



Navin Sinha <navin.sinha@ramkrishnaforgings.com>

Environmental Annual Statement (Form-V) of Ramkrishna Forgings Ltd. Plant- 5

1 message

legal@ramkrishnaforgings.com <legal@ramkrishnaforgings.com>

21 September 2022 at 11:51

To: Jamshedpur JSPCB <jspcb.jsr@gmail.com>

Cc: JSPCB RANCHI <ranchijspcb@gmail.com>

Respected Sir,

Please find, We are submitting here with the **Environmental Annual Statement (Form-V) for the period 2021-22 of our unit Ramkrishna Forgings Ltd. Plant- 5.**

Thanks and Regards

 **P5_Environment Statement 2021-22.pdf**
4693K

RAMKRISHNA FORGINGS LIMITED, PLANT-5
KOLABIRA, SARAIKELA-KHARSAWAN

ENVIRONMENTAL STATEMENT

FOR
YEAR 2021-2022

**ENVIRONMENTAL STATEMENT
FORM -V
(SEE RULE 14)**

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE 31ST MARCH 2021

PART - A

1. Name and address of the
Owner /Occupier of the
Industry operation or process : **SRI MAHABIR PRASAD JALAN, CHAIRMAN**
Ramkrishna Forgings Limited, Plant-V
Vill: Bholadih, PO- Kalebira, Thana-Saraikela
District – Saraikela-Kharsawan
Jharkhand - 833220

2. Industry Category

Primary – (S/C Code) : Large Scale

Secondary – (S/C Code)

3. Production Capacity – Units : Various Forged, Machined and Finished
Components – 130000 TPA

4. Year of establishment

Commercial production : 2014 (Expansion in January 2016 & 2022)

5. Date of last environmental
Statement submitted : 22.09.2021

PART - B

WATER AND RAW MATERIAL CONSUMPTION

1. Water consumption m3/d	:	245
Process	:	58
Cooling	:	107
Domestic	:	80

Name of Product	Process water consumption per unit of the product output	
	During the previous Financial year	During the Current Financial year
Various Forged, Machined & Finished Components	1.44 KL/MT	1.40 KL/MT

2. Raw Material Consumption

* Name of Raw Materials output	Name of product	Consumption of Raw Material Per unit of Out put	
		During the previous Financial year	During the current Financial year
Carbon Alloy Steel	Various Forged, Machined & Finished Components	57212 MT	92906 MT

Industry may use codes if disclosing details of raw material worth contractual obligations otherwise all industries have to name the raw materials used.

PART - C

Pollution discharged to Environment/unit of output (Parameter as specified in the consent issued)

(1)	Pollutants	Quantity of pollutant pollutants in discharge from with reasons	Concentrations of prescribed standards (mass/volume)	Percentage of variation
(a)	WATER	Fresh evaluation work has been done by M/s Gems Project Pvt. Ltd. duly		
(b)	AIR	authorized by JSPCB. Report enclosed		

PART - D

Hazardous Wastes

(as specified under Hazardous Wastes/Management and Handling Rules, 1989)

Hazardous Wastes	Total Quantity (kg.)	
	During the previous Financial year	During the current Financial year
(a) From process		
• Used/Waste Oil	5.880 KL	57.330 KL
• Used/Waste Grease	2.502 T	2.380 MT
• Paint Sludge	30.280 MT	59.680 MT
• ETP Sludge	51.660 MT	133.040 MT
• Oil Soaked Cotton/Hand Gloves	0.440 MT	0.480 MT
(b) From pollution Control Facilities	Nil	Nil

PART - E

Solid Wastes

	Total Quantity (MT)	
	During the previous Financial year	During the current Financial year
(a) From process	15517 MT	23867 MT
(b) From pollution Control Facilities	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit	Total Quantity sold for reutilisation	
(2) Sold		
(3) Disposed		

PART - F

Please specify the characterizations (in term of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes:

Two types of waste generated- Hazardous and Non Hazardous.

Hazardous Wastes i.e. Used/Waste Oil and Grease etc. It is stored at demarcated storage area under Shed in steel barrels and sold to the authorized recycler, handlers at regular intervals.

ETP Sludge, Paint Sludge, Oil Soaked cotton etc. are disposed to the cement co- processors units registered with JSPCB/CPCB.

Non- Hazardous Wastes i.e. Raw material scrap, used drums and paper waste etc. are regularly disposed to the authorized vendors.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production:

Installation of 150 and 10 KLD ETP and 62 KLD STP for reusing the waste water, RWHS for maintaining the ground water table, underground rain water storage tank, implementation of Stack and Fume extraction system at various points, CAAQMS and SEMS installation, fixed type water sprinkler system installed beside the roads, plantation at various locations within the premises etc.

PART - H

Additional measures /investment proposal for environmental protection including abatement of pollution, prevention of pollution:

Environment protection has been given full consideration during the designing of the plant.

A concentric tree plantation with a cascading effect is proposed keeping in the view Plant height, leaf spread and characteristics, availability of local species, resistance to pollutant, location of sources, plant layout, meteorological condition, water availability etc.

A three - tier plantation for the boundaries is proposed comprising of an outermost belt of tall trees, which shall act as barrier, middle core acting as air cleaner and the innermost core, which may be termed as absorptive layer consisting of trees, which are known to be tolerant to pollutants.

PART-I

Any other particulars for improving the quantity of the environment.

The latest technology available/suggested by the Board in order to improve the environment is being adhered.

Tree Plantation at RKFL Plant V

Sl No.	Name of Tree	15-16	16-17	17-18	18-19	19-20	20-21	21-22	Total
01	Neem Tree	99	110			20	217		446
02	Mehgini Tree	567	550						1117
03	Guava	41		40	40	17		4	142
04	Blackberry	1		35	10			5	51
05	Litchi	0		15	10			2	27
06	Sagwan Tree	145	140				79		364
07	Gul Mohar Tree	313	150			26	47		536
08	Ashok	122	100	15	47	28			312
09	Fycase Tree	0	15						15
10	Aunla Tree	8	9						17
11	Bel	142							142
12	Juhi	84							84
13	Tulsi	303				25			328
14	Bottle Palm	103				26			129
15	FiCosh	30							30
16	Sheesham	9				12	50		71
17	Anar	18						2	20
18	Papaya	1							1
19	Orhul	8				18			26
20	Karanj	2				19	50		71
21	Lemon	1				12		4	17
22	Coconut	10							10
23	Mango	1					50	16	67
24	Chandan						5		5
25	Gamhar						19		19
26	Karam						30		30
27	Minikaranj						26		26
28	Moulasi						10		10
29	Jackfruit							9	9
30	Orange							4	4
31	Shahtoot							2	2
Total		2008	1074	105	107	203	583	48	4128



GEMS PROJECTS PVT. LTD.

