



Royal

Environment Auditing & Consultancy Service

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

Ph.: +91 281 2360695 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 716/05/2017-18

Date : 03/06/2017

REPORT OF STACK EMISSION ANALYSIS

Name of company : Gallantt Metal Limited
Survey No. 175/1,
Near toll gate,
Village : Samakhyali,
Taluka : Bhachau,
Kutch, Gujarat.

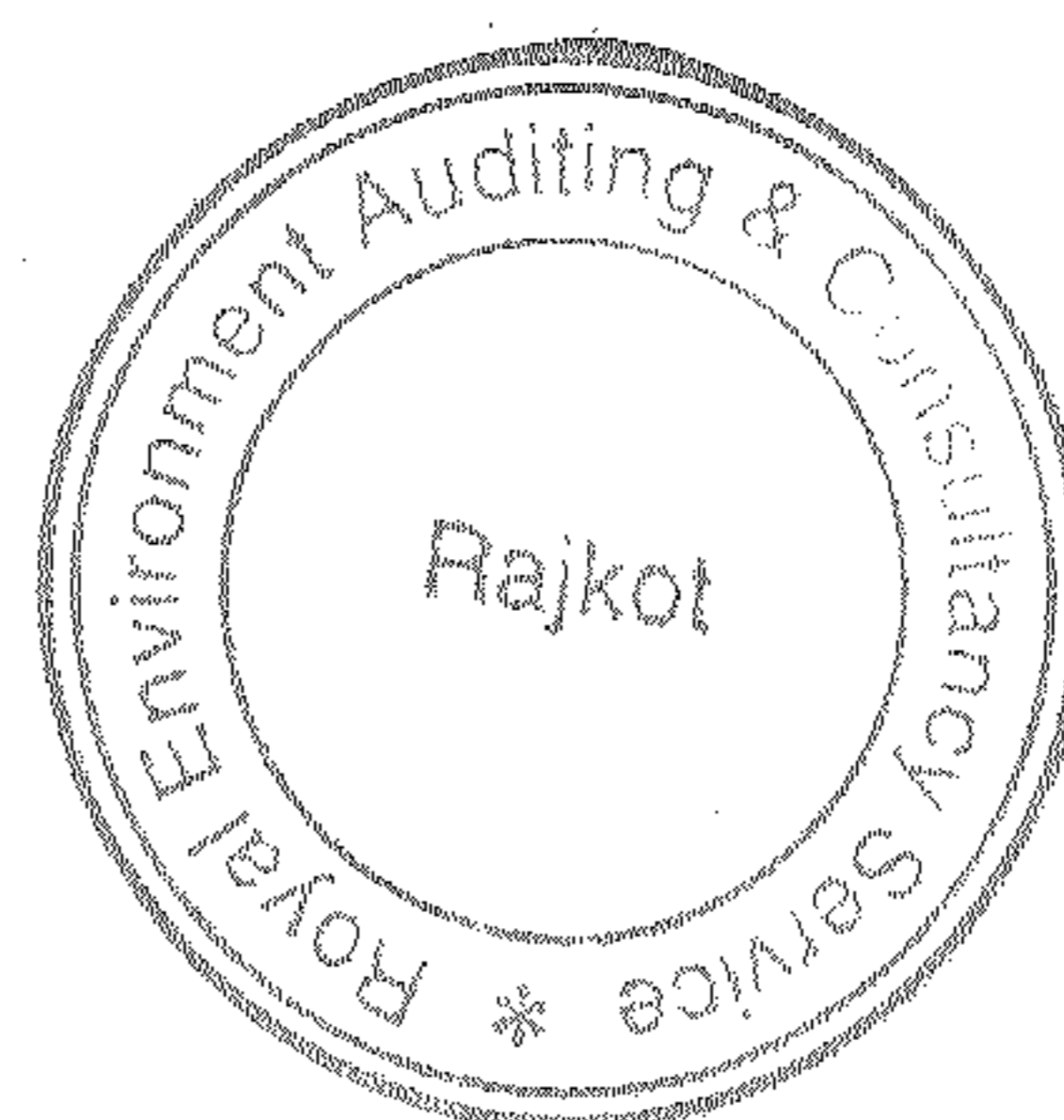
Sr. No.	Particulars	Unit	Stack - 1
01.	Date of sampling	---	26-05-2017
02.	Time of sampling	Hr	12.00
03.	Stack Attached to	---	AFBC Boiler of Power Plant
04.	Air Pollution Control Measures	---	ESP
05.	Stack Height	Meter	90
06.	Stack Diameter	Meter	3.6
07.	Ambient Temperature	Degree Centi.	39
08.	Stack Temperature	Degree Centi.	121
09.	Average Velocity of Flue Gases	M/Sec.	8.5
10.	Isokinetic flow rate for P.M. Sampling	LPM	18
11.	Gaseous Sampling Flow Rate	LPM	2.0
12.	Permissible Limit for P.M.	mg/Nm ³	100
13.	Measured Concentration of P.M.	mg/Nm ³	59
14.	Permissible Limit for SO ₂	ppm	100
15.	Measured Concentration of SO ₂	ppm	19.6
16.	Permissible Limit for NO _x	ppm	50
17.	Measured Concentration of NO _x	ppm	23.7
18.	Permissible Limit for CO*	---	---
19.	Measured Concentration of CO*	ppm	68

