



Republic of the Philippines
Department of Environment and Natural Resources
MIMAROPA Region
PROVINCIAL ENVIRONMENT AND NATURAL RESOURCES OFFICE
Bgy. Sta. Monica, Puerto Princesa City, Palawan
Telfax No. (048) 434 - 8791
Email Add: penropalawan@denr.gov.ph

May 23, 2023

MEMORANDUM

FOR : The Regional Executive Director
DENR - MIMAROPA Region
1515 DENR by the Bay Building
Bgy. 668, Roxas, Blvd., Ermita, Manila

FROM : The Provincial Environment and
Natural Resources Officer


SUBJECT : **CONDUCT OF RAPID MARINE BIODIVERSITY
ASSESSMENT ON THE PROPOSED CAUSEWAY SITE OF
INFANTA NICKEL PROJECT UNDER MPSA NO. 220-2005-
IVB LOCATED AT BARANGAY MAMBALOT, BROOKE'S
POINT, PALAWAN**

Forwarded is the Memorandum dated May 12, 2023 from CENRO – Brooke's Point, Palawan submitting the comprehensive report on the conducted rapid marine biodiversity assessment for the proposed causeway site of Infanta Nickel Project under MPSA No. 220-2005-IVB in compliance to RED Memorandum dated February 28, 2023.

Report disclosed that there has no significant presence of coastal and marine ecosystem that might be directly affected by the proposed causeway hence, the processing of Survey Authority and Miscellaneous Lease Agreement pursuant to DAO 2022-10 and DAO 2004-24 is recommended.

For information and further instruction/s.



For the PENR Officer:


WAMALAYDA S. TALABUCON
Planning Officer III/ OIC - MSD
and Chief, Planning Section
In-Charge, Office of the PENRO

Cc:

CENRO – Brooke's Point, Palawan

TSD/File *kkva
Doc. Ref. No. 2023-4618

DENR-PALAWAN
PENRO-RECORDS
RELEASED
By 
Date: 24 MAY 2023 



Republic of the Philippines
Department of Environment and Natural Resources
MIMAROPA Region
Community Environment and Natural Resources Office
Brooke's Point, Palawan
Contact No. 09175028961
Email: cenrobrookespoint@denr.gov.ph

PENRO

May 12, 2023

**DENR PENRO
PALAWAN RECORDS
RECEIVED**

BY: [Signature]
DATE: 05-22-2023 23:46/8

MEMORANDUM

FOR : The Regional Executive Director
DENR MIMAROPA Region
By the Bay Bldg., 1515 Roxas Blvd, Ermita, Manila

THRU : The Provincial Environment and
Natural Resources Officer
Sta. Monica, Puerto Princesa City

FROM : The Community Environment and
Natural Resources Officer
Brooke's Point, Palawan


SUBJECT : **CONDUCT OF RAPID MARINE BIODIVERSITY ASSESSMENT
ON THE PROPOSED CAUSEWAY SITE OF INFANTA NICKEL
PROJECT UNDER MPSA NO. 220-2005-IVB LOCATED AT
BRGY. MAMBALOT, BROOKE'S POINT, PALAWAN**

Respectfully submitted herewith is the comprehensive report on the conducted rapid marine biodiversity assessment for the proposed causeway site of Infanta Nickel Project under MPSA No. 220-2005-IVB located at Brgy. Mambalot, Brooke's Point, Palawan in compliance with memorandum dated February 28, 2023 of the Regional Executive Director.

Result of assessment showed that the proposed area has no significant presence of coastal and marine ecosystems that might be directly affected by the proposed project hence it is recommended for the processing of Survey Authority and Miscellaneous Lease Agreement (MLA) pursuant to DAO 2022-10 and DAO 2004-24.

For your information and record.

[Signature]
LEONARD T. CALUYA

 **DENR-CENRO**
BROOKE'S POINT
RELEASED
DATE: MAY 12 2023
BY: [Signature]
CN: 2023 0912



Republic of the Philippines
Department of Environment and Natural Resources
MIMAROPA Region
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Brooke's Point, Palawan

May 8, 2023

MEMORANDUM

FOR : The Community Environment and Natural Resources Officer

FROM : Assessment Team

SUBJECT : **CONDUCT OF RAPID MARINE BIODIVERSITY ASSESSMENT ON THE PROPOSED CAUSEWAY SITE OF INFANTA NICKEL PROJECT UNDER MPSA NO. 220-2005-IVB LOCATED AT BRGY. MAMBALOT, BROOKE'S POINT, PALAWAN**

OFFICE OF THE CENRO
BROOKE'S POINT, PALAWAN

RECEIVED
DATE: MAY 11 2023
CN : 2023-0952
BY : [Signature]

This pertains to the memorandum dated February 28, 2023 of the Regional Executive Director to conduct rapid marine biodiversity assessment on the proposed causeway site of Infanta Nickel Project under MPSA No. 220-2005-IVB located at Brgy. Mambalot, Brooke's Point, Palawan. In coordination with the proponent, the team conducted assessment of the area on April 17-21, 2023.

I. Introduction

Pursuant to Executive Order 533 entitled "Adopting the Integrated Coastal Management (ICM) Strategy to Ensure the Sustainable Development of the Country's Coastal and Marine Environment and Resources and Establishing Supporting Mechanisms", the DENR issued Administrative Order No. 2016-26 dated October 17, 2016 or the Guidelines for the implementation of the Coastal and Marine Ecosystem Management Program (CMEMP). As indicated, the general objective of CMEMP is "*to achieve the effective management of the country's coastal and marine ecosystems thereby increasing their ability to provide ecological goods and services to improve the quality of life of the coastal population particularly ensuring food security, climate change resiliency and disaster risk reduction*". One of the specific goal of the program is to "*effectively reduce threats and factors of degradation on coastal and marine ecosystems*", hence, to ensure the implementation of the program, Technical Bulletin No. 05 dated February 8, 2017 was issued by Biodiversity Management Bureau (BMB) which ratified the guidelines on the assessment of coastal and marine ecosystem and aims the following:

1. To determine the extent and cover of the various types of coastal and marine ecosystems within each jurisdiction (regional); and
2. To determine the condition, using standard and widely accepted methods, of the various coastal and marine ecosystems

M. Rodriguez St. Poblacion District I, Brooke's Point Palawan 5305
Mobile Phone: Globe: 0917-502-8916, Telephone No. (048) 726-4101
Email/Gmail: cenrobrookespoint@denr.gov.ph

The coastal ecosystem of the municipality of Brooke's Point provides livelihood and represent a natural and economic resources in the area. It provides livelihood and source of food in communities along coastal areas. In order to ensure that the proposed Causeway Site of Infanta Nickel Project will not cause detrimental effect in the coastal and marine ecosystem of Brgy. Mambalot, Brooke's Point, Palawan, a rapid assessment was conducted in the area pursuant to guidelines provided by the BMB.

II. Materials and methods

A marine and coastal ecosystem is an ecosystem which occurs when the land meets the ocean. It defines different types of habitats in which it has its own characteristics and compositions. The coral reefs, seagrass, mangroves and softbottom/mudflats which provided habitats for fishes, invertebrates and other marine organisms are essentials to complete the life cycles of fauna. However, as the population increases, the demands for goods and services as well as the progressive development affect the marine and coastal ecosystem which resulted to decreasing population of marine organisms and destruction of habitats.

To ensure appropriate management strategies and mitigate negative impact of the proposed causeway project, the following methodologies were adopted to assess the current status and conditions of coastal and marine ecosystem in the proposed area at Brgy. Mambalot, Brooke's Point, Palawan.

To facilitate the conduct of rapid assessment, the following materials were secured and provided:

- a. Scuba diving gear, tanks and accessories
- b. 50m and 100m meter transect tape
- c. Underwater camera
- d. Surface marker buoys/balloons
- e. Camera with geotagged (Cellphone/Smartphone unit)
- f. Handheld GPS
- g. Photo transect frame for coral reef and associated reef fish assessment
- h. Quadrats for sea grass assessment
- i. Slates
- j. Field notes
- k. Photo-field guide notes

Further, the following process were initiated to collect data and conduct rapid assessment of the proposed area of causeway project of Infanta Nickel Mining Project:

2.1 Map preparation and field validation/ground truthing

- i. Maps and other relevant data/information available on coastal and marine ecosystem of Brooke's Point were gathered.
- ii. Area validation and field ocular inspection

- iii. Corners reflected in the provided map were validated and located using RTK with the help of Survey Team of the proponent

2.2 Shoreline Tracing

- i. Observation of the area applied
- ii. Measurement of shoreline from the baseline to seaward (lowest sea level during the time of observation)

2.3 Coral Reef, Reef Fish and Sea grass assessment

- i. Inspection and profiling of area to know the extent and location of sea grass and coral reef
- ii. *For Coral reefs and reef fish assessment:* a 50meter transect was laid on randomly selected area. The photo transect frame were laid out and photos were taken using underwater camera to document observations. Reef fish assessment were also conducted and fishes were observed 20 minutes after the transect were laid out.
- iii. *For Sea grass assessment:* From the baseline of the proposed area which has a total of 139 meters, a 25-meter interval marked during the shoreline tracing was used as marker for the conduct of sea grass assessment. A 50-meter transect line was laid out perpendicular to the baseline. A 0.5 m by 0.5 m quadrat was laid out starting from the 0-mark at 5 meter interval of the transect and photos were taken to record observations.

III. Results of Rapid Assessment Conducted

On April 17-20, 2023, the team composed of personnel with backgrounds on Marine Biology and Fisheries and trainings on Marine and Coastal Assessment and scuba diving conducted field validation and rapid assessment on the proposed causeway site of Infanta Nickel Project under MPSA No. 220-2005-IVB located at Brgy. Mambalot, Brooke's Point, Palawan.

Site validation were initially conducted to know the present and existing habitat in the proposed area. Available data and maps were also validated during the conduct of site validation. Further, current condition of the area were also noted such as beach area condition and presence of community/households to ensure safety of the team during the conduct of field validation and assessment.



