



# Royal

## Environment Auditing & Consultancy Service

303-304, Shivalik-7, B/s Bal Adalat, Gondal Road, RAJKOT - 360 002.

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Ref. No. : 581/05/2018-19

Date : 01/06/2018

### NATIONAL AMBIENT AIR QUALITY MONITORING REPORT FOR THE MONTH - MAY : 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	9	10								
01.	No. of Week	---																		
02.	Date & Time Starting of Monitoring	---	02/05/18 08.45	04/05/18 09.00	07/05/18 09.00	11/05/18 09.15	14/05/18 09.15	18/05/18 09.00	21/05/18 09.00	25/05/18 09.15	28/05/18 09.15	30/05/18 09.00								
03.	Date & Time Ending of Monitoring	---	03/05/18 08.45	05/05/18 09.00	07/05/18 09.00	12/05/18 09.15	15/05/18 09.15	19/05/18 09.00	22/05/18 09.00	26/05/18 09.15	29/05/18 09.15	31/05/18 09.00								
04.	Duration of Sampling	Min.	1440.00	1440.00	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	WNW	WSW								
06.	Average Wind Speed	Km/Hr.	3.2	3.3	4.2	4.5	6.6	5.0	7.2	4.3	5.2	6.0								
07.	Average flow rate for Dust Monitoring PM10	m <sup>3</sup> /min.	1.13	1.12	1.11	1.13	1.14	1.11	1.15	1.14	1.1	1.11								
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	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	0.2	0.2								
10.	Permissible limits for PM10*	µg/m <sup>3</sup>	100	100	100	100	100	100	100	100	100	100								
11.	Measured Concentration of PM10	µg/m <sup>3</sup>	60	62	56	61	59	63	61	62	52	54								
12.	Permissible limits for PM2.5*	µg/m <sup>3</sup>	60	60	60	60	60	60	60	60	60	60								
13.	Measured Concentration of PM2.5	µg/m <sup>3</sup>	38	36	37	40	42	36	32	46	32	31								
14.	Permissible limits for SO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80	80	80								
15.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	6.6	7.8	8.2	8.2	8.5	7.7	8.2	8.3	7.6	7.7								
16.	Permissible limits for NO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80	80	80								
17.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	16.2	16.5	16.0	16.2	17.3	17.6	15.3	17.4	16.2	16.7								
18.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	2000	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	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



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Ref. No. : 582/05/2018-19

Date : 01/06/2018

### NATIONAL AMBIENT AIR QUALITY MONITORING REPORT FOR THE MONTH - MAY : 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				
01.	No. of Week	----									
02.	Date & Time Starting of Monitoring	----	04/05/18 09.15	07/05/18 08.45	11/05/18 09.00	14/05/18 09.00	18/05/18 09.15	21/05/18 09.15	25/05/18 09.30	28/05/18 09.30	30/05/18 09.15
03.	Date & Time Ending of Monitoring	----	05/05/18 09.15	07/05/18 08.45	12/05/18 09.00	15/05/18 09.00	19/05/18 09.15	22/05/18 09.15	26/05/18 09.30	29/05/18 09.30	31/05/18 09.15
04.	Duration of Sampling	Min.	1440.00	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	WSW
06.	Average Wind Speed	Km/Hr.	3.3	4.2	4.5	6.6	5.0	7.2	4.3	5.2	6.0
07.	Average flow rate for Dust Monitoring PM10	m <sup>3</sup> /min.	1.12	1.13	1.14	1.12	1.13	1.12	1.11	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	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	0.2
10.	Permissible limits for PM10*	µg/m <sup>3</sup>	100	100	100	100	100	100	100	100	100
11.	Measured Concentration of PM10	µg/m <sup>3</sup>	60	59	62	63	62	59	65	64	51
12.	Permissible limits for PM2.5*	µg/m <sup>3</sup>	60	60	60	60	60	60	60	60	60
13.	Measured Concentration of PM2.5	µg/m <sup>3</sup>	38	36	38	40	42	41	39	41	35
14.	Permissible limits for SO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80	80
15.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	8.5	8.2	7.9	8.3	8.6	8.2	8.3	8.4	7.1
16.	Permissible limits for NO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80	80
17.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	17.2	17.3	16.5	16.8	17.3	17.4	17.6	17.2	17.8
18.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	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	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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Ref. No. : 583/05/2018-19

