



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s, Bal Adalat, Gondal Road, RAJKOT - 360 002.  
Ph.: +91 281 2360695 ■ E-mail : royalservice@live.com ■ admin@royalconsultancy.com

Ref. No. : 656/11/2014-15

Date: 04/12/2014

### Performance Evaluation of Air Pollution Control Equipments

#### Pipe Plant (GPCB ID:18036)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/3

Sr. No.	Particulars	Unit	S - 7	S - 8	S - 12	S - 18	S - 22
01	Date of Sampling	---	15/11/2014	17/11/2014	26/11/2014	26/11/2014	17/11/2014
02	Attached to		Sand Reclamation	Common stack Mg Converter - I & II	Core Cleaning & Dusting - I	Core Cleaning & Dusting - II	Mg Converter - III
03	Stack Height	Meter	32	30	30	30	30
04	Stack Diameter	Meter	0.9	0.5	0.6	0.6	0.5
05	Stack Temperature	°C	93	67	49	52	61
06	Ambient Temperature	°C	33	32	30	31	32
07	Average Velocity of Flue Gases	m/Sec.	15.6	16.4	14.8	14.4	15.3
08	IsoKinetic Flowrate for Sampling	LPM	24	27	26	25	26
09	Inlet	mg/Nm <sup>3</sup>	2981	2864	2146	2078	2357
10	Outlet	mg/Nm <sup>3</sup>	49	59	34	29	41
11	Efficiency	%	98.36	97.94	98.42	98.60	98.26

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.  
Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS  
Calibration due on 04/06/2015

Royal Environment Auditing & Consultancy Service



Manoj  
Analyst



# Royal

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Ref. No. : 657/11/2014-15

Date: 04/12/2014

### Performance Evaluation of Air Pollution Control Equipments

#### Pipe Plant (GPCB ID:18036)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/3

Sr. No.	Particulars	Unit	S - 9	S - 10	S - 15	S - 16	S - 20	S - 21	S - 23
01	Date of Sampling	---	07/11/2014	Not in operation during visit	07/11/2014	Not in operation during visit	Not in operation during visit	Not in operation during visit	08/11/2014
02	Attached to	---	Zinc Coating - I	Barrel Grinding-I	Zinc Coating - II	Barrel Grinding-II	Zinc Coating - III	Barrel Grinding-III	Zinc Coating - IV & V
03	Stack Height	Meter	30	30	30	30	30	30	30
04	Stack Duct Diameter	Meter	0.6	0.6	0.6	0.6	0.6	0.5	0.9
05	Stack Temperature	°C	56	...	58	...	...	...	53
06	Ambient Temperature	°C	31	...	32	...	...	...	33
07	Average Velocity of Flue Gases	m/Sec.	15.3	...	14.6	...	...	...	14.8
08	IsoKinetic Flowrate for Sampling	LPM	26	...	25	...	...	...	25
09	Inlet	mg/Nm <sup>3</sup>	2216	...	1835	...	...	...	1667
10	Outlet	mg/Nm <sup>3</sup>	16	...	17	...	...	...	15
11	Efficiency	%	99.28	...	99.07	...	...	...	99.10

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.  
Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I  
Calibration due on 04/06/2015

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Ref. No. : 658/11/2014-15

Date: 04/12/2014

### Performance Evaluation of Air Pollution Control Equipments

#### Pipe Plant (SDP-2) (GPCB ID:18036)

Name of company : Jindal Saw Limited,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/3

Sr. No.	Particulars	Unit	S - 1	S - 5	S - 6
01	Date of Sampling	---	27/11/2014	12/11/2014	12/11/2014
02	Attached to	---	Mg Treatment	Zinc Coating	Tri-Grinding
03	Stack Height	Meter	30	30	30
04	Stack Duct Diameter	Meter	1.00	1.00	1.00
05	Stack Temperature	°C	49	51	44
06	Ambient Temperature	°C	32	30	31
07	Average Velocity of Flue Gases	m/Sec.	14.1	14.6	12.9
08	IsoKinetic Flowrate for Sampling	LPM	24	25	23
09	Inlet	mg/Nm <sup>3</sup>	2186	2043	1749
10	Outlet	mg/Nm <sup>3</sup>	27	21	23
11	Efficiency	%	98.76	98.97	98.68

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I

Calibration due on 04/06/2015



Pradya

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Ref. No. : 665/11/2014-15

Date: 04/12/2014

### STACK EMISSION MONITORING RESULTS

Pipe Plant (GPCB ID:18036)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/2/3/7

Sr. No. Particulars	Unit	S - 11	S - 17	S - 25	S - 26	S - 27
01 Date of Sampling	---	---	11/11/2014	---	---	---
02 Time of sampling	Hr.	Not Running During Visit	15.30	Not Running During Visit	Not Running During Visit	Not Running During Visit
03 Stack Attached to	---	Bitumin Drying Oven - I	Common stack Bitumin Drying Oven - II & Boiler	Shot Blasing - I	Shot Blasing - II	Shot Blasing - III
04 Air Pollution Control Measures	---	---	---	Bag Filter	Bag Filter	Bag Filter
05 Stack Height	Meter	32.8	32.8	10.0	10.0	10.0
06 Stack Diameter	Meter	1.375	1.375	0.41	0.41	1.125
07 Stack Temperature	°C	---	140	---	---	---
08 Ambient Temperature	°C	---	33	---	---	---
09 Average Velocity of Flue Gases	m/Sec.	---	13.1	---	---	---
10 Isokinetic flow rate for P.M. Sampling	LPM	---	18	---	---	---
11 Gaseous Sampling Flow Rate	LPM	---	2.0	---	---	---
12 Permissible limits for PM	mg/Nm <sup>3</sup>	150	150	150	150	150
13 Measured Concentration of PM.	mg/Nm <sup>3</sup>	---	77	---	---	---
14 Permissible limits for SO <sub>2</sub>	mg/Nm <sup>3</sup>	100 ppm	100 ppm	40	40	40
15 Measured Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	---	6.4	---	---	---
16 Permissible limits for Nox	mg/Nm <sup>3</sup>	50 ppm	50 ppm	25	25	25
17 Measured Concentration of Nox	mg/Nm <sup>3</sup>	---	11.7	---	---	---

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

N.D= Not Detectable

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I

Calibration due on 04/06/2015

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Ref. No. : 666/11/2014-15

Date: 04/12/2014

### STACK EMISSION MONITORING RESULTS

#### Pipe Plant (GPCB ID:18036)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	S - 8	S - 9	S - 15	S - 20	S - 22	S - 23
01	Date of Sampling	---	17/11/2014	07/11/2014	07/11/2014	Not In Operation During The Visit	17/11/2014	08/11/2014
02	Time of sampling	Hr.	11.10	9.35	10.20		10.30	15.35
03	Stack Attached to	---	Common stack Mg Converter-I&II	Zn Coating - I	Zn Coating - II	Zn Coating - III	Mg Converter - III	Zn Coating - IV & V
04	Air Pollution Control Measures	---	Bag Filter	Cyclone Separator & Bag Filter	Cyclone Separator & Bag Filter	Cyclone Separator & Bag Filter	Bag Filter	Cyclone Separator & Bag Filter
05	Stack Height	Meter	30	30	30	30	30	30
06	Stack Diameter	Meter	0.5	0.6	0.6	0.6	0.5	0.9
07	Stack Temperature	°C	56	47	49	---	51	42
08	Ambient Temperature	°C	32	31	32	---	32	33
09	Average Velocity of Flue Gases	m/Sec.	14.6	15.3	16.1	---	13.1	12.6
10	Isokinetic flow rate for P.M. Sampling	LPM	25	27	28	---	23	23
11	Gaseous Sampling Flow Rate	LPM	2.0	---	---	---	2.0	---
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	20 (Zn)	20 (Zn)	20 (Zn)	150	20 (Zn)
13	Measured Concentration of PM	mg/Nm <sup>3</sup>	59	16 (Zn)	17 (Zn)	---	41	15 (Zn)
14	Permissible limits for SO <sub>2</sub>	mg/Nm <sup>3</sup>	40	NA	NA	NA	40	NA
15	Measured Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	2.7	---	---	---	1.3	---
16	Permissible limits for Nox	mg/Nm <sup>3</sup>	25	NA	NA	NA	25	NA
17	Measured Concentration of Nox	mg/Nm <sup>3</sup>	8.4	---	---	---	4.7	---

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I

Calibration due on 04/06/2015

N.D= Not Detectable

N.A=Not Applicable





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Ref. No. : 667/11/2014-15

Date: 04/12/2014

### STACK EMISSION MONITORING RESULTS

#### Pipe Plant (GPCB ID:18036)

Name of company : Jindal Saw Limited,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	S - 1	S - 2	S - 3	S - 4	S - 5	S - 6	S - 12	S - 18
01	Date of Sampling	---	22/11/2014	22/11/2014	22/11/2014	26/11/2014	Not in operation during visit	22/11/2014	26/11/2014	26/11/2014
02	Time of sampling	Hr.	9.10	9.45	10.30	14.40		11.30	9.20	10.25
03	Stack Attached to	---	Core Shop-I	Core Shop-II	Core Shop-III	Core Shop-IV	Core Shop-V	Core Shop-VI	Core Cleaning & Dusting-I	Core Cleaning & Dusting-II
04	Air Pollution Control Measures	---	---	---	---	---	---	---	Bag Filter	Bag Filter
05	Stack Height	Meter	30	30	30	30	30	30	30	30
06	Stack Diameter	Meter	0.584	0.584	0.584	0.584	0.584	0.584	0.6	0.6
07	Stack Temperature	°C	39	38	37	41	...	38	39	41
08	Ambient Temperature	°C	31	31	32	33	...	33	30	31
09	Average Velocity of Flue Gases	m/Sec.	5.9	5.7	5.8	6.2	...	6.3	12.7	13.9
10	Isokinetic flow rate for P.M. Sampling	LPM	24	23	24	25	...	26	23	25
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0	2.0	2.0	...	2.0	2.0	2.0
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	150	150	150	150	150	150	150
13	Measured Concentration of PM	mg/Nm <sup>3</sup>	29	24	33	27	...	36	34	29
14	Permissible limits for SO <sub>2</sub>	mg/Nm <sup>3</sup>	40	40	40	40	40	40	40	40
15	Measured Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	N.D.	N.D.	N.D.	N.D.	...	N.D.	8.2	8.8
16	Permissible limits for Nox	mg/Nm <sup>3</sup>	25	25	25	25	25	25	25	25
17	Measured Concentration of Nox	mg/Nm <sup>3</sup>	N.D.	N.D.	N.D.	N.D.	...	N.D.	11.5	12.3