During the conduct of site validation of the proposed area

3.1 Land Use and ecosystem

Using the RTK and with the help of Survey Team of the proponent, corners of the proposed site were located to ensure the precision for the conduct of assessment of the proposed site. Four (4) corners including the two (2) located on the sea was marked with buoy which has an estimated depth of 7-8meters.



Relocation of corners and installation of temporary buoy.

The terrestrial habitat and land use of the proposed area is mainly composed of shore/beach area which has some presence of beach forest species such as Bani and Pandan Dagat. Adjacent to the proposed area are lots planted with coconut plantations and some nipa which are assumed privately owned.



Proposed area for Causeway Project



Observed vegetation within the proposed area

However, data showed that the proposed area is within the locally proclaimed Marine Protected Area of Brooke's Point but within the multiple use zone since there are no presence of coral reefs within the proposed area as shown in map provided by NAMRIA.

3.2 Beach Condition

The beach area was relatively flat and extended for several hundred meters along the shoreline. There were also no large rock formations or other hard structures observed in the area and the sand was generally fine-grained and dark in color.

Using the two corners of the proposed area located in the land as baseline to record the width of the beach area, the shoreline were measured at 25 meter interval perpendicular to the baseline going to seaward.



The width of the shoreline from the base of the proposed site has an average of 17 meters during the conduct of assessment (*according to tide measurement prediction, the highest tide for April 19, 2023 is at 7:00PM with 0.83m and lowest at 2:00Am with -0.01m*).

Data and observations collected at 10:41am, April 19, 2023

Baseline	Distance (m)	Remarks
0+00	17.71	Vegetation intercepted: Coconut
0+25	17.30	
0+50	17.31	
0+75	17.10	
0+100	17.70	Vegetation intercepted: Bani, Pandan Dagat and Spider Lily
0+125	17.90	Vegetation intercepted: Pandan Dagat Structure: Nipa hut

This sandy shore and width type of beaches with no obstruction observed is very attractive for housing and marine infrastructures which also provides opportunities for fisheries and recreation.



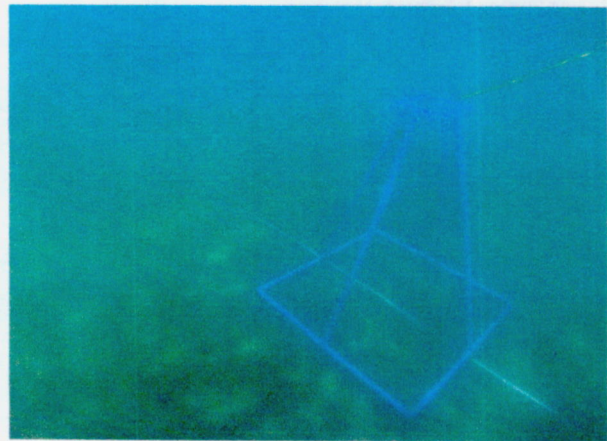
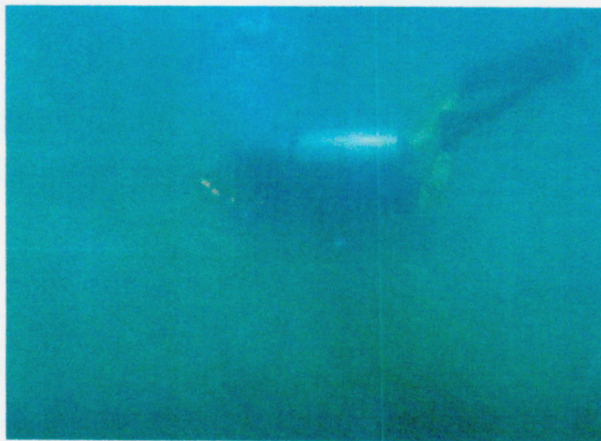
Beach profile of the proposed area for Causeway project

3.3 Coral Reefs, Reef Fish and Sea Grass Assessment

Based on the data and maps available, the area in Brgy. Mambalot has a scattered coral reefs. Upon actual validation, it was observed and confirmed that the location of the proposed site for Causeway Project is located in an area where there are no presence of corals reefs and sea grasses and indicating that the substrate was primarily composed of sand and mud. Water quality in the area is also very turbid due to the kind of existing substrate of the proposed area. Nonetheless, the team conducted diving and assessment to observed the seabed of the proposed area. The following observations were recorded:

Coral Reefs and Reef Fish Observations

Certified divers of this office conducted diving within the area proposed for Causeway to look for possible group of coral reefs. However, as shown in the photo documentation, the substrate of the proposed area is sand and mud and has no observed traces of coral reefs or even rubbles that can become an indicator that the area has history or accounts of presence of reefs.



Divers working underwater, observing looking for traces of coral reefs and conducting reef fish observation

There were also no observations or accounts of reef fishes that can be categorized as either major, target or indicator species which are also essentials to assess the unique members of the fish communities and used as indicator of relative conditions of the reefs.

Nonetheless, there were observed lobster traps that are being used by fisher folks or communities nearby in their conduct of aquaculture which can be assumed abandoned due to the state and conditions during the conduct of assessment.



Observed lobster traps at the bottom of the observation point

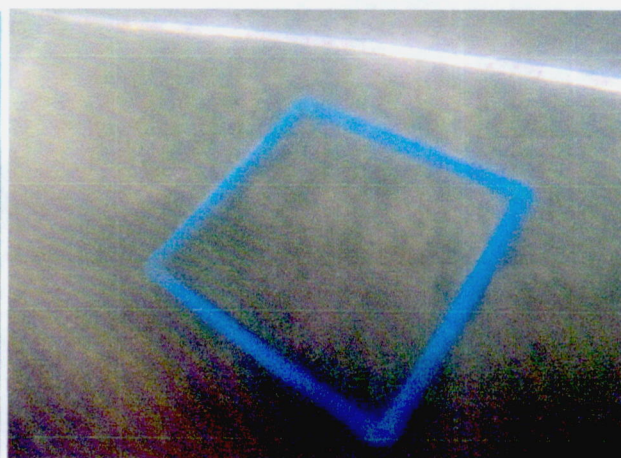
M. Rodriguez St. Poblacion District I, Brooke's Point Palawan 5305
Mobile Phone: Globe: 0917-502-8916, Telephone No. (048) 726-4101
Email/Gmail: cenrobrookespoint@denr.gov.ph



Screen captured photos from the video taken by divers

In terms of sea grass assessment, the team laid out six (6) transect line with 25-meters interval and 50-meters length to conduct assessment of the 139 meters width area of the proposed Causeway Project. Observation showed that there are no sea grass present in the proposed area. However, on transect 0+100meters, a species of dead corals were observed. Per analysis and observation of the team, it was only brought by waves since the dead coral is attached in a stone and can be carried by water current.

M.Rodriguez St. Poblacion District I, Brooke's Point Palawan 5305
 Mobile Phone: Globe: 0917-502-8916, Telephone No. (048) 726-4101
 Email/Gmail: cenrobrookespoint@denr.gov.ph



Established transect and quadrat for sea grass assessment of the proposed area



Dead coral observed located at 0+100 transect line

3.4 Other observations

The absence of coral reefs and sea grasses suggested that the area was primarily composed of sandy and muddy substrate. Further, the notable feature of the beach is the local fishing community which relied mostly on the beach and the use of beach seine nets was a common sight.

There are also several baklads/balsa and materials installed for lobster trapping in which some were already abandoned or has no active fry present.

Lobster trapping is an in demand livelihood opportunities in Palawan due to the prevailing price of fry in the market and availability of it everywhere. There are three stages of lobster culture:

- 1st stage the planktonic larvae (*phyllosomes*) where in fry are easily carried by current or waves on the shore

Handwritten signature

Handwritten signature

Handwritten signature

2nd stage the *puerulus* or post larval stage. These are the fry that are being collected by the communities. Artificial reef made of cement and/or coconut husk are installed in the shallow portion of the sea. Since the nature of lobster fry is to hide in holes, and they are nocturnal, communities are installing several artificial reefs in which lobster fry will be attracted to go in. Lobster are omnivorous species hence naturally they usually thrive in areas with sea grass and coral reefs.

3rd Stage Adult Stage. These are the lobster naturally grow in the wild and usually found along and in coral reefs.

Since there are no sea grass and coral reefs in the area, aquaculture and lobster trapping in the area is very prominent.



Baklad located within the proposed Causeway area

Attached with this report are the maps the location of assessment and observations and photo documentation during the conduct of field activity.

IV. Recommendations

1. Coordination with the Barangay and Municipal LGUs on the list of individuals/families with “baklad”/balsa and lobster trapped within and adjacent (500 meters) from the project area who will be directly affected by the project.
2. Since there are no coral reefs, sea grass and mangrove areas located within and adjacent (within 300meters) to the proposed project and due to lack of equipment of this office, it is recommended that upon conduct of environmental impact assessment, the study and assessment of substrate of the area should also be conducted.
3. It is assumed that ECC is secured before commencing the construction of the project hence, upon implementation or during the construction and operation phase, strict monitoring on implementation of mitigating measures as indicated in the Environmental Impact Assessment (EIA) report should be conducted by the concerned and responsible agencies.
4. Processing of Survey Authority and Miscellaneous Lease Agreement (MLA) is recommended pursuant to DAO 2022-10 and Dao 2004-24.

