

Ambient Air

Quality

Reports

Jan-2012



Mahabal Enviro Engineers Pvt. Ltd.

Plot No. 13/14, Opp. Patel Petrol Pump, Chhindwara Road, Koradi, Dist - Nagpur -441 111.
Phone: 91-07109-326999, 0712-2612162 Tele Fax: 2612212, Email: Nagpur@mahabal.com

Ambient Air Quality Monitoring Report

Report No.: ME-CH0205-120114-SA-LANCO-ANPARA			Date: 14.01.12
Name and Address of Customer	LANCO ANPARA POWER LTD. Vill.- Anpara, Dist.-Sonebhadra		Order Reference:
			Through email
Sample Description/ Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	EPC Office	Sample Quantity/Packing	Filter Paper PM ₁₀ : 1 x 1 No. Filter Paper PM _{2.5} : 1 x 1 No. 1x 30 ml Each for SO ₂ and NO _x 1x 2 L Bladder
Date of Sampling	07.01.2012	Date of Receipt of Sample	08.01.2012
Sampling Procedure	CPCB Guidelines and IS 5182 Part 23:2006, Part 2:2001 RA 2006; part 6:2006, Part 10:1999 RA 2003.		
Date of Start of Analysis	08.01.2012	Date of Completion of Analysis	13.02.2012

Meteorological Data/ Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max	Min	Max	Min
		-	-	-	-
Location	EPC Office	Duration of Survey		24 Hrs.	
Parameter	Unit	Result	NAAQM Standard	Method Reference	
Particulate Matter (size less than 10 µm) or PM ₁₀	µg/m ³	53.2	100*	IS 5182 (Part 23) 2006 & CPCB Guidelines	
Particulate Matter (size less than 2.5 µm) or PM _{2.5}	µg/m ³	20.5	60*	Fine Particulate air sampler method	
Sulphur Dioxide	µg/m ³	10.9	80*	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines	
Oxides of Nitrogen	µg/m ³	9.2	80*	IS 5182 (Part 6): 2006 & CPCB Guidelines	
Carbon Monoxide	mg/m ³	1.3	4**	IS 5182 (Part 10) 1999 RA 2003	
Remarks:					
* - Limit for 24hrs. Monitoring.					
** - limit for 1 hr. sampling.					

-----End-----

For Mahabal Enviro Engineers Pvt. Ltd.

Harish Mendhi
Technical Manager
AUTHORISED SIGNATORY



Note:

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Mahabal Enviro Engineers Pvt. Ltd.

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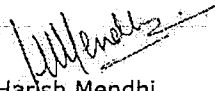
Ambient Air Quality Monitoring Report

Report No.: ME-CH0204-120114-SA-LANCO-ANPARA		Date: 14.01.12	
Name and Address of Customer	LANCO ANPARA POWER LTD. Vill.- Anpara, Dist.-Sonebhadra		Order Reference:
			Through email
Sample Description/ Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	Cooling Tower	Sample Quantity/Packing	Filter Paper PM ₁₀ : 1 x 1 No. Filter Paper PM _{2.5} : 1 x 1 No. 1x 30 ml Each for SO ₂ and NO _x 1x 2 L Bladder
Date of Sampling	07.01.2012	Date of Receipt of Sample	08.02.2012
Sampling Procedure	CPCB Guidelines and IS 5182 Part 23:2006, Part 2:2001 RA 2006; part 6:2006, Part 10:1999 RA 2003.		
Date of Start of Analysis	08.01.2012	Date of Completion of Analysis	13.01.2012

Meteorological Data/ Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max	Min	Max	Min
		-	-	-	-
Location	Cooling Tower	Duration of Survey		24 Hrs.	
Parameter	Unit	Result	NAAQM Standard	Method Reference	
Particulate Matter (size less than 10 µm) or PM ₁₀	µg/m ³	50.2	100*	IS 5182 (Part 23) 2006 & CPCB Guidelines	
Particulate Matter (size less than 2.5 µm) or PM _{2.5}	µg/m ³	19.5	60*	Fine Particulate air sampler method	
Sulphur Dioxide	µg/m ³	4.7	80*	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines	
Oxides of Nitrogen	µg/m ³	5.2	80*	IS 5182 (Part 6): 2006 & CPCB Guidelines	
Carbon Monoxide	mg/m ³	.9	4**	IS 5182 (Part 10) 1999 RA 2003	
Remarks:					
* - Limit for 24hrs. Monitoring.					
** - limit for 1 hr. sampling.					

-----End-----

For Mahabal Enviro Engineers Pvt. Ltd.