(ENVIRONMENTAL LABORATORY DIVISION)

APPROVED BY JHARKHAND STATE POLLUTION CONTROL BOARD | ISO9001 & OHSAS 18001 CERTIFIED

TEST REPORT

Sample Description	Ambient Air Quality	Sampling Details	
Job Registration ID	G/JRN/220108/AR-01	Sampling Date	06th-07th Jan. 2022
ULR Number	.....	Sample collected by	Viwajit raj & Team
Work Order No.	JSPCB-12084258	Sample receiving date	08-01-2022
Report Release Date	02-02-2022	Test Starting Date	10-01-2022
Issue to:		Test Completion date	15-01-2021
M/s Ramkrishna Forgings V Ltd, Plant VIII- Bholadih, (Baliguma), PO- Kolabira, PS-Seraikela Dist- Seraikela Kharsawan (Jharkhand)		Sampling Protocol	IS 5182 (Part-23,2,6)
		Industry Type	Forging Plant
		Metrological Information	
		Average Temperature(°C)	24
		Weather Condition	Clear
Wind Direction	North-West	Relative Humidity(%)	75
Company Status	Operating	Barometric Pressure	750 (in mmHg)

Sampling Location	(A) Near Shade No-04	(B) Near Gate No-02	(C) Near ETP Plant
Latitude	(24°47'41" N)	(24°49'07" N)	(24°50'42" N)
Longitude	(86°07'44" E)	(86°08'01" E)	(86°08'07" E)
Sampling Time	02.00 AM - 02.00 AM	02.10 AM - 02.10 AM	02.20 AM - 02.20 AM

Test Results

Sampling Time	Parameters	Unit	Sampling Location			Permissible Limit (as per NAAQ-2009)
	Test Method		Site A	Site B	Site C	
02.00Pm to 02.00Pm	Particulate Matter (PM10)	µg/m ³	98.05	92.83	92.06	100
	IS 5182(Part-23)					
02.10 Pm to 02.10Pm	Sulphur Dioxide(SO ₂)	µg/m ³	22.4	25.1	27.8	80
	IS 5182(Part-2)					
02.20 Pm to 02.20Pm	Nitrogen Dioxide(NO _x)	µg/m ³	30.4	63.1	43.2	80
	IS 5182(Part-6)					

***** End of Report*****

- Remarks**
- 1) Test values are found within the prescribed limit of National Ambient Air Quality(NAAQ 2009).
 - 2) The Test Report is in accordance with sample received and the test parameters.
 - 3) Any dispute is subject to Ranchi Jurisdiction Only.
 - 4) The Test report shall not be reproduced partially or whole for advertising or Legal entity.
 - 5) The Test report shall not be reproduced, without the written approval of laboratory In-charge.

Anshu Gupta
22/02/22
Anshu Gupta
Tested By (Analyst)



Priyanka Mehta
02/02/2022
Priyanka Mehta
Checked by (Section In-charge)

Sanjeev Kumar Singh
02/02/22
Sanjeev Kumar Singh
Issued By (Lab In-charge)
Lab In-Charge

Page 1 of 1
Gems Projects Pvt. Ltd

Registered Office: 1236/2 Lajpat Nagar, Near Lala Lajpat Rai School, Pundag, Argora, Ranchi, Jharkhand-834004
Contact: +91-9431115961, +91-9934307900
E-mail: gems.projects@yahoo.in, info@gemsgroup.in

Laboratory Address: Harhi Road, VII-Katarpa, Piska Nagri, Jharkhand-835303, Contact: +91-9508707378,
E-mail: gemslab17@gmail.com
Website: www.gemsgroup.in



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TEST REPORT

Sample Description	Noise Level Monitoring	Sampling Details	
Job Registration ID	G/JRN/220108/NOISE-01	Sampling Date	06th-07th Jan. 2022
ULR Number	.....	Sample collected by	Vishwajit Raj& Team
Work Order No.-	JSPCB-12084258	Sample receiving date	08-01-2022
Report Release Date	02-02-2022	Test Starting Date	10-01-2022
Issue to:		Test Completion date	15-01-2022
M/s Ramkrishna Forgings V Ltd,Plant Vill- Bholadih,(Baliguma), PO- Kolabira, PS-Seraikela Dist- Seraikela Kharsawan (Jharkhand)		Sampling Protocol	IS 9989-1981(RA-2001)
		Test Method	IS 9989-1981(RA-2001)
		Industry Type	Forging Plant
		Company Status	Operating
		Metrological Information	
		Average Temperature(C)	24
Weather Condition	Clear		
Wind Direction	North -West	Relative Humidity %	75

Test Results

Sampling Time	Sampling Location	Parameters	Units	Day Time	Night Time
02.10 Pm to 02.10Pm	A. Near Shade No- 4 (22°47'41"N 86°07'44"E)	Leq	dB (A)	54.9	35.6
02.20 Pm to 02.20Pm	B. Near Gate No- 2 (22°49'07"N 86°08'01" E)	Leq	dB (A)	58.9	39.2
02.30 Pm to 02.30Pm	C. Near ETP Plant (22°50'42"N 86°08'07"E)	Leq	dB (A)	59.8	42.9

***** End of Report*****

Remarks

- All values are observed well within the limit
- (1) dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale(A).
 - (2) Leq = Level Equivalent.
 - (3) Day Time - From 6:00 Am to 10:00Pm, Night Time - From 10:00 PM to 6:00 Am
 - (4) The Noise Pollution (Regulation and Control) Rules, 2000, (CPCB)

Area/Zone	Day Time/Night Time
Industrial Area	75/70, Limits in dB(A)

If any dispute is subject to Ranchi Jurisdiction Only.

This Test report shall not be reproduced partially or whole for advertising or Legal entity.

The Test report shall not be reproduced, without the written approval of laboratory In-charge.

Anshu Gupta
26/12/22
Anshu Gupta
Tested By(Analyst)



Priyanka Mehta
10/01/2022
Checked by(Section In-charge)

Sanjeev Kumar Singh
07/01/2022
Issued By(Lab In-charge)
Lab In-Charge

Registered Office: 1236/2 Lajpat Nagar, Near Lala Lajpat Rai School, Pundag, Argora, Ranchi, Jharkhand-834004
Contact: +91-9431115961, +91-9934307900
E-mail: gems.projects@yahoo.in, info@gemsgroup.in

Laboratory Address: GEMS Projects Pvt. Ltd. Deri, Jharkhand-835303, Contact: +91-9508707378,
E-mail: gemslab17@gmail.com
Website: www.gemsgroup.in



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TEST REPORT

Report Type	Stack Emission Monitoring	Sampling Details	
Job Registration ID	G/JRN/220108/STACK-01	Sampling Date	06-01-2022
ULR Number	.....	Sample Collected By	Viswajit raj & Team
Work Order No.	JSPCB-12084258	Industry Type	Forging Plant
Report Release Date	02-02-2022	Company Status	Operating
Issue to		Sampling Protocol	IS 11255 Part(1,2,7)
M/s Ramkrishna Forgings V Ltd,Plant		Pollution Control System	N/A
Vill- Bholadih,(Baliguma), PO- Kolabira,		Shape Of Stack	Circular
PS-Seraikela Dist- Seraikela Kharsawan		Weather Condition	Clear

General Information			
Stack No. if any			Stack-1,Heat Treatment-1 (Shed-01)
Height of Stack from ground	in metre		21.0
Diameter of stack	in metre		0.80
Height of porthole from ground	in metre		8.00

Fuel Characteristic Report & Oven Description	
Type of Fuel	Propane Gas
Fuel Consumption	N/A
Production Capacity	.....
Total No. of Oven	.....
Oven were in running	.....

