Environmental and Social Consideration

Quarterly Progress Report

Period of April - June 2019

Directorate General of Sea Transportation

Ministry of Transportation

Republic of Indonesia

Attachment No.16 Environmental/Social Monitoring Results

<u>1. Implementation of RKL-RPL (Environmental Management and Monitoring Plan in EIA)</u></u>

A. Pre-Construction Phase

Reported in the previous report (PSR in April 2019).

B. Construction Phase

Implementation of RKL RPL (Environmental management and Monitoring Plan) regularly conducted semester based as stipulated in Environmental Permit No. 136/Menlhk/Setjen/PLA 4/2/2017 regarding Development of Patimban Port at Patimban Village, Kalentambo Village, Gempol Village, Kotasari Village, Pusakaratu Village, Pusakanagara District and Pusakajaya Village at Pusakajaya District, Subang Regency, West Java Province. The implementation of RKL RPL Report Construction Phase Semester I already submitted on April 2019 to relevant agencies; Ministry of Environmental and Forestry, Environment Agency of West Java Province, and Environment Agency of Subang Regency.

| No Indicator of success of Environmental Management Impact source Method of Environmental Management Plan(RKL) Method of Analysis and Data Collection (RPL) Implemented Mitigation Mea Results (Data and Phote Results (Data and Phote Resul |
|--|
| Managed Significant Impacts (referred to EIA) CONSTRUCTION PHASE CONSTRUCTION PHASE 2. Procurement of Labor and Basecamp Operation 2A Opening job and business opportunity People affected/local Procurement of affected area as required, business opportunity Identifying the number of business opportunity The implementation of job and business |
| CONSTRUCTION PHASE 2. Procurement of Labor and Basecamp Operation 2A Opening job and business opportunity People Procurement of a. Prioritize local workers from local workers; a. Identifying the number of local workers; The implementation of job and business opportunity affected/local Labor and affected area as required, local workers; The implementation of job and business opportunity |
| 2. Procurement of Labor and Basecamp Operation 2A Opening job and business opportunity People Procurement of Labor Procurement of a. Prioritize local workers from affected area as required, local workers; Identifying the number of local workers; |
| 2A Opening job and business opportunity People Procurement of Labor a. Prioritize local workers from affected area as required, local workers; a. Identifying the number of local workers; |
| peoplethat recruitedBasecamp operationeducational background, ualificationb. background, ackground, b.Identifying the number and type of business opportunity that evolve nearby; that evolve nea |

| | • Conducting new business | f. Monitoring of safety work | percentage of local people that recruited still below |
|---|---------------------------------|---|---|
| | activity program | implementation especially | 20% due to the activity is need a special skill to be |
| | Conducting: marketing | in construction phase: | conducted, even though for non-skill recruited |
| | assistance program | r in the second s | prioritized for people. |
| | Conducting continuent aid | | • The Project for breakwater seawall channel |
| | • Conducting equipment and | [c d. DCST] | dredging under Package 2 started on April 2010 The |
| | program; | [c, u, DOST] | number local neeple that were recruited during |
| | | [a, b, e, l: CF1, CF2, CF3, CF4] | number local people that were recruited during |
| | c. Coordinating with | | respective period was 18 people or equal to 26.87% |
| | Pusakanagara and Pusakajaya | | on April of total worker about 67 people, while on |
| | sub-district due to job vacancy | | May and June still on progress. |
| | information | | • The project for access road construction under |
| | | | Package 4 started on October 2018. The number of |
| | [a: DGST, CP1, CP2, CP3, CP4, | | local people that were recruited during respective |
| | h.c:DGST] | | period; 106 people or equal to 20.62% on February, |
| | ,c.D001] | | 167 or equal to 22.94% on March, 209 people or |
| | | | equal to 20.35% on April, while on May and June the |
| | | | Monthly report is still on progress |
| | | | inonany report to sum on progress. |
| | | | |
| | | | The implementation of Livelihood Pestoration Program |
| | | | on paried of April to Jupe 2010 consist of Stavedoring |
| | | | on period of April to Jule 2019 consist of Stevedoning |
| | | | work force training, Forkint operational training, Drift |
| | | | gilinet (Jaring Rampus) assembly training. |
| | | | |
| | | | • Stevedoring Work Force training (Tenaga Kerja |
| | | | Bongkar Muat) was held on April 22 to May 1 2019. |
| | | | The training was attended by 30 participants from |
| | | | affected villages. The aim of the training is to fulfill |
| | | | basic information about working in port activities |
| | | | such as: container crane operational, the principal of |
| | | | Stevedoring Work Force rigging apparatus hand |
| | | | signal and lashing container. The participants who |
| | | | pass the training even will be provided with a |
| | | | pass the training exam will be provided with a |
| | | | certificate; capable to utilize their abilities for the |
| | | | same purpose. |
| | | | • Forklift operational training was held for two |
| | | | sessions, first session was held on April 22 to May |
| | | | 3 rd . and the second session was held on May 7-17 |
| | | | 2019. Number of participants on both session was |
| | | | 50 participants. The aim of the training is to enrich |
| | | | the participants skill so they have equal opportunity |
| | | | of related job vacancy. In other hand, the training |
| | | | will help the participants how to operate the crane |
| | | | with capacity under 100 tons and operate the |
| | | | forklift with maximum capacity is 15 tons. The |
| | | | participanta will receive a cartificate weeful for |
| 1 | | | participants will receive a certificate, useful for |



| | | | | | | Forklift Operational Practice Session |
|----|--|---|---|--|--|---|
| | | | | | | With the second seco |
| 3. | Heavy equipment and | d materials mobilizati | ion | | • | |
| 3A | Deterioration of air quality (TSP and emision) | Concentration of SO ₂ , CO, NO ₂ and TSP not to exceed air quality standard based on Government regulation No. 41 years 1999 on Air pollutions control. | Heavy equipment and materials mobilization. | a. Heavy equipment and materials mobilization use construction access road of Patimban seaport which is relatively quiet and away from settlements (non-asphalt pavement); b. Closing the tanks of transporting material vehicle with tarps; c. Transporting the materials to the location using operation proper vehicle that passed the KIR test (in testing to see if the vehicles are well maintenance); d. Developing of washhouse to clean transporting vehicle wheels before out from project site location; | Conducting air quality laboratory analysis, after which the results are compared with air quality standard based on PP No. 41 of year 1999. Furthermore, monitoring results are converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and controlled status with crictical level. [CP4] | CP 1 Implementation: Traffic condition affected by the project is being monitored periodically. Vehicle volume survey is conducted once a month. CP 2 Implementation: Work has not yet started CP 3 Implementation: Work has not yet started CP 4 Implementation: 1.Air quality measurement was conducted in April 2019. The monitoring results of air quality with 5 parameters (SO2, CO, NO2, PM10, TSP) were below the threshold as shown in attachment. 2.Roads are sprinkled to reduce dust pollution by road sprinklers, so that dust pollution tends to be under control and limits. |



| | | | | | | 6. Vehicle feasibility check |
|----|----------------------------|---|--|---|--|--|
| | | | | | | |
| | | | | | | Material transport trucks are required to be provided with loading sheets. Image: Second system of the system of the |
| | | | | | | trucks. |
| 3B | Land traffic disruption | No occurrence of traffic jam as the effect of heavy equipment and materials mobilization | Heavy equipment and materials mobilization | a. Coordinating with transportation institution to install traffic sign around the development of Patimban seaport location in accordance with ministerial | a. Monitoring traffic condition;b. Identifying accident number that occurred. | Implementation Package 1: Traffic condition affected by the project is being monitored periodically. Vehicle volume survey is conducted once a month. |

| 1 | |
|--|--|
| regulation No.13 year 2014 about the traffic sign; b.Coordinating with police agencies to organize traffic around the Patimban seaport development location; c.Installing sign of construction warning signs in the entry and exit access of patimban seaport development location; d.Arranging schedule of heavy equipment and materials mobilization not in the vehicle peak hours; e.Placement of officer to arrange traffic in the entry and exit access of patimban seaport development location; f.Implementing ANDALLALIN (Assessment Impact of Traffic) recommendation. [DGST, CP1, CP2, CP3, CP4] | During February to May, no accident and traffic jam related to the project was reported. No recorded occurence of traffic jam at Pusakanagara road going to Jobsite confirmed, because construction equipment and materials were being transported during night time (as requirements). The type/weight of equipment and speed were restricted.Image: Speed to the project was reported for the type of type |
| | Transportation at night time |
| | Implementation Package 2: No vehicle activities related to the project was reported during February to May. Therefore, no accident was reported. |
| | Implementation Package 4: Equipment with appropriate and sufficient signs. Completing with flagman for traffic control. |

| _ | | | | | | |
|---|--------------------------|--|---|--|--|--|
| | | | | | | See the attachment of land traffic conditions and accident numbers. |
| 3 | C Sea traffic disruption | No occurrence of ship collision on the Patimban area | Heavy equipment and materials mobilization | a. Coordinating with UPP (Port Operator Unit) Pamanukan about material transporting route on the sea; b. Coordinating with Tanjung Priok Navigation District about materials transporting sailing line; c. Socializing materials transporting route to the fishermen; d. Organizing material transporting time; e. Implementer contractor open the communication with the ships around materials transporting route. [DGST, CP1, CP2, CP3, CP4] | a. Monitoring sea traffic condition; b. Identifying accident number that occurred. [CP1, CP2, CP3, CP4] | Sea traffic condition related to the project is being monitored periodically. Implementation Package 1: During February to May, no recorded occurrence of ship collision at patimban waters. Offshore activities are being coordinated with patimban harbor master and necessary permits have been secured before start of works. Sea traffic condition in construction area Implementation Package 2: No major sea activity was conducted during March to April. No accident was reported. |
| 3 | D Public unrest | No public unrest occurrence. | Heavy equipment and materials mobilization. | a. Socializing transporting route of heavy equipment and materials mobilization to the nearest community; b. Socializing the materials transporting route to the fishermen; c. Establishing a Grievance Redress Center /Fast Response Team to accommodate and responds to public unrest related to the Patimban Seaport; | a. Measurement of the amount of grievances raised of heavy equipment and materials mobilization activity. Its identification shall be acquired by interview survey. b. Measurement of the amount of protest and demonstration raised to the representative office. The data shall be collected by evidences of related reports to the local government, or to project | Implementation Package 1 Interview to the people around the project site on May 2019. Sample number is determined by purposive sampling for people affected. The respondents were selected from various background such as local leader, people affected, and fishermen. Public unrest percentage about heavy equipment and material mobilization is shown on chart below. |

| | d. Making community discussion forum with local government to find solution on problems aroused by the development activity. [DGST, CP1, CP2, CP3, CP4] | implementing representatives (secondary data) c. Regarding to the information and data that need to be explored deeper, shall conducted in-depth interview with key informants, such as with local elderly representatives; d. Sampling population is calculated purposively. [DGST, CP1, CP2, CP3, CP4] | Public Unrest about Heavy Equipment and Material Mobilization |
|--|--|---|--|
| | | | In order to maintain the public unrest condition to meet the minimum level for people not to feel worried, the contractors conducted the material and heavy equipment transportation by night time to avoid traffic jam. In addition, the contractor conducted the CSR program (beyond compliance) for public infrastructure such as renovation for Mosque and donation for orphans in Pusakaratu village, besides the LRP program as mandatory requirement. |
| | | | Donation for Orphan in Puskaratu Village |

| Γ | | | | | | | |
|---|----|---|---|--|--|---|--|
| | | | | | | | Donation for Road pavement in Dusun Genteng |
| | 4. | Reclamation and off- | shores facility develop | pment | | | |
| | 4A | Deterioration of sea water quality (TSS). | TSS concentration below environment quality standard based on Kepmen LH No 51 year 2004 Sea water quality standard Appendix I (80 mg/L). | Reclamation activity and off- shore facility development. | a. Reclamation activity is conducted in the water area which has been bordered by seawall; b. Minimizing dumping volume as much as possible by adopting the newest technology such as Cement Pipe Mixing. [CP1, CP2] | Conducting sea water quality laboratory analysis, after which the results are compared with the air quality standard quality based on Kepmen LH no. 51 year 2004. Furthermore, monitoring results are converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and controlling status with the critical level. | Implementation Package 1 The activity has not yet started. |
| | 4B | Fishing ground change. | No report of fishing area disruption and/or decreasing of fishermen production/income | Reclamation activity and off- shore facility development. | a. Communicating and socializing with fishermen community about reclamation and off-shores facility development. b. Making basic rumpon (artificial fish shelter) according to the Regulation of Marine and fisheries ministry Republic of Indonesia No. 26/Permen-KP/2014 around Patimban waters out of DLKP (Regional Sphere of Interest) and DLKR (working area) Patimban seaport. | a. Collecting data of number of grievances raised, by analyzing the results of consultations taken during the survey; b. Monitoring fisheries production and its condition by interview with fishermen. | Implementation Package 1 a. There are no related complaints number based on contractor's survey. b. Rumpon (artificial fish shelter) is under preparation. Meanwhile, based on community assessment, the majority of the community is asking for gillnet training (Rampus) as a program to restore their livelihood. Therefore, the priority program while rumpon is being prepared, the subject training is being conducted (as described in LRP training). |
| | 4C | Public unrest. | No public unrest occurrence. | Reclamation activity and off- | a. Socializing to the fishermen about rumpon (artificial fish | a. Identification of number of grievances risen due to | Implementation Package 1 |

| | | | shore facility development. | shelter) installation plan according to the Regulation of Marine and fisheries ministry Republic of Indonesia No. 26/Permen-KP/2014 around Patimban waters out of DLKP (Regional Sphere of Interest) and DLKR (Area Work) Patimban seaport; b. Making Grievance Redress Center/Fast Response team to accommodate and respond to public unrest related to the Patimban Seaport development project; c. Organizing community discussion forums with local governments to solve problems that rise during the development activity. | reclamation activity b. Identification by interview using questionnaire (primary data); c. Identification of number of people protesting and demonstrating against the project implementing representative office shall be gained from such cases reported to the local government or to the project implementing representative office (secondary data); d. Regarding to the information and data that need to be explored deeper, shall conducted in-depth interview with key informants, such as with | Interview to the people around the project site on May 2019. Sample number is determined by purposive sampling for people affected. The respondents are selected from various background such as local leader, people affected, and fishermen. Public unrest percentage about reclamation and offshore facility development is shown on chart below. |
|---------|--|--|--------------------------------|--|---|---|
| | | | | [DGST, CP1, CP2] | local elderly representatives; e. Sampling population is calculated purposively. | In order to minimize the public unrest due to reclamation activity and offshore facility development, the contractor socialized to communities, up to date technology that is used such as Cement Pipe Mixing technology, and also CSR program as mentioned above. |
| 5 | Dredging and dumping | ησ | | | | |
| 5 5A | Dredging and dumpin Deterioration of sea water quality (TSS). | ng TSS concentration below environment quality standard based on Kepmen LH No 51 year 2004 Sea water quality standard Appendix I (80 mg/L). | Dredging and dumping. | a. Constructing seawall in the early phase; b.Installing silt protector around dredging area by grab dredging; c. Disposing dumping materials not at one spot but to disperse them in dumping area; d. Using proper equipment for dredging and dumping. | Conducting TSS measurement, after which the results are compared with the sea water quality standard based on Kepmen LH no. 51 year 2004. Furthermore, monitoring results shall be converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and control status with the crictical level. [CP1] | CP1 Implementation: During March to May 2019, the TSS concentrations meet the Indonesian standard according to MoE Decree No. 51/2004. However, there were 12 days in March, at which point the impacted sites were more than 10 mg/L, particularly, at the shallower sites closer to shore (e.g., sites W1, W2, W4, and W11) and Site W3. Above points are recorded that the shallower sites closer to shore were occasionally higher than 20 mg/L ,more than reference site value in Week 17 and Week 18 (i.e on 7 March 2019, 20 March 2019, 27 March 2019 and 28 March 2019). In this period, TSS concentrations were relatively consistent across the study area, with TSS ranging from 1.70 – 52.27 mg/L and standard deviation of 6.2 mg/L. Turbidity levels were ranging from 1.38 to 42.40 NTU across all sites. TSS and turbidity were similar in the bottom and surface layers |