Date : 01/06/2018

### NATIONAL AMBIENT AIR QUALITY MONITORING REPORT FOR THE MONTH - MAY : 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				
01.	No. of Week	---									
02.	Date & Time Starting of Monitoring	---	04/05/18 08.45	07/05/18 09.15	11/05/18 09.30	14/05/18 09.30	18/05/18 08.45	21/05/18 09.30	25/05/18 09.00	28/05/18 09.00	30/05/18 08.45
03.	Date & Time Ending of Monitoring	---	06/05/18 08.45	07/05/18 09.15	12/05/18 09.30	15/05/18 09.30	19/05/18 08.45	22/05/18 09.30	26/05/18 09.00	29/05/18 09.00	31/05/18 08.45
04.	Duration of Sampling	Min.	1440.00	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	WSW
06.	Average Wind Speed	Km/Hr.	3.3	4.2	4.5	6.6	5.0	7.2	4.3	5.2	6.0
07.	Average flow rate for Dust Monitoring PM10	m <sup>3</sup> /min.	1.14	1.12	1.13	1.11	1.12	1.13	1.14	1.12	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	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	0.2
10.	Permissible limits for PM10*	µg/m <sup>3</sup>	100	100	100	100	100	100	100	100	100
11.	Measured Concentration of PM10	µg/m <sup>3</sup>	59	62	56	62	63	65	62	56	59
12.	Permissible limits for PM2.5*	µg/m <sup>3</sup>	60	60	60	60	60	60	60	60	60
13.	Measured Concentration of PM2.5	µg/m <sup>3</sup>	39	43	41	38	40	39	36	38	40
14.	Permissible limits for SO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80	80
15.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	7.3	7.4	8.2	7.9	7.8	8.3	8.2	7.8	7.6
16.	Permissible limits for NO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80	80
17.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	17.2	17.6	17.0	18.2	17.6	18.1	16.8	17.2	17.5
18.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	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.	B.D.L.

Instrument used : (1) 3 Nos. RDS (APM - 217 BL), (2) 3 Nos. of Gaseous Sampler (AAS 106) (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 2006.

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Ref. No. : 564/05/2018-19

Date : 01/06/2018

### NATIONAL AMBIENT AIR QUALITY MONITORING REPORT FOR THE MONTH - MAY : 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				
01.	No. of Week	---									
02.	Date & Time Starting of Monitoring	---	04/05/18 09 30	07/05/18 09 30	11/05/18 08 45	14/05/18 08 45	18/05/18 09 30	21/05/18 08 45	25/05/18 08 45	28/05/18 08 45	30/05/18 09 30
03.	Date & Time Ending of Monitoring	---	05/05/18 09 30	07/05/18 09 30	12/05/18 08 45	15/05/18 08 45	19/05/18 09 30	22/05/18 08 45	26/05/18 08 45	29/05/18 08 45	31/05/18 09 30
04.	Duration of Sampling	Min.	1440.00	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	WSW
06.	Average Wind Speed	Km/Hr.	3.3	4.2	4.5	6.6	5.0	7.2	4.3	5.2	6.0
07.	Average flow rate for Dust Monitoring PM10	m <sup>3</sup> /min.	1.12	1.14	1.13	1.14	1.11	1.14	1.13	1.12	1.11
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	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	0.2
10.	Permissible limits for PM10*	µg/m <sup>3</sup>	100	100	100	100	100	100	100	100	100
11.	Measured Concentration of PM10	µg/m <sup>3</sup>	59	63	59	62	60	65	58	57	60
12.	Permissible limits for PM2.5*	µg/m <sup>3</sup>	60	60	60	60	60	60	60	60	60
13.	Measured Concentration of PM2.5	µg/m <sup>3</sup>	38	32	35	41	39	32	42	38	36
14.	Permissible limits for SO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80	80
15.	Measured Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	8.7	9.2	7.9	8.6	8.3	8.9	8.2	7.7	8.3
16.	Permissible limits for NO <sub>2</sub> *	µg/m <sup>3</sup>	80	80	80	80	80	80	80	80	80
17.	Measured Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	16.9	16.2	16.5	17.5	17.8	17.1	17.5	18.2	17.9
18.	Permissible limit for CO **	µg/m <sup>3</sup>	2000	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	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. :585/05/2018-19

Date : 01/06/2018

### 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	---	16/05/2018	16/05/2018	15/05/2018
03.	Time of sampling	---	9.15	9.30	9.15
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>	1318	1346	1358
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>	15.2	16.3	13.5
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>	16.4	16.5	17.2
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. :586/05/2018-19