Result of Analysis	unit	Result	Method
Ambient temperature	in °C	24	IS 11255 : part(1)
Stack gas temperature	in °C	130	IS 11255 : part(1)
Stack gas velocity	in m/s	7.84	IS 11255 : part(3)
Volumetric flow rate	in Nm ³ /hr	9564.12	IS 11255 : part(3)
Concentration of Particulate Matter	in mg/Nm ³	30.30	IS 11255 : part(1)
Concentration of Sulphur dioxide	in mg/Nm ³	20.12	IS11255 : part(2)
Concentration of Oxides of Nitrogen	mg/Nm ³	22.16	CPCB Method

Emission Rate	Unit	Result
Dust	mg/Nm ³	0.28
Sulphure dioxide	mg/Nm ³	0.19
Nitrogen Dioxide	mg/Nm ³	0.21

***** End of Report*****

Remarks

Dust Concentration was found within the prescribed limit.

- 1) The Test Report is in accordance with sample received and the test parameters.
- 2) Any dispute is subject to Ranchi Jurisdiction Only.
- 3) The Test Report shall not be reproduced partially or whole for advertising or Legal entity.
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Anshu Gupta (Tested by)
(Analyst)



Priyanka mehta (Checked by)
(Section In-charge)

Sanjeev Kumar Singh (Issued By)
Laboratory In-charge

Registered Office: 1236/2 Lajpat Nagar, Near Yala Lajpat Rai School, Pundag, Argora, Ranchi, Jharkhand-834004
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Laboratory Address: Harhi Road, Vill-Katara, Piska Nagri, Jharkhand-835303, Contact: +91-9508707378,
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TEST REPORT

Report Type	Stack Emission Monitoring	Sampling Details	
Job Registration ID	G/JRN/220108/STACK-02	Sampling Date	06-01-2022
ULR Number	.....	Sample Collected By	Viswajit raj & Team
Work Order No.	JSPCB-12084258	Industry Type	Forging Plant
Report Release Date	02-02-2022	Company Status	Operating
Issue to	M/s Ramkrishna Forgings V Ltd, Plant Vill- Bholadih, (Baliguma), PO- Kolabira, PS-Seraikela Dist- Seraikela Kharsawan	Sampling Protocol	IS 11255 Part(1,2,7)
		Pollution Control System	N/A
		Shape Of Stack	Circular
		Weather Condition	Clear

General Information			
Stack No. if any			Stack-2 Heat Treatment-2 (Shed-01)
Height of Stack from ground	in metre		21.0
Diameter of stack	in metre		0.80
Height of porthole from ground	in metre		8.00

Fuel Characteristic Report & Oven Description	
Type of Fuel	Propane Gas
Fuel Consumption	68 Kg/MT
Production Capacity	.....
Total No. of Oven	.....
Oven were in running	.....

Result of Analysis	unit	Result	Method
Ambient temperature	in °C	24	IS 11255 : part(1)
Stack gas temperature	in °C	132	IS 11255 : part(1)
Stack gas velocity	in m/s	7.84	IS 11255 : part(3)
Volumetric flow rate	in Nm ³ /hr	9852.28	IS 11255 : part(3)
Concentration of Particulate Matter	in mg/Nm ³	40.14	IS 11255 : part(1)
Concentration of Sulphur dioxide	in mg/Nm ³	24.12	IS11255 : part(2)
Concentration of Oxides of Nitrogen	in mg/Nm ³	30.3	CPCB Method

Emission Rate	Unit	Result
Dust	mg/Nm ³	0.39
Sulphure dioxide	mg/Nm ³	0.23
Nitrogen Dioxide	mg/Nm ³	0.29

***** End of Report*****

Remarks

- Dust Concentration was found within the prescribed limit.
- 1) The Test Report is in accordance with sample received and the test parameters.
- 2) Any dispute is subject to Ranchi Jurisdiction Only.
- 3) The Test Report shall not be reproduced partially or whole for advertising or Legal entity.
- 4) The Test Report shall not be reproduced without the written approval of laboratory In-charge.

Anshu Gupta
27/2/22
Anshu Gupta(Tested by)
(Analyst)



Priyanka mehta
02/02/2022
Priyanka mehta(Checked by)
(Section In-charge)

Sanjeev Kumar
02/02/2022
Sanjeev Kumar (Lab In-charge)
(Lab In-charge)

Registered Office: 1236/2 Lajpat Nagar, Near Zala Lajpat Rai School, Pundag, Argora, Ranchi, Jharkhand-834004
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Laboratory Address: Harm Road, In Kusaipada, Kusaipada, Ranchi, Jharkhand-835303, Contact: +91-9508707378,
E-mail: gemslab17@gmail.com
Website: www.gemsgroup.in



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TEST REPORT

Report Type	Stack Emission Monitoring	Sampling Details	
Job Registration ID	G/JRN/220108/STACK-03	Sampling Date	06-01-2022
ULR Number	.....	Sample Collected By	Viswajit raj & Team
Work Order No.	JSPCB-12084258	Industry Type	Forging Plant
Report Release Date	02-02-2022	Company Status	Operating
Issue to	M/s Ramkrishna Forgings V Ltd, Plant Vill- Bholadih, (Baliguma), PO- Kolabira, PS-Seraikela Dist- Seraikela Kharsawan	Sampling Protocol	IS 11255 Part(1,2,7)
		Pollution Control System	N/A
		Shape Of Stack	Circular
		Weather Condition	Clear

General Information			
Stack No. if any			Stack-03, Heat Treatment-1 (Shed-II)
Height of Stack from ground	in metre		21.0
Diameter of stack	in metre		0.60
Height of porthole from ground	in metre		8.00

Fuel Characteristic Report & Oven Description	
Type of Fuel	Propane Gas
Fuel Consumption	68 Kg/MT
Production Capacity	.....
Total No. of Oven	.....
Oven were in running	.....

Result of Analysis	unit	Result	Method
Ambient temperature	in °C	22	IS 11255 : part(1)
Stack gas temperature	in °C	144	IS 11255 : part(1)
Stack gas velocity	in m/s	9.12	IS 11255 : part(3)
Volumetric flow rate	in Nm ³ /hr	6184.24	IS 11255 : part(3)
Concentration of Particulate Matter	in mg/Nm ³	30.15	IS 11255 : part(1)
Concentration of Sulphur dioxide	in mg/Nm ³	22.22	IS 11255 : part(2)
Concentration of Oxides of Nitrogen	in mg/Nm ³	26.13	CPCB Method

Emission Rate	Unit	Result
Dust	mg/Nm ³	0.18
Sulphure dioxide	mg/Nm ³	0.13
Nitrogen Dioxide	mg/Nm ³	0.16

***** End of Report *****

Remarks

- Dust Concentration was found within the prescribed limit.
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 - 4) The Test report shall not be reproduced without the written approval of laboratory In-charge.

