land of ruinate so that the company can plant trees. After clearing he can plant and harvest any crop he can for the period of 3 years. Much of the land that has been forested has been turned over to the government. In 1970, 4,000 acres of forest had been given to the government to date.

Kaiser sometimes leases the land that is not yet needed for immediate mining to small farmers, sometimes the former owner, for short periods of time until the company is ready to mine the land. One Kaiser personnel officer reported that all this is done in an effort to improve Jamaica's agriculture, since the company believes

⁴¹"New deal for Kaiser Tenants." Kaisbauxco News, Vol. 14, No. 47. October, 1968, p. 1.

⁴²"New Kaiser land-tenure programme announced." The Daily Gleaner. September 28, 1968, p. 10.

⁴³"Kaiser Bauxite's afforestation program." Kaisbauxco News, June-July 1962, p. 1.

that "the farmers of Jamaica and not the bauxite companies should farm the land."

SUMMARY AND RECOMMENDATIONS

Summary

This study has shown that in the two decades that Kaiser Bauxite Company has been in western St. Ann there have been marked changes. Part I showed the direct changes implemented by the company in Discovery Bay and in the farm communities in the Dry Harbor Mountain region. The company's presence has resulted in displacement of people from two angles. Over 600 people moved into Discovery Bay either to seek employment or because of the available housing (Part I), and the company has removed over 500 farm families from the mining areas and resettled them in the resettlement areas (Part II).

The company has brought about the beautification of Discovery Bay through the creation of parks and the restoration of historical sites, and Puerto Seco Beach has added a badly needed recreational facility to the area. Overall those changes indirectly contribute to the improvement of tourist trade in the area. One of the most important changes in Discovery Bay is the introduction of the Discovery Bay Water Company which supplies the area with water from wells. Also in Discovery Bay Kaiser had proposed to make this area "an industrial complex comparable to any of its kind in the world," but this has not yet materialized. The commercial sector of this town has seen noticeable changes: the addition of Columbus Plaza, two

commercial banks and a few small grocery stores along the main highway. These additions, however, have not progressed to any great extent to warrant calling Discovery Bay a major commercial or industrial center large enough to be ranked with any in the world.

The presence of Kaiser's mining operations in the Dry Harbor Mountain area has been the source of some discomfort. Dust control methods, which have been extensively practiced in Discovery Bay, have not been put into practice in the mining area and the residents there are dissatisfied with damage done to their homes and properties from both dust and blasting.

An evaluation of the resettlement program shows that there have been beneficial and adverse results.

Beneficial Changes

1. Larger holdings making it possible to produce more crops for commercial use.
2. Better yield from crops, especially for those farmers who formerly owned bauxitic lands since the bauxitic lands were not good agricultural lands.
3. More modern, but not necessarily more comfortable, houses.
4. Better roads—wider and less winding.
5. Granting of land titles to those farmers who held none to their former property.

Adverse Changes

1. No schools provided for the farm children.
2. No church for the community in spite of the fact that the church is a major part of the farm community.
3. The new homes are inadequate—rooms too small.

4. Land is provided for commercial use but if these selected plots are not bought, which in most cases they are not, the resettlement area is without amenities such as grocery stores and other businesses.
5. No central water system is provided in any of the resettlement areas.
6. Farmers are displaced from former homes and acquaintances and have to start life over anew.
7. No crops are provided and the farmer has to start his farm all over again—tree crops take 1-5 years to come to maturity.

In spite of the adverse effects on some individuals, the introduction of Kaiser Bauxite Company has brought increased prosperity to Discovery Bay, western St. Ann, and to the parish as a whole. These effects have not yet developed to any great extent in eastern Trelawny where the company owns lands and has resettled some of the St. Ann farmers, but in the future when mining commences in that parish one can expect similar impact on Trelawny as that the company had on western St. Ann.

Recommendations

Since bauxite is an exhaustible resource, a worthwhile suggestion is that Kaiser Bauxite Company as well as the citizens of Discovery Bay and St. Ann plan ahead for the days when the ore is completely mined out and commercial mining is no longer economical. If Kaiser should work harder at making Discovery Bay an industrial center, help to introduce other industries, and attract business from neighboring towns, then the future could be much brighter after the bauxite ore is depleted.