M.Rodriguez St. Poblacion District I, Brooke's Point Palawan 5305
 Mobile Phone: Globe: 0917-502-8916, Telephone No. (048) 726-4101
 Email/Gmail:cenbrookespoint@denr.gov.ph

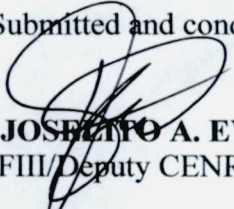
8

1

7


9

Submitted and conducted by:

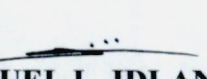

JOSEFIN A. EYALA
FIII/Deputy CENR Officer


MARLOU O. SORETES
Forester I

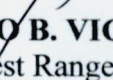

RACHEL H. APPIE
ECOMS II


MARY CRIS A. IBÁÑEZ
ECOMS I

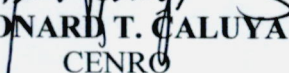

RJ KEITH
Forest Technician I


MANUEL I. IDLANA
Forest Technician I

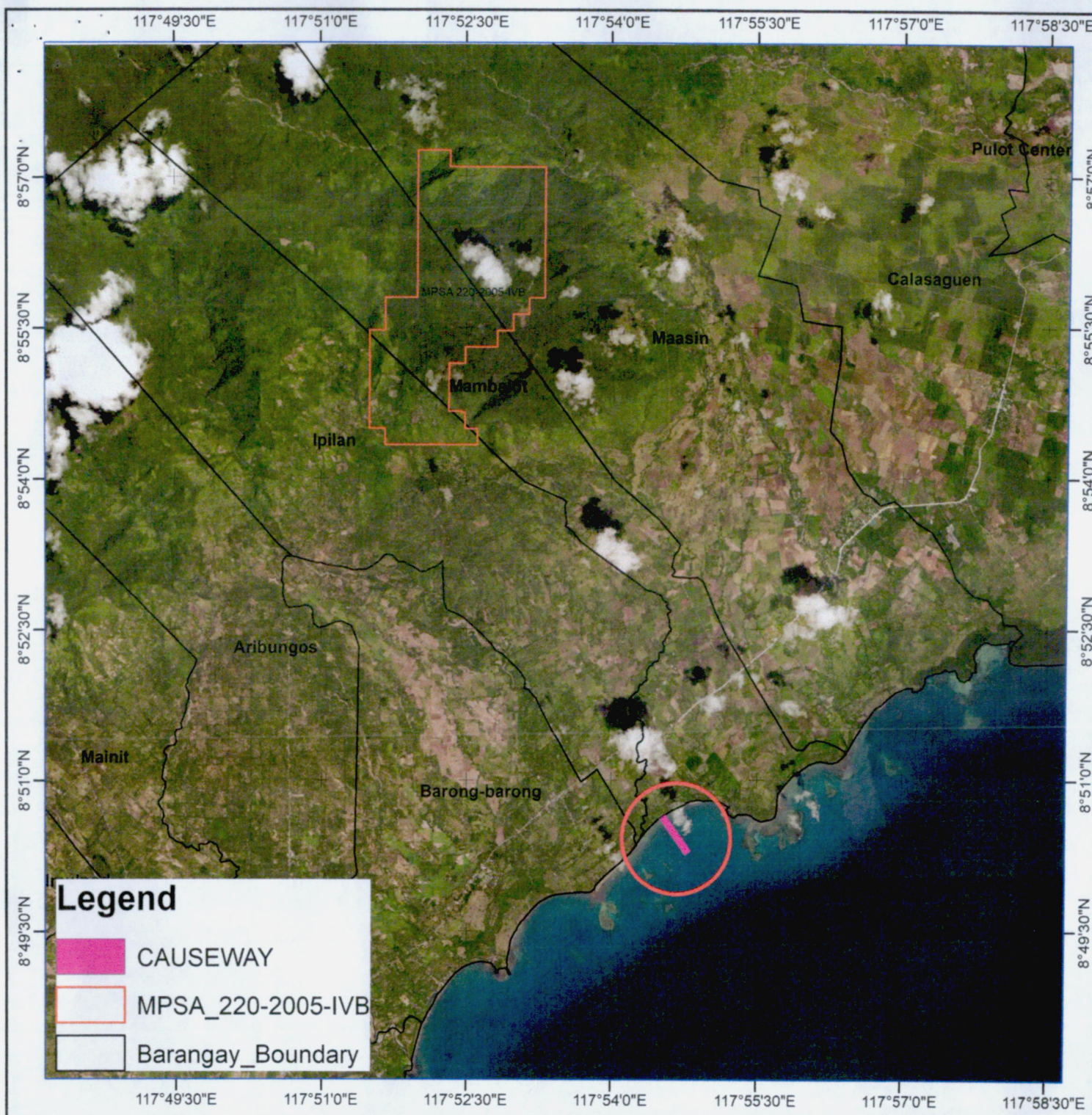

APRIL ANNE T. GRACIANO
Forest Ranger


BIMBO B. VICENTE
Forest Ranger

Attested by:

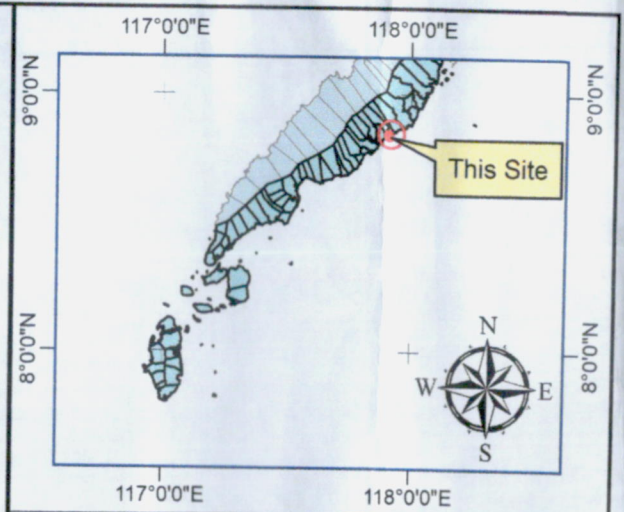

LEONARD T. CALUYA
CENRO





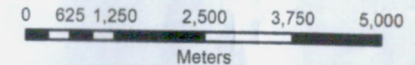
Legend

- CAUSEWAY
- MPSA_220-2005-IVB
- Barangay_Boundary



LOCATION MAP SHOWING THE ASSESSED AREA
OF THE PROPOSED CAUSEWAY PROJECT OF
INFANTA NICKEL PROJECT UNDER
MPSA No. 220-2005-IVB

LOCATED AT
BARANGAY MAMBALOT,
MUNICIPALITY OF BROOKE'S POINT,
PROVINCE OF PALAWAN
1:100,000



Coordinate System: WGS 1984 UTM Zone 50N
Projection: Transverse Mercator
Datum: WGS 1984



Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
COMMUNITY ENVIRONMET AND NATURAL RESOURCES OFFICE
Brooke's Point, Palawan

CERTIFICATION

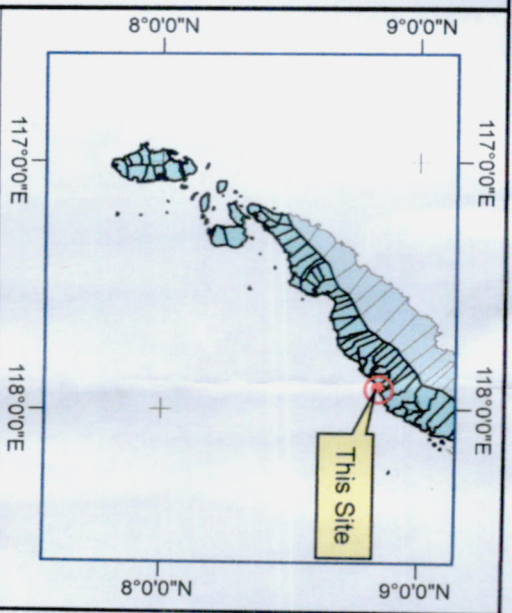
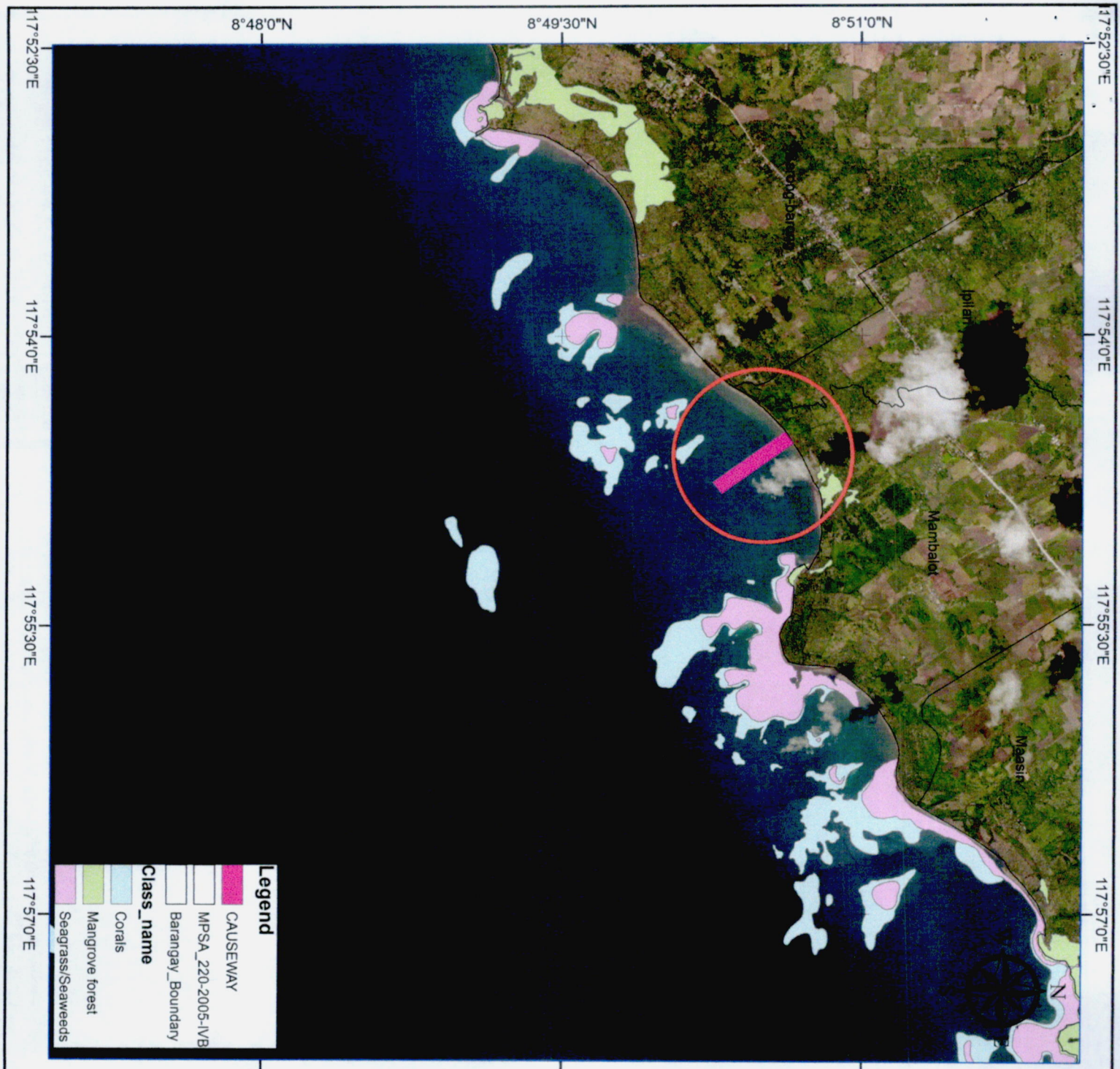
This is to certify that this is the true and correct location map
of the Coastal Resources Asessment within Causeway Project of
Infanta Nickel Project under MPSA 220-2005-IVB as described
hereon.

