



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s Bal Adalat, Gondal Road, RAJKOT - 360 002.  
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Ref. No. : 616/06/2018-19

Date : 01/07/2018

### NATIONAL AMBIENT AIR QUALITY MONITORING REPORT FOR THE MONTH - JUNE : 2018

Name of company : JINDAL SAW LIMITED  
Village: Samaghogha,  
Tal. : Mundra, Dist Kutch

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

Sr. No.	Particulars	Unit	Location No.1 : Weigh Bridge (Nr.Gate No-2) E							
			1	2	3	4	5	6	7	8
01.	No. of Week	---								
02.	Date & Time Starting of Monitoring	---	06/06/18 09.00	08/06/18 09.15	11/06/18 09.25	15/06/18 08.50	18/06/18 09.00	22/06/18 09.15	25/06/18 09.25	27/06/18 08.50
03.	Date & Time Ending of Monitoring	---	07/06/18 09.00	09/06/18 09.15	12/06/18 09.25	16/06/18 08.50	19/06/18 09.00	23/06/18 09.15	26/06/18 09.25	28/06/18 08.50
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	---	W	W	W	WNW	W	WNW	W	WNW
06.	Average Wind Speed	Km/Hr.	3.2	3.3	4.2	4.5	6.6	5.0	7.2	4.3
07.	Average flow rate for Dust Monitoring PM10	m <sup>3</sup> /min.	1.11	1.10	1.14	1.12	1.11	1.14	1.12	1.13
08.	Average flow rate for Dust Monitoring PM2.5	m <sup>3</sup> /hr.	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
09.	Average flow rate for Gas Monitoring	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible limits for PM10*	µg/m <sup>3</sup>	100	100	100	100	100	100	100	100
11.	Measured Concentration of PM10	µg/m <sup>3</sup>	58	63	58	57	60	61	57	58
12.	Permissible limits for PM2.5*	µg/m <sup>3</sup>	60	60	60	60	60	60	60	60
13.	Measured Concentration of PM2.5	µg/m <sup>3</sup>	35	39	40	37	39	38	34	43
14.	Permissible limits for SO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80
15.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	5.4	7.4	8.1	7.9	8.2	7.5	8.0	7.9
16.	Permissible limits for NO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80
17.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	14.8	15.9	16.4	15.8	16.7	18.2	14.2	16.3
18.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	2000	2000	2000	2000	2000	2000	2000
19.	Measured Concentration of CO	µg/m <sup>3</sup>	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Instrument used : (1) 4 Nos. RDS (APM - 217 BL), (2) 3 Nos. of Gaseous Sampler (AAS 109) (3) 3 Nos. PM 2.5 Sampler (AAS 127)

All Calibration due on : 05/05/2019

\*Permissible Limits are as per NAAQ Standard 16th November 2009.

Royal Environment Auditing & Consultancy Service



*[Signature]*  
Analyst



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Date : 01/07/2018

### NATIONAL AMBIENT AIR QUALITY MONITORING REPORT FOR THE MONTH - JUNE : 2018

Name of company : JINDAL SAW LIMITED  
Village: Samaghogha,  
Tal : Mundra, Dist. Kutch

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

Sr. No.	Particulars	Unit	Location No.2 : Sinter plant - 1 (NNW)							
			1	2	3	4	5	6	7	8
01.	No. of Week	---								
02.	Date & Time Starting of Monitoring	---	06/06/18 09.15	08/06/18 09.25	11/06/18 08.50	15/06/18 09.00	18/06/18 09.15	22/06/18 09.25	25/06/18 09.00	27/06/18 08.50
03.	Date & Time Ending of Monitoring	---	07/06/18 09.15	09/06/18 09.25	12/06/18 08.50	16/06/18 09.00	19/06/18 09.15	23/06/18 09.25	26/06/18 09.00	28/06/18 08.50
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	---	W	W	WNW	W	WNW	W	WNW	WSW
06.	Average Wind Speed	Km/Hr.	3.3	4.2	4.5	6.6	5.0	7.2	4.3	6.0
07.	Average flow rate for Dust Monitoring PM10	m <sup>3</sup> /min.	1.13	1.11	1.13	1.10	1.11	1.14	1.13	1.14
08.	Average flow rate for Dust Monitoring PM2.5	m <sup>3</sup> /hr.	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
09.	Average flow rate for Gas Monitoring	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible limits for PM10*	µg/m <sup>3</sup>	100	100	100	100	100	100	100	100
11.	Measured Concentration of PM10	µg/m <sup>3</sup>	59	57	59	61	60	57	61	53
12.	Permissible limits for PM2.5*	µg/m <sup>3</sup>	60	60	60	60	60	60	60	60
13.	Measured Concentration of PM2.5	µg/m <sup>3</sup>	36	34	35	38	41	43	41	39
14.	Permissible limits for SO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80
15.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	8.2	7.9	7.6	7.9	8.2	8.3	8.1	6.8
16.	Permissible limits for NO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80
17.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	15.9	16.3	16.9	17.2	16.8	16.9	17.4	17.3
18.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	2000	2000	2000	2000	2000	2000	2000
19.	Measured Concentration of CO	µg/m <sup>3</sup>	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

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)

All Calibration due on : 05/05/2019

\*Permissible Limits are as per NAAQ Standard 16th November 2009.