*Permissible limit not specified in EC copy as well as in GPCB CC&A

Instruments used : Ecotech Stack Sampler, Model No. ESS 100

Calibration Due On. : 12/09/2017

Royal Environment Auditing & Consultancy Service



Mukesh
Analyst



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Ref. No. : 717/05/2017-18

Date : 03/06/2017

REPORT OF STACK EMISSION ANALYSIS

Name of company : Gallantt Metal Limited

Survey No. 175/1,

Near toll gate,

Village : Samakhyali,

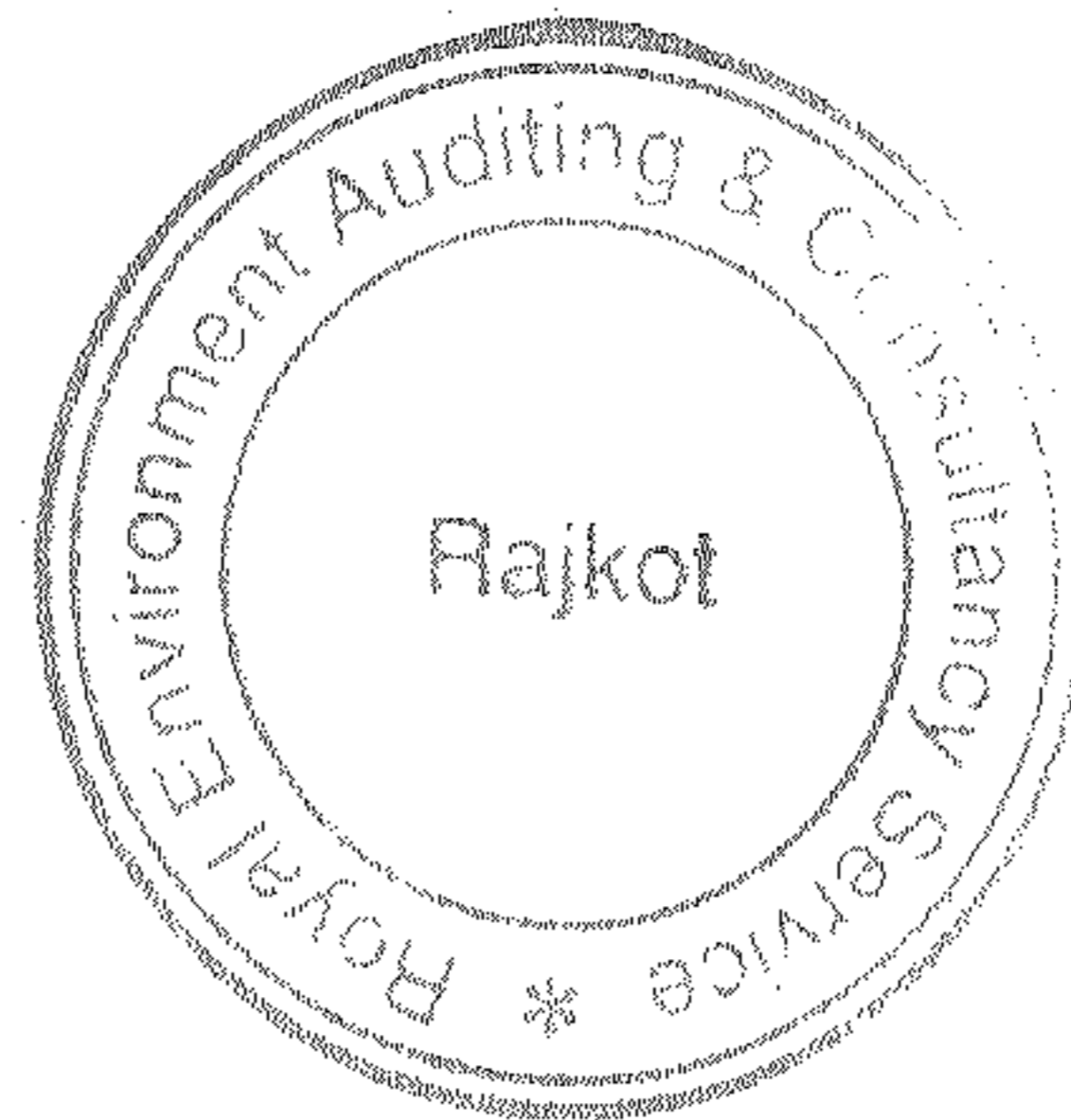
Taluka : Bhachau,

Kutch, Gujarat.

Sr. No.	Particulars	Unit	Stack - 2
01.	Date of sampling	---	Not Running
02.	Time of sampling	Hr	
03.	Stack Attached to	---	
04.	Air Pollution Control Measures	---	Coal Crusher House
05.	Stack Height	Meter	29
06.	Stack Diameter	Meter	1.5
07.	Ambient Temperature	Degree Centi.	---
08.	Stack Temperature	Degree Centi.	---
09.	Average Velocity of Flue Gases	M/Sec.	---
10.	Isokinetic flow rate for P.M. Sampling	LPM	---
11.	Gaseous Sampling Flow Rate	LPM	---
12.	Permissible Limit for P.M.	mg/Nm ³	150
13.	Measured Concentration of P.M.	mg/Nm ³	---
14.	Permissible Limit for CO*	---	---
15.	Measured Concentration of CO*	ppm	---

*Permissible limit not specified in EC copy as well as in GPCB CC&A

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Ref. No. : 718/05/2017-18

Date : 03/06/2017

REPORT OF STACK EMISSION ANALYSIS

Name of company : **Gallantt Metal Limited**

Survey No. 175/1,

Near toll gate,

Village : Samakhali,

Taluka : Bhachau,

Kutch, Gujarat.

