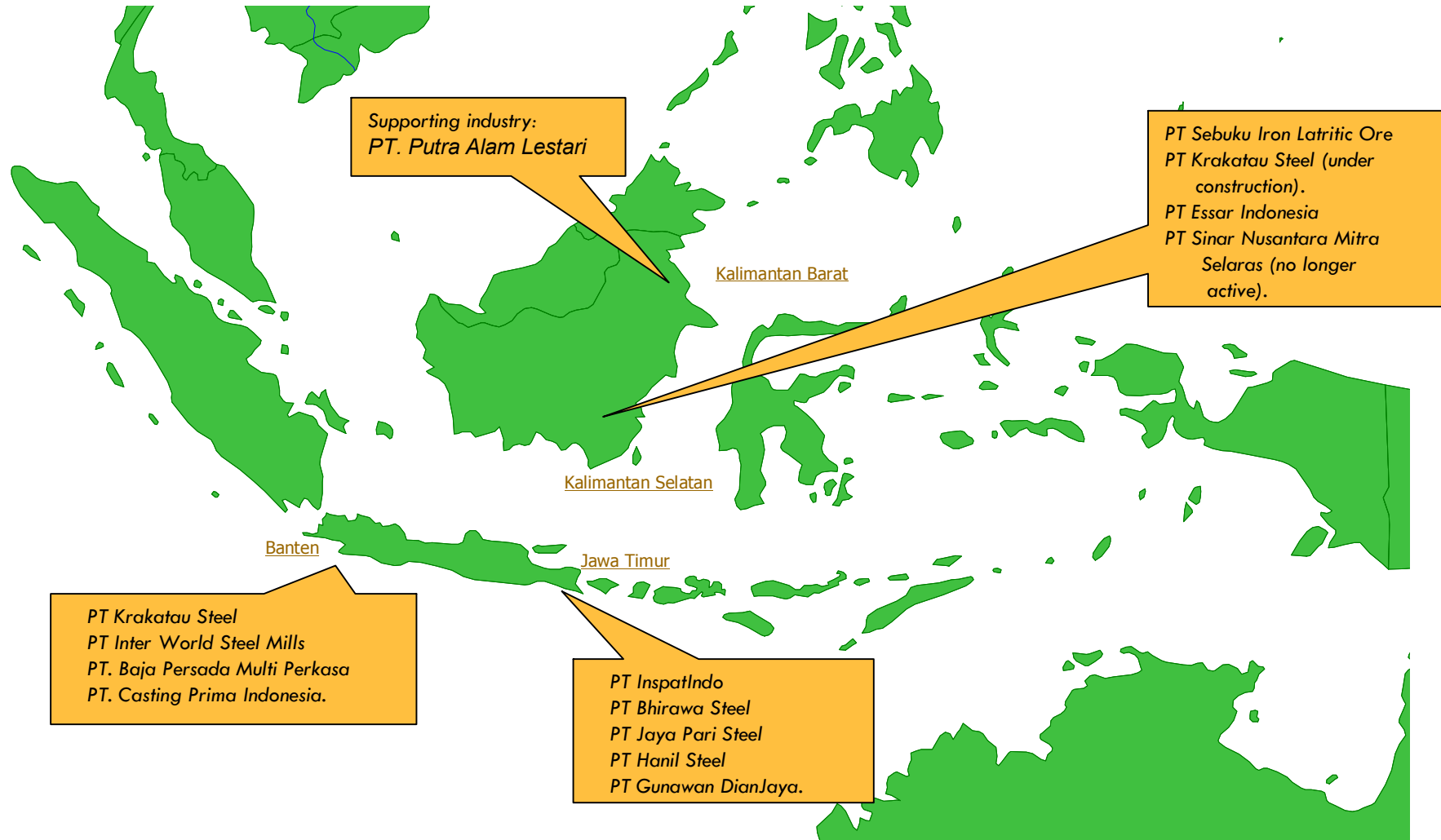


## D. ALTERNATIVE POTENTIAL LOCATION

- ❑ Based on the distribution of industrial location and map of potential natural resources availability (iron ore, natural gas and coal), possible alternative locations for steel industry cluster development are the locations which have proved be established such as East Java and Banten.
  - ❑ Other alternative location is in Kalimantan island, mainly in West Kalimantan and South Kalimantan. Beside because of its huge iron ore reserves, Kalimantan also have plenty of gas and coal reserves.
-