Anshu Gupta
29/1/22

Anshu Gupta (Tested by)
(Analyst)



Prizanka mehta
02/02/2022

Prizanka mehta (Checked by)
(Section In-charge)

Sanjeev Kumar Singh
02/02/2022

Sanjeev Kumar Singh (Tested By)
(Lab In-charge)

Registered Office: 1236/2 Lajpat Nagar, Near Lala Lajpat Rai School, Pundag, Argora, Ranchi, Jharkhand-834004
Contact: +91-9431115961, +91-9934307900
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Website: www.gemsgroup.in



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TEST REPORT

Report Type	Stack Emission Monitoring	Sampling Details	
Job Registration ID	G/JRN/220108/STACK-04	Sampling Date	07-01-2022
ULR Number	.....	Sample Collected By	Viswajit raj & Team
Work Order No.	JSPCB-12084258	Industry Type	Forging Plant
Report Release Date	02-02-2022	Company Status	Operating
Issue to		Sampling Protocol	IS 11255 Part(1,2,7)
M/s Ramkrishna Forgings V Ltd,Plant Vill- Bholadih,(Baliguma), PO- Kolabira, PS-Seraikela Dist- Seraikela Kharsawan		Pollution Control System	N/A
		Shape Of Stack	Circular
		Weather Condition	Clear

General Information			
Stack No. if any			Stack-04,Heat Treatment-2(Shed-II)
Height of Stack from ground	in metre		21.0
Diameter of stack	in metre		0.60
Height of porthole from ground	in metre		8.00

Fuel Characteristic Report & Oven Description	
Type of Fuel	Propane Gas
Fuel Consumption	68 Kg/MT
Production Capacity	.....
Total No. of Oven	.....
Oven were in running	.....

Result of Analysis	unit	Result	Method
Ambient temperature	in °C	18	IS 11255 : part(1)
Stack gas temperature	in °C	124	IS 11255 : part(1)
Stack gas velocity	in m/s	9.04	IS 11255 : part(3)
Volumetric flow rate	in Nm ³ /hr	6430.25	IS 11255 : part(3)
Concentration of Particulate Matter	in mg/Nm ³	24.36	IS 11255 : part(1)
Concentration of Sulphur dioxide	in mg/Nm ³	28.14	IS11255 : part(2)
Concentration of Oxides of Nitrogen	in mg/Nm ³	32.32	CPCB Method

Emission Rate	Unit	Result
Dust	mg/Nm ³	0.15
Sulphure dioxide	mg/Nm ³	0.18
Nitrogen Dioxide	mg/Nm ³	0.20

***** End of Report*****

Remarks

Dust Concentration was found within the prescribed limit.

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Anshu Gupta
2/2/22
Anshu Gupta (Tested by)
(Analyst)



Prishika mehta
07/02/2022
Prishika mehta (Checked by)
(Section In-charge)

Sanjeev Kumar Singh
07/02/2022
Sanjeev Kumar Singh (Issued By)
(Lab In-charge)

Registered Office: 1236/2 Lajpat Nagar, Near kate Lajpat Rai School, Pundag, Argora, Ranchi, Jharkhand-834004
Contact: +91-9431115961, +91-9934307900
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Laboratory Address: GEMS Projects Pvt. Ltd. Page 1 of 1
Jharkhand-835303, Contact: +91-9508707378,
E-mail: gemslab17@gmail.com
Website: www.gemsgroup.in



GEMS PROJECTS PVT. LTD.

(ENVIRONMENTAL LABORATORY DIVISION)

APPROVED BY JHARKHAND STATE POLLUTION CONTROL BOARD | ISO9001 & OHSAS 18001 CERTIFIED

TEST REPORT

Report Type	Stack Emission Monitoring	Sampling Details	
Job Registration ID	G/JRN/220108/STACK-05	Sampling Date	07-01-2022
ULR Number	.....	Sample Collected By	Viswajit raj & Team
Work Order No.	JSPCB-12084258	Industry Type	Forging Plant
Report Release Date	02-02-2022	Company Status	Operating
Issue to	M/s Ramkrishna Forgings V Ltd, Plant VIII- Bholadih, (Baliguma), PO- Kolabira, PS-Seraikela Dist- Seraikela Kharsawan	Sampling Protocol	IS 11255 Part(1,2,7)
		Pollution Control System	N/A
		Shape Of Stack	Circular
		Weather Condition	Clear

General Information			
Stack No. if any			Stack-05, Paint Shop Hot Water Generator
Height of Stack from ground	in metre		18.0
Diameter of stack	in metre		0.20
Height of porthole from ground	in metre		3.00

Fuel Characteristic Report & Oven Description	
Type of Fuel	Propane gas
Fuel Consumption	40 Kg/hr
Production Capacity	.....
Total No. of Oven	.....
Oven were in running	.....

Result of Analysis	unit	Result	Method
Ambient temperature	in °C	20	IS 11255 : part(1)
Stack gas temperature	in °C	72	IS 11255 : part(1)
Stack gas velocity	in m/s	9.74	IS 11255 : part(3)
Volumetric flow rate	in Nm ³ /hr	942.36	IS 11255 : part(3)
Concentration of Particulate Matter	in mg/Nm ³	14.12	IS 11255 : part(1)
Concentration of Sulphur dioxide	in mg/Nm ³	16.80	IS11255 : part(2)
Concentration of Oxides of Nitrogen	in mg/Nm ³	20.17	CPCB Method

Emission Rate	Unit	Result
Dust	mg/Nm ³	0.01
Sulphure dioxide	mg/Nm ³	0.01
Nitrogen Dioxide	mg/Nm ³	0.01

***** End of Report *****

Remarks

Dust Concentration was found within the prescribed limit.

- 1) The Test Report is in accordance with sample received and the test parameters.
- 2) Any dispute is subject to Ranchi Jurisdiction Only.
- 3) The Test report shall not be reproduced partially or whole for advertising or Legal entity.
- 4) The Test report shall not be reproduced without the written approval of laboratory In-charge.

