

# ENVIRONMENTAL MONITORING REPORT

Of

*M/s ARDENT STEEL LTD*

Keonjhar, Odisha

MARCH 2019



**Centre For Envotech and Management Consultancy Pvt. Ltd.**  
**Environmental Laboratory**

(AN ISO: 9001: 2008 and 18001: 2007 certified company, Empanelled with SPCB, Odisha)

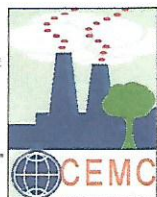
**MoEF & CC Govt. of India Recognised Environmental Laboratory**

Laboratory At: Plot No. 800/1274, Johal, Pahal, Bhubaneswar – 752101, Odisha

Tele: 0674 - 2460826, 7752014842

E-mail: cemclab@yahoo.in, Website: www.cemc.in





# CENTRE FOR ENVOTECH AND MANAGEMENT CONSULTANCY PVT. LTD.

An ISO 9001-2008 & OHSAS 18001:2007 Certified Company, Empanelled with OCCL, ORSAC and SPCB of Govt. of Odisha  
Accredited by NABET, QCI for EIA Studies as 'A' Category Consultant Organization. Empanelled with PCCF(Wildlife) & CWLW, Odisha  
Enlisted in Construction Industry Development Council (CIDC) established by the Planning Commission (Govt. of India)  
MoEF&CC, Govt. of India, Recognised Environment Laboratory under Environment (Protection) Act, 1986.

Reference No : CEMC/ASL/Mar-A-01/19  
Name of Company : Ardent Steel Ltd.  
Sample Description : Ambient Air  
Date of Monitoring : 11.03.2019  
Date of Receiving : 12.03.2019  
Date of Analysis : 12.03.2019  
Sample Collected by : Santosh Kumar Mohapatra

## AMBIENT AIR QUALITY TEST REPORT (24 HOURLY AVERAGE)

Sl. No.	LOCATION	MONITORING REPORT					
		PM <sub>10</sub> ( $\mu\text{g}/\text{m}^3$ )	PM <sub>2.5</sub> ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	NO <sub>x</sub> ( $\mu\text{g}/\text{m}^3$ )	CO ( $\text{mg}/\text{m}^3$ )	NH <sub>3</sub> ( $\mu\text{g}/\text{m}^3$ )
1	At the boundary near the water harvesting pond (East Direction)	73.4	41.6	14.2	19.2	0.5	<20
2	At the Boundary near ESP (South Direction)	72.2	39.2	15.1	18.8	0.5	<20
3	At the Boundary near Coal Fines Stock yard (North Direction)	69.6	38.7	14.8	18.5	0.4	<20
NAAQ Standard		100 ( $\mu\text{g}/\text{m}^3$ )	60 ( $\mu\text{g}/\text{m}^3$ )	80 ( $\mu\text{g}/\text{m}^3$ )	80 ( $\mu\text{g}/\text{m}^3$ )	4.0 ( $\text{mg}/\text{m}^3$ )	400 ( $\mu\text{g}/\text{m}^3$ )

*M. Rout*  
04.19  
Authorized Signatory

Notes:



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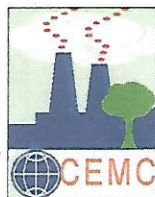
Environmental Studies (EIA & EMP), Monitoring, Forest Diversion Planning, DPR, Wildlife Management Plan, Hazardous & Safety Studies, RS& GIS, Baseline Survey, Hydrological & Geological Studies, Socio-economic Studies, DGPS & ETS Survey.

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Reference No : CEMC/ASL/Mar-A-02/19  
Name of Company : Ardent Steel Ltd.  
Sample Description : Fugitive Air  
Date of Monitoring : 11.03.2019  
Date of Receiving : 12.03.2019  
Date of Analysis : 12.03.2019  
Sample Collected by : Santosh Kumar Mohapatra

## FUGITIVE EMISSION TEST REPORT

Sl. No.	LOCATION	RESULT	
		RSPM ( $\mu\text{g}/\text{m}^3$ )	SPM ( $\mu\text{g}/\text{m}^3$ )
1	Proportioning System (Ash & Coke Fines Bunker)	382	1124
2	Raw Material Transfer point of Mixture (Mixture Building)	309	1056
3	Ball Mill (Cool Grinding)	344	1131
4	Ball Mill (Flux & Coke Grinding)	282	1022
5	Finished Product Transfer points and plant de-dusting system	312	992
6	Travelling Grate & Rotary Kiln	317	1006
MoEF Standard		--	2000*

\* The standard is applicable at 10 m distance from the source

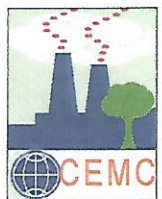
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Reference No : CEMC/ASL/Mar-N-01/19  
Name of Company : Ardent Steel Ltd.  
Sample Description : Noise Monitoring Report  
Date of Monitoring : 11.03.2019  
Date of Receiving : 12.03.2019  
Date of Analysis : 12.03.2019  
Sample Collected by : Santosh Kumar Mohapatra