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Ambient Air Quality Monitoring Report

Report No.: ME-CH0203-120114-SA-LANCO-ANPARA			Date: 14.01.12
Name and Address of Customer	LANCO ANPARA POWER LTD. Vill.- Anpara, Dist.-Sonebhadra		Order Reference:
			Through email
Sample Description/ Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	Track Hopper	Sample Quantity/Packing	Filter Paper PM ₁₀ : 1 x 1 No. Filter Paper PM _{2.5} : 1 x 1 No. 1x 30 ml Each for SO ₂ and NO _x 1x 2 L Bladder
Date of Sampling	06.01.2012	Date of Receipt of Sample	07.01.2012
Sampling Procedure	CPCB Guidelines and IS 5182 Part 23:2006, Part 2:2001 RA 2006; part 6:2006, Part 10:1999 RA 2003.		
Date of Start of Analysis	08.01.2012	Date of Completion of Analysis	13.02.2012

Meteorological Data/ Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max	Min	Max	Min
		-	-	-	-
Location	Track Hopper	Duration of Survey		24 Hrs.	
Parameter	Unit	Result	NAAQM Standard	Method Reference	
Particulate Matter (size less than 10 µm) or PM ₁₀	µg/m ³	85.2	100*	IS 5182 (Part 23) 2006 & CPCB Guidelines	
Particulate Matter (size less than 2.5 µm) or PM _{2.5}	µg/m ³	46.5	60*	Fine Particulate air sampler method	
Sulphur Dioxide	µg/m ³	15.6	80*	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines	
Oxides of Nitrogen	µg/m ³	14.3	80*	IS 5182 (Part 6): 2006 & CPCB Guidelines	
Carbon Monoxide	mg/m ³	1.45	4**	IS 5182 (Part 10) 1999 RA 2003	
Remarks:					
* - Limit for 24hrs. Monitoring.					
** - limit for 1 hr. sampling.					

-----End-----

For Mahabal Enviro Engineers Pvt. Ltd.

Harish Mendhi
Harish Mendhi
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Ambient Air Quality Monitoring Report

Report No.: ME-CH0202-120114-SA-LANCO-ANPARA		Date: 14/01.12	
Name and Address of Customer	LANCO ANPARA POWER LTD. Vill.- Anpara, Dist.-Sonebhadra		Order Reference:
			Through email
Sample Description/ Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	Main Gate	Sample Quantity/Packing	Filter Paper PM ₁₀ : 1 x 1 No. Filter Paper PM _{2.5} : 1 x 1 No. 1x 30 ml Each for SO ₂ and NO _x 1x 2 L Bladder
Date of Sampling	06.01.2012	Date of Receipt of Sample	07.01.2012
Sampling Procedure	CPCB Guidelines and IS 5182 Part 23:2006, Part 2:2001 RA 2006; part 6:2006, Part 10:1999 RA 2003.		
Date of Start of Analysis	08.01.2012	Date of Completion of Analysis	13.01.2012

Meteorological Data/ Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max	Min	Max	Min
		-	-	-	-
Location	Main Gate	Duration of Survey		24 Hrs.	
Parameter	Unit	Result	NAAQM Standard	Method Reference	
Particulate Matter (size less than 10 µm) or PM ₁₀	µg/m ³	80.2	100*	IS 5182 (Part 23) 2006 & CPCB Guidelines	
Particulate Matter (size less than 2.5 µm) or PM _{2.5}	µg/m ³	45.5	60*	Fine Particulate air sampler method	
Sulphur Dioxide	µg/m ³	15.9	80*	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines	
Oxides of Nitrogen	µg/m ³	14.1	80*	IS 5182 (Part 6): 2006 & CPCB Guidelines	
Carbon Monoxide	mg/m ³	1.35	4**	IS 5182 (Part 10) 1999 RA 2003	
Remarks:					
* - Limit for 24hrs. Monitoring.					
** - limit for 1 hr. sampling.					

-----End-----

For Mahabal Enviro Engineers Pvt. Ltd.

Harish Mendhi
Harish Mendhi
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Ambient Air Quality Monitoring Report

Report No.: ME-CH0201-120114-SA-LANCO-ANPARA		Date: 14.01.12	
Name and Address of Customer	LANCO ANPARA POWER LTD. Vill.- Anpara, Dist.-Sonebhadra		Order Reference:
			Through email
Sample Description/ Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	Near Boiler#1 & 2	Sample Quantity/Packing	Filter Paper PM ₁₀ : 1 x 1 No. Filter Paper PM _{2.5} : 1 x 1 No. 1x 30 ml Each for SO ₂ and NO _x 1x 2 L Bladder
Date of Sampling	06.01.2012	Date of Receipt of Sample	07.01.2012
Sampling Procedure	CPCB Guidelines and IS 5182 Part 23:2006, Part 2:2001 RA 2006; part 6:2006, Part 10:1999 RA 2003.		
Date of Start of Analysis	08.01.2012	Date of Completion of Analysis	14.01.2012

Meteorological Data/ Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max	Min	Max	Min
		-	-	-	-
Location	Near Boiler#1 & 2	Duration of Survey		24 Hrs.	
Parameter	Unit	Result	NAAQM Standard	Method Reference	
Particulate Matter (size less than 10 µm) or PM ₁₀	µg/m ³	73.2	100*	IS 5182 (Part 23) 2006 & CPCB Guidelines	
Particulate Matter (size less than 2.5 µm) or PM _{2.5}	µg/m ³	44.5	60*	Fine Particulate air sampler method	
Sulphur Dioxide	µg/m ³	6.2	80*	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines	
Oxides of Nitrogen	µg/m ³	5.8	80*	IS 5182 (Part 6): 2006 & CPCB Guidelines	
Carbon Monoxide	mg/m ³	1.10	4**	IS 5182 (Part 10) 1999 RA 2003	
Remarks:					
* - Limit for 24hrs. Monitoring.					
** - limit for 1 hr. sampling.					