| | | | | | | Sampling Activity Silt protector was installed during dredging activities |
|----|--------------------------------------|--------------------------------|-----------------------------------|--|---|---|
| 6. | On-shore facility dev | elopment | | | | |
| 6A | Increasing of water run-off rate. | No flooding. | On-shore facility development. | a. Make drainage that can drain water run-off; b. Optimizing of RTH (Green Open Space) on the unused land; c. Coordinating with Bina Marga and Irrigation Agency, related on drainage construction in the seaport location. | Direct monitoring on the state and function of drainage channel and RTH (Green Opened Space). [DGST] | DGST Implementation: The activity has not yet started. |
| 68 | Public unrest | No public unrest occurrence | On-shore facility development | a. Develop a new irrigation channel to replace disconnected irrigation channels affected by On- shore facility development; b. Develop underpass/fly over or moving the road on the public access road which is crossed with Patimban seaport access road; c. Develop complaint center/fast response team to accommodate and response public unrest to the Patimban Seaport development; d. Develop community discussion forum with local government to solve the | a. Monitoring of new irrigation channel as replacement of disconnected irrigation channel; b. Monitoring underpass/fly over on the public access road which is crossed with Patimban seaport access road c. Measure of number of anxiety due to On-shore facility development activity; d. Measurement conducted by interview with questionnaire toolkit (primary data); e. Measure the amount of people protest and demonstration to the initiator representative office taken | Implementation Package 1 The activity has not yet started. |

| | | | | problem that arouse when development activity. [DGST] | from local government or office representative (secondary data); f. Regarding to the information and data that need to be explored deeper, shall conducted in-depth interview with key informants, such as with local elderly representatives; g. Sampling population is calculated purposively. | |
|----|--|--|---|---|---|---|
| N | lanagad athan anvinan | montal impost | | | [DG81] | |
| | ONSTRUCTION PH | Mental Impact | | | | |
| 2. | Procurement of Lab | or and Basecamp one | ration | | | |
| 2A | Deterioration of sea water quality. | Sea water is not polluted by workers domestic waste. | Procurement of labor and Basecamp operation. | Installation of portable toilet and waste water processing facility such as septic tank and its maintenance. [CP1, CP2, CP3, CP4] | Confirmation and maintenance of sanitary facility, waste water management facility. [CP1, CP2, CP3, CP4] | The waste water management and sanitary system were being implemented by Contractors at the job site and workers accommodation. Maintenances are scheduled periodically (housekeeping). All non-hazardous waste coming from marine activity area are stored at the jetty or causeway before they are disposed by the licensed waste transporter (3rd Party). A designated bin near the project site and site office area also be collected by the waste transporter (3rd Party). PTRPW has collaborated with BANK SAMPAH (local provider form Patimban village) for Industrial waste management. |



| | | | | | | FLOW CHART IPAL BIOTANK LABOR CAMP |
|----|---------------------------------------|--|---|---|---|---|
| 2B | Appearance of infectious diseases. | The number of patients and infectious diseases are not increased related with workers in construction phase. | Procurement of labor and Basecamp operation. | a. Coordination with related institution and NGO due to HIV/AIDS prevention program, including socialization about sexual infectious diseases prevention; b. Coordination with related institution due to the treatment for sexual infectious diseases patients, gonorrhea, and syphilis by injection and oral method in the Pusakanegara public health center (Puskesmas). Routine examination (every 3 months) by VCT (Voluntary Counseling and Testing) method; c. Cooperating with Warga Peduli AIDS (WPA) at the village level to conduct ODHA positive activity (People with HIV / AIDS), such as gathering activity. | a. Collecting report about implementation of HIV / AIDS prevention program; b. Collecting report on maintenance of sanitary facility, waste water management facility, and garbage dump; c. Identifying the number of patients comparing with data before construction. [CP1, CP2, CP3, CP4] | On March 29th 2019, the Seminar already conducted by CP 1, attended by 85 participants. The event divided by two sessions, first session attended by 49 participants at 8.45 am, while the second attended by 36 participants at 10.00 am. The participants from; DGST, PatimOne, CP 1, and the Contractors (photos as attach). Meanwhile the facilitators from Subang Regency Health Department (Mr. Suwata and Mrs. Susi). The seminar describes about general understanding about HIV / AIDS and sexually transmitted infection, HIV / AIDS in West Java (especially in Subang regency), disease transmission process, prevention, and treatment. At the ends of session, the facilitator shares mini bags (educational media, and condom) for 30 Pax. Mit Seminar |

| | | | | d. Developing sanitary facility, temporary garbage collection place (TPS), and processing facility [CP1, CP2, CP3, CP4] | | On May 13th, HIV / AIDS Prevention program has implemented information, education communication campaign in Door to Door approach program. ISOS Paramedic encourage community awareness to get clear information about HIV / AIDS; HIV is preventable, can be avoided by Abstinence, Loyal with one partner, Knowing the HIV status, and Condom to prevent the infection. In addition, the sterile syringe usage is a mandatory for medical treatment. |
|----|---------------------|--------------------------|--|--|--|---|
| | | | | | | Door to Door public awareness for Infectious Diseases |
| 3. | Heavy equipment and | a materials mobilizati | ion | | | D 1 1 |
| 3A | Road damage | Minimized road damage | Equipment and materials mobilization | a. Choosing the as minimum as possible for transporting equipment and material that exceed road capacity; b. Material transportation for construction shall be based on road class and driving license; c. Heavy equipment shall meet the requirement of directorate general of land transportation regarding Technical guidelines for the heavy vehicle operation on the road (Ministry of Transportation Regulation Number PM 32 Years 2016; | Monitoring directly of road condition Analysis based on consultant survey [CP1, CP2, CP3, CP4] | Package 1: The contractor uses the public road for access to site is restricted to light construction equipment and transporting during night time with limited speed. The road condition shows that no damage was caused by the Patimban Port activity (No road damage was reported during February to May). |

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|--|--|---|--|
| | | d. Rehabilitation of road if there is damage caused by | The road condition are shown on pictures below. |
| | | project activity; e. Vehicle using tarpaulin f. Coordination with Bina Marga and Irrigation Agency of Subang Regency in managing (repairing) if there is Road damage. | |
| | | [CP1, CP2, CP3, CP4] | Pantura - Pusakanagara |
| | | | Gempol Intersection |
| | | | Kalentambo The Road Condition |
| | | | Package 2: During the construction of land clearing, cut and fill for site office Package 2 in May, many trucks passed the access road to mobilize materials and road was damaged .(under clarification) |
| | | | |



| | Т | | | | | Package 1: |
|----|--------------------------------|--|---|---|--|--|
| | | | | | | Road renairs have been made |
| 3B | Increasing of noise. | Noise intensity according to Ministerial decree of environment ministry No. Kep. 48/MENLH/II/1996 | Equipment and materials mobilization. | a. Heavy equipment and materials mobilization using Patimban seaport construction access road which is relatively quiet and away from settlements; b. Heavy equipment and materials mobilization are not conducted in convoy; c. Vehicle speed setting; d. Using proper vehicle. [CP1, CP2, CP3, CP4] | Conducting noise laboratory analysis, the results shall be compared with the noise standard refer to Kepmen LH No. 48 year 1996. Furthermore, monitoring results shall be converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and crictical level. [CP4] | Package 4: <u>Road repairs have been made.</u> CP 1 Implementation: Traffic condition affected by the project is being monitored periodically. Vehicle volume survey is conducted once a month. CP 2 Implementation: The activity has not yet started CP 3 Implementation: The activity has not yet started CP 4 Implementation: 1. Trucks and tools are maintained periodically; 2. Noise measurements has been conducted on April 2019. The data result is shown in attachment (table 9) Only STA 0 is above the standard, this station is located along the Pantura, so this may not derive from the construction activities. |
| | | | | | | |
| | | | | | | The situation around of noise sampling point STA 0 |
| 4 | Reclamation and Ma | rine Facility Construct | ction (Supplementar | y Note on Approved AMDAL/El | A) | |
| 4A | Disturbance of fishing ground. | No disturbances on marine biota (necton and benthos) | Reclamation and Marine Facility Construction. | N/A | a. Monitoring regarding to the complaint received and analyze based on consultant survey; b. Monitoring the fishery condition and productivity by interview the fishermen. [CP1] | CP1 Implementation: In reference to the baseline survey results, a total of 182 individual fish, crustaceans, and Mollusca comprising 16 taxa were recorded during the baseline survey: Amusium pleuronectes, Arothron sp., Engraulidae sp., Eleutheronema tetradactylum, Gerres filamentosus, Harpiosquilla raphidea, Johnius sp., Leiognathus equulus, Moolgarda sp., Nemipterus japonicas, Penaeus merguiensis, Saurida tumbil, Selaroides leptolepis, Siganus sp., Solea solea, and Terapon puta. The most abundant fish species found within the area are Leiognathus equulus (125 individuals) and Engraulidae sp. (18 individuals), |

| | | | | | | while the most abundant crustacean species are Harpiosquilla raphidea (seven individuals) and Penaeus merguiensis (six individuals). Species richness ranged from three species at sites N1 (west study area) and N3 (east study area) to 10 species at site N4 (north study area, near the spoil ground). |
|----|--|--|----------------------------------|---|---|--|
| 5. | Dredging and Dispo | sal (Supplementary N | Note on Approved Al | MDAL) | | |
| 5A | Disturbance of Marine Life (Nekton and Benthos) | Sediment quality is not deteriorated | Dumping activity | N/A | a. Monitoring of dredging material sediment quality before dumping b. Bathymetry survey in dumping location c.[CP1] | CP1 Implementaion: Baseline of lead (Pb) in the sediment (see table 10) was exceeding standard 1 and 2 which are considered as reference levels; however, it satisfied standard 3 which is suitable as the standard for this monitoring activity based on the EIA document. (Standard 3 is the level that aquatic life may be affected in accordance with Canadian Sediment Quality Guidelines (SQG) for the Protection of Aquatic Life, while standard 1 and 2 are just screening levels.) In addition, construction works which cause Pb pollution have not been conducted in the project. Thus, we conclude that specific mitigation measures are not necessary at this moment. However, we will watch Pb value together with another parameters carefully, and if Pb value will become deteriorate due to the construction |
| 6. | On-shore facility d | evelopment | | | | work, we will implement necessary mitigation measures. |
| 6A | Deterioration of air quality (TSP and emission) | Concentration of SO ₂ , CO, NO ₂ and TSP not to exceed air quality standard based on Government regulation No. 41 year of 1999 on Air pollutions control | On-shore facility development | a. Maintenance of trucks and equipment to keep them. in good condition; b. Using loading sheets whenever transported construction materials (if necessary); c. Provide guardrail from iron sheeting with minimal height 2.5 meter (if necessary). [DGST, CP3, CP4] | Conducting air quality laboratory analysis, after which the results shall be compared with the air standard quality based on PP No. 41 year of 1999. Furthermore, monitoring results shall be converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and control status with crictical level. [CP4] | DGST Implementation: No Data Record CP 3 Implementation: The activity has not yet started CP 4 Implementation: 1.Air quality measurement was conducted in April 2019. The monitoring results of air quality with 5 parameters (SO ₂ , CO, NO ₂ , PM ₁₀ , TSP) were below the threshold as shown in attachment. 2.Roads were sprinkled regularly to reduce dust pollution. Dust pollution tends to be under control and within limits. Image: Comparison of the pollution of the pollutin of the pollution of the pollution of the pollution of the pollu |

Road sprinkled by water spray Road cleaning due to materials spill 1. Building washing places for vehicle wheel cleaning. Every construction vehicle operating at public roads will undergo vehicle wheel wash first. washing places for vehicle wheel cleaning. Every construction vehicle operating at public roads will undergo vehicle wheel wash first. 203 2. Vehicle feasibility check

| | | | | | | <image/> 3. Material transport trucks are required to be provided with loading sheets. a. Every state of the sheet of the she |
|----|---------------------------------------|---|-----------------------------------|--|--|--|
| 6B | Increasing of noise. | Noise level is below environment quality standard based on Kepmen LH No 48 Year 1996 about Noise level standard. | On-shore facility development. | a. Regularly treatment of trucks and equipment in order to maintain fit for operating; b. Avoiding construction activity that cause noise to conducted at night, such as mounting pile. [DGST, CP3, CP4] | Conducting noise parameter laboratory analysis, the results shall be compared with the noise standard quality based on Kepmen LH No. 48 year 1996. Furthermore, monitoring results shall be converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and crictical level. [CP4] | C4 Implementation: Regular maintenance of trucks and equipment to keep them in good condition. There are no construction activities that cause noise at night. Noise measurements has been conducted on April 2019. Conducting noise testing at 3 points during construction process every 6 months. According to laboratory data result attached herewith (as shown in Table 9), the baseline data, namely; STA 0 +000; STA 2 + 700 and STA 7 +000, in October 2018, the measurement results showed that the STA 0 + 000 noise level have had exceeded the required threshold before the activity. While for STA2 700 and STA 7 +000, it was not exceeding the required threshold. |
| 6C | Deterioration of sea water quality | Sea water quality not to deteriorate drastically because of project activity. | On-shore facility construction | Reducing or regulating waste water discharge volume produced by former fishpond location during landfill process. | Conducted sampling of sea water after which the results were compared with Kepmen LH No. 51 year of 2004. | CP1 Implementation: The waste management and sanitary system were being implemented by CP1 at the jobsite and workers |

| | | | | [DGST, CP3, CP4] | Furthermore, monitoring results shall be converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and control status with crictical level. [CP1] | accommodation. Waste is separated according to type of waste. Garbage is moved out from jetty by local service provider. And secondary containment is provided for oil spill handling. Maintenance is being conducted by scheduled housekeeping. In general, physical water quality parameters were relatively consistent across the study area In general, physical water quality parameters were relatively consistent across the study area and across depths, suggesting that the water column is well mixed. Water temperatures at surface and in bottom layers were 25°C. Dissolved oxygen (DO) concentrations ranged from 6.24–9.24 mg/L at the surface and 6.36–8 mg/L in the bottom layer. Although there are no Indonesian or Japanese marine water quality standards for DO, concentrations of <7 mg/L are considered to be low for coastal environments. The pH varied from 8.184 to 8.567. The pH in some points above the standard value. Sea water quality monitoring data shows that water quality values are basically stable in comparison with pre-construction respective values. Thus, we think that no specific deterioration of value was confirmed at this point, by impact from construction activity as of yet, and that the monitoring data value comes from mainly natural phenomena. Thus, we will watch pH value carefully, and if pH value will become deteriorate due to the construction work, we will implement necessary mitigation measures. |
|----|--|---|----------------------------------|---|---|--|
| 6D | Disruption of terrestrial fauna (bird) | Presence of habitats for terrestrial fauna | On-shore facility development | a. Provide new habitat (such as plant mangrove) for terrestrial fauna and maintain that habitat; b. Workers are not allowed to disturb terrestrial fauna around activity location. [a; DGST, b; CP1, CP2, CP3, CP4] | a. Reporting of the new created habitat; b.Direct monitoring in the fields. [DGST] | The activity has not yet started |

| | T | | | | | |
|----|---|---|--|--|--|---|
| 6E | Disruption of terrestrial flora | Presence of habitats for terrestrial flora | On-shore facility development | a. Provide new habitat (such as planting mangroves) for terrestrial flora and maintain that habitat b. Workers are not allowed to disturb terrestrial flora around activity location. [a; DGST, b; CP1, CP2, CP3, CP4] | Reporting of the new created habitat. [DGST] | The activity has not yet started |
| 7 | Access road develo | nment | | | | |
| 7A | Deterioration of air quality (TSP and emission) | Concentration of SO ₂ , CO, NO ₂ and TSP not to exceed air quality standard based on Government regulations No. 41 years 1999 on Air pollutions control | Access road development activity | a. Maintenance of trucks and equipment to keep them maintained and fit to operate. b. Using loading sheets on truck that bring construction materials (if necessary); c. Develop guardrail made of iron sheeting with minimal height 2.5 meter (if necessary). [CP3, CP4] | Conducting air quality laboratory analysis, in which the results shall be compared with the air standard quality based on PP No. 41 years 1999. Furthermore, monitoring results are converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and controlled status with crictical level. [CP4] | CP 3 Implementation: The activity has not yet started CP 4 Implementation: Air Quality measurements has been conducted on April 2019. The laboratory data results are attached here, as shown at table 9. 2. Roads are sprinkled regularly to reduce dust pollution. Dust pollution tends to be under control within limits. |



| | | | | | | 7.Build special access road for trucks to operate. Image: Constraint of the special access road for trucks to operate. Image: Constraint of the special access road for trucks to operate. Image: Constraint of the special access road to batching plant & project site |
|----|---|---|--|--|--|--|
| 7B | Increasing of noise | To maintain noise level below environment quality standard based on Kepmen LH No 48 year of 1996 about Noise level standard | Access road development activity | a. Maintenance of trucks and equipment to keep them in good condition; b. Avoiding construction activity that cause noise at night. [CP3, CP4] | Conducting noise parameter laboratory analysis, the results shall be compared with the noise standard quality based on Kepmen LH No. 48 year 1996. Furthermore, monitoring results shall be converted into average values and compared from time to time (data trend) to see the tendency of environment quality change and crictical level. [CP4] | CP 3 Implementation: The activity has not yet started CP 4 Implementation: 1.Trucks and equipment are maintained periodically. 2. Noise measurements had been conducted on April 2019. The data results are attached herewith (Table 9) |
| 7C | Deterioration of surface water quality | Maintain surface water quality below environment quality standard based on PP No. 82 year 2001 on Water quality management and Water pollution control | Access road development | Prevention to reduce turbidity of water bodies such as by installation of drainage channel or emergency retention pond during construction process. [CP3, CP4] | Monitoring TSS values, using turbidity meter. [CP4] | CP 3 Implementation: The activity has not yet started CP 4 Implementation: 1. Drainage channel were built during construction process. |

| | | | | | | 2. Surface Water quality monitoring Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Image: Constraint of the system Imag |
|----|-------------------------------------|-------------------------------------|----------------------------|--|-------|--|
| 7D | Increasing of water run-off rate | Excessive run-off does not occur | Access road development | Installation of drainage channel or emergency retention pond during construction process [CP3, CP4] | [CP4] | CP 3 Implementation: The activity has not yet started CP 4 Implementation: 1. Creating drainage channels during the construction process CF 4 Implementation: 1. Creating drainage channels during the construction process CF 4 Implementa |

Note: DGST ;Directorate General of Sea Transportation, Ministry of Transportation Republic of Indonesia CP1; Contractor of Package-1 CP2; Contractor of Package-2 CP3; Contractor of Package-3 CP4; Contractor of Package-

2. Details on Natural Environment



Figure Survey area for the Patimban Port construction monitoring.