Anshu Gupta
21/01/22
Anshu Gupta (Tested by)
(Analyst)



Priyanka Mehta
02/07/2022
Priyanka Mehta (Checked by)
(Section In-charge)

Sanjeev Kumar Singh
02/07/2022
Sanjeev Kumar Singh (Issued By)
(Lab In-charge)

Registered Office: 1236/2 Lajpat Nagar, Near 43rd Lajpat Rai School, Pundag, Argora, Ranchi, Jharkhand-834004
Contact: +91-9431115961, +91-9934307900
E-mail: gems.projects@yahoo.in, info@gemsgroup.in

Laboratory Address: Hathi Road, Vili, Katarmau District, Nalgonda, Jharkhand-835303, Contact: +91-9508707378,
E-mail: gemslab17@gmail.com
Website: www.gemsgroup.in



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TEST REPORT

Report Type	Stack Emission Monitoring	Sampling Details	
Job Registration ID	G/JRN/220108/STACK-06	Sampling Date	07-01-2022
ULR Number	.....	Sample Collected By	Viswajit raj & Team
Work Order No.	JSPCB-12084258	Industry Type	Automobiles
Report Release Date	02-02-2022	Company Status	Operating
Issue to	M/s Ramkrishna Forgings V Ltd, Plant Vill- Bholadih, (Balliguma), PO- Kolabira, PS-Seraikela Dist- Seraikela Kharsawan	Sampling Protocol	IS 11255 Part(1,2,7)
		Pollution Control System	N/A
		Shape Of Stack	Circular
		Weather Condition	Clear

General Information			
Stack No. if any			Stack-06, Paint Shop Water Dry Off Oven
Height of Stack from ground	in metre		18.0
Diameter of stack	in metre		0.20x0.20
Height of porthole from ground	in metre		9.50

Fuel Characteristic Report & Oven Description	
Type of Fuel	Propane Gas
Fuel Consumption	N/A
Production Capacity	N/A
Total No. of Oven	.....
Oven were in running	.....

Result of Analysis	unit	Result	Method
Ambient temperature	in °C	22	IS 11255 : part(1)
Stack gas temperature	in °C	134	IS 11255 : part(1)
Stack gas velocity	in m/s	10.20	IS 11255 : part(3)
Volumetric flow rate	in Nm ³ /hr	985.58	IS 11255 : part(3)
Concentration of Particulate Matter	in mg/Nm ³	24.56	IS 11255 : part(1)
Concentration of Sulphur dioxide	in mg/Nm ³	14.47	IS11255 : part(2)
Concentration of Oxides of Nitrogen	in mg/Nm ³	16.58	CPCB Method

Emission Rate	Unit	Result
Dust	mg/Nm ³	0.02
Sulphure dioxide	mg/Nm ³	0.01
Nitrogen Dioxide	mg/Nm ³	0.01

***** End of Report*****

Remarks

- Dust Concentration was found within the prescribed limit.
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 - 3) The Test report shall not be reproduced partially or whole for advertising or Legal entity.
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Anshu Gupta
27/02/22
Anshu Gupta (Tested by)
(Analyst)

Priya Ka Mehta (Checked by)
(Section In-charge)

Sanjeev Kumar Singh
02/02/2022
Sanjeev Kumar Singh (Issued By)
(Lab In-charge)

Registered Office: 1236/2 Lajpat Nagar, Near Kala Lajpat Rai School, Pundag, Argora, Ranchi, Jharkhand-834004
Contact: +91-9431115961, +91-9934307900
E-mail: gems.projects@yahoo.in, info@gemsgroup.in

Laboratory Address: GEMS Projects Pvt. Ltd. Kharsawan, Jharkhand-835303, Contact: +91-9508707378,
E-mail: gemslab17@gmail.com
Website: www.gemsgroup.in



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TEST REPORT

Report Type	Stack Emission Monitoring	Sampling Details	
Job Registration ID	G/JRN/220108/STACK-07	Sampling Date	07-01-2022
ULR Number	.....	Sample Collected By	Viswajit raj & Team
Work Order No.	JSPCB-12084258	Industry Type	Forging Plant
Report Release Date	02-02-2022	Company Status	Operating
Issue to	M/s Ramkrishna Forgings V Ltd, Plant Vill- Bholadih, (Baliguma), PO- Kolabira, PS-Seraikela Dist- Seraikela Kharsawan	Sampling Protocol	IS 11255 Part(1,2,7)
		Pollution Control System	N/A
		Shape Of Stack	Circular
		Weather Condition	Clear
General Information			
Stack No. if any		Stack-07, Paint Shop-Paint Baking Oven	
Height of Stack from ground	in metre	18.0	
Diameter of stack	in metre	0.20*0.20	
Height of porthole from ground	in metre	9.50	

Fuel Characteristic Report & Oven Description	
Type of Fuel	Propane Gas
Fuel Consumption	N/A
Production Capacity	N/A
Total No. of Oven	.....
Oven were in running	.....

Result of Analysis	unit	Result	Method
Ambient temperature	in °C	22	IS 11255 : part(1)
Stack gas temperature	in °C	126	IS 11255 : part(1)
Stack gas velocity	in m/s	8.26	IS 11255 : part(3)
Volumetric flow rate	in Nm ³ /hr	1026.39	IS 11255 : part(3)
Concentration of Particulate Matter	in mg/Nm ³	21.84	IS 11255 : part(1)
Concentration of Sulphur dioxide	in mg/Nm ³	16.80	IS 11255 : part(2)
Concentration of Oxides of Nitrogen	in mg/Nm ³	26.33	CPCB Method

Emission Rate	Unit	Result
Dust	mg/Nm ³	0.02
Sulphure dioxide	mg/Nm ³	0.01
Nitrogen Dioxide	mg/Nm ³	0.02

***** End of Report *****

Remarks

Dust Concentration was found within the prescribed limit.

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Anshu Gupta
2/2/22

Anshu Gupta (Tested by)
(Analyst)



Priyanka mehta (Checked by)
(Section In-charge)

Sanjeev Kumar Singh (Issued By)
(Lab In-charge)

Registered Office: 1236/2 Lajpat Nagar, Near Daria Lajpat
Rai School, Pundag, Argora, Ranchi, Jharkhand-834004
Contact: +91-9431115961, +91-9934307900
E-mail: gems.projects@vahoo.in, info@gemsgroup.in

Laboratory Address: GEMS Projects Pvt. Ltd.,
Jharkhand-835303, Contact: +91-9508707378,
E-mail: gemslab17@gmail.com
Website: www.gemsgroup.in



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TEST REPORT

Report Type	Stack Emission Monitoring	Sampling Details	
Job Registration ID	G/JRN/220108/STACK-08	Sampling Date	07-01-2022
ULR Number	.....	Sample Collected By	Viswajit raj & Team
Work Order No.	JSPCB-12084258	Industry Type	Forging Plant
Report Release Date	02-02-2022	Company Status	Operating
Issue to	M/s Ramkrishna Forgings V Ltd, Plant Vill- Bholadih, (Baliguma), PO- Kolabira, PS-Seraikela Dist- Seraikela Kharsawan	Sampling Protocol	IS 11255 Part(1,2,7)
		Pollution Control System	N/A
		Shape Of Stack	Circular
		Weather Condition	Clear

General Information			
Stack No. if any			Stack-08, DG-1-Stack
Height of Stack from ground	in metre		30.0
Diameter of stack	in metre		0.40
Height of porthole from ground	in metre		15.22

Fuel Characteristic Report & Oven Description	
Type of Fuel	H.S.D
Fuel Consumption	250 lit/hr
Production Capacity	....
Total No. of Oven	....
Oven were in running	....