-----End-----
For Mahabal Enviro Engineers Pvt. Ltd.

Harish Mendhi
Technical Manager
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Ambient Air

Quality

Reports

Feb-2012



Mahabal Enviro Engineers Pvt. Ltd.

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Phone: 91-07109-326999, 0712-2612162 Tele Fax: 2612212, Email: Nagpur@mahabal.com

Ambient Air Quality Monitoring Report

Report No.: ME-CH0210-120215-SA-LANCO-ANPARA			Date: 15.02.2012
Name and Address of Customer	LANCO ANPARA POWER LTD. Vill.- Anpara, Dist.-Sonebhadra		Order Reference:
			Through email
Sample Description/ Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	EPC Office	Sample Quantity/Packing	Filter Paper PM ₁₀ : 1 x 1 No. Filter Paper PM _{2.5} : 1 x 1 No. 1x 30 ml Each for SO ₂ and NO _x 1x 2 L Bladder
Date of Sampling	07.02.2012	Date of Receipt of Sample	08.02.2012
Sampling Procedure	CPCB Guidelines and IS 5182 Part 23:2006, Part 2:2001 RA 2006; part 6:2006, Part 10:1999 RA 2003.		
Date of Start of Analysis	08.02.2012	Date of Completion of Analysis	13.02.2012

Meteorological Data/ Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max	Min	Max	Min
		-	-	-	-
Location	EPC Office	Duration of Survey		24 Hrs.	
Parameter	Unit	Result	NAAQM Standard	Method Reference	
Particulate Matter (size less than 10 µm) or PM ₁₀	µg/m ³	58.2	100*	IS 5182 (Part 23) 2006 & CPCB Guidelines	
Particulate Matter (size less than 2.5 µm) or PM _{2.5}	µg/m ³	21.5	60*	Fine Particulate air sampler method	
Sulphur Dioxide	µg/m ³	11.9	80*	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines	
Oxides of Nitrogen	µg/m ³	10.2	80*	IS 5182 (Part 6): 2006 & CPCB Guidelines	
Carbon Monoxide	mg/m ³	1.1	4**	IS 5182 (Part 10) 1999 RA 2003	
Remarks:					
* - Limit for 24hrs. Monitoring.					
** - limit for 1 hr. sampling.					

-----End-----

For Mahabal Enviro Engineers Pvt. Ltd.

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Ambient Air Quality Monitoring Report

Report No.: ME-CH0209-120215-SA-LANCO-ANPARA			Date: 15.02.2012
Name and Address of Customer	LANCO ANPARA POWER LTD. Vill.- Anpara, Dist.-Sonebhadra		Order Reference:
			Through email
Sample Description/ Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	Cooling Tower	Sample Quantity/Packing	Filter Paper PM ₁₀ : 1 x 1 No. Filter Paper PM _{2.5} : 1 x 1 No. 1x 30 ml Each for SO ₂ and NO _x , 1x 2 L Bladder
Date of Sampling	07.02.2012	Date of Receipt of Sample	08.02.2012
Sampling Procedure	CPCB Guidelines and IS 5182 Part 23:2006, Part 2:2001 RA 2006; part 6:2006, Part 10:1999 RA 2003.		
Date of Start of Analysis	08.02.2012	Date of Completion of Analysis	13.02.2012

Meteorological Data/ Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max	Min	Max	Min
		-	-	-	-
Location	Cooling Tower	Duration of Survey		24 Hrs.	
Parameter	Unit	Result	NAAQM Standard	Method Reference	
Particulate Matter (size less than 10 µm) or PM ₁₀	µg/m ³	64.2	100*	IS 5182 (Part 23) 2006 & CPCB Guidelines	
Particulate Matter (size less than 2.5 µm) or PM _{2.5}	µg/m ³	23.5	60*	Fine Particulate air sampler method	
Sulphur Dioxide	µg/m ³	5.9	80*	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines	
Oxides of Nitrogen	µg/m ³	5.2	80*	IS 5182 (Part 6): 2006 & CPCB Guidelines	
Carbon Monoxide	mg/m ³	1.19	4**	IS 5182 (Part 10) 1999 RA 2003	
Remarks:					
* - Limit for 24hrs. Monitoring.					
** - limit for 1 hr. sampling.					

-----End-----

For Mahabal Enviro Engineers Pvt. Ltd.

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Phone: 91-07109-326999, 0712-2612162 Tele Fax: 2612212, Email: Nagpur@mahabal.com

Ambient Air Quality Monitoring Report

Report No.: ME-CH0208-120215-SA-LANCO-ANPARA			Date: 15.02.2012
Name and Address of Customer	LANCO ANPARA POWER LTD. Vill.- Anpara, Dist.-Sonebhadra		Order Reference:
			Through email
Sample Description/ Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	Track Hopper	Sample Quantity/Packing	Filter Paper PM ₁₀ : 1 x 1 No. Filter Paper PM _{2.5} : 1 x 1 No. 1x 30 ml Each for SO ₂ and NO _x 1x 2 L Bladder
Date of Sampling	06.02.2012	Date of Receipt of Sample	08.02.2012
Sampling Procedure	CPCB Guidelines and IS 5182 Part 23:2006, Part 2:2001 RA 2006; part 6:2006, Part 10:1999 RA 2003.		
Date of Start of Analysis	08.02.2012	Date of Completion of Analysis	13.02.2012