O ProjectActive_Projects/POCC8964LagoutConstructor Manifering Sampling Location Fab 2018 v2 mod

Table 1 Quarterly sea water sampling result (March 2019)

| Paramotor | Layer | Unit | Indo. Std ¹ | Japan Std ² | W1 | W2 | W3 | W4 | W5 | W6 | W7 | W8 | 6M | W10 | W11 | W12 |
|---|---------|------------|------------------------|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|
| Physical Parameters | | | | | | | | | | | | | | | | |
| Odour | Surface | | | | Odourless | Odourless | Odourless | Odourless | Odourless | Odourtess |
| Temperature | Surface | °C | | | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.1 | 25.1 | 25.0 | 25.0 | 25.0 |
| | Bottom | °C | | | 25.1 | 25.0 | 25.0 | 25.0 | 25.2 | 25.0 | 25.1 | 25.2 | 25.0 | 25.0 | 25.0 | 25.1 |
| Salinity (in situ)* | Surface | PSU | | | 4.7 | 5 | 3.5 | 4.2 | 4.2 | 5 | 3.1 | 3 | 3.3 | 3.2 | 5.2 | 5.3 |
| | Bottom | PSU | | | 4.8 | 5.2 | 3.6 | 4.5 | 4.2 | 5.2 | 2.9 | 3.3 | 3.4 | 3.3 | 5.2 | 5.2 |
| Salinity (lab) | Surface | PSU | | | 25 | 29 | 28.2 | 25.7 | 28.4 | 28.7 | 31.7 | 31.4 | 31.5 | 31.8 | 30.3 | 29.4 |
| | Bottom | PSU | | | 25.6 | 29.6 | 28.9 | 28.7 | 28.9 | 29.1 | 31.8 | 31.7 | 31.6 | 31.5 | 30.1 | 29.9 |
| Dissolved oxygen (DO) | Surface | mg/L | | | 6.83 | 6.77 | 6.55 | 8.1 | 7.69 | 6.94 | 6.59 | 7.02 | 7.21 | 6.24 | 9.24 | 6.55 |
| | Bottom | mg/L | | | 6.92 | 6,8 | 6.62 | 6.36 | 8.1 | 6.97 | 7.35 | 7.27 | 6.38 | 7.29 | 8.73 | 6.78 |
| PH | Surface | pH units | 6.5-8.5 | 7.0-8.3 | 8.435 | 8.549 | 8.44 | 8.528 | 8.498 | 8.329 | 8.483 | 8.474 | 8.184 | 8.459 | 8.599 | 8.443 |
| | Bottom | pH units | 6.5-8.5 | 7.0-8.3 | 8.524 | 8.557 | 8.492 | 8.476 | 8.528 | 8.346 | 8.488 | 8.468 | 8.271 | 8.429 | 8.567 | 8.456 |
| Total suspended solids (TSS) | Surface | mg/L | 80 | | 9.3 | 7 | 2 | 9 | 2 | 2 | v | 2 | - | 2 | 10 | 3 |
| | Bottom | mg/L | 80 | | - | 6 | 4 | - | - | - | ~ | ~ | - | 12.7 | 8 | - |
| Turbidity (in situ) ³ | Surface | NTU | | | 19.8 | 9.45 | 10.6 | 9.72 | 6.38 | 7.69 | 1.69 | 2.86 | 4.02 | 3.52 | 12.7 | 7.24 |
| | Bottom | NTU | | | 10.1 | 13.8 | 4.66 | 8.51 | 3.87 | 3.97 | 3.47 | 3.35 | 4.88 | 4.28 | 13.3 | 4.61 |
| Turbidity (lab) | Surface | NTU | | | 16.2 | 11.1 | 2 | 9 | 2 | 2 | ~ | 2 | - | 2 | 10 | 3 |
| | Bottom | NTU | | | 11.2 | 13.9 | 5.7 | 8.7 | 3.9 | 3.9 | 3.9 | 2.7 | 4.7 | 5.8 | 11.6 | 5.8 |
| Clarity / Transparency ³ | Surface | E | 23 | | 0.7 | 0.6 | 2.3 | 1.1 | 2.5 | 0.8 | 7.5 | 6 | 1.25 | 2.5 | 0.4 | 2.3 |
| Nutrients and Anions | | | | | | | | | | | | | | | | |
| Ammonia (N-NH ₃) | Surface | mg/L | 0.3 | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Total Phosphate (P-PO4) | Surface | mg/L | | | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Sulfide - Unionized | Surface | mg/L | 0.03 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Dissolved Metals | | | | | | | | | | | | | | | | |
| Cadmium (Cd) | Surface | mg/L | 0.01 | 0.003 | 0.0001 | < 0.0001 | 0.0001 | < 0.0001 | < 0.0001 | < 0.0001 | < 0.0001 | < 0.0001 | < 0.0001 | < 0.0001 | 0.0001 | < 0.0001 |
| Copper (Cu) | Surface | mg/L | 0.05 | | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 |
| Lead (Pb) | Surface | mg/L | 0.05 | 0.01 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Zinc (Zn) | Surface | mg/L | 0.1 | | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 |
| Mercury (Hg) | Surface | mg/L | 0.003 | 0.0005 | <0.00005 | <0.00005 | <0.00005 | <0.00005 | <0.00005 | <0.00005 | <0.00005 | <0.00005 | <0.00005 | <0.00005 | <0.00005 | <0.00005 |
| Micro-biology | | | | | | | | | | | | | | | | |
| Total Coliforms | Surface | MPN/100 ml | 1,000 | 1,000 | 1600 | 1600 | >1600 | >1600 | >1600 | 1600 | 17 | 22 | <2 | 220 | 240 | 1600 |
| Others | | | | | | | | | | | | | | | | |
| Oil & Grease | Surface | mg/L | - | | 4 | 2 | 2 | ~ | 4 | 2 | 4 | 4 | Ļ | 4 | 2 | ~ |
| Total Phenol | Surface | mg/L | 0.002 | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Surfactant / Detergent (MBAS) | Surface | mg/L | - | | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Total Hydrocarbons | Surface | mg/L | - | | ÷ | ۰1 ۲ | ÷ | - | ŕ | ۰ ۲ | <u>م</u> 1 | ÷ | ŕ | <1 | - | ۰ ۲ |
| Total Polychlorinated Biphenyl (PCB) | Surface | mg/L | 0.00001 | Not detected | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 |
| Tributyttin (TBT) | Surface | mg/L | 0.0001 | | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 | < 0.00001 |
| | | | | | | | | | | | | | | | | |

Note : Equipment malfunction Indonesia Standard: Decree of Minister of Environment No.51/2004 on Sea Water Quality Standard (Appendix 1 - Sea Area, Port) Indonesia Standard: Decree of Minister of Environment No.51/2004 on Sea Water Quality Standard (Appendix 1 - Sea Area, Port) Japan Standard: Water rollution Control Law (Human Health) Data not presented for fite W13 due to a regiment mallinoticito There are no indonesian or Japanese water quality standards for turbidity in ports Three are no indonesian or Japanese water quality standards for turbidity in ports

| Result exceeded Indonesian standard |
|--|
| Result exceeded Japanese standard |
| Result exceeded both Intonesian and Japanese standards |

Result

ļ

| Dete | | | | | Total Su | spended | l Solid | (mg/L) | | | | |
|-----------|------|-------|-------|------|----------|---------|---------|--------|------|------|------|-------|
| Date | W12 | W1 | W3 | W5 | W2 | W4 | W6 | W7 | W8 | W9 | W10 | W11 |
| 1-Mar-19 | 3.24 | 6.15 | 3.30 | 4.32 | - | - | - | - | - | - | - | |
| 2-Mar-19 | 3.58 | 15.29 | 6.40 | 3.55 | - | - | - | - | - | - | - | |
| 3-Mar-19 | 5.65 | 9.41 | 3.85 | 4.12 | - | - | - | - | - | - | - | |
| 4-Mar-19 | 5.30 | 7.22 | 5.33 | 4.36 | - | - | - | - | - | - | - | |
| 5-Mar-19 | 8.93 | 24.41 | 13.07 | 7.87 | 11.65 | 11.45 | 9.48 | - | - | - | | 15.66 |
| 6-Mar-19 | 5.66 | 12.95 | 7.92 | 7.13 | - | - | - | - | - | - | - | - |
| 7-Mar-19 | 5.55 | 29.59 | 9.41 | 5.83 | 21.33 | 34.89 | 5.46 | 2.08 | 3.53 | 4.96 | 4.34 | 15.78 |
| 8-Mar-19 | 7.08 | 17.14 | 11.39 | 7.46 | - | - | - | - | - | - | | - |
| 9-Mar-19 | 3.42 | 13.56 | 6.53 | 3.28 | - | - | - | - | - | - | - | |
| 10-Mar-19 | 2.59 | 7.25 | 7.57 | 6.03 | - | - | - | - | - | - | - | |
| 11-Mar-19 | 4.51 | 9.04 | 2.68 | 6.35 | - | - | - | - | - | - | - | |
| 12-Mar-19 | 4.15 | 13.44 | 4.03 | 6.26 | - | - | - | - | - | - | - | |
| 13-Mar-19 | 7.36 | 14.06 | 7.98 | 5.42 | 13.19 | 11.80 | 6.32 | 1.96 | 1.70 | 3.06 | 4.96 | 20.47 |
| 14-Mar-19 | 5.91 | 11.86 | 7.02 | 6.14 | - | - | - | - | - | - | - | - |
| 15-Mar-19 | 5.41 | 8.06 | 8.29 | 7.00 | - | - | - | - | - | - | - | |
| 16-Mar-19 | 6.36 | 5.83 | 8.61 | 5.70 | - | - | - | - | - | - | - | |
| 17-Mar-19 | 4.32 | 7.72 | 16.89 | 6.18 | - | - | - | - | - | - | - | |
| 18-Mar-19 | 7.82 | 9.39 | 8.04 | 7.41 | - | - | - | - | - | - | - | - |
| 19-Mar-19 | 5.63 | 6.81 | 7.06 | 4.65 | - | - | - | - | - | - | - | |
| 20-Mar-19 | 9.33 | 12.45 | 6.44 | 7.56 | 11.48 | 14.67 | 6.44 | 2.37 | 2.21 | 2.18 | 2.50 | 52.27 |
| 21-Mar-19 | 3.75 | 8.69 | 8.45 | 6.69 | - | - | - | - | - | - | - | - |
| 22-Mar-19 | 5.05 | 20.22 | 6.89 | 7.00 | - | - | - | - | - | - | - | - |
| 23-Mar-19 | 6.66 | 13.81 | 6.72 | 9.80 | - | - | - | - | - | - | - | |
| 24-Mar-19 | 9.06 | 11.52 | 8.35 | 7.80 | - | - | - | - | - | - | - | |
| 25-Mar-19 | 6.02 | 8.04 | 6.18 | 5.01 | - | - | - | - | - | - | - | - |
| 26-Mar-19 | 8.61 | 5.56 | 5.31 | 4.50 | - | - | - | - | - | - | - | - |
| 27-Mar-19 | 3.00 | 35.51 | 6.92 | 4.51 | 29.34 | 30.45 | 3.34 | 2.43 | 3.16 | 3.65 | 2.40 | 10.32 |
| 28-Mar-19 | 3.49 | 31.69 | 4.51 | 4.49 | - | - | - | - | - | - | - | - |
| 29-Mar-19 | 5.01 | 8.11 | 4.88 | 3.45 | - | - | - | - | - | - | - | - |
| 30-Mar-19 | 5.82 | 5.08 | 2.38 | 3.61 | - | - | - | - | - | - | - | - |
| 31-Mar-19 | 4.19 | 5.29 | 4.12 | 5.99 | - | - | - | - | - | - | - | - |

Table 2 Daily Monitoring for TSS results at surface-layer (1-31 March 2019)

Note: W12 is a reference site.

>10 and <= 20 mg/L above reference site

> 20 above reference site and < 80 mg/L

>= 80 mg/L

| Dete | | | | | Total Su | Ispende | d Solid | (mg/L) | | | | |
|-----------|------|-------|-------|------|----------|---------|---------|--------|------|------|------|-------|
| Date | W12 | W1 | W3 | W5 | W2 | W4 | W6 | W7 | W8 | W9 | W10 | W11 |
| 1-Mar-19 | 4.14 | 5.70 | 5.56 | 4.14 | | | | | | | | |
| 2-Mar-19 | 3.64 | 16.03 | 6.90 | 5.15 | | | | | | | | |
| 3-Mar-19 | 4.85 | 10.52 | 6.10 | 4.69 | | | | | | | | |
| 4-Mar-19 | 8.52 | 6.07 | 7.84 | 5.30 | | | | | | | | |
| 5-Mar-19 | 5.68 | 12.45 | 5.75 | 4.77 | 17.01 | 10.49 | 4.86 | | | | | 16.40 |
| 6-Mar-19 | 6.66 | 16.03 | 12.21 | 9.47 | | | | | | | | |
| 7-Mar-19 | 7.67 | 27.99 | 10.25 | 8.41 | 24.16 | 25.15 | 7.20 | 4.28 | 4.13 | 6.02 | 5.38 | 16.64 |
| 8-Mar-19 | 8.62 | 18.74 | 12.26 | 7.93 | | | | | | | | |
| 9-Mar-19 | 6.12 | 15.16 | 9.06 | 3.61 | | | | | | | | |
| 10-Mar-19 | 3.55 | 8.36 | 8.17 | 7.13 | | | | | | | | |
| 11-Mar-19 | 5.54 | 8.69 | 5.99 | 7.32 | | | | | | | | |
| 12-Mar-19 | 6.40 | 14.79 | 7.30 | 9.31 | | | | | | | | |
| 13-Mar-19 | 9.84 | 15.53 | 9.58 | 7.78 | 18.49 | 13.32 | 7.40 | 4.17 | 5.67 | 4.44 | 6.15 | 23.67 |
| 14-Mar-19 | 7.94 | 15.66 | 8.26 | 8.52 | | | | | | | | |
| 15-Mar-19 | 6.62 | 9.23 | 9.64 | 7.82 | | | | | | | | |
| 16-Mar-19 | 7.96 | 8.25 | 9.52 | 6.66 | | | | | | | | |
| 17-Mar-19 | 5.46 | 9.57 | 11.23 | 7.34 | | | | | | | | |
| 18-Mar-19 | 9.30 | 7.63 | 9.76 | 8.08 | | | | | | | | |
| 19-Mar-19 | 7.88 | 7.34 | 9.67 | 4.96 | | | | | | | | |
| 20-Mar-19 | 8.36 | 10.29 | 8.59 | 5.82 | 12.95 | 15.04 | 7.40 | 7.24 | 6.65 | 7.75 | 3.07 | 44.01 |
| 21-Mar-19 | 6.12 | 6.23 | 9.09 | 6.42 | | | | | | | | |
| 22-Mar-19 | 5.82 | 16.27 | 7.64 | 6.39 | | | | | | | | |
| 23-Mar-19 | 7.72 | 13.93 | 8.03 | 8.37 | | | | | | | | |
| 24-Mar-19 | 9.32 | 11.48 | 8.61 | 8.21 | | | | | | | | |
| 25-Mar-19 | 6.85 | 8.20 | 7.04 | 5.22 | | | | | | | | |
| 26-Mar-19 | 9.42 | 6.26 | 7.09 | 6.21 | | | | | | | | |
| 27-Mar-19 | 4.87 | 24.41 | 6.00 | 5.68 | 26.63 | 29.96 | 4.82 | 3.09 | 4.69 | 4.62 | 4.13 | 13.93 |
| 28-Mar-19 | 2.85 | 18.74 | 5.65 | 4.51 | | | | | | | | |
| 29-Mar-19 | 5.88 | 7.26 | 4.48 | 5.75 | | | | | | | | |
| 30-Mar-19 | 4.33 | 9.47 | 4.19 | 3.38 | | | | | | | | |
| 31-Mar-19 | 2.86 | 5.05 | 6.36 | 7.64 | | | | | | | | |