Result of Analysis	unit	Result	Method
Ambient temperature	in °C	22	IS 11255 : part(1)
Stack gas temperature	in °C	136	IS 11255 : part(1)
Stack gas velocity	in m/s	324.56	IS 11255 : part(3)
Volumetric flow rate	in Nm ³ /hr	3655.64	IS 11255 : part(3)
Concentration of Particulate Matter	in mg/Nm ³	40.30	IS 11255 : part(1)
Concentration of Sulphur dioxide	in mg/Nm ³	96.36	IS11255 : part(2)
Concentration of Oxides of Nitrogen	in mg/Nm ³	128.88	CPCB Method

Emission Rate	Unit	Result
Dust	mg/Nm ³	0.14
Sulphure dioxide	mg/Nm ³	0.35
Nitrogen Dioxide	mg/Nm ³	0.47

***** End of Report*****

Remarks

Dust Concentration was found within the prescribed limit.

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Anshu Gupta
21/2/22
Anshu Gupta (Tested by)
(Analyst)



Prityanka mehta (Checked by)
(Section In-charge)

Sanjeev Kumar Singh
02/02/2022
Sanjeev Kumar Singh (Issued By)
Lab In-Charge

Registered Office: 1236/2 Lajpat Nagar, Near Lala Lajpat Rai School, Pundag, Argora, Ranchi, Jharkhand-834004
Contact: +91-9431115961, +91-9934307900
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Laboratory Address: Harm Road, W. Katarpa, Jharkhand-835303, Contact: +91-9508707378,
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TEST REPORT

Report Type	Stack Emission Monitoring	Sampling Details	
Job Registration ID	G/JRN/220108/STACK-09	Sampling Date	07-01-2022
ULR Number	.....	Sample Collected By	Viswajit raj & Team
Work Order No.	JSPCB-12084258	Industry Type	Forging Plant
Report Release Date	02-02-2022	Company Status	Operating
Issue to	M/s Ramkrishna Forgings V Ltd, Plant VIII- Bholadih, (Baliguma), PO- Kolabira, PS-Seraikela Dist- Seraikela Kharsawan	Sampling Protocol	IS 11255 Part(1,2,7)
		Pollution Control System	N/A
		Shape Of Stack	Circular
		Weather Condition	Clear

General Information

Stack No. if any	Stack-09, DG-2-Stack
Height of Stack from ground	in metre 30.0
Diameter of stack	in metre 0.40
Height of porthole from ground	in metre 15.22

Fuel Characteristic Report & Oven Description

Type of Fuel	H.S.D
Fuel Consumption	250 Lit/hr
Production Capacity	.....
Total No. of Oven	.....
Oven were in running	.....

Result of Analysis	unit	Result	Method
Ambient temperature	in °C	24	IS 11255 : part(1)
Stack gas temperature	in °C	364	IS 11255 : part(1)
Stack gas velocity	in m/s	16.34	IS 11255 : part(3)
Volumetric flow rate	in Nm ³ /hr	3364.36	IS 11255 : part(3)
Concentration of Particulate Matter	in mg/Nm ³	46.36	IS 11255 : part(1)
Concentration of Sulphur dioxide	in mg/Nm ³	130.96	IS11255 : part(2)
Concentration of Oxides of Nitrogen	in mg/Nm ³	188.08	CPCB Method

Emission Rate	Unit	Result
Dust	mg/Nm ³	0.15
Sulphure dioxide	mg/Nm ³	0.44
Nitrogen Dioxide	mg/Nm ³	0.63

***** End of Report *****

Remarks

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Anshu Gupta (Tested by)
(Analyst)



Priyanka mehta (Checked by)
(Section In-charge)

Sanjeev Kumar Singh (Issued By)
(Lab In-charge)

Registered Office: 1236/2 Lajpat Nagar, Near Lajpat Rai School, Pundag, Argora, Ranchi, Jharkhand-834004
Contact: +91-9431115961, +91-9934307900
E-mail: gems.projects@yahoo.in, info@gemsgroup.in

Laboratory Address: GEMS Projects Pvt. Ltd. Road, Argora, Ranchi, Jharkhand-835303, Contact: +91-9508707378,
E-mail: gems17@gmail.com
Website: www.gemsgroup.in



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TEST REPORT

Issued to: M/s Ramkrishna Forgings V Ltd, Plant Vill- Bholadih, (Baliguma), PO- Kolabira, PS-Seraikela Dist- Seraikela Kharsawan (Jharkhand)		Job Registration ID	G/JRN/220108/CH-01
		ULR Number	-----
		Date of Issue	01-02-2022
		Type of Industries	Forging plant
		Sample Description	Drinking Water
Sample Code	G/220108/DW-01	Sampling Date	06-01-2022
Sample Quantity	2000ml	Sampling Location	Near canteen
Sample receiving date	08-01-2022	Sample collected by	Vishwajit Raj & Team
Sample pkg. condition	Sealed in PET Bottle	Sampling Protocol	IS :3025 (Part 1)
Test Start Date	10-01-2022	Test Completion Date	15-01-2022

RESULT

Sl. No.	Parameter	Method	Unit	Result	Permissible limit
1.	pH	IS:3025(Part-11)	---	7.2	6.5-8.5
2.	Temperature	IS:3025(Part-9)	° C	21.0	--
3.	TDS	IS:3025(Part-16)	mg/l	90.0	500-2000
4.	Turbidity	IS:3025(Part-10)	NTU	1.67	1-5
5.	Sulphate (as SO ₄)	IS:3025(Part-24)	mg/l	1.66	200-400
6.	Iron	IS:3025(Part-53)	mg/l	0.11	1.0
7.	Total Hardness	IS:3025(Part-21)	mg/l	42.84	200-600
8.	Alkalinity	IS:3025(Part-23)	mg/l	32.0	200-600
9.	Chloride	IS:3025(Part-32)	mg/l	4.49	250-100
10.	Fluoride	APHA 4500 F D	mg/l	0.92	1.0-1.5
11.	Calcium	IS:3025(Part-40)	mg/l	10.8	75-200
12.	Magnesium	APHA 3500 Mg-B	mg/l	3.04	30-100
13.	Sodium	IS:3025(Part-45)	mg/l	7.62	--
14.	Potassium	IS:3025(Part-45)	mg/l	3.52	--
15.	Ammonia	IS:3025(Part-34)	mg/l	BDL (DL 0.1)	0.5 max ^m

Priyanka Mehta Tested by Laboratory Analyst (Chemical)	Anshu Gupta Checked by Section In-Charge (Chemical)	Sanjeev Kumar Singh Issued by (Laboratory In-Charge) Lab In-Charge
Gems Projects Pvt. Ltd		