Date : 01/06/2018

### 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	---	16/05/2018	17/05/2018	17/05/2018
03.	Time of sampling	---	9.30	9.00	9.20
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.	Permissible limits for PM 10*	µg/m <sup>3</sup>	3000	3000	3000
10.	Measured Concentration of PM 10	µg/m <sup>3</sup>	1342	1294	1436
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>	13.4	12.8	14.1
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>	17.8	16.9	17.7
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. : 587/05/18-19

Date : 01/06/2018

### 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	---	07-05-2018
02	Attached to	---	Sinter Furnace
03	Stack Height	Meter	50
04	Stack Diameter	Meter	2.0
05	Stack Temperature	°C	153
06	Ambient Temperature	°C	31
07	Average Velocity of Flue Gases	m/sec.	17
08	IsoKinetic Flowrate for Sampling	LPM	21
09	Inlet	mg/Nm <sup>3</sup>	1421
10	Outlet	mg/Nm <sup>3</sup>	20
11	Efficiency	%	98.59

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

Calibration due on 14/09/2018

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Ref. No. : 588/05/18-19

Date : 01/06/2018

### 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	---	08-05-2018
02	Attached to	---	De-dustingSystem
03	Stack Height	Meter	35
04	Stack Duct Diameter	Meter	1.4
05	Stack Temperature	°C	44
06	Ambient Temperature	°C	31
07	Average Velocity of Flue Gases	m/sec.	14.5
08	IsoKinetic Flowrate for Sampling	LPM	25
09	Inlet	mg/Nm <sup>3</sup>	1096
10	Outlet	mg/Nm <sup>3</sup>	5
11	Efficiency	%	99.54

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

Calibration due on 14/09/2018

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Ref. No. : 589/05/18-19

Date : 01/06/2018

### 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	---	05-05-2018	04-05-2018	04-05-2018
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	45	126	143
06	Ambient Temperature	°C	31	32	32
07	Average Velocity of Flue Gases	m/sec.	8.3	17.4	17.4
08	IsoKinetic Flowrate for Sampling	LPM	17	24	25
09	Inlet	mg/Nm <sup>3</sup>	391	162	1559
10	Outlet	mg/Nm <sup>3</sup>	11	21	21
11	Efficiency	%	97.19	87.04	98.65

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

Calibration due on 14/09/2018

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Ref. No. : 590/05/18-19

Date : 01/06/2018

### 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	---	15/05/2018	15/05/2018
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	55	53
06	Ambient Temperature	°C	31	31
07	Average Velocity of Flue Gases	m/sec.	8.59	8.9
08	IsoKinetic Flowrate for Sampling	LPM	16	16
09	Inlet	mg/Nm <sup>3</sup>	756	739
10	Outlet	mg/Nm <sup>3</sup>	11	12
11	Efficiency	%	98.54	98.38

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

Calibration due on 14/09/2018

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Ref. No. : 591/05/18-19

Date : 01/06/2018

### 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 - 15	S - 20	S - 23
01	Date of Sampling	---	12/05/2018	12/05/2018	16/05/2018
02	Attached to	---	Zinc Coating - II	Zinc Coating - III	Zinc Coating -IV & V
03	Stack Height	Meter	30	30	30
04	Stack Duct Diameter	Meter	0.6	0.6	0.9
05	Stack Temperature	°C	39	37	36
06	Ambient Temperature	°C	31	31	31
07	Average Velocity of Flue Gases	m/sec.	9.7	11.8	11.2
08	IsoKinetic Flowrate for Sampling	LPM	20	21	20
09	Inlet	mg/Nm <sup>3</sup>	354	465	1285
10	Outlet	mg/Nm <sup>3</sup>	13	12	14
11	Efficiency	%	96.33	97.42	98.91

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

Calibration due on 14/09/2018

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Ref. No. : 592/05/17-18

Date : 01/06/2018

### 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	---	11/05/2018	14/05/2018	11/05/2018
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	40	39	47
06	Ambient Temperature	°C	31	32	31
07	Average Velocity of Flue Gases	m/sec.	9.1	8.4	9.4
08	IsoKinetic Flowrate for Sampling	LPM	17	16	17
09	Inlet	mg/Nm <sup>3</sup>	1231	356	341
10	Outlet	mg/Nm <sup>3</sup>	13	5	6
11	Efficiency	%	98.94	98.60	98.24