This map was digitized based from geotagged photos and
trackings submitted and other references available in this Office.
Digitized by:

MARLOU C. SORETES
Forester I/GIS focal
Check and verified by:

Noted by:

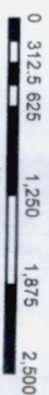
JOSE
For. III/Deput
LEONARD J. CALUJA
CENRO



MAP SHOWING THE ASSESSED COASTAL RESOURCES OF THE PROPOSED CAUSEWAY PROJECT OF INFANTA NICKEL PROJECT UNDER MPSA No. 220-2005-IVB

LOCATED AT
BARANGAY MAMBALOT,
MUNICIPALITY OF BROOK'S POINT,
PROVINCE OF PALAWAN

1:50,000



Coordinate System: WGS 1984 UTM Zone 50N
Projection: Transverse Mercator
Datum: WGS 1984



Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Brooke's Point, Palawan

CERTIFICATION

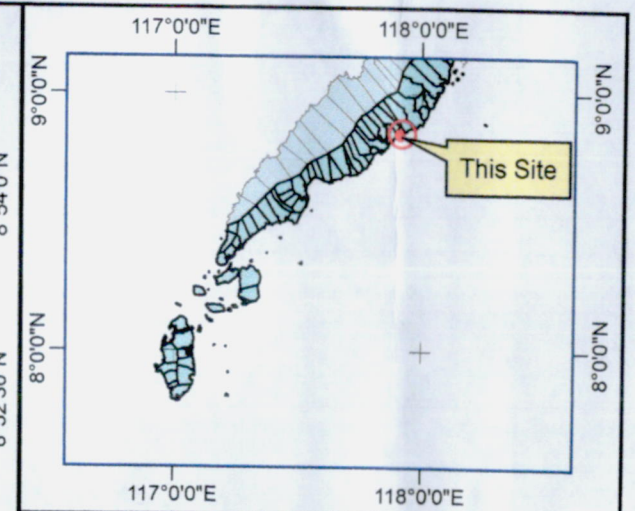
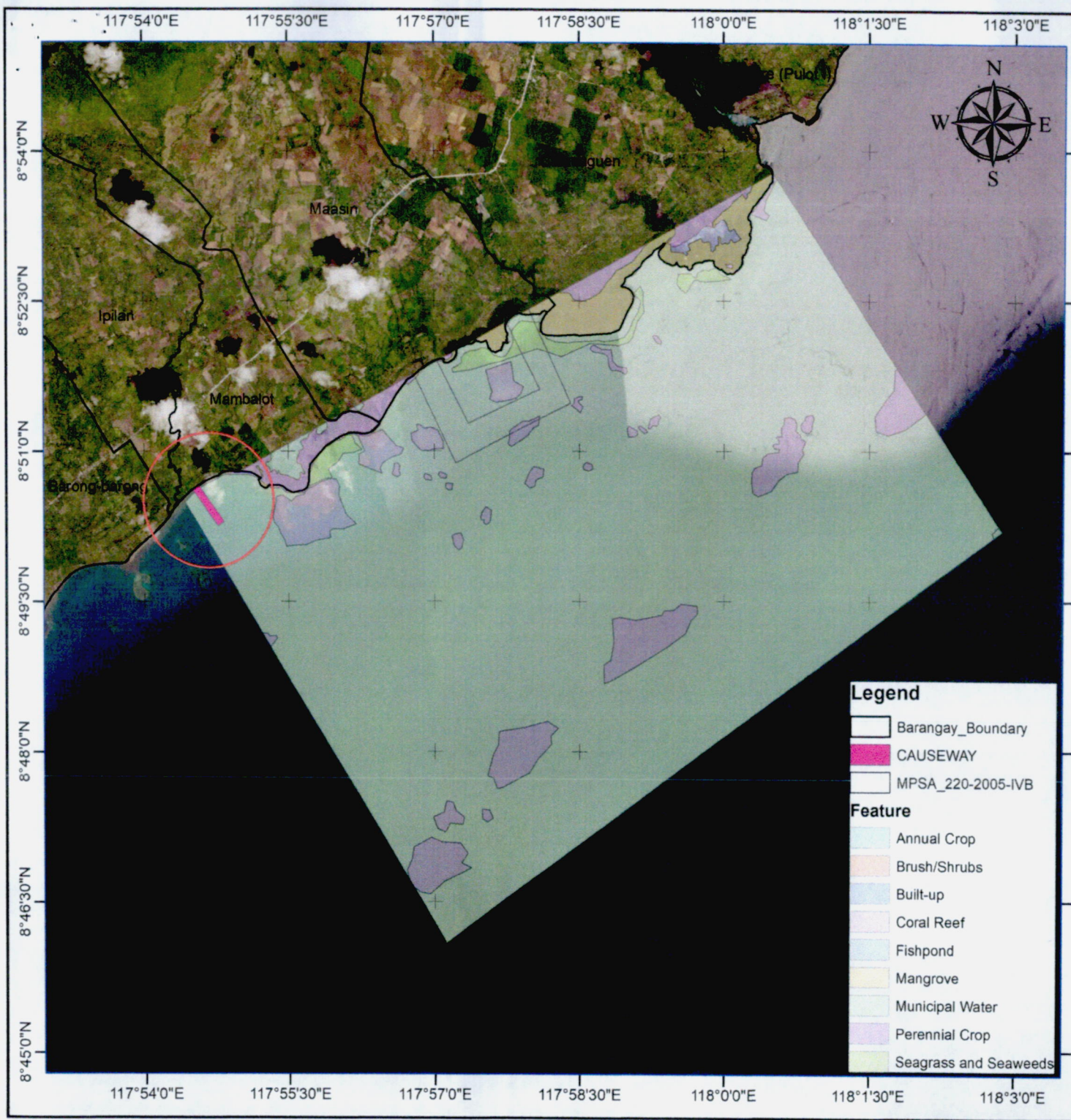
This is to certify that this is the true and correct location map of the Coastal Resources Assessment within Causeway Project of Infanta Nickel Project under MPSA 220-2005-IVB as described hereon.

This map was digitized based from geotagged photos and trackings submitted and other references available in this Office.

Digitized by:
MARLOU B. SORETES
Forester I/GIS focal

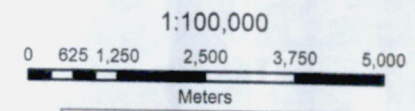
Check and verified by:
JOSALITO A. EYALA
For: Deputy CENRO/Chief, MES

Noted by:
LEONARDO CALIXTA
CENRO



MAP SHOWING THE MARINE PROTECTED AREA OF THE PROPOSED CAUSEWAY PROJECT OF INFANTA NICKEL PROJECT UNDER MPSA No. 220-2005-IVB

LOCATED AT
BARANGAY MAMBALOT,
MUNICIPALITY OF BROOKE'S POINT,
PROVINCE OF PALAWAN



Coordinate System: WGS 1984 UTM Zone 50N
Projection: Transverse Mercator
Datum: WGS 1984



Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Brooke's Point, Palawan

CERTIFICATION

This is to certify that this is the true and correct location map of the Marine Protected Area within Causeway Project of Infanta Nickel Project under MPSA 220-2005-IVB as described hereon.