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

N.D= Not Detectable

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I

Calibration due on 04/06/2015



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Ref. No. : 668/11/2014-15

Date: 04/12/2014

### STACK EMISSION MONITORING RESULTS Pipe Plant (GPCB ID:18036)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	S - 7	S - 10	S - 13	S - 14	S - 16	S - 19	S - 21	S - 24
01	Date of Sampling	---	15/11/2014	Not in operation during visit	13/11/2014	13/11/2014	Not in operation during visit	13/11/2014	Not in operation during visit	Not in operation during visit
02	Time of sampling	Hr.	10.40		9.20	10.25		14.40		
03	Stack Attached to	---	Sand Reclamation	Barrel Grinding - I	Annealing Furnace - I	Annealing Furnace - II	Barrel Grinding - II	Annealing Furnace - III	Barrel Grinding-III	Barrel Grinding -IV&V
04	Air Pollution Control Measures	---	Bag Filter	Bag Filter	---	---	Bag Filter	---	Bag Filter	Bag Filter
05	Stack Height	Meter	32	30	32	32	30	32	30	30
06	Stack Diameter	Meter	0.9	0.6	1.375	1.375	0.6	1.375	0.5	0.5
07	Stack Temperature	°C	72	...	156	164	...	159	...	...
08	Ambient Temperature	°C	33	...	30	31	...	33	...	...
09	Average Velocity of Flue Gases	m/Sec.	13.9	...	6.9	7.7	...	6.5	...	...
10	Isokinetic flow rate for P.M. Sampling	LPM	23	...	20	22	...	19	...	...
11	Gaseous Sampling Flow Rate	LPM	2.0	...	2.0	2.0	...	2.0	...	...
12	Permissible limits for PM	mg/Nm3	150	150	150	150	150	150	150	150
13	Measured Concentration of PM.	mg/Nm3	49	...	43	48	...	54	...	...
14	Permissible limits for SO2	mg/Nm3	40	40	100 (PPM)	100 (PPM)	40	100 (ppm)	40	40
15	Measured Concentration of SO2	mg/Nm3	N.D.	...	4.4(PPM)	4.7(PPM)	...	3.8(PPM)	...	...
16	Permissible limits for Nox	mg/Nm3	25	25	50 (PPM)	50 (PPM)	25	50 (PPM)	25	25
17	Measured Concentration of Nox	mg/Nm3	N.D.	...	6.8(PPM)	7.3(PPM)	...	7.9(PPM)	...	...

Note : Minimum Detectable Limit of SO2 & Nox is 0.1 and 0.01 ppm respectively.  
Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I  
Calibration due on : 04/08/2015

N.D= Not Detectable

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*Signature*



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Analyst



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Ref. No. : 669/11/2014-15

Date: 04/12/2014

### STACK EMISSION MONITORING RESULTS

#### Pipe Plant (SDP-2) (GPCB ID:18036)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	S - 1	S - 2	S - 3	S - 4	S - 5	S - 6	S - 7
01	Date of Sampling	---	27/11/2014	Not in operation during visit	27/11/2014	27/11/2014	12/11/2014	12/11/2014	Not in operation during visit
02	Time of sampling	Hr.	14.45		9.15	10.20	9.20	10.30	
03	Stack Attached to	---	Magnesium Treatment	Socket Cleaning	Annealing Furnace - I	Annealing Furnace - II	Zinc Coating	Tri- Grinding Section	Pre & Post Heating
04	Air Pollution Control Measures	---	Bag Filter	Bag Filter	---	---	Bag Filter	Bag Filter	---
05	Stack Height	Meter	30	30	45	45	30	30	30
06	Stack Diameter	Meter	1.00	0.50	0.85	0.85	1.00	1.00	0.85
07	Stack Temperature	°C	39	---	153	138	42	36	---
08	Ambient Temperature	°C	32	---	29	30	30	31	---
09	Average Velocity of Flue Gases	m/Sec.	4.9	---	7.5	7.6	8.8	7.7	---
10	Isokinetic flow rate for P.M. Sampling	LPM	20	---	22	23	16	14	---
11	Gaseous Sampling Flow Rate	LPM	---	---	2.0	2.0	---	---	---
12	Permissible limits for PM	mg/Nm <sup>3</sup>	50	50	50	50	50	50	50
13	Measured Concentration of PM <sub>10</sub>	mg/Nm <sup>3</sup>	27	---	46	37	21(Zn)	23	---
14	Permissible limits for SO <sub>2</sub>	PPM	NA	NA	100	100	NA	NA	NA
15	Measured Concentration of SO <sub>2</sub>	PPM	---	---	8.7	9.1	---	---	---
16	Permissible limits for Nox	PPM	NA	NA	50	50	NA	NA	NA
17	Measured Concentration of Nox	PPM	---	---	9.8	8.5	---	---	---

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.  
Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS |  
Calibration due on 04/06/2015

N.D= Not Detectable  
N.A= Not Applicable

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Ref. No. : 677/11/2014-15

Date: 04/12/2014

### WORK ZONE NOISE LEVEL MEASUREMENT PIPE PLANT (GPCB ID:18036)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Date of sampling : 13th November, 2014

Sr. No.	Location of Sampling	Results Avg. in dB(A)
01.	Inside Control Room of Annealing Furnace of DISP / SDP	56.2
02	Inside Control Room – Mill Area of Spiral Plant	60.3
03	Nr. Pipe Cutting Area of Spiral Plant	74.1
04	Inside JCO Plant	73.9
05	Inside DISP / SDP Plant	72.1
06	Inside Coating Plant	72.5
07	Nr. CCM SDP-2	70.3
08	Inside Control Room of Annealing Furnace of SDP-2	55.3
09	Nr. Zinc Coating SDP-2	70.1
10	Near Mould Shop	75.0

Instruments used : Sound level meter, Model : SL - 4030 (Lutron Make)

Range : A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Recalibration is due on : 25/09/2015

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Analyst

**Form No. 37**  
**(Prescribed under Rule 12-B)**

Register containing particulars of monitoring of working environment required under Section 7-A (a)(e).

- 1 Name of the Department/Plant.: DISP, JCO & Coating Units at Jindal Saw Limited, Samaghogha. (GPCB ID: 18036)
- 2 Raw materials, by products and finished products involved in the process. TOTAL DUST
- 3 Particulars of sampling

Date of Sampling : 16th & 17th November, 2014

Sr. No	Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborne Contamination			TWA concentration (As given in Second Schedule)	Reference Method	Number of workers exposed at the location being monitored	Remark	Signature of person taking samples	Name (in block letters)
				Number of sample	Range	Average	mg/m3					
1	Spiral Plant (Nr. ID/OD)	Total Dust	Personal Respirable Dust sampler APM 800	02	3-6	4.5	10	Gravimetric	5	---	<i>Manoj</i>	Mr. MANOJ SONRAT
2	JCO Plant (Nr. JCO Press)	Total Dust		02	4-7	5.5	10	Gravimetric	6	---		
3	Coating Plant-1 (Shot Blasting Area)	Total Dust		02	4-6	5.0	10	Gravimetric	8	---		
4	CCM Area (SDP / DISP)	Total Dust		02	4-8	6.0	10	Gravimetric	7	---		
5	Coating Plant-2 (Shot Blasting Area)	Total Dust		02	4-5	4.5	10	Gravimetric	8	---		
6	CCM Area (SDP-2)	Total Dust		02	3-8	5.5	10	Gravimetric	7	---		

Instruments used : Envirotech make personal sampler, Model No. APM 800

Calibration Date Due on : 02/12/2014

For. Royal Environment Auditing & Consultancy Service



*Manoj*  
Authorized Sign



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Ref. No. : 641/11/2014-15

Date: 04/12/2014

### AMBIENT AIR QUALITY MONITORING REPORT

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_Part - 2/6/10/23

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	----	05/11/2014	05/11/2014	05/11/2014
03.	Time of sampling	----	8.30	9.00	9.20
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	W	W	W
06.	Average Wind Speed	Km/Hr.	3.55	3.55	3.55
07.	Average flow rate during sampling	m <sup>3</sup> /Hr.	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2
09.	Permissible limits for PM 10	µg/m <sup>3</sup>	100	100	100
10.	Measured Concentration of PM 10	µg/m <sup>3</sup>	61	76	52
11.	Permissible limits for PM 2.5	µg/m <sup>3</sup>	60	60	60
12.	Measured Concentration of PM 2.5	µg/m <sup>3</sup>	34	43	30
13.	Permissible limits for SO <sub>2</sub>	µg/m <sup>3</sup>	80	80	80
14.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	10.6	13.2	12.1
15.	Permissible limits for NO <sub>2</sub>	µg/m <sup>3</sup>	80	80	80
16.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	17.7	23.2	20.4
17.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	2000	2000
18.	Measured Concentration of CO	µg/m <sup>3</sup>	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. of Gaseous Sampler (AAS 109) (3) 3 Nos. PM 2.5 Sampler (AAS 127) & ACE - Gas Analyzer  
All Calibration due on : 04/06/2015 & 22/06/2015



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## Environment Auditing & Consultancy Service

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Ref. No. : 642/11/2014-15

Date: 04/12/2014

### AMBIENT AIR QUALITY MONITORING REPORT

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_Part - 2/6/10/23

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	----	06/11/2014	06/11/2014	06/11/2014
03.	Time of sampling	----	8.45	9.15	9.45
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	WNW	WNW	WNW
06.	Average Wind Speed	Km/Hr.	4.55	4.55	4.55
07.	Average flow rate during sampling	m3/Hr.	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2
09.	Permissible limits for PM 10	µg/m3	100	100	100
10.	Measured Concentration of PM 10	µg/m3	65	83	55
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	37	45	34
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	10.3	12.4	10.9
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	18.4	22.5	19.7
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. of Gaseous Sampler (AAS 109) (3) 3 Nos. PM 2.5 Sampler (AAS 127) & ACE - Gas Analyzer  
All Calibration due on : 04/06/2015 & 22/06/2015