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

Calibration due on 14/09/2018

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Ref. No. : 593/05/18-19

Date : 01/06/2018

### 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	---	09/05/2018
02	Attached to	---	Dedusting System
03	Stack Height	Meter	40
04	Stack Duct Diameter	Meter	1.5
05	Stack Temperature	°C	37
06	Ambient Temperature	°C	32
07	Average Velocity of Flue Gases	m/sec.	12.6
08	IsoKinetic Flowrate for Sampling	LPM	27
09	Inlet	mg/Nm <sup>3</sup>	1281
10	Outlet	mg/Nm <sup>3</sup>	10
11	Efficiency	%	99.22

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

Calibration due on 14/09/2018

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Ref. No. : 594/05/17-18

Date : 01/06/2018

### 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	---	07-05-2018	07-05-2018	07-05-2018	07-05-2018
02	Time of sampling	---	10.30	11.15	12.30	15.10
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	136	35	36	124
08	Ambient Temperature	°C	31	31	31	31
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	15	17	10	20
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>	20	8	9	21
14	Permissible limits for SO <sub>2</sub>	ppm	100	NA	NA	NA
15	Measured Concentration of SO <sub>2</sub>	ppm	8.1	....	....	....
16	Permissible limits for NO <sub>x</sub>	ppm	50	NA	NA	NA
17	Measured Concentration of NO <sub>x</sub>	ppm	17.4	....	....	....

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. : 595/05/18-19

Date : 01/06/2018

### 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	---	05-05-2018	05-05-2018	05-05-2018	04-05-2018	04-05-2018
02	Time of sampling	Hr.	10.50	11.45	11.50	12.00	15.45
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	40	39	46	136	125
08	Ambient Temperature	°C	31	31	31	31	31
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	10	12	26	17	18
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>	8	10	11	21	21
14	Permissible limits for SO <sub>2</sub>	ppm	NA	NA	NA	100	NA
15	Measured Concentration of SO <sub>2</sub>	ppm	---	---	---	8.7	---
16	Permissible limits for NO <sub>x</sub>	ppm	NA	NA	NA	50	NA
17	Measured Concentration of NO <sub>x</sub>	ppm	---	---	---	18.3	---

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 : 14/06/2018

NA= Not Applicable

MD= Not Detectable

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Ref. No. : 596/05/18-19

Date : 01/06/2018

### 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	--	08/05/2018	08/05/2018	08/05/2018
02	Time of sampling	Hr.	10.30	11.05	14.45
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	44	158	155
08	Ambient Temperature	°C	32	32	32
09	Average Velocity of Flue Gases	m/sec.	14.4	6.0	5.9
10	Isokinetic flow rate for P.M. Sampling	LPM	24	17	19
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>	5	3	5
14	Permissible limits for SO <sub>2</sub>	ppm	100	250	250
15	Measured Concentration of SO <sub>2</sub>	ppm	ND	8.4	8.1
16	Permissible limits for NO <sub>x</sub>	ppm	50	150	150
17	Measured Concentration of NO <sub>x</sub>	ppm	ND	10.8	13.5
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

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



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Ref. No. : 597/05/18-19

Date : 01/06/2018

### 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	S - 4
01	Date of Sampling	---	09/05/2018	09/05/2018
02	Time of sampling	Hr.	11.20	10.30
03	Stack Attached to	---	Dedusting System	Coke fine building dust collecting system
04	Air Pollution Control Measures	---	Bag Filter	Bag Filter
05	Stack Height	Meter	40.0	30.0
06	Stack Diameter	Meter	1.5	0.45
07	Stack Temperature	°C	35	34
08	Ambient Temperature	°C	32	32
09	Average Velocity of Flue Gases	m/sec.	9.6	4.8
10	Isokinetic flow rate for P.M. Sampling	LPM	17	18
11	Gaseous Sampling Flow Rate	LPM	NA	NA
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	10	8
14	Permissible limits for SO <sub>2</sub>	mg/Nm <sup>3</sup>	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
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. : 598/05/2018-19