| Table 3 D | Daily Monitoring | g for TSS | results at bottom-la | ver (| (1-31 N | Iarch 2019) |
|-----------|------------------|-----------|----------------------|-------|---------|-------------|
| | | , | | / \ | | / / |

| Data | | | | | | Turbidity | (NTU) | | | | | |
|-----------|-----|-------|------|-----|------|-----------|-------|-----|-----|-----|-----|------|
| Date | W12 | W1 | W3 | W5 | W2 | W4 | W6 | W7 | W8 | W9 | W10 | W11 |
| 1-Apr-19 | 4.5 | 8.1 | 5.6 | 4.6 | | | | | | | | - |
| 2-Apr-19 | 4.2 | 14.9 | 3.3 | 2.6 | - | | | | | | | |
| 3-Apr-19 | 6.8 | 7.2 | 5.2 | 3.5 | 20.5 | 7.8 | 5.0 | 2.8 | 3.1 | 4.1 | 2.6 | 13.4 |
| 4-Apr-19 | 3.9 | 5.7 | 6.1 | 3.4 | - | - | | | | | | - |
| 5-Apr-19 | 4.0 | 12.1 | 3.0 | 3.6 | | - | | | | | | - |
| 6-Apr-19 | 3.8 | 11.1 | 3.6 | 3.4 | - | | | | - | | | |
| 7-Apr-19 | 5.9 | 19.0 | 5.2 | 3.7 | - | - | - | | | | | - |
| 8-Apr-19 | 6.7 | 37.7 | 6.0 | 6.0 | - | - | | | | | | - |
| 9-Apr-19 | 4.8 | 28.6 | 7.0 | 3.9 | - | | - | | × . | | | |
| 10-Apr-19 | 3.3 | 22.3 | 5.4 | 4.9 | 17.1 | 29.1 | 3.1 | 4.1 | 3.0 | 3.5 | 3.7 | 24.5 |
| 11-Apr-19 | 3.5 | 101.6 | 2.3 | 2.2 | - | | | | | | | |
| 12-Apr-19 | 2.9 | 37.1 | 1.9 | 2.7 | - | - | | | | | | - |
| 13-Apr-19 | 3.7 | 3.5 | 2.5 | 2.9 | - | | | - | - | | | |
| 14-Apr-19 | 2.7 | 3.6 | 2.2 | 4.2 | | | | | | | | |
| 15-Apr-19 | 2.7 | 6.4 | 3.9 | 1.7 | (a) | - | | - | - | | | - |
| 16-Apr-19 | 2.8 | 4.0 | 3.1 | 2.7 | 1.00 | | | | | | | |
| 17-Apr-19 | | | | 2 | - | | | | | | | |
| 18-Apr-19 | 6.2 | 6.8 | 3.3 | 2.6 | - | | | | | | | - |
| 19-Apr-19 | 4.6 | 8.1 | 5.8 | 6.2 | - | - | | - | | | | - |
| 20-Apr-19 | 4.2 | 27.6 | 5.5 | 5.3 | - | | | * | * | | | |
| 21-Apr-19 | 6.0 | 8.7 | 5.9 | 4.0 | - | | | | | | | |
| 22-Apr-19 | 9.5 | 14.3 | 6.1 | 5.6 | - | | | | | | | |
| 23-Apr-19 | - | - | - | - | - | - | | | | | | - |
| 24-Apr-19 | | 14.1 | 9.9 | 8.5 | - | | | | - | | | |
| 25-Apr-19 | 5.1 | 9.5 | 7.7 | 4.7 | 75.2 | 20.1 | 5.1 | 1.4 | 1.5 | 1.2 | 2.1 | 46.4 |
| 26-Apr-19 | 8.9 | 19.0 | 12.7 | 7.4 | 44.5 | | | | | | | |
| 27-Apr-19 | 4.3 | 8.0 | 10.8 | 6.5 | - | | | | | | | |
| 28-Apr-19 | 4.7 | 13.3 | 4.4 | 5.3 | | | - | ~ | | | | * |
| 29-Apr-19 | 3.6 | 4.8 | 4.6 | 2.6 | | | | | | | | |
| 30-Apr-19 | 4.9 | 9.1 | 7.9 | 5.1 | - | - | | | | - | | - |

Table 4 Daily Monitoring for TSS results at surface-layer (1-30 April 2019)

Note: W12 is a reference site.



>10 and <= 20 mg/L above reference site

> 20 above reference site and < 80 mg/L

>= 80 mg/L

| Data | | | | | Total Su | spende | d Solids | (mg/L) |) | | | |
|-----------|------|------|------|------|----------|--------|----------|----------|-----|-----|-----|-------|
| Date | W12 | W1 | W3 | W5 | W2 | W4 | W6 | W7 | W8 | W9 | W10 | W11 |
| 1-Apr-19 | 7.9 | 13.9 | 5.8 | 5.0 | - | - | - | | | - | - | - |
| 2-Apr-19 | 3.4 | 9.6 | 7.7 | 3.2 | - | | - | | | | ~ | - 200 |
| 3-Apr-19 | 8.1 | 8.1 | 8.2 | 4.5 | 23.8 | 8.7 | 7.5 | 6.2 | 6.3 | 6.2 | 4.1 | 15.2 |
| 4-Apr-19 | 5.8 | 7.0 | 7.6 | 4.6 | 2 | 1.5 | | | | - | ~ | - |
| 5-Apr-19 | 5.9 | 11.6 | 5.4 | 7.2 | | - | - | | | - | | - |
| 6-Apr-19 | 8.0 | 12.0 | 7.2 | 4.1 | | - | | | - | - | | - |
| 7-Apr-19 | 6.3 | 13.6 | 6.0 | 5.4 | | - | ~ | | | - | | 100 |
| 8-Apr-19 | 9.2 | 28.1 | 6.4 | 6.2 | - | - | 8 | | • | | | |
| 9-Apr-19 | 7.4 | 21.8 | 7.3 | 6.5 | | - | - | - | - | - | - | - |
| 10-Apr-19 | 5.1 | 20.8 | 6.3 | 5.4 | 22.2 | 26.1 | 4.1 | 5.1 | 4.4 | 4.3 | 5.4 | 21.3 |
| 11-Apr-19 | 4.8 | 22.9 | 3.9 | 3.7 | | - | | - | - | - | - | |
| 12-Apr-19 | 3.7 | 29.8 | 3.8 | 5.0 | | - | | - | - | - | - | 1.20 |
| 13-Apr-19 | 5.3 | 5.2 | 4.1 | 5.2 | - | - | | | - | - | | |
| 14-Apr-19 | 5.8 | 5.9 | 6.1 | 5.6 | * | | | | - | | - | |
| 15-Apr-19 | 4.3 | 9.0 | 6.6 | 3.9 | | - | | | | | | 2-01 |
| 16-Apr-19 | 4.7 | 8.9 | 5.1 | 4.4 | | - | | | - | - | | |
| 17-Apr-19 | - | | + | - | - | - | | | - | - | - | |
| 18-Apr-19 | 4.3 | 8.4 | 7.7 | 3.8 | - | - | | - | - | - | - | |
| 19-Apr-19 | 5.7 | 9.3 | 6.8 | 6.6 | | - | | - | - | - | | - |
| 20-Apr-19 | 3.8 | 22.3 | 6.4 | 6.8 | | - | | | | | | - |
| 21-Apr-19 | 4.1 | 12.0 | 8.5 | 4.4 | | | | | | | | - |
| 22-Apr-19 | 12.0 | 16.5 | 5.8 | 4.8 | | - | | | | | - | - |
| 23-Apr-19 | | | - | | | | | - | | | | - |
| 24-Apr-19 | - | 17.3 | 11.8 | 9.4 | | - | - | | | | - | |
| 25-Apr-19 | 5.2 | 11.2 | 8.8 | 5.8 | 83.7 | 28.5 | 5.2 | 2.4 | 2.3 | 2.6 | 3.2 | 45.1 |
| 26-Apr-19 | 13.3 | 17.1 | 11.9 | 11.3 | 32.2 | - | | 1 | | | | |
| 27-Apr-19 | 8.5 | 9.5 | 13.3 | 6.6 | 5 | - | | 5. T. S. | | 1.7 | - | |
| 28-Apr-19 | 9.3 | 12.0 | 4.2 | 8.7 | | - | • | | - | 100 | | |
| 29-Apr-19 | 3.7 | 7.0 | 3.9 | 3.1 | | - | | - | | • | | - |
| 30-Apr-19 | 6.1 | 6.3 | 7.6 | 5.3 | | - | 1.00 | | - | | - | |

Table 5 Daily Monitoring for TSS results at Bottom-layer (1-30 April 2019)

Note :

- There were two instances where TSS was greater than standard value (80mg/l); surface TSS at site W1 on 11 April 2019 and bottom layer at site W2 on 25 April 2019.
- The distance of site W1, site W2, site W4 and site W11 were near natural turbid areas, and in varieties distance from the dredging activities as follows: W1 is 1.92 km from Dredging activities, W2 is 1.40 km from Dredging activities, W4 is 3.02 km from Dredging activities and W11 is 413 m from Dredging activities. The high turbidity value in those sites were mostly influenced by natural occurring turbid plumes which extend from the shoreline, and due to the rainy season (particularly after rain events). The metrological data (weather) data as shown in table 8

| Data | | | | | 1 | Furbidity | (NTU) | | | | | |
|---------------|-------------|------------|-------------|-----------|------|-----------|-------|-----|-----|-----|-----|------|
| Date | W12 | W1 | W3 | W5 | W2 | W4 | W6 | W7 | W8 | W9 | W10 | W11 |
| 1-May-19 | 2.3 | 35.6 | 5.3 | 8.7 | 40.9 | 32.2 | 1.8 | 1.5 | 3.3 | 3.7 | 3.1 | 13.2 |
| 2-May-19 | 3.2 | 41.7 | 2.6 | 3.6 | | | | | | | | |
| 3-May-19 | 4.8 | 9.4 | 4.0 | 2.7 | | | | | | | | |
| 4-May-19 | 3.1 | 8.7 | 5.6 | 3.2 | | | | | | | | |
| 5-May-19 | 4.2 | 14.7 | 4.1 | 2.4 | | | | | | | | |
| 6-May-19 | 4.1 | 21.1 | 3.3 | 3.6 | | | | | | | | |
| 7-May-19 | 2.3 | 22.7 | 2.8 | 3.6 | | | | | | | | |
| 8-May-19 | 1.6 | 4.1 | 2.9 | 3.3 | 15.8 | 7.8 | 2.7 | | | | | 12.7 |
| 9-May-19 | 3.5 | 3.9 | 2.8 | 3.9 | | | | 1.7 | 1.5 | 2.7 | 2.4 | |
| 10-May-19 | 3.8 | 4.7 | 5.1 | 3.8 | | | | | | | | |
| 11-May-19 | 2.4 | 8.4 | 4.0 | 1.8 | | | | | | | | |
| 12-May-19 | 6.4 | 20.3 | 11.3 | 7.3 | | | | | | | | |
| 13-May-19 | 5.5 | 33.3 | 10.8 | 9.1 | | | | | | | | |
| 14-May-19 | 5.8 | 18.5 | 9.3 | 8.5 | | | | | | | | |
| 15-May-19 | 5.8 | 16.6 | 8.7 | 6.9 | 22.7 | 17.4 | 6.2 | | | | | |
| 16-May-19 | 6.5 | 12.6 | 7.9 | 8.1 | | | | 2.2 | 4.2 | 3.6 | 2.6 | 31.3 |
| 17-May-19 | 12.3 | 9.3 | 8.6 | 5.1 | | | | | | | | |
| 18-May-19 | 5.3 | 8.4 | 6.6 | 6.2 | | | | | | | | |
| 19-May-19 | 8.1 | 9.8 | 6.5 | 6.8 | | | | | | | | |
| 20-May-19 | 8.1 | 20.3 | 12.0 | 8.6 | | | | | | | | |
| 21-May-19 | 6.9 | 17.5 | 12.7 | 9.0 | | | | | | | | |
| 22-May-19 | 7.5 | 0.0 | 7.8 | 8.7 | | | 10.7 | 6.9 | 3.2 | 3.9 | 5.6 | |
| 23-May-19 | 7.7 | 14.5 | 10.7 | 10.5 | 38.2 | 21.1 | | | | | | 31.4 |
| 24-May-19 | 7.1 | 11.5 | 9.0 | 12.0 | | | | | | | | |
| 25-May-19 | | | | | | | | | | | | |
| 26-May-19 | 10.9 | 20.3 | 19.8 | 17.4 | | | | | | | | |
| 27-May-19 | 9.2 | 22.9 | 17.4 | 13.9 | | | | | | | | |
| 28-May-19 | 7.4 | 9.9 | 9.6 | 9.7 | | | | | | | | |
| 29-May-19 | | | | | | | | | | | | |
| 30-May-19 | | | | | | | | | | | | |
| 31-May-19 | 6.7 | 14.9 | 13.3 | 13.3 | | | | | | | | |
| W12 is a refe | rence site. | | | | | | | | | | | |
| | >10 and | <= 20 mg/ | L above r | eference | site | | | | | | | |
| | > 20 abo | ve referer | ice site an | id < 80 m | g/L | | | | | | | |
| | >= 80 mg | ;/L | | | | | | | | | | |
| | - | | | | | | | | | | | |

Table 6 Daily Monitoring for TSS results at Surface-layer (1-31 May 2019)

Note :

1. Daily monitoring results for sea water quality (TSS parameter) of June 2019 still in under laboratory process by Contractor.

| Data | | | | | Total Su | spended | l Solids | (mg/L) | | | | |
|-----------|------|------|------|------|----------|---------|----------|--------|------------|-----|-----|------|
| Date | W12 | W1 | W3 | W5 | W2 | W4 | WG | W7 | W 8 | W9 | W10 | W11 |
| 1-May-19 | 3.5 | 30.7 | 5.0 | 5.6 | 43.3 | 21.6 | 2.8 | 3.3 | 3.2 | 3.7 | 3.7 | 14.5 |
| 2-May-19 | 3.4 | 14.7 | 4.6 | 4.0 | | | | | | | | |
| 3-May-19 | 5.9 | 8.3 | 6.2 | 3.9 | | | | | | | | |
| 4-May-19 | 4.1 | 9.8 | 3.9 | 3.6 | | | | | | | | |
| 5-May-19 | 2.8 | 14.9 | 5.1 | 3.7 | | | | | | | | |
| 6-May-19 | 7.3 | 12.5 | 3.9 | 4.3 | | | | | | | | |
| 7-May-19 | 3.3 | 9.5 | 3.9 | 5.2 | | | | | | | | |
| 8-May-19 | 2.9 | 6.8 | 4.4 | 4.4 | 13.9 | 8.8 | 4.5 | | | | | 15.7 |
| 9-May-19 | 5.4 | 4.6 | 4.2 | 4.0 | | | | 2.5 | 3.1 | 4.0 | 4.3 | |
| 10-May-19 | 5.6 | 7.7 | 5.8 | 5.5 | | | | | | | | |
| 11-May-19 | 2.8 | 8.8 | 5.2 | 3.4 | | | | | | | | |
| 12-May-19 | 9.0 | 21.7 | 11.9 | 7.6 | | | | | | | | |
| 13-May-19 | 6.9 | 31.4 | 12.3 | 8.5 | | | | | | | | |
| 14-May-19 | 7.6 | 20.3 | 9.9 | 9.3 | | | | | | | | |
| 15-May-19 | 6.3 | 16.8 | 9.1 | 10.2 | 29.7 | 19.5 | 8.5 | | | | | |
| 16-May-19 | 7.4 | 15.2 | 8.7 | 8.1 | | | | 2.8 | 5.2 | 4.0 | 4.8 | 33.3 |
| 17-May-19 | 15.2 | 10.9 | 9.5 | 7.0 | | | | | | | | |
| 18-May-19 | 8.3 | 9.5 | 7.2 | 7.2 | | | | | | | | |
| 19-May-19 | 9.8 | 9.1 | 5.4 | 5.4 | | | | | | | | |
| 20-May-19 | 7.8 | 17.1 | 17.6 | 13.1 | | | | | | | | |
| 21-May-19 | 16.5 | 23.8 | 16.3 | 11.8 | | | | | | | | |
| 22-May-19 | 9.8 | | 7.5 | 7.7 | | | 13.8 | 5.8 | 3.9 | 5.2 | 7.4 | |
| 23-May-19 | 8.7 | 16.2 | 11.9 | 10.5 | 35.0 | 26.1 | | | | | | 39.2 |
| 24-May-19 | 10.5 | 14.8 | 11.9 | 10.7 | | | | | | | | |
| 25-May-19 | | | | | | | | | | | | |
| 26-May-19 | 12.6 | 20.8 | 21.0 | 17.4 | | | | | | | | |
| 27-May-19 | 10.0 | 24.3 | 14.2 | 15.9 | | | | | | | | |
| 28-May-19 | 6.6 | 10.0 | 9.4 | 9.7 | | | | | | | | |
| 29-May-19 | | | | | | | | | | | | |
| 30-May-19 | | | | | | | | | | | | |
| 31-May-19 | 75 | 20.8 | 18.1 | 12.9 | | | | | | | | |
| 51 may-15 | 1.0 | 20.0 | 10.1 | 12.0 | | | | | | | | |