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Analyst



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Ref. No. : 618/06/2018-19

Date : 01/07/2018

### NATIONAL AMBIENT AIR QUALITY MONITORING REPORT FOR THE MONTH - JUNE : 2018

Name of company : JINDAL SAW LIMITED

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

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

Sr. No.	Particulars	Unit	Location No.3 : Nr. Work Shop Spiral-II (W)							
			1	2	3	4	5	6	7	8
01.	No. of Week	---								
02.	Date & Time Starting of Monitoring	---	06/06/18 09.25	08/06/18 08.50	11/06/18 09.00	15/06/18 09.15	18/06/18 09.25	22/06/18 08.50	25/06/18 09.15	27/06/18 09.25
03.	Date & Time Ending of Monitoring	---	07/06/18 09.25	09/06/18 08.50	12/06/18 09.00	16/06/18 09.15	19/06/18 09.25	23/06/18 08.50	26/06/18 09.15	28/06/18 09.25
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	---	W	W	WNW	W	WNW	W	WNW	WNW
06.	Average Wind Speed	Km/Hr.	3.3	4.2	4.5	6.6	5.0	7.2	4.3	5.2
07.	Average flow rate for Dust Monitoring PM10	m <sup>3</sup> /min.	1.13	1.11	1.10	1.14	1.13	1.12	1.11	1.14
08.	Average flow rate for Dust Monitoring PM2.5	m <sup>3</sup> /hr.	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
09.	Average flow rate for Gas Monitoring	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible limits for PM10*	µg/m <sup>3</sup>	100	100	100	100	100	100	100	100
11.	Measured Concentration of PM10	µg/m <sup>3</sup>	57	60	58	59	60	62	59	60
12.	Permissible limits for PM2.5*	µg/m <sup>3</sup>	60	60	60	60	60	60	60	60
13.	Measured Concentration of PM2.5	µg/m <sup>3</sup>	37	42	44	39	37	41	38	39
14.	Permissible limits for SO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80
15.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	7.8	7.9	8.1	8.3	8.2	8.1	7.8	7.4
16.	Permissible limits for NO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80
17.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	18.2	18.0	17.9	17.6	17.8	18.3	17.2	17.6
18.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	2000	2000	2000	2000	2000	2000	2000
19.	Measured Concentration of CO	µg/m <sup>3</sup>	BDL	BDL	BDL	BDL	BDL	BDL	BDL	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).

All Calibration due on : 05/05/2019

\*Permissible Limits are as per NAAQ Standard 16th November 2009.



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Ref. No. : 619/06/2018-19

Date : 01/07/2018

### NATIONAL AMBIENT AIR QUALITY MONITORING REPORT FOR THE MONTH - JUNE : 2018

Name of company : JINDAL SAW LIMITED  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

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

Sr. No.	Particulars	Unit	Location No.4 : MAIN GATE (E)							
			1	2	3	4	5	6	7	8
01.	No. of Week	---								
02.	Date & Time Starting of Monitoring	---	06/06/18 08.50	08/06/18 09.00	11/06/18 09.15	15/06/18 09.25	18/06/18 08.50	22/06/18 09.00	25/06/18 09.15	27/06/18 09.25
03.	Date & Time Ending of Monitoring	---	07/06/18 08.50	09/06/18 09.00	12/06/18 09.15	16/06/18 09.25	19/06/18 08.50	23/06/18 09.00	26/06/18 09.15	28/06/18 09.25
04.	Duration of Sampling	Min.	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00	1440.00
05.	Dominant Wind Direction (From)	---	W	W	WNW	W	WNW	W	WNW	WNW
06.	Average Wind Speed	Km/Hr.	3.3	4.2	4.5	6.6	5.0	7.2	4.3	5.2
07.	Average flow rate for Dust Monitoring PM10	m <sup>3</sup> /min.	1.13	1.11	1.10	1.11	1.12	1.13	1.14	1.10
08.	Average flow rate for Dust Monitoring PM2.5	m <sup>3</sup> /hr.	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
09.	Average flow rate for Gas Monitoring	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible limits for PM10*	µg/m <sup>3</sup>	100	100	100	100	100	100	100	100
11.	Measured Concentration of PM10	µg/m <sup>3</sup>	62	60	57	61	63	61	60	59
12.	Permissible limits for PM2.5*	µg/m <sup>3</sup>	60	60	60	60	60	60	60	60
13.	Measured Concentration of PM2.5	µg/m <sup>3</sup>	37	34	38	42	38	36	41	39
14.	Permissible limits for SO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80
15.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	8.4	8.7	8.1	8.4	8.1	8.6	8.1	7.3
16.	Permissible limits for NO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80
17.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	15.9	16.8	16.4	17.9	17.5	17.6	17.8	18.4
18.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	2000	2000	2000	2000	2000	2000	2000
19.	Measured Concentration of CO	µg/m <sup>3</sup>	BDL	BDL	BDL	BDL	BDL	BDL	BDL	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)

All Calibration due on : 05/05/2019

\*Permissible Limits are as per NAAQ Standard 16th November 2009.