Meteorological Data/ Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max	Min	Max	Min
		-	-	-	-
Location	Track Hopper	Duration of Survey		24 Hrs.	
Parameter	Unit	Result	NAAQM Standard	Method Reference	
Particulate Matter (size less than 10 µm) or PM ₁₀	µg/m ³	81.2	100*	IS 5182 (Part 23) 2006 & CPCB Guidelines	
Particulate Matter (size less than 2.5 µm) or PM _{2.5}	µg/m ³	41.5	60*	Fine Particulate air sampler method	
Sulphur Dioxide	µg/m ³	14.9	80*	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines	
Oxides of Nitrogen	µg/m ³	13.3	80*	IS 5182 (Part 6): 2006 & CPCB Guidelines	
Carbon Monoxide	mg/m ³	1.19	4**	IS 5182 (Part 10) 1999 RA 2003	
Remarks:					
* - Limit for 24hrs. Monitoring.					
** - limit for 1 hr. sampling.					

-----End-----

For Mahabal Enviro Engineers Pvt. Ltd.


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Ambient Air Quality Monitoring Report

Report No.: ME-CH0207-120215-SA-LANCO-ANPARA			Date: 15.02.2012
Name and Address of Customer	LANCO ANPARA POWER LTD. VIII.- Anpara, Dist.-Sonebhadra		Order Reference:
			Through email
Sample Description/ Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	Main Gate	Sample Quantity/Packing	Filter Paper PM ₁₀ : 1 x 1 No. Filter Paper PM _{2.5} : 1 x 1 No. 1x 30 ml Each for SO ₂ and NO _x 1x 2 L Bladder
Date of Sampling	06.02.2012	Date of Receipt of Sample	08.02.2012
Sampling Procedure	CPCB Guidelines and IS 5182 Part 23:2006, Part 2:2001 RA 2006; part 6:2006, Part 10:1999 RA 2003.		
Date of Start of Analysis	08.02.2012	Date of Completion of Analysis	13.02.2012

Meteorological Data/ Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max	Min	Max	Min
		-	-	-	-
Location	Main Gate	Duration of Survey		24 Hrs.	
Parameter	Unit	Result	NAAQM Standard	Method Reference	
Particulate Matter (size less than 10 µm) or PM ₁₀	µg/m ³	76.2	100*	IS 5182 (Part 23) 2006 & CPCB Guidelines	
Particulate Matter (size less than 2.5 µm) or PM _{2.5}	µg/m ³	43.5	60*	Fine Particulate air sampler method	
Sulphur Dioxide	µg/m ³	13.9	80*	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines	
Oxides of Nitrogen	µg/m ³	12.1	80*	IS 5182 (Part 6): 2006 & CPCB Guidelines	
Carbon Monoxide	mg/m ³	1.11	4**	IS 5182 (Part 10) 1999 RA 2003	
Remarks:					
* - Limit for 24hrs. Monitoring.					
** - limit for 1 hr. sampling.					

-----End-----

For **Mahabal Enviro Engineers Pvt. Ltd.**


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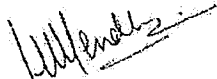
Ambient Air Quality Monitoring Report

Report No.: ME-CH0206-120215-SA-LANCO-ANPARA			Date: 15.02.2012
Name and Address of Customer	LANCO ANPARA POWER LTD. Vill.- Anpara, Dist.-Sonebhadra		Order Reference:
			Through email
Sample Description/ Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	Near Boiler#1 & 2	Sample Quantity/Packing	Filter Paper PM ₁₀ : 1 x 1 No. Filter Paper PM _{2.5} : 1 x 1 No. 1x 30 ml Each for SO ₂ and NO _x 1x 2 L Bladder
Date of Sampling	06.02.2012	Date of Receipt of Sample	08.02.2012
Sampling Procedure	CPCB Guidelines and IS 5182 Part 23:2006, Part 2:2001 RA 2006; part 6:2006, Part 10:1999 RA 2003.		
Date of Start of Analysis	08.02.2012	Date of Completion of Analysis	13.02.2012

Meteorological Data/ Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max	Min	Max	Min
		-	-	-	-
Location	Near Boiler#1 & 2	Duration of Survey		24 Hrs.	
Parameter	Unit	Result	NAAQM Standard	Method Reference	
Particulate Matter (size less than 10 µm) or PM ₁₀	µg/m ³	71.2	100*	IS 5182 (Part 23) 2006 & CPCB Guidelines	
Particulate Matter (size less than 2.5 µm) or PM _{2.5}	µg/m ³	40.5	60*	Fine Particulate air sampler method	
Sulphur Dioxide	µg/m ³	5.9	80*	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines	
Oxides of Nitrogen	µg/m ³	6.1	80*	IS 5182 (Part 6): 2006 & CPCB Guidelines	
Carbon Monoxide	mg/m ³	1.15	4**	IS 5182 (Part 10) 1999 RA 2003	
Remarks:					
* - Limit for 24hrs. Monitoring.					
** - limit for 1 hr. sampling.					

-----End-----

For Mahabal Enviro Engineers Pvt. Ltd.


Harsh Mendhi
Technical Manager
AUTHORISED SIGNATORY



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**Ambient Air
Quality
Reports
Mar-2012**



Mahabal Enviro Engineers Pvt. Ltd.