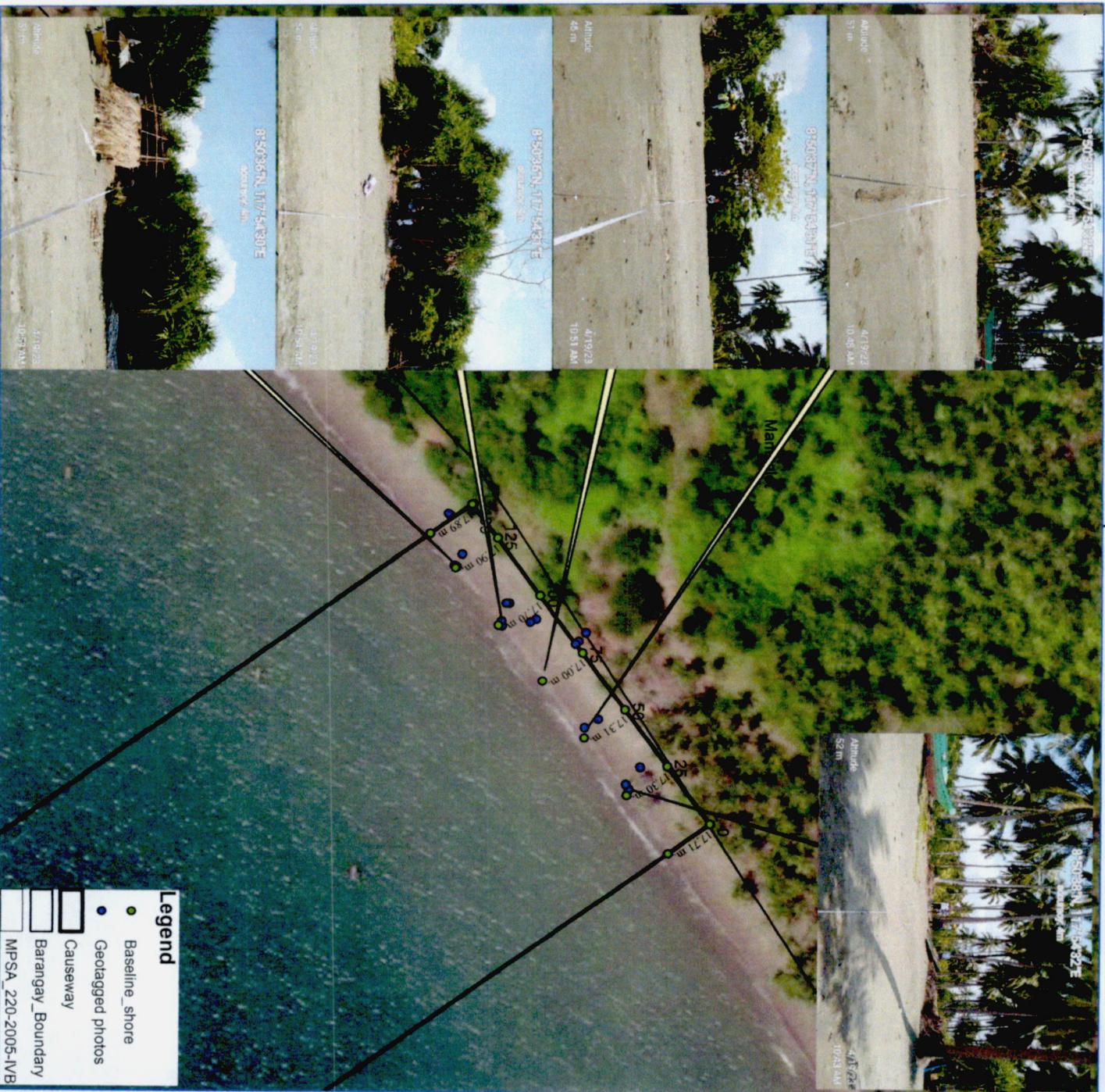
This map was digitized based from geotagged photos and trackings submitted and other references available in this Office.

Digitized by:
MARLOU C. SORETES
Forester I/GIS focal

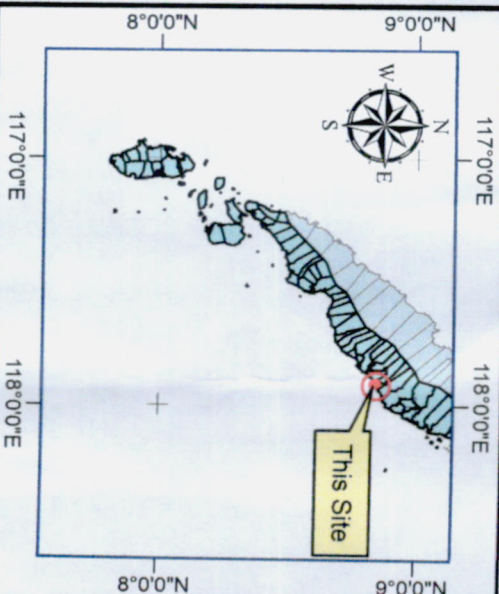
Check and verified by:
JOSEFINO A. EYALA
For. III Deputy CENRO/Chief, MES

Noted by:
LEONARDO CALUYA
CENRO

117°54'30"E



117°54'30"E



MAP SHOWING THE
ASSESSED SHORELINE AREA
OF THE PROPOSED CAUSEWAY PROJECT OF
INFANTA NICKEL PROJECT UNDER
MPSA No. 220-2005-IVB

LOCATED AT
BARANGAY MAMBALOT,
MUNICIPALITY OF BROOKE'S POINT,
PROVINCE OF PALAWAN

1:2,000

0 12.5 25 50 75 100
Meters

Coordinate System: WGS 1984 UTM Zone 50N
Projection: Transverse Mercator
Datum: WGS 1984



Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Brooke's Point, Palawan

CERTIFICATION

This is to certify that this is the true and correct location map of the Assessed Shoreline Area within Causeway Project of Infanta Nickel Project under MPSA 220-2005-IVB as described hereon.

This map was digitized based from geotagged photos and trackings submitted and other references available in this Office.

Digitized by:

MARLOU O. SORETES

Fores/er I/GIS focal

Check and verified by:

JOSUITO A. EYALA

Ed./In/dustry CENRO/Chief, MES

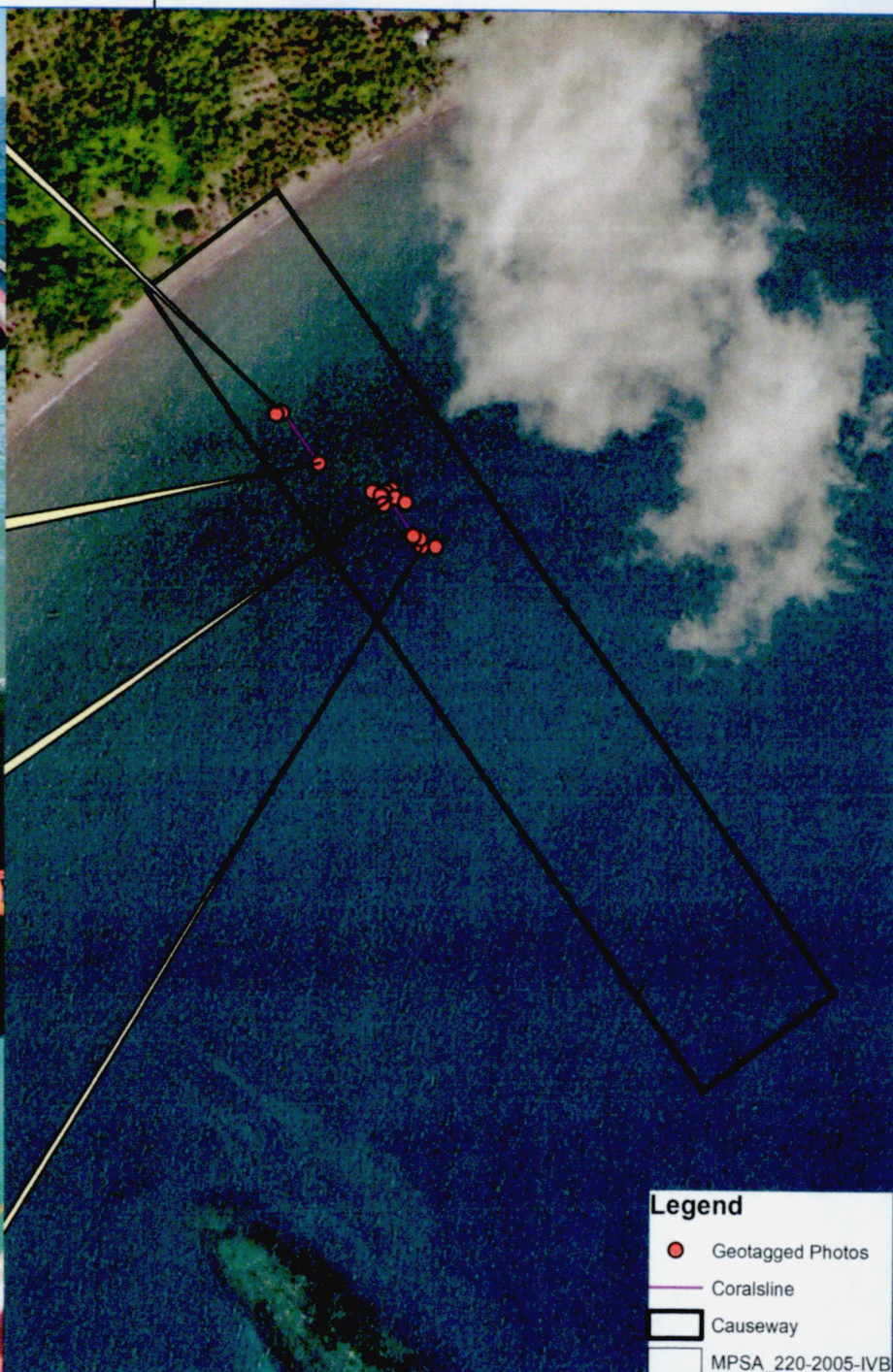
Noted by:

LEONARDO T. CALUYA

CENRO

117°54'30"E

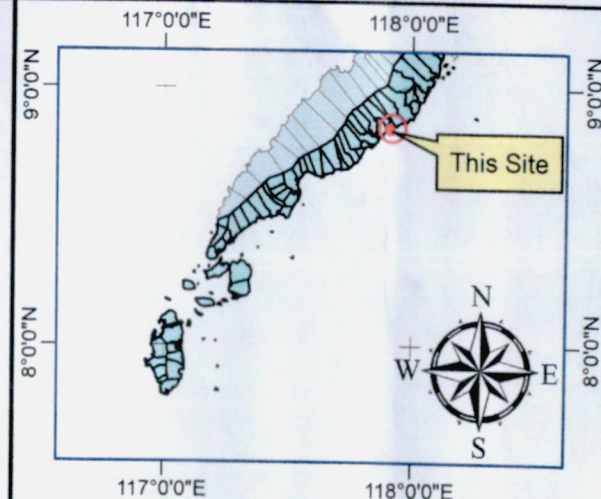
8°50'30"N



Legend

- Geotagged Photos
- Coralsline
- Causeway
- MPSA_220-2005-IVB

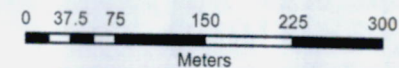
117°54'30"E



MAP SHOWING THE ASSESSED CORALS AREA OF THE PROPOSED CAUSEWAY PROJECT OF INFANTA NICKEL PROJECT UNDER MPSA No. 220-2005-IVB

LOCATED AT
BARANGAY MAMBALOT,
MUNICIPALITY OF BROOKE'S POINT,
PROVINCE OF PALAWAN

1:6,000



Coordinate System: WGS 1984 UTM Zone 50N
Projection: Transverse Mercator
Datum: WGS 1984



Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Brooke's Point, Palawan

CERTIFICATION

This is to certify that this is the true and correct location map of the assessed Coral Area within Causeway Project of Infanta Nickel Project under MPSA 220-2005-IVB as described hereon.