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*M. Singh*  
Analyst



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Ref. No. :620/06/2018-19

Date : 01/07/2018

### FUGITIVE EMISSION MONITORING REPORT

Name of company : JINDAL SAW LIMITED  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_Part - 2/6/10/23/22

Sr. No.	Particulars	Unit	A - 1	A - 2	A - 3
01.	Location of Ambient	---	BF-1 RMH Stock House	BF-2 RMH Stock House	Sinter RMH Yard
02.	Date of sampling	---	21/06/2018	13/06/2018	12/06/2018
03.	Time of sampling	---	9.20	9.10	9.20
04.	Duration of Sampling	Hr.	8.00	8.00	8.00
05.	Dominant Wind Direction (From)	---	SE	SE	NE
06.	Average Wind Speed	Km/Hr.	6.8	6.8	5.2
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>	3000	3000	3000
10.	Measured Concentration of PM 10	µg/m <sup>3</sup>	1346	1362	1329
11.	Permissible limits for SO <sub>2</sub> *	µg/m <sup>3</sup>	150	150	150
12.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	14.9	15.1	12.7
13.	Permissible limits for NO <sub>2</sub> *	µg/m <sup>3</sup>	120	120	120
14.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	17.5	16.4	17.6
15.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	2000	2000
16.	Measured Concentration of CO	µg/m <sup>3</sup>	BDL	BDL	BDL
17.	Permissible limit for Pb*	µg/m <sup>3</sup>	2	2	2
18.	Measured Concentration of Pb	µg/m <sup>3</sup>	ND	ND	ND

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. Gaseous Sampler (APM 109)  
All Calibration due on : 05/05/2019

BDL= Below Detectable Limit  
ND= Not Detectable

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Ref. No. :621/06/2018-19

Date : 01/07/2018

### FUGITIVE EMISSION MONITORING REPORT

Name of company : JINDAL SAW LIMITED  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Test Method : As per IS Standards - 5182\_Part - 2/6/10/23/22

Sr. No.	Particulars	Unit	A - 4	A - 5	A - 6
01.	Location of Ambient	---	Sinter 2 Ground Hopper	DISP "CCM" Area	BF CAST HOUSE
02.	Date of sampling	---	12/06/2018	21/06/2018	26/06/2018
03.	Time of sampling	---	9.00	9.10	9.10
04.	Duration of Sampling	Hr.	8.00	8.00	8.00
05.	Dominant Wind Direction (From)	---	NE	SE	SE
06.	Average Wind Speed	Km/Hr.	5.2	8.3	8.3
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>	<b>µg/m<sup>3</sup></b>	<b>3000</b>	<b>3000</b>	<b>3000</b>
10.	Measured Concentration of PM 10	µg/m <sup>3</sup>	1324	1387	1347
11.	<b>Permissible limits for SO<sub>2</sub>*</b>	<b>µg/m<sup>3</sup></b>	<b>150</b>	<b>150</b>	<b>150</b>
12.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	12.9	13.8	13.4
13.	<b>Permissible limits for NO<sub>2</sub>*</b>	<b>µg/m<sup>3</sup></b>	<b>120</b>	<b>120</b>	<b>120</b>
14.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	17.4	17.3	16.8
15.	<b>Permissible limit for CO **</b>	<b>µg/m<sup>3</sup></b>	<b>2000</b>	<b>2000</b>	<b>2000</b>
16.	Measured Concentration of CO	µg/m <sup>3</sup>	BDL	BDL	BDL
17.	<b>Permissible limit for Pb*</b>	<b>µg/m<sup>3</sup></b>	<b>2</b>	<b>2</b>	<b>2</b>
18.	Measured Concentration of Pb	µg/m <sup>3</sup>	ND	ND	ND

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. Gaseous Sampler (APM 109)  
All Calibration due on : 05/05/2019

BDL= Below Detectable Limit  
ND= Not Detectable

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Ph. +91 281 2360695 Email : royalenvironment@live.com admin@royalconsultancy.com

Ref. No. : 622/06/18-19

Date : 01/07/2018

### 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 - 3
01	Date of Sampling	---	06-06-2018
02	Attached to	---	Sinter Furnace
03	Stack Height	Meter	50
04	Stack Diameter	Meter	2.0
05	Stack Temperature	°C	156
06	Ambient Temperature	°C	34
07	Average Velocity of Flue Gases	m/sec.	18
08	IsoKinetic Flowrate for Sampling	LPM	20
09	Inlet	mg/Nm <sup>3</sup>	1379
10	Outlet	mg/Nm <sup>3</sup>	17
11	Efficiency	%	98.77

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on 14/09/2018

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Ref. No. : 623/06/18-19

Date : 01/07/2018

### 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	---	21-06-2018
02	Attached to	---	De-dustingSystem
03	Stack Height	Meter	35
04	Stack Duct Diameter	Meter	1.4
05	Stack Temperature	°C	48
06	Ambient Temperature	°C	34
07	Average Velocity of Flue Gases	m/sec.	14.5
08	IsoKinetic Flowrate for Sampling	LPM	23
09	Inlet	mg/Nm <sup>3</sup>	934
10	Outlet	mg/Nm <sup>3</sup>	9
11	Efficiency	%	99.04

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on 14/09/2018

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Ref. No. : 624/06/18-19

Date : 01/07/2018

### 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 - 2	S-15	S - 7
01	Date of Sampling	---	19-06-2018	20-06-2018	19-06-2018
02	Attached to	---	Fuel crushing de-duster system (Flux)	Discharging End of Sinter de-dusting system	Sinter Furnace
03	Stack Height	Meter	30	50	50
04	Stack Diameter	Meter	0.7	1.3	2.0
05	Stack Temperature	°C	47	129	146
06	Ambient Temperature	°C	34	35	34
07	Average Velocity of Flue Gases	m/sec.	8.3	17.4	17.4
08	IsoKinetic Flowrate for Sampling	LPM	18	23	24
09	Inlet	mg/Nm <sup>3</sup>	378	176	1524
10	Outlet	mg/Nm <sup>3</sup>	10	14	19
11	Efficiency	%	97.35	92.05	98.75

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100  
Calibration due on 14/09/2018