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

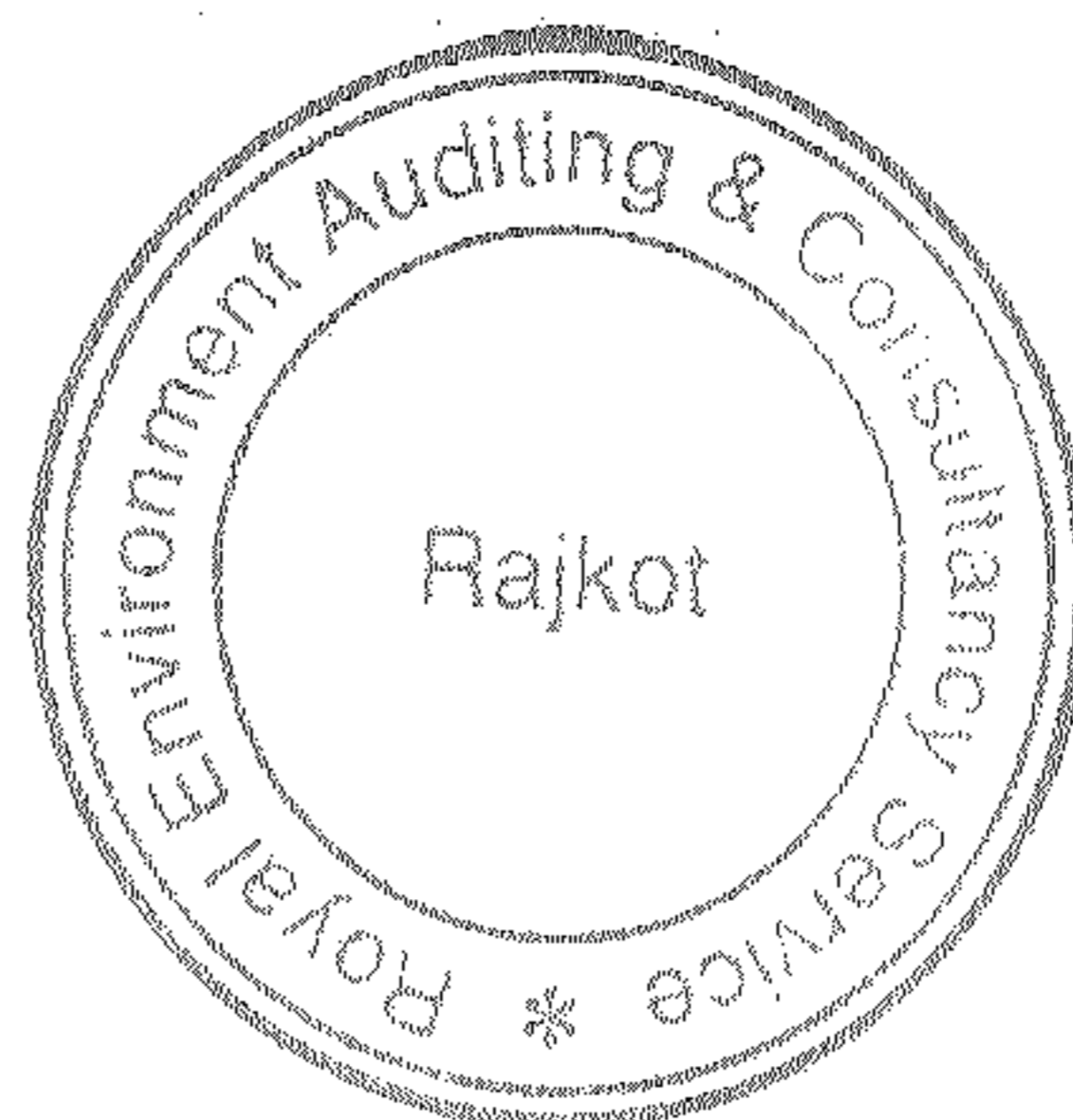
Sr. No.	Particulars	Unit	Stack - 3	Stack - 4	Stack - 5	Stack - 6
1	Date of sampling	---	26-05-2017	26-05-2017	26-05-2017	26-05-2017
2	Time of sampling	Hr	13.00	14.00	17.00	18.00
3	Stack Attached to	---	Rotary Kiln 1, 2	Rotary Kiln - 3	Induction Furnace - 1, 2 & 3	Reheating Furnace
4	Air Pollution Control Measures	---	Recouperatur & ESP	Recouperatur & ESP	Cyclone Separator & Wet Scrubber	---
5	Stack Diameter	Meter	1.5	1.5	1.5	1.5
6	Stack Height	Meter	35	35	48	30
7	Stack Temperature	Degree Centi.	118	121	81	94
8	Ambient Temperature	Degree Centi.	41	42	39	38
9	Average Velocity of Flue Gases	M/Sec.	8.9	8.7	7.2	7.1
10	Isokinetic flow rate for P.M. Sampling	LPM	18	19	20	19
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0	2.0	2.0
12	Permissible Limit for P.M.	mg/Nm ³	100	100	50	100
13	Measured Concentration of P.M.	mg/Nm ³	59	61	30	57
14	Permissible Limit for SO ₂	ppm	100	100	100	100
15	Measured Concentration of SO ₂	ppm	21.6	19.8	18.3	20.9
16	Permissible Limit for Nox	ppm	50	50	50	50
17	Measured Concentration of Nox	ppm	23.6	24.8	20.7	18.6
18.	Permissible Limit for CO*	---	---	---	---	---
19.	Measured Concentration of CO*	ppm	67	52.0	76	59

*Permissible limit not specified in EC copy as well as in GPCB CC&A

Instruments used : Ecotech Stack Sampler, Model No. ESS 100

Calibration Due On. : 12/09/2017

Royal Environment Auditing & Consultancy Service



Murugan
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Ref. No. : 697/04/2017-18

Date : 06/05/2017

REPORT OF STACK EMISSION ANALYSIS

Name of company : Gallantt Metal Limited
Survey No. 175/1,
Near toll gate,
Village : Samakhyali,
Taluka : Bhachau,
Kutch, Gujarat.

Sr. No.	Particulars	Unit	Stack - 1
01.	Date of sampling	---	29-04-2017
02.	Time of sampling	Hr	9.00
03.	Stack Attached to	---	AFBC Boiler of Power Plant
04.	Air Pollution Control Measures	---	ESP
05.	Stack Height	Meter	90
06.	Stack Diameter	Meter	3.6
07.	Ambient Temperature	Degree Centi.	37
08.	Stack Temperature	Degree Centi.	119
09.	Average Velocity of Flue Gases	M/Sec.	8.3
10.	Isokinetic flow rate for P.M. Sampling	LPM	19
11.	Gaseous Sampling Flow Rate	LPM	2.0
12.	Permissible Limit for P.M.	mg/Nm ³	100
13.	Measured Concentration of P.M.	mg/Nm ³	56
14.	Permissible Limit for SO ₂	ppm	100
15.	Measured Concentration of SO ₂	ppm	18.5
16.	Permissible Limit for NOx	ppm	50
17.	Measured Concentration of NOx	ppm	21.9
18.	Permissible Limit for CO*	---	---
19.	Measured Concentration of CO*	ppm	78

*Permissible limit not specified in EC copy as well as in GPCB CC&A

Instruments used : Ecotech Stack Sampler, Model No. ESS 100

Calibration Due On. : 12/09/2017

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Ref. No. : 699/05/2017-18

Date : 06/05/2017

REPORT OF STACK EMISSION ANALYSIS

Name of company : **Gallantt Metal Limited**

Survey No. 175/1,

Near toll gate,

Village : Samakhyali,

Taluka : Bhachau,

Kutch, Gujarat.