Table 7 Daily Monitoring for TSS results at Bottom-layer (1-31 May 2019)

Table 8 Weather Data Record in April 2019

Wheather link, Current Station : Patimban connect 10/4/19 00:00 : 3 Day

| | | | - | | - | - | | _ | _ | _ | _ | _ | - | | | | - | - | _ | - | | - | - | - | _ | _ | _ | - |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| mm/h | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| mm | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| barometer - hPa | 1000.9 | 1002.9 | 1004.6 | 1006.2 | 1007.0 | 1007.6 | 1006.6 | 1010.5 | 1014.0 | 1014.2 | 1013.3 | 1011.8 | 1008.9 | 1009.6 | 1009.3 | 1007.6 | 1006.1 | 1002.3 | 1002.0 | 1004.7 | 1006.4 | 1005.6 | 1007.1 | 1007.2 | 1009.0 | 1009.1 | 1008.9 | 1008.4 |
| -C | 32 | 33 | 34 | 35 | 35 | 35 | 33 | 34 | 35 | 36 | 36 | 37 | 38 | 39 | 40 | 41 | 40 | 39 | 40 | 38 | 38 | 36 | 36 | 32 | 33 | 34 | 33 | 33 |
| -C | 32 | 33 | 34 | 35 | 35 | 35 | 33 | 34 | 35 | 36 | 36 | 37 | 38 | 39 | 40 | 41 | 40 | 39 | 40 | 38 | 38 | 36 | 36 | 33 | 33 | 34 | 33 | 33 |
| - Hereitaria Hereitari | 27 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 29 | 29 | 29 | 29 | 30 | 30 | 31 | 31 | 31 | 31 | 30 | 30 | 30 | 29 | 29 | 27 | 28 | 28 | 28 | 28 |
| Wind Run - m | 1.8 | 1,8 | 1.8 | 2.7 | 2.7 | 2.2 | 3.1 | 3.6 | 3.1 | 3.1 | 2.7 | 2.2 | 2.7 | 2.2 | 2.2 | 2.7 | 2.7 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 1.8 | 4.5 | 2.2 | 1.3 | 2.7 | 2.7 |
| Direction | SSW | S | SE | SE | ENE | ENE | SE | SE | SE | w | w | w | ENE | NE | NNE | INNE | NNE | N | NW | NNN | NW | WNW | s | SSE | WSW | SW | SE | SSE |
| speed - m/s | 2 | 2 | 2 | 60 | m | 2 | m | 4 | e | 6 | m | 2 | e | 2 | 2 | | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | - | e | m |
| Bulb - -C | 26 | 26 | 26 | 27 | 27 | 27 | 26 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 28 | 28 | 28 | 27 | 28 | 27 | 27 | 27 | 27 | 26 | 26 | 26 | 26 | 26 |
| Point - | 25 | 26 | 26 | 27 | 26 | 26 | 26 | 26 | 27 | 26 | 26 | 27 | 26 | 27 | 27 | 27 | 27 | 27 | 27 | 26 | 26 | 27 | 27 | 26 | 26 | 26 | 26 | 26 |
| Hum - | 90 | 91 | 89 | 90 | 89 | 89 | 89 | 90 | 89 | 86 | 84 | 85 | 82 | 81 | 79 | 81 | 79 | 80 | 83 | 78 | 79 | 89 | 90 | 90 | 88 | 88 | 88 | 89 |
| -c | 27 | 27 | 28 | 28 | 28 | 28 | 27 | 28 | 28 | 29 | 29 | 29 | 29 | 30 | 30 | 31 | 31 | 31 | 30 | 30 | 30 | 29 | 29 | 28 | 27 | 28 | 28 | 28 |
| -cmp- | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 29 | 29 | 29 | 29 | 30 | 30 | 31 | 31 | 31 | 31 | 31 | 30 | 30 | 30 | 29 | 29 | 28 | 28 | 28 | 28 |
| -c -C | 27 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 29 | 29 | 29 | 29 | 30 | 30 | 31 | 31 | 31 | 31 | 30 | 30 | 30 | 29 | 29 | 28 | 28 | 28 | 28 | 28 |
| Date & Time | 10/04/2019 00:00 | 10/04/2019 01:00 | 10/04/2019 02:00 | 10/04/2019 03:00 | 10/04/2019 04:00 | 10/04/2019 05:00 | 10/04/2019 06:00 | 10/04/2019 07:00 | 10/04/2019 08:00 | 10/04/2019 09:00 | 10/04/2019 10:00 | 10/04/2019 11:00 | 10/04/2019 12:00 | 10/04/2019 13:00 | 10/04/2019 14:00 | 10/04/2019 15:00 | 10/04/2019 16:00 | 10/04/2019 17:00 | 10/04/2019 18:00 | 10/04/2019 19:00 | 10/04/2019 20:00 | 10/04/2019 21:00 | 10/04/2019 22:00 | 10/04/2019 23:00 | 11/04/2019 00:00 | 11/04/2019 01:00 | 11/04/2019 02:00 | 11/04/2019 03:00 |

| Rate - | mm/h | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0'0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 00 |
|-----------|-------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---------------|
| -Rain | E | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 00 |
| Barometer | hPa | 1008.0 | 1007.7 | 1008.6 | 1009.5 | 1012.2 | 1013.7 | 1014.4 | 1012.5 | 1013.7 | 1008.4 | 1009.3 | 1005.7 | 1003.9 | 1003.6 | 1004.5 | 1007.1 | 1007.5 | 1005.9 | 1006.4 | 1009.5 | 1009.6 | 1008.8 | 1007.9 | 1007.6 | 1007.8 | 1008.5 | 1002 5 |
| index - | Ŷ | 32 | 30 | 32 | 31 | 32 | 33 | 34 | 36 | 37 | 38 | 39 | 39 | 38 | 38 | 38 | 39 | 35 | 31 | 29 | 30 | 30 | 31 | 30 | 30 | 30 | 30 | 00 |
| ndex - | Ŷ | 32 | 31 | 32 | 31 | 32 | 33 | 34 | 36 | 37 | 38 | 39 | 39 | 38 | 38 | 38 | 39 | 35 | 31 | 29 | 31 | 31 | 31 | 30 | 30 | 30 | 30 | 00 |
| Chill - | Ŷ | 27 | 26 | 27 | 27 | 27 | 28 | 28 | 29 | 29 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 29 | 27 | 26 | 26 | 26 | 27 | 27 | 26 | 26 | 26 | 20 |
| Wind | Run - m | 3.1 | 4.0 | 2.7 | 3.1 | 3.1 | 3.1 | 2.7 | 1.8 | 2.7 | 2.7 | 2.7 | 3.1 | 2.7 | 2.2 | 1.8 | 1.3 | 3.1 | 4.0 | 3.1 | 3.6 | 4.5 | 1.8 | 2.7 | 2.2 | 2.2 | 2.2 | |
| - Directi | ua | 3 SSE | 4 55E | 3 SE | 3 55E | 3 55E | 3 5 | 3 SSE | 2 55E | 3 E | 3 ENE | 3 NE | 3 NE | 3 NE | 2 N | 2 N | 1 NE | 3 E | 4 55E | 35 | 4 55E | 4 SSE | 2 55W | 35 | 2 55W | 2 WSW | 2 WSW | - PLAT |
| Spee | m/s | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 1 | 10 | - | 0 | 1~ | 2 | 5 | 2 | 2 | 9 | 5 | 4 | 5 | 2 | 10 | 10 | 5 | 5 | 5 | |
| Bulb - | Y | 4 | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | ~ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| Point - | Ŷ | 26 | 25 | 25 | 25 | 25 | 26 | 25 | 26 | 26 | 27 | 27 | 27 | 26 | 27 | 27 | 27 | 26 | 25 | 24 | 24 | 25 | 25 | 25 | 25 | 24 | 25 | 1 |
| Hum - | % | 06 | 06 | 90 | 93 | 90 | 06 | 84 | 84 | 82 | 83 | 82 | 81 | 81 | 82 | 83 | 81 | 86 | 86 | 87 | 86 | 88 | 80 | 06 | 06 | 89 | 91 | 10 |
| Temp - | ų | 27 | 27 | 27 | 26 | 27 | 27 | 28 | 26 | 29 | 29 | 30 | 30 | 30 | 30 | 30 | 30 | 29 | 27 | 26 | 26 | 26 | 27 | 26 | 26 | 26 | 26 | 20 |
| Temp - | ų | 200 | 27 | 27 | 27 | 27 | 28 | 28 | 29 | 29 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 28 | 27 | 27 | 27 | 27 | 27 | 27 | 26 | 26 | |
| Temp - | ų | 27 | 27 | 27 | 27 | 27 | 28 | 28 | 29 | 29 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 29 | 27 | 26 | 27 | 27 | 27 | 27 | 26 | 26 | 26 | 2 |
| | Date & lime | 11/04/2019 04:00 | 11/04/2019 05:00 | 11/04/2019 05:00 | 11/04/2019 07:00 | 11/04/2019 08:00 | 11/04/2019 09:00 | 11/04/2019 10:00 | 11/04/2019 11:00 | 11/04/2019 12:00 | 11/04/2019 13:00 | 11/04/2019 14:00 | 11/04/2019 15:00 | 11/04/2019 16:00 | 11/04/2019 17:00 | 11/04/2019 18:00 | 11/04/2019 19:00 | 11/04/2019 20:00 | 11/04/2019 21:00 | 11/04/2019 22:00 | 11/04/2019 23:00 | 12/04/2019 00:00 | 12/04/2019 01:00 | 12/04/2019 02:00 | 12/04/2019 03:00 | 12/04/2019 04:00 | 12/04/2019 05:00 | 00-90 0100 mm |

Wheather link, Current Station : Patimban connect 10/4/19 00:00 : 3 Day

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| | Temp - | Temp - | Temp- | Hum - | Point - | Bulb - | Speed - | Directi | Wind | Chill - | Index - | Index - | Barometer | Rain - | Rate - |
|------------------|--------|--------|-------|-------|---------|--------|---------|---------|---------|---------|---------|---------|-----------|--------|--------|
| Date & Time | ų | ų | ų | 36 | ų | ų | m/s | uo | Run - m | Ŷ | Ŷ | Ŷ | hPa | шш | mrryh |
| 12/04/2019 08:00 | 29 | 29 | 27 | 80 | 25 | 26 | - | W2S | 6.0 | 29 | 36 | 36 | 1013.3 | 0.0 | 0.0 |
| 12/04/2019 09:00 | 31 | 31 | 20 | 17 | 26 | 27 | - | SSW | 6.0 | 31 | 39 | 35 | 1012,4 | 0.0 | 0.0 |
| 12/04/2019 10:00 | 30 | 31 | 30 | 81 | 26 | 27 | 2 | NE | 1.8 | 30 | 37 | 37 | 1010.0 | 0.0 | 0.0 |
| 12/04/2019 11:00 | 30 | 30 | 30 | 82 | 26 | 27 | 2 | ENE | 1.8 | 30 | 38 | 38 | 1011.4 | 0.0 | 0.0 |
| 12/04/2019 12:00 | 30 | 30 | 8 | 73 | 26 | 27 | 2 | NE | 2.2 | 30 | 38 | 38 | 1007.9 | 0.0 | 0.0 |
| 12/04/2019 13:00 | 31 | 31 | 30 | 76 | 26 | 27 | 2 | NE | 2.2 | 31 | 39 | 39 | 1007.6 | 0.0 | 0.0 |
| 12/04/2019 14:00 | 31 | 31 | 31 | 68 | 25 | 26 | - | NE | 3.1 | 31 | 38 | 38 | 1008.0 | 0.0 | 0.0 |
| 12/04/2019 15:00 | 31 | 31 | 31 | 75 | 26 | 27 | ~ | NNE | 3.1 | 31 | 40 | 40 | 1007.0 | 0.0 | 0.0 |
| 12/04/2019 16:00 | 31 | 31 | 31 | 77 | 26 | 27 | <u></u> | NNE | 3.1 | 31 | 40 | 40 | 1005.7 | 0.0 | 0'0 |
| 12/04/2019 17:00 | 31 | 31 | 31 | 75 | 26 | 27 | 4 | z | 3.6 | 31 | 40 | 40 | 1005.4 | 0.0 | 0.0 |
| 12/04/2019 18:00 | 31 | 31 | 31 | 17 | 26 | 27 | e | NNN | 2.7 | 31 | 39 | 39 | 1005.2 | 0.0 | 0.0 |
| 12/04/2019 19:00 | 31 | 31 | 31 | 76 | 26 | 27 | e | N/N | 3.1 | 31 | 39 | 35 | 1007.2 | 0.0 | 0.0 |
| 12/04/2019 20:00 | 28 | 31 | 27 | 87 | 25 | 26 | m | SSW | 3.1 | 28 | 32 | 32 | 1005.5 | 0.0 | 0.0 |
| 12/04/2019 21:00 | 27 | 28 | 27 | 88 | 25 | 25 | 4 | SSW | 3,6 | 26 | 31 | 30 | 1007.8 | 0.0 | 0.0 |
| 12/04/2019 22:00 | 27 | 27 | 27 | 88 | 25 | 25 | | S | 2,7 | 27 | 31 | 31 | 1009.9 | 0.0 | 0.0 |
| 12/04/2019 23:00 | 28 | 28 | 27 | 87 | 25 | 26 | ~ | s | 2.7 | 28 | 33 | 33 | 1011.8 | 0.0 | 0.0 |
| 13/04/2019 00:00 | 28 | 28 | 28 | 85 | 25 | 26 | 613 | 5 | 3.1 | 28 | 33 | 33 | 1011.5 | 0.0 | 0.0 |

| | Rain Fate- mm/h | 10.6 | 0.0 | 30.0 | 13.8 | 0.0 | 29.6 | 6.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|--|------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | Rain - mm | 1.0 | 0.2 | 4.0 | D.2 | 0.0 | 1.6 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| No. of Lot of Lo | Barometer - hPa | 1008.2 | 1009.9 | 1038.0 | 1008.4 | 1008.2 | 1008.7 | 1008.6 | 1010.1 | 1011.0 | 1011.4 | 1013.1 | 1012.3 | 1010.7 | 1012.5 | 1009.6 | 1006.0 | 1006.5 | 1007.2 | 1007.7 | 1009.2 | 1010.3 | 1008.0 | 1009.5 | 1009.8 | 1010.3 | 1009.3 |
| | THW Index - | 32 | 34 | 31 | 33 | 32 | 32 | 30 | 32 | 32 | 32 | 33 | 34 | 35 | 36 | 36 | 35 | 33 | 33 | 34 | 35 | 35 | 31 | 32 | 31 | 32 | 31 |
| | Heat IndexC | 32 | 34 | 32 | 33 | 32 | 32 | 31 | 32 | 32 | 32 | 33 | 34 | 35 | 36 | 36 | 35 | 34 | 34 | 34 | 35 | 35 | 31 | 32 | 32 | 32 | 31 |
| | wind chilt- | 28 | 28 | 25 | 28 | 27 | 27 | 26 | 27 | 27 | 27 | 28 | 28 | 28 | 29 | 29 | 28 | 28 | 27 | 28 | 28 | 29 | 27 | 27 | 26 | 27 | 27 |
| | Wind Run - m | 3.1 | 2.7 | 4.0 | 6.0 | 1.8 | 1.8 | 5.4 | 6.0 | 1.8 | 2.2 | 1.8 | 0.9 | 0.9 | 1.3 | 1.8 | 3.6 | 4.0 | 4.9 | 3.1 | 2.2 | 3.1 | 2.7 | 3.1 | 3.6 | 3.6 | 1.8 |
| | Wind Direction | NN | MM | NNN | NE | WSW | WSW | NE | WM | s | un. | s | SSW | M | WNW | MM | NW | NNN | NNE | NE | NE | ESE | s | un. | SSE | SE | SSE |
| | Wind Speed - m/s | | m | 47 | 1 | 24 | 2 | s | - | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 4 | 4 | in | m | P4 | m | m | m | 5 | 4 | 24 |
| | Wet Bulb | 25 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 27 | 27 | 27 | 27 | 27 | 26 | 26 | 26 | 27 | 27 | 26 | 26 | 26 | 26 | 26 |
| | Drw PointC | 22 | 26 | 26 | 26 | R | 25 | 25 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 36 | 26 | 26 | 26 | 26 | 26 | 26 | 25 | 26 | 26 | 26 | 25 |
| | Hum - % | 84 | 68 | 66 | 89 | 90 | 91 | 90 | 91 | 93 | 92 | 92 | 06 | 88 | 87 | 85 | 89 | 88 | 88 | 87 | 88 | 87 | 92 | 63 | 66 | 91 | 92 |
| | lemp. | 28 | 28 | 27 | 28 | 27 | 27 | 27 | 27 | 27 | 27 | 28 | 28 | 28 | 29 | 29 | 28 | 28 | 23 | 28 | 28 | 29 | 27 | 27 | 27 | 27 | 27 |
| inn e · ninn er huter | Date & Time | 24/04/2019 00:00 | 24/04/2019 01:00 | 24/04/2019 02:00 | 24/04/2019 03:00 | 24/04/2019 04:00 | 24/04/2019 05:00 | 24/04/2019 06:00 | 24/04/2019 07:00 | 24/04/2019 08:00 | 24/04/2019 09:00 | 24/04/2019 10:00 | 24/04/2019 11:00 | 24/04/2019 12:00 | 24/04/2019 13:00 | 24/04/2019 14:00 | 24/04/2019 15:00 | 24/04/2019 16:00 | 24/04/2019 17:00 | 24/04/2019 18:00 | 24/04/2019 19:00 | 24/04/2019 20:00 | 24/04/2015 21:00 | 24/04/2019 22:00 | 24/04/2019 23:00 | 25/04/2019 C0:00 | 25/04/2019 01:00 |