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Ref. No. : 643/11/2014-15

Date: 04/12/2014

### AMBIENT AIR QUALITY MONITORING REPORT

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_Part - 2/6/10/23

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	---	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	---	09/11/2014	09/11/2014	09/11/2014
03.	Time of sampling	---	8.10	8.40	9.15
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	---	WNW	WNW	WNW
06.	Average Wind Speed	Km/Hr.	3.45	3.45	3.45
07.	Average flow rate during sampling	m3/Hr.	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2
09.	Permissible limits for PM 10	µg/m3	100	100	100
10.	Measured Concentration of PM 10	µg/m3	61	73	56
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	36	40	31
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	11.9	13.4	10.1
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	21.4	19.7	15.9
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. of Gaseous Sampler (AAS 109) (3) 3 Nos. PM 2.5 Sampler (AAS 127) & ACE - Gas Analyzer

All Calibration due on : 04/06/2015 & 22/06/2015



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Ref. No. : 644/11/2014-15

Date: 04/12/2014

### AMBIENT AIR QUALITY MONITORING REPORT

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_Part - 2/6/10/23

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	---	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	---	10/11/2014	10/11/2014	10/11/2014
03.	Time of sampling	---	8.25	8.55	9.30
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	N	N	N
06.	Average Wind Speed	Km/Hr.	4.19	4.19	4.19
07.	Average flow rate during sampling	m <sup>3</sup> /Hr.	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2
09.	Permissible limits for PM 10	µg/m <sup>3</sup>	100	100	100
10.	Measured Concentration of PM 10	µg/m <sup>3</sup>	68	75	58
11.	Permissible limits for PM 2.5	µg/m <sup>3</sup>	60	60	60
12.	Measured Concentration of PM 2.5	µg/m <sup>3</sup>	39	46	35
13.	Permissible limits for SO <sub>2</sub>	µg/m <sup>3</sup>	80	80	80
14.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	10.5	14.6	11.2
15.	Permissible limits for NO <sub>2</sub>	µg/m <sup>3</sup>	80	80	80
16.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	21.9	20.1	15.2
17.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	2000	2000
18.	Measured Concentration of CO	µg/m <sup>3</sup>	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. of Gaseous Sampler (AAS 109) (3) 3 Nos. PM 2.5 Sampler (AAS 127) & ACE - Gas Analyzer

All Calibration due on : 04/06/2015 & 22/06/2015



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Ref. No. : 645/11/2014-15

Date: 04/12/2014

### AMBIENT AIR QUALITY MONITORING REPORT

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_Part - 2/6/10/23

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	---	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	---	17/11/2014	17/11/2014	17/11/2014
03.	Time of sampling	---	8.30	8.55	9.20
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	---	ESE	ESE	ESE
06.	Average Wind Speed	Km/Hr.	2.0	2.0	2.0
07.	Average flow rate during sampling	m <sup>3</sup> /Hr.	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2
09.	<b>Permissible limits for PM 10</b>	µg/m <sup>3</sup>	100	100	100
10.	Measured Concentration of PM 10	µg/m <sup>3</sup>	56	68	51
11.	<b>Permissible limits for PM 2.5</b>	µg/m <sup>3</sup>	60	60	60
12.	Measured Concentration of PM 2.5	µg/m <sup>3</sup>	32	42	26
13.	<b>Permissible limits for SO<sub>2</sub></b>	µg/m <sup>3</sup>	80	80	80
14.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	10.9	11.8	9.6
15.	<b>Permissible limits for NO<sub>2</sub></b>	µg/m <sup>3</sup>	80	80	80
16.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	20.8	23.4	18.3
17.	<b>Permissible limit for CO **</b>	µg/m <sup>3</sup>	2000	2000	2000
18.	Measured Concentration of CO	µg/m <sup>3</sup>	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. of Gaseous Sampler (AAS 109) (3) 3 Nos. PM 2.5 Sampler (AAS 127) & ACE - Gas Analyzer

All Calibration due on : 04/06/2015 & 22/06/2015



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Ref. No. : 646/10/2014-15

Date: 04/12/2014

### AMBIENT AIR QUALITY MONITORING REPORT

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_Part - 2/6/10/23

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	----	18/11/2014	18/11/2014	18/11/2014
03.	Time of sampling	----	8.45	9.10	9.45
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	ESE	ESE	ESE
06.	Average Wind Speed	Km/Hr.	1.95	1.95	1.95
07.	Average flow rate during sampling	m <sup>3</sup> /Hr.	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2
09.	Permissible limits for PM 10	µg/m <sup>3</sup>	100	100	100
10.	Measured Concentration of PM 10	µg/m <sup>3</sup>	59	71	48
11.	Permissible limits for PM 2.5	µg/m <sup>3</sup>	60	60	60
12.	Measured Concentration of PM 2.5	µg/m <sup>3</sup>	34	47	30
13.	Permissible limits for SO <sub>2</sub>	µg/m <sup>3</sup>	80	80	80
14.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	11.6	12.4	10.1
15.	Permissible limits for NO <sub>2</sub>	µg/m <sup>3</sup>	80	80	80
16.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	20.1	22.6	19.5
17.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	2000	2000
18.	Measured Concentration of CO	µg/m <sup>3</sup>	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. of Gaseous Sampler (AAS 109) (3) 3 Nos. PM 2.5 Sampler (AAS 127) & ACE - Gas Analyzer  
All Calibration due on : 04/06/2015 & 22/06/2015 -



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Ref. No. : 647/11/2014-15

Date: 04/12/2014

### AMBIENT AIR QUALITY MONITORING REPORT

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_Part - 2/6/10/23

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	----	23/11/2014	23/11/2014	23/11/2014
03.	Time of sampling	----	8.35	9.00	9.25
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	NW	NW	NW
06.	Average Wind Speed	Km/Hr.	4.73	4.73	4.73
07.	Average flow rate during sampling	m3/Hr.	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2
09.	Permissible limits for PM 10	µg/m3	100	100	100
10.	Measured Concentration of PM 10	µg/m3	63	84	57
11.	Permissible limits for PM 2.5	µg/m3	60	60	60
12.	Measured Concentration of PM 2.5	µg/m3	40	52	36
13.	Permissible limits for SO2	µg/m3	80	80	80
14.	Measured Concentration of SO2	µg/m3	13.6	14.5	10.9
15.	Permissible limits for NO2	µg/m3	80	80	80
16.	Measured Concentration of NO2	µg/m3	23.2	24.4	15.7
17.	Permissible limit for CO **	µg/m3	2000	2000	2000
18.	Measured Concentration of CO	µg/m3	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. of Gaseous Sampler (AAS 109) (3) 3 Nos. PM 2.5 Sampler (AAS 127) & ACE - Gas Analyzer

All Calibration due on : 04/06/2015 & 22/06/2015



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Ref. No. : 648/11/2014-15

Date: 04/12/2014

### AMBIENT AIR QUALITY MONITORING REPORT

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_Part - 2/6/10/23

Sr. No.	Particulars	Unit	NAAQMS - 1	NAAQMS - 2	NAAQMS - 3
01.	Location of Ambient	----	Main Gate (S)	Sinter Plant - 1 (NNW)	Nr. Workshop Spiral - II (W)
02.	Date of sampling	----	24/11/2014	24/11/2014	24/11/2014
03.	Time of sampling	----	8.45	9.10	9.35
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	SSE	SSE	SSE
06.	Average Wind Speed	Km/Hr.	5.7	5.7	5.7
07.	Average flow rate during sampling	m3/Hr.	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2
09.	<b>Permissible limits for PM 10</b>	<b>µg/m3</b>	<b>100</b>	<b>100</b>	<b>100</b>
10.	Measured Concentration of PM 10	µg/m3	68	79	52
11.	<b>Permissible limits for PM 2.5</b>	<b>µg/m3</b>	<b>60</b>	<b>60</b>	<b>60</b>
12.	Measured Concentration of PM 2.5	µg/m3	44	50	39
13.	<b>Permissible limits for SO2</b>	<b>µg/m3</b>	<b>80</b>	<b>80</b>	<b>80</b>
14.	Measured Concentration of SO2	µg/m3	13.1	15.1	11.8
15.	<b>Permissible limits for NO2</b>	<b>µg/m3</b>	<b>80</b>	<b>80</b>	<b>80</b>
16.	Measured Concentration of NO2	µg/m3	22.5	23.7	16.8
17.	<b>Permissible limit for CO **</b>	<b>µg/m3</b>	<b>2000</b>	<b>2000</b>	<b>2000</b>
18.	Measured Concentration of CO	µg/m3	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. of Gaseous Sampler (AAS 109) (3) 3 Nos. PM 2.5 Sampler (AAS 127) & ACE - Gas Analyzer

All Calibration due on : 04/06/2015 & 22/06/2015



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Ref. No. : 649/11/2014-15

Date: 04/12/2014

### AMBIENT AIR QUALITY MONITORING REPORT

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_Part - 2/6/10/23

Sr.No.	Particulars	Unit	AAQM - 1 (S)	AAQM - 2 (SSW)	AAQM - 3 (WSW)	AAQM - 4 (NW)
01.	Location of Ambient	----	Old Colony (Nr. Environment Laboratory)	Nr. Rain Water Harvesting	LPG Yard (Nr. Water Reservoir)	Between Sinter - 2 & Spiral - 2
02.	Date of sampling	----	15/11/2014	16/11/2014	16/11/2014	16/11/2014
03.	Time of sampling	----	8.40	8.25	9.00	9.30
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	N	N	N	N
06.	Average Wind Speed	Km/Hr.	1.9	1.9	1.9	1.9
07.	Average flow rate during sampling	m <sup>3</sup> /Hr.	1.0	1.0	0.2	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2	0.2
09.	<b>Permissible limits for PM 10</b>	µg/m <sup>3</sup>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
10.	Measured Concentration of PM 10	µg/m <sup>3</sup>	48	73	60	51
11.	<b>Permissible limits for PM 2.5</b>	µg/m <sup>3</sup>	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>
12.	Measured Concentration of PM 2.5	µg/m <sup>3</sup>	30	46	35	32
13.	<b>Permissible limits for SO<sub>2</sub></b>	µg/m <sup>3</sup>	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>
14.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	11.8	9.9	14.2	12.3
15.	<b>Permissible limits for NO<sub>2</sub></b>	µg/m <sup>3</sup>	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>
16.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	13.2	14.3	22.1	19.5
17.	<b>Permissible limit for CO **</b>	µg/m <sup>3</sup>	<b>2000</b>	<b>2000</b>	<b>2000</b>	<b>2000</b>
18.	Measured Concentration of CO	µg/m <sup>3</sup>	B.D.L.	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) Ecotech make 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. Gaseous Sampling Kit (APM 109), & 3 Nos. PM 2.5 Sampler (AAS 127)