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

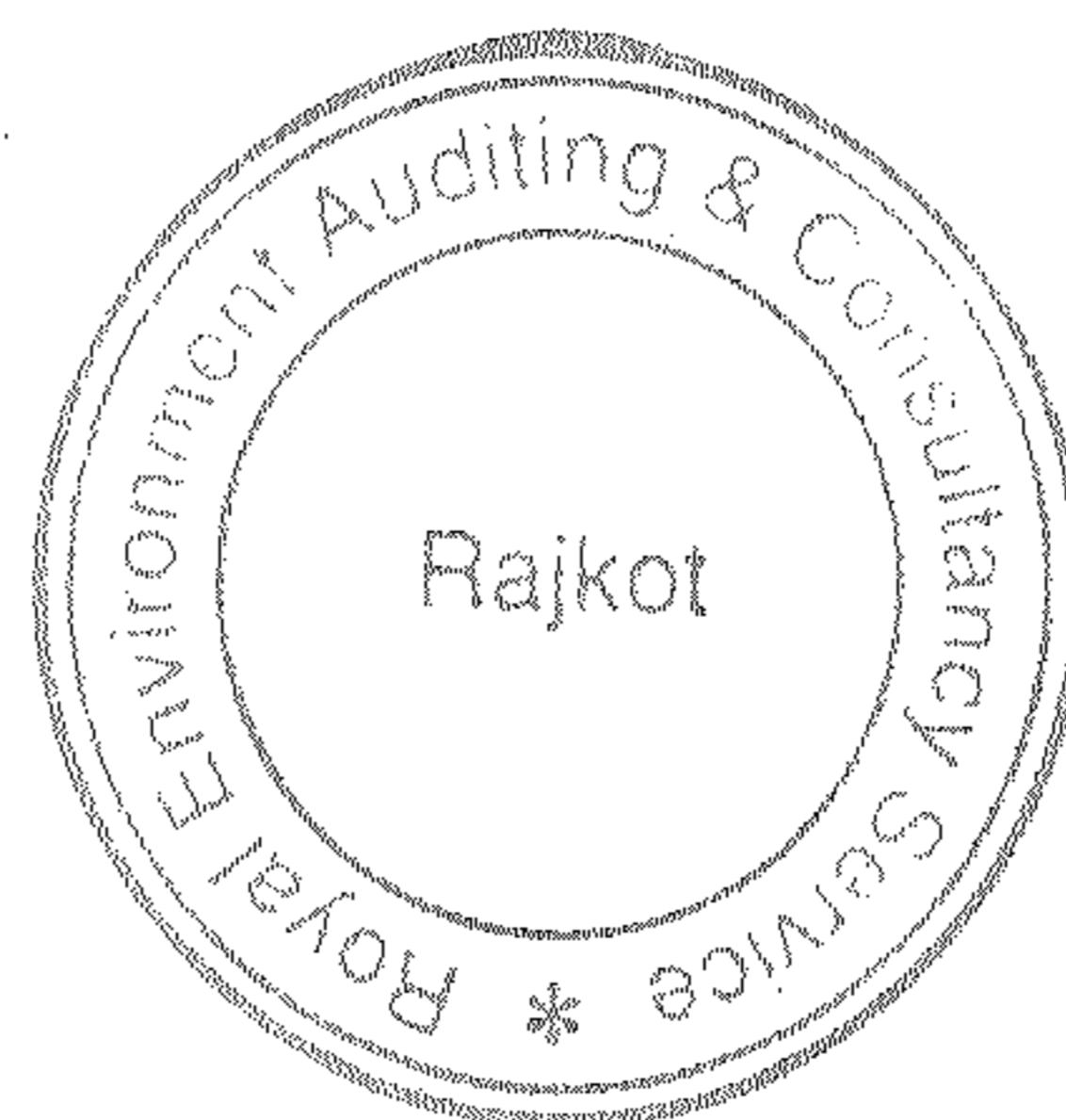
Sr. No.	Particulars	Unit	Stack - 3	Stack - 4	Stack - 5	Stack - 6
1	Date of sampling	---	29-04-2017	29-04-2017	29-04-2017	29-04-2017
2	Time of sampling	Hr	10.00	11.00	12.00	14.00
3	Stack Attached to	---	Rotary Kiln 1, 2	Rotary Kiln 3	Induction Furnace - 1, 2 & 3	Reheating Furnace
4	Air Pollution Control Measures	---	Recouperatur & ESP	Recouperatur & ESP	Cyclone Separator & Wet Scrubber	---
5	Stack Diameter	Meter	1.5	1.5	1.5	1.5
6	Stack Height	Meter	35	35	48	30
7	Stack Temperature	Degree Centi.	126	118	83	91
8	Ambient Temperature	Degree Centi.	42	39	37	38
9	Average Velocity of Flue Gases	M/Sec.	8.6	8.2	7.8	6.9
10	Isokinetic flow rate for P.M. Sampling	LPM	19	18	19	18
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0	2.0	2.0
12	Permissible Limit for P.M.	mg/Nm ³	100	100	50	100
13	Measured Concentration of P.M.	mg/Nm ³	56	53	26	61
14	Permissible Limit for SO ₂	ppm	100	100	100	100
15	Measured Concentration of SO ₂	ppm	20.3	18.5	19.7	21.5
16	Permissible Limit for Nox	ppm	50	50	50	50
17	Measured Concentration of Nox	ppm	22.5	23.9	18.4	19.3
18.	Permissible Limit for CO*	---	---	---	---	---
19.	Measured Concentration of CO*	ppm	62	48.0	83	56

*Permissible limit not specified in EC copy as well as in GPCB CC&A

Instruments used : Ecotech Stack Sampler, Model No. ESS 100

Calibration Due On. : 12/09/2017

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Ref. No. : 700/04/2017-18

Date : 06/05/2017

REPORT OF FUGITIVE EMISSION MONITORING

Name of company : **Gallantt Metal Limited**

Survey No. 175/1,
Near toll gate,
Village : Samakhyali,
Taluka : Bhachau,
Kutch, Gujarat.

Sampling Site: Near raw material handling area

Sr. No.	Particulars	Unit	Location # 1	Location # 2	Location # 3	Location # 4
01.	Location of Sampling	---	Nr. Vagon trippler	Nr. Sreen area	Nr. Transfer point	Nr. Stock Bin area
02.	Date of sampling	---	29-04-2017	29-04-2017	29-04-2017	29-04-2017
03.	Time of sampling	Hr	8.30	8.40	8.50	9.10
04.	Dominant Wind Direction (From)	---	NE to SW	NE to SW	NE to SW	NE to SW
05.	Average Wind Speed	Km/Hr	5 to 16	5 to 16	5 to 16	5 to 16
06.	Average flow rate during sampling	m ³ /minute	1.05	1.08	1.04	1.09
07.	Permissible limit for SPM	µg/m ³	3000	3000	3000	3000
08.	Measured Concentration of SPM	µg/m ³	1753	1912	1426	1845

Instruments Used : Envirotech HVS APM 430 & Ecotech RDS - AAS 217

Calibration due on. 1) 15/05/2017



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Ref. No. : 701/04/2017-18

Date : 06/05/2017

REPORT OF FUGITIVE EMISSION MONITORING

Name of company : **Gallantt Metal Limited**

Survey No. 175/1,

Near toll gate,

Village : Samakhyali,

Taluka : Bhachau,

Kutch, Gujarat.