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Ambient Air Quality Monitoring Report

Report No.: ME-CH0188-120325-LANCO-ANPARA		Date: 25.03.2012	
Name and Address of Customer	LANCO ANPARA POWER LTD. Vill.- Anpara, Dist.-Sonebhadra		Order Reference: Through E-mail
Sample Description/Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	Cooling Tower	Sample Quantity/Packing	Filter Paper PM ₁₀ : 1 x 1 No. Filter Paper PM _{2.5} : 1 x 1 No. 1x 30 ml Each for SO ₂ and NO _x 1x 2 L Bladder
Date of Sampling	17.03.2012	Date of Receipt of Sample	19.03.2012
Sampling Procedure	CPCB Guidelines and IS 5182 Part 23:2006, Part 2:2001 RA 2006; part 6:2006, Part 10:1999 RA 2003.		
Date of Start of Analysis	19.03.2012	Date of Completion of Analysis	23.03.2012

Meteorological Data/ Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max	Min	Max	Min
-	-	-	-	-	-
Location	Cooling Tower	Duration of survey		24 hours	
Parameter	Unit	Result	Limits As per NAAQM Standards	Method Reference	
Particulate Matter (size less than 10 µm) or PM ₁₀	µg/m ³	68.7	100*	IS 5182 (Part 23) 2006 & CPCB Guidelines	
Particulate Matter (size less than 2.5 µm) or PM _{2.5}	µg/m ³	25.2	60*	CPCB guidelines Fine Particulate air sampler method	
Sulphur Dioxide	µg/m ³	14.3	80*	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines	
Oxides of Nitrogen	µg/m ³	12.7	80*	IS 5182 (Part 6): 2006 & CPCB Guidelines	
Carbon Monoxide	mg/m ³	1.26	4**	IS 5182 (Part 10) 1999 RA 2003	
Remarks: * - Limit for 24hrs. Monitoring. ** - limit for 1 hr. sampling.					

-----End-----

for Mahabal Enviro Engineers Pvt. Ltd.

Harish P. Mendhi

Technical Manager.

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Phone: 91-07109-326999, 0712-2612162 Tele Fax: 2612212, Email: Nagpur@mahabal.com

Ambient Air Quality Monitoring Report

Report No.: ME-CH0187-120325-LANCO-ANPARA		Date: 25.03.2012	
Name and Address of Customer	LANCO ANPARA POWER LTD. Vill.- Anpara, Dist.-Sonebhadra		Order Reference: Through E-mail
Sample Description/Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	EPC Office	Sample Quantity/Packing	Filter Paper PM ₁₀ : 1 x 1 No. Filter Paper PM _{2.5} : 1 x 1 No. 1x 30 ml Each for SO ₂ and NO _x 1x 2 L Bladder
Date of Sampling	16.03.2012	Date of Receipt of Sample	19.03.2012
Sampling Procedure	CPCB Guidelines and IS 5182 Part 23:2006, Part 2:2001 RA 2006; part 6:2006, Part 10:1999 RA 2003.		
Date of Start of Analysis	19.03.2012	Date of Completion of Analysis	23.03.2012

Meteorological Data/ Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max	Min	Max	Min
-	-	-	-	-	-
Location	EPC Office		Duration of survey	24 hours	
Parameter	Unit	Result	Limits As per NAAQM Standards	Method Reference	
Particulate Matter (size less than 10 µm) or PM ₁₀	µg/m ³	55.5	100*	IS 5182 (Part 23) 2006 & CPCB Guidelines	
Particulate Matter (size less than 2.5 µm) or PM _{2.5}	µg/m ³	20.3	60*	CPCB guidelines Fine Particulate air sampler method	
Sulphur Dioxide	µg/m ³	13.4	80*	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines	
Oxides of Nitrogen	µg/m ³	11.8	80*	IS 5182 (Part 6): 2006 & CPCB Guidelines	
Carbon Monoxide	mg/m ³	1.0	4**	IS 5182 (Part 10) 1999 RA 2003	
Remarks: * - Limit for 24hrs. Monitoring. ** - limit for 1 hr. sampling.					

-----End-----

for Mahabal Enviro Engineers Pvt. Ltd.

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Ambient Air Quality Monitoring Report

Report No.: ME-CH0184-120325-LANCO-ANPARA		Date: 25.03.2012	
Name and Address of Customer	LANCO ANPARA POWER LTD. Vill.- Anpara, Dist.-Sonebhadra		Order Reference: Through E-mail
Sample Description/Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	Near Boiler#1 & 2	Sample Quantity/Packing	Filter Paper PM ₁₀ : 1 x 1 No. Filter Paper PM _{2.5} : 1 x 1 No. 1x 30 ml Each for SO ₂ and NO _x 1x 2 L Bladder
Date of Sampling	15.03.2012	Date of Receipt of Sample	19.03.2012
Sampling Procedure	CPCB Guidelines and IS 5182 Part 23:2006, Part 2:2001 RA 2006; part 6:2006, Part 10:1999 RA 2003.		
Date of Start of Analysis	19.03.2012	Date of Completion of Analysis	23.03.2012