Concern for the future is not so much an immediate problem in the Dry Harbor Mountain area as it is in Discovery Bay. Dry Harbor Mountain was an agricultural community before mining started and the land can be rehabilitated and brought back to its original productivity. The parish and all Jamaica is in need of agricultural products to feed the growing population and as such the more agricultural land there is the better it will be for future generations.

Currently not many people are concerned about the future but before long this is a phase which should be given serious attention. Preferably a committee should be appointed to study, not just Discovery Bay or St. Ann, but the island as a whole to determine what will be the impact of complete depletion of bauxite ore on the economy of the country and to suggest possible alternate industries. Such industries could utilize the buildings, lands, and other facilities currently used by the bauxite mining companies. Manufacturing is a possible solution since the reclaimed lands could be used to produce the agricultural products to be utilized as the raw materials of manufacturing industries.

APPENDIX A

Bauxite Production in Jamaica

World War I brought about intensive use of aluminum and new bauxite deposits were sought. Hence in 1942 Jamaican bauxite gained commercial recognition. In 1943, a test shipment of 2,500 tons of ore was sent to North America by Aluminum Limited of Canada. In 1952, the first shipment of bauxite ore was made by Reynolds Jamaica Mines. The first shipment of alumina was made in 1953.

At present bauxite companies holding mining lease in the island (Map 10) are: Reynolds Jamaica Mines, Aluminum of Canada, Kaiser Bauxite Company, Revere Corporation, Aluminum Company of America, and the latest addition, Alpart Consortium (a consortium of Kaiser, Reynolds, and Anaconda), Alpart operates in the south of the island in St. Elizabeth in the area formerly mined by Kaiser Bauxite before the company moved to western St. Ann.

The major factor attracting these companies to Jamaica is the abundance and accessibility of the bauxite ore. Jamaica has an estimated 600 million tons of reserve, and the ore has little or no overburden resulting in the possibility of all mining being done by open pit method.

The major bauxite parishes are St. Ann, St. Elizabeth, Manchester, and Clarendon. The bauxite ore is found mainly in the central portion of the island in association with deposits of white tertiary limestone.

Jamaica is now the world's leading producer of bauxite ore and alumina. The companies in Jamaica produce approximately 21 percent

MAP 10. BAUXITE MINING LEASE in JAMAICA



of the world's total output of bauxite ore (including the U.S.S.R.) (Map 11).

Bauxite mining and processing, being highly mechanized at all stages, do not use a great deal of labor. With the exception of 1968 (when production of aluminum declined on the world market) employment in the bauxite/alumina industry in Jamaica (Table 3) steadily increased.