All Calibration due on : 04/06/2015 & 22/06/2015



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Ref. No. : 650/11/2014-15

Date: 04/12/2014

### AMBIENT AIR QUALITY MONITORING REPORT

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_Part - 2/6/10/23

Sr. No.	Particulars	Unit	AAQM - 5 (NE)	AAQM - 6 (SE)	AAQM - 7 (ESE)	AAQM - 8 (E)
01.	Location of Ambient	----	Labour Colony	New Colony (Shopping Centre )	VIP Guest House	Weigh bridge
02.	Date of sampling	----	15/11/2014	15/11/2014	16/11/2014	15/11/2014
03.	Time of sampling	----	9.10	9.35	9.55	10.05
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	----	N	N	N	N
06.	Average Wind Speed	Km/Hr.	1.9	1.9	1.9	1.9
07.	Average flow rate during sampling	m3/Hr.	1.0	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2	0.2
09.	<b>Permissible limits for PM 10</b>	$\mu\text{g}/\text{m}^3$	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
10.	Measured Concentration of PM 10	$\mu\text{g}/\text{m}^3$	54	68	65	71
11.	<b>Permissible limits for PM 2.5</b>	$\mu\text{g}/\text{m}^3$	<b>60</b>	<b>60</b>	<b>60</b>	<b>60</b>
12.	Measured Concentration of PM 2.5	$\mu\text{g}/\text{m}^3$	34	49	28	43
13.	<b>Permissible limits for SOx</b>	$\mu\text{g}/\text{m}^3$	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>
14.	Measured Concentration of SOx	$\mu\text{g}/\text{m}^3$	12.4	13.3	12.1	15.5
15.	<b>Permissible limits for Nox</b>	$\mu\text{g}/\text{m}^3$	<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>
16.	Measured Concentration of NOx	$\mu\text{g}/\text{m}^3$	20.3	22.7	20.5	26.3
17.	<b>Permissible limit for CO **</b>	$\mu\text{g}/\text{m}^3$	<b>2000</b>	<b>2000</b>	<b>2000</b>	<b>2000</b>
18.	Measured Concentration of CO	$\mu\text{g}/\text{m}^3$	B.D.L.	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) Ecotech make 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. Gaseous Sampling Kit (APM 109), & 3 Nos. PM 2.5 Sampler (AAS 127)

All Calibration due on : 04/06/2015 & 22/06/2015



Mangal  
Analyst



# Royal

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Ref. No. :651/11/2014-15

Date: 04/12/2014

### FUGITIVE EMISSION MONITORING REPORT

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_Part - 2/6/10/23

Sr. No.	Particulars	Unit	A - 1	A - 2	A - 3
01.	Location of Ambient	---	RMH Junction House	RMH Stock House	Sinter RMH Yard
02.	Date of sampling	---	22/11/2014	22/11/2014	22/11/2014
03.	Time of sampling	---	8.45	9.10	9.40
04.	Duration of Sampling	Hr.	8.00	8.00	8.00
05.	Dominant Wind Direction (From)	----	NNW	NNW	NNW
06.	Average Wind Speed	Km/Hr.	2.54	2.54	2.54
07.	Average flow rate during sampling	m3/Hr.	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2
09.	Permissible limits for PM 10	µg/m3	3000	3000	3000
10.	Measured Concentration of PM 10	µg/m3	2582	2673	2534
11.	Permissible limits for SO2	µg/m3	150	150	150
12.	Measured Concentration of SO2	µg/m3	25.7	26.3	24.1
13.	Permissible limits for NO2	µg/m3	120	120	120
14.	Measured Concentration of NO2	µg/m3	33.7	35.6	31.5
15.	Permissible limit for CO **	µg/m3	2000	2000	2000
16.	Measured Concentration of CO	µg/m3	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. Gaseous Sampler (APM 109), & Ace Gas Analyzer  
All Calibration due on : 04/06/2015 & 22/06/2015





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Ref. No. :652/11/2014-15

Date: 04/12/2014

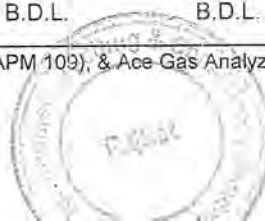
### FUGITIVE EMISSION MONITORING REPORT

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_Part - 2/6/10/23

Sr. No.	Particulars	Unit	A - 4	A - 5	A - 6
01.	Location of Ambient	----	Sinter 2 Ground Hopper	DISP "CCM" Area	Sinter 1 Main to PMD
02.	Date of sampling	----	23/11/2014	23/11/2014	23/11/2014
03.	Time of sampling	----	9.15	9.50	10.20
04.	Duration of Sampling	Hr.	8.00	8.00	8.00
05.	Dominant Wind Direction (From)	----	NW	NW	NW
06.	Average Wind Speed	Km/Hr.	4.73	4.73	4.73
07.	Average flow rate during sampling	m3/Hr.	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2
09.	<b>Permissible limits for PM 10</b>	<b>µg/m3</b>	<b>3000</b>	<b>3000</b>	<b>3000</b>
10.	Measured Concentration of PM 10	µg/m3	2419	1210	1526
11.	<b>Permissible limits for SO2</b>	<b>µg/m3</b>	<b>150</b>	<b>150</b>	<b>150</b>
12.	Measured Concentration of SO2	µg/m3	23.2	24.6	18.5
13.	<b>Permissible limits for NO2</b>	<b>µg/m3</b>	<b>120</b>	<b>120</b>	<b>120</b>
14.	Measured Concentration of NO2	µg/m3	30.2	26.1	20.3
15.	<b>Permissible limit for CO **</b>	<b>µg/m3</b>	<b>2000</b>	<b>2000</b>	<b>2000</b>
16.	Measured Concentration of CO	µg/m3	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. Gaseous Sampler (APM 109), & Ace Gas Analyzer  
All Calibration due on : 04/06/2015 & 22/06/2015





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Ref. No. : 678/11/2014-15

Date: 04/12/2014

### AMBIENT NOISE LEVEL MEASUREMENT

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Date of sampling : 14th November, 2014

Sr. No.	Location of Sampling	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)
	<b>Permissible Limits</b>	<b>75.0</b>	<b>70.0</b>
01.	Admin. Building	56.2	50.1
02.	Old Colony	53.3	49.2
03.	Nr. LPG Yard	66.2	61.3
04.	New Colony (School)	57.1	55.2
05.	Nr. SDP-2	68.2	64.2
06.	Nr. Coating Plant	70.3	67.3
07.	Nr. Gate No. 2	64.1	60.2
08.	Nr. Sinter Plant-1	73.2	65.3
09.	Nr. Sinter Plant-2	69.3	62.1
10.	Nr. Blast Furnace-1	67.2	62.1
11.	Nr. Blast Furnace-2	68.3	60.3
12.	Nr. Main Gate (Security Office)	65.2	55.3

Instruments used : Sound level meter, Model : SL - 4030 (Lutron Make)

Range : A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Recalibration is due on : 25/09/2015

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*Mangal*  
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Ref. No. : 654/11/2014-15

Date: 04/12/2014

### Performance Evaluation of Air Pollution Control Equipments

#### Blast Furnace Plant-1(GPCB ID:18037)

Name of company : Jindal Saw Limited,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/3

Sr. No.	Particulars	Unit	S - 1
01	Date of Sampling	---	19/11/2014
02	Attached to	---	De-dustingSystem
03	Stack Height	Meter	35
04	Stack Duct Diameter	Meter	1.4
05	Stack Temperature	°C	61
06	Ambient Temperature	°C	32
07	Average Velocity of Flue Gases	m/Sec.	8.9
08	IsoKinetic Flowrate for Sampling	LPM	15
09	Inlet	mg/Nm <sup>3</sup>	2473
10	Outlet	mg/Nm <sup>3</sup>	57
11	Efficiency	%	97.70

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I

Calibration due on 04/06/2015





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Ref. No. : 663/11/2014-15

Date: 04/12/2014

### STACK EMISSION MONITORING RESULTS

#### BLAST FURNACE-1 (GPCB ID:18037)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/2/3/7

Sr. No.	Particulars	Unit	S - 1	S - 2	S - 3	S - 4	S - 5
01	Date of Sampling	---	19/11/2014	20/11/2014	20/11/2014	19/11/2014	Not Done
02	Time of sampling	Hr.	10.50	9.25	10.35	14.45	
03	Stack Attached to	---	Dedusting System	Boiler - I	Boiler - II	Stove Stack	Flare Stack
04	Air Pollution Control Measures	---	Bag Filter	---	---	---	---
05	Stack Height	Meter	35.0	45	45	50.0	30
06	Stack Diameter	Meter	1.5	1.4	1.4	2.25	---
07	Stack Temperature	°C	54	163	171	329	---
08	Ambient Temperature	°C	32	30	31	33	---
09	Average Velocity of Flue Gases	m/Sec.	6.4	5.8	6.2	7.1	---
10	Isokinetic flow rate for P.M. Sampling	LPM	25	17	18	15	---
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0	2.0	2.0	---
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	150	150	150	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	57	14	20	9	---
14	Permissible limits for SO <sub>2</sub>	mg/Nm <sup>3</sup>	40	40	40	40	40
15	Measured Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	N.D.	6.1	5.9	1.49	---
16	Permissible limits for NO <sub>x</sub>	mg/Nm <sup>3</sup>	25	25	25	25	25
17	Measured Concentration of Nox	mg/Nm <sup>3</sup>	N.D.	10.4	9.8	5.8	---

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.  
Instrument Used : Stack Monitoring Kit - Vayubodhan make - VSS I  
Calibration due on 04/06/2015