Meteorological Data/ Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max	Min	Max	Min
-	-	-	-	-	-
Location	Near Boiler#1 & 2		Duration of survey		24 hours
Parameter	Unit	Result	Limits As per NAAQM Standards	Method Reference	
Particulate Matter (size less than 10 µm) or PM ₁₀	µg/m ³	74.4	100*	IS 5182 (Part 23) 2006 & CPCB Guidelines	
Particulate Matter (size less than 2.5 µm) or PM _{2.5}	µg/m ³	45.5	60*	CPCB guidelines Fine Particulate air sampler method	
Sulphur Dioxide	µg/m ³	14.2	80*	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines	
Oxides of Nitrogen	µg/m ³	13.0	80*	IS 5182 (Part 6): 2006 & CPCB Guidelines	
Carbon Monoxide	mg/m ³	1.12	4**	IS 5182 (Part 10) 1999 RA 2003	
Remarks: * - Limit for 24hrs. Monitoring. ** - limit for 1 hr. sampling.					

-----End-----

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Technical Manager

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Ambient Air Quality Monitoring Report

Report No.: ME-CH0185-120325-LANCO-ANPARA		Date: 25.03.2012	
Name and Address of Customer	LANCO ANPARA POWER LTD. Vill.- Anpara, Dist.-Sonebhadra		Order Reference: Through E-mail
Sample Description/Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	Main Gate	Sample Quantity/Packing	Filter Paper PM ₁₀ : 1 x 1 No. Filter Paper PM _{2.5} : 1 x 1 No. 1x 30 ml Each for SO ₂ and NO _x 1x 2 L Bladder
Date of Sampling	15.03.2012	Date of Receipt of Sample	19.03.2012
Sampling Procedure	CPCB Guidelines and IS 5182 Part 23:2006, Part 2:2001 RA 2006; part 6:2006, Part 10:1999 RA 2003.		
Date of Start of Analysis	19.03.2012	Date of Completion of Analysis	23.03.2012

Meteorological Data/ Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max	Min	Max	Min
-	-	-	-	-	-
Location	Main Gate	Duration of survey		24 hours	
Parameter	Unit	Result	Limits As per NAAQM Standards	Method Reference	
Particulate Matter (size less than 10 µm) or PM ₁₀	µg/m ³	78.2	100*	IS 5182 (Part 23) 2006 & CPCB Guidelines	
Particulate Matter (size less than 2.5 µm) or PM _{2.5}	µg/m ³	44.7	60*	CPCB guidelines Fine Particulate air sampler method	
Sulphur Dioxide	µg/m ³	14.9	80*	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines	
Oxides of Nitrogen	µg/m ³	13.0	80*	IS 5182 (Part 6): 2006 & CPCB Guidelines	
Carbon Monoxide	mg/m ³	1.18	4**	IS 5182 (Part 10) 1999 RA 2003	
Remarks:					
* - Limit for 24hrs. Monitoring.					
** - limit for 1 hr. sampling.					

-----End-----

for Mahabal Enviro Engineers Pvt. Ltd.

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Ambient Air Quality Monitoring Report

Report No.: ME-CH0186-120325-LANCO-ANPARA		Date: 25.03.2012	
Name and Address of Customer	LANCO ANPARA POWER LTD. Vill.- Anpara, Dist.-Sonebhadra		Order Reference: Through E-mail
Sample Description/Type	Ambient Air Quality Monitoring	Sample Collected by	Laboratory
Sampling Location	Track Hopper	Sample Quantity/Packing	Filter Paper PM ₁₀ : 1 x 1 No. Filter Paper PM _{2.5} : 1 x 1 No. 1x 30 ml Each for SO ₂ and NO _x 1x 2 L Bladder
Date of Sampling	16.03.2012	Date of Receipt of Sample	19.03.2012
Sampling Procedure	CPCB Guidelines and IS 5182 Part 23:2006, Part 2:2001 RA 2006; part 6:2006, Part 10:1999 RA 2003.		
Date of Start of Analysis	19.03.2012	Date of Completion of Analysis	23.03.2012

Meteorological Data/ Environmental Conditions					
Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max	Min	Max	Min
-	-	-	-	-	-
Location	Track Hopper	Duration of survey		24 hours	
Parameter	Unit	Result	Limits As per NAAQM Standards	Method Reference	
Particulate Matter (size less than 10 µm) or PM ₁₀	µg/m ³	83.1	100*	IS 5182 (Part 23) 2006 & CPCB Guidelines	
Particulate Matter (size less than 2.5 µm) or PM _{2.5}	µg/m ³	44.3	60*	CPCB guidelines Fine Particulate air sampler method	
Sulphur Dioxide	µg/m ³	15.1	80*	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines	
Oxides of Nitrogen	µg/m ³	13.7	80*	IS 5182 (Part 6): 2006 & CPCB Guidelines	
Carbon Monoxide	mg/m ³	1.24	4**	IS 5182 (Part 10) 1999 RA 2003	
Remarks: * - Limit for 24hrs. Monitoring. ** - limit for 1 hr. sampling.					

-----End-----

for Mahabal Enviro Engineers Pvt. Ltd.