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## Environment Auditing & Consultancy Service

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

Ref. No. : 225/06/18-19

Date : 01/07/2018

### 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 - 8	S - 22
01	Date of Sampling	---	15/06/2018	07/06/2018
02	Attached to	---	<b>Common stack Mg Converter - I &amp; II</b>	<b>Mg Converter - III</b>
03	Stack Height	Meter	30	30
04	Stack Diameter	Meter	0.5	0.5
05	Stack Temperature	°C	56	55
06	Ambient Temperature	°C	33	34
07	Average Velocity of Flue Gases	m/sec.	8.59	8.9
08	IsoKinetic Flowrate for Sampling	LPM	17	18
09	Inlet	mg/Nm <sup>3</sup>	783	754
10	Outlet	mg/Nm <sup>3</sup>	10	9
11	Efficiency	%	98.72	98.81

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on 14/09/2018

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Ref. No. : 226/06/18-19

Date : 01/07/2018

### 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 - 15	S - 20	S - 23
01	Date of Sampling	---	18/06/2018	15/06/2018	08/06/2018	07/06/2018
02	Attached to	---	Zinc Coating - I	Zinc Coating - II	Zinc Coating - III	Zinc Coating -IV & V
03	Stack Height	Meter	30	30	30	30
04	Stack Duct Diameter	Meter	0.6	0.6	0.6	0.9
05	Stack Temperature	°C	40	42	38	39
06	Ambient Temperature	°C	33	33	34	33
07	Average Velocity of Flue Gases	m/sec.	9.72	9.7	11.8	11.2
08	IsoKinetic Flowrate for Sampling	LPM	18	17	18	19
09	Inlet	mg/Nm <sup>3</sup>	386	374	489	1134
10	Outlet	mg/Nm <sup>3</sup>	11	12	10	13
11	Efficiency	%	97.15	96.79	97.96	98.85

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on 14/09/2018

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Ref. No. : 627/06/17-18

Date : 01/07/2018

### 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-8
01	Date of Sampling	---	11/06/2018	12/06/2018	11/06/2018
02	Attached to	---	Mg Treatment	Zinc Coating	Zinc Coating machine(FL-7)
03	Stack Height	Meter	30	30	30
04	Stack Duct Diameter	Meter	1.00	1.00	0.8
05	Stack Temperature	°C	42	41	49
06	Ambient Temperature	°C	33	33	33
07	Average Velocity of Flue Gases	m/sec.	9.1	8.4	9.4
08	IsoKinetic Flowrate for Sampling	LPM	18	17	19
09	Inlet	mg/Nm <sup>3</sup>	1198	392	367
10	Outlet	mg/Nm <sup>3</sup>	10	4	7
11	Efficiency	%	99.17	98.98	98.09

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on 14/09/2018

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Ref. No. : 628/06/18-19

Date : 01/07/2018

### 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
01	Date of Sampling	---	09/06/2018
02	Attached to	---	Dedusting System
03	Stack Height	Meter	40
04	Stack Duct Diameter	Meter	1.5
05	Stack Temperature	°C	39
06	Ambient Temperature	°C	33
07	Average Velocity of Flue Gases	m/sec.	12.6
08	IsoKinetic Flowrate for Sampling	LPM	24
09	Inlet	mg/Nm <sup>3</sup>	1237
10	Outlet	mg/Nm <sup>3</sup>	11
11	Efficiency	%	99.11

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on 14/09/2018

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Ref. No. : 629/06/17-18

Date : 01/07/2018

### 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 - 3	S - 4	S - 5	S - 6
01	Date of Sampling	---	06-06-2018	08-06-2018	06-06-2018	06-06-2018
02	Time of sampling	---	9.50	10.30	12.10	15.35
03	Stack Attached to	---	Sinter Furnace	Primary Mixture House	Secondary Mixture House	Discharge End
04	Air Pollution Control Measures	---	ESP	....	....	ESP
05	Stack Height	Meter	50	19.75	36.08	32
06	Stack Diameter	Meter	2.0	1.25	1.25	1.30
07	Stack Temperature	°C	137	38	37	126
08	Ambient Temperature	°C	34	35	35	34
09	Average Velocity of Flue Gases	m/sec.	10.2	2.8	2.4	8.9
10	Isokinetic flow rate for P.M. Sampling	LPM	16	11	10	19
11	Gaseous Sampling Flow Rate	LPM	2.0	NA	NA	NA
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	150	150	150
13	Measured Concentration of PM	mg/Nm <sup>3</sup>	17	12	10	19
14	Permissible limits for SO <sub>2</sub>	ppm	100	NA	NA	NA
15	Measured Concentration of SO <sub>2</sub>	ppm	7.8	....	....	....
16	Permissible limits for NO <sub>x</sub>	ppm	50	NA	NA	NA
17	Measured Concentration of NO <sub>x</sub>	ppm	16.8	....	....	....