## NOISE LEVEL STUDY REPORT

Sl. No.	Location	Noise Level In Day Time dB(A)	Noise Level In Night Time dB(A)
01	Ball Mill (Cool Grinding)	73.1	67.6
02	Raw Material Transfer point of Mixture (Mixture Building)	71.2	64.3

## NATIONAL STANDARD NOISE LEVEL

Area Code	Category of Area/Zone	Permissible Limit in dB (A)	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

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Notes:



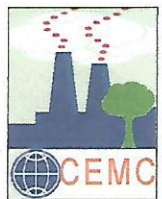
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Reference No : CEMC/ASL/Mar-SE-01/19  
Name of Company : Ardent Steel Ltd.  
Sample Description : Stack Monitoring  
Date of Monitoring : 11.03.2019  
Date of Receiving : 12.03.2019  
Date of Analysis : 12.03.2019  
Sample Collected by : Santosh Kumar Mohapatra  
Stack Height : 30m

## STACK EMISSION REPORT

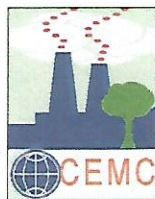
Sl. No.	Location of Sampling	Flue Gas Temp. in K	Concentration of Particulate Matter (PM) in mg/Nm <sup>3</sup>
			Result
01	ESP	411	68.2

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04.19  
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Reference No : CEMC/ASL/Mar-GW-01/19  
Name of Company : Ardent Steel Ltd.  
Sample Description : Ground Water  
Date of Monitoring : 11.03.2019  
Date of Receiving : 12.03.2019  
Date of Analysis : 12.03.2019  
Sample Collected by : Santosh Kumar Mohapatra  
Sample Location : Office Site Bore Well

## GROUND WATER TEST REPORT

Sl. No	Parameter	Unit	Desired Limit of drinking water (BIS:10500:2012)	Permissible Limit of drinking water (BIS:10500:2012)	Result
1	Colour	Hazen	5	15	<5
2	Odour	-	Agreeable	Agreeable	AL
3	Taste	-	Agreeable	-	AL
4	Turbidity	NTU	1	5	<1
5	pH Value @ 25°C	-	6.5-8.5	No Relaxation	7.12
6	Total Dissolved Solid	mg/l	500	2000	352
7	Alkalinity as CaCO <sub>3</sub>	mg/l	200	600	96
8	Total Hardness as CaCO <sub>3</sub>	mg/l	200	600	142
9	Iron as Fe	mg/l	0.3	No Relaxation	0.27
10	Nitrate as NO <sub>3</sub> <sup>-</sup> -N	mg/l	45	No Relaxation	3.8
11	Sulphate as SO <sub>4</sub>	mg/l	200	400	21.4
12	Fluoride as F	mg/l	1.0	1.5	0.22
13	Calcium as Ca	mg/l	75	200	34.47
14	Chloride as Cl <sup>-</sup>	mg/l	250	1000	11.9

N.B: AL – Agreeable

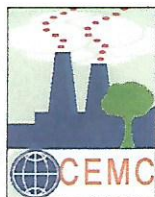
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5.04.19  
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Reference No : CEMC/ASL/Mar-SW-01/19  
Name of Company : Ardent Steel Ltd.  
Date of Sampling : 11.03.2019  
Sample Description : Surface Water  
Date of Receiving : 12.03.2019  
Date of Analysis : 12.03.2019  
Sample Collected by : Santosh Kumar Mohapatra  
Sample Location : Reservoir

## SURFACE WATER TEST REPORT

Sl. No	Parameter	Unit	GSR 422E Standards	Result
1	Colour	Hazen	--	10
2	Odour	-	--	U/O
3	pH Value @ 25°C	-	5.5-9.0	7.02
4	Total Dissolved Solid	mg/l	2100	184.2
5	Iron as Fe	mg/l	3.0	1.06
6	Sulphate as SO <sub>4</sub>	mg/l	1000	41.2
7	Nitrate as NO <sub>3</sub> <sup>-</sup> -N	mg/l	50	18.3
8	Boron as B	mg/l	2.0	0.46
9	BOD for 3 days @ 27°C	mg/l	30	4.6
10	COD	mg/l	250	40

N.B: U/O- Un-objectionable

  
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### **Centre for Envotech and Management Consultancy Pvt. Ltd.**

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- State Pollution Control Board (SPCB), Odisha as Environment Consultant under category –'A'.
- Orissa Construction Corporation Limited (OCCL) as Associated Consultant for carrying out EIA, FDP, Preparation of Wildlife Management Plan, GIS map, Socioeconomic survey, DGPS & ETS survey.
- Orissa Space Application Centre (ORSAC) for carrying out DGPS & ETS survey.
- Office of the Principal Chief Conservator of Forest (Wildlife) & Chief Wildlife Warden [PCCF (Wildlife) & CWLW], Odisha for preparation of Site Specific Wildlife Management Plans.

**Accredited by:**

- NABET, QCI for EIA Studies as 'A' Category Consultant Organization.
- NABL Accreditation Lab.

**Enlisted in:**

- Construction Industry Development Council (CIDC) established by the Planning Commission (Govt. of India) for carrying out EIA, Waste Management & Audit, Turnkey solution of ETP & STP, Site Specific Wildlife Conservation Plan & Forest Diversion Proposals.

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