N.D=Not Detectable

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Analyst



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Ref. No. : 664/11/2014-15

Date: 04/12/2014

### STACK EMISSION MONITORING RESULTS

#### Captive Power Plant (GPCB ID:18037)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255 Part - 1/2/3/7

Sr. No.	Particulars	Unit	S - 1	S - 2	S - 3	S - 4
01	Date of Sampling	---	Not In Operation During The Visit	14/11/2014	Stand by	Not In Operation During The Visit
02	Time of sampling	Hr.		16.30		
03	Stack Attached to	---	6000 KVA D.G.	3240 KVA D.G.	3240 KVA D.G.	1180 KVA D.G.
04	Air Pollution Control Measures	---	---	---	---	---
05	Stack Height	Meter	57.0	35	35	35
06	Stack Diameter	Meter	1.984	1.484	1.484	0.980
07	Stack Temperature	°C	---	231.00	---	---
08	Ambient Temperature	°C	---	33.00	---	---
09	Average Velocity of Flue Gases	m/Sec.	---	9.20	---	---
10	Isokinetic flow rate for P.M. Sampling	LPM	---	23	---	---
11	Gaseous Sampling Flow Rate	LPM	---	2.0	---	---
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	150	150	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	---	59.0	---	---
14	Permissible limits for SO <sub>2</sub>	ppm	100	100	100.0	100
15	Measured Concentration of SO <sub>2</sub>	ppm	---	27.9	---	---
16	Permissible limits for Nox	ppm	50	50	50.0	50
17	Measured Concentration of Nox	ppm	---	24.6	---	---

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : Stack Monitoring Kit - Vayubodhan make - VSS I

Calibration due on 04/06/2015

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Mehnooj  
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Ref. No. : 676/11/2014-15

Date: 04/12/2014

### WORK ZONE NOISE LEVEL MEASUREMENT BLAST FURNACE- 1 (GPCB ID:18037)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Date of sampling : 13th November, 2014

Sr. No.	Location of Sampling	Results Avg. in dB(A)
01.	Nr. Stock House	73.9
02.	Inside Control Room	60.6
03.	Inside Control room of Cast House	55.3
04.	Inside Laboratory	50.1
05.	Inside Control Room of Blower House	59.6
06.	Inside Control Room of CPP	54.3

Instruments used : Sound level meter, Model : SL - 4030 (Lutron Make)

Range : A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Recalibration is due on : 25/09/2015

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Ref. No. : 681/11/2014-15

Date: 04/12/2014

### REPORT OF DOMESTIC WASTE WATER ANALYSIS

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Source Of Sample Collection : Sewage Treatment Plant (Inlet & Outlet)

Date of Sampling : 28/11/2014

Sr. No.	Parameters	Unit	GPCB limits	STP Inlet	STP Outlet
01.	pH	pH Unit	---	7.85	7.12
02.	BOD (3 Days at 27°C)	mg/l	<20	172	12
03.	Suspended Solids	mg/l	<30	275	18
04.	Residual Chlorine	mg/l	Min. 0.5	---	0.75

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*Munaj*  
Analyst

Ref. No. : 672/11/2014-15

Date: 04/12/2014

**Form No. 37**  
**(Prescribed under Rule 12-B)**

Register containing particulars of monitoring of working environment required under Section 7-A (a)(e).

- 1 Name of the Department/Plant.: **BF Plant-1 at Jindal Saw Limited, Samaghogha. (GPCB ID: 18037)**
- 2 Raw materials, by products and finished products involved in the process. **TOTAL DUST & CO.**
- 3 Particulars of sampling

Date of Sampling : 14th November, 2014

Sr. No	Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborne Contamination			TWA concentration (As given in Second Schedule)	Reference Method	Number of workers exposed at the location being monitored	Remark	Signature person taking samples	Name (in block letters)
				Number of sample	Range	Average	mg/m <sup>3</sup>					
1	BF Plant (Cast House)	CO	Personal Respirable Dust sampler APM 800	02	1-2	1.5	2	Gravimetric	6	---	<i>Manoj</i>	Mr. MANOJ SONRAT
		Total Dust			3-7	5.0	10					

Instruments used : Envirotech make personal sampler, Model No. APM 800  
Calibration Date Due on : 02/12/2014

For. Royal Environment Auditing & Consultancy Service



*Manoj*  
Authorized Sign



# Royal

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Ref. No. : 659/11/2014-15

Date: 04/12/2014

### Performance Evaluation of Air Pollution Control Equipments

#### Blast Furnace Plant-2 (GPCB ID:29026)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/3

Sr. No.	Particulars	Unit	S - 1	S - 4	S - 5
01	Date of Sampling	---	11/11/2014	11/11/2014	Not in operation during visit
02	Attached to	---	Dedusting System	Coke fine building dust collecting system	Iron Ore fine & Dust Collecting System
03	Stack Height	Meter	40	30	30
04	Stack Duct Diameter	Meter	1.5	0.85	0.65
05	Stack Temperature	°C	76	49	....
06	Ambient Temperature	°C	31	33	....
07	Average Velocity of Flue Gases	m/Sec.	8.9	13.8	....
08	IsoKinetic Flowrate for Sampling	LPM	14	24	....
09	Inlet	mg/Nm <sup>3</sup>	2749	2276	....
10	Outlet	mg/Nm <sup>3</sup>	54	43	....
11	Efficiency	%	98.04	98.11	....

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I

Calibration due on 04/06/2015

Royal Environment Auditing & Consultancy Service



*Mamraj*  
Analyst



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Ref. No. :662/11/2014-15

Date: 04/12/2014

### STACK EMISSION MONITORING RESULTS

#### BLAST FURNACE - 2 (GPCB ID:29026)

Name of company : Jindal Saw Limited,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/2/3/7

Sr. No.	Particulars	Unit	S - 1	S - 2	S - 3	S - 4	S - 5
01	Date of Sampling	---	11/11/2014	11/11/2014	Not Done	11/11/2014	Not in operation during visit
02	Time of sampling	Hr.	10.35	9.15		14.10	
03	Stack Attached to	---	Dedusting System	Stove Stack	Flare Stack	Coke fine building dust collecting system	Iron Ore fine & Dust Collecting System
04	Air Pollution Control Measures	---	Bag Filter	---	---	Bag Filter	Bag Filter
05	Stack Height	Meter	40.0	65.0	45	30.0	30.0
06	Stack Diameter	Meter	1.5	2.250	---	---	0.85
07	Stack Temperature	°C	64	338	---	36	---
08	Ambient Temperature	°C	31	30	---	33	---
09	Average Velocity of Flue Gases	m/Sec.	8.5	7.6	---	12.1	---
10	Isokinetic flow rate for P.M. Sampling	LPM	14	16	---	22	---
11	Gaseous Sampling Flow Rate	LPM	---	---	---	---	---
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	150	150	150	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	54	10	---	43	---
14	Permissible limits for SO <sub>2</sub>	mg/Nm <sup>3</sup>	NA	NA	NA	NA	NA
15	Measured Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	---	---	---	---	---
16	Permissible limits for NO <sub>x</sub>	mg/Nm <sup>3</sup>	NA	NA	NA	NA	NA
17	Measured Concentration of Nox	mg/Nm <sup>3</sup>	---	---	---	---	---

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : Stack Monitoring Kit - Vayubodhan make - VSS I

Calibration due on 04/06/2015

\*\*NA=Not Applicable



*Signature*

*Mung*  
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Ref. No. : 679/11/2014-15

Date: 04/12/2014

### WORK ZONE NOISE LEVEL MEASUREMENT

#### BLAST FURNACE - 2 (GPCB ID:29026)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Date of sampling : 14th November, 2014

Sr. No.	Location of Sampling	Results Avg. in dB(A)
01.	Inside Control Room	56.3
02.	Nr. Stock House	68.2
03.	C/R Blower House	74.6

Instruments used : Sound level meter, Model : SL - 4030 (Lutron Make)

Range : A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Recalibration is due on : 25/09/2015

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*Munoj*  
Analyst



**Form No. 37  
(Prescribed under Rule 12-B)**

Register containing particulars of monitoring of working environment required under Section 7-A (a)(e).

- 1 Name of the Department/Plant.: **BF Plant-2 at Jindal Saw Limited, Samaghogha. (GPCB ID: 29026)**
- 2 Raw materials, by products and finished products involved in the process. **TOTAL DUST & CO.**
- 3 Particulars of sampling

Date of Sampling : 17th November, 2014

Sr. No	Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborne Contamination			TWA concentration (As given in Second Schedule)	Refrance Method	Number of workers exposed at the location being monitored	Remark	Signature person taking samples	Name (in block letters)
				Number of sample	Range	Average	mg/m3					
1	BF Plant (Cast House)	CO	Personal Respirable Dust sampler APM 800	02	3-4	3.5	6	Gravimetric	6	---	<i>Manoj</i>	Mr. MANOJ SONRAT
		Total Dust			3-7	5.0	10					

Instruments used : Envirotech make personal sampler, Model No. APM 800

Calibration Date Due on : 02/12/2014



For: Royal Environment Auditing & Consultancy Service

*Manoj*  
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Ref. No. : 653/11/2014-15

Date: 04/12/2014

### Performance Evaluation of Air Pollution Control Equipments Sinter Plant-1 (GPCB ID 35456)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/3

Sr. No.	Particulars	Unit	S - 1	S - 2	S - 3	S - 5
01	Date of Sampling	---	19/11/2014	Not in operation during visit	10/11/2014	10/11/2014
02	Attached to	---	Fuel & Flux crusher & screening building	Fuel & Flux crushing house	Sinter Furnace	Discharge end
03	Stack Height	Meter	32	27	50	32
04	Stack Diameter	Meter	1.4	1.4	2.0	1.3
05	Stack Temperature	°C	46	---	137	121
06	Ambient Temperature	°C	32	---	31	32
07	Average Velocity of Flue Gases	m/Sec.	15.1	---	19.9	18.2
08	IsoKinetic Flowrate for Sampling	LPM	26	---	27	26
09	Inlet	mg/Nm <sup>3</sup>	2093	---	3894	2619
10	Outlet	mg/Nm <sup>3</sup>	23	---	69	39
11	Efficiency	%	98.90	---	98.23	98.51