Date : 01/06/2018

### 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 - 25	S - 26
01	Date of Sampling	---	17/05/2018	17/05/2018
02	Time of sampling	Hr.	10.10	11.30
03	Stack Attached to	---	Shot Blasting - I	Shot Blasting - II
04	Air Pollution Control Measures	---	Bag Filter	Bag Filter
05	Stack Height	Meter	10.0	10.0
06	Stack Diameter	Meter	0.41	0.41
07	Stack Temperature	°C	41	39
08	Ambient Temperature	°C	31	31
09	Average Velocity of Flue Gases	m/sec.	11.7	10.6
10	Isokinetic flow rate for P.M. Sampling	LPM	21	19
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	150
13	Measured Concentration of PM	mg/Nm <sup>3</sup>	14	18
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>	ND	ND
16	Permissible limits for Nox	mg/Nm <sup>3</sup>	25	25
17	Measured Concentration of Nox	mg/Nm <sup>3</sup>	ND	ND

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

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Ref. No. : 599/05/2018-19

Date : 01/06/2018

### 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 - 15	S - 20	S - 22	S - 23
01	Date of Sampling	---	15/05/2018	12/05/2018	12/05/2018	15/05/2018	16/05/2018
02	Time of sampling	Hr.	10.45	15.25	11.30	11.50	14.30
03	Stack Attached to	---	Common stack Mg Converter- I&II	Zn Coating - II	Zn Coating - III	Mg Converter -II	Zn Coating - IV & V
04	Air Pollution Control Measures	---	Bag Filter	Cyclone Seprater & Bag Filter	Cyclone Separator & Bag Filter	Bag Filter	Cyclone Separator & Bag Filter
05	Stack Height	Meter	30	30	30	30	30
06	Stack Diameter	Meter	0.5	0.6	0.6	0.5	0.9
07	Stack Temperature	°C	55	35	34	44	42
08	Ambient Temperature	°C	32	31	31	32	31
09	Average Velocity of Flue Gases	m/sec.	10.3	6.3	8.8	7.0	8.8
10	Isokinetic flow rate for P.M. Sampling	LPM	18	27	17	27	17
11	Gaseous Sampling Flow Rate	LPM	2.0	---	---	---	---
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	20 (Zn)	20 (Zn)	150	20 (Zn)
13	Measured Concentration of PM	mg/Nm <sup>3</sup>	11	13 (Zn)	12 (Zn)	12	14 (Zn)
14	Permissible limits for SO <sub>2</sub>	mg/Nm <sup>3</sup>	40	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	25	NA
17	Measured Concentration of NO <sub>x</sub>	mg/Nm <sup>3</sup>	5.3	---	---	5.6	---

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. : 600/05/2018-19

Date : 01/06/2018

### 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	--	10/05/2018	10/05/2018	10/05/2018	10/05/2018	16/05/2018	16/05/2018
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	35	32	36	40	37	36
08	Ambient Temperature	°C	31	31	31	31	32	32
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	10	9	9	10	16	27
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>	8	6	8	9	12	14
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>	4.5	4.8	5.3	4.5	ND	ND
16	Permissible limits for Nox	mg/Nm <sup>3</sup>	25	25	25	25	25	25
17	Measured Concentration of Nox	mg/Nm <sup>3</sup>	6.5	6.2	5.9	6.0	5.9	6.2

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

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Ref. No. : 601/05/2018-19

Date : 01/06/2018

### 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	S - 19
01	Date of Sampling	---	10/05/2018	25/05/2018
02	Time of sampling	Hr.	16.20	11.15
03	Stack Attached to	---	Sand Reclamation	Annealing Furnace - III
04	Air Pollution Control Measures	---	Bag Filter	---
05	Stack Height	Meter	30	32
06	Stack Diameter	Meter	0.9	1.375
07	Stack Temperature	°C	90	153
08	Ambient Temperature	°C	31	32
09	Average Velocity of Flue Gases	m/sec.	8.2	4.8
10	Isokinetic flow rate for P.M. Sampling	LPM	27	16
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150	150
13	Measured Concentration of PM	mg/Nm <sup>3</sup>	18	9
14	Permissible limits for SO <sub>2</sub>	mg/Nm <sup>3</sup>	40	100 (PPM)
15	Measured Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	5.2	1.2
16	Permissible limits for NO <sub>x</sub>	mg/Nm <sup>3</sup>	25	50 (PPM)
17	Measured Concentration of NO <sub>x</sub>	mg/Nm <sup>3</sup>	12.6	8.2 (PPM)