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.  
Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100  
Calibration due on : 14/09/2018

NA= Not Applicable  
ND=Not Detectable

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Ref. No. : 630/06/18-19

Date : 01/07/2018

### 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 - 7	S - 9
01	Date of Sampling	---	20-06-2018	19-06-2018	20-06-2018	19-06-2018	20-06-2018
02	Time of sampling	Hr.	10.30	11.30	12.10	12.30	15.30
03	Stack Attached to	---	Secondary Mixer House	Fuel crushing de-duster system (Flux)	Fuel Screening deduster System (Flux Screening)	Sinter Furnace	Discharging End of sinter de-dusting system
04	Air Pollution Control Measures	---	Dust Collector	Dust Collector	Dust Collector	ESP	ESP
05	Stack Height	Meter	30	30	30	50	50
06	Stack Diameter	Meter	0.7	0.7	0.7	2	1.3
07	Stack Temperature	°C	42	41	47	135	126
08	Ambient Temperature	°C	33	34	34	33	33
09	Average Velocity of Flue Gases	m/sec.	2.40	7.30	7.00	12.4	11.5
10	Isokinetic flow rate for P.M. Sampling	LPM	9	13	24	18	19
11	Gaseous Sampling Flow Rate	LPM	NA	NA	NA	2.0	NA
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>	9	10	13	14	19
14	Permissible limits for SO <sub>2</sub>	ppm	NA	NA	NA	100	NA
15	Measured Concentration of SO <sub>2</sub>	ppm	---	---	---	8.2	---
16	Permissible limits for NO <sub>x</sub>	ppm	NA	NA	NA	50	NA
17	Measured Concentration of NO <sub>x</sub>	ppm	---	---	---	17.9	---

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

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on : 14/09/2018

NA= Not Applicable

ND= Not Detectable

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Ref. No. : 631/06/18-19

Date : 01/07/2018

### 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
01	Date of Sampling	---	21/06/2018	21/06/2018	21/06/2018
02	Time of sampling	Hr.	10.45	11.20	14.50
03	Stack Attached to	---	Dedusting System	Boiler - I	Boiler - II
04	Air Pollution Control Measures	---	Bag Filter	---	---
05	Stack Height	Meter	35.0	45	45
06	Stack Diameter	Meter	1.5	1.4	1.4
07	Stack Temperature	°C	46	157	156
08	Ambient Temperature	°C	33	34	34
09	Average Velocity of Flue Gases	m/sec.	14.4	6.0	5.9
10	Isokinetic flow rate for P.M. Sampling	LPM	23	19	18
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0	2.0
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	50	50
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	9	6	7
14	Permissible limits for SO <sub>2</sub>	ppm	100	250	250
15	Measured Concentration of SO <sub>2</sub>	ppm	ND	8.1	7.8
16	Permissible limits for NO <sub>x</sub>	ppm	50	150	150
17	Measured Concentration of NO <sub>x</sub>	ppm	ND	12.4	12.8
18	Permissible limits for CO vol/vol	%	N.A.	1 % Max.	1 % Max.
19	Measured Concentration of CO vol/vol	%	N.A.	0.1	0.1

Note : Minimum Detectable Limit of SO<sub>2</sub> & Nox is 0.1 and 0.01 ppm respectively.  
Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100  
Calibration due on : 14/09/2018

ND=Not Detectable  
N.A.=Not Applicable

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Ref. No. : 632/06/18-19

Date : 01/07/2018

### 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
01	Date of Sampling	---	09/06/2018
02	Time of sampling	Hr.	11.20
<b>03</b>	<b>Stack Attached to</b>	---	<b>Dedusting System</b>
04	Air Pollution Control Measures	---	Bag Filter
05	Stack Height	Meter	40.0
06	Stack Diameter	Meter	1.5
07	Stack Temperature	°C	37
08	Ambient Temperature	°C	34
09	Average Velocity of Flue Gases	m/sec.	9.6
10	Isokinetic flow rate for P.M. Sampling	LPM	18
11	Gaseous Sampling Flow Rate	LPM	NA
<b>12</b>	<b>Permissible limits for PM</b>	<b>mg/Nm<sup>3</sup></b>	<b>150</b>
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	11
<b>14</b>	<b>Permissible limits for SO<sub>2</sub></b>	<b>mg/Nm<sup>3</sup></b>	<b>NA</b>
15	Measured Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	---
<b>16</b>	<b>Permissible limits for No<sub>x</sub></b>	<b>mg/Nm<sup>3</sup></b>	<b>NA</b>
17	Measured Concentration of NO <sub>x</sub>	mg/Nm <sup>3</sup>	---

Note : Minimum Detectable Limit of SO<sub>2</sub> & No<sub>x</sub> is 0.1 and 0.01 ppm respectively.

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on : 14/09/2018

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Ref. No. : 633/06/2018-19

Date : 01/07/2018

### 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 - 1	S - 2
01	Date of Sampling	---	25/06/2018	25/06/2018
02	Time of sampling	Hr.	10.15	11.30
03	Stack Attached to	---	Pickling & Passivation -1	Pickling & Passivation -2
04	Air Pollution Control Measures	---	Wet Scrubber	Wet Scrubber
05	Stack Height	Meter	15.0	15.0
06	Stack Diameter	Meter	-	-
07	Stack Temperature	°C	31	31
08	Ambient Temperature	°C	30	30
09	Average Velocity of Flue Gases	m/sec.	6.3	5.8
10	Isokinetic flow rate for P.M. Sampling	LPM	-	-
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0
12	Permissible limits for PM	mg/Nm <sup>3</sup>	NA	NA
13	Measured Concentration of PM	mg/Nm <sup>3</sup>	-	-
14	Permissible limits for SO <sub>2</sub>	mg/Nm <sup>3</sup>	40	40
15	Measured Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	10.8	11.7
16	Permissible limits for NO <sub>x</sub>	mg/Nm <sup>3</sup>	25	25
17	Measured Concentration of NO <sub>x</sub>	mg/Nm <sup>3</sup>	12.4	13.9

Note : Minimum Detectable Limit of SO<sub>2</sub> & No<sub>x</sub> is 0.1 and 0.01 ppm respectively.