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TEST REPORT

Issued to: M/s Ramkrishna Forgings V Ltd, Plant VIII- Bholadih, (Baliguma), PO- Kolabira, PS-Seraikela Dist- Seraikela Kharsawan (Jharkhand)		Job Registration ID	G/JRN/220108/CH-01
		ULR Number	-----
		Date of Issue	02-02-2022
		Type of Industries	Forging Plant
		Sample Description	Drinking Water
Sample Code	G/220108/DW-01	Sampling Date	06-01-2022
Sample Quantity	2000ml	Sampling Location	Near canteen
Sample receiving date	08-01-2022	Sample collected by	Vishwajit Raj & Team
Sample pkg. condition	Sealed in PET Bottle	Sampling Protocol	IS :3025 (Part 1)
Test Start Date	10-01-2022	Test Completion Date	15-01-2022

RESULT

Sl. No.	Parameter	Method	Unit	Result	Permissible limit
16	Nitrate	IS:3025(Part-34)	mg/l	1.23	45 max ^m
17	Free Residual Chlorine	IS:3025(Part-26)	mg/l	ND	0.2-1.0
18	Colour	IS:3025(Part-05)	mg/l	<5	5-15
19	Manganese	IS:3025(Part-59)	mg/l	BDL (DL 0.03)	0.1-0.3
20	Odour	IS:3025(Part-08)	mg/l	Agreeable	Agreeable
21	Aluminum	IS:3025(Part-55)	mg/l	BDL (DL-0.01)	0.03-0.2

*** End of Test report***

Note: - On the basis of the tested parameters, sample complies with the requirement of Drinking Water according to IS 10500:2012

Remarks:

1. The Test Report is in accordance with sample received and the test parameters.
2. For any Query in test Report, Please contact Quality Manager within 24hrs from the Issue date of Report.
3. The test report shall not be reproduced, without the written approval from the laboratory.
4. Any dispute is subject to Ranchi Jurisdiction Only.
5. The Test report shall not be reproduced partially or whole for advertising or as Legal entity.
6. BDL- Below Detectable Limit; ND- Not Detected; DL- Detectable Limit

<i>Priyanka Mehta</i> 21/02/2022	<i>Anshu Gupta</i> 01/02	<i>Sanjeev Kumar Singh</i> 03/02/2022
Priyanka Mehta	Anshu Gupta	Sanjeev Kumar Singh
Tested by	Checked by	Issued by
Laboratory Analyst (Chemical)	Section In-Charge (Chemical)	(Laboratory In-Charge)
		Lab In-Charge Page 1 of 2 Gems Projects Pvt. Ltd



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TEST REPORT

Issued to: M/s Ramkrishna Forgings V Ltd, Plant Vill- Bholadih, (Baliguma), PO- Kolabira, PS-Seraikela Dist- Seraikela Kharsawan (Jharkhand)		Job Registration ID	G/JRN/220108/CH-01
		ULR Number	-----
		Date of Issue	02-02-2022
		Type of Industries	Forging Plant
		Sample Description	Ground Water
Sample Code	G/220108/GW-01	Sampling Date	07-01-2022
Sample Quantity	2000ml	Sampling Location	Near Storage Water Tank
Sample receiving date	08-01-2022	Sample collected by	Vishwajit Raj & Team
Sample pkg. condition	Sealed in PET Bottle	Sampling Protocol	IS 3025 (Part -1)
Test Start Date	10-10-2022	Test Completion Date	15-01-2022

RESULT

Sl. No.	Parameter	Method	Unit	Result	Permissible limit
1.	pH	IS:3025(Part-11)	.....	7.24	6.5-8.5
2.	Temperature	IS:3025(Part-9)	^o C	20.0	--
3.	TDS	IS:3025(Part-16)	mg/l	750.0	500-2000
4.	Sulphate (as SO ₄)	IS:3025(Part-24)	mg/l	42.51	200-400
5.	Iron	IS:3025(Part-53)	mg/l	1.02	1.0
6.	Total Hardness	IS:3025(Part-21)	mg/l	173.4	200-600
7.	Alkalinity	IS:3025(Part-23)	mg/l	60.0	200-600
8.	Chloride	IS:3025(Part-32)	mg/l	56.48	250-100
9.	Calcium	IS:3025(Part-40)	mg/l	130.5	75-200
10.	Magnesium	APHA 3500 Mg-B	mg/l	1.31	30-100
11.	Sodium	IS:3025(Part-45)	mg/l	74.03	--
12.	Potassium	IS:3025(Part-45)	mg/l	18.14	--
13.	Turbidity	IS:3025(Part-10)	mg/l	1.26	1-5
14.	Odour	IS:3025(Part-08)	mg/l	Agreeable	Agreeable
15.	(Total Suspended Solid) TSS	IS:3025(Part-17)	mg/l	7.0	--
16.	Aluminum	IS:3025(Part-55)	mg/l	0.12	0.03-0.2
17.	Nitrite	IS:3025(Part-34)	mg/l	BDL (DL 0.01)	--
18.	TKN	IS:3025(Part-34)	mg/l	BDL (DL 0.1)	--
19.	Fluoride	APHA 4520 F- D	mg/l	1.19	1.0-1.5
20.	Conductivity	IS:3025(Part-14)	μS/m	1298.0	--

<i>Priyanka mehta</i> 02/02/2022	<i>Anshu Gupta</i> 15/01/2022	<i>Sanjeev Kumar Singh</i> 15/01/2022
Priyanka mehta	Anshu Gupta	Sanjeev Kumar Singh
Tested by	Checked by	Issued by
Laboratory Analyst (Chemical)	Section In-Charge (Chemical)	(Laboratory In-Charge) Lab In-Charge



Gems Projects Pvt. Ltd. Page 1 of 1

Registered Office: 1236/2 Lajpat Nagar, Near Lala Lajpat
Rai School, Pundag, Argora, Ranchi, Jharkhand-834004
Contact: +91-9431115961, +91-9934307900
E-mail: gems.projects@yahoo.in, info@gemsgroup.in

Laboratory Address: Harhi Road, Vil-Katarpa, Piska Nagri,
Jharkhand-835303, Contact: +91-9508707378,
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TEST REPORT

Issued to: M/s Ramkrishna Forgings V Ltd, Plant Vill- Bholadih, (Baliguma), PO- Kolabira, PS-Seraikela Dist- Seraikela Kharsawan (Jharkhand)		Job Registration ID	G/JRN/220108/CH-01
		ULR Number	-----
		Date of Issue	02-01-2022
		Type of Industries	Forging Plant
		Sample Description	Ground Water
Sample Code	G/220108/GW-01	Sampling Date	07-01-2022
Sample Quantity	2000ml	Sampling Location	Near Storage Water Tank
Sample receiving date	08-01-2022	Sample collected by	Vishwajit Raj & Team
Sample pkg. condition	Sealed in PET Bottle	Sampling Protocol	IS 3025 (Part -1)
Test Start Date	10-10-2022	Test Completion Date	15-01-2022