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I

Calibration due on 04/06/2015

Royal Environment Auditing & Consultancy Service

*Signature*



*Signature*  
Analyst



# Royal

## Environment Auditing & Consultancy Service

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Ref. No. :660/11/2014-15

Date: 04/12/2014

### STACK EMISSION MONITORING RESULTS

#### Sinter Plant - 1(GPCB ID:35456)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/2/3/7

Sr. No.	Particulars	Unit	S - 1	S - 2	S - 3	S - 4	S - 5	S - 6
01	Date of Sampling	---	19/11/2014	Not in operation during visit	10/11/2014	Not in operation during visit	19/11/2014	10/11/2014
02	Time of sampling	---	10.05		9.45		11.10	10.40
03	Stack Attached to	---	Fuel & Flux Crusher and Screening building	Fuel & Flux Crushing House	Sinter Furnace	Primary Mixture House	Secondary Mixture House	Discharge End
04	Air Pollution Control Measures	---	Bag Filter	Bag Filter	ESP	---	---	ESP
05	Stack Height	Meter	32.0	27.00	50	19.75	36.08	32
06	Stack Diameter	Meter	1.40	1.40	2.0	1.25	1.25	1.30
07	Stack Temperature	°C	37	...	151	...	42	134
08	Ambient Temperature	°C	32	...	31	...	32	32
09	Average Velocity of Flue Gases	m/Sec.	13.7	....	17.9	....	5.9	16.5
10	Isokinetic flow rate for P.M. Sampling	LPM	25	....	24	....	24	23
11	Gaseous Sampling Flow Rate	LPM	---	---	2.0	---	---	---
12	Permissible limits for PM	mg/Nm3	150	150	150	150	150	150
13	Measured Concentration of PM.	mg/Nm3	23	....	42	...	44	39
14	Permissible limits for SO2	ppm	NA	NA	100	NA	NA	NA
15	Measured Concentration of SO2	ppm	---	---	12.6	---	---	---
16	Permissible limits for NOx	ppm	NA	NA	50	NA	NA	NA
17	Measured Concentration of NOx	ppm	---	---	16.5	---	---	---

Note : Minimum Detectable Limit of SO2 & Nox is 0.1 and 0.01 ppm respectively.

NA= Not Applicable

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS 1

Calibration due on : 04/06/2015



*Signature*

*Mundra*



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Ref. No. : 675/11/2014-15

Date: 04/12/2014

### WORK ZONE NOISE LEVEL MEASUREMENT

#### SINTER PLANT- 1 (GPCB ID:35456)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Date of sampling : 13th November, 2014

Sr. No.	Location of Sampling	Results Avg. in dB(A)
1	Inside Control Room	54.1
2	Inside Mechanical Room	56.2
3	Inside Electrical Room	62.5
4	Inside Plant Office	54.1

Instruments used : Sound level meter, Model : SL - 4030 (Lutron Make)

Range : A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Recalibration is due on : 25/09/2015

Royal Environment Auditing & Consultancy Service

*Mamaji*  
Analyst



**Form No. 37**  
(Prescribed under Rule 12-B)

Register containing particulars of monitoring of working environment required under Section 7-A (a)(e).

- 1 Name of the Department/Plant.: **Sinter Plant-1 at Jindal Saw Limited, Samaghogha. (GPCB ID: 35456)**
- 2 Raw materials, by products and finished products involved in the process, **TOTAL DUST**
- 3 Particulars of sampling

Date of Sampling : 14th November, 2014

Sr. No	Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborne Contamination			TWA concentration (As given in Second Schedule)	Reference Method	Number of workers exposed at the location being monitored	Remark	Signature of person taking samples	Name (in block letters)
				Number of sample	Range	Average	mg/m3					
1	Sinter Plant At First Floor	Total Dust	Personal Respirable Dust sampler APM 800	02	2-5	3.5	10	Gravimetric	5	---	<i>Manoj</i>	Mr. MANOJ SONRAT

Instruments used : Envirotech make personal sampler, Model No. APM 800  
 Calibration Date Due on : 02/12/2014

For, Royal Environment Auditing & Consultancy Service



*Manoj*  
 Authorized Sign



# Royal

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Ref. No. : 655/11/2014-15

Date: 04/12/2014

### Performance Evaluation of Air Pollution Control Equipments Sinter Plant-2 (GPCB ID:29017)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/3

Sr. No.	Particulars	Unit	S - 1	S - 2	S - 3	S - 7	S - 9	S-10
01	Date of Sampling	---	Not in operation during visit	08/11/2014	27/11/2014	10/11/2014	10/11/2014	Not in operation during visit
02	Attached to	---	Fuel crushing de-duster system (Fuel)	Fuel crushing de-duster system (Flux)	Fuel screening deduster system (Flux screening)	Sinter Furnace	Discharging end of Sinter de-dusting System	Pulverised Coal Injection
03	Stack Height	Meter	30	30	30	50	50	32
04	Stack Diameter	Meter	0.7	0.7	0.7	2.0	1.3	1.0
05	Stack Temperature	°C	...	57	59	138	119	...
06	Ambient Temperature	°C	...	30	32	33	33	...
07	Average Velocity of Flue Gases	m/Sec.	...	14.7	15.5	18.9	19.3	...
08	IsoKinetic Flowrate for Sampling	LPM	...	25	26	26	27	...
09	Inlet	mg/Nm <sup>3</sup>	...	1849	2034	3325	2246	...
10	Outlet	mg/Nm <sup>3</sup>	...	25	38	53	30	...
11	Efficiency	%	...	98.65	98.13	98.41	98.66	...

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I

Calibration due on 04/06/2015

Royal Environment Auditing & Consultancy Service

*Signature*



*Manoj*  
Analyst



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Ref. No. : 661/11/2014-15

Date: 04/12/2014

### STACK EMISSION MONITORING RESULTS Sinter Plant -2 (GPCB ID:29017)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 11255\_Part - 1/2/3/7

Sr. No.	Particulars	Unit	S - 1	S - 2	S - 3	S - 4	S - 5	S - 6	S - 7	S - 8	S - 9	S - 10
01	Date of Sampling	---	08/11/2014	Not in operation during visit	27/11/2014	Not in operation during visit	Not in operation during visit	08/11/2014	10/11/2014	Not in operation during visit	10/11/2014	Not in operation during visit
02	Time of sampling	Hr.	9.30		11.10			10.45	14.10		15.30	
03	Stack Attached to	---	Fuel crushing de-duster system (Flux)	Fuel crushing de-duster system(Fuel)	Fuel Screening deduster System (Flux Screening)	No. 1 Transfer Station De-duster System	Primary Mixer De-duster system	Secondary Mixer De-duster system	Sinter Furnace	Transfer station no. 4 & 5 dedusting system	Discharging End of sinter de-dusting system	Pulverized Coal Injection
04	Air Pollution Control Measures	---	Dust Collector	Dust Collector	Dust Collector	Dust Collector	Dust Collector	Dust Collector	ESP	Dust Collector	ESP	Bag Filter
05	Stack Height	Meter	30	30	30	30		30	50	30	50	32
06	Stack Diameter	Meter	0.7	0.7	0.7	0.7	1.25	1.25	2	0.7	1.3	1.00
07	Stack Temperature	°C	43	---	46	---	---	53	146	---	129	---
08	Ambient Temperature	°C	30	---	32	---	---	31	33	---	33	---
09	Average Velocity of Flue Gases	m/Sec.	14.9	---	13.6	---	---	5.7	17.6	---	17.4	---
10	Isokinetic flow rate for P.M. Sampling	LPM	26	---	24	---	---	22	23	---	24	---
11	Gaseous Sampling Flow Rate	LPM	---	---	---	---	---	---	2.0	---	---	---
12	Permissible limits for PM	mg/Nm3	150	150	150	150	150	150	150	150	150	150
13	Measured Concentration of PM	mg/Nm3	25	---	38	---	---	38	53	---	30	---
14	Permissible limits for SO2	ppm	NA	NA	NA	NA	NA	NA	100	NA	NA	100 (ppm)
15	Measured Concentration of SO2	ppm	---	---	---	---	---	---	15.3	---	---	---
16	Permissible limits for NOx	ppm	NA	NA	NA	NA	NA	NA	50	NA	NA	50 (ppm)
17	Measured Concentration of NOx	ppm	---	---	---	---	---	---	20.7	---	---	---

Note : Minimum Detectable Limit of SO2 & NOx is 0.1 and 0.01 ppm respectively.  
Instrument Used : 2 Nos of Stack Monitoring Kit - Vayubodhan make - VSS I  
Calibration due on : 04/08/2015

NA= Not Applicable

Royal Environment Auditing & Consultancy Service

*Signature*



*Mumoj*  
Analyst



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Ref. No. : 680/11/2014-15

Date: 04/12/2014

### WORK ZONE NOISE LEVEL MEASUREMENT SINTER PLANT - 2 (29017)

Name of company : Jindal Saw Limited,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Date of sampling : 14th November, 2014

Sr. No.	Location of Sampling	Results Avg. in dB(A)
01.	Inside Control Room	60.2
02.	Inside Operator Room	63.1
03.	Near Proportioning Bulding	63.8
04.	Near Crusher House	69.1

Instruments used : Sound level meter, Model : SL - 4030 (Lutron Make)

Range : A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Recalibration is due on : 25/09/2015

Royal Environment Auditing & Consultancy Service



*Munshi*  
Analyst

Ref. No. : 670/11/2014-15

Date: 04/12/2014

**Form No. 37**  
(Prescribed under Rule 12-B)

Register containing particulars of monitoring of working environment required under Section 7-A (a)(e).