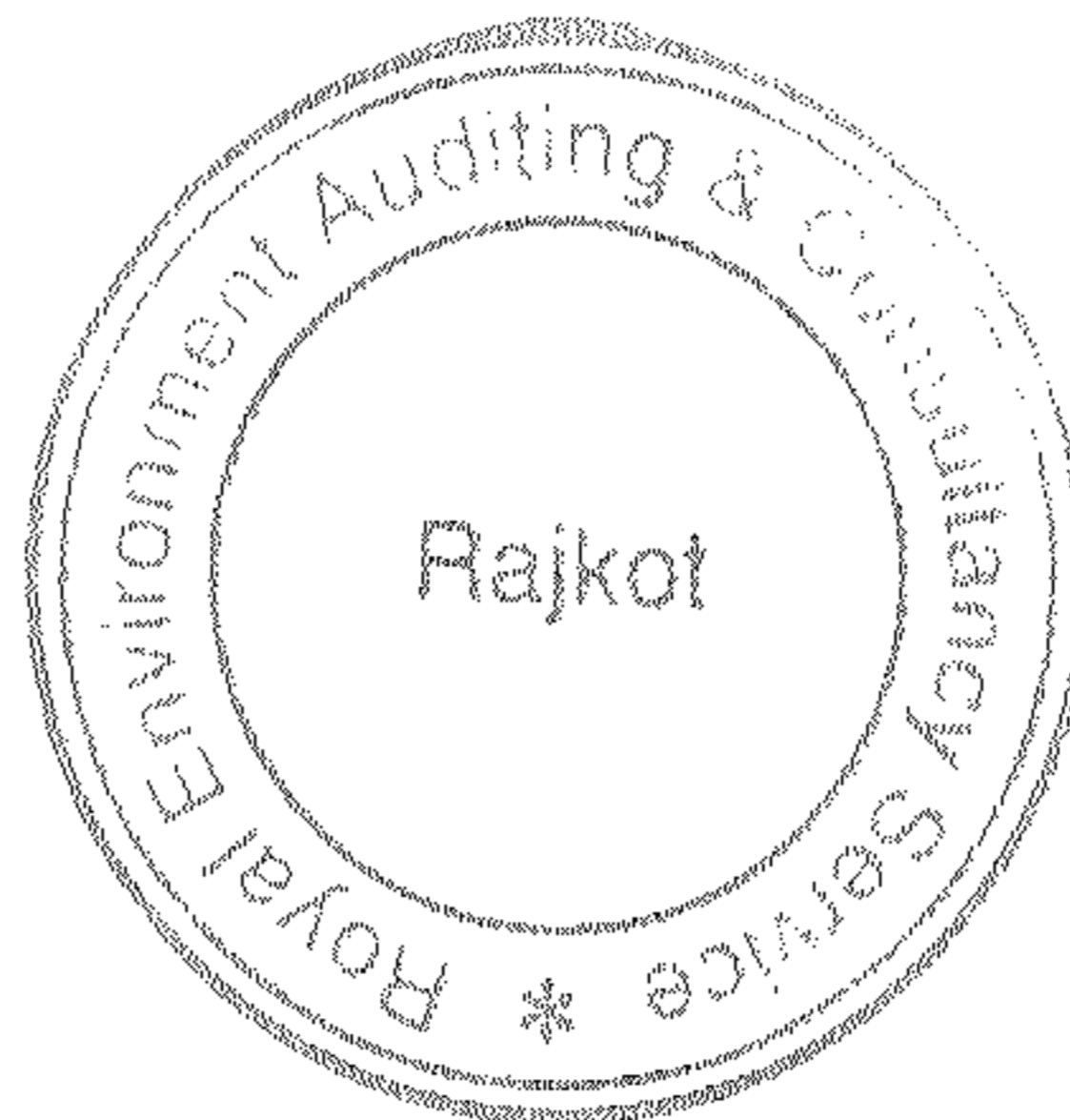
Sampling Site: **Crusser area**

Sr.No.	Particulars	Unit	Location # 5	Location # 6	Location # 7
01.	Location of Sampling	---	Nr. Crusser area	Nr. Vibrating sreen	Nr. Transfer point
02.	Date of sampling	---	29-04-2017	29-04-2017	29-04-2017
03.	Time of sampling	Hr	9.20	16.40	16.50
04.	Dominant Wind Direction (From)	---	NE to SW	NE to SW	NE to SW
05.	Average Wind Speed	Km/Hr	7 to 16	7 to 16	7 to 16
06.	Average flow rate during sampling	m ³ /minute	1.04	1.08	1.06
07.	Permissible limit for SPM	µg/m ³	3000	3000	3000
08.	Measured Concentration of SPM	µg/m ³	1924	2113	1815