This map was digitized based from geotagged photos and trackings submitted and other references available in this Office.

Digitized by:

MARLOU O. SORETES
Forester I/GIS focal

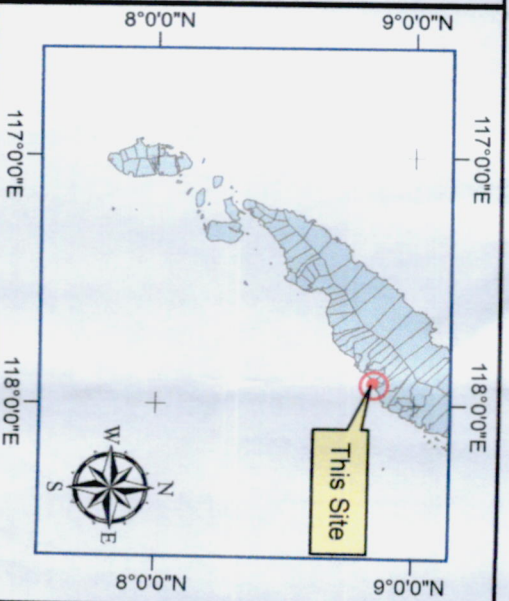
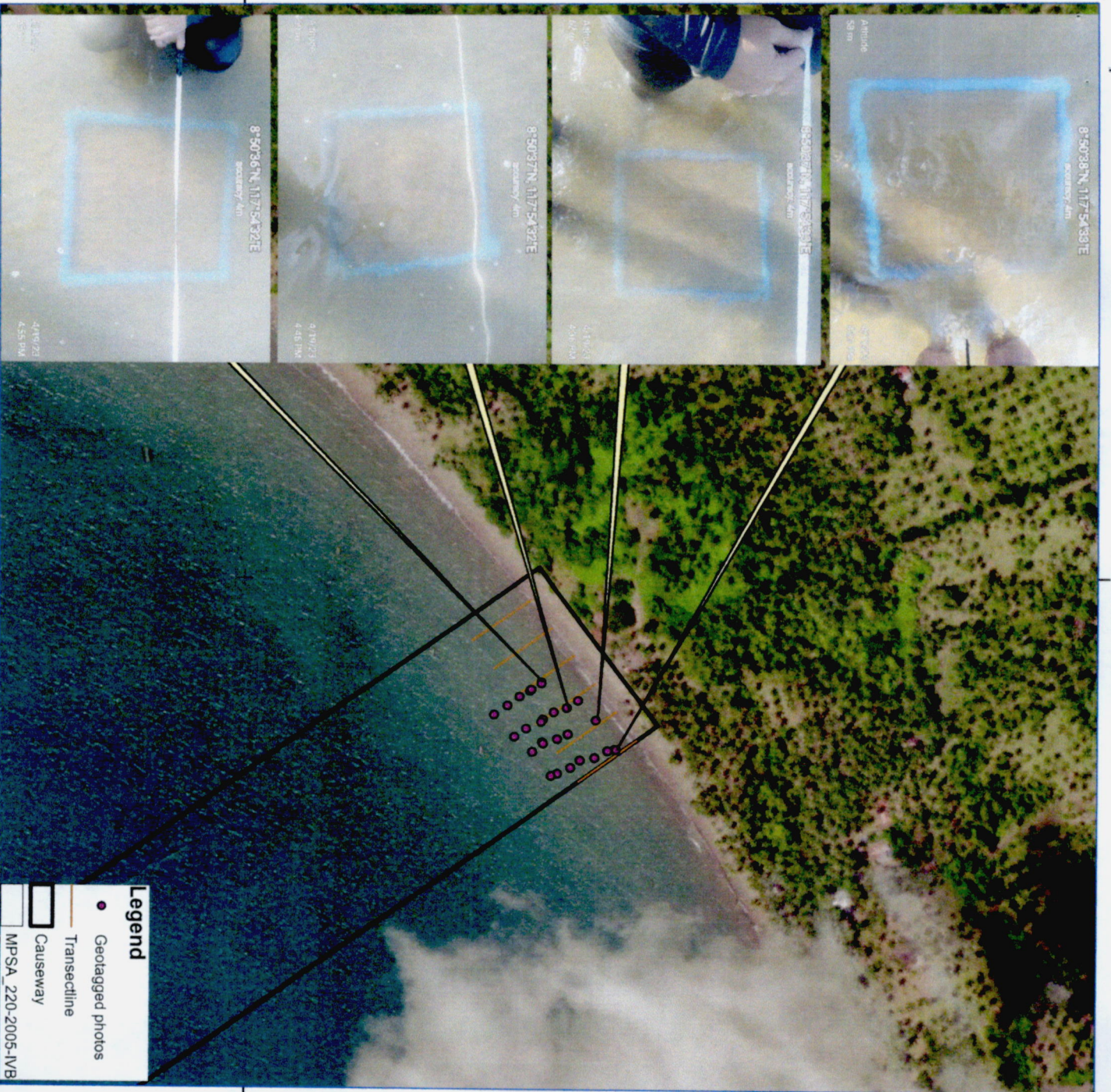
Check and verified by:

JOSEPHITO A. EYALA
For. III/Deputy CENRO/Chief, MES

Noted by:

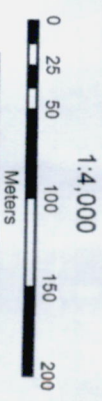
LEONARD T. CALUYA
CENRO

117°54'30"E



MAP SHOWING THE ASSESSED SEAGRASS AREA OF THE PROPOSED CAUSEWAY PROJECT OF INFANTA NICKEL PROJECT UNDER MPSA No. 220-2005-IVB

LOCATED AT
BARANGAY MAMBALOT,
MUNICIPALITY OF BROOKES POINT,
PROVINCE OF PALAWAN



Coordinate System: WGS 1984 UTM Zone 50N
Projection: Transverse Mercator
Datum: WGS 1984



Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Brooke's Point, Palawan

CERTIFICATION

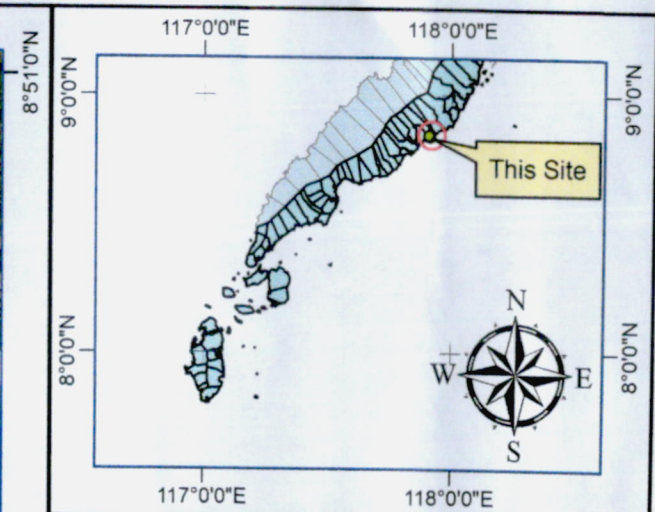
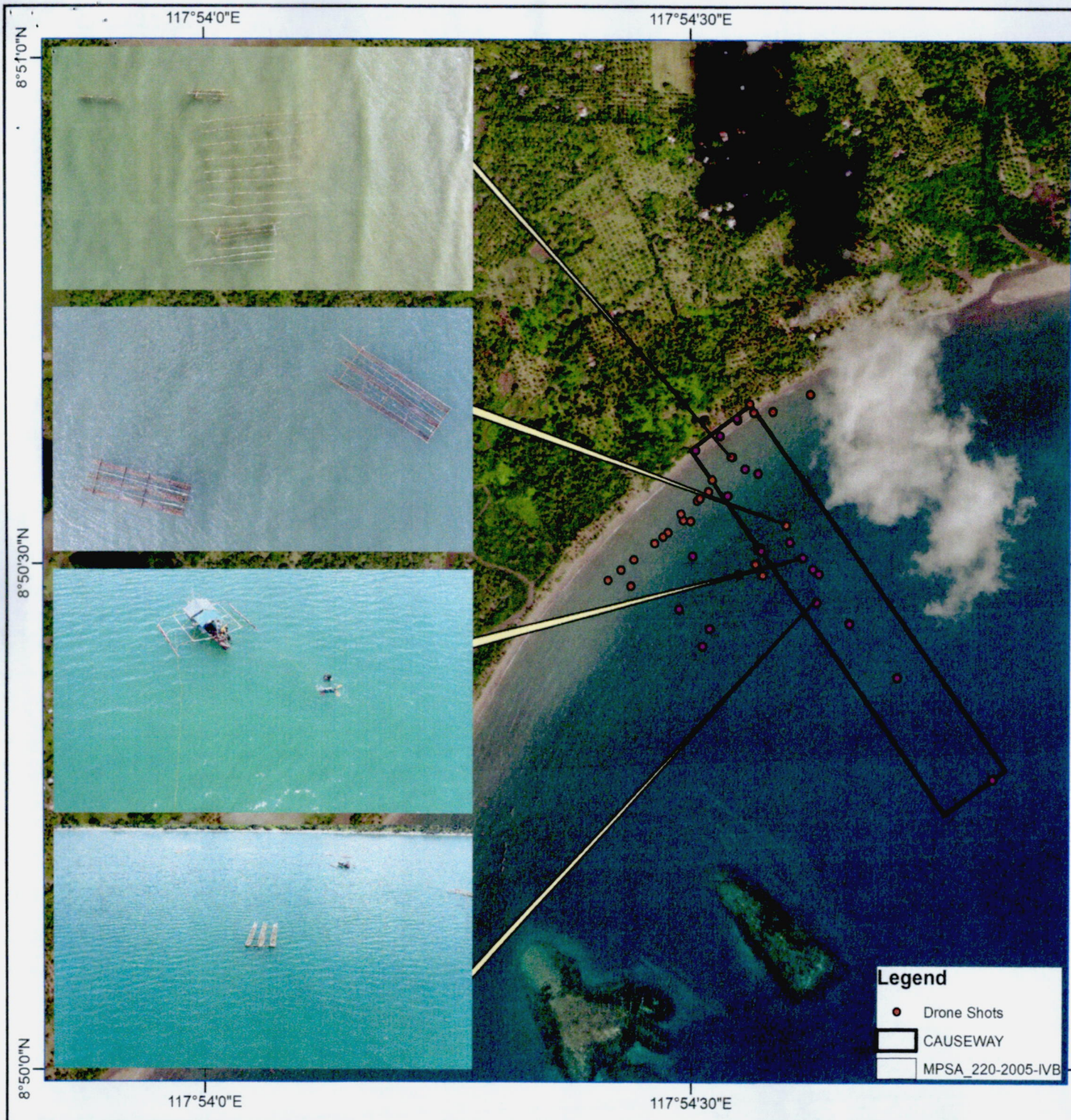
This is to certify that this is the true and correct location map of the Assessed Seagrass Area within Causeway Project of Infanta Nickel Project under MPSA 220-2005-IVB as described hereon.