RESULT

Sl. No.	Parameter	Method	Unit	Result	Permissible limit
21.	Acidity	IS:3025(Part-22)	mg/l	35.0	--
22.	Nitrate	IS:3025(Part-34)	mg/l	3.58	--
23.	Phenolic Compounds	IS:3025(Part-43)	mg/l	ND (DL 0.001)	0.01- 0.002
24.	COD	IS:3025(Part-58)	mg/l	276.0	--
25.	Phosphates	IS:3025(Part-31)	mg/l	BDL (DL 0.01)	--
26.	Dissolved Silica	IS:3025(Part-35)	mg/l	9.3	--
27.	Hexavalent Chromium	IS:3025(Part-52)	mg/l	BDL (DL 0.01)	0.05 max
28.	Colour	IS:3025(Part-05)	Hazen	<5	5-15
29.	Salinity	APHA 2520	PSU	4.62	--
30.	Manganese	IS:3025(Part-59)	mg/l	BDL (DL 0.01)	0.1-0.3
31.	Ammonical Nitrogen	IS:3025(Part-34)	mg/l	BDL (DL 0.1)	0.5 max
32.	R Chlorine	IS:3025(Part-26)	mg/l	ND (DL 0.1)	0.2-1.0
33.	Total Volatile Solids	IS:3025(Part-15)	mg/l	671.2	--
34.	Oil and Grease	IS:3025(Part-39)	mg/l	BDL (DL 0.1)	--
35.	Total Solids (TS)	IS:3025(Part-15)	mg/l	782.0	--

*** End of Test report***

Note: - On the basis of the tested parameters, sample complies with the requirement of Drinking Water according to IS 10500:2012

Remarks:

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 Priyanka mehta Tested by Laboratory Analyst (Chemical)	 Anshu Gupta Checked by Section In-Charge (Chemical)	 Sanjeev Kumar Singh Issued by (Laboratory In-Charge) Lab In-Charge
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Gems Projects Pvt. Ltd

Registered Office: 1236/2 Lajpat Nagar, Near Lala Lajpat Rai School, Pundag, Argora, Ranchi, Jharkhand-834004
 Contact: +91-9431115961, +91-9934307900
 E-mail: gems.projects@yahoo.in, info@gemsgroup.in

Laboratory Address: Harhi Road, Vil-Katarpa, Piska Nagri, Jharkhand-835303, Contact: +91-9508707378,
 E-mail: gemslab17@gmail.com
 Website: www.gemsgroup.in



GEMS PROJECTS PVT. LTD.

(ENVIRONMENTAL LABORATORY DIVISION)

APPROVED BY JHARKHAND STATE POLLUTION CONTROL BOARD | ISO9001 & OHSAS 18001 CERTIFIED

TEST REPORT

Issued to: M/s Ramkrishna Forgings V Ltd, Plant Vill- Bholadih, (Baliguma), PO- Kolabira, PS-Seraikela Dist- Seraikela Kharsawan (Jharkhand)		Job Registration ID	G/IRN/220108/CH-01
		ULR Number	-----
		Date of Issue	02-02-2022
		Type of Industries	Forging Plant
		Sample Description	ETP outlet
Sample Code	G/220108/EW-03	Sampling Date	06-01-2021
Sample Quantity	2000ml	Sampling Location	Near ETP Inlet Boundary
Sample receiving date	08-01-2022	Sample collected by	Vishwajit Raj & Team
Sample pkg. condition	Sealed in PP Bottle	Sampling Protocol	IS :3025 (Part 1)
Test Start Date	10-01-2022	Test Completion Date	15-01-2022

RESULT

Sl. No.	Parameter	Test Method	Unit	Result	Permissible limit
1	pH	IS:3025(Part-11)	---	7.07	5.5-9.0
2	Temperature	IS:3025(Part-09)	^o C	20.0	---
3	Total Suspended Solid(TSS)	IS:3025(Part-17)	mg/l	70.0	100,max ^m
4	Chemical Oxygen Demand (COD)	IS:3025(Part-58)	mg/l	245.0	250 ,max ^m
5	Biochemical Oxygen Demand (BOD)	IS:3025(Part-44)	mg/l	28.0	30, max ^m
6	Oil and Grease	IS:3025(Part-39)	mg/l	4.8	10,max ^m

*** End of Test report***

Note : - On the basis of the tested parameters, sample comply with the requirement of Effluent water according to CPCB (The Environment Protection Rules, 1986, Schedule - VI)

Remarks:

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 02/09/2022 Priyanka Mehta	 08/01/22 Anshu Gupta	 15/01/2022 Sanjeev Kumar Singh
Tested by Laboratory Analyst (Chemical)	Checked by Section In-Charge (Chemical)	Issued by (Laboratory In-Charge) Lab In-Charge

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 E-mail: gems.projects@yahoo.in, info@gemsgroup.in

Laboratory Address: Harhi Road, VII-Katarpa, Piska Nagri, Jharkhand-835303, Contact: +91-9508707378,
 E-mail: gemslab17@gmail.com
 Website: www.gemsgroup.in



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TEST REPORT

Issued to: M/s Ramkrishna Forgings V Ltd, Plant Vill- Bholadih, (Baliguma), PO- Kolabira, PS-Seraikela Dist- Seraikela Kharsawan (Jharkhand)		Job Registration ID	G/JRN/220108/CH-01
		ULR Number	-----
		Date of Issue	02-02-2022
		Type of Industries	Forging Plant
		Sample Description	STP outlet
Sample Code	G/220108/EW-02	Sampling Date	06-12-2021
Sample Quantity	2000ml	Sampling Location	Near ETP Outlet Boundary
Sample receiving date	08-01-2022	Sample collected by	Vishwajit Raj & Team
Sample pkg. condition	Sealed in PP Bottle	Sampling Protocol	IS :3025 (Part 1)
Test Start Date	10-01-2022	Test Completion Date	15-01-2022

RESULT

Sl. No.	Parameter	Test Method	Unit	Result	Permissible limit
1	pH	IS:3025(Part-11)	----	7.59	5.5-9.0
2	Temperature	IS:3025(Part-09)	°C	20.0	---
3	Total Suspended Solid(TSS)	IS:3025(Part-17)	mg/l	17.0	100,max ^m
4	Chemical Oxygen Demand (COD)	IS:3025(Part-58)	mg/l	180.0	250 ,max ^m
5	Biochemical Oxygen Demand (BOD)	IS:3025(Part-44)	mg/l	25.0	30, max ^m
6	Oil and Grease	IS:3025(Part-39)	mg/l	1.4	10,max ^m

*** End of Test report***

Note : - On the basis of the tested parameters, sample comply with the requirement of Effluent water according to CPCB (The Environment Protection Rules, 1986, Schedule – VI)

Remarks:

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<i>Priyanka Mehta</i> 02/02/2022	<i>Anshu Gupta</i> 02/02	<i>Sanjeev Kumar Singh</i> 02/02/2022
Priyanka Mehta	Anshu Gupta	Sanjeev Kumar Singh
Tested by	Checked by	Issued by
Laboratory Analyst (Chemical)	Section In-Charge (Chemical)	(Laboratory In-Charge)



Lab In-Charge
Gems Projects Pvt. Ltd