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on : 14/09/2018

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Ref. No. : 634/06/2018-19

Date : 01/07/2018

### 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	—	15/06/2018	18/06/2018	15/06/2018	08/06/2018	07/06/2018	07/06/2018
02	Time of sampling	Hr.	10.45	10.30	15.25	11.30	11.50	14.30
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	34	37	36	46	44
08	Ambient Temperature	°C	33	33	33	33	33	33
09	Average Velocity of Flue Gases	m/sec.	10.3	6.5	6.3	8.8	7.0	8.8
10	Isokinetic flow rate for P.M. Sampling	LPM	19	23	26	16	26	19
11	Gaseous Sampling Flow Rate	LPM	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>	10	9 (Zn)	14(Zn)	10 (Zn)	9	13 (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>	ND	—	—	—	ND	—
16	Permissible limits for NO <sub>x</sub>	mg/Nm <sup>3</sup>	25	NA	NA	NA	25	NA
17	Measured Concentration of NO <sub>x</sub>	mg/Nm <sup>3</sup>	5.1	—	—	—	4.3	—

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

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on : 14/09/2018

NA=Not Applicable

ND=Not Detectable

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Ref. No. : 635/06/2018-19

Date : 01/07/2018

### 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 - 12	S - 18
01	Date of Sampling	---	16/06/2018	16/06/2018	16/06/2018	16/06/2018	16/06/2018	08/06/2018
02	Time of sampling	Hr.	10.20	11.30	11.40	15.30	10.45	11.55
03	Stack Attached to	---	Core Shop-I	Core Shop-II	Core Shop-III	Core Shop-IV	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
06	Stack Diameter	Meter	0.584	0.58	0.584	0.584	0.6	0.6
07	Stack Temperature	°C	36	34	37	42	38	39
08	Ambient Temperature	°C	33	34	33	33	34	33
09	Average Velocity of Flue Gases	m/sec.	2.3	2.1	2.1	2.2	8.4	7.1
10	Isokinetic flow rate for P.M. Sampling	LPM	9	10	9	9	17	26
11	Gaseous Sampling Flow Rate	LPM	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
13	Measured Concentration of PM	mg/Nm <sup>3</sup>	9	11	12	10	13	11
14	Permissible limits for SO <sub>2</sub>	mg/Nm <sup>3</sup>	40	40	40	40	40	40
15	Measured Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	4.1	4.7	5.1	4.2	ND	ND
16	Permissible limits for NO <sub>x</sub>	mg/Nm <sup>3</sup>	25	25	25	25	25	25
17	Measured Concentration of NO <sub>x</sub>	mg/Nm <sup>3</sup>	4.8	5.7	5.6	5.8	5.4	5.7

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

ND= Not Detectable

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on : 14/09/2018

Royal Environment Auditing & Consultancy Service



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Analyst



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Ref. No. : 636/06/2018-19

Date : 01/07/2018

### 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
01	Date of Sampling	---	16/06/2018
02	Time of sampling	Hr.	16.20
03	<b>Stack Attached to</b>	---	<b>Sand Reclamation</b>
04	Air Pollution Control Measures	---	Bag Filter
05	Stack Height	Meter	30
06	Stack Diameter	Meter	0.9
07	Stack Temperature	°C	92
08	Ambient Temperature	°C	34
09	Average Velocity of Flue Gases	m/sec.	8.2
10	Isokinetic flow rate for P.M. Sampling	LPM	26
11	Gaseous Sampling Flow Rate	LPM	2.0
12	<b>Permissible limits for PM</b>	<b>mg/Nm<sup>3</sup></b>	<b>150</b>
13	Measured Concentration of PM	mg/Nm <sup>3</sup>	19
14	<b>Permissible limits for SO<sub>2</sub></b>	<b>mg/Nm<sup>3</sup></b>	<b>40</b>
15	Measured Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	4.7
16	<b>Permissible limits for NO<sub>x</sub></b>	<b>mg/Nm<sup>3</sup></b>	<b>25</b>
17	Measured Concentration of NO <sub>x</sub>	mg/Nm <sup>3</sup>	11.6

Note : Minimum Detectable Limit of SO<sub>2</sub> & No<sub>x</sub> is 0.1 and 0.01 ppm respectively.

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on : 14/09/2018

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# Royal

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Ref. No. : 637/06/2018-19

Date : 01/07/2018

### 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 - 5	S - 6	S - 8
01	Date of Sampling	---	11/06/2018	12/06/2018	12/06/2018	12/06/2018	11/06/2018
02	Time of sampling	Hr.	10.20	10.15	11.20	15.25	16.10
03	Stack Attached to	---	Magnesium Treatment	Socket Cleaning	Zinc Coating	Tri- Grinding Section	Zinc Coating Machine(FL-7)
04	Air Pollution Control Measures	---	Bag Filter	Bag Filter	Bag Filter	Bag Filter	Cyclone Separator & Bag Filter
05	Stack Height	Meter	30	30	30	30	30
06	Stack Diameter	Meter	1.00	0.50	1.00	1.00	1.20
07	Stack Temperature	°C	48	39	38	39	36
08	Ambient Temperature	°C	33	33	33	33	33
09	Average Velocity of Flue Gases	m/sec	7.1	4.7	4.8	1.33	4.4
10	Isokinetic flow rate for PM Sampling	LPM	26	19	17	17	18
11	Gaseous Sampling Flow Rate	LPM	---	---	---	---	---
12	Permissible limits for PM	mg/Nm <sup>3</sup>	50	50	50	50	50
13	Measured Concentration of PM	mg/Nm <sup>3</sup>	11	10	6 (Zn)	11	7 (Zn)
14	Permissible limits for SO <sub>2</sub>	PPM	NA	NA	NA	NA	NA
15	Measured Concentration of SO <sub>2</sub>	PPM	---	---	---	---	---
16	Permissible limits for NO <sub>x</sub>	PPM	NA	NA	NA	NA	NA
17	Measured Concentration of NO <sub>x</sub>	PPM	---	---	---	---	---