Instruments Used : Envirotech HVS APM 430 & Ecotech RDS - AAS 217

Calibration due on. 1) 15/05/2017

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Analyst



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Ref. No. : 702/04/2017-18

Date : 06/05/2017

REPORT OF FUGITIVE EMISSION MONITORING

Name of company : **Gallantt Metal Limited**

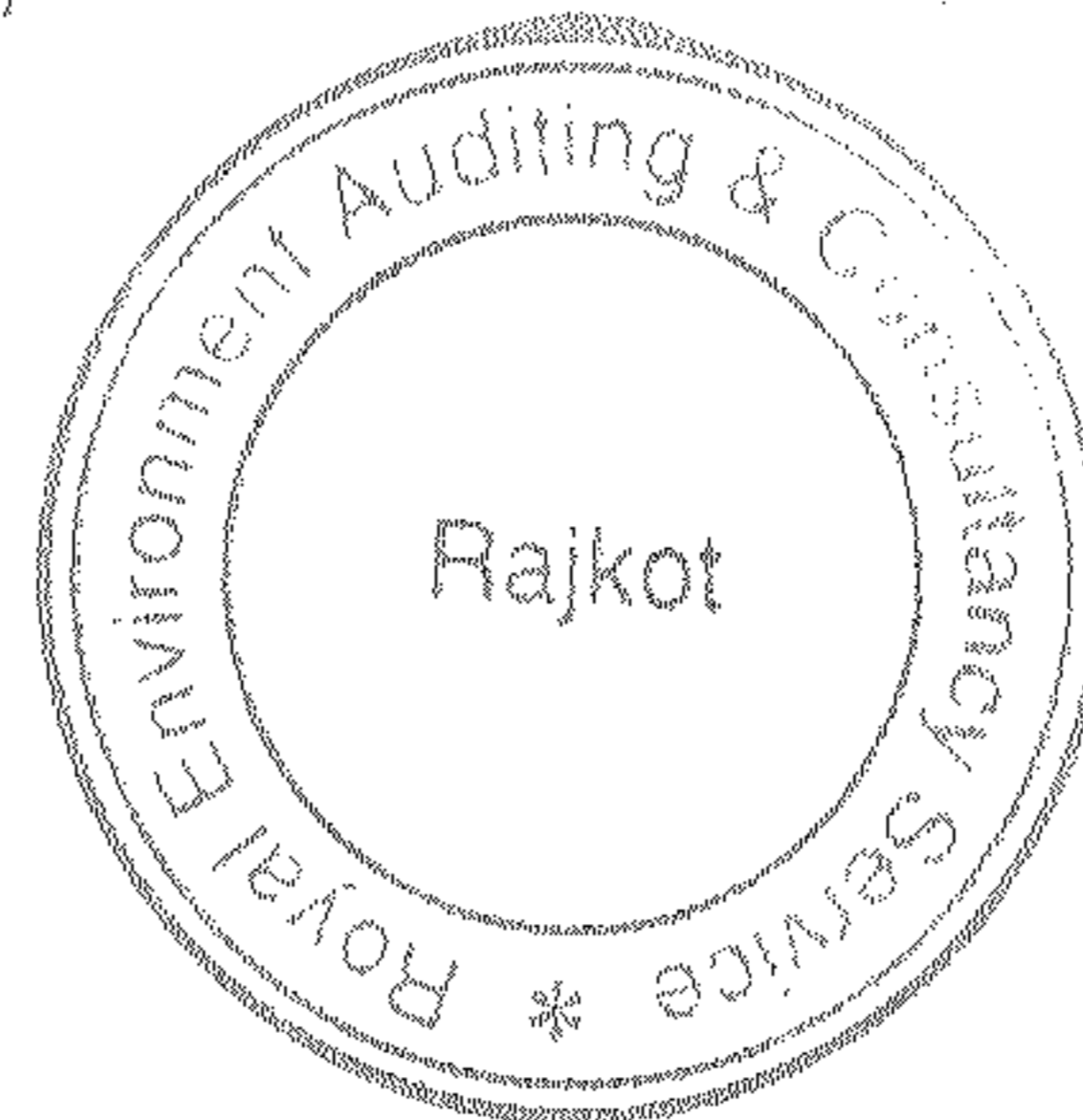
Survey No. 175/1,
Near toll gate,
Village : Samakhyali,
Taluka : Bhachau,
Kutch, Gujarat.

Sampling Site: Raw material feeder area

Sr. No.	Particulars	Unit	Location # 8	Location # 9	Location # 10
01.	Location of Sampling	---	Nr. Feeder area	Nr. mixing Feeder area	Nr. Transfer point
02.	Date of sampling	---	29-04-2017	29-04-2017	29-04-2017
03.	Time of sampling	Hr	17.10	17.20	17.30
04.	Dominant Wind Direction (From)	---	NE to SW	NE to SW	NE to SW
05.	Average Wind Speed	Km/Hr	5 to 18	5 to 18	5 to 18
06.	Average flow rate during sampling	m ³ /minute	1.02	1.08	1.06
07.	Permissible limit for SPM	µg/m ³	3000	3000	3000
08.	Measured Concentration of SPM	µg/m ³	1826	1913	1753

Instruments Used : Envirotech HVS APM 430 & Ecotech RDS - AAS 217

Calibration due on. 1) 15/05/2017



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Ref. No. : 703/04/2017-18

Date : 06/05/2017

REPORT OF FUGITIVE EMISSION MONITORING

Name of company : **Gallantt Metal Limited**

Survey No. 175/1,

Near toll gate,

Village : Samakhyali,

Taluka : Bhachau,

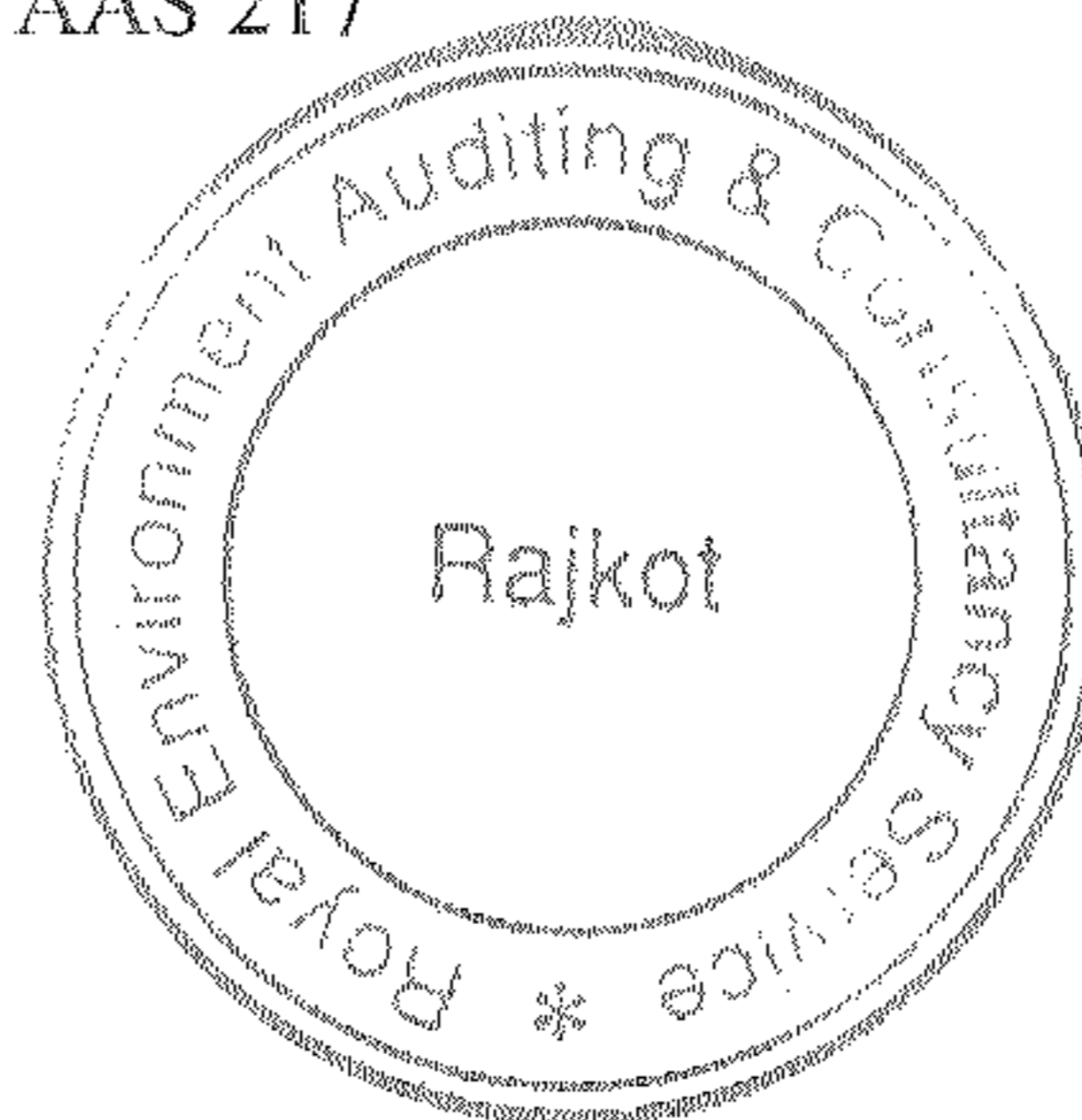
Kutch, Gujarat.