1 Name of the Department/Plant.: **Sinter Plant-2 at Jindal Saw Limited, Samaghogha. (GPCB ID:29017)**

2 Raw materials, by products and finished products involved in the process. **TOTAL DUST**

3 Particulars of sampling

Date of Sampling : 14th November, 2014

Sr. No	Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborne Contamination			TWA concentration (As given in Second Schedule)	Reference Method	Number of workers exposed at the location being monitored	Remarks	Signature of person taking samples	Name (in block letters)
				Number of sample	Range	Average	mg/m3					
1	Sinter Plant At First Floor	Total Dust	Personal Respirable Dust sampler APM 800	02	3-7	5.0	10	Gravimetric	5	---	<i>Manoj</i>	Mr. MANOJ SONRAT

Instruments used : Envirotech make personal sampler, Model No. APM 800

Calibration Date Due on : 02/12/2014

For: Royal Environment Auditing & Consultancy Service



*Manoj*  
Authorized Sign



# Royal

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Ref. No. : 688/11/2014-15

Date: 04/12/2014

### STACK EMISSION MONITORING RESULTS WHRPP & COKE OVEN PLANT (GPCB ID:18035)

Name of company : Jindal Saw Limited,

Village: Pragpar,

Tal. : Mundra, Dist. Kutch -

Source of Sample : **WHRPP & Coke Oven Unit**

Test Method : As per IS Standards - 11255\_Part - 1/2/3/7

Sr. No.	Particulars	Unit	Stack No. 1	Stack No. 2	Stack No. 3	Stack No. 4
01	Date of Sampling	----	25/11/2014	25/11/2014	25/11/2014	25/11/2014
02	Time of sampling	Hr.	9.05	10.30	14.30	15.40
03	Stack Attached to	----	Boiler-I	Boiler-II	Boiler-III	Boiler-IV
04	Air Pollution Control Measures	----	----	----	----	----
05	Stack Height	meter	50.0	50.0	50.0	50.0
06	Stack Temperature	°C	147	139	129	137
07	Ambient Temperature	°C	30	31	33	33
08	Average Velocity of Flue Gases	m/sec	11.1	9.6	10.8	10.2
09	Isokinetic flow rate for P.M. Sampling	LPM	15	13	15	14
10	Gaseous Sampling Flow Rate	LPM	2.0	2.0	2.0	2.0
11	Permissible limits for PM	mg/Nm <sup>3</sup>	150	150	150	150
12	Measured Concentration of PM.	mg/Nm <sup>3</sup>	37	43	27	34
13	Permissible limits for SO <sub>2</sub>	ppm	100	100	100	100
14	Measured Concentration of SO <sub>2</sub>	ppm	13.4	12.3	12.9	13.8
15	Permissible limits for Nox	ppm	50	50	50	50
16	Measured Concentration of Nox	ppm	22.7	20.3	24.1	23.5

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

Instrument Used : 2 nos. Stack Monitoring Kit - Vayubodhan make - VSS I

Calibration Due On. : 03/06/2015

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*Mangal*  
Analyst



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Ref. No. : 689/11/2014-15

Date: 04/12/2014

### STACK EMISSION MONITORING RESULTS

#### WHRPP & COKE OVEN PLANT (GPCB ID:18035)

Name of company : Jindal Saw Limited,

Village: Pragpar,

Tal. : Mundra, Dist. Kutch

Source of Sample : **WHRPP & Coke Oven Unit**

Test Method : As per IS Standards - 11255 Part - 1/2/3/7

Sr. No.	Particulars	Unit	Stack No. 5	Stack No.6	Stack No. 7	Stack No.8	Stack No.9	Stack No.10	Stack No.11
01	Date of Sampling	---	Standby	Standby	Standby	Standby	Standby	Standby	Standby
02	Time of sampling	Hr.							
03	Stack Attached to	---	Coke Battery-1	Coke Battery-2	Coke Battery-3	Coke Battery-4	DG	DG	DG
04	Air Pollution Control Measures	0	---	---	---	---			
05	Stack Height	Meter	30.0	30.0	30.0	30.0	9.0	9.0	9.0
06	Stack Temperature	°C	---	---	---	---	---	---	---
07	Ambient Temperature	°C	---	---	---	---	---	---	---
08	Average Velocity of Flue Gases	M/Sec.	---	---	---	---	---	---	---
09	Isokinetic flow rate for P.M. Sampling	LPM	---	---	---	---	---	---	---
10	Gaseous Sampling Flow Rate	LPM	---	---	---	---	---	---	---
11	Permissible limits for PM	mg/Nm <sup>3</sup>	150	150	150	150	150	150	150
12	Measured Concentration of PM.	mg/Nm <sup>3</sup>	---	---	---	---	---	---	---
13	Permissible limits for SO <sub>2</sub>	ppm	40	40	40	40	100	100	100
14	Measured Concentration of SO <sub>2</sub>	ppm	---	---	---	---	---	---	---
15	Permissible limits for Nox	ppm	25	25	25	25	50	50	50
16	Measured Concentration of Nox	ppm	---	---	---	---	---	---	---

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

\*N.A.=Not Applicable

Instrument Used : 2 nos.Stack Monitoring Kit - Vayubodhan make - VSS I

Calibration Due On. : 03/06/2015



*Munraj*  
Analyst



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Ref. No. : 690/11/2014-15

Date: 04/12/2014

### FUGITIVE EMISSION MONITORING REPORT

#### WHRPP & COKE OVEN (GPCB ID: 18035)

Name of company : Jindal Saw Limited,  
Village: Pragpar,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_2/6/10/23

Sr. No.	Particulars	Unit	A-1	A-2	A-3	A-4
01.	Location of Ambient	----	Coke Yard	Coke/ Coal Yard behind Old Battery	Near Coke Screening Area	Near Coke Transfer Point
02.	Date of sampling	---	24/11/2014	25/11/2014	24/11/2014	25/11/2014
03.	Time of sampling	----	11.10	11.25	11.30	11.45
04.	Duration of Sampling	Hr.	8.00	8.00	8.00	8.00
05.	Dominant Wind Direction (From)	---	NE	NE	NE	NE
06.	Average Wind Speed	Km/Hr.	3.6	4.2	3.6	4.2
07.	Average flow rate during sampling	m <sup>3</sup> /Hr.	1.0	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2	0.2
09.	Permissible limits for PM 10	µg/m <sup>3</sup>	3000	3000	3000	3000
10.	Measured Concentration of PM 10	µg/m <sup>3</sup>	1897	2246	1776	2118
11.	Permissible limits for SO <sub>2</sub>	µg/m <sup>3</sup>	150	150	150	150
12.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	15.6	16.2	17.5	15.1
13.	Permissible limits for NO <sub>2</sub>	µg/m <sup>3</sup>	120	120	120	120
14.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	22.3	24.7	23.4	24.5
15.	Permissible limit for CO **	µg/m <sup>3</sup>	5000	5000	5000	5000
16.	Measured Concentration of CO	µg/m <sup>3</sup>	B.D.L.	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) Ecotech make 3 Nos. RDS (APM - 217 BL) (2) 3 Nos. Gaseous Sampling Kit (APM 109)

(3) Ecotech make 3 Nos. PM 2.5 Sampler (AAS 127) & Ace Gas Analyzer

Calibration Due On. : 05/06/2015 & 22/06/2015



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Ref. No. : 693/11/2014-15

Date: 04/12/2014

### WORK ZONE NOISE LEVEL MEASUREMENT

#### WHRPP & COKE OVEN (GPCB ID:18035)

Name of company : Jindal Saw Limited,  
Village: Pragpar,  
Taluka : Mundra,  
District : Kutch.

Date of sampling : 24/11/2014

Sr. No.	Location of Sampling	Results Avg. in dB(A)
<b>WHRPP and Coke Oven Plant</b>		
01	Nr. Cooling Tower	74.8
02	Nr Turbine	83.7
03	Inside Control Room	60.8
04	Nr. Compressor	81.2
05	Near Raw Material Stock Yard.	73.1
06	Near Coke Oven Batteries (Old)	65.6
07	Near Coke Stamping area	74.1
08	Office Coke Oven	73.5
09	Near Quenching Tower	68.4
10	Near Coke Oven Batteries (New)	65.5

Instruments used : Sound level meter, Model : SL - 4030 (Lutron Make)

Range : A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Recalibratin is due on: 25/09/2015

Royal Environment Auditing & Consultancy Service



*Manoj*  
Analyst



# Royal

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Ref. No. : 687/11/2014-15

Date: 04/12/2014

### WASTE WATER QUALITY ANALYSIS REPORT

Name of company : Jindal Saw Limited,  
Village: Pragpar,  
Taluka : Mundra,  
District : Kutch.

Date of sampling : 25/11/2014

Source of Sample : Treated wastewater as generated from coke quenching

Sr. No.	Parameters	Unit	Results
01.	pH	pH Unit	7.55
02	Colour	---	10
03	Total Dissolved Solids	mg/l	1143
04.	Total Suspended Solids	mg/l	78
05.	Total Solids	mg/l	1221
06.	B.O.D. (3 day's at 27 ° C)	mg/l	BDL
07.	C.O.D.	mg/l	20
08.	Chlorides	mg/l	684
09.	Sulphates	mg/l	157
10.	Oil & Grease	mg/l	1.1

BDL= Below detectable limit

Royal Environment Auditing & Consultancy Service



*Mangal*  
Analyst

Ref. No. : 691/11/2014-15

Date: 04/12/2014

**Form No. 37**  
**(Prescribed under Rule 12-B)**

Register containing particulars of monitoring of working environment required under Section 7-A (a)(e).

- 1 Name of the Department/Plant. : WHRPP & COKE OVEN AT Jindal Saw Limited, Pragpar. (GPCB ID:18035)
- 2 Raw materials, by products and finished products involved in the process. TOTAL DUST
- 3 Particulars of sampling

Date of Sampling : 24/11/2014

Sr. No	Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborne Contamination			TWA concentration (As given in Second Schedule)	Reference Method	Number of workers exposed at the location being monitored	Remark	Signature person taking samples	Name (in block letters)
				Number of sample	Range	Average	mg/m3					
1	Turbine Floor at WHRPP	Total Dust	Personal Respirable Dust sampler APM 800	02	4-7	5.5	10	Gravimetric	6	---	<i>Manoj</i>	Mr. MANOJ SONRAT
2	Coke Oven Plant (Nr. Battery 1 & 2 Stamping Area)	Total Dust		02	5-8	6.5	10	Gravimetric	8	---		
3	Coke Oven Plant (Nr. Battery 3 & 4 Stamping Area)	Total Dust		03	5-7.5	6.3	10	Gravimetric	7	---		

Instrument Recalibration on : 02/12/2014

For. Royal Environment Auditing & Consultancy Service



*D. J. Dadeja*  
Authorized Sign



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Ref. No. : 686/11/2014-15

Date: 04/12/2014

### AMBIENT AIR QUALITY MONITORING REPORT

Name of company : Jindal Saw Limited,

Village: Pragpar,

Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_2/6/10/23

Sr. No.	Particulars	Unit	AAQM - 1	AAQM - 2	AAQM - 3	AAQM - 4	AAQM - 5	AAQM - 6
01.	Location of Ambient	---	Nr. Security Gate	Nr. Bachelor Colony	Nr. New Canteen	Nr. Old Coke Oven	Nr. Staff Colony	Nr. Admin Office
02.	Date of sampling	---	24/11/2014	24/11/2014	25/11/2014	24/11/2014	25/11/2014	25/11/2014
03.	Time of sampling	Hr.	9.00	9.30	9.10	10.05	9.45	10.20
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	---	NE	NE	NE	NE	NE	NE
06.	Wind Speed	Km/Hr.	3.6	3.6	4.2	3.6	4.2	4.2
07.	Average flow rate during sampling	m <sup>3</sup> /min	1.0	1.0	1.0	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2	0.2	0.2	0.2
09.	Permissible limits for PM 10	µg/m <sup>3</sup>	100	100	100	100	100	100
10.	Measured Concentration of PM 10	µg/m <sup>3</sup>	51	32	57	65	36	39
11.	Permissible limits for PM 2.5	µg/m <sup>3</sup>	60	60	60	60	60	60
12.	Measured Concentration of PM 2.5	µg/m <sup>3</sup>	29	23	28	34	25	21
13.	Permissible limits for SO <sub>2</sub>	µg/m <sup>3</sup>	80	80	80	80	80	80
14.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	9.4	11.6	10.2	10.9	9.7	9.2
15.	Permissible limits for NO <sub>2</sub>	µg/m <sup>3</sup>	80	80	80	80	80	80
16.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	17.5	18.3	17.1	18.8	17.9	19.4
17.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	2000	2000	2000	2000	2000
18.	Measured Concentration of CO	µg/m <sup>3</sup>	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.