## Alternative Location and Distribution of Existing Steel Industry



# Banten

## Infrastructure and Industrial Facilities



1. 150.000 DWT Cigading Natural Harbour (2 km from the estate);
2. Ciwandan Harbour (30,000 DWT) 6 km from the estate.
3. Container Port Merak Mas, 10 km away from the estate  
Bojonegara International Port (*under construction*), 20 km from the estate
4. 400 MW Power Plant
5. 2000 litres/second Industrial Water Plant
6. Natural Gas supported by PT. Gas Negara
7. Jakarta-Merak Toll Way, Railway and Train Station
8. Seaport and Airport
8. First Class infrastructure/facilities and 24 hour security service)



## ***Utility, Land Availability and Regional Minimum Wage***

<b><i>Utility</i></b>	
<i>Electricity</i>	Installed capacity is 4100 MW (Surabaya, Krakatau, Bojonegoro)
<i>Gas</i>	Merak – Bataraja Network by PT. PGN
<i>Clean Water</i>	Disuplay oleh ( <i>Supplied by</i> ) PDAM and Krakatau Tirta Industry
<i>Phone Line</i>	Fix line (335.378 SST) dan Jaringan Telepon selular ( <i>cellular phone network</i> )
<b><i>Land Availability</i></b>	
<i>Alternative Location</i>	Bandar Samudera, Cilegon, and Bojonegoro
<i>Estimated Price</i>	Harga jual lahan USD 20/m <sup>2</sup> <i>Land purchasing price is 20 USD/ m<sup>2</sup></i>
<b><i>Human Resource</i></b>	
<i>Regional Minimum Wage (UMR)</i>	661.613 IDR (2006)
<i>Labor Force Availability</i>	

# Raw Material Potency

## METALLIC MINERALS

COMMODITY	LOCATION	DISTRICT	MINERAL RESOURCES (Ton)						RESERVE (Ton)					
			Hypothetic		Inferred		Indicated		Measured		Probable		Proved	
			Ore	Metal	Ore	Metal	Ore	Metal	Ore	Metal	Ore	Metal	Ore	Metal
Lateral Iron	Ciputat	Serang	-	-	126,000	61,148	-	-	-	-	-	-	-	-
Gold	Cikoreg	Pandeglang	-	-	219,000	2	352,000	2	297,000	4	-	-	-	-
Gold	Cibitung	Pandeglang	-	-	361,000	3	175,000	1	398,000	4	-	-	-	-
Gold	Cipicung	Lebak	322,000	3	-	-	-	-	-	-	-	-	-	-
Gold	Cawital, South Ciborek	Lebak	-	-	621,000	7	-	-	-	-	-	-	-	-
Gold	Cikidang, Cikotok	Lebak	-	-	-	-	-	-	-	92,300	1	52,000	1	
Silver	Cikoreg	Pandeglang	-	-	219,000	20	352,000	20	297,000	30	-	-	-	-
Silver	Cibitung	Pandeglang	-	-	361,000	17	175,000	18	398,000	30	-	-	-	-
Silver	Cipicung	Lebak	322,000	156	-	-	-	-	-	-	-	-	-	-
Silver	Cawital, South Ciborek	Lebak	-	-	621,000	298	-	-	-	-	-	-	-	-
Silver	Cikidang, Cikotok	Lebak	-	-	-	-	-	-	-	92,300	5	52,000	5	

Source : Ministry of Energy and Mineral Resources



# East Java

# Infrastructure



- Total length of roads = 24.376 km and there is free way crossing Surabaya-Gresik and Pasuruan
- Tanjung Perak as the main sea port (7 units of other ports are being planned)
- Juanda, an international and domestic airport
- There is train railway which is part of network in overall Java

Total road length in overall East Java Area is 3.731,81 Km, divided into :

- 1.783,56 km of national road
- 1.948,25 km of province road.