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

N.D= Not Detectable

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

Calibration due on : 14/09/2018

Royal Environment Auditing & Consultancy Service



*W. K. Shah*  
Analyst



# Royal

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Ref. No. : 602/05/2018-19

Date : 01/06/2018

### 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 - 8
01	Date of Sampling	---	11/05/2018	14/05/2018	14/05/2018	11/05/2018
02	Time of sampling	Hr.	10.20	10.15	11.20	16.10
03	Stack Attached to	---	Magnesium Treatment	Socket Cleaning	Zinc Coating	Zinc Coating Machine(FL-7)
04	Air Pollution Control Measures	---	Bag Filter	Bag Filter	Bag Filter	Cyclone Separator & Bag Filter
05	Stack Height	Meter	30	30	30	30
06	Stack Diameter	Meter	1.00	0.50	1.00	1.20
07	Stack Temperature	°C	45	37	35	34
08	Ambient Temperature	°C	31	31	31	31
09	Average Velocity of Flue Gases	m/sec	7.1	4.7	4.8	4.4
10	Isokinetic flow rate for PM Sampling	LPM	27	18	18	19
11	Gaseous Sampling Flow Rate	LPM	---	---	---	---
12	Permissible limits for PM	mg/Nm <sup>3</sup>	50	50	50	50
13	Measured Concentration of PM	mg/Nm <sup>3</sup>	13	12	5 (Zn)	6 (Zn)
14	Permissible limits for SO <sub>2</sub>	PPM	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
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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Ref. No. : 608/05/2018-19

Date : 01/06/2018

### AMBIENT NOISE LEVEL MEASUREMENT

Name of company : JINDAL SAW LIMITED,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Date of sampling : 3<sup>rd</sup> May, 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	42.7	64.2	55.1	42.9	57.0	48.5
02.	Nr. DISP	56.2	60.2	57.2	49.2	55.1	52.3
03.	Nr. LPG Yard	43.1	58.6	52.9	46.1	57.9	53.1
04.	New Colony (School)	42.2	54.1	48.9	46.5	56.2	50.2
05.	Nr. SDP-2	48.2	68.2	60.2	53.1	62.6	58.1
06.	Nr. JCO	55.2	61.3	57.3	50.2	55	53.4
07.	Nr. Gate No. 2	55.1	65.3	58.7	46.4	65.8	56.0
08.	Nr. Sinter Plant-1	54.2	76.2	64.4	55.4	66.4	59.8
09.	Nr. Sinter Plant-2	50.8	72.4	64.1	52.8	67.9	62.0
10.	Nr. Blast Furnace-1	56.3	66.4	60.7	50.8	65.2	60.5
11.	Nr. Spiral-2	54.2	65.4	61.2	49.8	55.2	53.4
12.	Nr. Main Gate (Security Office)	54.3	64.2	59.7	43.1	64.2	56.5

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. : 609/05/2018-19

Date : 01/06/2018

### 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 : 7<sup>th</sup> May, 2018

Sr. No.	Location of Sampling	Value in dB(A)		
		Min.	Max.	Leq
1	Inside Control Room	41.6	63.2	54.5
2	Inside Mechanical Room	43.6	64.1	53.4
3	Inside Electrical Room	42.7	62.8	56.3
4	Sinter Machine area	44.3	64.1	58.2

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. : 610/05/2018-19

Date : 01/06/2018

### 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 : 8<sup>th</sup> May, 2018

Sr. No.	Location of Sampling	Value in dB(A)		
		Min.	Max.	Leq
01.	Nr. Stock House	62.1	77.1	72.3
02.	Inside BF Control Room	48.7	58.3	55.1
03.	Near Cast House	48.4	65.8	56.3
04.	Inside Laboratory	43.2	56.7	48.5
05.	Inside Control Room of Blower House	52.3	62.4	59.5
06.	Inside Control Room of CPP	50.8	58.7	52.7

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. : 611/05/2018-19

Date : 01/06/2018

### 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 : 3<sup>rd</sup>, 14<sup>th</sup> & 15<sup>th</sup> May, 2018

Sr. No.	Location of Sampling	Value in dB(A)		
		Min.	Max.	Leq
01.	Inside Control Room of Annealing Furnace of DISP / SDP	43.5	58.6	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	Nr. CCM area of DISP / SDP Plant	53.1	67.7	60.5
05	Nr. CCM SDP-2	53.7	72.2	63.8
06	Inside Control Room of Annealing Furnace of SDP-2	45.1	63.5	53.9
07	Nr. Zinc Coating SDP-2	62.3	76.5	69.5
08	Nr. application area of Coating Plant- 1	72.4	80.5	78.5
09	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. : 612/05/2018-19