This map was digitized based from geotagged photos and trackings submitted and other references available in this Office.

Digitized by:

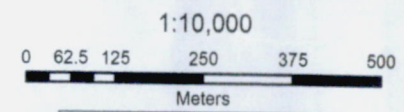
MARLOU O. SORETES
Forester I/IGIS focal
Check and verified by:

JOSEFINO A. EYALA
For: Illustrious CENRO/Chief, MES
Noted by: LEONARDO CALIYA
CENRO



MAP SHOWING THE BAKLAD OBSERVED WITHIN VICINITY OF THE PROPOSED CAUSEWAY PROJECT OF INFANTA NICKEL PROJECT UNDER MPSA No. 220-2005-IVB

LOCATED AT
BARANGAY MAMBALOT,
MUNICIPALITY OF BROOKE'S POINT,
PROVINCE OF PALAWAN



Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Brooke's Point, Palawan

CERTIFICATION

This is to certify that this is the true and correct location map of Baklad observed with vicinity of Causeway Project of Infanta Nickel Project under MPSA 220-2005-IVB as described hereon.

This map was digitized based from geotagged photos and trackings submitted and other references available in this Office.

Digitized by:

MARLOU O. SORETES
Forester I/GIS focal
Check and verified by:

JOSEPHITO A. EYALA
For and Deputy CENRO/Chief, MES

Noted by:

LEONARD T. CALUYA
CENRO



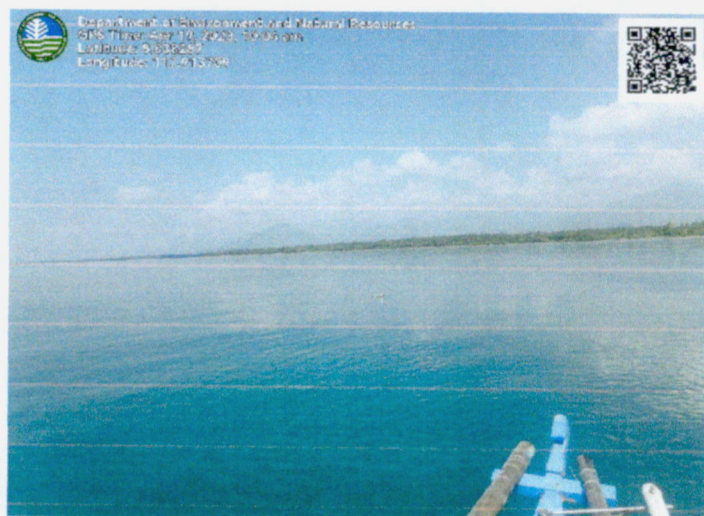
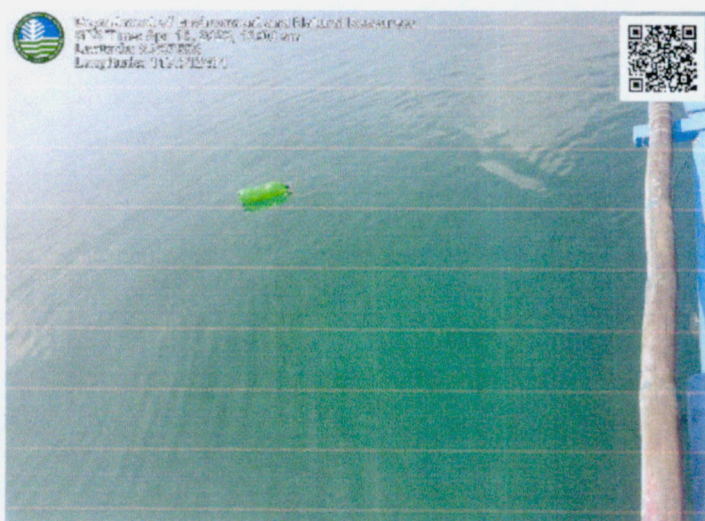
**ASSESSMENT TEAM DURING THE CONDUCT OF SITE VALIDATION OF THE
PROPOSED CAUSEWAY AREA**

SL

j

4

4



INSTALLATION OF TEMPORARY BOUY AND CORNER IDENTIFICATION

8 j

f

R



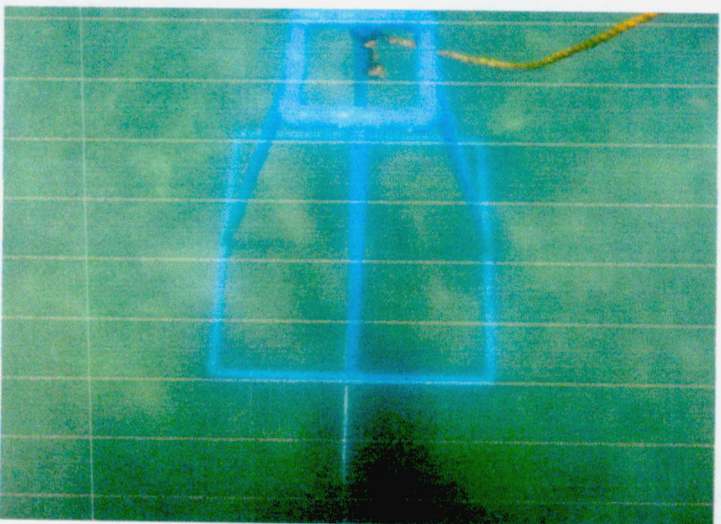
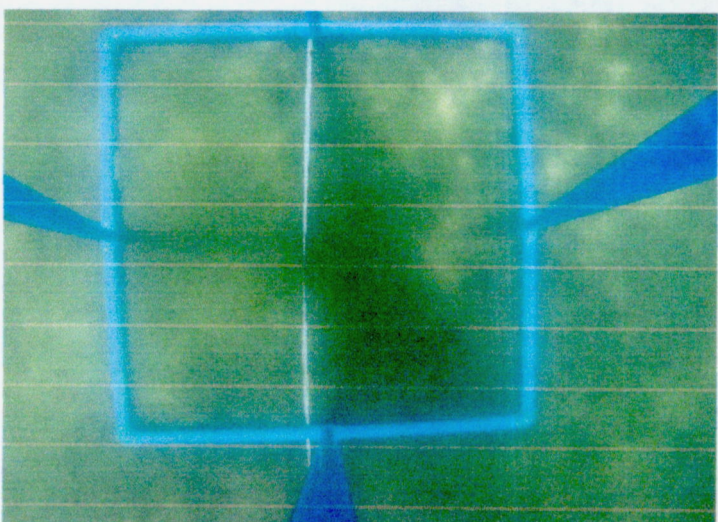
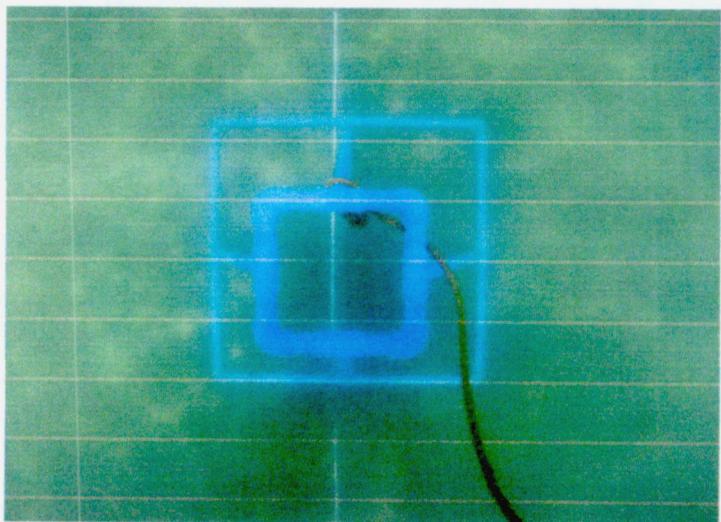
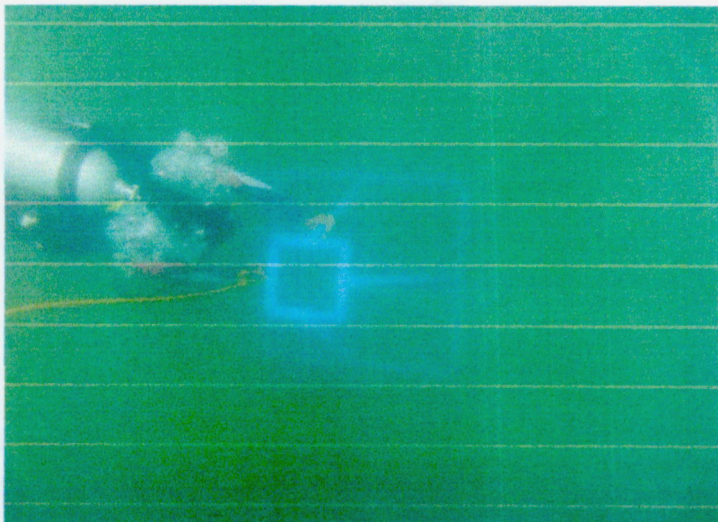
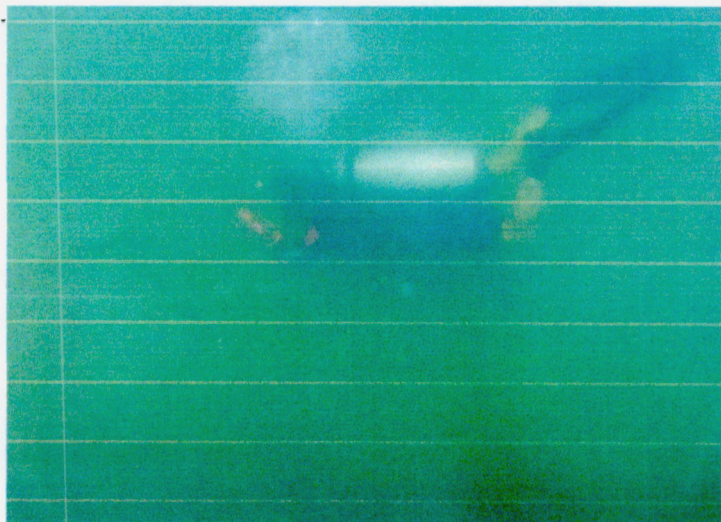
ESTABLISHMENT OF TRANSECT LINES FOR CORAL ASSESSMENT