Sampling Site: Cooler Discharge Area

Sr. No.	Particulars	Unit	Location # 11	Location # 12
01.	Location of Sampling	---	Nr. Wagon tippler	Nr. Screen area
02.	Date of sampling	---	30-04-2017	30-04-2017
03.	Time of sampling	Hr	7.00	7.10
04.	Dominant Wind Direction (From)	---	NE to SW	NE to SW
05.	Average Wind Speed	Km/Hr	7 to 18	7 to 18
06.	Average flow rate during sampling	m ³ /minute	1.08	1.09
07.	Permissible limit for SPM	µg/m ³	3000	3000
08.	Measured Concentration of SPM	µg/m ³	1954	1810

Instruments Used : Envirotech HVS APM 430 & Ecotech RDS - AAS 217

Calibration due on. 1) 15/05/2017



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Ref. No. : 704/04/2017-18

Date : 06/05/2017

REPORT OF FUGITIVE EMISSION MONITORING

Name of company : **Gallantt Metal Limited**
Survey No. 175/1,
Near toll gate,
Village : Samakhyali,
Taluka : Bhachau,
Kutch, Gujarat.

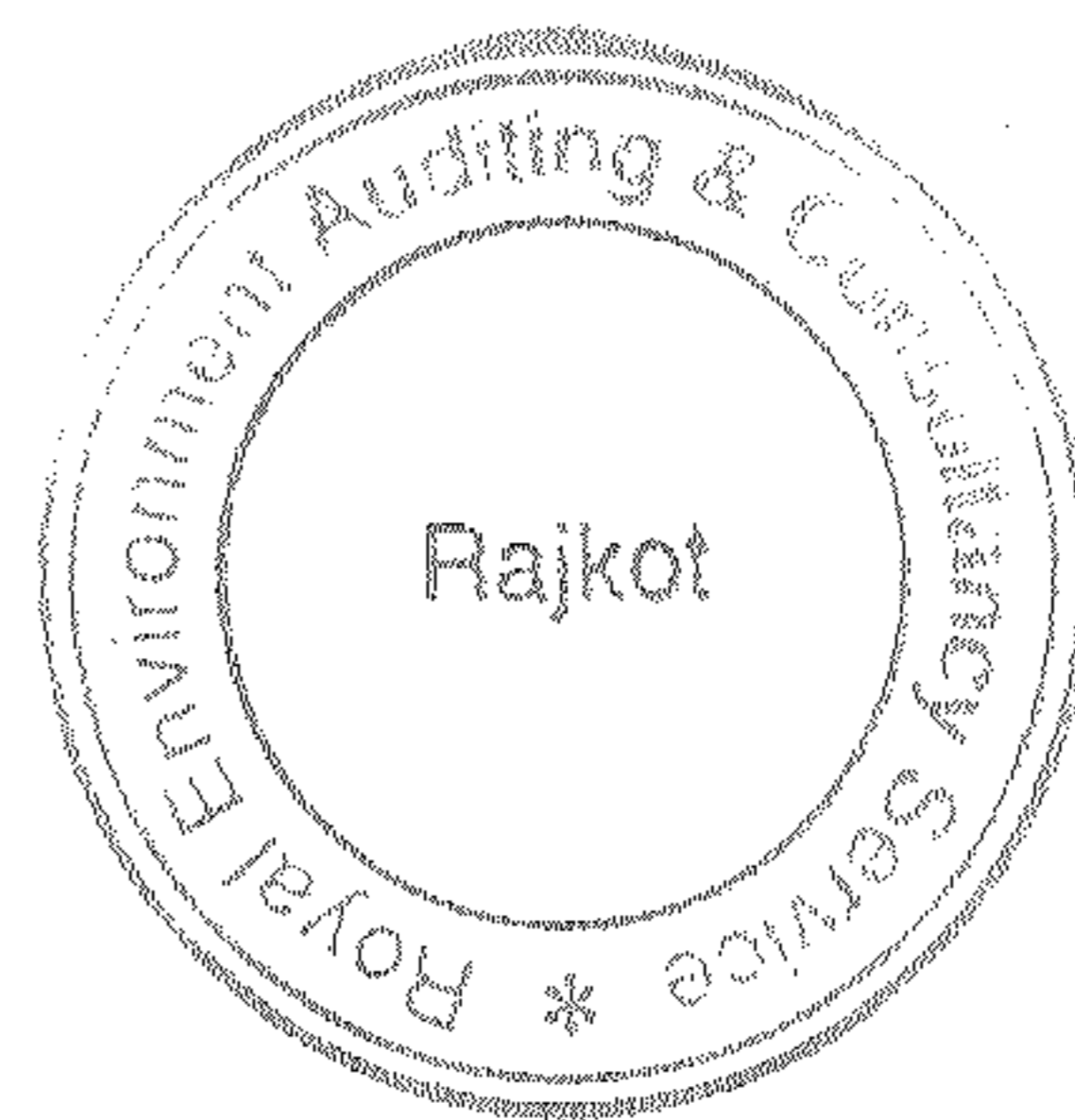
Sampling Site: Product Processing area

Sr. No.	Particulars	Unit	Location # 13	Location # 14	Location # 15	Location # 16
01.	Location of Sampling	---	Nr. Intermediate stock bin area	Nr. Screening plant	Nr. Magnetic saprating plant	Nr. Transfer plant
02.	Date of sampling	---	30-04-2017	30-04-2017	30-04-2017	30-04-2017
03.	Time of sampling	Hr	7.20	7.30	7.45	15.15
04.	Dominant Wind Direction (From)	---	NE to SW	NE to SW	NE to SW	NE to SW
05.	Average Wind Speed	Km/Hr	6 to 16	6 to 16	6 to 16	5 to 17