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

Instrument Used : Stack Monitoring Kit - Ecotech make - ESS 100

Calibration due on : 14/09/2018

ND= Not Detectable

N.A= Not Applicable

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*Hilal*  
Analyst



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Ref. No. : 643/06/2018-19

Date : 01/07/2018

### AMBIENT NOISE LEVEL MEASUREMENT

Name of company : JINDAL SAW LIMITED,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Date of sampling : 22<sup>rd</sup> JUNE, 2018

Sr. No.	Location of Sampling	Value in dB(A) Day Time			Value in dB(A) Night Time		
		Min.	Max.	Leq	Min.	Max.	Leq
01.	Admin. Building	41.36	63.4	54.3	42.3	56.8	48.0
02.	Nr. DISP	43.1	59.1	52.1	42.4	57.2	51.0
03.	Nr. LPG Yard	42.3	57.8	53.4	44.7	57.1	52.6
04.	New Colony (School)	46.8	58.6	50.4	41.2	53.6	48.6
05.	Nr. SDP-2	48.5	68.4	59.5	53.7	62.1	58.1
06.	Nr. JCO	56.2	66.45	63.1	51.7	61.7	56.4
07.	Nr. Gate No. 2	54.5	65.3	58.7	45.9	65.3	56.0
08.	Nr. Sinter Plant-1	53.1	75.8	63.1	54.7	67.2	60.6
09.	Nr. Sinter Plant-2	49.8	72.6	63.4	52.1	68.2	61.5
10.	Nr. Blast Furnace-1	56.21	66.7	60.1	49.8	64.8	62.1
11.	Nr. Spiral-2	52.1	65.14	62.1	45.6	62.4	56.8
12.	Nr. Main Gate (Security Office)	53.7	64.2	59.1	42.3	63.7	55.7

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.

Recalibration is due on : 14/09/2018

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Ref. No. : 644/06/2018-19

Date : 01/07/2018

### 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 : 6<sup>th</sup> JUNE, 2018

Sr. No.	Location of Sampling	Value in dB(A)		
		Min.	Max.	Leq
1	Inside Control Room	41.32	63.2	54.2
2	Inside Mechanical Room	43	64.2	52.3
3	Inside Electrical Room	41.8	62.4	56.2
4	Sinter Machine area	45.3	63.5	58.1

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 : 14/09/2018

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Ref. No. : 645/06/2018-19

Date : 01/07/2018

### 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 : 21<sup>th</sup> JUNE, 2018

Sr. No.	Location of Sampling	Value in dB(A)		
		Min.	Max.	Leq
01.	Nr. Stock House	61.2	78.2	72.4
02.	Inside BF Control Room	49.2	58.1	56.2
03.	Near Cast House	48.6	64.9	57.2
04.	Inside Laboratory	43.2	56.8	49.2
05.	Inside Control Room of Blower House	51.7	62.4	58.3
06.	Inside Control Room of CPP	49.6	58.47	54.7

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.

Recalibration is due on : 14/09/2018

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*H. H. H.*  
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Ref. No. : 646/06/2018-19

Date : 01/07/2018

### 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 :7th,9<sup>th</sup> ,12th& 22<sup>th</sup> JUNE, 2018

Sr. No.	Location of Sampling	Value in dB(A)		
		Min.	Max.	Leq
01.	Inside Control Room of Annealing Furnace of DISP	42.1	57.1	52.5
02	Inside Control Room – Mill Area of Spiral Plant	53.6	63.7	62.8
03	Nr. Pipe Cutting Area of Spiral Plant	58.2	79.5	68.2
04	Inside JCO Plant ( Expander Area)	52.8	58.3	56.6
01.	Nr. CCM area of DISP Plant	53.1	67.7	60.5
06	Nr. CCM of SDP-2	53.7	72.2	63.8
07	Inside Control Room of Annealing Furnace of SDP-2	45.1	63.5	53.9
08	Nr. Zinc Coating of SDP-2	62.3	76.5	69.5
09	Nr.application area of Coating Plant- 2	72.4	80.5	78.5
	Near Mould Shop	60.3	76.5	73.5

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.

Recalibration is due on : 14/09/2018

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Ref. No. : 647/06/2018-19

Date : 01/07/2018

### 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 : 9<sup>th</sup> june, 2018

Sr. No.	Location of Sampling	Value in dB(A)		
		Min.	Max.	Leq
01.	Inside BF Control Room	44.3	65.1	56.7
02.	Nr. Stock House	46.9	64.8	59.3
03.	Nr. Cast House	48.1	67.9	55.2

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 : 14/09/2018

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Ref. No. : 648/06/2018-19

Date : 01/07/2018

### WORK ZONE NOISE LEVEL MEASUREMENT

#### SINTER PLANT - 2 (29017)

Name of company : JINDAL SAW LIMITED,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Date of sampling : 20<sup>th</sup> june, 2018

Sr. No.	Location of Sampling	Value in dB(A)		
		Min.	Max.	Leq
01.	Inside Control Room	42.8	61	54.8
02.	Sinter Machine area	44.9	64.2	56.3
03.	Near Proportioning Building	53.1	69.2	63.4
04.	Near Crusher House	59.4	76.8	66.2