Wheatherlink , Current station : Patimban Connect 24/4/19 00:00 : 3 Dav

| | 10 | - | | | | | | | | | | |
|---|---------------|---------|--|-----------------|----------|------------------------|-------------------|-----------------|--------------|--------------|-------------|--------------------|
| 26 28 2 58 1.8 27 31 31 100 25 26 2 5 1.8 27 31 31 100 25 25 2 5 1.8 27 31 31 100 25 25 2 55W 1.8 27 30 30 100 25 25 2 55W 1.8 27 30 30 100 25 25 2 55W 1.8 27 30 30 100 25 25 2 55W 1.8 27 30 30 100 25 26 1 55W 1.3 28 34 100 26 27 3 1.8 27 29 37 100 26 27 3 1.8 27 29 37 100 27 27 28 36 | emp - Hum - % | % - uni | | Dew Foirt -C | Wet Bulb | Wind Speed - m/s | Wind Direction | Wind Run - m | Wind Crill - | Heat Index - | THW Index - | Raconetor - ħPa |
| 25 26 2 5 1.8 27 31 31 100 25 25 2 5 2.2 5 2.2 26 30 30 100 25 25 2 55W 1.8 2.6 29 29 100 26 25 2 55W 1.8 2.6 29 29 100 25 25 2 5W 1.8 2.7 30 37 100 26 27 3 1 5 5 1.3 28 37 37 100 26 27 3 1 30 37 37 37 100 26 27 30 37 37 37 30 100 26 27 30 37 30 37 37 100 26 27 29 30 37 30 37 36 100 <t< td=""><td>27 93</td><td>93</td><td></td><td>26</td><td>56</td><td>5</td><td>SE</td><td>1.8</td><td>27</td><td>31</td><td>31</td><td>1008.7</td></t<> | 27 93 | 93 | | 26 | 56 | 5 | SE | 1.8 | 27 | 31 | 31 | 1008.7 |
| 25 27 2 5 2.2 5 2.2 2.0 30 100 25 25 2 55W 1.8 2.6 2.9 2.9 100 25 25 2 55W 1.8 2.6 2.9 2.9 100 25 25 2 5W 1.3 2.8 2.4 3.4 100 25 26 1 5SW 1.3 2.8 3.7 3.0 100 25 26 2 55K 2.2 2.9 3.7 3.7 100 26 27 3 1.3 3.0 3.7 3.7 100 26 27 3 1.0 3.7 3.0 3.7 3.7 100 26 27 2.9 3.0 3.7 3.0 3.7 3.0 27 27 2.7 2.9 3.0 3.7 3.0 3.0 27 27 | 27 93 | 93 | and the second value of th | 25 | 26 | 2 | s | 1.8 | 27 | 31 | 31 | 1008.7 |
| 25 25 25 S5W 1.8 26 29 29 100 24 25 2 5W 1.8 2.7 30 30 101 25 25 2 5W 1.8 2.7 30 30 101 25 26 1 5SW 1.3 28 34 30 101 25 26 2 55E 2.2 29 37 37 100 26 27 3 NE 3.1 30 37 37 100 26 27 4 NE 3.1 30 37 30 101 26 27 4 NE 3.1 30 37 100 27 27 5 NE 4.0 29 38 31 100 27 27 5 NE 5.4 39 37 100 27 27 5 <t< td=""><td>26 94</td><td>94</td><td>the second s</td><td>25</td><td>25</td><td>2</td><td>s</td><td>2.2</td><td>26</td><td>30</td><td>30</td><td>1007.B</td></t<> | 26 94 | 94 | the second s | 25 | 25 | 2 | s | 2.2 | 26 | 30 | 30 | 1007.B |
| 24 25 2 55W 2.2 55W 2.2 55W 2.4 2.9 2.0 25 25 2 5W 1.8 2.7 30 30 101 25 26 1 55W 1.3 28 34 34 100 25 26 2 55K 2.2 29 35 37 100 26 27 3 NE 3.1 30 37 100 26 27 3 NE 3.1 30 37 37 100 26 27 4 NE 3.1 30 37 37 100 27 27 4 NE 3.1 30 37 100 26 27 5 NE 4.9 29 38 30 100 27 27 5 NE 5.4 38 38 100 27 27 | 26 94 | 94 | - | 25 | 22 | 2 | SSW | 1.8 | 26 | 29 | 29 | 1007.8 |
| 25 25 5W 1.8 27 30 30 100 25 26 1 59W 1.3 28 34 34 100 25 26 2 58E 2.2 29 37 37 100 26 27 4 55E 3.6 2.9 37 37 100 26 27 4 NE 3.1 30 37 37 100 26 27 4 NE 4.5 2.9 37 37 100 26 27 4 NE 4.5 2.9 37 37 100 27 27 5 NE 4.9 2.9 33 100 27 27 5 NE 4.9 2.9 33 100 27 27 5 NE 4.9 2.9 33 100 27 27 27 29 30 | 26 92 | 92 | - | 24 | 25 | 2 | SSW | 2.2 | 26 | 29 | 29 | 1008.2 |
| 25 26 1 5SW 1.3 28 3.4 30 25 26 2 55E 2.2 29 35 37 100 26 27 4 ESE 3.6 29 37 37 100 26 27 4 ESE 3.6 29 37 37 100 26 27 4 NE 3.1 30 37 37 100 26 27 4 NE 4.0 29 37 37 100 27 27 5 NE 4.9 29 38 30 100 27 27 5 NE 4.9 29 38 30 100 27 28 6 NE 5.4 30 38 30 100 27 28 5 NE 5.4 30 38 30 100 10 27 28 | 27 89 | 89 | the second se | 25 | 25 | 2 | SW | 1.8 | 27 | 30 | 30 | 1011.7 |
| Z5 Z6 Z S56 Z.2 Z9 35 37 100 Z6 Z7 4 ESE 3.6 Z9 37 37 100 Z6 Z7 4 ESE 3.6 Z9 37 37 100 Z6 Z7 4 NE 4.5 2.9 37 37 100 Z6 Z7 4 NE 4.5 2.9 37 37 100 Z6 Z7 4 NE 4.9 2.9 37 37 100 Z7 Z7 5 NE 4.9 2.9 38 100 Z7 Z7 5 NE 4.9 2.9 38 100 Z7 Z7 5 NE 6.4.9 2.9 38 30 100 Z7 Z8 5 NE 6.4.9 2.9 38 37 100 Z9 Z8 2.9 | 28 83 | 83 | the second se | 25 | 26 | 1 | SSW | 1.3 | 28 | 34 | 34 | 1005.8 |
| 26 27 4 E5E 3.6 29 37 37 100 26 27 3 NE 3.1 30 37 37 100 26 27 3 NE 3.1 30 37 36 100 26 27 4 NE 4.5 29 37 37 100 27 27 5 NE 4.9 29 38 37 100 27 27 5 NE 4.9 29 38 37 100 27 27 5 NE 4.9 29 38 30 100 27 27 5 NE 6.4.9 29 38 30 100 27 28 5 NE 6.4.9 29 38 30 100 27 28 5 10 28 39 30 100 10 28 5 | 29 81 | 81 | - | 25 | 26 | 2 | SSE | 2.2 | 29 | 35 | 35 | 1008.8 |
| Z6 Z7 3 NE 3.1 30 37 37 100 Z6 Z7 4 NE 4.5 29 37 35 100 Z6 Z7 4 NE 4.5 29 37 37 100 Z6 Z7 4 NE 4.0 29 37 37 100 Z7 Z7 5 NE 4.9 29 38 37 100 Z7 Z7 5 NE 4.9 29 38 37 100 Z7 Z7 5 NE 4.9 29 38 30 100 Z7 Z7 5 NE 6.49 29 38 30 100 Z6 Z7 6 NE 6.3 29 38 30 100 Z7 Z8 5 NE 6.40 29 38 30 100 Z6 Z | 30 80 | 80 | - | 26 | 27 | 4 | ESE | 3.6 | 29 | 37 | 37 | 1009.2 |
| ZE Z7 4 NE 4.5 29 37 36 100 Z6 Z7 4 NE 4.0 29 37 37 100 Z7 27 5 NE 4.0 29 38 37 100 Z7 27 5 NE 4.9 29 38 37 100 Z7 Z7 5 NE 4.9 29 38 37 100 Z7 Z7 5 NE 4.9 29 38 30 100 Z6 Z7 6 NE 5.8 29 38 30 100 Z7 Z8 5 NE 6.3 29 38 30 100 Z9 Z8 5 NE 6.3 30 33 100 Z9 Z8 4 0 29 39 30 100 Z1 Z8 4 27 <td>30 78</td> <td>78</td> <td></td> <td>26</td> <td>27</td> <td>8</td> <td>NE</td> <td>3.1</td> <td>30</td> <td>37</td> <td>37</td> <td>1007.2</td> | 30 78 | 78 | | 26 | 27 | 8 | NE | 3.1 | 30 | 37 | 37 | 1007.2 |
| Z6 Z7 4 NE 4,0 29 37 37 100 Z7 Z7 5 NE 4,9 29 38 37 100 Z7 Z7 5 NE 4,9 29 38 37 100 Z7 Z7 5 NE 4,9 29 38 37 100 Z7 Z7 5 NE 4,9 29 38 37 100 Z7 Z7 5 NE 5,4 30 38 30 100 Z7 Z8 5 NE 5,4 30 38 30 100 Z7 Z8 5 NE 4,0 29 38 30 100 Z7 Z8 5 NE 4,0 29 39 30 100 Z6 Z9 4 29 29 39 30 100 Z6 Z6 4 <td>29 84</td> <td>84</td> <td></td> <td>26</td> <td>27</td> <td>4</td> <td>NE</td> <td>4.5</td> <td>29</td> <td>37</td> <td>36</td> <td>3.5001</td> | 29 84 | 84 | | 26 | 27 | 4 | NE | 4.5 | 29 | 37 | 36 | 3.5001 |
| 27 27 5 NE 4.9 29 38 37 100 27 5 NE 4.9 29 38 38 100 27 57 5 NE 4.9 29 38 38 100 27 57 5 NE 4.9 29 38 38 100 26 27 5 NE 5.8 29 38 37 100 27 28 5 NE 5.8 29 38 37 100 27 28 5 NE 5.8 29 38 30 100 27 28 5 NE 4.0 30 39 30 100 26 27 40 28 39 30 30 100 26 26 4 27 28 35 30 100 26 26 3 55 27 <td>29 83</td> <td>83</td> <td>_</td> <td>26</td> <td>27</td> <td>4</td> <td>NE</td> <td>4.0</td> <td>29</td> <td>37</td> <td>37</td> <td>1005.2</td> | 29 83 | 83 | _ | 26 | 27 | 4 | NE | 4.0 | 29 | 37 | 37 | 1005.2 |
| 27 27 5 NE 4.9 29 38 33 100 27 27 5 NE 4.9 29 38 33 100 27 27 5 NE 4.9 29 38 33 100 26 27 5 NE 5.8 29 38 30 26 27 6 NE 5.8 29 38 30 27 28 5 NE 4.9 29 38 30 30 27 28 5 NE 4.0 30 39 30 30 26 27 4 30 33 33 30 30 26 26 4 57 28 35 33 30 26 26 3 56 2.7 28 33 30 26 26 3 56 2.7 28 32 | 30 83 | 83 | _ | 27 | 27 | sin. | NE | 4.9 | 29 | 38 | 37 | 1007.1 |
| Z7 Z7 5 NE 4.9 29 38 30 Z7 5 NE 5.4 30 39 38 100 Z6 Z7 5 NE 5.8 29 38 37 100 Z7 28 6 NE 5.8 29 38 37 100 Z7 28 6 NE 6.3 29 38 300 30 Z7 28 5 NE 4.0 29 39 30 100 Z6 Z7 4 29 29 39 30 100 Z6 Z7 4 20 28 35 30 100 Z6 Z6 3 55 2.7 28 35 100 Z6 Z6 3 55 2.7 28 33 100 Z6 Z6 3 55 2.7 28 33 100 <td>30 83</td> <td>83</td> <td></td> <td>27</td> <td>27</td> <td>s</td> <td>NE</td> <td>4.9</td> <td>29</td> <td>38</td> <td>38</td> <td>1007.5</td> | 30 83 | 83 | | 27 | 27 | s | NE | 4.9 | 29 | 38 | 38 | 1007.5 |
| 27 27 5 NE 5.4 30 39 38 100 26 27 6 NE 5.8 29 38 37 100 27 28 6 NE 5.8 29 38 37 100 27 28 5 NE 63 29 39 37 100 27 28 5 NE 4.0 29 39 39 100 26 27 28 29 39 39 100 30 30 100 26 27 4.0 28 4.0 33 39 100 26 26 3 55E 2.7 28 33 300 25 26 2 27 28 33 300 300 26 25 2 2.7 28 33 300 300 26 26 2 2.7 <td< td=""><td>30 82</td><td>82</td><td>-</td><td>27</td><td>27</td><td>5</td><td>NE</td><td>4.9</td><td>29</td><td>36</td><td>38</td><td>1006.6</td></td<> | 30 82 | 82 | - | 27 | 27 | 5 | NE | 4.9 | 29 | 36 | 38 | 1006.6 |
| ZE Z7 6 NE 5.8 29 38 37 100 27 28 6 NE 6.3 29 39 38 100 27 28 5 NE 6.3 29 39 39 100 27 28 5 NE 4.0 29 39 39 100 26 27 4 56 4.0 28 35 30 100 26 26 3 56 2.7 28 33 100 26 26 3 556 2.7 28 33 100 25 26 2 3 556 2.7 28 30 100 26 26 3 556 2.7 28 33 100 26 26 2 556 2.7 28 32 300 26 26 2 2.7 28 | 30 81 | 81 | - | 27 | 27 | 5 | NE | 5.4 | 30 | 39 | 38 | 1005.7 |
| 27 28 6 NE 6.3 29 39 38 100 27 28 5 NE 4.9 29 39 39 100 27 28 5 NE 4.0 30 39 39 100 26 27 4 5 4.0 28 35 33 100 26 26 4 5E 4.0 28 35 30 100 25 26 3 55E 2.7 28 33 300 100 25 26 3 55E 2.7 28 33 300 100 25 26 3 55E 2.7 28 32 300 100 26 26 2 5 2.7 28 32 100 26 25 2 2.7 28 32 300 300 26 26 2 <td< td=""><td>30 81</td><td>81</td><td>-</td><td>26</td><td>27</td><td>9</td><td>NE</td><td>5.8</td><td>29</td><td>38</td><td>37</td><td>1005.1</td></td<> | 30 81 | 81 | - | 26 | 27 | 9 | NE | 5.8 | 29 | 38 | 37 | 1005.1 |
| 27 28 5 NE 4.9 29 39 39 100 27 28 4 ENE 4.0 30 39 39 100 26 27 4 ENE 4.0 30 39 39 100 26 27 4 5 4.0 28 35 35 100 26 26 3 55 2.7 28 33 300 25 26 3 55 2.7 28 33 300 25 25 3 55 2.7 28 32 300 26 2 3 55 2.7 28 32 300 26 2 5 5 2.7 28 32 300 26 25 2 2.7 28 32 300 26 2 5 2.7 28 32 300 26 <td>30 84</td> <td>84</td> <td>-</td> <td>27</td> <td>28</td> <td>9</td> <td>NE</td> <td>6.3</td> <td>29</td> <td>39</td> <td>38</td> <td>1007.0</td> | 30 84 | 84 | - | 27 | 28 | 9 | NE | 6.3 | 29 | 39 | 38 | 1007.0 |
| 27 28 4 ENE 4.0 30 39 39 300 26 27 4 5E 4.0 28 35 35 300 26 26 4 5E 4.0 28 35 33 100 26 26 4 5E 4.5 27 34 33 100 25 26 3 55E 2.7 28 33 300 25 25 3 55E 2.7 28 33 300 26 25 25 2.7 28 33 300 24 25 2 5 1.8 27 31 31 100 24 25 2 5 1.8 27 31 31 100 | 30 85 | 85 | | 27 | 28 | in | NE | 4.9 | 29 | 39 | 39 | E.8001 |
| 26 27 4 5£ 4.0 28 35 35 300 26 26 4 5£ 4.5 27 34 33 100 25 26 3 55£ 2.7 28 33 33 100 25 26 3 55£ 2.7 28 33 33 100 25 25 3 55£ 2.7 28 33 300 26 2 5 55 2.7 28 32 32 100 26 2 5 55 2.2 27 32 32 100 24 25 2 5 1.8 27 31 31 100 24 25 2 5 1.8 27 31 31 100 | 30 84 | 84 | - | 27 | 28 | 4 | ENE | 4.0 | 30 | 39 | 39 | 1009.5 |
| 26 26 4 5E 4.5 27 34 33 100 25 26 3 55E 2.7 28 33 33 100 25 26 3 55E 2.7 28 33 33 100 25 25 3 55E 2.7 28 32 32 100 25 26 2 55E 2.2 27 32 32 100 24 25 2 5 2.2 27 31 31 100 24 25 2 5 1.8 27 31 31 100 | 29 87 | 87 | - | 26 | 27 | 47 | SE | 4.0 | 28 | 35 | 35 | 1008.2 |
| 25 26 3 55E 2.7 28 33 33 100 25 25 3 55E 2.7 28 32 32 100 25 26 2 55E 2.7 28 32 32 100 26 26 2 55E 2.2 27 32 32 100 24 25 2 5 2.2 27 31 31 100 24 25 2 5 1.8 27 31 31 100 | 28 90 | 90 | _ | 26 | 26 | 4 | 3 | 4.5 | 27 | 34 | 33 | 1008.5 |
| 25 25 3 55E 2.7 28 32 32 100 25 26 2 55E 2.2 27 32 32 100 24 25 2 5 2.2 2.7 31 31 100 24 25 2 5 1.8 2.7 31 31 100 24 25 2 5 1.8 2.7 31 31 100 | 28 87 | 87 | - | 25 | 26 | ~ | SSE | 2.7 | 28 | 33 | 33 | 1008.8 |
| 25 26 2 55E 2.2 2.7 3.2 3.2 100 24 25 2 5 2.2 2.7 31 31 300 24 25 2 5 2.2 2.7 31 31 300 24 25 2 5 1.8 2.7 31 31 300 24 25 2 5 1.8 2.7 31 31 300 | 28 85 | 85 | and the second second | 25 | 22 | m | SSE | 2.7 | 28 | 32 | 32 | 1008.4 |
| 24 25 2 5 2.2 2.7 31 31 100 24 25 2 5 1.8 - 27 31 31 100 | 27 88 | 88 | the second day is not | 25 | 26 | 2 | SSE | 2.2 | 27 | 32 | 32 | 1007.8 |
| 24 25 2 5 1.8 27 31 31 100 | 27 86 | 86 | the survey of the local division of the loca | 24 | 22 | 2 | 5 | 2.2 | 27 | 31 | 31 | 1007.5 |
| | 27 87 | 87 | Name of Street, or other | 24 | 25 | 2 | 5 | 1,8 | 27 | 31 | 31 | 1007.2 |