TABLE 3

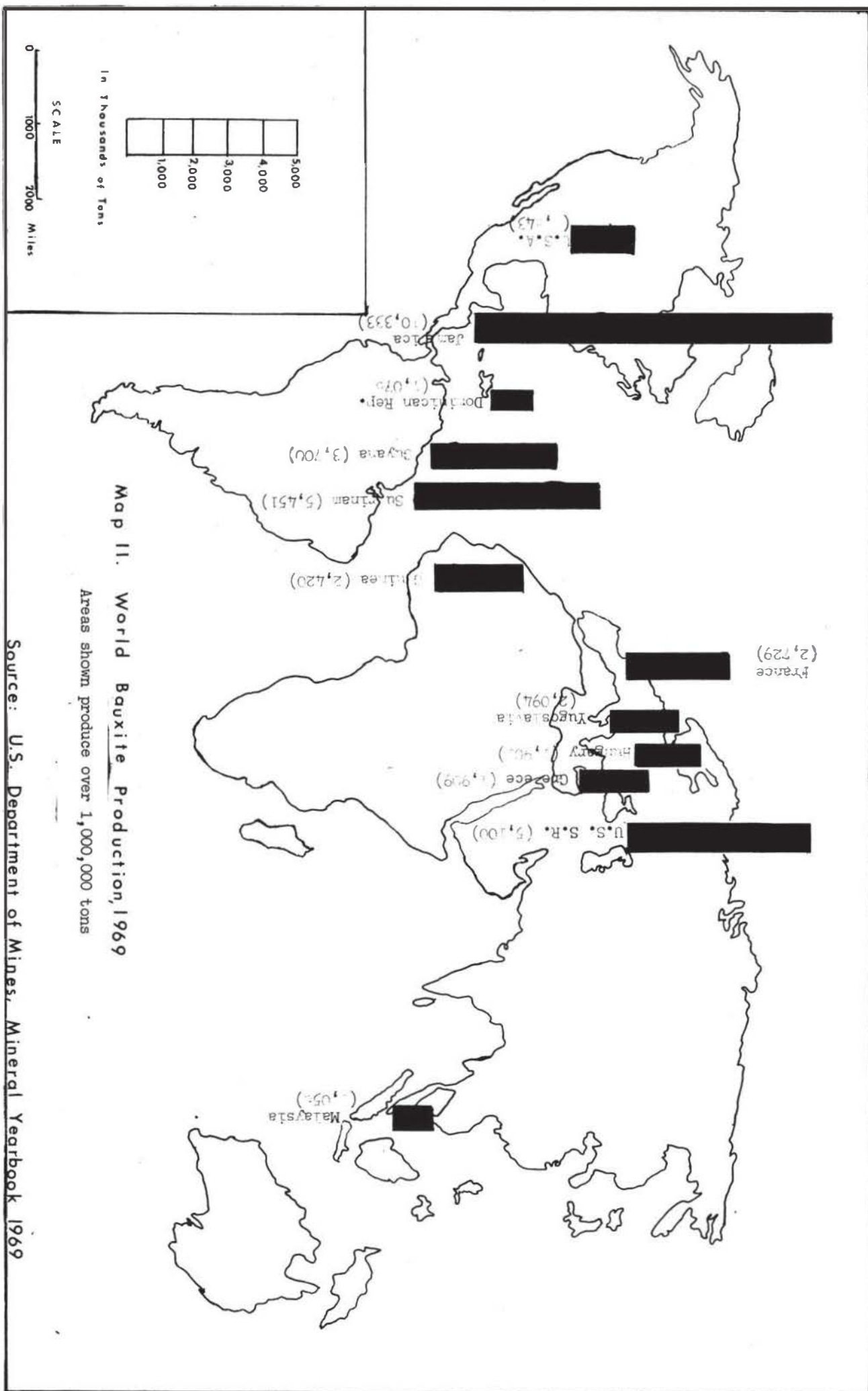
JAMAICAN EMPLOYMENT IN THE BAUXITE-ALUMINA INDUSTRY⁴⁴

	1966	1967	1968	1969	1970
Wages & Salaries (J\$ '000)	10,536	15,715	13,966	19,874	22,918
Number employed	5,013	6,053	5,892	10,179	12,039

"In the brief span of approximately twenty years the economy of Jamaica has been transformed from agricultural into a mining one, and it is now well on its way to becoming an integrated mineral industry economy."⁴⁵ The increase in the number of companies and the increase in the production of alumina and bauxite in Jamaica has attained such a magnitude that much of the industrial interest of the island is focussed on minerals and specifically on bauxite.

⁴⁴Central Planning Unit. Economic Survey of Jamaica: 1970. Kingston, Jamaica: Government Printing Office, 1971, p. 129.

⁴⁵Mineral Industry: Ministry Paper M-388. A 1971 report of the Department of Mines and the Ministry of Trade and Industry, Kingston, Jamaica, p. 1.



Source: U.S. Department of Mines, Mineral Yearbook 1969

With current estimates of Jamaican reserves of bauxite ore at 600 million tons, if current rate of production continues (approximately 10 million tons per year), then reserves will last another 60 years. But with production increasing yearly and with more companies coming to the island, reserves most likely will not last that long. There is very small chance of finding new reserves in Jamaica since practically all the island has been explored. Consequently there is the need for island-wide plans to establish proper utilization of bauxite ore, to make sure the ore is mined in the best possible way so as to be beneficial to both present and future generations.

APPENDIX B

Method of Research

Material was gathered by means of interviews, which took the major part of the research time, and library research in Jamaica. Government Offices such as the Department of Mines, the St. Ann Parish Council, and the Department of Statistics were very helpful in producing information.

Instead of a questionnaire interviews were carried out in the form of free flow dialogue, but when pertinent facts did not come out during the conversations the prepared questions were asked. A traverse map (Map 6) was made during field work along the Discovery Bay Highway.

The two libraries that provided most material were the Institute of Jamaica and the Library of the Department of Mines. Several maps and books were acquired from personal collections of individuals in Jamaica. Some maps were purchased from the Survey Department in Kingston, and books that were not available from personal libraries were purchased.

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