Harish P. Mendhi

Technical Manager

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Ground Water Quality Report

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Water Sample Analysis Report

Report No.: ME-CH0193-120406-SA-LANCO-ANPARA		Date: 06.04.2012	
Name and Address of Customer	LANCO ANAPARA Power Limited VILL.-ANAPARA, DIST.-SONEBHADRA		Order Reference: Through email
Sample Description / Type	Ground water (Hand Pump)	Sample Collected by	Laboratory
Sampling Location	Dibulganj	Sample Quantity/Packing	5 L X 1 No PVC Can
Date of Sampling	28.03.2012	Date of Receipt of Sample	30.03.2011
Sampling Procedure	As per IS:3025 (Part I) 1987 RA 2003, APHA 21 st ed. 2005, 1060-B, 9060-A		
Date of Start of Analysis	30.03.2011	Date of Completion of Analysis	05.04.2012

Sr. No.	Parameters	Unit	Results	BIC Desirable standard (IS 10500:1991)	Method Reference
1	Colour	Hazen	<1	5 Max	APHA, 21st Ed., 2005, 2120 B,C 2-2 &3
2	Odour	-	Unobjectionable	Unobjectionable	IS 3025(Part5):1983, Reaffirmed 2006.
3	Taste	-	Agreeable	Agreeable	IS 3025(Part7):1984, Reaffirmed 2006.
4	Turbidity	NTU	1.0	5 Max	APHA, 21 st Ed., 2005, 2130-B,2 - 9
5	Free chlorine (Residual)	mg/L	N.D.	0.2 Min. (at outlet)	IS 3025:1964,45,pg-83
6	Total Dissolved Solids	mg/L	306	500 Max	IS 3025 (Part 16)1984, Reaffirmed 2006
7	pH	-	7.4	5.5 - 9.0	APHA, 21st Ed., 2005, 4500 H+-B,4-90
8	Alkalinity total (as CaCO ₃)	mg/L	156	200 Max	IS 3025(Part23):1986, Reaffirmed 2003.
9	Total Hardness	mg/L	199	300 Max.	APHA, 21 st Ed., 2005, 4500-CN,C&E,4-39 & 4-41,
10	Fluoride	mg/L	0.40	1 Max	APHA, 21st Ed., 2005, 4500 F,D,4-85
11	Calcium (as Ca)	mg/L	58.5	75 Max	APHA, 21 st Ed., 2005, 3500-B,3-65 - C
12	Magnesium (as Mg)	mg/L	13.0	30 Max.	APHA, 21 st Ed., 2005, 3500-Mg,B,3-84
13	Chloride as Cl	mg/L	13.8	250 Max	APHA, 21 st Ed., 2005, 4500-Cl - B,4-70
14	Sulphate(as SO ₄)	mg/L	16.8	200 Max	APHA, 21 st Ed., 2005,4500- SO ₄ - E,4-188
15	Nitrate as NO ₃	mg/L	1.61	45 Max	APHA, 21 st Ed., 2005, 4500 NO ₃ - E,4-123

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Report No. CH0193 Cont...

Sr. No.	Parameters	Unit	Results	BIC Desirable standard (IS 10500:1991)	Method Reference
16	Copper as Cu	mg/L	<0.04	0.05 Max	APHA, 21 st Ed., 2005, 3111 - B,3-17.
17	Lead (as Pb)	mg/L	N.D.	0.05 Max	APHA, 21 st Ed., 2005, 3111 - B,3-17
19	Chromium Hexa (as Cr ⁶⁺)	mg/L	N.D.	0.05 Max.	APHA, 21 st Ed., 2005, 3500 - B,3-17
20	Zinc (as Zn)	mg/L	N.D.	5 Max.	APHA, 21 st Ed., 2005, 3111 - B,3-17
21	Iron as Fe	mg/L	N.D.	0.3 Max	APHA, 21 st Ed., 2005, 3500-Fe - B,3-17
22	Arsenic as As	mg/L	N.D.	0.01 Max.	IS 3025, Part 37:1988, RA 1999
23	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA, 21 st Ed., 2005, 3112 - B,3-23
24	Cadmium (as Cd)	mg/L	N.D.	0.01 Max.	APHA, 21 st Ed., 2005, 3111 Cr - B,3-17
25	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	APHA, 21 st Ed., 2005, 3111 - B,3-17
26	Nickel (as Ni)	mg/L	N.D.	-	APHA, 21 st Ed., 2005, 3111 - B,3-17
27	Cobalt	mg/L	N.D.	-	APHA, 21 st Ed., 2005, 3111 - B,3-17
28	Cynide (as CN)	mg/L	N.D.	0.05 Max.	APHA, 21 st Ed., 2005, 3111 - B,3-17
29	E-Coli	MPN/100mL	Absent	*	APHA, 21 st Ed., 2005, 9221-B&C.9-48-54 and 9221 F.9-

Remarks: N.D. - Not Detected
***Standards for bacteriological Examination as per IS:10500:1991**
a) Throughout any year, 95 percent of sample should not contain any coliform organisms in 100 ml;
b) No sample should contain E.coli in 100ml;
c) No sample should contain more than 10 coliform organisms per 100 ml; and
d) Coliform organisms should not be detectable in 100 ml of any of two consecutive samples

-----End-----

For Mahabal Enviro Engineers Pvt. Ltd.