Date : 01/06/2018

### 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> May, 2018

Sr. No.	Location of Sampling	Value in dB(A)		
		Min.	Max.	Leq
01.	Inside BF Control Room	46.3	66.6	57.1
02.	Nr. Stock House	46.8	63.2	60.1
03.	Nr. Cast House	47.6	66.9	56.4

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. : 613/05/2018-19

Date : 01/06/2018

### WORK ZONE NOISE LEVEL MEASUREMENT

#### SINTER PLANT - 2 (29017)

Name of company : JINDAL SAW LIMITED,

Village: Samaghogha,

Tal. : Mundra, Dist. Kutch

Date of sampling : 4<sup>th</sup> May, 2018

Sr. No.	Location of Sampling	Value in dB(A)		
		Min.	Max.	Leq
01.	Inside Control Room	44.6	62.3	55.5
02.	Sinter Machine area	46.4	66.3	55.8
03.	Near Proportioning Building	50.5	67.2	62.5
04.	Near Crusher House	57.2	74.8	65.2

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. : 614/05/2018-19

Date : 30/05/2018

### 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 : 26/05/2018

Test Method : As per IS Standards - 3025

Sr. No.	Parameters	Unit	GPCB limits for Treated Effluent	Raw Sewage	Treated Effluent
01.	pH	pH Unit	---	7.46	7.61
02.	BOD (3 Days at 27°C)	mg/l	<20	156	2
03.	Total Dissolve Solid	mg/l	...	1216	1423
04.	COD	mg/l	...	126	7
05.	Total Suspended Solid	mg/l	<30	134	4
06.	Oil & Grease	mg/l	...	ND	ND
07.	Fecal Coliform	MPN/100ml	1000	NA	Absent
08.	Residual Chlorine	mg/l	Min. 0.5	---	0.72

ND=Not Detectable

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Ref. No. : 615/05/2018-19

DATE:- 30/05/2018

### 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 : 26/05/2018

Sr. No.	Parameters	Unit	Permissible limit	Results
01.	pH	...	6.5 to 8.5	7.75
02.	Colour	pt.co.units	100	22
03.	Tempreture	°C	40	33
04.	Total suspended solids	mg/l	100	12
05.	Total dissolve solids	mg/l	2100	1526
06.	Phenolic compounds	mg/l	1	ND
07.	Oil & Grease	mg/l	10	ND
08.	Chlorides	mg/l	600	405
09.	Sulphate	mg/l	1000	526
10.	Ammonical nitrogen (as NH <sub>3</sub> -N)	mg/l	50	1.21
11.	BOD (3 Days at 27°C)	mg/l	30	12.0
12.	COD	mg/l	100	55.0

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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 : 4<sup>th</sup> May, 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 at First Floor	Total Dust	Personal Respirable Dust sampler VPDS 203	02	1.3-2.5	2.00	10	Gravimetric	7	---	<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 : 7<sup>th</sup> May, 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	Sinter Plant-1 at First Floor	Total Dust	Personal Respirable Dust sampler VPDS 203	02	1.1-3.3	2.2	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 Umletiya*  
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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-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 : 8<sup>th</sup> May, 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	5.3-13.5	9.4	50 (ppm)	Gravimetric	7	---	<i>Hitesh</i>	Mr. Hitesh Umletiya
					1.2-2.4	1.80	10					

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

Calibration Due on : 12/03/2019



For. Royal Environment Auditing &amp; 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.: **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> May, 2018

Sr. No	Location Operation monitored	Identified Contaminant	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	7-14	10.5 (ppm)	50 (ppm)	Gravimetric	8	----	<i>Hitesh</i>	Mr. Hitesh Umleliya
		Total Dust			1.1-3.5	2.3	10					

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>, 14<sup>th</sup> & 15<sup>th</sup> May, 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	1.2-2.4	1.8	10	Gravimetric	7	---	hitesh	Mr. Hitesh Umletiya
2	CCM Area (DISP)	Total Dust		02	1.6-3.2	2.9	10	Gravimetric	6	---		
3	Coating Plant-2 (Application Area)	Total Dust		02	2.2-3.2	2.7	10	Gravimetric	8	---		
4	CCM Area (SDP-2)	Total Dust		02	1.5-2.8	2.2	10	Gravimetric	5	---		

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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