Total number of bridges in East Java is 2.795 consisting of :

- 1.451 national bridge with total length of 16.709,3 meter
- 1.344 province bridge with total length of 13.898,7 meter.



SAMUDRA INDONESIA

## *Utility, land availability and Regional Minimum Wage*

<b>Utility</b>	
Electricity	Available wattage is 80 MVA
Gas	Supplied by PT. PGN
Phone Line	300-1000 lines are available, handled by PT TELKOM
<b>Land Availability</b>	
Alternative Location	Sidoarjo (electronic industry is growing well in this area)
Estimated Price	Land purchasing price is 450.000 IDR/ m <sup>2</sup>
<b>Human Resource</b>	
Profile	11% are graduated from high schools and 2% from universities of total population
Regional Minimum Wage/ Month Labor Force Availability	<b>655.500,-</b> IDR (2006)

## *Rungkut Industrial Area*



- *Total area : 3.000 m<sup>2</sup>*
- *Land price : Rp. 450.000,-*
- *Road: width: Main Road = 2x7 m  
Secondary Road = 8 m  
Maximum weight capacity: 20 ton*
- *Pedestrian path : 2.85 m*
- *Drainage system : T=1.0 x L : 2,0 M up to T=5.0 x L : 2.0 M*
- *Drainage Pipe : ø 200-600 mm*
- *Road lighting : In every 40m*
- *Electricity : Supported by PT. PLN*
- *Water facility : Supported by PDAB*
- *Phone line : Supported by PT TELKOM*
- *Natural gas : Supported by PT Gas Negara*
- *Airport : Juanda (8 km)*
- *Sea Port : Tanjung Perak (20 km)*

# Gresik Industrial Area (KIG)

Total Area : 135 Ha



# Gresik Industrial Area



# Profile of Gresik Industrial Area

- Total Area : 135 Ha.
- Infrastructured area : 44 Ha.
  - Main road: Width : 8 m.
  - Secondary road: Width : 7 m.
  - Electricity by PLN.
  - Gas by PNG.
  - Waste disposal: 500m<sup>3</sup>/hari.
  - Telecommunication by TELKOM.
  - International Airport : Juanda (60 km from Surabaya)
- Commercial Area : 91 Ha.
  - For sale : 74,6 Ha.
  - For rent : 16,4 HA