Instrument used : (1) Ecotech make 3 Nos. RDS (APM - 217 BL) (2) 3 Nos. Gaseous Sampling Kit (APM 109)

(3) Ecotech make 3 Nos. PM 2.5 Sampler (AAS 127) & Ace Gas Analyzer

Calibration Due On. : 04/06/2015 & 22/06/2015



Mamraj  
Analyst



# Royal

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Ref. No. : 692/11/2014-15

Date: 04/12/2014

### AMBIENT NOISE LEVEL MEASUREMENT

Name of company : Jindal Saw Limited,  
Village: Pragpar,  
Tal. : Mundra, Dist. Kutch

Date of sampling : 24/11/2014

Sr. No.	Location of Sampling	Results in dB(A) (Day Time)	Results in dB(A) (Night Time)
	<b>Permissible Limits</b>	<b>75.0</b>	<b>70.0</b>
01.	Nr. Main Gate	62.7	54.6
02.	Nr. Bachelor Colony	54.5	47.3
03.	At Admin Building	60.8	52.6
04	Nr. Store	62.3	55.8
05	At plant boundary (Behind coke oven batteries)	69.6	61.3
06	At Staff Colony	53.1	49.7

Instruments used : Sound level meter, Model : SL - 4030 (Lutron Make)

Range : A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Recalibratin is due on: 25/09/2015

Royal Environment Auditing & Consultancy Service



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Ref. No. : 695/11/2014-15

Date: 04/12/2014

### Performance Evaluation of Air Pollution Control Equipments

#### SLAG GRINDING PLANT (GPCB ID:31304)

Name of company : Jindal Saw Limited,

Village: Pragpar,

Tal. : Mundra, Dist. Kutch

Source of Sample : **Slag Grinding Unit**

Test Method : As per IS Standards - 11255\_Part - 1/3

Sr. No.	Particulars	Unit	Stack No. 1	Stack No. 2	Stack No. 3	Stack No. 4
01	Date of Sampling	-----	24/11/2014	24/11/2014	24/11/2014	24/11/2014
02	Attached to	Hrs.	Ball Mill Stack	Silo Stack	Raw Material Hopper and Mill Inlet	Separator Stack Inlet
03	Stack Height	-----	30	30	30	30
04	Stack Duct Diameter	-----	0.34	0.34	0.35	0.34
05	Stack Temperature	°C	53	42	47	57
06	Ambient Temperature	°C	32	33	33	32
07	Average Velocity of Flue Gases	M/Sec.	11.5	11.9	12.4	11.7
08	IsoKinetic Flowrate for Sampling	LPM	20	21	22	20
09	Inlet	mg/Nm <sup>3</sup>	1576	1679	1483	1725
10	Outlet	mg/Nm <sup>3</sup>	43	32	55	43
11	Efficiency	%	97.27	98.09	96.29	97.51

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

\*N.A.=Not Applicable

Instrument Used : 2 nos.Stack Monitoring Kit - Vayubodhan make - VSS I

Calibration Due On. : 03/06/2015

Royal Environment Auditing & Consultancy Service



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Ref. No. : 696/11/2014-15

Date: 04/12/2014

### STACK EMISSION MONITORING RESULTS SLAG GRINDING PLANT (GPCB ID:31304)

Name of company : Jindal Saw Limited,  
Village: Pragpar,  
Tal. : Mundra, Dist. Kutch  
Source of Sample : **Slag Grinding Unit**  
Test Method : As per IS Standards - 11255\_Part - 1/3

Sr. No.	Particulars	Unit	Stack No. 1	Stack No. 2	Stack No. 3	Stack No. 4
01	Date of Sampling	-----	24/11/2014	24/11/2014	24/11/2014	24/11/2014
02	Time of sampling	Hrs.	13.10	14.15	15.20	16.50
03	Stack Attached to	-----	Ball Mill Stack	Silo Stack	Raw Material Hopper and Mill Inlet	Separator Stack
04	Air Pollution Control Measures	----	Bag Filter	Bag Filter	Bag Filter	Bag Filter
05	Stack Height	Meter	30	30	30	30
06	Stack Temperature	°C	43	37	39	49
07	Ambient Temperature	°C	32	33	33	32
08	Average Velocity of Flue Gases	M/Sec.	12.2	12.6	12.3	11.9
09	Isokinetic flow rate for P.M. Sampling	LPM	22	23	22	21
10	Gaseous Sampling Flow Rate	LPM	N. A.	N. A.	N. A.	N. A.
11	Permissible limits for PM	mg/Nm <sup>3</sup>	150	150	150	150
12	Measured Concentration of PM.	mg/Nm <sup>3</sup>	43	32	55	43
13	Permissible limits for SO <sub>2</sub>	ppm	N. A.	N. A.	N. A.	N. A.
14	Measured Concentration of SO <sub>2</sub>	ppm	---	---	---	---
15	Permissible limits for Nox	ppm	N. A.	N. A.	N. A.	N. A.
16	Measured Concentration of Nox	ppm	---	---	---	---

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.

\*N.A.=Not Applicable

Instrument Used : 2 nos.Stack Monitoring Kit - Vayubodhan make - VSS I

Calibration Due On. : 03/06/2015



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Ref. No. : 697/11/2014-15

Date: 04/12/2014

### FUGITIVE EMISSION MONITORING REPORT

### SLAG GRINDING PLANT (GPCB ID:31304)

Name of company : Jindal Saw Limited,  
Village: Pragpar,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_2/6/10/23

Sr. No.	Particulars	Unit	A-1
01.	Location of Ambient	----	SGU Near Ground Hopper
02.	Date of sampling	---	24/11/2014
03.	Time of sampling	---	12.05
04.	Duration of Sampling	Hr.	8.00
05.	Dominant Wind Direction (From)	---	NE
06.	Average Wind Speed	Km/Hr.	3.6
07.	Average flow rate during sampling	m <sup>3</sup> /Hr.	1.0
08.	Average flow rate for Gas sampling	LPM	0.2
09.	Permissible limits for PM 10	µg/m <sup>3</sup>	3000
10.	Measured Concentration of PM 10	µg/m <sup>3</sup>	1764
11.	Permissible limits for SO <sub>2</sub>	µg/m <sup>3</sup>	150
12.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	14.7
13.	Permissible limits for NO <sub>2</sub>	µg/m <sup>3</sup>	120
14.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	21.5
15.	Permissible limit for CO **	µg/m <sup>3</sup>	5000
16.	Measured Concentration of CO	µg/m <sup>3</sup>	B.D.L.

Instrument used : (1) Ecotech make 1 Nos. RDS (APM - 217 BL) (2) 1 Nos. Gaseous Sampling Kit (APM 109)  
(3) Ecotech make 1 Nos. PM 2.5 Sampler (AAS 127) & Ace Gas Analyzer

Calibration Due On. : 05/06/2015 & 22/06/2015



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Ref. No. : 698/11/2014-15

Date: 04/12/2014

### WORK ZONE NOISE LEVEL MEASUREMENT SLAG GRINDING PLANT (GPCB ID:31304)

Name of company : Jindal Saw Limited,  
Village: Pragpar,  
Taluka : Mundra,  
District : Kutch.

Date of sampling : 24/11/2014

Sr. No.	Location of Sampling	Results Avg. in dB(A)
<b>Slag Grinding Unit</b>		
01.	Nr. Slag Grinding Mill.	83.7
02	Near Silo	73.5
03	Office SGU	62.6
04	Inside Control Room	52.8
05	Inside Packing Area	72.7
06	Inside Quality Control Laboratory	54.1

Instruments used : Sound level meter, Model : SL - 4030 (Lutron Make)

Range : A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Recalibratin is due on: 25/09/2015

Royal Environment Auditing & Consultancy Service



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Analyst

Ref. No. : 694/11/2014-15

Date: 04/12/2014

**Form No. 37**  
(Prescribed under Rule 12-B)

Register containing particulars of monitoring of working environment required under Section 7-A (a)(e).

1 Name of the Department/Plant: **SLAG GRINDING PLANT AT Jindal Saw Limited, Pragpar. (GPCB ID:31304)**

2 Raw materials, by products and finished products involved in the process. **TOTAL DUST**

3 Particulars of sampling

Date of Sampling : 25/11/2014

Sr. No	Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborne Contamination			TWA concentration (As given in Second Schedule)	Reference Method	Number of workers exposed at the location being monitored	Remark	Signature person taking samples	Name (in block letters)
				Number of sample	Range	Average	mg/m3					
1	Nr. Packing / Loading Area	Total Dust	Personal Respirable Dust sampler APM 800	02	5-7	6.0	10	Gravimetric	8	----		Mr. MANOJ SONRAT
2	Nr. Ball Mill of Slag grinding unit	Total Dust		02	4-6	5.0	10	Gravimetric	7	----		

Instrument Recalibration on : 02/12/2014

For. Royal Environment Auditing & Consultancy Service



*D. J. J. J.*  
Authorized Sign