g

j

f

g

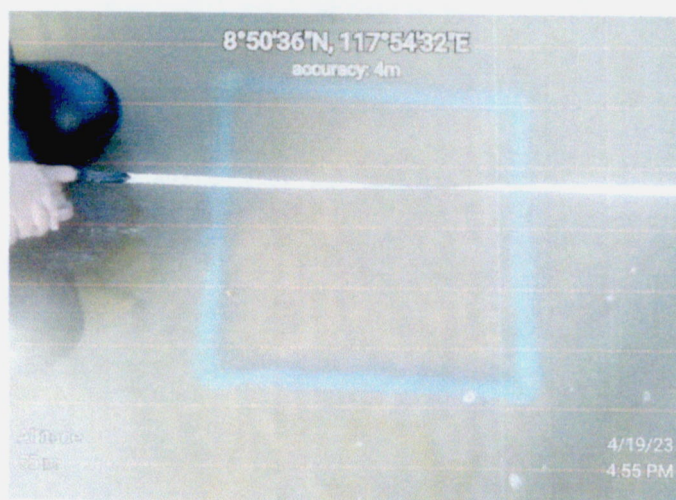
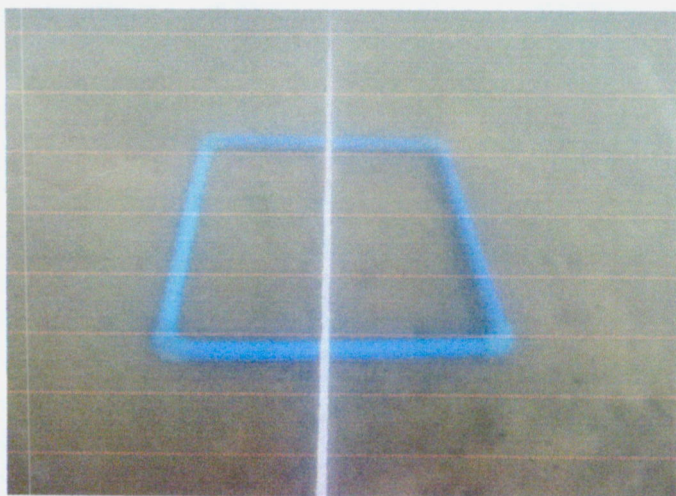
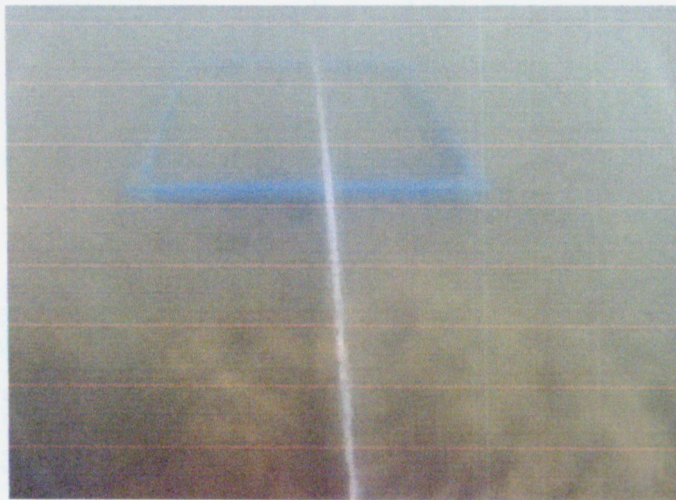


CORAL AND FISH REEF ASSESSMENT

8 j

f

h



SEAGRASS ASSESSMENT

Si

f

f

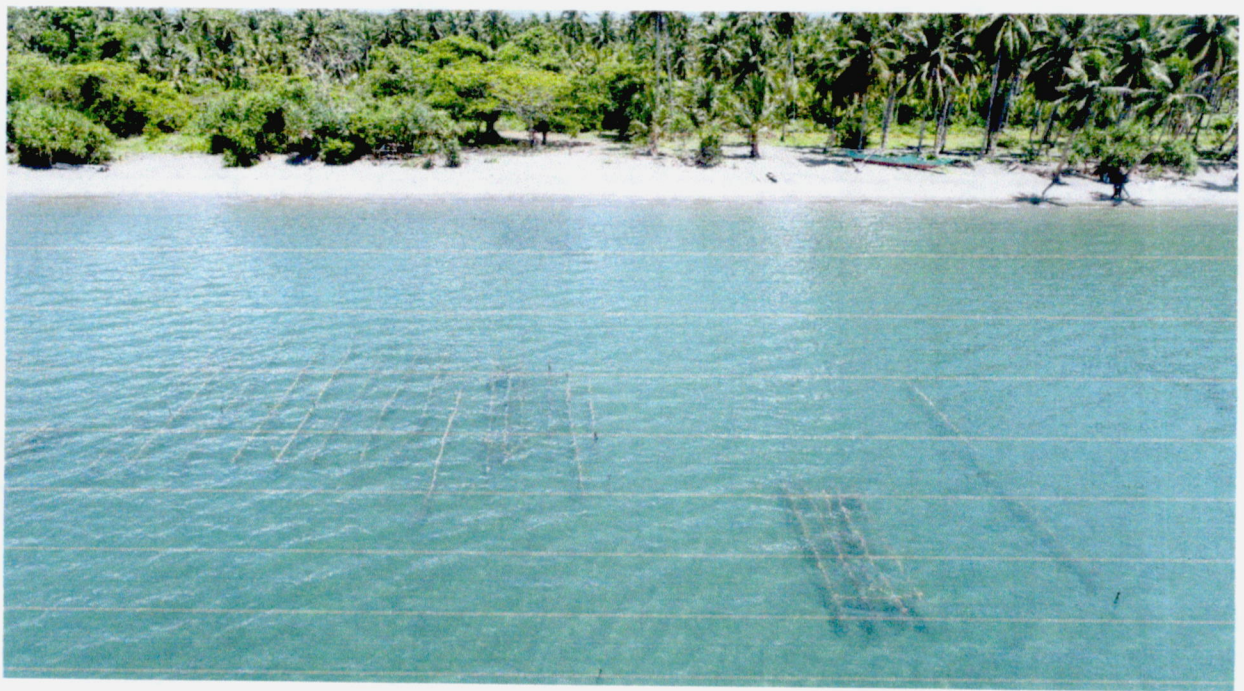


SHORELINE MEASUREMENT

8/

f

8/

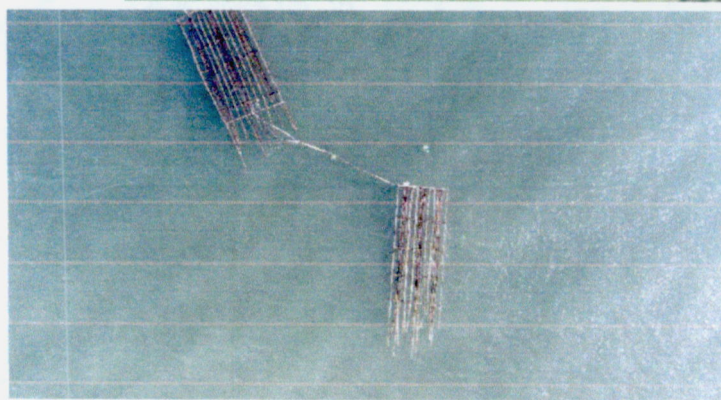


DRONE SHOTS OF THE PROPOSED CAUSEWAY AREA

8/1

f

f



BACLAD/LOBSTER TRAPS WITHIN PROPOSED CAUSEWAY AREA

8 j

f

h