## GRESIK

### METAL INDUSTRY

- Electronic
- Electrical
- Machine & Spare part
- Home equipment

### VARIOUS INDUSTRIES

- Printing
- Wood and rattan treatment
- Textile
- Garment
- Cold Storage

# Raw Material Potency

## METALLIC MINERALS

COMMODITY	LOCATION	DISTRICT	MINERAL RESOURCES (Ton)								RESERVE (Ton)			
			Hypothetic		Inferred		Indicated		Measured		Probable		Proved	
			Ore	Metal	Ore	Metal	Ore	Metal	Ore	Metal	Ore	Metal	Ore	Metal
Magnesite	Tegalombo dan Bandar	Pacitan	-	-	-	-	-	-	18,315	549	-	-	-	-
Magnesite	Tulungagung	Tulungagung	-	-	-	-	45,000	21,558	-	-	-	-	-	-
Magnesite	Tenggalek, Tulungagung	Tagung, T.galek	-	-	215	180	-	-	-	-	-	-	-	-
Magnesite	Sukerejo dan Tenggang	Tulungagung	-	-	500	180	-	-	-	-	-	-	-	-
Magnesite	Mt. Cemerung	Tulungagung	-	-	-	-	-	-	2,000	1,300	-	-	-	-
Magnesite	Mt. Jimbe, Mt. Purukasam	Blitar	-	-	-	-	-	-	22,000	8,324	-	-	-	-
Magnesite	Tambakrejo distict	Blita	-	-	-	-	-	-	2,000	1,165	-	-	-	-
Magnesite	Kalirejo village	Malang	-	-	-	-	42,700	36,082	25	22	-	-	-	-
Magnesite	Karangbale, Mt. Maron	Jember	-	-	-	-	282,000	15,988	-	-	-	-	-	-
Lateritic Iron	Ngjak, Kumpul, Kemel	Tulungagung	-	-	-	-	50	27	-	-	-	-	-	-
Lateritic Iron	Beji village	Blita	-	-	-	-	34	19	-	-	-	-	-	-
Lateritic Iron	Popoh and Perigi village	Tulungagung	-	-	-	-	1,100	482	-	-	-	-	-	-
Lateritic Iron	Puger	Lumajang, Jember	-	-	-	-	-	-	-	-	500,000	251,000	200,000	100,400
Placer Titan	Popoh and Perigi village	Tulungagung	-	-	1,100	138	-	-	-	-	-	-	-	-
Placer Titan	Puger	Lumajang, Jember	-	-	576,000	65,483	4,833,516	465,419	-	-	-	-	-	-
Gold	Kasihari	Pacitan	-	-	-	-	-	-	10,000	0	-	-	-	-
Copper	Kasihari	Pacitan	-	-	-	-	-	-	10,000	15	-	-	-	-
Copper	Mt. Domasan, Sialung	Ponorogo	-	-	-	-	-	-	-	1	-	-	-	-

Source : Ministry of Energy and Mineral Resources



# Infrastructure

# West Kalimantan



- The roads connected between two cities are in good condition, as well as the bridges.
- There are 4 sea ports close to KIS and 3 airports.
- There is only one gas bottling industry in Kapuas riverside Pontianak.
- For electricity supply KIS industrial area, BP KAPET planned an output of 15 MW.
- For telecommunication, right now the need is supplied by STO Telkom Pemangkat with installed capacity of 3.020 SST

## Industrial Area

Industrial area being developed by local government of West Kalimantan is KIS (Kawasan Industri Semparuk/ Semparuk Industrial Area), located in kabupaten Sambas, by distance of about 265 kilometer from Pontianak.



## Human Resource

- Minimum regional wage (UMP) of West Kalimantan in 2006 is 560.000 IDR.
- In Pontianak, there are several senior high schools which graduate potential workforces for industrial human resource need.
- There are several higher education institutions in Pontianak, but only one belongs to government, University of Tanjungpura. Several private higher education institutions in Pontianak are Muhammadiyah university, Panca Bakti, Widya Darma, and Industrial Engineering High School which belongs to Ministry of Industry.