06.	Average flow rate during sampling	m ³ /minute	1.09	1.06	1.11	1.02
07.	Permissible limit for SPM	µg/m ³	3000	3000	3000	3000
08.	Measured Concentration of SPM	µg/m ³	1356	1754	1648	1852

Instruments Used : Envirotech HVS APM 430 & Ecotech RDS - AAS 217

Calibration due on, 1) 15/05/2017

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Ref. No. : 705/04/2017-18

Date : 06/05/2017

REPORT OF FUGITIVE EMISSION MONITORING

Name of company : **Gallantt Metal Limited**

Survey No. 175/1,

Near toll gate,

Village : Samakhyali,

Taluka : Bhachau,

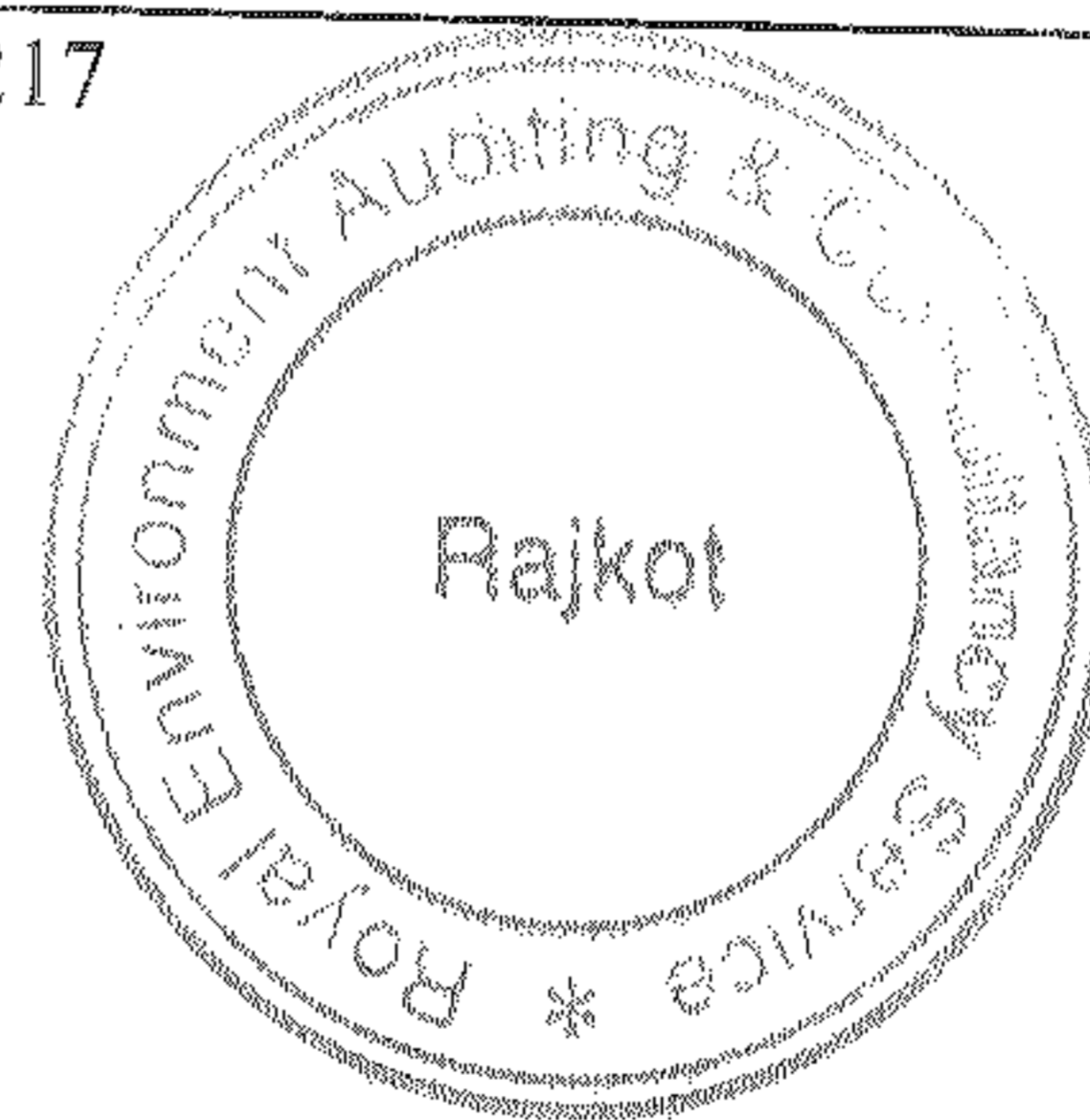
Kutch, Gujarat.

Sampling Site: Product Processing area

Sr. No.	Particulars	Unit	Location # 17	Location # 18	Location # 19
01.	Location of Sampling	---	Nr. Oversize discharge area	Nr. Product separation	Bagging area
02.	Date of sampling	---	30-04-2017	30-04-2017	30-04-2017
03.	Time of sampling	Hr	15.30	15.45	15.55
04.	Dominant Wind Direction (From)	---	NE to SW	NE to SW	NE to SW
05.	Average Wind Speed	Km/Hr	7 to 18	7 to 18	7 to 18
06.	Average flow rate during sampling	m ³ /minute	1.02	1.06	1.12
07.	Permissible limit for SPM	µg/m ³	3000	3000	3000
08.	Measured Concentration of SPM	µg/m ³	1678	1822	1716

Instruments Used : Envirotech HVS APM 430 & Ecotech RDS - AAS 217

Calibration due on. 1) 15/05/2017



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