Rain Rote -mm/h

Rain-mm

| Patimban Connact | |
|------------------|---------------|
| Current station | 3 Day |
| Wheatherlink, | 24/4/19 00:00 |

| 110- | 100 |
|---------|-------------------|
| Speed - | wet Build Speed - |
| 25 22 | 25 2 |
| 25 25 | 25 2 |
| 25 1 | 25 1 |
| 25 3 | 25 3 |
| 27 3 | 27 3 |
| 27 22 | 27 22 |
| 27 1 | 27 1 |
| 28 23 | 28 2 |
| 28 2 | 28 2 |
| 28 3 | 28 3 |
| 28 4 | 28 4 |
| 28 4 | 28 4 |
| 28 4 | 28 4 |
| 28 4 | 28 4 |
| 2B 3 | 28 3 |
| 28 2 | 28 2 |
| 26 4 | 26 4 |
| 25 4 | 25 4 |
| 25 3 | 25 3 |
| 25 3 | 36 36 |

Table 9. Air Quality Laboratory Results

REPORT OF ANALYSIS No.: 313/B/LHU/MB/IV/2019

| | : SHIMIZU-PP-BCK JOINT VENTURE |
|----|--|
| | : Access Road Work Under Patimban Port Development Project (I) |
| | : Ambient |
| ** | : 586/MB-KU/I/2019 |
| | : 1 – 2 April 2019 |
| - | : 4 – 18 April 2019 |
| | : S: 06º16'52.49" E: 107º51'50.33" |
| | |
| | ** |

| | 1 | MEASUDEMENT | | 1251 RESULT | |
|----|-------------------------------------|-------------|------------------------------|----------------------------|---|
| No | PARAMETERS | TIME | REGULATION | STA 0+000 | METHOD SPESIFICATION |
| 1. | Sulfur Dioxide (SO ₂) | 24 Hour | 365 µg/Nm ³¹) | <0.7581 µg/Nm ³ | SNI 7119.7:2017 |
| 2. | Carbon Monoxide (CO) | 24 Hour | 10000 µg/Nm ^{3 1}) | 3448.0 µg/Nm ³ | IKM/7.2.6/MB (Electro Chemical Sensor) |
| 3. | Nitrogen Dioxide (NO ₂) | 24 Hour | 150 µg/Nm ^{3 1}) | 12.0 µg/Nm ³ | SNI 7119.2:2017 |
| 4. | PM to (Particle < 10 µm) | 24 Hour | 150 µg/Nm ^{3 1}) | 23.8 µg/Nm ³ | SNI 7119.15:2016 |
| 5. | Dust (TSP) | 24 Hour | 230 µg/Nm ^{3 1}) | 29.5 µg/Nm ³ | SNI 7119.3:2017 |
| Ι. | Temperature | | | 31ºC | |
| | Relative Humidity |] | | 45% | 1 |
| | Wind Velocity | - | | 0.09 - 1.19 m/det | Direct Reading |
| | Wind Direction Dominant | | [| West | - |

1 I constant Government Regulation No. 41 Year 1999 on Air Pollution Control "<" Shows The Smallest Value Of The Measurement Obtained by The Method Used



REPORT OF ANALYSIS No.: 313/B/LHU/MB/IV/2019

: Access Road Work Under Patimban Port Development Project (I)

: SHIMIZU-PP-BCK JOINT VENTURE

| Customer Name |
|--------------------|
| Address |
| Type of sample (s) |
| No. Sample |
| Date of Sampling |
| Date of Analysis |

: Ambient : 586/MB-KU/l/2019

: 1 – 2 April 2019

. 1 - 2

4

Coordinate Point

: 4 - 18 April 2019

: S: 06º15'44.08" E: 107º52'38.08"

| | | NEACURE NEAC | | TEST RESULT | | |
|----|-----------------------------------|--------------|------------------------------|---------------------------|---|--|
| No | PARAMETERS | TIME | REGULATION | STA 2+700 | METHOD SPESIFICATION | |
| 1. | Sulfur Dioxide (SO ₂) | 24 Hour | 365 µg/Nm ^{3 1}) | 11.6 µg/Nm ³ | SNI 7119.7:2017 | |
| 2. | Carbon Monoxide (CO) | 24 Hour | 10000 µg/Nm ^{3 1}) | 1169.7 µg/Nm ³ | IKM/7.2.6/MB (Electro Chemical Sensor) | |
| 3. | Nitrogen Dioxide (NO2) | 24 Hour | 150 µg/Nm ^{3 1}) | 8.30 µg/Nm ³ | SNI 7119.2:2017 | |
| 4. | PM 10 (Particle < 10 µm) | 24 Hour | 150 µg/Nm ^{3 1}) | 23.9 µg/Nm ³ | SNI 7119.15:2016 | |
| 5 | Dust (TSP) | 24 Hour | 230 µg/Nm ^{3 1}) | 20.9 µg/Nm ³ | SNI 7119.3:2017 | |
| | Temperature | | | 33°C | | |
| Ľ. | . Relative Humidity | | I F | 61% | | |
| | Wind Velocity | 1 - | | 0.16 - 1.56 m/det | Direct Reading | |
| | Wind Direction Dominant | 1 | | East | 1 | |

¹) Indonesian Government Regulation No. 41 Year 1999 on Air Pollution Control "<" Shows The Smallest Value Of The Measurement Obtained by The Method Used</p>



REPORT OF ANALYSIS No.: 313/B/LHU/MB/IV/2019

| Customer Name | | : SHIMIZU-PP-BCK JOINT VENTURE |
|---------------------------------------|----|---|
| Type of sample (s) | | : Access Road Work Under Patimban Port Development Project (I) : Ambient |
| No. Sample | ě. | : 586/MB-KU///2019 |
| Date of Sampling | : | : 1 – 2 April 2019 |
| Date of Analysis | | : 4 - 18 April 2019 |
| Coordinate Point | | : S: 06º14'25.08" E: 107º53'43.07" |
| · · · · · · · · · · · · · · · · · · · | | |

| | | MEASUDEMENT | | TEST RESULT | |
|----|--------------------------|-------------|------------------------------|----------------------------|---|
| No | PARAMETERS | TIME | REGULATION | STA 7+000 | METHOD SPESIFICATION |
| 1. | Sulfur Dioxide (SO2) | 24 Hour | 365 µg/Nm ^{3 1}) | <0.7581 µg/Nm ³ | SNI 7119.7:2017 |
| 2. | Carbon Monoxide (CO) | 24 Hour | 10000 µg/Nm ^{3 1}) | 937.3 µg/Nm³ | IKM/7.2.6/MB (Electro Chemical Sensor) |
| 3. | Nitrogen Dioxide (NO2) | 24 Hour | 150 µg/Nm ^{3 1}) | <0.3603 µg/Nm ³ | SNI 7119.2:2017 |
| 4. | PM 10 (Particle < 10 µm) | 24 Hour | 150 µg/Nm ^{3 1}) | 21.0 µg/Nm ³ | SNI 7119.15:2016 |
| 5 | Dust (TSP) | 24 Hour | 230 µg/Nm ^{3 1}) | 17.7 µg/Nm ³ | SNI 7119.3:2017 |
| | Temperature | | | 31°C | |
| | Relative Humidity | | 0. | 44% | 1 |
| | Wind Velocity | - | | 0.04 - 1.19 m/det | Direct Reading |
| | Wind Direction Dominant | | | West | 1 |

-

.

1) Indonesian Government Regulation No. 41 Year 1999 on Air Pollution Control "<" Shows The Smallest Value Of The Measurement Obtained by The Method Used</p>

.



Table 9. Noise Measurement Result

REPORT OF ANALYSIS No.: 313/B/LHU/MB/IV/2019

| Custo | mer Name | : SHIMIZU-PP-B | CK JOINT VENTUR | E |
|-------|-------------------|--------------------|---------------------|------------------------------|
| Addre | 955 | : Access Road W | /ork Under Patimbar | Port Development Project (I) |
| Туре | of sample (s) | : Ambient Noise | Level | |
| No. S | ample | : 586/MB-KU/I/20 | 19 | |
| Date | of Sampling | : 1 – 2 April 2019 | E | |
| Date | of Analysis | : 4 - 18 April 201 | 9 | |
| Metho | ode Spesification | : SNI 8427:2017 | | |
| No | LOCATION | MEASUREMENT | TEST RESULT | RAW OF NOISE) |
| | | | | |

| NO | LOCATION | TIME | IEST RESULT | RAW OF NOISE ") | | |
|----|-----------|---------|-------------|---|---|--|
| 1. | STA 0+000 | 24 Hour | 85.4 dBA | A. Area Designation 1. Housing and Settlements 2.Trade and Service 3.Office and Trade 4.Green Open Room | :: | 55 dBA 70 dBA 65 dBA 50 dBA |
| 2. | STA 2+700 | 24 Hour | 53.8 dBA | 5.Industry 6.Government and Public Facilities 7.Recreation 8.Special : a. Seaports b. Cultural Heritage | : | 70 dBA 60 dBA 70 dBA 70 dBA 60 dBA |
| 3. | 5TA 7+000 | 24 Hour | 61.8 dBA | B. Activity Environment 1.Hospital or the like 2.School or the like 3.Place of worship or the like | : : : | 55 dBA 55 dBA 55 dBA |

> Decree of the State Minister of Environment Number Kep-48 / MENLH / 11/1996



I

Note : The data Noise result is shown on table 9

Refer to the EIA Document regarding Noise standard value, it is used 70 dB(A) as max noise limit for the project activities.

Only STA 0 is above the standard, this station is located along the Pantura, so this may not derive from the construction activities.

| | | | Standard | | Lead (Pb) Analysis Results | | |
|--|--|-----------------------------|-----------------------------|---------------------------|--|-----------------------------------|--|
| Sa | mpling point | 1 (mg/kg) (reference) | 2 (mg/kg) (reference) | 3 (mg/kg) (Applied) | Baseline (Pre-Construction stage*) (mg/kg) | Construction stage (mg/kg) | |
| S1 S2 S3 S4 S5 S6 S11 S12 | Around of Dredging activity area | 50.0 | 30.2 | 112 | 61.2 51.4 53.7 78.7 59.1 61.7 58.4 55.2 | malysis does not conducted yet | |
| \$7 \$8 \$9 \$10 | Around of Dumping Activity Area | | | | 92.4 107 51.2 49.2 | The sediment (| |

Table 10. Baseline of Lead (Pb) in Sediment Comparing with Standards

* Data source on August, 2018

1. National Assessment Guidelines for Dredging 2009. Australian Government. Screening Level (Reference Value)

 Canadian Sediment Quality Guidelines (SQG) for the Protection of Aquatic Life (Canadian Council of Minister of the Environment/ CCME). ISQG: Interim marine sediment quality guideline, (Reference Value)
 Canadian Sediment Quality Guidelines (SQG) for the Protection of Aquatic Life (Canadian Council of Minister of the Environment/ CCME) PEL: Probable Effect Level. (Applied Standard Value)

3. Details on Social Environment

Progress of Compensation Payment and Land Vacation

| Village Items | Patimban | Gempol | Kalentambo | Kotasari | Pusakajaya | Pusakaratu | Total Plot | Total area (Ha) |
|--|----------|--------|------------|----------|------------|------------|---------------|-----------------------|
| Land Plot Target for Access Road (based on planning report) | - | 71 | 32 | 27 | 9 | 25 | 164 | 15.79 |
| Land Plot Target for Back up area (based on planning report) | 522 | - | - | - | - | - | 522 | 356.23 |
| Land Plot Realization for Access Road (<i>from</i> <i>KJPP</i> <i>valuation</i>) | - | 75 | 24 | 19 | 1 | 26 | 145 | 15.3 |
| Land Plot Realization for Back Up Area from KJPP valuation | 486 | - | - | - | - | - | 486 | 354.43 |
| Land of Access road with completion of payment | | | | | | | 115 | 11.13 |
| Land of Back up area with completion of payment | | | | | | | 168 | 106.31 |

| N .7 | Location | | | | | |
|-------------|------------|-----|-------|-----|-----|-----|
| No | (Village) | | Total | | | |
| | | Feb | Mar | Apr | May | |
| 1 | Patimban | 61 | 69 | 69 | 58 | 255 |
| 2 | Gempol | 8 | 12 | 12 | 12 | 35 |
| 3 | Kalentambo | 5 | 6 | 6 | 6 | 19 |
| 4 | Kotasari | 5 | 6 | 6 | 6 | 17 |
| 5 | Pusakaratu | 1 | 1 | 1 | 1 | 12 |
| 6 | Pusakaraya | 1 | 1 | 1 | 1 | 3 |
| TOTA | AL | 81 | 95 | 95 | 84 | 341 |