# Raw Material Potency

## METALLIC MINERALS

COMMODITY	LOCATION	DISTRICT	MINERAL RESOURCES (Ton)						RESERVE (Ton)					
			Hypothetic		Inferred		Indicated		Measured		Probable		Proved	
			Ore	Metal	Ore	Metal	Ore	Metal	Ore	Metal	Ore	Metal	Ore	Metal
Magnetite	Jelatok hill	Bengkayang	-	-	-	-	-	-	42,700	299	-	-	-	-
Iron	Batuakubang	Ketapang	-	-	-	-	-	-	1,000,000	640,000	-	-	-	-
Bauxite	Munggu Besar	Sanggau	-	-	-	-	-	-	116,000,000	-	-	-	-	-
Bauxite	Kendawangan	Ketapang	-	-	-	-	-	-	404,900,000	-	-	-	-	-
Bauxite	Batai Bekuah	Sanggau	-	-	-	-	-	-	41,467,000	-	-	-	-	-
Bauxite	Pantau	Sanggau	-	-	-	-	-	-	146,725,000	-	-	-	-	-
Bauxite	Tayan Menukung	Ketapang	-	-	-	-	-	-	108,080,000	-	-	-	-	-
Bauxite	Sandai	Ketapang	-	-	-	-	-	-	59,529,433	-	-	-	-	-
Bauxite	Sandai	Ketapang	-	-	-	-	-	-	95,541,367	-	-	-	-	-
Gold	Sinturu	Portlindak	-	-	-	-	-	-	-	-	-	-	-	-
Placer Gold	Pangkalan Batu	Bengkayang	-	-	6,703,125	-	-	-	-	-	-	-	-	-
Placer Gold	Raya river, Montado	Bengkayang	-	-	-	-	-	-	35,000,000	2	-	-	-	-
Placer Gold	Maya Island	Ketapang	-	-	-	-	-	-	61,082	-	-	-	-	-
Placer Gold	Semantik	Bengkayang	-	-	-	-	-	-	813,114	1	-	-	-	-
Placer Gold	Bengkayang	Bengkayang	-	-	-	-	-	-	5	5	-	-	-	-
Placer Gold	Mt. Selabat	Bengkayang	-	-	-	-	-	-	25,736	-	-	-	-	-
Placer Gold	Sintang regency	Sintang	-	-	-	-	-	-	5,827,778	2	-	-	-	-
Placer Gold	Melawai	Sintang	-	45	-	-	-	-	-	-	-	-	-	-
Placer Gold	Kapas Hulu	Kapas Hulu	-	-	-	-	-	-	3,604,485	1	-	-	-	-
Placer Gold	Kapas Hulu	Kapas Hulu	-	-	-	-	-	-	1,211,450	-	-	-	-	-

Source : Ministry of Energy and Mineral Resources



## Infrastructure

- Road infrastructure in South Kalimantan, based on its status, 52% belongs to province governance, 48% belong to central governance. Main road and city road and road connected one city to another, are in very good condition.
- Available airports in South Kalimantan are: Syamsuddin Noor International Airport in Bandarbaru, Warukin airport in Tanjung, Stagen airport in Kotabaru and Batulicin airport in Tanah Bumbu

Harbours in South Kalimantan:

1. Trisakti harbour - Banjarmasin
2. Batulicin harbour
3. Mekarputih harbour in Kabupaten Kotabaru
4. Kotabaru harbour in Kabupaten Kotabaru



- The need of electricity in South Kalimantan is supplied by several units of generator managed by PLN and several private companies.
- Clean water needs are supplied by PDAM
- In South Kalimantan, industry need of gas cannot be fulfilled yet. There is scarcity of this commodity.





## Potency of Iron Ore Sources

Location	Reserves (ton)	Composition (%)
Tanah Laut	<i>Indication : 159.700</i> <i>Hypothesis : 3.429.500</i>	Fe : 50.6 – 62.57 S : 0.03 – 0.25 P : 0.04 – 0.10
Tanah Bumbu	<i>Indication : 100.000.000</i>	Fe : 44.2 – 47 TiO <sub>2</sub> : 0.24 – 0.4 Cr <sub>2</sub> O <sub>3</sub> : 2.43 – 2.6 MnO : 0.4 – 0.78 SiO <sub>2</sub> : 1.2 – 9.0
Kotabaru	<i>Indication : 86.120.700</i>	Fe : 44.2 – 47 Cr <sub>2</sub> O <sub>3</sub> : 2.43 – 2.6 SiO <sub>2</sub> : 1.2 – 9.0 Ni : 0.37 Co : 0.04 Al <sub>2</sub> O <sub>3</sub> : 8.88
Balangan	<i>Hypothesis : 20.449.018.300</i>	Fe : 54.86 – 58.75 S : 0.07 – 0.61 P : 0.03 – 0.05