Harish Mendhi
Harish Mendhi
Technical Manager
AUTHORISED SIGNATORY



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Water Sample Analysis Report

Report No.	ME-CH0191-120406-SA-LANCO-ANPARA		Date: 06.04.2012
Name and Address of Customer	LANCO ANPARA POWER LTD. Vill.- Anpara, Dist.-Sonebhadra		Order Reference
			Through email
Sample Description / Type	Ground Water	Sample Collected by	Client
Sampling Location	Belwada Village	Sample Quantity/Packing	2L x 2No. PVC Can
Date of Sampling	29.03.2012	Date of Receipt of Sample	30.03.2012
Sampling Procedure	Sample Tested as received		
Date of Start of Analysis	30.03.2012	Date of Completion of Analysis	05.04.2012

Sr. No.	Parameter	Unit	Result	BIS Desirable Standard (IS 10500:1991)	Method Reference
1	Colour	Hazen	<1	5 Max.	APHA 21 st Ed., 2005, 2120-B,C 2-2 &3
2	Odour	-	Unobjectionable	Unobjectionable	IS 3025(Part 5): 1983, Reaffirmed 2006
3	Taste	-	Agreeable	Agreeable	IS 3025(Part 7): 1984, Reaffirmed 2006
4	Turbidity	NTU	0.5	5 Max.	APHA 21 st Ed., 2005, 2130-B,2-9
5	pH	-	7.4	6.5 to 8.5	APHA 21 st Ed., 2005, 4500-H ⁺ - B, 4-90
6	Total Dissolved Solids	mg/L	302	500 Max.	IS 3025 (Part 16):1984 Reaffirmed 2006
7	Free Chlorine (Residual)	mg/L	N.D.	0.2 min. (at outlet)	IS 3025:1964, 45, Pg-83,
8	Alkalinity Total (as CaCO ₃)	mg/L	120	200 Max.	IS 3025 (Part 23):1986 Reaffirmed 2003
9	Calcium(as Ca)	mg/L	26.0	75 Max.	APHA 21 st Ed., 2005, 3500-Ca-B, 3-65
10	Magnesium (as Mg)	mg/L	15.4	30 Max.	APHA 21 st Ed., 2005, 3500-Mg, B,3-84
11	Chloride (as Cl)	mg/L	9.4	250 Max.	APHA 21 st Ed., 2005, 4500-Cl, B,4-70
12	Sulphate (as SO ₄)	mg/L	57.0	200 Max.	APHA21 st Ed., 2005,4500- SO ₄ E,4-188
13	Nitrate (as NO ₃)	mg/L	10.2	45 Max.	APHA21 st Ed.,2005,4500-NO ₃ -E, 4-123
14	Fluoride (as F)	mg/L	0.5	1 Max.	APHA 21 st Ed., 2005, 4500-F, D, 4-85
15	Iron (as Fe)	mg/L	0.25	0.3 Max.	APHA 21 st Ed., 2005, 3111-B, 3-17
16	Manganese (as Mn)	mg/L	N.D.	0.1 Max.	APHA 21 st Ed., 2005, 3111-B, 3-17

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Report No. CH0191 Cont...

Sr. No.	Parameter	Unit	Result	BIS Desirable Standard (IS 10500:1991)	Method Reference
17	Cadmium (as Cd)	mg/L	N.D.	0.01 Max.	APHA 21 st Ed., 2005, 3111-B, 3-17
18	Chromium (Hexa)	mg/L	<0.02	0.05 Max.	APHA 21 st Ed., 2005, 3500-Cr,B,3-67
19	Copper (as Cu)	mg/L	<0.04	0.05 Max.	APHA 21 st Ed., 2005, 3111-B, 3-17
20	Lead (as Pb)	mg/L	ND	0.05 Max.	APHA 21 st Ed., 2005, 3111-B, 3-17
21	Zinc (as Zn)	mg/L	0.136	5 Max.	APHA 21 st Ed., 2005, 3111-B, 3-17
22	Arsenic (as As)	mg/L	N.D.	0.01 Max.	IS 3025(Part 37):1988, Reaffirmed 2009
23	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 21 st Ed., 2005, 3112-B, 3-23
24	Nickel (as Ni)	mg/L	N.D.	-	APHA 21 st Ed., 2005, 3111 B,3-17
25	Cyanide (as CN)	mg/L	N.D.	0.05 Max.	APHA 21 st Ed., 2005, 4500-CN, C & E, 4-39 & 4-41
26	Total hardness (as CaCO ₃)	mg/L	128	-	APHA 21 st Ed., 2005, 2300-C,2-37

Microbiological Analysis

1	Total coliforms	MPN/100mL	<1.8	*	APHA 21 st Ed., 2005, 9221 - B&C, 9-48 - 54
2	E - Coli	MPN/100mL	Absent	*	APHA 21 st Ed., 2005, 9221 - B&C, 9-48 - 54 and 9221 F, 9-57

Remarks: N.D. - Not Detected

*Standards for bacteriological Examination as per IS:10500:1991

- Throughout any year, 95 percent of sample should not contain any coliform organisms in 100 ml;
- No sample should contain E.coli in 100ml;
- No sample should contain more than 10 coliform organisms per 100 ml; and
- Coliform organisms should not be detectable in 100 ml of any of two consecutive samples

-----End-----

For Mahabal Enviro Engineers Pvt. Ltd.

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Harish Mendhi
Technical Manager
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