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 : 14/09/2018

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Ref. No. : 649/06/2018-19

Date : 1/07/2018

### 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 : 25/06/2018

Test Method : As per IS Standards - 3025

Sr. No.	Parameters	Unit	GPCB limits for Treated Effluent	Treated Effluent
01.	pH	pH Unit	----	7.52
02.	BOD (3 Days at 27°C)	mg/l	<20	3
03.	Total Dissolve Solid	mg/l	...	1362
04.	COD	mg/l	...	8
05.	Total Suspended Solid	mg/l	<30	3
06.	Oil & Grease	mg/l	...	ND
07.	Fecal Coliform	MPN/100ml	1000	Absent
08.	Residual Chlorine	mg/l	Min. 0.5	0.64

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Ref. No. : 650/06/2018-19

DATE:- 30/06/2018

### WATER & WASTE WATER QUALITY ANALYSIS REPORT

Name of company : JINDAL SAW LIMITED,  
Village: Samaghogha,  
Tal. : Mundra, Dist. Kutch

Source of Sample : Effluent Treatment Plant

Date of Sampling : 25/06/2018

Sr. No.	Parameters	Unit	Permissible limit	Results
01.	pH	...	6.5 to 8.5	7.62
02.	Colour	pt.co.units	100	19
03.	Tempreture	°C	40	28
04.	Total suspended solids	mg/l	100	10
05.	Total dissolve solids	mg/l	2100	1472
06.	Phenolic compounds	mg/l	1	ND
07.	Oil & Grease	mg/l	10	ND
08.	Chlorides	mg/l	600	348
09.	Sulphate	mg/l	1000	493
10.	Ammonical nitrogen (as NH <sub>3</sub> -N)	mg/l	50	1.35
11.	BOD (3 Days at 27°C)	mg/l	30	10.3
12.	COD	mg/l	100	48.3

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*Hitesh*  
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-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 : **20<sup>th</sup> JUNE, 2018**

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						
1	Sinter Plant-2 ( Sinter Machine area)	Total Dust	Personal Respirable Dust sampler VPDS 203	02	1.1-2.4	1.75	10	Gravimetric	5	---	<i>Hitesh</i>	Mr. Hitesh Umletiya

Instruments used : Vaibhav make personal sampler, Model No. VPDS 203

Calibration Due on. : 12/03/2019

For. Royal Environment Auditing &amp; Consultancy Service



*Hitesh*  
Authorized Sign

**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 : 6<sup>th</sup> JUNE, 2018

0	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						
1	Sinter Plant-1 ( Sinter Machine area)	Total Dust	Personal Respirable Dust sampler VPDS 203	02	1.3-2.9	2.1	10	Gravimetric	4	----	<i>Hitesh</i>	Mr. Hitesh Umletiya

Instruments used : Vaibhav make personal sampler, Model No. VPDS 203

Calibration Due on. : 12/03/2019



For. Royal Environment Auditing &amp; Consultancy Service

*Hitesh*  
Authorized Sign

**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 : 21<sup>th</sup> JUNE, 2018

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						
1	BF Plant (Cast House)	CO	Personal Respirable Dust sampler VPDS 203	02	4.9-12.8	8.9	50 (ppm)	Gravimetric	6	---		Mr. Hitesh Umleti
		Total Dust			1.1-2.7	1.90	10					

Instruments used : Vaibhav make personal sampler, Model No. VPDS 203

Calibration Due on. : 12/03/2019



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## 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 : 9<sup>th</sup> JUNE, 2018

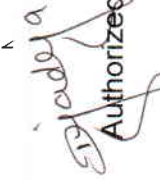
Sr. No	Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborne Contamination			TWA Concentration (As given in Second Schedule)	Reference Method	Number of workers exposed at the location being monitored	Remark	Signature of person taking samples	Name (in block letters)
				Number of sample	Range	Average						
1	BF Plant (Cast House)	CO Total Dust	Personal Respirable Dust sampler VPDS 203	02	6-15	10.5 (ppm)	50 (ppm)	Gravimetric	6	---		Mr. Hitesh Umletiya

Instruments used : Vaibhav make personal sampler, Model No. VPDS 203

Calibration Due on. : 12/03/2019



For. Royal Environment Auditing & Consultancy Service

  
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## 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 : 3<sup>rd</sup>, 17<sup>th</sup>, 22<sup>th</sup>, 22<sup>th</sup> JUNE, 2018

Sr. No	Location Operation monitored	Identified Contaminate	Sampling Instrument used	Airborne Contamination			TWA Concentration (As given in Second Schedule) mg/m <sup>3</sup>	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						
1	Spiral Plant (Nr. ID/OD)	Total Dust	Personal Respirable Dust sampler VPDS 203	02	1.1-2.5	1.8	10	Gravimetric	5	----	<i>Hitesh</i>	Mr. Hitesh Umletiya
2	DISP Plant (Induction Area)	Total Dust		02	1.4-2.9	2.2	10	Gravimetric	7	----		
3	Coating Plant-1 (Shot Blasting)	Total Dust		02	2.1-3.6	2.9	10	Gravimetric	5	----		
4	SDP-2 (Induction Area)	Total Dust		02	1.3-2.9	2.1	10	Gravimetric	6	----		

Instruments used : Vaibhav make personal sampler, Model No. VPDS 203

Calibration Due on : 12/03/2019



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*Hitesh*  
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