Number of Local worker Terminal Construction

Number of local Workers for Acccess Road

| | | N | T () | | |
|--------------|--------------------|-----|-------|-----|-----|
| No | Location (Village) | | Total | | |
| | | Feb | Mar | Apr | |
| 1 | Patimban | - | 7 | 12 | 19 |
| 2 | Gempol | 20 | 19 | 43 | 118 |
| 3 | Kalentambo | 15 | 18 | 24 | 80 |
| 4 | Kotasari | 32 | 63 | 55 | 199 |
| 5 | Pusakaratu | 34 | 48 | 62 | 187 |
| 6 Pusakajaya | | 5 | 12 | 13 | 30 |
| TOTAI | _ | 106 | 167 | 209 | 633 |

Land Traffic Condition and Accident Number

| | | Monitoring Period | | | | | | | | | _ |
|----|--|-------------------|----|-------------|----|-------------|----|-------------|----|-------|----|
| No | Location | Feb 2019 | | Mar 2019 | | Apr 2019 | | May 2019 | | Total | |
| | | TJ | AN | TJ | AN | ТJ | AN | TJ | AN | ТJ | AN |
| 1 | Pantura road | 0 | * | 0 | * | 0 | * | 0 | * | 0 | * |
| 2 | Patimban seaport access road | | * | 0 | * | 0 | * | 0 | * | 0 | * |
| 3 | Crossing of Pantura road | | * | 0 | * | 0 | * | 0 | * | 0 | * |
| 4 | Crossing of Patimban seaport access road | 0 | * | 0 | * | 0 | * | 0 | * | 0 | * |

Note:

TJ: Traffic Jam AN: Accident Number (*): No Record

| | | | Monitori | ing period | | |
|----|------------------------------|--------|----------|------------|--------|-------|
| No | Location | Feb-19 | Mar-19 | Apr-19 | May-19 | Total |
| 1 | Pilling barge | 2 | 2 | 2 | 2 | 12 |
| 2 | Anchor boat | 3 | 3 | 3 | 3 | 17 |
| 3 | CDM Vessel | 4 | 4 | 4 | 4 | 23 |
| 4 | Semi-submersible vessel | 1 | 1 | - | - | 4 |
| 5 | Pneumatic conveying barge | 1 | 1 | 1 | 1 | 6 |
| 6 | Cement supply vessel | 1 | 1 | 1 | 1 | 6 |
| 7 | Improved soil placing barge | 1 | 2 | 1 | 1 | 7 |
| 8 | Cement transportation vessel | 2 | 4 | 2 | 2 | 14 |
| 9 | Cement feeder carrier | 2 | 4 | 4 | 4 | 18 |
| 10 | Grab dredger | 5 | 5 | 4 | 4 | 25 |
| 11 | Hopper barge | 5 | 2 | 5 | 6 | 27 |
| 12 | SP Hopper Barge | 2 | 3 | 2 | 2 | 11 |
| 13 | Flat barge | 1 | 2 | 3 | 6 | 15 |
| 14 | Crane barge | 2 | 13 | 2 | 2 | 23 |
| 15 | Tug boat | 13 | 7 | 13 | 18 | 69 |
| 16 | Crew boat | 8 | 2 | 7 | 7 | 34 |
| 17 | Work boat | 2 | 1 | 2 | 3 | 12 |
| 18 | Excavator Barge | - | 1 | 1 | 1 | 1 |
| 19 | Fracturing Barge | - | 1 | 1 | 1 | 1 |
| | Total | 55 | 59 | 58 | 68 | 325 |

Sea Traffic Condition and Identifying Accident Number

Sea Traffic Condition and Accident Number

| | | | Monitoring period | | | | | | | | Total | |
|-------|-------------------|--------|-------------------|--------|-----|--------|----|--------|-----|--------|-------|--|
| No | Location | Feb 20 | 19 | Mar 20 |)19 | Apr 20 | 19 | May 20 |)19 | 1018 | 1 | |
| | | STC | AN | STC | AN | STC | AN | STC | AN | STC | AN | |
| 1 | Patimban Beach | Smooth | 0 | Smooth | 0 | Smooth | 0 | Smooth | 0 | Smooth | 0 | |
| Note: | | | | | | | | | | | | |

STC : Sea traffic condition AN : Accident Number

Public Unrest

| | | | Monitoring Period | | | | | | | | | | | Tatal | | |
|---|---|----|-------------------|----|----|---------|----|----|---------|----|----|--------|----|-------|-------|----|
| Ν | Locatio | F | eb 201 | 19 | M | [ar 20] | 19 | Ap | pril 20 | 19 | М | lay 20 | 19 | | Total | |
| 0 | n | PU | PR | DE | PU | PR | DE | PU | PR | DE | PU | PR | DE | PU | PR | DE |
| | | Ν | 0 | М | Ν | 0 | М | Ν | 0 | М | Ν | 0 | М | Ν | 0 | М |
| 1 | Around Patimba n port develop ment project | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Note:

PUN : Pucblic Unrest PRO : Protest DEM : Demonstration

| Implementation date | Program name | Number of |
|---------------------|----------------------------------|--------------|
| | | participants |
| 14 - 16 March | Basic Safety Training | 239 |
| 22 April - 1 May | TKBM (Tenaga Kerja Bongkar Muat) | 30 |
| 22 April - 3 May | Forklift Training | 25 |
| 7 – 17 May | Forklift Training | 25 |
| 11 -13 May | Rampus Net Assembling | 44 |
| 24 - 26 May | Rampus Net Assembling | 44 |
| | Total | 407 |

Record of Livelihood Restoration Program (LRP)

Record of Funds

Land Acquisition

| A | llocated funds | | F | Record of disburs | sement |
|-----------------|----------------|--------------------------|-----------------------|-------------------|-------------------|
| Amount (Rp.) | Allocated | Purpose of | Date | Amount (Rp.) | Disbursement |
| | organization | use | | | to |
| 15.021.246.277 | LMAN but | Scheduled to | Scheduled | - | 10 plot owner |
| | need to update | be paid to 10 | (last | | |
| | the data and | plot owner as | update on | | |
| | value re- | much as 6.03 | 03 rd July | | |
| | calculate | На | 2019) | | |
| | (Reviewed by | | | | |
| | BPKP and | | | | |
| 24 408 525 024 | Vandate) | Pandy to paid | Schodulad | 22 021 205 214 | 10 plot owners |
| 54.408.525.024 | LIVIAIN | to 24 plot | (last | 22.021.095.014 | about 6 69 Ha |
| | | owner | undate on | | about 0.09 11a |
| | | o wher | 03 rd July | | |
| | | | 2019) | | |
| 117.408.341.201 | LMAN | Payment for | Scheduled | - | Plot owner |
| | | 86 plot owner | (last | | refused to |
| | | as much as | update on | | compensation |
| | | 47.7 Ha | 03 rd July | | value and to be |
| | | | 2019) | | consignment |
| 51.458.265191 | DGST | Payment for | Scheduled | - | Need other |
| | | other | (last | | formal term, |
| | | property land | update on | | ministry |
| | | 46.1 H_{\odot} | 2010) | | statement |
| | | 40.1 IIa | 2019) | | abolition of PT |
| | | | | | Laksana |
| | | | | | Dinamika land |
| | | | | | business |
| | | | | | property |
| 563.279.683.434 | LMAN | acquisition | Scheduled | - | Not yet validate, |
| | | compensation | (last | | not yet reviewed |
| | | of payment | update on | | by BPKP |
| | | as much as | 03 rd July | | |
| | | 46.7 Ha for | 2019) | | |

| A | llocated funds | | Record of disbursement | | | | |
|-----------------|----------------|--|--|-----------------|----------------|--|--|
| Amount (Rp.) | Allocated | Purpose of | Date | Amount (Rp.) | Disbursement | | |
| | organization | use | | | to | | |
| | | 131 plot owner | | | | | |
| 255.110.898.578 | LMAN | acquisition compensation of payment as much as 106.3 Ha for 168 plot owner | Done (last update on 03 rd July 2019) | 255.110.898.578 | 168 plot owner | | |
| 655.167.719.926 | LMAN | acquisition compensation of payment as much as 264.7 Ha for 422 plot owner | Done (last update on 03 rd July 2019) | 255.110.898.578 | 168 plot owner | | |

Livelihood Restoration Program (LRP)

| | Allocated fund | S | | Record of di | isbursement |
|----------------|----------------|----------------|-------|---------------|-----------------------|
| Amount | Allocated | Purpose of | Date | Amount | Disbursement for |
| (Rp.) | organization | use | | (Rp.) | |
| 12,666,748,050 | DGST to | LRP | March | 431,025,000 | BST training |
| | Consultant | implementation | 2019 | 60,300,000 | Experts |
| | PKG-8 | | | 160,110,050 | Non personnel |
| | | | April | 179,200,000 | TKBM (Tenaga Kerja |
| | | | 2019 | | Bongkar Muat) |
| | | | | 167,920,000 | Forklift training-1 |
| | | | | 60,300,000 | Experts |
| | | | | 70,227,400 | Non personnel |
| | | | May | 156,920,000 | Forklift training-2 |
| | | | 2019 | 180,061,550 | Rampus net training-1 |
| | | | | 60,300,000 | Experts |
| | | | | 68,844,121 | Non personnel |
| | | | Total | 1,595,208,121 | - |

Grievance Redress

| Date of grievance | Dated of grievance resolved | Solution/unresolved | Note (if any) |
|-------------------|--------------------------------|--|---------------|
| 03-10-2018 | 01-12-2018 | Regarding the houses being cracked due to installation of piles on access road development. In December 1st 2018, the contractor holds up meeting with some parties consist of; complainants representatives local | - |

| Date of grievance | Dated of grievance | Solution/unresolved | Note (if any) |
|-------------------|--------------------|---|---------------|
| received | resolved | issues | |
| received | resolved | Issues government (village head), Ministry of Public Works Works and Public Housing (Pekerjaan Umum dan Perumahan Rakyat / PUPR) representatives as supervisor and contractor. The agenda of the meeting is to accommodate the requisition. The resolution made; 1. 1. The contractor will pay compensation for temporary relocate while the houses repaired; 2. 2. All the activity will stop for a while until the the compensation term and condition accept accept by the residents 3. Contractor, resident sign the agreement as acknowledgement. Then, in December 14th | |
| | | the pilling installation. | |

Implementation Problems and Solutions (if any)

| Record of problems | | Reco | ord of solutions |
|--------------------|----------|------|------------------|
| Date | Problems | Date | Solutions |
| | | | |
| | | | |
| | | | |

Form of complaint from the public regarding road access.

| Anna Anna Anna Anna Anna Anna Anna Anna | За за ода за ода на каза на к | Nome han Proyek Pen RJA PEMBANGUAN I AT JENDERAL PERAL Merdeka Barat No.8 Jai 84963 erpatimban@gniail.com | or Seri (Penggunaan Resmi): Dangunan Pelabuhar PELABUHAN PATIMBAN JBUNGAN LAUT, karia - 10110 | Lampiran-1 |
|---|---|--|---|---|
| 4 | Nama: HJ Sici Hasanah | 1 | Lenn | |
| | Desa: kotasari RT/RW: OK | /003 | KIP: | |
| | Latar belakang dan masalah | | 11F 06121483107 | |
| | Persoalan: Aset yang Terkena D. | ampakKompensasi 🖸 | Program Pemulihan Mata P | encabarian |
| | dampar yay komi alar tajai mengarikatkan ritaaan yaz tajai selesa adanya proyer pembangu jolon musar. serta debu Permintaan/Saran/Pertanyaan Permintaan/Saran/Pertanyaan Permintaan/Saran/Pertanyaan Remisiaan komi terkait ke rugi borupa matoril untuk komi mohon untuk da numeh hansi, serta j bargih terimokarih. | poyee Pelabuhan mi antara lain, p istakan dibebevopa r ± 0.2 mm - 2.5 nan ini membuar debu yay betebare iluhan dan maralah memperbaik, rum par memperbaik, rum par memperbaik, penanaman poluan | Pahmbon ini, ada b. Polosi suara. Getaran Bagian dirumah kan cm Selain itu dega aasai te rumah komi an lebih baryoti Davij Ratas yaitu barupa oh kuani. selain auses Jalah menay igar udara kemi | eberopa Yang sui: m Sult carena bada brasong gun h ina yan h ina sali |
| Tan | ggal Penginman: | | Tanggal Pengakuan | |
| Nan | a Pemobon: | | ganden | |
| Tand | HUSM HACAMAN | ksi*: | Nama Penerima: | |
| | Tan Tan | idatangan: | Tandatangan: | |
| * Carr | at atau Kepala Desa sebagai saks | si | | |

Grievance Redress Procedure for Patimban Port Development Project

Grievance submission by complainants



| Lampi | iran-1 | |
|-------|--------|--|
|-------|--------|--|

| Formulir Pengum | pulan Keluhan Proyek Pem | bangunan Pelabuhan Patimban | | | |
|------------------------|--|------------------------------------|--|--|--|
| | SATUAN KERJA PEMBANGUAN PELABUHAN PATIMBAN | | | | |
| | DIREKTORAT JENDERAL PERHUBUNGAN LAUT, | | | | |
| | JL. Medan Merdeka Barat No.8 Jakarta - 10110 | | | | |
| | FAX: 021 384963 | | | | |
| 1 | Email : pelayananpatimban@yahoo | <u>b.com</u> | | | |
| Informasi Pemohon | | | | | |
| Nama: | | KTP: | | | |
| Desa: | | HP: | | | |
| Latar belakang dan mas | alah | | | | |
| Persoalan: DAset yang | Terkena Dampak Kompensasi | Program Pemulihan Mata Pencaharian | | | |
| □Pekerjaan Konstruksi | □Lain-lain (|) | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Permintaan/Saran/Perta | nyaan | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Nomor Seri (Penggunaan Resmi):

| Tanggal Pengiriman: | | Tanggal Pengakuan: |
|---------------------|--------------|--------------------|
| Nama Pemohon: | Saksi*: | Nama Penerima: |
| Tandatangan: | Tandatangan: | Tandatangan: |
| | | |

* Camat atau Kepala Desa sebagai saksi

| | m | D. | ra | n ' |
|-----|---|----|----|-----|
| L 0 | | UI | | -2 |
| | | | | |

| | | | | | | Lampiran-2 |
|-------------------|---|--------------|-----------------------|---------------------|-----------|---------------------------------|
| F | Formulir Pelacakan Pengaduan Proy | /ek Pembar | ngunan Pelabuhar | n Patimban | Nomor Se | ri: |
| Informasi Keluhar | 1 | | | | | |
| Nama Pengadu: | | 1 | Desa: | | | |
| Ringka§an Penga | iduan: | | | | | |
| Catatan Penanga | nan Pengaduan | | | | | |
| Hari | Tindakan yang diambil untuk menyelesai (investigasi dll) | ikan keluhan | Hasil /tindakan lebih | lanjut yang harus o | dilakukan | Orang yang bertanggung-jawab |
| | Menerima Keluhan melalui | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Solusi akhir | | | | | | |
| Tanggal | Solusi | Lapor | an Keluhan | Publikasi dan S | oluSi | Orang yang |

| Tanggal | Solusi | Laporan Keluhan | Publikasi dan Solusi | Orang yang |
|---------|--------|------------------------------|----------------------|-------------------|
| | | | | bertanggung-jawab |
| | | Tanggal Laporan: | Tanggal Publikasi: | |
| | | Metode: 🗆 Bicara langSung | Metode: Papan Desa | |
| | | □Melalui kepala de§a / camat | □Others () | |
| | | Lain-lain () | | |

Lampiran-3

| | Nomor Seri: |
|---|---|
| | Hasil Publikasi Penanganan Keluhan untuk |
| F | Proyek Pembangunan Pelabuhan Patimban |
| ۲ | SATUAN KERJA PEMBANGUAN PELABUHAN PATIMBAN DIREKTORAT JENDERAL PERHUBUNGAN LAUT, JL. Medan Merdeka Barat No.8 Jakarta - 10110 FAX: 021 384963 Email: <u>pelayananpatimban@yahoo.com</u> |

Informasi Pemohoon

Nama: Desa: Tanggal Pengajuan: Ringkasan Keluhan

Respon/Solusi/Hasil Investigasi

Tanggal Publikasi:

Nama Orang yang Bertanggung-Jawab:

Tandatangan: