

Ramco Industries Limited

Ref.: RIL/BIH/ 98/18-19/MoEF

Date: 18.04.2018

To

The Director,
Ministry of Env. and Forest, Climate Change
Ranchi Regional Office (ECZ),
Bungalow No. A-2, Shyamali Colony,
Ranchi-834 001

Sub: Half yearly compliance report for the period of Oct- 2017 to March- 2018.

Sir,

With reference to above we are submitting here with the half yearly compliance report of the Environment clearance condition including result of the monitored data for your kind information and record please.

To be noted that it is also in line with your letter ref. No. 105-76/11/EPE/1828, Dated 26.12.2017.

Receipt of the same may kindly be acknowledged.

Yours Faithfully,

For, Ramco Industries Limited,

Pankaj
Pankaj Kumar

Works Manager

CC: Monitoring cell, MoEFCC, Delhi

CPCB, Calcutta.

BSPCB, Patna

File copy.

Encl:

1. Half Yearly compliance report.
2. Work place, Ambient & stack monitoring report, Quarterly.
3. Ambient report weekly.
4. Green belt development of our site.
5. Medical Checkup & associated Picture.
6. CSR-Eye camp, Blanket distribution etc.

SP BIHA <802152>
GSTIN No: APLEEDP0124P
EF 3315785171H
Counter No:1, GP-Code:001
Post: BHOJPUR,
New Delhi, PIN:110003

From: THE DIRECTOR, BIHA
MuzB66grams, 18/04/2018, 13:31
Act:105.00EDP (if not = holiday):00:00:00
COST 99% B, SOST 99%: 8.00
<<Check on www.indiacost.gov.in>>

Delhi



Plot No. A1,
BIADA Industrial Area,
Opp. Mahathin Mai Temple
Bihiya - 802152
Dist : Bhojpur (BIHAR)
Ph. - 06181 - 241016, 241070

SP BIHA <802152>
GSTIN No: APLEEDP0124P
EF 3315785031H
Counter No:1, GP-Code:001
Post: BHOJPUR,
Ranchi, PIN:834001

From: THE DIRECTOR, BIHA
MuzB66grams, 18/04/2018, 13:33
Act:105.00EDP (if not = holiday):00:00:00
COST 99% B, SOST 99%: 8.00
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Ranchi



22011

SP BIHA <802152>
GSTIN No: APLEEDP0124P
EF 3315785251H
Counter No:1, GP-Code:001
Post: BHOJPUR, P. O. #
Kolkata, PIN:700107
From: THE DIRECTOR, BIHA
MuzB66grams, 18/04/2018, 13:32
Act:105.00EDP (if not = holiday):00:00:00
COST 99% B, SOST 99%: 8.00

Kolkata

COMPLIANCE STATUS OF MoFF CONDITIONS

Letter No F.No.J-11011/17/2010-IA II (I)

CONDITIONS	COMPLIANCE STATUS
A - Specific conditions	
i. The project proponent shall adhere to the prescribed BIS standards and law regarding use and handling of asbestos, safety of employee etc. Raw material like asbestos fiber and cement shall be transported in closed containers. Asbestos fiber shall be brought in palletized form in impermeable Bags and under compress condition,	We are following the BIS standards as mention below- IS-11450-For determination of airborne asbestos fibre concentration in work environment. IS-11451-For Safety and health requirements. IS-11769 & IS-11770-For asbestos cement product. IS-12078-For handling of asbestos fibre. IS-12081-For Pictorial warning signs & precautionary notices for asbestos & product containing asbestos. The Raw materials are transported in closed containers. Asbestos is brought in impermeable bags under compressed condition. The bags are handled with fork lift for loading and unloading and for feeding on the BOD machine. Safety gadgets are being used by the workers.
ii. Only Chrysotile white asbestos fiber shall be used. Blue asbestos shall not utilized as raw material in the manufacturing process.	We use only CHRYSOTILE Fibre as raw material in the manufacturing process and we do not use blue asbestos.
iii. There shall be no manual handling/opening of asbestos fiber bags. The company shall install fully automatic asbestos fiber debagging system before commissioning the unit.	There is no manual handling/opening of asbestos Fibre bags. Fibre is stored in polythene woven bags and de bagged in the automatic bag opening device (BOD) wherein the bags are automatically shredded. Thus no manual handling comes into picture due to installation of fully automatic asbestos Fibre debagging system.
iv. Fugitive emissions shall be controlled by bring cement in closed tankers, fly ash covered trucks and asbestos in impervious bags opening inside a closed mixer. Dust collectors shall be provided to Fibre mill, Bag opening device (BOD), Cement & Flyash silos to control emissions. Bag filters followed by wet washer shall be provided at automatic bag opening machine, bag shredder, fiber mill and to cement silo to collect the dust and recycle it into the process fugitive emissions generated from hopper of Jaw Crusher & Pulverizer shall be channelized through hood with proper suction arrangement, Bag filter and stack.	Cement & Flyash are bought in closed Bulker. Fibre bags are opened in fully automatic closed circuit area - called BOD (Bag Opening Device). Duct collectors with cyclone type are used in cement, flyash, fibre silo. In above circuit and pulverized the positive fugitive emission are recycled and used in RM. Heavy duty vacuum cleaner is being used in Fibre mill area. Cement and fly ash are storage in separate silos.
v. The company shall comply with total dust emission limit of 2mg/Nm ³ as notified under the Environment (Protection) Act, 1986. Adequate measures shall be adopt to control the process emission and ensure that the stack emission of asbestos fiber shall not exceed the emission limit of 0.2 fiber/cc. Asbestos fiber in work zone environment shall be maintained with in 0.1 fiber/cc.	We comply with the stated emission standards. The details of Stack Monitoring record and Work place Fibre counting record is attached in ANNEXURE -1 .

For **RAMCO INDUSTRIES LTD.**

Parthiv

(AUTHORISED SIGNATORY)

vi. Bags containing asbestos fiber shall be stored in enclosed area to avoid fugitive emissions of asbestos fiber from damaged bags, if any	The bags containing asbestos are stored in an enclosed asbestos fiber storage area of about 925 sq. m.
vii. Proper house keeping shall be maintained within the plant premises, process machinery, exhaust and ventilation systems shall be laid in accordance with factories act. Better house keeping practices shall be adopted for improvement of the environment within the work environment also. These includes ; a. All monitoring transfer points shall be connected to dust extraction system. b. Leakages or dust from machines and ducts shall be plugged. c. Floor shall be cleaned by vacuum cleaner only. d. Enclosed belt conveyer shall be used instead of manual transportation of asbestos within the premises.	We have complied with the said condition. Proper housekeeping facility with vacuum cleaning of the floor is provided in the plant area. We have a complete closed circuit manufacturing process with enclosed belt conveyer. The asbestos bags are being brought through conveyor to BOD.
viii. Area and stacks shall be undertaken by the project proponents, in addition, the Asbestos fibre count in the work zone area shall be monitor by an independent monitoring agency like;NIOS-ITRC/NCB or any other approved agency and report submitted to the Ministry's Regional Office at Bhubaneswar SPCB and CPCB.	We have our own laboratory set up for workplace. We are sending fibre count slide to the R & D center, Chennai with the Phase contrast Microscope Olympus BX-50, every month wise. In addition to that the Asbestos fibre count in the work zone and the stack are tested by a competent & approved third party monitoring agency (by I R Lab). The details of tested datas at our site by the third party is enclosed in ANNEXURE -1
ix. Total water requirement from ground water shall not exceed 80 cum/day. All the recommendations of the State Ground Water Deptt., Govt. of Bihar shall be implemented in time bound manner.	We have a pond of holding capacity 2070 m3 for rain water harvesting. And we have three recharge pit in different angles to recharge ground water with rain. Daily monitoring is done for consumption of water and consumed as per limit 80cum/day.
x. After five years operation of plant, no ground water shall be used and only rain water shall be used.	At present we are taking water from our pond and ground. We applied to the MoEF for giving the permission to use continue the ground water. Proper inspection and all formalities done, now in waiting for final order in this regard.
xi. As reflected in the Environmental management plan, all the treated effluent shall be recycled and reused in the manufacturing process. No process water shall be discharged outside the premises and 'ZERO' discharge shall be maintained. All the domestic waste water shall be treated in septic tank followed by soak pit and used for green belt development.	We have complied the said condition. There is no discharge of process effluent and entire process water is recycled back into the system & it is ensured zero discharge. All waste water is used for green belt development through pond.
xii. The company shall ensure that the entire solid waste generated including process rejects, cement, fly ash, dust from bag filters and empty asbestos bag shall be recycled back in the manufacturing process. Process sludge shall be 100% recycled and reuse in the process. Hazardous waste shall be ground in dust proof pulverizer with integrated bag filter and recycled back to the process. Asbestos fibres which	We have complied with the said condition. The entire Solid waste generated including process rejects, dust from bag filters and empty asbestos bags are recycled back in the manufacturing process.

<p>can not be further recycled due to contamination of iron dust shall be stored in SDPE lined secured landfill. The disposal facilities for asbestos waste shall be in accordance with the Bureau of Indian Standard Code.</p>	
<p>xiii. The cut and damaged fibre bags shall immediately be repaired. Empty fibre bags will be shredded into fine particles in a bag shredder and recycled into the process, piling of AC sheets shall be done in wet condition only.</p>	<p>It is ensured that we get fibre bags with intact. Damages if any, would immediately be sealed before unloading at our site. There is no manual handling /opening of the fibre bags. The fibre bags are fed into a Bag opening device (BOD) wherein bags are automatically shredded.</p>
<p>xiv. The company shall obtain a certificate from the supplier of chrysotile fibre that it does not contain any toxic or trace metals. A copy of certificate shall be submitted to the Ministry of Environment and forest.</p>	<p>We receive certificates from the suppliers for every lot. Chemical analysis report of chrysotile fibre from supplier has been sent to MoEF. A copy of certificate is attached for your reference. ANNEXURE -3</p>
<p>xv. Regular medical examination of the workers and health monitoring of all the employees shall be carried out and if cases of asbestos are detected, necessary compensation shall be arranged under the existing laws. A competent occupations health physician shall be appointed to carry out medical surveillance. Occupational health of all the workers shall be monitored for lung function test, chest x-ray, sputum for acid-fast-bacilli (AFC) and asbestos body(AB) urine for sugar and albumen, blood tests for TLC,DLC,ESR, Hb and records maintained for at least 40 years from the beginning of the employment or 15 years after the retirement or cessation of employment whichever is later. Occupational health surveillance shall be carried out as per the directives of the Hon'ble supreme court.</p>	<p>Medical examination of employees carried out by competent occupational health physician periodically for Sputum test, Lungs Function Test (PFT), blood tests for TLC,DLC,ESR, Hb, Chest X Ray and general medical check up.</p> <p>Pre employment tests are carried out as per factory act and all records pertaining to health checkup are maintained as per IS : 11451 and factory act.</p> <p>The directive of Supreme court is followed strictly. All records are well maintained and available in office</p> <p>A sample of medical report is attached for your reference. ANNEXURE -4</p>
<p>xvi. To educate the workers, all the work places where asbestos dust may cause hazard shall be clearly indicated as a dust exposure area through the use of display signs which identifies the hazard and the associated health effects.</p>	<p>We have provided display signs of Asbestos fibre for identifying the hazards and associated health effects, at various locations inside the factory. Picture attached for your reference. ANNEXURE -5</p>
<p>xvii. The company shall also undertake rain water harvesting measures and plan of action shall be submitted to the Ministry of Environment and forest within three months.</p>	<p>We made a pond with a size of 2070 m3 for a depth of 5 m for rain water harvesting system. Apart from these, we made three rain water recharge pit in tri angle position.</p>
<p>xviii. All the commitments made to the public during the public hearing / public consultation meeting held on 22nd Nov., 2010 shall be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhubneswar.</p>	<p>Public hearing points are as follows:</p> <ol style="list-style-type: none"> 1. Controlling emission from chimney - it is well controlled and time to time checked by third party. There is no coal based activity. 2. Implementing rain water harvesting: Rain water harvesting pond and recharge pit are made available.
<p>xix. Green belt shall be developed in at least 33% of plant area as per the CPCB guidelines in consultation with DFO.</p>	<p>An effective green belt area is developed in consultation with DFO as per CPCB guidelines. Our developed green belt area is 8 acres which is 40% of</p>

For RAWCO INDUSTRIES LTD.

Parthiv

	our total land area. The details of green belt development of our site are attached in ANNEXURE – 6.
xx. At least 5% of the total cost of the project should be ear marked towards the corporate social responsibility and item wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhubneswar. Implementation of such programme should be ensured accordingly in a time bound manner.	Under Corporate Social Responsibilities an amount of Rs.3530404 expended till 31 st March 2018. In this Year Mega project of an eye camp was organized on 7 th to 9 th Feb-2018. Some of the pictures are enclosed for your reference . Annex 6.
xxi. The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such a fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. the housing may be in the form of temporary structures to be removed after the completion of the project.	We have provided all necessary infrastructure and facilities to our construction labour within the site.
B: GENERAL CONDITIONS	
i. The projects authorities must strictly adhere to the stipulations made by the Bihar Pollution control board and the state government .	We strictly adhere to the stipulations made by the Bihar Pollution Control Board and the State Government.
ii. No further expansion/modifications in the plant shall be carried out with out prior approval of the ministry of environment and forests.	No further expansion/ modifications in the plant will be carried out without prior approval of the Ministry of Environment and Forests.
iii. The gaseous emissions from various process unit shall conform to the load / mass based standards notified by this Ministry on 19 th May, 1993 and standards prescribed from time to time. The state board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.	<u>Our Gaseous emission details</u> Fibre dust emission fibre stack is 1.30 mg/Nm ³ against 2.0 mg/Nm ³ SPM in cement stack is 56.4 µg/m ³ against 100 µg/m ³ SPM in DG set 43.1 µg/m ³ against 75 µg/m ³
iv. At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM 10, SO ₂ and NO _x are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including it's Regional Office at Bhubneswar and the SPCB /CPCB once in six months.	The ambient air quality at four places are monitored and copied with the stated condition. The report of Ambient Air Quality sampling is attached for your reference Annexure – 2
v. Industrial waste water shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st Dec., 1993 or as amended from time to time. The treated waste water shall be utilized for plantation purpose.	All our process water is 100% reused in our manufacturing process .
vi. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including	Noise levels in around the Plant area is well under the limit and it is measured by third party agency – M/s. Shiva Test House (Patna) quarterly at different live

For **RAWCO INDUSTRIES LTD.**

Parbajh

acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz 75 dBA (daytime) and 70 dBA (nighttime).	places in the factory premises as well as shop floor. A report is enclosed for your reference ANNEXURE -2
vii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	All first aid facilities are available with all resources. One doctor and compounder is available. Half yearly health check up through the third party - M/s. Ria Diagnostic, Bangalore is done.
viii. The company shall develop surface water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	We have complied with the said condition. Rain water harvesting pond of size 23x18x5 meter has been developed.
ix. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report further, the company must undertake socio economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	<ol style="list-style-type: none"> 1. Rs.1025000 EYE Camp, 07th Feb'18 to 09th Feb' 2018. 2. Rs.150000 CSR Activity at Dawa Panchayat on 13.01.2018. 3. Rs.55000 Blanket Distribution to weaker section of Ward No. 11, 12 (Bihiya) and of Dawa Panchayat 4. Rs.4000 Smoke Fogging in Bihiya township for the eradication of mosquitoes. 5. Park Development in Bihiya (In Progress Rs.80000 Approx)
x. Requisite amount shall be earmarked towards capital cost and recurring cost / annum for environment pollution control measures to implement the conditions stipulated by the Ministry of environment and forest as well as the State Government. An implementation schedule for implementing all the condition stipulated herein shall be submitted to the Regional Office of the Ministry at Bhubaneswar. The funds so provided shall not be diverted for any other purchase.	<p>Environmental Expenses details are</p> <p>Capital Expenses :- Oct 2017 to Mar- 2018 -Rs.166470.00</p> <p>Recurring Expenses :- Oct-2017 to Mar- 2018 - Rs.1256928.00</p>
xi. A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ Representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	We have complied with the said condition.
xii. The project proponent shall upload the status of compliance of the stipulated environment clearance condition, including results of monitor data on your website and shall update the same periodically. It shall simultaneously be sent to the Regional office of the MOEF at Bhubaneswar. The respective Zonal office of CPCB and the SPCB. The criteria pollutant	<p>The status of complains of the environment clearance condition along with all data has been being uploaded on the website and the same is being send to MoEF Ranchi, CPCB Calcutta, Monitoring cell MoEF Delhi and BSPCB Patna.</p> <p>The relevant display board for critical parameters has been displayed near the main gate in the public</p>

<p>levels namely : PM10 , SO2 , NOx , (ambient levels as well as stack emission) or critical sectoral parameters , indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.</p>	<p>domain,</p>
<p>xiii. The project proponent shall also submit Six Monthly report on the status of the compliance of the stipulated environmental condition including results of monitored data (both in hard copies as well as by e-mail) to the regional office of MOEF, the respective Zonal office of CPCB and the SPCB. The regional office of this ministry at Bhubaneswar /CPCB/SPCB shall monitor the stipulate condition.</p>	<p>The monitoring data has already been sent to the office along with the compliance report for the period of April- 2017 to Sep-2017.</p>
<p>xiv. The environmental statement for each financial year ending 31st March in Formed – V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the Website of the Company along with the status of compliance of environmental condition and shall also be sent to the respective Regional office of MOEF at Bhubaneswar by Email.</p>	<p>Already sent for the financial year 2016-17 , A receipt of BSPCB is attached for your reference , ANNEXURE –7</p>
<p>xv. The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with SPCB and may also be seen at the Website of the Ministry of Environment and Forests at http://envfor.nic.in This shall be advertised within seven days from the date of the issue of the clearance letter , at least in two Local News Papers that are widely circulated in the region of which one shall be in the Vernacular language of the locality concerned and a copy of the same should be forwarded to the regional office at Bhubaneswar.</p>	<p>It is compiled and information given trough newspaper in the Vernacular language of the locality i.e. in Hindi.</p>
<p>xvi. Project authorities shall inform the regional office as well as the Ministry, the date of financial closer and final approval of the project by the concerned authorities and the date of commencing the land development work.</p>	<p>Complied & it was informed.</p>

FBI RAWOL INDUSTRIES LTD.

Parthib
 (Signature)
 (Name)

Ann-06

Trees details in Bihiya Plant are given below:

Sr. No.	Name of Trees	Qty. in Nos.
1.	Neem Tree	435
2.	Jack fruit Tree	58
3.	Mango Tree	230
4.	Semar Jiren Tree	98
5.	Semar Tree	248
6.	Amla Tree	41
7.	Guava Tree	137
8.	Pinut Tree	20
9.	Ashoka Tree	67
10.	Bakin Tree	270
11.	Sagwan Tree	68
12.	Jamun (Syzgium Cumini) Tree	150
13.	Lichee Tree	50
14.	Black Sheesham Tree	284
15.	Sheesham Tree	88
16.	Kadamb Tree	225
17.	Badahal Tree	48
18.	Bel (Shree phal) Tree	8
19.	Banyan Tree	51
20.	Peepal Tree	56
21.	Pakad Tree	42
22.	Gular Tree	27
23.	Guimohor Tree	109
24.	Cheta Chap Tree (Forest tree)	172
25.	Arjun Tree (Forest tree)	71
26.	Brad Tree (Forest tree)	187
27.	Local Tree	277
Total numbers of Trees		3612

For RAWCO INDUSTRIES LTD.

Pankaj M
AUTHORISED SIGNATORY

And-07



Ramco Industries Limited

Plot No. A1,
BIADA Industrial Area,
Opp. Mahathin Mahi Temple,
Bihiya - 802152,
Dist. Bhojpur (BIHAR)
Ph. - 06181 - 241016, 241071

Ref: IIL/BIH/03/18-19/BSPCB

Date: 13.04.2018

To
The Member Secretary,
BIHAR STATE POLLUTION CONTROL BOARD
Parivesh Bhavan
NSB-02, Patliputra Industrial Area,
Patna - 800 010

Sub: Yearly Environmental Statement of Form-V for the Period of April-2017 to March-2018.

Sir,

With reference to above subject, we are submitting here with the environmental statement form-V for the period of April-2017 to March-2018, for your kind information and record please.

Receipt of the same may kindly be acknowledged.

Thanking you,
Yours faithfully,

For, Ramco Industries Limited,

Pankaj
Pankaj Kumar
(Works Manager)



Encl:

- 1. Form-V
- 2. Stack monitoring, water and ambient air analysis report.
- 3. Work zone noise level & fibre count report.

CC: MoEF, Itanchoi.

File copy

Stamp of Bihar State Pollution Control Board, Patna, with handwritten text and date.

Production Details

Month	Total Qty In Mt.
Oct-18	5791
Nov-17	7063.5
Dec-17	4727.8
Jan-18	5292.8
Feb-18	7466.9
Mar-18	8181.8
Total Production	38523.8

RAMCO INDUSTRIES LIMITED

FORM V

Environmental Statement for the financial year ending 31st March 2018.

Part A

i) Name and address of the owner/occupier of the industry operation or process: "P. R. VENKATRAMA RAJA
RAMAMANDIRAM
Tenkasi Road
Rajapalayam - 626 117
TAMILNADU"

ii) Industry category: Primary - (STC Code) / Secondary - (SIC Code) - RED MEDIUM Non-Polluting (Hazardous) / 3292-01
Asbestos Cement Products

iii) Production capacity - Units 120000 MT / Year

iv) Year of establishment. 2011

v) Date of the last environmental statement submitted. 27.04.2017

Part B

Water and Raw Material Consumption

i) Water consumption m³/d
Process }
Cooling } 66.60 m³/day
Domestic }

Name of products	Process water consumption per unit of product output (MT)	
	During the previous financial year 16-17	During the current financial year 17-18
(1) Asbestos Cement Roofing Sheets & Accessories	(1) 0.19	(2) 0.25

For RAMCO INDUSTRIES LTD

[Signature]

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RAMCO INDUSTRIES LIMITED

FORM V

Environmental Statement for the financial year ending 31st March 2018.

Raw Material Consumption

Name of Raw Materials	Name of Products	Consumption of raw materials per unit of output (MT)	
		During the previous financial year 2016-17	During the current financial year 2017-18
1) CEMENT		0.414	0.379
2) FIBER		0.082	0.077
3) FYLASH	Asbestos Cement Roofing Sheets & Accessories	0.27	0.264
4) PULP		0.013	0.014

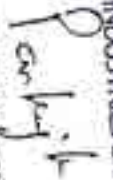
* Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

Part C

Pollution discharged to environment/unit of output
(Parameter as specified in the 'Consent' issued)

C-1. WATER POLLUTION

(1) Pollutants	Quantity of pollutants discharged (Kg/day)	Concentrations of pollutants in discharges (mg/lit)	Percentage of variation from prescribed standards with reasons
Water	NIL	NIL	NIL

For RAMCO INDUSTRIES LTD.

 AUTHORISED SIGNATORY

RAMCO INDUSTRIES LIMITED



FORM V

Environmental Statement for the financial year ending 31st March 2018.

C-2, AIR POLLUTION

(1) Stack Attached to	Quantity of pollutants discharged (Kg/day)	Concentrations of pollutants in discharges (mg/m3)			Percentage of variation from prescribed standards with reasons
		PM	SO ₂	NO _x	
1. Asbestos Dust Collector		1.35	NA	NA	
2. Cement Dust Collector		31.60	NA	10.2	
3. DG Set 1010 KVA					- Within spec limits -
DG1	51.4		36.9	176.2	
DG2	44.8		34.2	162.5	

Part D

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

Hazardous Waste	Total Quantity (KL)	
	During the previous financial year	During the current financial year
1) Discarded asbestos containing product	NIL	NIL
2) Used Oil	NIL	NIL
3) Residue containing oil	NIL	NIL

For RAMCO INDUSTRIES LTD.

Path

AUTHORISED SIGNATORY

RAMCO INDUSTRIES LIMITED

FORM V

Environmental Statement for the financial year ending 31st March 2018.

Part E

	SOLID WASTES	
	During the previous financial year	During the current financial year
(a) From process	987.84	841.35
(b) From pollution control facilities	NA	Negligible
(c) (1) Quantity recycled or re-utilized within the unit	987.84	841.35
(2) Sold	NA	NIL
(3) Disposed	NA	NIL
	Total Quantity (MT)	

Part F

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

Description	Quantity (kg)	Constituent parameter with concentrations	Method of disposal
1) Broken sheets	25 MT		Fully recycled
2) Used Oil	3.21 KL		Fully recycled
3) Residue containing oil	NA	For RAMCO INDUSTRIES LTD.	Fully recycled

AUTHORIZED SIGNATORY

Periyar

RAMCO INDUSTRIES LIMITED

FORM V

Environmental Statement for the financial year ending 31st March 2018.

Part G

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

Description	Expenditure in lacs	
	2016-17	2017-18
1) Water pollution	105705	74709
2) Air pollution	602500	621045
3) Hazardous / Solid waste management		
4) Green belt development	182212	97480
5) Others	326440	661694

Part H

Additional measures / Investment proposal for environmental protection including abatement of pollution, prevention of pollution.

Description	Investment Projections	Estimated cost (lacs)	Year of Installation
1) Water pollution			
2) Air pollution	Bag Filter Procurement	2.10	2018-19
3) Green belt development	Trees plantation	1.20	2018-19
4) Others			

For RAMCO INDUSTRIES LTD.

PcLV

AUTHORIZED SIGNATORY

RAMCO INDUSTRIES LIMITED

FORM V

Environmental Statement for the financial year ending 31st March 2018.

Part I

Any other particulars for improving the quality of the environment.

1. We are storing pulverized powder in jumbo bag with green color marking or reuse.
2. We are using pulverized powder in auto feeding continuously in RM batch.
3. Every year we are planting a lot of sapling with proper identification.
4. Environment cell meet with specified date on monthly basis and headed by unit head.

For RAMCO INDUSTRIES LTD.
P. G. K. J.
Authorised signatory



JR LABS

Ann-4

ENVIRONMENT & OCCUPATIONAL HEALTH SERVICES

Rated as 'No.1' Laboratory for Counting of Asbestos Fibre by Institute of Occupational Medicine, Edinburgh U.K., World Health Organization Collaborating Centre for Occupational Health.

21.03.2018

REPORT ON RESPIRABLE ASBESTOS FIBRE DUST CONCENTRATION

Project : M/s. RAMCO INDUSTRIES Ltd.,
PLOT NO.A-1, BIADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Samples collected by J R Labs using **Analyzed under** : Olympus make, Japan,
Envirotech - I, B X 40 Phase Contrast
Envirotech - II & Microscope
Spectro : SLE-PS-154:II

Flow rate : 1.0 L P M **Specifications** : As per A I A - R T M 1
Sampling Duration : 60 minutes each (IS : 11450) Membrane
Filter Method

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV) AS PER MoEF & PCB = 0.1 fibre per cc of air.

Sl. No.	Date of Sampling	Location	Condition	Dust Concentration fibre /cc of air	Remarks
1	15.03.2018	<u>Static</u> Fibre Godown	Fibre bags were stored properly. Torn bags are sealed. Different Grades of Fibre bags are stored in the Fibre Godown.	< 0.1 (0.028)	---
2	15.03.2018	<u>Personal</u> B O D - E R Mill	The worker carrying the Sampler was engaged in feeding of fibre bags through the Roller Conveyor. Fibre bags are shifted through conveyor from Fibre Godown to B O D. E R Mill and Dust Collector in operation.	< 0.1 (0.008)	---
3	15.03.2018	<u>Static</u> E R Mill - Hydro disintegrator	The Static sample is collected from near E R Mill - Hydro disintegrator during the production of F C C sheets. E R Mill in Operation.	< 0.1 (0.024)	---

For J R LABS

Environmental Hygienist



JR LABS

ENVIRONMENT & OCCUPATIONAL HEALTH SERVICES

Rated as 'No.1' Laboratory for Counting of Asbestos Fibre by Institute of Occupational Medicine, Edinburgh U.K., World Health Organization Collaborating Centre for Occupational Health.

21.03.2018

REPORT ON RESPIRABLE ASBESTOS FIBRE DUST CONCENTRATION

Project : M/s. RAMCO INDUSTRIES Ltd.,
PLOT NO.A-1, BIADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Samples collected by J R Labs using **Analyzed under** : Olympus make, Japan,
S K C Side Kick 51Ex, B X 40 Phase Contrast
Spectro : SLE-PS-154:III & Microscope
S K C 224-PCXR8:I

Flow rate : 1.0 L P M **Specifications** : As per A I A - R T M 1
Sampling Duration : 60 minutes each (IS : 11450) Membrane
Filter Method

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV) AS PER MoEF & P C B = 0.1 fibre per cc of air.

Sl. No.	Date of Sampling	Location	Condition	Dust Concentration fibre /cc of air	Remarks
4	15.03.2018	<u>Personal</u> S F Drum - Cutter Off	The worker carrying the Sampler was cutting the sheets at green stage on main Machine along with another worker.	< 0.1 (0.064)	---
5	15.03.2018	<u>Static</u> Stripping	The Static sample is collected during the stripping of F C C sheets. Plant was in production.	< 0.1 (0.032)	---
6	15.03.2018	<u>Personal</u> M G section - Moulding	The worker carrying the Sampler was making R1 & R2 types of moulded articles during the period of sampling. Semi wet process.	< 0.1 (0.056)	---

For J R LABS

Environmental Hygienist



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Project : M/s. RAMCO INDUSTRIES Ltd.,
PLOT NO.A-1, BIADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Samples collected by J R Labs using **Analyzed under** : Olympus make, Japan,
S K C 224-PCXR8:II, B X 40 Phase Contrast
Casella T13180 - I & Microscope
S K C AirLite

Flow rate : 1.0 L P M **Specifications** : As per A I A - R T M 1
Sampling Duration : 60 minutes each (IS : 11450) Membrane
Filter Method

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV) AS PER MoEF & P C B = 0.1 fibre per cc of air.

Sl. No.	Date of Sampling	Location	Condition	Dust Concentration fibre /cc of air	Remarks
7	15.03.2018	<u>Personal</u> Salvaging Section	The worker carrying the Sampler was reclaiming the sheets. F C C rejected sheets were getting reclaimed. Wet process.	< 0.1 (0.068)	---
8	15.03.2018	<u>Personal</u> Ball Mill	The worker carrying the Sampler was engaged in operation of Ball Mill. Wet process.	< 0.1 (0.040)	---
9	15.03.2018	<u>Personal</u> Pulverizer	The worker carrying the Sampler was feeding broken F C C sheets through the chute of Pulverizer.	< 0.1 (0.076)	---

For J R LABS

Environmental Hygienist





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21.03.2018

REPORT ON RESPIRABLE ASBESTOS FIBRE DUST CONCENTRATION

Project : M/s. RAMCO INDUSTRIES Ltd.,
PLOT NO.A-1, BIADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Samples collected by J R Labs using **Analyzed under** : Olympus make, Japan,
Casella AFC 123 & B X 40 Phase Contrast
S K C Side Kick 51Ex Microscope

Flow rate : 1.0 L P M

Specifications : As per A I A - R T M 1
(IS : 11450) Membrane
Filter Method

Sampling Duration : 60 minutes each

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV) AS PER MoEF & P C B = 0.1 fibre per cc of air.

Sl. No.	Date of Sampling	Location	Condition	Dust Concentration fibre /cc of air	Remarks
10	15.03.2018	<u>Personal</u> Fork Lift Operator	The Fork Lift Operator carrying the Sampler was engaged in different work activities like; shifting of sheets from Destacking area to Stock Yard during the period of sampling.	< 0.1 (0.024)	---
11	15.03.2018	<u>Personal</u> Q C Lab Assistant	The Q C Lab Assistant carrying the Sampler was engaged in different Lab activities during the period of sampling.	< 0.1 (0.040)	---

For J R LABS

Environmental Hygienist





JR LABS

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21.03.2018

REPORT ON RESPIRABLE ASBESTOS FIBRE DUST CONCENTRATION

Project : M/s. RAMCO INDUSTRIES Ltd.,
PLOT NO.A-1, BIADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Samples collected by J R Labs using Spectro : SLE-PS-154:1

Analyzed under : Olympus make, Japan,
B X 40 Phase Contrast
Microscope

Flow rate : 1.0 L P M

Specifications : As per A I A - R T M 1
(IS : 11450) Membrane
Filter Method

Sampling Duration : 60 minutes

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV) AS PER MoEF & P C B = 0.1 fibre per cc of air.

Sl. No.	Date of Sampling	Location	Condition	Dust Concentration fibre /cc of air	Remarks
12	15.03.2018	<u>Static</u> Work Zone Area of the Plant	The Static sample is collected during the production of F C C sheets.	< 0.1 (0.036)	---

For J R LABS

Environmental Hygienist





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21.03.2018

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Project : M/s. RAMCO INDUSTRIES Ltd.,
PLOT NO.A-1, BIADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Samples collected by J R Labs using **Analyzed under** : Olympus make, Japan,
Spectro : SLE-PS-154:II, B X 40 Phase Contrast
Casella T13180 - I & Microscope
Spectro : SLE-PS-154:I

Flow rate : 1.0 L P M **Specifications** : As per A I A - R T M 1
Sampling Duration : 60 minutes each (IS : 1 450) Membrane
Filter Method

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV)

AS PER MoEF & P C B = 0.1 fibre per cc of air.

Sl. No.	Date of Sampling	Location	Condition	Dust Concentration fibre /cc of air	Remarks
13	15.03.2018	<u>Static</u> Ambient Air: Stock Yard- Sheet Loading Area	The Static sample is collected from Stock Yard - Sheet Loading Area during loading of different sizes of F C C sheets into the Truck.	< 0.1 (0.048)	---
14	15.03.2018	<u>Static</u> Ambient Air: Near Main Gate	The Static sample is collected from near the Main Gate. Plant was in operation.	< 0.1 (0.072)	---
15	15.03.2018	<u>Static</u> Ambient Air :- Near Canteen	The Static sample is collected from near Canteen. Plant was in operation.	< 0.1 (0.044)	---

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Environmental Hygienist





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21.03.2018

REPORT ON RESPIRABLE ASBESTOS FIBRE DUST CONCENTRATION

Project : M/s. RAMCO INDUSTRIES Ltd.,
PLOT NO.A-1, BIADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Samples collected by J R Labs using **Analyzed under** : Olympus make, Japan,
Spectro : SLE-PS-154:II, B X 40 Phase Contrast
Casella TI3180 - I & Microscope
Spectro : SLE-PS-154:I

Flow rate : 1.0 L P M

Sampling Duration : 60 minutes each

Specifications : As per A I A - R T M 1
(IS : 11450) Membrane
Filter Method

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV) AS PER MoEF & P C B = 0.1 fibre per cc of air.

Sl. No.	Date of Sampling	Location	Condition	Dust Concentration fibre /cc of air	Remarks
13	15.03.2018	<u>Static</u> Ambient Air: Stock Yard- Sheet Loading Area	The Static sample is collected from Stock Yard - Sheet Loading Area during loading of different sizes of F C C sheets into the Truck.	< 0.1 (0.048)	---
14	15.03.2018	<u>Static</u> Ambient Air: Near Main Gate	The Static sample is collected from near the Main Gate. Plant was in operation.	< 0.1 (0.072)	---
15	15.03.2018	<u>Static</u> Ambient Air :- Near Canteen	The Static sample is collected from near Canteen. Plant was in operation.	< 0.1 (0.044)	---

For J R LABS

Environmental Hygienist



JR LABS

ENVIRONMENT & OCCUPATIONAL HEALTH SERVICES

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20.01.2018

REPORT ON RESPIRABLE ASBESTOS FIBRE DUST CONCENTRATION

Project : M/s. RAMCO INDUSTRIES Ltd.,
PLOT NO.A-1, BLADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Samples collected by J R Labs using **Analyzed under** : Olympus make, Japan,
Spectro : SLE-PS-154:I, B X 40 Phase Contrast
S K C AirLite & Microscope
Spectro : SLE-PS-154:III

Flow rate : 1.0 L P M **Specifications** : As per A I A - R T M I
(IS : 11450) Membrane
Sampling Duration : 60 minutes each Filter Method

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV) AS PER MoEF & P C B = 0.1 fibre per cc of air.

Sl. No.	Date of Sampling	Location	Condition	Dust Concentration fibre /cc of air	Remarks
1	11.01.2018	<u>Static</u> Fibre Godown	Fibre bags were stored properly. Torn bags are sealed. Different Grades of Fibre bags are stored in the Fibre Godown.	< 0.1 (0.048)	---
2	11.01.2018	<u>Personal</u> B O D - E R Mill	The worker carrying the Sampler was engaged in feeding of fibre bags through the Roller Conveyor. Fibre bags are shifted through conveyor from Fibre Godown to B O D. E R Mill and Dust Collector in operation.	< 0.1 (0.096)	---
3	11.01.2018	<u>Static</u> E R Mill - Hydro disintegrator	The Static sample is collected from near E R Mill - Hydro disintegrator during the production of F C C sheets. E R Mill in Operation.	< 0.1 (0.056)	---

For J R LABS

Environmental Hygienist



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20.01.2018

REPORT ON RESPIRABLE ASBESTOS FIBRE DUST CONCENTRATION

Project : M/s. RAMCO INDUSTRIES Ltd.,
PLOT NO.A-1, BIADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Samples collected by J R Labs using **Analyzed under** : Olympus make, Japan,
S K C 224-PCXR8:II, B X 40 Phase Contrast
Casella AFC 123 & Microscope
Envirotech - II

Flow rate : 1.0 L P M **Specifications** : As per A I A - R T M 1
Sampling Duration : 60 minutes each (IS : 11450) Membrane
Filter Method

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV)

AS PER MoEF & P C B = 0.1 fibre per cc of air.

Sl. No.	Date of Sampling	Location	Condition	Dust Concentration fibre /cc of air	Remarks
4	11.01.2018	<u>Personal</u> S F Drum - Cutter Off	The worker carrying the Sampler was cutting the sheets at green stage on main Machine along with another worker.	< 0.1 (0.068)	---
5	11.01.2018	<u>Static</u> Stripping	The Static sample is collected during the stripping of F C C sheets. Plant was in production.	< 0.1 (0.008)	---
6	11.01.2018	<u>Personal</u> M G section - Moulding	The worker carrying the Sampler was making R1 & R2 types of moulded articles during the period of sampling. Semi wet process.	< 0.1 (0.080)	---

For J R LABS

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PLOT NO.A-1, BIADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Samples collected by J R Labs using **Analyzed under** : Olympus make, Japan,
Envirotech - 1 & B X 40 Phase Contrast
S K C 224-PCXR8:1 Microscope

Flow rate : 1.0 L P M **Specifications** : As per A I A - R T M 1
Sampling Duration : 60 minutes each (IS : 11450) Membrane
Filter Method

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV), AS PER MoEF & P C B = 0.1 fibre per cc of air.

Sl. No.	Date of Sampling	Location	Condition	Dust Concentration fibre /cc of air	Remarks
7	11.01.2018	<u>Personal</u> Salvaging Section	The worker carrying the Sampler was reclaiming the sheets. F C C rejected sheets were getting reclaimed. Wet process.	< 0.1 (0.016)	---
8	11.01.2018	<u>Personal</u> Ball Mill	The worker carrying the Sampler was engaged in operation of Ball Mill. Wet process.	< 0.1 (0.044)	---
9	11.01.2018	<u>Personal</u> Pulverizer	The worker carrying the Sampler was feeding broken F C C sheets through the chute of Pulverizer.	< 0.1 (0.028)	---

For J R LABS

Environmental Hygienist



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20.01.2018

REPORT ON RESPIRABLE ASBESTOS FIBRE DUST CONCENTRATION

Project : M/s, RAMCO INDUSTRIES Ltd.,
PLOT NO.A-1, BIADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Samples collected by J R Labs using **Analyzed under** : Olympus make, Japan,
S K C Side Kick 51 Ex & B X 40 Phase Contrast
SKC AirLite Microscope

Flow rate : 1.0 L P M **Specifications** : As per A I A - R T M 1
Sampling Duration : 60 minutes each (IS : 11450) Membrane
Filter Method

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV) AS PER MoEF & P C B = 0.1 fibre per cc of air.

Sl. No.	Date of Sampling	Location	Condition	Dust Concentration fibre /cc of air	Remarks
10	11.01.2018	<u>Personal</u> Fork Lift Operator	The Fork Lift Operator carrying the Sampler was engaged in different work activities like; shifting of sheets from Destacking Area to Stock Yard during the period of sampling.	< 0.1 (0.012)	---
11	11.01.2018	<u>Personal</u> Q C Lab Assistant	The Q C Lab Assistant carrying the Sampler was engaged in different Lab activities during the period of sampling.	< 0.1 (0.016)	---

For J R LABS

Environmental Hygienist



JR LABS

ENVIRONMENT & OCCUPATIONAL HEALTH SERVICES

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20.01.2018

REPORT ON RESPIRABLE ASBESTOS FIBRE DUST CONCENTRATION

Project : M/s. RAMCO INDUSTRIES Ltd.,
PLOT NO.A-1, BIADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Samples collected by J R Labs using Spectro : SLE-PS-154:II **Analyzed under** : Olympus make, Japan,
B X 40 Phase Contrast
Microscope

Flow rate : 1.0 L P M **Specifications** : As per A 1 A - R T M 1
(IS : 11450) Membrane
Filter Method

Sampling Duration : 60 minutes

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV) AS PER MoEF & P C B = 0.1 fibre per cc of air.

Sl. No.	Date of Sampling	Location	Condition	Dust Concentration fibre /cc of air	Remarks
12	11.01.2018	<u>Static</u> Work Zone Area of the Plant.	The Static sample is collected during the production of F C C sheets.	< 0.1 (0.064)	---

For J R LABS

Environmental Hygienist



JR LABS

ENVIRONMENT & OCCUPATIONAL HEALTH SERVICES

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20.01.2018

REPORT ON RESPIRABLE ASBESTOS FIBRE DUST CONCENTRATION

Project : M/s. RAMCO INDUSTRIES Ltd.,
PLOT NO.A-1, BIADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Samples collected by J R Labs using **Analyzed under** : Olympus make, Japan,
Casella T13180 - I, B X 40 Phase Contrast
Spectro : SLE-PS-154;III & Microscope
Casella T13180 - II

Flow rate : 1.0 L P M **Specifications** : As per A I A - R T M I
Sampling Duration : 60 minutes each (IS : 11450) Membrane
Filter Method

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV) AS PER MoEF & P C B = 0.1 fibre per cc of air.

Sl. No.	Date of Sampling	Location	Condition	Dust Concentration fibre /cc of air	Remarks
13	11.01.2018	<u>Static</u> Ambient Air: Stock Yard- Sheet Loading Area	The Static sample is collected from Stock Yard - Sheet Loading Area during loading of different sizes of F C C sheets into the Truck.	< 0.1 (0.048)	---
14	11.01.2018	<u>Static</u> Ambient Air: Near Main Gate	The Static sample is collected from near the Main Gate. Plant was in operation.	< 0.1 (0.024)	---
15	11.01.2018	<u>Static</u> Ambient Air :- Near Canteen	The Static sample is collected from near Canteen. Plant was in operation.	< 0.1 (0.020)	---

For J R LABS

Environmental Hygienist





JR LABS

ENVIRONMENT & OCCUPATIONAL HEALTH SERVICES

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T C : March'18 - Stack - E R M - A F C :

21.03.2018

REPORT ON RESPIRABLE ASBESTOS FIBRE DUST CONCENTRATION

FIBRE D E STACK

Project : M/s. RAMCO INDUSTRIES Ltd.,
PLOT NO.A-1, BIADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Envirotech VSS1 **Analyzed under** : Olympus make, Japan,
B X 40 Phase Contrast
Microscope

Flow rate : 10 L P M **Specifications** : As per A I A - R T M 1
(IS:11450) & ISO:10397

Sampling Duration : 10 minutes Membrane Filter Method

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV) AS PER MoEF & P C B = 0.2 fibre per cc of air.

Date of sampling	Location	Condition	Dust concentration fibre /cc of air	Remarks
15.03.2018	Fibre D E Stack connected to B O D & Edge Runner Mill	---	0.139	

For J R LABS

Environmental Hygienist



JR LABS

ENVIRONMENT & OCCUPATIONAL HEALTH SERVICES

Rated as 'No.1' Laboratory for Counting of Asbestos Fibre by Institute of Occupational Medicine, Edinburgh U.K., World Health Organization Collaborating Centre for Occupational Health.

T C : March'18 - Stack - Pulverizer - A F C :

21.03.2018

REPORT ON RESPIRABLE ASBESTOS FIBRE DUST CONCENTRATION

FIBRE D E STACK

Project : M/s. RAMCO INDUSTRIES Ltd.,
PLOT NO.A-1, BIADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Envirotech VSS1 **Analyzed under** : Olympus make, Japan,
B X 40 Phase Contrast
Microscope

Flow rate : 10 L P M **Specifications** : As per A I A - R T M 1
(IS:11450) & ISO:10397
Membrane Filter Method

Sampling Duration : 10 minutes

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV) AS PER MoEF & P C B = 0.2 fibre per cc of air.

Date of sampling	Location	Condition	Dust concentration fibre /cc of air	Remarks
15.03.2018	Fibre D E Stack connected to Pulverizer	---	0.137	---

For JR LABS

Environmental Hygienist



JR LABS

ENVIRONMENT & OCCUPATIONAL HEALTH SERVICES

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TC : January'18 - Stack - ERM - AFC :

20.01.2018

REPORT ON RESPIRABLE ASBESTOS FIBRE DUST CONCENTRATION

FIBRE D E STACK

Project : M/s. RAMCO INDUSTRIES Ltd.,
PLOT NO.A-1, BIADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Envirotech VSS1 **Analyzed under** : Olympus make, Japan,
B X 40 Phase Contrast
Microscope

Flow rate : 10 L P M **Specifications** : As per A I A - R T M 1
(IS:11450) & ISO:10397
Membrane Filter Method

Sampling Duration : 10 minutes

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV) AS PER MoEF & P C B = 0.2 fibre per cc of air.

Date of sampling	Location	Condition	Dust concentration fibre /cc of air	Remarks
11.01.2018	Fibre D E Stack connected to B O D & Edge Runner Mill	---	0.046	---

For J R LABS

Environmental Hygienist



JR LABS

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T C : January'18 - Stack - Pulverizer - A F C :

20.01.2018

REPORT ON RESPIRABLE ASBESTOS FIBRE DUST CONCENTRATION

FIBRE D E STACK

Project : M/s. RAMCO INDUSTRIES Ltd.,
PLOT NO.A-1, BIADA INDUSTRIAL AREA OPP. MAHATHIN MAI TEMPLE
AT & PO- BIHIYA, DT.- BHOJPUR, BIHAR, PIN- 802152

Sampler used : Envirotech VSSI **Analyzed under** : Olympus make, Japan,
B X 40 Phase Contrast
Microscope

Flow rate : 10 L P M **Specifications** : As per A I A - R T M 1
(IS:11450) & ISO:10397
Membrane Filter Method

Sampling Duration : 10 minutes

PERMISSIBLE EXPOSURE LIMIT VALUE (PELV) AS PER MoEF & P C B = 0.2 fibre per cc of air.

Date of sampling	Location	Condition	Dust concentration fibre /cc of air	Remarks
11.01.2018	Fibre D E Stack connected to Pulverizer	---	0.062	---

For J R LABS

Environmental Hygienist



Aug - 2

ISO 9001



ISO 18001:2007
 OHSAS Certified

SHIVA TEST HOUSE

Tel: 0912 - 2247538 / 2240752 : TeleFax: 0912 - 2590705
 E-mail: shpatna1@yahoo.co.in

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Ref. No. <i>RIL/TR/17-18/713(a)</i> Dt: <i>24.03.2018</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt: <i>28.03.2017</i>				
(a) Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152			
(b) Details of Sample	Monitoring of Stack Emission			
(c) Sample Collected by	SHIVA TEST HOUSE on 17.03.18			
(d) Sampling Location	Premises of Ramco Bihiya			
(e) Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
(f) Sampling Environmental Condition	Temp. (°C)	26	Humidity (%)	66
(g) Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger			
(h) Sample Quantity	1			
(i) Items required to be tested	As per contract			
(j) Whether any specific Method of Test has been suggested by the customer	No			
(k) Date of receiving the sample in Laboratory	18.03.18			
(l) Analysis Start Date / Analysis Completion Date	18.03.18 / 20.03.18			
	Parameters	Method of Test	Results	
1.	Stack Connected to		Fibre Circuit	
2.	Stack No.		1	
3.	Height of Stack (as reported)		30.0 m.	
4.	Dia of Stack at Top (as reported)		0.4 m.	
5.	Draft		Natural	
6.	Material of Construction		M.S.	
7.	Ambient Temperature, °C		26.0	
8.	Flue Gas Temperature, °C		43.0	
9.	Velocity, m/sec.	IS 11255 (Part-3)	5.7	
10.	Volumetric Flow Rate (NM ³ /hr.)		2430.5	
11.	Sampling Point		10 m.	
			Concentration (mg / NM³)	Limit as per E (P) Rules Schedule I
12.	Particulate Matter (P.M.)	IS 11255 (Part-1)	1.35	2.0 mg / NM ³
13.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable	---
14.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	Not Detectable	---



[Signature]

Authorized Signatory
 Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above
 2. Total Liability of our Laboratory is limited to invoiced amount.
 3. Test Report endorsed only the tests and not the product certificate.



SHIVA TEST HOUSE

Tel: 0612-2247538; 2240752; TeleFax: 0612-2590705
 E MAIL: shivatph@yahoo.co.in

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Ref. No. *RH/TR/17-18/713(b)* (Dt: *24.03.2018*) Your Work Order No. *MANUAL/RH/BIH/17 Dt: 28.03.2017*

[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur - 802 152			
[b] Details of Sample	<i>Monitoring of Stack Emission</i>			
[c] Sample Collected by	SHIVA TEST HOUSE on <i>17.03.18</i>			
[d] Sampling Location	<i>Premises of Ramco Bihya</i>			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	26	Humidity (%)	66
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger			
[h] Sample Quantity	2			
[i] Items required to be test	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	<i>18.03.18</i>			
[l] Analysis Start Date / Analysis Completion Date	<i>18.03.18 / 20.03.18</i>			
Parameters	Method of Test	Results		
1. Stack Connected to		Cement / Fly Ash Circuit		
2. Stack No.		11		
3. Height of Stack (as reported)		15.0 m.		
4. Dia of Stack at Top (as reported)		0.4 m		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		26.0		
8. Flue Gas Temperature, °C		40.0		
9. Velocity, m/sec.		IS 11255 (Part-3)	6.2	
10. Volumetric Flow Rate (NM ³ /hr.)			2669.0	
11. Sampling Point			5 m.	
		Concentration (mg / NM ³)	Limit as per E (P) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	31.6	100.00 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable	---	
14. Oxides of Nitrogen (NO _x)	IS 11255 (Part-7)	10.2	---	



[Signature]
 Authorized Signatory

Quality Manager / Dy. Quality Manager

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4. Test Report is valid only for the tests mentioned in the report.

Office:

Vishwanath (Jain)

Phone:

TNA - 300 011 (Bihar)



SHIVA TEST HOUSE

Tel / 9811 - 2247588 / 2246752 ; Telefax 0812 - 2590706

E-mail: em@shiva.co.in

Laboratory Address -
9th FLOOR, RAJHANS NIKETAN,
NEAR CANAL, BIKENPURA,
BAILEY ROAD,
PATNA - 800 014 (BIHAR)



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Ref. No. *RIL/TR/17-18/713(c)* Dt: *24.03.2018* Your Work Order No. *MANUAL/RIL/BIH/17* Dt: *28.03.2017*

[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur - 802 152			
[b] Details of Sample	<i>Monitoring of Stack Emission</i>			
[c] Sample Collected by	SHIVA TEST HOUSE on 17.03.18			
[d] Sampling Location	<i>Premises of Ramco Bihya</i>			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	26	Humidity (%)	66
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger			
[h] Sample Quantity	2			
[i] Tests required to be tested	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	18.03.18			
[l] Analysis Start Date / Analysis Completion Date	18.03.18 / 20.03.18			
Parameters	Method of Test	Results		
1. Stack Connected to		Pulveriser Plant		
2. Stack No		111		
3. Height of Stack (as reported)		15.0 m.		
4. Dia of Stack at Top (as reported)		0.15 m.		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		26.0		
8. Flue Gas Temperature, °C		42.0		
9. Velocity, m/sec		IS 11255 (Part-3)	7.3	
10. Volumetric Flow Rate (NM ³ /hr.)			439.1	
11. Sampling Point			5 m.	
		Concentration (mg / NM³)	Limit as per E (P) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	1.54	2.0 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable	---	
14. Oxides of Nitrogen (NOx)	IS 11255 (Part-7)	13.2	---	



[Signature]
Authorized Signatory
Quality Manager / Dy. Quality Manager

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Head Office :
 Extn. : (Chhatrisree Lane)
 Gandhinagar
 PATNA - 800 001 (Bihar)



Laboratory Address :-
 01st FLOOR, RAJHANS NIKETAN,
 NEAR CANAL, RUKUNPURA,
 BAILEY ROAD,
 PATNA - 800 014 (BIHAR)

SHIVA TEST HOUSE

Tel : 0612 - 2247534/ 2240762 | TeleFax : 0612 - 2990700

E mail : shivatst@vsnl.com

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Ref. No. <i>RIL/TR/17-18/713(d)</i> Dt : <i>24.03.2018</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>				
[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152			
[b] Details of Sample	Monitoring of Stock Emission			
[c] Sample Collected by	SHIVA TEST HOUSE on 17.03.18			
[d] Sampling Location	Premises of Ramco Bihiya			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	26	Humidity (%)	
			66	
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger			
[h] Sample Quantity	5			
[i] Items required to be tested	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	18.03.18			
[l] Analysis Start Date / Analysis Completion Date	18.03.18 / 20.03.18			
Parameters	Method of Test	Results		
1. Stack Connected to		DG Set 1010 KVA		
2. Stack No.		IV		
3. Height of Stack (as reported)		9.0 m.		
4. Dia of Stack at Top (as reported)		0.15 m.		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		26.0		
8. Flue Gas Temperature, °C		182.0		
9. Velocity, m/sec.		IS 11255 (Part-3)	11.3	
10. Volumetric Flow Rate (NM ³ /hr.)			470.6	
11. Sampling Point			3.5 m.	
		Concentration (mg / NM³)	Limit as per E (P) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	51.4	75.00 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	36.9	Not Specified	
14. Oxides of Nitrogen (NOx)	IS 11255 (Part-7)	176.2	710.00 mg / NM ³	
15. NMHC (as C) (at 15% O ₂)	CPCB	21.0	100.00 mg / NM ³	
16. Carbon Monoxide as CO (at 15% O ₂)	IS 13270 - 2003	36.0	150.00 mg / NM ³	



[Signature]

Authorized Signatory
 Quality Manager / Dy. Quality Manager

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4. Test Report can not be used as evidence and certificate.

Lab. Office :
 (Cont. - 13th Floor) (Lab)
 Gandhinagar
 PATNA - 800 001 (Bihar)



Laboratory Address :
 01st FLOOR, RAJHANS NIKETAN,
 NEAR CANAL, RUKUNPURA,
 BAHIV ROAD,
 PATNA - 800 014 (BIHAR)

SHIVA TEST HOUSE

Tel: 0812 - 2247538/2240762, TeleFax: 0812 - 2590705
 E-mail: shipatna1@yahoo.co.in



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Ref. No. <i>RH/TR/17-18/713(e)</i> Dt : <i>24.03.2018</i> Your Work Order No. <i>MANUAL/RH/BIH/17</i> Dt : <i>28.03.2017</i>				
[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur - 802 152			
[b] Details of Sample	<i>Monitoring of Stack Emission</i>			
[c] Sample Collected by	SHIVA TEST HOUSE on <i>17.03.18</i>			
[d] Sampling Location	<i>Premises of Ramco Bihya</i>			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	26	Humidity (%)	66
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger			
[h] Sample Quantity	5			
[i] Items required to be tested	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	<i>18.03.18</i>			
[l] Analysis Start Date / Analysis Completion Date	<i>18.03.18 / 20.03.18</i>			
Parameters	Method of Test	Results		
1. Stack Connected to		DG Set 750 KVA		
2. Stack No.		V		
3. Height of Stack (as reported)		9.0 m		
4. Dia of Stack at Top (as reported)		0.15 m.		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		26.0		
8. Flue Gas Temperature, °C		161.0		
9. Velocity, m/sec.		IS 11255 (Part-3)	9.7	
10. Volumetric Flow Rate (NM ³ /hr.)			423.4	
11. Sampling Point			3.5 m.	
		Concentration (mg / NM ³)	Limit as per E (P) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	44.8	75.00 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	34.2	Not Specified	
14. Oxides of Nitrogen (NO _x)	IS 11255 (Part-7)	162.6	710.00 mg / NM ³	
15. NMHC (as C) (at 15% O ₂)	CPCB	30.0	100.00 mg / NM ³	
16. Carbon Monoxide as CO (at 15% O ₂)	IS 13270 - 2003	46.0	150.00 mg / NM ³	



[Signature]
 Authorized Signatory
 Quality Manager / Ds. Quality Manager

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Office :
 (Charanjee Lane)
 Charanbagh
 PATNA - 800 001 (Bihar)



Laboratory Address :
 01st FLOOR, RAMHANS NIKETAN,
 NEAR CANAL, RUKUNPURA,
 BAILEY ROAD,
 PATNA - 800 014 (BIHAR)

SHIVA TEST HOUSE

Tel : 0612 - 2247500 / 2240752 / TeleFax : 0612 - 2590705
 E-mail : shpatna1@yahoo.co.in

AS AN



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Ref. No. <i>RH/TR/17-18/713(f)</i> Dt : <i>24.03.2018</i> Your Work Order No. <i>MANUAL/RH/BIH/17</i> Dt : <i>28.03.2017</i>					
[a] Name and address of the Customer		RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152			
[b] Details of Sample		Borewell Water			
[c] Sample Collected by		SHIVA TEST HOUSE on 17.03.18			
[d] Sampling Location		(Near Godown)			
[e] Method of Sampling		IS 3025, APHA			
[f] Sampling Environmental Condition		Temp. (°C)	26	Humidity (%)	66
[g] Details of Sample Container (No. & Type of Container)		Plastic Bottle (02)			
[h] Sample Quantity		2 Litres			
[i] Items required to be tested		As per contract.			
[j] Whether any specific Method of Test has been suggested by the customer		No			
[k] Date of receiving the sample in Laboratory		18.03.18			
[l] Analysis Start Date / Analysis Completion Date		18.03.18 / 20.03.18			
		Limit as per IS 10500 2012			Results in mg/l. except colour, Odour, Taste, Turbidity, & pH
S.N	Parameters	Limit (mg/l.) Desirable	Permissible Limit in the absence of alternative source	Method of Test	
1	Colour	5.0 Hazen Limit	25	IS 3025 (Part-4)	<5.00
2	Odour	Agreeable	---	IS 3025 (Part-5)	Agreeable
3	Taste	Agreeable	---	IS 3025 (Part-7))	Agreeable
4	pH	6.5 to 8.5	---	IS 3025 (Part-11)	7.21
5	Turbidity on NTU	1.00	5.00	IS 3025 (Part-10)	<1.0
6	Total Dissolved Solids (TDS)	500.00	2000.00	IS 3025 (Part-15)	410.0
7	Total Hardness as CaCO ₃	200.00	600.00	IS 3025 (Part-21)	216.0
8	Calcium as Ca	75.00	200.00	IS 3025 (Part-40)	52.0
9	Magnesium as Mg	30.00	100.00	IS 3025 (Part-40)	20.9
10	Iron as Fe	0.30	No relaxation	IS 3025 (Part-53)	0.15
11	Residual Free Chlorine	0.20	1.00	IS 3025 (Part-26)	<0.1
12	Total Alkalinity as CaCO ₃	200.00	600.00	IS 3025 (Part-23)	236.0
13	Chloride as Cl	250.00	1000.00	IS 3025 (Part-32)	18.0
14	Sulphate as SO ₄	200.00	400.00	IS 3025 (Part-24)	8.1
15	Nitrate as NO ₃	45.00	No relaxation	IS 3025 (Part-34)	4.6
16	Fluoride as F	1.00	1.50	APHA (4500 F D)	0.54



[Signature]

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 Quality Manager / Dy. Quality Manager

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Office :-
 Box: (Gyasteejee Law)
 andrabiugh
 PATNA - 800 001 (Bihar)



Laboratory Address :-
 01st FLOOR, RAJHAS NIKETAN,
 NEAR CANAL, RUKUNPURA,
 BAILEY ROAD,
 PATNA - 800 014 (BIHAR)

SHIVA TEST HOUSE

Tel: 0612 - 2247538/ 2240752 ; TeleFax: 0612 - 2590705
 E-mail: shpatna1@yahoo.co.in



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Ref. No. <i>RIL/TR/17-18/713(g)</i> Dt : <i>24.03.2018</i> Your Work Order No. <i>MANUAL/RIL/BIH/17 Dt : 28.03.2017</i>				
[a] Name and address of the Customer		RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152		
[b] Details of Sample		Borewell Water		
[c] Sample Collected by		SHIVA TEST HOUSE on <i>17.03.18</i>		
[d] Sampling Location		<i>(Near Godown)</i>		
[e] Method of Sampling		IS 3025, APHA		
[f] Sampling Environmental Condition		Temp. (°C) 26	Humidity (%) 66	
[g] Details of Sample Container (No. & Type of Container)		Glass Bottle (01)		
[h] Sample Quantity		300 ml		
[i] Items required to be tested		As per contract		
[j] Whether any specific Method of Test has been suggested by the customer		No		
[k] Date of receiving the sample in Laboratory		<i>18.03.18</i>		
[l] Analysis Start Date / Analysis Completion Date		<i>18.03.18 / 21.03.18</i>		
BACTERIOLOGICAL EXAMINATION OF WATER AS PER IS 1622 - 1981				
<i>Coliform (Most Probable Number of Organisms per 100 ml. of sample and confidence limit using 1 tube of 50 ml., 5 tubes of 10 ml. and 5 tubes of 1 ml.)</i>				
Sample	Media Strength	No. of Tubes	Observation for Acid / Gas formation at 37 °C after	
			24 Hr.	48 Hr.
50 ml.	Double Strength	1	-	-
10 ml.	-- do --	5	-	-
1 ml.	Single Strength	5	-	-
Result - MPN Organisms Values - Not Detected in 100 ml. (Limit : Shall not be Detectable in 100 ml.)				



[Signature]

Authorized Signatory
 Quality Manager / Dy. Quality Manager

Head Office :
 Extn : 01 (Ramjee Laxmi)
 Ward Bahiagh
 PATNA - 800 001 (Bihar)



Laboratory Address :-
 01st FLOOR, RAJHANS NIKETAN,
 NEAR CANAL, RUKUNPURA,
 BAILEY ROAD,
 PATNA - 800 014 (BIHAR)

SHIVA TEST HOUSE

Tel : 0512 - 2247533/ 2240762. TeleFax : 0012 - 2590705
 E mail : shivapain1@yahoo.co.in



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Ref. No. RIL/TR/17-18/713(h) Dt : 24.03.2018 Your Work Order No. MANUAL/RIL/BIH/17 Dt : 28.03.2017					
[a] Name and address of the Customer		RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur - 802 152			
[b] Details of Sample		Drinking Water			
[c] Sample Collected by		SHIVA TEST HOUSE on 17.03.18			
[d] Sampling Location		from Canteen Aquaguard			
[e] Method of Sampling		IS 3025, APHA			
[f] Sampling Environmental Condition		Temp. (°C)	26	Humidity (%)	66
[g] Details of Sample Container (No. & Type of Container)		Plastic Bottle (02)			
[h] Sample Quantity		2 Litres			
[i] Items required to be tested		As per contract.			
[j] Whether any specific Method of Test has been suggested by the customer		No			
[k] Date of receiving the sample in Laboratory		18.03.18			
[l] Analysis Start Date / Analysis Completion Date		18.03.18 / 21.03.18			
S.N.	Parameters	Limit as per IS 10500 : 2012		Method of Test	Results in mg/l, except colour, Odour, Taste, Turbidity & pH
		Limit (mg/l) Desirable	Permissible Limit in the absence of alternative source		
1	Colour	5.0 Hazen Limit	25	IS 3025 (Part-4)	<5.00
2	Odour	Agreeable	---	IS 3025 (Part-5)	Agreeable
3	Taste	Agreeable	---	IS 3025 (Part-7))	Agreeable
4	pH	6.5 to 8.5	--	IS 3025 (Part-11)	7.44
5	Turbidity on NTU	1.00	5.00	IS 3025 (Part-10)	<1.00
6	Total Dissolved Solids (TDS)	500.00	2000.00	IS 3025 (Part-15)	260.0
7	Total Hardness as CaCO ₃	200.00	600.00	IS 3025 (Part-21)	174.0
8	Calcium as Ca	75.00	200.00	IS 3025 (Part-40)	48.0
9	Magnesium as Mg	30.00	100.00	IS 3025 (Part-40)	13.1
10	Iron as Fe	0.30	No relaxation	IS 3025 (Part-53)	0.08
11	Residual Free Chlorine	0.20	1.00	IS 3025 (Part-26)	<0.1
12	Total Alkalinity as CaCO ₃	200.00	600.00	IS 3025 (Part-23)	182.0
13	Chloride as Cl	250.00	1000.00	IS 3025 (Part-32)	20.0
14	Sulphate as SO ₄	200.00	400.00	IS 3025 (Part-24)	9.2
15	Nitrate as NO ₃	45.00	No relaxation	IS 3025 (Part-34)	3.6
16	Fluoride as F	1.00	1.50	APHA (4500 F D)	0.48



[Signature]

Authorized Signatory
 Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above.
 2. Total Liability of our Laboratory is limited to invoiced amount.

Office :
 (Chartered Lab)
 (accredited)
 PATNA - 800 014 (Bihar)



Laboratory Address :-
 03RD FLOOR, RAJHANS NIKETAN,
 NEAR CANAL, RUKUNPTIKA,
 BAILEY ROAD,
 PATNA - 800 014 (BIHAR)

SHIVA TEST HOUSE

Tel : 0812 - 2247538/2240752 ; TeleFax : 0812 - 2596705
 E-mail : shivams1@yahoo.co.in



ISO 15001:2007
 OHSAS Certified

RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986, ACCREDITED BY "NATIONAL ACCREDITATION BOARD FOR TESTING & CALIBRATION LABORATORIES (NABL) UNDER MINISTRY OF SCIENCE & TECHNOLOGY, GOVT. OF INDIA AND ALSO RECOGNISED BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

Ref. No. RIL/TR/17-18/713(i) Dt : 24.03.2018 Your Work Order No. MANUAL/RIL/BIH/17 Dt : 28.03.2017				
[a] Name and address of the Customer		RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152		
[b] Details of Sample		<i>Drinking Water</i>		
[c] Sample Collected by		SHIVA TEST HOUSE on 14.12.17		
[d] Sampling Location		from Canteen Aquaguard		
[e] Method of Sampling		IS 3025, APHA		
[f] Sampling Environmental Condition		Temp. (°C)	26 Humidity (%) 66	
[g] Details of Sample Container (No. & Type of Container)		Glass Bottle (01)		
[h] Sample Quantity		300 ml		
[i] Items required to be tested		As per contract.		
[j] Whether any specific Method of Test has been suggested by the customer		No		
[k] Date of receiving the sample in Laboratory		15.12.17		
[l] Analysis Start Date / Analysis Completion Date		15.12.17 / 17.12.17		
BACTERIOLOGICAL EXAMINATION OF WATER AS PER IS 1622 - 1981				
Coliform (Most Probable Number of Organisms per 100 ml of sample and confidence limit using 1 tube of 50 ml, 5 tubes of 10 ml. and 5 tubes of 1 ml.)				
Sample	Media Strength	No. of Tubes	Observation for Acid / Gas formation at 37 °C after	
			24 Hr.	48 Hr.
50 ml	Double Strength	1	-	-
10 ml	-- do --	5	-	-
1 ml.	Single Strength	5	-	-
Result - MPN Organisms Values -- Not Detected in 100 ml. (Limit : Shall not be Detectable in 100 ml.)				



[Signature]

Authorized Signatory,
 Quality Manager / Dy. Quality Manager

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Regd. Office:
3D Estate (Chatterjee Lane)
Gardanisingh
PATNA - 800 001 (Bihar)



Laboratory Address:-
01st FLOOR, RAJHANS NIKETAN,
NEAR CANAL, RUKUNPURA,
BAILEY ROAD,
PATNA - 800 014 (BIHAR)

SHIVA TEST HOUSE

Tel: 0812 - 2247530/ 2240752; TeleFax: 0812 - 2590705
E-mail: sthp@patna1@yahoo.co.in



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Ref. No. *RIL/TR/17-18/713(j)* Dt: *24.03.2018* Your Work Order No. *MANUAL/RIL/BIH/17* Dt: *28.03.2017*

[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152		
[b] Details of Sample	Effluent Sample		
[c] Sample Collected by	SHIVA TEST HOUSE on 17.03.18		
[d] Sampling Location	from Final Discharge Point		
[e] Method of Sampling	IS 3025, APHA		
[f] Sampling Environmental Condition	Temp. (°C)	26	Humidity (%)
[g] Details of Sample Container (No. & Type of Container)	Plastic Bottle (02)		
[h] Sample Quantity	2 Litres		
[i] Items required to be test .d	As per contract .		
[j] Whether any specific Method of Test has been suggested by the customer	No		
[k] Date of receiving the sample in Laboratory	18.03.18		
[l] Analysis Start Date / Analysis Completion Date	18.03.18 / 21.03.18		

S. N.	Parameters	Method of Test	Limit as per E (P) Rules Schedule VI	Result(in mg/l.) except pH, Colour
1	Colour	IS 3025 (Part-4)	Not Specified	Colourless
2	pH	IS 3025 (Part-11)	5.5 to 9.0	6.71
3	Suspended Solids	IS 3025(Part-17)	100.00	60.0
4	Oil & Grease	IS 3025 (Part-39)	10.00	<1.0
5	B.O.D.(3 days at 27°C)	IS 3025 (Part-44)	30.00	24.0
6	C.O.D.	APHA 5220 B	250.00	76.0
7	Dissolved Phosphate as P	APHA (4500-P-D)	5.00	2.7
8	Fluoride as F	APHA 4500 (F D)	5.00	0.58
9	Ammonical Nitrogen as N	IS 3025 (Part-34)	50.00	8.1
10	Total Kjeldahl Nitrogen as N	APHA (4500 N org)	100.00	20.0



[Signature]
Authorized Signatory
Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests mentioned.

Office:
 Ext: 1111111111
 Patna - 800 014 (Bihar)



Laboratory Address:-
 01st FLOOR, RAHMAN NIKETAN,
 NEAR CANAL, RUKUNPURA,
 BAILEY ROAD,
 PATNA - 800 014 (BIHAR)



SHIVA TEST HOUSE

Tel: 0912 - 2247538/2240752; TeleFax: 0912 - 2580705
 E mail: shivatest1@yahoo.co.in

ISO 18001:2007
 OHSAS Certified

RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986, ACCREDITED BY "NATIONAL ACCREDITATION BOARD FOR TESTING & CALIBRATION LABORATORIES (NABL), UNDER MINISTRY OF SCIENCE & TECHNOLOGY, GOVT. OF INDIA AND ALSO RECOGNISED BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD.

Ref. No. <i>RIL/TR/17-18/713(k)</i> Dt: <i>24.03.2018</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt: <i>28.03.2017</i>			
[a]	Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur - 802 152	
[b]	Sampling Environmental Condition	Temp. (°C)	26 Humidity (%) 66
[c]	Details of Sample	Monitoring of Ambient Noise Level at Ramco Bihya	
[d]	Monitored by	SHIVA TEST HOUSE on 17.03.18	
[e]	Whether any specific method of Test has been suggested by the party	No	
	Sampling Location	Time Weighted Average (TWA) of Noise Level in dB(A)	
1.	Near Main Gate	66.9	
2.	Near Office	52.4	
3.	Near Stripping Area	63.2	
4.	Near Fibre Mill	66.1	
5.	Near DG Room	72.6	
N.B.:	The Ambient Air Quality Standards in respect of Noise as per Noise Pollution (Regulation and Control) Rules 2000 for Industrial area is 75.0 dB(A), for Commercial area is 65.0 dB(A), for Residential area is 55.0 dB(A) & for Silence Zone is 50.0 dB(A) in daytime i.e. 6.00 am to 9.0 p.m. As per Rule 7(1&2) the authority shall take action against violator if the noise level exceed the ambient noise standards by 10 dB(A) or more against any area/zone.		



[Signature]

Authorized Signatory
 Quality Manager / Dy. Quality Manager

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 2. Total Liability of our Laboratory is limited to invoiced amount.

Head Office :
 10 Esplanade (Chhatrajee Lawe)
 Gandhinagar
 PATNA - 800 001 (Bihar)



Laboratory Address :-
 01st FLOOR, RAJHANS NIKETAN,
 NEAR CANAL, RUKUNPURA,
 BAILEY ROAD,
 PATNA - 800 014 (BIHAR)

SHIVA TEST HOUSE

Tel : 0612 - 2247538/2240752 - Telefax : 0612 - 2590705
 E-mail : shivatp@yafooo.co.in



ISO 18001:2007
 OHSAS Certified

RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986, ACCREDITED BY "NATIONAL ACCREDITATION BOARD FOR TESTING & CALIBRATION LABORATORIES (NABL), UNDER MINISTRY OF SCIENCE & TECHNOLOGY, GOVT. OF INDIA AND ALSO RECOGNISED BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

Ref. No. <i>RIL/TR/17-18/713(i)</i> Dt : <i>24.03.2018</i> Your Work Order No. <i>MANUAL/RIL/BIII/17</i> Dt : <i>28.03.2017</i>			
[a] Name and address of the Customer		RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152	
[b] Details of Sample		Monitoring of Respirable Dust in Work Zone Area	
[c] Sample Collected by		Shiva Test House on 17.03.18	
[d] Sampling Location		Premises of Ramco Bihiya	
[e] Method of Sampling		IS 5182 (Part - 14)	
[f] Sampling Environmental Condition		Temp. (°C)	Humidity (%)
[g] Details of Sample Container (No. & Type of Container)		26	66
[h] Sample Quantity		Filter Paper : Glass Impinger	
[i] Items required to be tested		04	
[j] Whether any specific Method of Test has been suggested by the customer		As per contract	
[k] Date of receiving the sample in Laboratory		No	
[l] Analysis Start Date / Analysis Completion Date		18.03.18	
		18.03.18 / 20.03.18	
S. N.	Sampling Point	Concentration of Respirable Dust (PM ₁₀)	
		[08 hrs.] (µg/M ³)	Limit as NAAQS Nov. 2009 (µg/M ³)
1	Fibre Mill Area	36.9	100.0
2	Hatscheck Machine Area	28.4	
3	Stripping Machine Area	40.2	
4	Pulverizer Area	56.1	



[Signature]

Authorized Signatory
 Quality Manager / Dy. Quality Manager

Regd. Office :
 40 Extn. (Chatterjee Lane)
 Gardenbagh
 PATNA - 800 014 (Bihar)



Laboratory Address :
 01st FLOOR, RAJLANS NIKETAN,
 NEAR CANAL, RUKUNPURA,
 BAILEY ROAD,
 PATNA - 800 014 (BIHAR)

SHIVA TEST HOUSE

Tel : 0612 - 2247538; 2240762; TeleFax : 0612 - 2590705
 E-mail : shivasiva@shivahop.co.in

ISO 15001



ISO 15001:2007
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RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986, ACCREDITED BY "NATIONAL ACCREDITATION BOARD FOR TESTING & CALIBRATION LABORATORIES (NABL), UNDER MINISTRY OF SCIENCE & TECHNOLOGY, GOVT. OF INDIA AND ALSO RECOGNISED BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

Ref. No. *RIL/TR/17-18/713(m)* Dt : *24.03.2018* Your Work Order No. *MANUAL/RIL/BIH/17* Dt : *28.03.2017*

(a) Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152				
(b) Details of Sample		Monitoring of Ambient Air Quality				
(c) Sample Collected by		Shiva Test House on 17.03.18				
(d) Sampling Location		Premises of Ramco Bihiya				
(e) Method of Sampling		IS 5182 (Part - 14)				
(f) Sampling Environmental Condition		Temp. (°C)	26	Humidity (%)	66	
(g) Details of Sample Container (No. & Type of Container)		Filter Paper - Glass Impinger				
(h) Sample Quantity		12				
(i) Items required to be tested		As per contract				
(j) Whether any specific Method of Test has been suggested by the customer		No				
(k) Date of receiving the sample in Laboratory		18.03.18				
(l) Analysis Start Date / Analysis Completion Date		18.03.18 / 21.03.18				
Parameters	Method of Test	Sampling Station				Limit as NAAQS Nov. 2009
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Particulate Matter (PM ₁₀), µg / m ³	IS 5182 (Part-23)	52.1	54.4	50.8	44.2	100 µg / m ³
		47.1	50.7	48.0	47.1	
		45.8	44.1	43.7	44.1	
2. Particulate Matter (PM _{2.5}), µg / m ³	USEPA	28.5	31.6	27.8	24.0	60 µg / m ³
		24.4	29.1	25.8	25.4	
		22.2	25.2	22.8	23.4	
3. Sulphur Dioxide as SO ₂ , µg / m ³	IS 5182 (Part-2)	<5.0	10.6	<5.0	8.5	80 µg / m ³
		7.1	9.2	7.6	9.6	
		8.3	12.8	9.0	7.2	
		5.8	8.8	8.4	6.5	
		<5.0	7.8	<5.0	5.8	
4. Nitrogen Dioxide as NO ₂ , µg / m ³	IS 5182 (Part-5)	14.0	21.4	13.4	16.1	80 µg / m ³
		15.3	20.5	18.9	21.6	
		12.8	18.4	20.1	17.1	
		10.6	26.1	14.6	20.4	
		9.0	15.2	11.2	10.6	
Average Value						
PM ₁₀		48.3	49.7	47.5	45.1	
PM _{2.5}		25.1	28.6	25.5	24.2	
SO ₂		6.4	9.9	8.3	7.5	
NO ₂		11.5	18.9	14.5	15.9	



[Signature]

Authorized Signatory
 Quality Manager / Dy. Quality Manager

Head Office
 17 Km. (Chhatrapati Lane)
 Gandhinagar
 PATNA - 800 001 (Bihar)



Laboratory Address :-
 01st FLOOR, RAHMAN NIKETAN,
 NEAR CANAL, RUKUNPURA,
 BAILEY ROAD,
 PATNA - 800 014 (BIHAR)



ISO 18001:2007
 CNSAS Certified

SHIVA TEST HOUSE

Tel : 0812 - 2247536 / 2240752 ; TeleFax : 0812 - 2590702
 E mail : shivatest1@yahoo.co.in

RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986, ACCREDITED BY "NATIONAL ACCREDITATION BOARD FOR TESTING & CALIBRATION LABORATORIES (NABL), UNDER MINISTRY OF SCIENCE & TECHNOLOGY, GOVT. OF INDIA AND ALSO RECOGNISED BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

Ref. No. **RH/TR/17-18/713(m)** Dt : **24.03.2018** Your Work Order No. **MANUAL/RH/BIH/17** Dt : **28.03.2017**

(a) Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur - 802 152					
(b) Details of Sample	Monitoring of Ambient Air Quality					
(c) Sample Collected by	Shiva Test House on 17.03.18					
(d) Sampling Location	Premises of Ramco Bihya					
(e) Method of Sampling	IS 5182 (Part - 14)					
(f) Sampling Environmental Condition	Temp. (°C) 26 Humidity (%) 66					
(g) Details of Sample Container (No. & Type of Container)	Filter Paper / Glass Impinger					
(h) Sample Quantity	5					
(i) Items required to be tested	As per contract					
(j) Whether any specific Method of Test has been suggested by the customer	No					
(k) Date of receiving the sample in Laboratory	18.03.18					
(l) Analysis Start Date / Analysis Completion Date	18.03.18 / 21.03.18					

Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g}/\text{m}^3$)
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Carbon Monoxide (CO) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-10)	BDL	170.0	50.0	BDL	4000 $\mu\text{g}/\text{m}^3$
2. Lead (Pb) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	1 $\mu\text{g}/\text{m}^3$
3. Ammonia as NH_3 , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-5)	NIL	NIL	NIL	NIL	400 $\mu\text{g}/\text{m}^3$
4. Ozone (O_3) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-9)	7.4	15.1	10.2	13.6	180 $\mu\text{g}/\text{m}^3$
5. Benzene (C_6H_6) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	5 $\mu\text{g}/\text{m}^3$
6. Arsenic (As) , ng/m^3	AAS Method	BDL	BDL	BDL	BDL	6 ng/m^3
7. Nickel as Ni , ng/m^3	AAS Method	BDL	BDL	BDL	BDL	20 ng/m^3

CO : BDL Denotes Below Detectable Limit < 21.09 ($\mu\text{g}/\text{m}^3$)
 Pb : BDL Denotes Below Detectable Limit < 0.02 ($\mu\text{g}/\text{m}^3$)



[Signature]

Authorized Signatory
 Quality Manager / Dy. Quality Manager

1 This report applies only to sample tested as above
 2 Total Liability of our Laboratory is limited to invoiced amount
 3 Test Report endorsed only the tests and not the sample

Head Office:
 10/10, Chatterjee Lane,
 Gardenbagh,
 PATNA - 800 001 (Bihar)



Laboratory Address >
 01st FLOOR, RAHMAN NIKETAN,
 NEAR CANAL, RUKUNPURA,
 BAILEY ROAD,
 PATNA - 800 014 (BIHAR)

SHIVA TEST HOUSE

Tel : 0612 - 2247538/ 2240752 | TeleFax : 0612 - 2590705
 E mail : shiptest@vsnl.co.in



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 ISO 9001:2007
 Certified

RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT '1986, ACCREDITED BY "NATIONAL ACCREDITATION BOARD FOR TESTING & CALIBRATION LABORATORIES (NABL), UNDER MINISTRY OF SCIENCE & TECHNOLOGY, GOVT. OF INDIA AND ALSO RECOGNISED BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

Ref. No. <i>RH/TR/17-18/713(o)</i> Dt : <i>24.03.2018</i> Your Work Order No. <i>MANUAL/RH/BIH/17</i> Dt : <i>28.03.2017</i>						
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152				
[b] Details of Sample		<i>Monitoring of Ambient Air Quality</i>				
[c] Sample Collected by		<i>Shiva Test House on 17.03.18</i>				
[d] Sampling Location		<i>Premises of Ramco Bihiya</i>				
[e] Method of Sampling		IS 5182 (Part - 14)				
[f] Sampling Environmental Condition		Temp. (°C) 26 Humidity (%) 66				
[g] Details of Sample Container (No. & Type of Container)		Filter Paper / Glass Impinger				
[h] Sample Quantity		1				
[i] Items required to be tested		As per contract				
[j] Whether any specific Method of Test has been suggested by the customer		No				
[k] Date of receiving the sample in Laboratory		18.03.18				
[l] Analysis Start Date / Analysis Completion Date		18.03.18 / 20.03.18				
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g} / \text{m}^3$)
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Benzo (a) Pyrene, (Particulate Phase only) ng / m^3	IS 5182 (Part-10)	<0.1	<0.1	<0.1	<0.1	1.0 ng / m^3



[Signature]

Authorized Signatory
 Quality Manager / Dy. Quality Manager

Head Office :
 57 Patna - (Chatterjee Lane)
 Patna - 800 014 (Bihar)



Head Office :
 JOC, RAJHANS NIKETAN,
 ANAL, ROHTAS B.L.
 5 ROAD,
 PATNA - 800 014 (BIHAR)

SHIVA TEST HOUSE

Tel: 0912 - 2447538 / 2240762, TeleFax: 0912 - 2090705
 E-mail: shivapatna1@yahoo.co.in



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 OHSAS Certified

RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986, ACCREDITED BY NATIONAL ACCREDITATION BOARD FOR TESTING & CALIBRATION LABORATORIES (NABL), UNDER MINISTRY OF SCIENCE & TECHNOLOGY, GOVT. OF INDIA AND ALSO RECOGNISED BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

Ref. No. <i>RH/TR/17-18/591(a)</i> Dt: <i>12.02.2018</i> Your Work Order No. <i>MANUAL/RH/BIH/17</i> Dt: <i>28.03.2017</i>				
[a] Name and address of the Customer		RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihlya Bhojpur - 802 152		
[b] Details of Sample		Monitoring of Stack Emission		
[c] Sample Collected by		SHIVA TEST HOUSE on 28.01.18		
[d] Sampling Location		Premises of Ramco Bihlya		
[e] Method of Sampling		IS 11255 (Part-1,2,3 & 7)		
[f] Sampling Environmental Condition		Temp. (°C)	20 Humidity (%)	
[g] Details of Sample Container (No. & Type of Container)		Thimble & Glass Impinger		
[h] Sample Quantity		1		
[i] Items required to be tested		As per contract		
[j] Whether any specific Method of Test has been suggested by the customer		No		
[k] Date of receiving the sample in Laboratory		28.01.18		
[l] Analysis Start Date / Analysis Completion Date		29.01.18 / 01.02.18		
Parameters	Method of Test	Results		
1. Stack Connected to		Fibre Circuit		
2. Stack No.		1		
3. Height of Stack (as reported)		30.0 m.		
4. Dia of Stack at Top (as reported)		0.4 m.		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		20.0		
8. Flue Gas Temperature, °C		43.0		
9. Velocity, m/sec.		IS 11255 (Part-3)	5.3	
10. Volumetric Flow Rate (NM ³ /hr.)			2259.9	
11. Sampling Point			10 m	
		Concentration (mg / NM ³)	Limit as per E (P) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	1.2	2.0 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable	---	
14. Oxides of Nitrogen (NO _x)	IS 11255 (Part-7)	Not Detectable	---	



[Signature]

Authorized Signatory
 Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above
 2. Total Liability of our Laboratory is limited to invoiced amount

K. Office:
 2202, 75, Maharaja Samra
 HOSUR
 PATNA - 800 014 (BIHAR)



Laboratory Address:
 01st FLOOR, RAJHANS NIKETAN,
 NEAR CANAL, RUKUSIPURA,
 BAILEY ROAD,
 PATNA - 800014 (BIHAR)

SHIVA TEST HOUSE

Tel: 0612 - 2442500 / 244752 : TeleFax: 0612 - 2441705
 E-mail: shivatest1@yahoo.co.in



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Ref. No. <i>RIL/TR/17-18/591(b)</i> Dt: <i>12.02.2018</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt: <i>28.03.2017</i>				
[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152			
[b] Details of Sample	<i>Monitoring of Stack Emission</i>			
[c] Sample Collected by	SHIVA TEST HOUSE on <i>28.01.18</i>			
[d] Sampling Location	<i>Premises of Ramco Bihiya</i>			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	20	Humidity (%)	76
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger			
[h] Sample Quantity	2			
[i] Items required to be tested.	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	<i>28.01.18</i>			
[l] Analysis Start Date / Analysis Completion Date	<i>29.01.18 / 01.02.18</i>			
Parameters	Method of Test	Results		
1. Stack Connected to		Cement / Fly Ash Circuit		
2. Stack No.		11		
3. Height of Stack (as reported)		15.0 m		
4. Dia of Stack at Top (as reported)		0.4 m		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		20.0		
8. Flue Gas Temperature, °C		41.0		
9. Velocity, m/sec.		IS 11255 (Part-3)	6.2	
10. Volumetric Flow Rate (NM ³ /hr.)			2660.54	
11. Sampling Point			5 m	
		Concentration (mg / NM ³)	Limit as per E (B) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	51.6	100.00 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable	---	
14. Oxides of Nitrogen (NO _x) -	IS 11255 (Part-7)	13.6	---	



[Signature]
 Authorized Signatory
 Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above.
 2. Total Liability of our Laboratory is limited to invoiced amount.

Office :
 (Chhatrapati Lane)
 Patna - 800 001 (Bihar)



Laboratory Address :-
 01st FLOOR, RAJHANS NIKETAN,
 NEAR CANAL, RUKUNPURA,
 BALLEE ROAD,
 PATNA - 800 014 (BIHAR)

ISO 9001



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SHIVA TEST HOUSE

Tel : 0612 - 2247538 / 2240752 : TeleFax : 0612 - 2590705
 E-mail : shivapatna1@yahoo.co.in

RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986, ACCREDITED BY NATIONAL ACCREDITATION BOARD FOR TESTING & CALIBRATION LABORATORIES (NABL), UNDER MINISTRY OF SCIENCE & TECHNOLOGY, GOVT. OF INDIA AND ALSO RECOGNISED BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

Ref. No. *RIL/TR/17-18/591(c)* Dt : *12.02.2018* Your Work Order No. *MANUAL/RIL/BIH/17* Dt : *28.03.2017*

[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihuya Bhojpur - 802 152			
[b] Details of Sample	<i>Monitoring of Stack Emission</i>			
[c] Sample Collected by	SHIVA TEST HOUSE on 28.01.18			
[d] Sampling Location	<i>Premises of Ramco Bihuya</i>			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	20	Humidity (%)	76
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger			
[h] Sample Quantity	2			
[i] Items required to be tested	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	28.01.18			
[l] Analysis Start Date / Analysis Completion Date	29.01.18 / 01.02.18			
Parameters	Method of Test	Results		
1. Stack Connected to		Pulveriser Plant.		
2. Stack No.		111		
3. Height of Stack (as reported)		15.0 m.		
4. Dia of Stack at Top (as reported)		0.15 m.		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		20.0		
8. Flue Gas Temperature, °C		40.0		
9. Velocity, m/sec		IS 11255 (Part-3)	6.5	
10. Volumetric Flow Rate (NM ³ /hr.)			393.49	
11. Sampling Point			5 m.	
		<i>Concentration (mg / NM³)</i>	<i>Limit as per E (P) Rules Schedule I</i>	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	1.41	2.0 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable	—	
14. Oxides of Nitrogen (NOx)	IS 11255 (Part-7)	11.6	—	



[Signature]
 Authorized Signatory
 Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above
 2. Total Liability of our Laboratory is limited to invoiced amount.
 3. This Report concerned only the tests and not the product condition.

Office :
 Esau, (Chatterjee Lane)
 arambh
 PATNA - 800 001 (Bihar)



SHIVA TEST HOUSE

Tel : 0812 - 2247538 / 2240752 : TeleFax : 0612 - 2500705
 E-mail : shivahouse@yahoo.co.in

Laboratory Address :-
 01st FLOOR, RAHANS NIKETAN,
 NEAR CANAL, RUKUNPURA,
 BAILEY ROAD,
 PATNA - 800 014 (BIHAR)

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Ref. No. *RH/TR/17-18/591(d)* Dt : *12.02.2018* Your Work Order No. *MANUAL/RH/BIH/17* Dt : *28.03.2017*

[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur - 802 152		
[b] Details of Sample	Monitoring of Stack Emission		
[c] Sample Collected by	SHIVA TEST HOUSE on 28.01.18		
[d] Sampling Location	Premises of Ramco Bihya		
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)		
[f] Sampling Environmental Condition	Temp. (°C)	20	Humidity (%)
[g] Details of Sample Container (No. & Type or Container)	Thimble & Glass Impinger		
[h] Sample Quantity	5		
[i] Items required to be tested	As per contract		
[j] Whether any specific Method of Test has been suggested by the customer	No		
[k] Date of receiving the sample in Laboratory	28.01.18		
[l] Analysis Start Date / Analysis Completion Date	29.01.18 / 01.02.18		

Parameters	Method of Test	Results		
1. Stack Connected to		DG Set 1010 KVA		
2. Stack No		IV		
3. Height of Stack (as reported)		9.0 m.		
4. Dia of Stack at Top (as reported)		0.15 m.		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		20.0		
8. Flue Gas Temperature, °C		171.0		
9. Velocity, m/sec		IS 11255 (Part-3)	8.4	
10. Volumetric Flow Rate (NM ³ /hr.)			358.48	
11. Sampling Point			3.5 m.	
		Concentration (mg / NM ³)	Limit as per E (P) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	43.2	75.00 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	49.1	Not Specified	
14. Oxides of Nitrogen (NOx)	IS 11255 (Part-7)	184.7	710.00 mg / NM ³	
15. NMHC (as C) (at 15% O ₂)	CPCB	18.0	100.00 mg / NM ³	
16. Carbon Monoxide as CO (at 15% O ₂)	IS 13270 - 2003	25.0	150.00 mg / NM ³	



[Signature]

Authorized Signatory
 Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above
 2. Total Liability of our Laboratory is limited to invoiced amount
 3. Test Results

Lab. Office :
 1st Floor, (Chhatrapati Lane)
 Bhojpur
 PATNA - 800 014 (Bihar)



SHIVA TEST HOUSE

Tel : 0612 - 2247539/2240752 TeleFax : 0612 - 2500705
 E-mail : shiva@shiva1@yahoo.co.in

Laboratory Address :
 11th FLOOR, RAJHANS NIKETAN,
 NEAR CANAL, BHOJPUR,
 BAREILLY ROAD,
 PATNA - 800 014 (Bihar)

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Ref. No. *RIL/IR/17-18/591(e)* Dt : *12.02.2018* Your Work Order No. *MANUAL/RIL/BIH/17* Dt : *28.03.2017*

[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152			
[b] Details of Sample	<i>Monitoring of Stack Emission</i>			
[c] Sample Collected by	SHIVA TEST HOUSE on <i>28.01.18</i>			
[d] Sampling Location	<i>Premises of Ramco Bihiya</i>			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	20	Humidity (%)	76
[g] Details of Sample Container (No. & Type of Container)	Thistle & Glass Impinger			
[h] Sample Quantity	5			
[i] Items required to be tested	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	<i>28.01.18</i>			
[l] Analysis Start Date / Analysis Completion Date	<i>29.01.18 / 01.02.18</i>			
	Parameters	Method of Test	Results	
1.	Stack Connected to		DG Set 750 KVA	
2.	Stack No.		V	
3.	Height of Stack (as reported)		9.0 m.	
4.	Dia of Stack at Top (as reported)		0.15 m.	
5.	Draft		Natural	
6.	Material of Construction		M.S.	
7.	Ambient Temperature, °C		20.0	
8.	Flue Gas Temperature, °C		184.0	
9.	Velocity, m/sec	IS 11255 (Part-3)	7.8	
10.	Volumetric Flow Rate (NM ³ /hr.)		338.2	
11.	Sampling Point		3.5 m.	
			Concentration (mg / NM³)	Limit as per E (P) Rules Schedule I
12.	Particulate Matter (P.M.)	IS 11255 (Part-1)	33.2	75.00 mg / NM³
13.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	36.4	Not Specified
14.	Oxides of Nitrogen (NO _x)	IS 11255 (Part-7)	170.3	710.00 mg / NM³
15.	NMHC (as C) (at 15% O ₂)	CPCB	15.0	100.00 mg / NM³
16.	Carbon Monoxide as CO (at 15% O ₂)	IS 13270 - 2003	24.0	150.00 mg / NM³



[Signature]

Authorized Signatory
 Quality Manager / Dy. Quality Manager



SHIVA TEST HOUSE

Tel : 0612 - 2247538 / 2240752 - TeleFax : 0612 - 2580795
 E-mail : shivatest1@yahoo.co.in

RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986, ACCREDITED BY "NATIONAL ACCREDITATION BOARD FOR TESTING & CALIBRATION LABORATORIES (NABL), UNDER MINISTRY OF SCIENCE & TECHNOLOGY, GOVT. OF INDIA AND ALSO RECOGNISED BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

Ref. No. <i>RIL/TR/17-18/619(a)</i> Dt : <i>26.02.2018</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>				
[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152			
[b] Details of Sample	Monitoring of Stack Emission			
[c] Sample Collected by	SHIVA TEST HOUSE on 20.02.18			
[d] Sampling Location	Premises of Ramco Bihiya			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	23	Humidity (%)	
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger			
[h] Sample Quantity	1			
[i] Items required to be tested	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	20.02.18			
[l] Analysis Start Date / Analysis Completion Date	21.02.18 / 23.02.18			
Parameters	Method of Test	Results		
1. Stack Connected to		Fibre Circuit		
2. Stack No.		1		
3. Height of Stack (as reported)		30.0 m.		
4. Dia of Stack at Top (as reported)		0.4 m.		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		23.0		
8. Flue Gas Temperature, °C		41.0		
9. Velocity, m/sec		IS 11255 (Part-3)	6.1	
10. Volumetric Flow Rate (NM ³ /hr)			2617.5	
11. Sampling Point			10 m.	
		Concentration (mg / NM³)	Limit as per E (P) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	1.64	2.0 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable	---	
14. Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	Not Detectable	---	



[Signature]
 Authorized Signatory
 Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above
 2. Total Liability of our Laboratory is limited to invoiced amount
 3. Test Report endorsed only the tests and not the product certificate
 4. Test Report is not valid without original copy of this report

Appt. Office
 10 D. J. S. Chambers Lane,
 Giridih Road,
 PATNA - 800 014 (Bihar)



SHIVA TEST HOUSE

Tel : 0612 - 2247538/2240752 : TeleFax : 0612 - 2300705
 E mail : shivatna@svahop.co.in

Laboratory Address :-
 01st FLOOR, RAJHANS NIKETAN,
 NEAR CANAL, RUKHSPURA,
 BAILEY ROAD,
 PATNA - 800 014 (BIHAR)



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Ref. No: *RIL/TR/17-1S/619(b)* Dt : *26.02.2018* Your Work Order No. *MANUAL/RIL/BIH/17* Dt : *28.03.2017*

[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152		
[b] Details of Sample	<i>Monitoring of Stack Emission</i>		
[c] Sample Collected by	SHIVA TEST HOUSE on <i>20.02.18</i>		
[d] Sampling Location	<i>Premises of Ramco Bihiya</i>		
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)		
[f] Sampling Environmental Condition	Temp. (°C)	23	Humidity (%)
[g] Details of Sample Container (No. & Type of Container)	Thimble Glass Impinger		
[h] Sample Quantity	2		
[i] Items required to be tested	As per contract		
[j] Whether any specific Method of Test has been suggested by the customer	No		
[k] Date of receiving the sample in Laboratory	<i>20.02.18</i>		
[l] Analysis Start Date / Analysis Completion Date	<i>21.02.18 / 23.02.18</i>		

Parameters	Method of Test	Results
1. Stack Connected to	IS 11255 (Part-3)	Cement / Fly Ash Circuit
2. Stack No.		11
3. Height of Stack (as reported)		15.0 m
4. Dia of Stack at Top (as reported)		0.4 m.
5. Draft		Natural
6. Material of Construction		M.S
7. Ambient Temperature, °C		23.0
8. Flue Gas Temperature, °C		43.0
9. Velocity, m/sec.		7.1
10. Volumetric Flow Rate (NM ³ /hr)		3027.4
11. Sampling Point		5 m.
	<i>Concentration (mg / NM³)</i>	<i>Limit as per E (P) Rules Schedule 1</i>
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	34.9 100.00 mg / NM ³
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable ---
14. Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	11.4 ---



[Signature]
 Authorized Signatory

Regd. Office :
 10 Canal, (Chauriya Lane)
 Gandhinagar
 PATNA - 800 001 (Bihar)



Laboratory Address :-
 01st FLOOR, RAJIBASS NIKETAN,
 NEAR CANAL, RUKHUPURA,
 BAILEY ROAD,
 PATNA - 800 014 (BIHAR)

SHIVA TEST HOUSE

Tel : 0812 - 2247536 / 2240752 ; TeleFax : 0812 - 2690305
 E-mail : shivahna1@yahoo.co.in

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Ref. No. <i>RIL/TR/17-18/619(c)</i> Dt : <i>26.02.2018</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>				
[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152			
[b] Details of Sample	<i>Monitoring of Stack Emission</i>			
[c] Sample Collected by	SHIVA TEST HOUSE on <i>20.02.18</i>			
[d] Sampling Location	<i>Premises of Ramco Bihiya</i>			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	23	Humidity (%)	
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger			
[h] Sample Quantity	2			
[i] Items required to be tested	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	<i>20.02.18</i>			
[l] Analysis Start Date / Analysis Completion Date	<i>21.02.18 / 23.02.18</i>			
Parameters	Method of Test	Results		
1. Stack Connected to		Pulveriser Plant		
2. Stack No.		111		
3. Height of Stack (as reported)		15.0 m.		
4. Dia of Stack at Top (as reported)		0.15 m.		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		23.0		
8. Flue Gas Temperature, °C		38.0		
9. Velocity, m/sec.		IS 11255 (Part-3)	5.1	
10. Volumetric Flow Rate (NM ³ /hr.)			310.7	
11. Sampling Point			5 m.	
		Concentration (mg / NM ³)	Limit as per E (P) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	1.29	2.0 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable	---	
14. Oxides of Nitrogen (NOx)	IS 11255 (Part-7)	8.6	---	



[Signature]

Authorized Signatory
 Quality Manager / Dy. Quality Manager

Regd. Office :
 41st Floor, (Chatterjee Lane)
 Durgam Chauri
 PATNA - 800 001 (Bihar)



Laboratory Address :-
 41st FLOOR, RUKUNPURA NIKETAN,
 NEAR CANAL, BUKHARUA,
 BAILEY ROAD,
 PATNA - 800 014 (BIHAR)

SHIVA TEST HOUSE

Tel : 0612 - 2247338 / 2240752 : TeleFax : 0612 - 2590705
 E-Mail : shivat@shivatvshoo.co.in



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Ref. No. <i>RIL/TR/17-18/619(d)</i> Dt : <i>26.02.2018</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>				
[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152			
[b] Details of Sample	Monitoring of Stack Emission			
[c] Sample Collected by	SHIVA TEST HOUSE on 20.02.18			
[d] Sampling Location	Premises of Ramco Bihiya			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	2	Humidity (%)	
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger			
[h] Sample Quantity	5			
[i] Items required to be tested	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	20.02.18			
[l] Analysis Start Date / Analysis Completion Date	21.02.18 / 23.02.18			
Parameters	Method of Test	Results		
1. Stack Connected to		DG Set 1010 KVA		
2. Stack No.		IV		
3. Height of Stack (as reported)		9.0 m.		
4. Dia of Stack at Top (as reported)		0.15 m.		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		23.0		
8. Flue Gas Temperature, °C		183.0		
9. Velocity, m/sec.		IS 11255 (Part-3)	9.6	
10. Volumetric Flow Rate (NM ³ /hr)			398.9	
11. Sampling Point			3.5 m.	
		Concentration (mg / NM³)	Limit as per E (P) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	47.1	75.00 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	42.8	Not Specified	
14. Oxides of Nitrogen (NOx)	IS 11255 (Part-7)	161.4	710.00 mg / NM ³	
15. NMHC (as C) (at 15% O ₂)	CPCB	24.0	100.00 mg / NM ³	
16. Carbon Monoxide as CO (at 15% O ₂)	IS 13270 - 2003	21.0	150.00 mg / NM ³	



[Signature]

Authorized Signatory
 Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.

Regd. Office :
6D Extn. ; (Chatterjee Lane)
Gardanibagh
PATNA - 800 001 (Bihar)



Laboratory Address :-
01st Floor, Rajhans Niketan,
Near Canal, Rukunpura,
Bailey Road,
Patna - 800 014 (Bihar)



SHIVA TEST HOUSE

Tel : 0612 - 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail.: sthpatna1@yahoo.co.in



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BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. RIL/TR/17-18/497(a) Dt: 30.12.2017 Your Work Order No. MANUAL/RIL/BIH/17 Dt: 28.03.2017

[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA industrial Area Bihiya Bhojpur - 802 152
[b] Details of Sample	Monitoring of Stack Emission
[c] Sample Collected by	SHIVA TEST HOUSE on 14.12.17
[d] Sampling Location	Premises of Ramco Bihiya
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)
[f] Sampling Environmental Condition	Temp. (°C) 20 Humidity (%) 74
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger
[h] Sample Quantity	1
[i] Items required to be tested	As per contract
[j] Whether any specific Method of Test has been suggested by the customer	No
[k] Date of receiving the sample in Laboratory	15.12.17
[l] Analysis Start Date / Analysis Completion Date	15.12.17 / 18.12.17

Parameters	Method of Test	Results
1. Stack Connected to	IS 11255 (Part-3)	Flue Circuit
2. Stack No.		
3. Height of Stack (as reported)		30.0 m
4. Dia of Stack at Top (as reported)		0.4 m
5. Draft		Natural
6. Material of Construction		14.5
7. Ambient Temperature, °C		20.0
8. Flue Gas Temperature, °C		46.0
9. Velocity, m/sec.		5.8
10. Volumetric Flow Rate (NM ³ /hr.)		2449.8
11. Sampling Point		10 m
	Concentration (mg / NM ³)	Limit as per I (P) Rates Schedule I
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	1.7
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable
14. Oxides of Nitrogen (NO _x)	IS 11255 (Part-7)	Not Detectable



Handwritten Signature
30/12/17
Authorized Signatory
Quality Manager / Quality Manager

Head Office :
D Extn. (Chatterjee Lane)
Gardanibagh
PATNA - 800 001 (Bihar)



Laboratory Address :-
01st Floor, Rajhans Niketan,
Near Canal, Rukunpura,
Bailey Road,
Patna - 800 014 (Bihar)



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Tel. : 0612 - 2247538/ 2240752 ; TeleFax : 0612 - 2590705
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TEST REPORT

Ref. No. *RH/TR/17-18/497(b)* Dt : *30.12.2017* Your Work Order No. *MANUAL/RH/BIH/17* Dt : *28.03.2017*

[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152			
[b] Details of Sample	<i>Monitoring of Stack Emission</i>			
[c] Sample Collected by	SHIVA TEST HOUSE on 14.12.17			
[d] Sampling Location	<i>Premises of Ramco Bihiya</i>			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	20	Humidity (%)	74
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger			
[h] Sample Quantity	2			
[i] Items required to be tested	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	15.12.17			
[l] Analysis Start Date / Analysis Completion Date	15.12.17 / 18.12.17			
Parameters	Method of Test	Results		
1. Stack Connected to.		Cement / Fly Ash Circuit		
2. Stack No.		11		
3. Height of Stack (as reported)		15.0 m.		
4. Dia of Stack at Top (as reported)		0.4 m.		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		20.0		
8. Flue Gas Temperature, °C		45.0		
9. Velocity, m/sec.		IS 11255 (Part-3)	5.1	
10. Volumetric Flow Rate (NM ³ /hr.)			2160.9	
11. Sampling Point			5 m.	
		Concentration (mg / NM ³)	Limit as per E (P) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	48.7	100.00 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable	---	
14. Oxides of Nitrogen (NO _x)	IS 11255 (Part-7)	13.6	---	



Authorized Signatory
Quality Manager / Dy. Quality Manager

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 Gardanibagh
 PATNA – 800 001 (Bihar)



Laboratory Address :-
 01st Floor, Rajhans Niketan,
 Near Canal, Rukunpura,
 Bailey Road,
 Patna – 800 014 (Bihar)



SHIVA TEST HOUSE

Tel. : 0612 – 2247538/ 2240752 : TeleFax : 0612 - 2590705
 E mail : sthpatna1@yahoo.co.in



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TEST REPORT

Ref. No. *RIL/TR/17-18/497(c)* Dt : *30.12.2017* Your Work Order No. *MANUAL/RIL/BIH/17* Dt : *28.03.2017*

[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur – 802 152			
[b] Details of Sample	Monitoring of Stack Emission			
[c] Sample Collected by	SHIVA TEST HOUSE on 14.12.17			
[d] Sampling Location	Premises of Ramco Bihiya			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	20	Humidity (%)	74
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger			
[h] Sample Quantity	2			
[i] Items required to be tested	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	15.12.17			
[l] Analysis Start Date / Analysis Completion Date	15.12.17 / 18.12.17			
Parameters	Method of Test	Results		
1. Stack Connected to		Pulveriser Plant.		
2. Stack No.		111		
3. Height of Stack (as reported)		15.0 m.		
4. Dia of Stack at Top (as reported)		0.15 m.		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		20.0		
8. Flue Gas Temperature, °C		42.0		
9. Velocity, m/sec.		IS 11255 (Part-3)	5.5	
10. Volumetric Flow Rate (NM ³ /hr.)			330.8	
11. Sampling Point			5 m.	
		Concentration (mg / NM ³)	Limit as per E (P) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	1.34	2.0 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable	---	
14. Oxides of Nitrogen (NOx)	IS 11255 (Part-7)	18.4	---	



Authorized Signatory
 Quality Manager / Dy. Quality Manager

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TEST REPORT

Ref. No. <i>RIL/TR/17-18/497(d)</i> Dt : <i>30.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>				
[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur – 802 152			
[b] Details of Sample	<i>Monitoring of Stack Emission</i>			
[c] Sample Collected by	SHIVA TEST HOUSE on <i>14.12.17</i>			
[d] Sampling Location	<i>Premises of Ramco Bihiya</i>			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	20	Humidity (%)	74
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass impinger			
[h] Sample Quantity	5			
[i] Items required to be tested	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	15.12.17			
[l] Analysis Start Date / Analysis Completion Date	15.12.17 / 18.12.17			
Parameters	Method of Test	Results		
1. Stack Connected to		DG Set 1010 KVA		
2. Stack No.		IV		
3. Height of Stack (as reported)		9.0 m.		
4. Dia of Stack at Top (as reported)		0.15 m.		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		20.0		
8. Flue Gas Temperature, °C		185.0		
9. Velocity, m/sec.	IS 11255 (Part-3)	9.1		
10. Volumetric Flow Rate (NM ³ /hr.)		376.4		
11. Sampling Point		3.5 m.		
		Concentration (mg / NM³)	Limit as per E (P) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	47.9	75.00 mg / NM³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	53.2	Not Specified	
14. Oxides of Nitrogen (NO _x)	IS 11255 (Part-7)	210.6	710.00 mg / NM³	
15. NMHC (as C) (at 15% O ₂)	CPCB	13.0	100.00 mg / NM³	
16. Carbon Monoxide as CO (at 15% O ₂)	IS 13270 – 2003	28.0	150.00 mg / NM³	



Authorized Signatory
Quality Manager / Dy. Quality Manager

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TEST REPORT

Ref. No. RIL/TR/17-18/497(e) Dt : 30.12.2017 Your Work Order No. MANUAL/RIL/BIH/17 Dt : 28.03.2017				
[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur – 802 152			
[b] Details of Sample	Monitoring of Stack Emission			
[c] Sample Collected by	SHIVA TEST HOUSE on 14.12.17			
[d] Sampling Location	Premises of Ramco Bihiya			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	20	Humidity (%) 74	
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger			
[h] Sample Quantity	5			
[i] Items required to be tested	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	15.12.17			
[l] Analysis Start Date / Analysis Completion Date	15.12.17 / 18.12.17			
Parameters	Method of Test	Results		
1. Stack Connected to		DG Set 750 KVA		
2. Stack No.		V		
3. Height of Stack (as reported)		9.0 m.		
4. Dia of Stack at Top (as reported)		0.15 m.		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		20.0		
8. Flue Gas Temperature, °C		171.0		
9. Velocity, m/sec.		IS 11255 (Part-3)	8.4	
10. Volumetric Flow Rate (NM ³ /hr.)			358.4	
11. Sampling Point			2.5 m	
		Concentration (mg / NM ³)	Limit as per E (P) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	38.7	75.00 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	42.6	Not Specified	
14. Oxides of Nitrogen (NO _x)	IS 11255 (Part-7)	184.6	710.00 mg / NM ³	
15. NMHC (as C) (at 15% O ₂)	CPCB	18.0	100.00 mg / NM ³	
16. Carbon Monoxide as CO (at 15% O ₂)	IS 13270 – 2003	30.0	150.00 mg / NM ³	



Authorized Signatory:
 Quality Manager / Dy. Quality Manager

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Head Office :
 10 Extn. : (Chatterjee Lane)
 Gardanibagh
 PATNA - 800 001 (Bihar)



Laboratory Address :-
 01st Floor, Rajhans Niketan,
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 Bailey Road,
 Patna - 800 014 (Bihar)



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TEST REPORT

Ref. No. <i>RIL/TR/17-18/497(f)</i> Dt: <i>30.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt: <i>28.03.2017</i>					
[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihliya Bhojpur - 802 152				
[b] Details of Sample	Borewell Water				
[c] Sample Collected by	SHIVA TEST HOUSE on 14.12.17				
[d] Sampling Location	(Near Godown)				
[e] Method of Sampling	IS 3025, APHA				
[f] Sampling Environmental Condition	Temp. (°C)	20	Humidity (%)	74	
[g] Details of Sample Container (No. & Type of Container)	Plastic Bottle (02)				
[h] Sample Quantity	2 Litres				
[i] Items required to be tested	As per contract.				
[j] Whether any specific Method of Test has been suggested by the customer	No				
[k] Date of receiving the sample in Laboratory	15.12.17				
[l] Analysis Start Date / Analysis Completion Date	15.12.17 / 19.12.17				
S.N.	Parameters	Limit as per IS 10500 : 2012		Method of Test	Results in mg/l, except colour, Odour, Taste, Turbidity, & pH
		Limit (mg/l.) Desirable	Permissible Limit in the absence of alternative source		
1	Colour	5.0 Hazen Limit	25	IS 3025 (Part-4)	<5.00
2	Odour	Agreeable	---	IS 3025 (Part-5)	Agreeable
3	Taste	Agreeable	---	IS 3025 (Part-7))	Agreeable
4	pH	6.5 to 8.5	--	IS 3025 (Part-11)	7.18
5	Turbidity on NTU	1.00	5.00	IS 3025 (Part-10)	<1.0
6	Total Dissolved Solids (TDS)	500.00	2000.00	IS 3025 (Part-15)	448.0
7	Total Hardness as CaCO ₃	200.00	600.00	IS 3025 (Part-21)	252.0
8	Calcium as Ca	75.00	200.00	IS 3025 (Part-40)	48.1
9	Magnesium as Mg	30.00	100.00	IS 3025 (Part-40)	32.0
10	Iron as Fe	0.30	No relaxation	IS 3025 (Part-53)	0.18
11	Residual Free Chlorine	0.20	1.00	IS 3025 (Part-26)	<0.1
12	Total Alkalinity as CaCO ₃	200.00	600.00	IS 3025 (Part-23)	286.0
13	Chloride as Cl	250.00	1000.00	IS 3025 (Part-32)	26.0
14	Sulphate as SO ₄	200.00	400.00	IS 3025 (Part-24)	13.2
15	Nitrate as NO ₃	45.00	No relaxation	IS 3025 (Part-34)	6.8
16	Fluoride as F	1.00	1.50	APHA (4500 F D)	0.29



Authorized Signatory
 Quality Manager / Dr. Quality Manager

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Head Office :
 3D Extn. : (Chatterjee Lane)
 Gardanibagh
 PATNA - 800 001 (Bihar)



Laboratory Address :-
 01st Floor, Rajhans Niketan,
 Near Canal, Rukunpura,
 Bailey Road,
 Patna - 800 014 (Bihar)



SHIVA TEST HOUSE

Tel. : 0612 - 2247538/ 2240752 ; TeleFax : 0612 - 2590705
 E.mail : sthpatna1@yahoo.co.in



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TEST REPORT

Ref. No. <i>RIL/TR/17-18/497(g)</i> Dt : <i>30.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>				
[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152			
[b] Details of Sample	Borewell Water			
[c] Sample Collected by	SHIVA TEST HOUSE on <i>14.12.17</i>			
[d] Sampling Location	<i>(Near Godown)</i>			
[e] Method of Sampling	IS 3025, APHA			
[f] Sampling Environmental Condition	Temp. (°C)	20	Humidity (%) 74	
[g] Details of Sample Container (No. & Type of Container)	Glass Bottle (01)			
[h] Sample Quantity	300 ml			
[i] Items required to be tested	As per contract.			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	<i>15.12.17</i>			
[l] Analysis Start Date / Analysis Completion Date	<i>15.12.17 / 17.12.17</i>			
BACTERIOLOGICAL EXAMINATION OF WATER AS PER IS 1622 - 1981				
Coliform (Most Probable Number of Organisms per 100 ml. of sample and confidence limit using 1 tube of 50 ml., 5 tubes of 10 ml. and 5 tubes of 1 ml.)				
Sample	Media Strength	No. of Tubes	Observation for Acid / Gas formation at 37 °C after	
			24 Hr.	48 Hr.
50 ml	Double Strength	1	-	-
10 ml	-- do --	5	-	-
1 ml	Single Strength	5	-	-
Result -- MPN Organisms Values -- Not Detected in 100 ml. (Limit : Shall not be Detectable in 100 ml.)				



Authorized Signatory
Quality Manager / Dy. Quality Manager

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 Gardanibagh
 PATNA - 800 001 (Bihar)



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 01st Floor, Rajhans Niketan,
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TEST REPORT

Ref. No. <i>RIL/TR/17-18/497(h)</i> Dt : <i>30.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>					
[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152				
[b] Details of Sample	Drinking Water				
[c] Sample Collected by	SHIVA TEST HOUSE on <i>14.12.17</i>				
[d] Sampling Location	from Canteen Aquaguard				
[e] Method of Sampling	IS 3025, APHA				
[f] Sampling Environmental Condition	Temp. (°C)	20	Humidity (%)	74	
[g] Details of Sample Container (No. & Type of Container)	Plastic Bottle (02)				
[h] Sample Quantity	2 Litres				
[i] Items required to be tested	As per contract.				
[j] Whether any specific Method of Test has been suggested by the customer	No				
[k] Date of receiving the sample in Laboratory	15.12.17				
[l] Analysis Start Date / Analysis Completion Date	15.12.17 / 19.12.17				
Limit as per IS 10500 : 2012					
S.N.	Parameters	Limit (mg/l.) Desirable	Permissible Limit in the absence of alternative source	Method of Test	Results in mg/l. except colour, Odour, Taste, Turbidity & pH
1	Colour	5.0 Hazen Limit	25	IS 3025 (Part-4)	<5.00
2	Odour	Agreeable	---	IS 3025 (Part-5)	Agreeable
3	Taste	Agreeable	---	IS 3025 (Part-7)	Agreeable
4	pH	6.5 to 8.5	--	IS 3025 (Part-11)	7.21
5	Turbidity on NTU	1.00	5.00	IS 3025 (Part-10)	<1.00
6	Total Dissolved Solids (TDS)	500.00	2000.00	IS 3025 (Part-15)	234.0
7	Total Hardness as CaCO ₃	200.00	600.00	IS 3025 (Part-21)	156.0
8	Calcium as Ca	75.00	200.00	IS 3025 (Part-40)	41.6
9	Magnesium as Mg	30.00	100.00	IS 3025 (Part-40)	12.6
10	Iron as Fe	0.30	No relaxation	IS 3025 (Part-53)	0.12
11	Residual Free Chlorine	0.20	1.00	IS 3025 (Part-26)	>0.1
12	Total Alkalinity as CaCO ₃	200.00	600.00	IS 3025 (Part-23)	184.0
13	Chloride as Cl	250.00	1000.00	IS 3025 (Part-32)	12.0
14	Sulphate as SO ₄	200.00	400.00	IS 3025 (Part-24)	6.8
15	Nitrate as NO ₃	45.00	No relaxation	IS 3025 (Part-34)	2.1
16	Fluoride as F	1.00	1.50	APHA (4500 F D)	0.25

Authorized Signatory
Quality Manager - D. Quality Manager

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RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986 (VALID UPTO MAR. 2018),
 BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>RIL/TR/17-18/497(i)</i> Dt : <i>30.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>				
[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur – 802 152			
[b] Details of Sample	Drinking Water			
[c] Sample Collected by	SHIVA TEST HOUSE on 14.12.17			
[d] Sampling Location	from Canteen Aquaguard			
[e] Method of Sampling	IS 3025, APHA			
[f] Sampling Environmental Condition	Temp. (°C)	20	Humidity (%)	74
[g] Details of Sample Container (No. & Type of Container)	Glass Bottle (01)			
[h] Sample Quantity	300 ml			
[i] Items require to be tested	As per contract.			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	15.12.17			
[l] Analysis Start Date / Analysis Completion Date	15.12.17 / 17.12.17			
BACTERIOLOGICAL EXAMINATION OF WATER AS PER IS 1622 - 1981				
<i>Coliform (Most Probable Number of Organisms per 100 ml. of sample and confidence limit using 1 tube of 50 ml., 5 tubes of 10 ml. and 5 tubes of 1 ml.)</i>				
Sample	Media Strength	No. of Tubes	Observation for Acid / Gas formation at 37 °C after	
			24 Hr.	48 Hr.
50 ml.	Double Strength	1	-	-
10 ml.	-- do --	5	-	-
1 ml.	Single Strength	5	-	-
Result – MPN Organisms Values – Not Detected in 100 ml. (Limit : Shall not be Detectable in 100 ml.)				

Authorized Signatory
 Quality Manager / Dr. Quality Manager

1. This report applies only to sample tested as above.
 2. Total Liability of our Laboratory is limited to invoiced amount.

Regd. Office :
6D Extn. : (Chatterjee Lane)
Gardanibagh
PATNA - 800 001 (Bihar)



Laboratory Address :-
01st Floor, Rajhans Niketan,
Near Canal, Rukunpura,
Bailey Road,
Patna - 800 014 (Bihar)



SHIVA TEST HOUSE

Tel : 0612 - 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail : sthpatna1@yahoo.co.in



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TEST REPORT

Ref. No. <i>RIL/TR/17-18/497(j)</i> Dt : <i>30.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>					
[a] Name and address of the Customer		RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152			
[b] Details of Sample		<i>Effluent Sample</i>			
[c] Sample Collected by		SHIVA TEST HOUSE on <i>14.12.17</i>			
[d] Sampling Location		<i>from Final Discharge Point</i>			
[e] Method of Sampling		IS 3025, APHA			
[f] Sampling Environmental Condition		Temp. (°C)	20	Humidity (%)	74
[g] Details of Sample Container (No. & Type of Container)		Plastic Bottle (02)			
[h] Sample Quantity		2 Litres			
[i] Items required to be tested		As per contract.			
[j] Whether any specific Method of Test has been suggested by the customer		No			
[k] Date of receiving the sample in Laboratory		<i>15.12.17</i>			
[l] Analysis Start Date / Analysis Completion Date		<i>15.12.17 / 18.12.17</i>			
S N	Parameters	Method of Test	Limit as per E (P) Rules Schedule VI	Result (in mg/l.) except pH, Colour	
1	Colour	IS 3025 (Part-4)	Not Specified	Colourless	
2	pH	IS 3025 (Part-11)	5.5 to 9.0	6.89	
3	Suspended Solids	IS 3025 (Part-17)	100.00	48.0	
4	Oil & Grease	IS 3025 (Part-39)	10.00	1.2	
5	B.O.D. (3 days at 27°C)	IS 3025 (Part-44)	30.00	20.0	
6	C.O.D	APHA 5220 B	250.00	88.0	
7	Dissolved Phosphate as P	APHA (4500-P-12)	5.00	1.8	
8	Fluoride as F	APHA 4500 (F D)	5.00	0.35	
9	Ammonical Nitrogen as N	IS 3025 (Part-34)	50.00	12.4	
10	Total Kjeldahl Nitrogen as N	APHA (450) N org)	100.00	26.2	

Authorized Signatory
Quality Manager / Dy. Quality Manager

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3. Test Results on contact only the letter and not the product packaging.

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SHIVA TEST HOUSE

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TEST REPORT

Ref No. <i>RIL/TR/17-18/497(k)</i> Dt: <i>30.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt: <i>28.03.2017</i>	
[a] Name and address of the Customer	RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur – 802 152
[b] Sampling Environmental Condition	Temp. (°C) 20 Humidity (%) 74
[c] Details of Sample	<i>Monitoring of Ambient Noise Level at Ramco Bihya</i>
[d] Monitored by	SHIVA TEST HOUSE on 14.12.17
[e] Whether any specific Method of Test has been suggested by the party	No
Sampling Location	Time Weighted Average (TWA) of Noise Level in dB(A)
1. Near Main Gate	63.2
2. Near Office	54.1
3. Near Stripping Area	61.3
4. Near Fibre Mill	63.8
5. Near DG Room	70.8
N.B.:	<i>The Ambient Air Quality Standards in respect of Noise as per Noise Pollution (Regulation and Control) Rules 2000 for industrial area is 75.0 dB(A), for Commercial area is 65.0 dB(A), for Residential area is 55.0 dB(A) & for Silence Zone is 50.0 dB(A) in daytime i.e. 5.00 am to 9.0 p.m. As per Rule 7(1&2) the authority shall take action against violator if the noise level exceed the ambient noise standards by 10 dB(A) or more against any area/zone.</i>

Authorized Signatory
Quality Manager / Dr. Quality Manager

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TEST REPORT

Ref. No. <i>RIL/TR/17-1s/408(f)</i> Dt: <i>20.11.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt: <i>28.03.2017</i>						
[a] Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIAL LTD. Plot No. A 1, BHADA industrial Area Bhiya Bhojpur - 902 152					
[b] Details of Sample	Monitoring of Ambient Air Quality					
[c] Sample Collected by	Shiva Test House on 09.11.17					
[d] Sampling Location	Premises of Ramco Bhiya					
[e] Method of Sampling	IS 5182 (Part - 14)					
[f] Sampling Environmental Condition	Temp (°C)	37	Humidity (%)	88		
[g] Details of Sample Container (No. & Type of Container)	Filter Paper - Glass Impinger					
[h] Sample Quantity	12					
[i] Items required to be tested	As per contract					
[j] Whether any specific Method of Test has been suggested by the customer	No					
[k] Date of receiving the sample in Laboratory	09.11.17					
[l] Analysis Start Date / Analysis Completion Date	09.11.17 / 11.11.17					
Parameters	Method of Test	Sampling Station				Limit as NAAQS Nov. 2009
		Near Office	Near River Gate	Near Shipping Area	Near Laboratory	
1. Particulate Matter (PM ₁₀) $\mu\text{g}/\text{m}^3$	IS 5182 (Part 20)	49.3	45.6	28.4	51.3	100 $\mu\text{g}/\text{m}^3$
		43.5	43.5	28.7	47.6	
		42.7	40.8	25.1	43.3	
2. Particulate Matter (PM _{2.5}) $\mu\text{g}/\text{m}^3$	USEP-M	27.7	23.3	21.6	25.8	50 $\mu\text{g}/\text{m}^3$
		20.8	20.0	17.7	24.1	
		10.0	13.4	12.7	15.1	
3. Sulphur Dioxide as SO ₂ $\mu\text{g}/\text{m}^3$	IS 5182 (Part 7)	9.7	14.3	14.0	12.9	80 $\mu\text{g}/\text{m}^3$
		7.6	10.9	8.7	11.1	
		6.9	9.1	8.8	8.1	
		6.5	6.9	7.5	6.5	
		18.0	18.8	12.7	20.1	
4. Nitrogen Dioxide as NO ₂ $\mu\text{g}/\text{m}^3$	IS 5182 (Part 14)	29.5	20.1	19.0	17.8	88 $\mu\text{g}/\text{m}^3$
		5.0	3.4	15.6	17.0	
		14.4	16.4	12.8	18.8	
		13.5	14.7	8.9	13.1	
		15.3	12.3	11.1	12.8	
Average Value						
PM ₁₀		45.2	43.3	35.0	47.4	
PM _{2.5}		25.7	22.0	20.4	25.3	
SO ₂		9.7	11.7	9.8	11.0	
NO ₂		16.2	17.4	12.3	12.5	

[Signature]
20/11/17
Authorizing Signatory
Quality Manager / Sr. Quality Manager

1. This report applies only to sample tested as above.
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3. This Report endorsed only if it tests with NABL product certificate.
4. Test Report can not be reproduced without the full for technical details without written consent from the Laboratory.

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Gardanibagh
PATNA – 800 001 (Bihar)



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01st Floor, Rajhans Niketan,
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Bailey Road,
Patna – 800 014 (Bihar)



SHIVA TEST HOUSE

Tel. : 0612 – 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E mail : sthpatna1@yahoo.co.in



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TEST REPORT

Ref. No. RII/TR/17-18/408(g) Dt: 20.11.2017 Your Work Order No. MANUAL/RII/BIH/17 Dt: 28.03.2017							
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur – 302 152					
[b] Details of Sample		Monitoring of Ambient Air Quality					
[c] Sample Collected by		Shiva Test House on 08.11.17					
[d] Sampling Location		Premises of Ramco Bihya					
[e] Method of Sampling		IS 5182 (Part - 14)					
[f] Sampling Environmental Condition		Temp. (°C)	37	Humidity (%)	86		
[g] Details of Sample Container (No. & Type of Container)		Filter Paper : Glass Impinger					
[h] Sample Quantity		5					
[i] Items required to be tested		As per contract					
[j] Whether any specific Method of Test has been suggested by the customer		No					
[k] Date of receiving the sample in Laboratory		09.11.17					
[l] Analysis Start Date / Analysis Completion Date		09.11.17 / 11.11.17					
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g} / \text{m}^3$)	
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory		
1. Carbon Monoxide (CO) ; $\mu\text{g} / \text{m}^3$	IS 5182 (Part-10)	40.0	64.0	30.0	BDL	4000 $\mu\text{g} / \text{m}^3$	
2. Lead (Pb) ; $\mu\text{g} / \text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	1 $\mu\text{g} / \text{m}^3$	
3. Ammonia as NH_3 ; $\mu\text{g} / \text{m}^3$	IS 5182 (Part-5)	NIL	NIL	NIL	NIL	400 $\mu\text{g} / \text{m}^3$	
4. Ozone (O_3) ; $\mu\text{g} / \text{m}^3$	IS 5182 (Part-8)	5.3	9.8	7.1	0.1	180 $\mu\text{g} / \text{m}^3$	
5. Benzene (C_6H_6) ; $\mu\text{g} / \text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	5 $\mu\text{g} / \text{m}^3$	
6. Arsenic (As) ; ng / m^3	AAS Method	BDL	BDL	BDL	BDL	6 ng / m^3	
7. Nickel as Ni ; ng / m^3	AAS Method	BDL	BDL	BDL	BDL	20 ng / m^3	
CO ; BDL Denotes Below Detectable Limit < 21.00 ($\mu\text{g} / \text{m}^3$)		Pb ; BDL Denotes Below Detectable Limit = 0.02 ($\mu\text{g} / \text{m}^3$)					


Authorized Signatory
Quality Manager - Dr. Quality Manager

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3. Test Report endorsed only for facts and not for product certificate.
4. Test Report cannot be re-issued without permission of the Laboratory.

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PATNA - 800 001 (Bihar)



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TEST REPORT

Ref. No. <i>RII/TR/17-18/408(lt)</i> Dt : <i>20.11.2017</i> Your Work Order No. <i>MANUAL/RII/BIH/17</i> Dt : <i>28.03.2017</i>						
(a) Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihija Bhojpur - 802 152					
(b) Details of Sample	Monitoring of Ambient Air Quality					
(c) Sample Collected by	Shiva Test House on 08.11.17					
(d) Sampling Location	Premises of Ramco Bihija					
(e) Method of Sampling	IS 5182 (Part - 14)					
(f) Sampling Environmental Condition	Temp. (°C)	37	Humidity (%)	88		
(g) Details of Sample Container (No. & Type of Container)	Filter Paper ; Glass Impinger					
(h) Sample Quantity	1					
(i) Items required to be tested	As per contract					
(j) Whether any specific Method of Test has been suggested by the customer	No					
(k) Date of receiving the sample in Laboratory	09.11.17					
(l) Analysis Start Date / Analysis Completion Date	09.11.17 / 11.11.17					
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g} / \text{m}^3$)
		Near-Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1 Benzene & Pyrene (Particulate Phase only) $\mu\text{g} / \text{m}^3$	IS 5182 (Part-10)	<0.1	<0.1	<0.1	<0.1	1.0 $\mu\text{g} / \text{m}^3$

[Signature]
Authorized Signatory
Quality Manager / Dr. Quality Manager

1. This report covers only the sample tested as above.
2. Total liability of our Laboratory is limited to provided limit only.
3. Test report covers only the test and not the product or service.
4. Test Report should be used for reference only. It is not to be used for any other purpose.

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TEST REPORT

Ref. No. <i>RII/TR/17-18/408(a)</i> Dt : <i>20.11.2017</i> Your Work Order No. <i>MANUAL/RII/BIH/17 Dt : 28.03.2017</i>					
[a] Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur - 802 152				
[b] Details of Sample	Monitoring of Stack Emission				
[c] Sample Collected by	SHIVA TEST HOUSE on <i>08.11.17</i>				
[d] Sampling Location	Premises of Ramco Bihya				
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)				
[f] Sampling Environmental Condition	Temp. (°C)	57	Humidity (%)	80	
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger				
[h] Sample Quantity	1				
[i] Items required to be tested	As per contract				
[j] Whether any specific Method of Test has been suggested by the customer	No				
[k] Date of receiving the sample in Laboratory	<i>09.11.17</i>				
[l] Analysis Start Date / Analysis Completion Date	<i>09.11.17 / 11.11.17</i>				
	Parameters	Method of Test	Results		
1.	Stack Connected to		Flare Circuit		
2.	Stack No.				
3.	Height of Stack (as reported)		30.0 m		
4.	Dia of Stack at Top (as reported)		0.7 m		
5.	Draft		Negative		
6.	Material of Construction		M.S.		
7.	Ambient Temperature, °C		24.0		
8.	Flue Gas Temperature, °C		42.0		
9.	Velocity, m/sec.		IS 11255 (Part-3)	0.2	
10.	Volumetric Flow Rate (NM ³ /hr.)			2224.31	
11.	Sampling Point			10 m	
			Concentration (mg/NM ³)	Limit as per C (I) Rules Schedule 1	
12.	Particulate Matter (P.M.)	IS 11255 (Part-1)	1.35	2.5 mg/NM ³	
13.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable	---	
14.	Oxides of Nitrogen (NO _x)	IS 11255 (Part-7)	Not Detectable	---	

Handwritten Signature
Authorized Signatory
Quality Manager / Dy. Quality Manager

Head Office :
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 PATNA - 800 001 (Bihar)



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TEST REPORT

Ref. No. RII/TR/17-18/408(b) Dt : 20.11.2017 Your Work Order No. MANUAL/RII/BIH/17 Dt : 28.03.2017

[a] Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur - 802 152			
[b] