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Report No. - CEMC/ASL/120923/DW

**Issued Date-12.09.2023** 

#### **DRINKING WATER TEST REPORT**

Name of Company : Ardent Steel Ltd., Keonjhar, Odisha.

Sample Description: Ground WaterDate of Monitoring: 28.08.2023Date of Receiving: 30.08.2023Date of Analysis: 30.08.2023

Sample Collected by : Mr. Rabindranath Das. Sample Location : Canteen(RO Water)

#### ANALYSIS RESULT

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	6.7
6	Total Dissolved Solid	mg/l	500	2000	89
7	Alkalinity as CaCO <sub>3</sub>	mg/l	200	600	52
8	Total Hardness as CaCO <sub>3</sub>	mg/1	200	600	60
9	Iron as Fe	mg/l	0.3	No Relaxation	0.2
10	Nitrate as NO <sub>3</sub> <sup>-</sup> -N	mg/l	45	No Relaxation	1.4
11	Sulphate as SO <sub>4</sub>	mg/l	200	400	12.8
12	Fluoride as F	mg/l	1.0	1.5	< 0.05
13	Calcium as Ca	mg/l	75	200	16.0
14	Chloride as Cl <sup>-</sup>	mg/l	250	1000	21.9

**N.B:** AL – Agreeable

**Authorized Signatory** 

Notes:

The result relate only to the sample tested.

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Report No. - CEMC/ASL/120923/SW

**Issued Date-12.09.2023** 

#### **SURFACE WATER TEST REPORT**

Name of Company : Ardent Steel Ltd., Keonjhar, Odisha.

Sample Description:Surface WaterDate of Monitoring:28.08.2023Date of Receiving:30.08.2023Date of Analysis:30.08.2023

Sample Collected by : Mr. Rabindranath Das.

Sample Location : Reservoir

#### **ANALYSIS RESULT**

Sl. No	Parameter	Unit	GSR 422E Standards	Result
1	Colour	Hazen		5
2	Odour	-		U/O
3	pH Value @ 25°C	-	5.5-9.0	8.5
4	Total Dissolved Solid	mg/l	2100	928
5	Iron as Fe	mg/l	3.0	1.8
6	Sulphate as SO <sub>4</sub>	mg/l	1000	41.8
7	Nitrate as NO <sub>3</sub> <sup>-</sup> -N	mg/l	50	20.4
8	Boron as B	mg/l	2.0	0.44
9	BOD for 3 days @ 27°C	mg/l	30	26
10	COD	mg/l	250	72

N.B: U/O- Un-objectionable

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Report No. - CEMC/ASL/120923/WW

**Issued Date-12.09.2023** 

#### WASTE WATER TEST REPORT

Name of Company : Ardent Steel Ltd., Keonjhar, Odisha.

Sample Description: Waste WaterDate of Monitoring: 28.08.2023Date of Receiving: 30.08.2023Date of Analysis: 30.08.2023

Sample Collected by : Mr. Rabindranath Das.

Sample Location : STP Outlet

#### **ANALYSIS RESULT**

Sl. No.	Parameter	Unit	Effluent Discharge Standard	Testing Method	Result
1.	pH Value @ 25°C		6.5-9.0	APHA 4500 H <sup>+</sup> B	7.5
2.	Total Suspended Solids	mg/l	<20	APHA 2540 D	39.8
3.	B.O.D for 3 days @ 27°C	mg/l	<10	APHA 5210 B	10.4
4.	COD	mg/l	< 50	APHA 5220 C	54
5.	Oil & Grease	mg/l		APHA 5520 B	3.0

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Report No. - CEMC/ASL/120923/BW

**Issued Date-12.09.2023** 

#### WATER TEST REPORT

Name of Company : Ardent Steel Ltd., Keonjhar, Odisha.

Sample Description : Bore Well Water

Date of Monitoring:28.08.2023Date of Receiving:30.08.2023Date of Analysis:30.08.2023

Sample Collected by : Mr. Rabindranath Das.

Sample Location : **Bore Well** 

#### **GROUND WATER TEST REPORT**

Slr.						IS105	00:2012
No.	Parameters	Unit	BW1	BW2	BW3	Acceptable Limit	Permissible Limit
1	Colour	Hazen	<05	<05	<05	5	15
2	Odour		AL	AL	AL	AL	AL
3	Taste		AL	AL	AL	AL	AL
4	Turbidity	NTU	<1.0	<1.0	<1.0	1	5
5	pH Value @ 25°C	mg/l	7.68	7.51	7.23	6.5-8.5	No Relaxation
6	Total Hardness (as CaCO <sub>3</sub> )	mg/l	182	176	180	200	600
7	Iron (as Fe)	mg/l	0.25	0.24	0.27	0.3	No Relaxation
8	Chloride (as Cl)	mg/l	49.9	41.9	39.9	250	1000
9	Residual, free Chlorine	mg/l	ND	ND	ND	0.2	1.0
10	Total Dissolved Solids	mg/l	283	290	274	500	2000
11	Calcium (as Ca)	mg/l	51.06	49.38	50.5	75	200
12	Magnesium (as Mg)	mg/l	13.26	12.83	13.12	30	100
13	Copper (as Cu)	mg/l	< 0.03	< 0.03	< 0.03	0.05	1.5
14	Manganese (as Mn)	mg/l	< 0.05	< 0.05	<0.05	0.1	0.3
15	Sulphate (as SO <sub>4</sub> )	mg/l	21.4	18.6	24.8	200	400
16	Nitrate (as NO <sub>3</sub> )	mg/l	7.2	5.4	8.1	45	No Relaxation
17	Fluoride (as F)	mg/l	0.21	0.12	0.19	1.0	1.5
18	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)	mg/l	<0.001	<0.001	<0.001	0.001	0.002
19	Mercury (as Hg)	mg/l	< 0.001	< 0.001	< 0.001	0.001	No Relaxation
20	Cadmium (as Cd)	mg/l	<0.003	<0.003	<0.003	0.003	No Relaxation
21	Selenium (as Se)	mg/l	< 0.001	< 0.001	< 0.001	0.01	No Relaxation
22	Arsenic (as As)	mg/l	< 0.001	< 0.001	< 0.001	0.01	0.05

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23	Cyanide (as CN)	mg/l	ND	ND	ND	0.05	No Relaxation
24	Lead (as Pb)	mg/l	< 0.01	< 0.01	< 0.01	0.01	No Relaxation
25	Zinc (as Zn)	mg/l	< 0.05	< 0.05	< 0.05	5	15
26	Chromium (as Cr)	mg/l	< 0.05	< 0.05	< 0.05	0.05	No Relaxation
27	Mineral Oil	mg/l	< 0.05	< 0.05	< 0.05	0.5	No Relaxation
28	Total Alkalinity (as CaCO <sub>3</sub> )	mg/l	150	146	136	200	600
29	Aluminium (as Al)	mg/l	< 0.01	< 0.01	< 0.01	0.03	0.2
30	Boron (as B)	mg/l	< 0.2	< 0.2	< 0.2	0.5	1.0
31	Total Coliform	MPN/100ml	Absent	Absent	Absent	Absent in 100 mL Sample	
32	Faecal Coliform	MPN/100ml	Absent	Absent	Absent	Absent in 100 mL Sample	

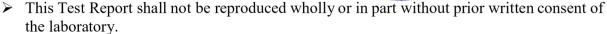
**N.B:** AL – Agreeable

\*END OF REPORT\*

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Report No. - CEMC/ASL/120923/SW

**Issued Date-12.09.2023** 

### WASTE TEST REPORT

Name of Company : Ardent Steel Ltd.
Sample Description : Waste material
Date of Monitoring : 28.08.2023
Date of Receiving : 30.08.2023
Date of Analysis : 30.08.2023

Sample Collected by : Mr. Rabindranath Das

Sampling material : Used Oil

#### **ANALYSIS RESULT**

Sl. No	Parameter	Unit of measurement	As per HWMR-2016 Schedule-V,Part-A,Max	Used Oil
1	Polychlorinated biphenyls (PCBs)	ppm	<2	ND
2	Cadmium+Chromium+Nickel (as Cd+Cr+Ni)	ppm	500	3.8
3	Lead (as Pb)	ppm	100	0.49
4	Polyaromatic Hydrocarbon	%	6	ND
5	Arsenic (as As)	ppm	5.0	< 0.001

<sup>\*</sup>ND-Not Detected, ppm-parts per million

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<sup>\*</sup>The test parameter is within the standard limit



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#### Report No. - CEMC/ASL/120923/WW

**Issued Date-12.09.2023** 

#### WATER TEST REPORT

Name of Company : Ardent Steel Ltd., Keonjhar, Odisha.

Sample Description: Waste WaterDate of Monitoring: 28.08.2023Date of Receiving: 30.08.2023Date of Analysis: 30.08.2023

Sample Collected by : Mr. Rabindranath Das.

Sample Location : ETP OUTLET

#### ANALYSIS RESULT

Sl. No.	Parameter	Unit	Effluent Discharge Standard (a)	Testing Method	Result
1.	pH Value @ 25°C	-	6.5-9.0	APHA 4500 H <sup>+</sup> B	7.22
2.	Total Suspended Solids	mg/l	<100	APHA 2540 D	26.2
3.	B.O.D for 3 days @ 27°C	mg/l	<30	IS 3025(Part-44)	16.2
4.	C.O.D	mg/l	<250	APHA 5220 B	50
5.	Oil & grease	mg/l	<10	APHA 5520 B	<1

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### **WATER TEST REPORT**

Name of Company : Ardent Steel Ltd., Keonjhar, Odisha.

Sample Description: Waste WaterDate of Monitoring: 28.08.2023Date of Receiving: 30.08.2023Date of Analysis: 30.08.2023

Sample Collected by : Mr. Rabindranath Das.

Sample Location : **STP INLET** 

#### **ANALYSIS RESULT**

Sl. No.	Parameter	Unit	Testing Method	Result
1.	pH Value @ 25°C	-	APHA 4500 H <sup>+</sup> B	6.96
2.	Total Suspended Solids	mg/l	APHA 2540 D	106.4
3.	B.O.D for 3 days @ 27°C	mg/l	IS 3025(Part-44)	120
4.	Faecal Coliform	MPN/100ml	IS 1622	>1600

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#### **WATER TEST REPORT**

Ardent Steel Ltd., Keonjhar, Odisha. Name of Company

Sample Description Waste Water Date of Monitoring 28.08.2023 Date of Receiving 30.08.2023 Date of Analysis 30.08.2023

Sample Collected by Mr. Rabindranath Das.

Sample Location STP OUTLET

#### ANALYSIS RESULT

Sl. No.	Parameter	Unit	Effluent Discharge Standard (a)	Testing Method	Rresult
1.	pH Value @ 25°C	-	6.5-9.0	APHA 4500 H <sup>+</sup> B	7.32
2.	Total Suspended Solids	mg/l	<100	APHA 2540 D	19.8
3.	B.O.D for 3 days @ 27°C	mg/l	<30	IS 3025(Part-44)	21.2
4.	Faecal Coliform	MPN/100ml	<1000	IS 1622	21

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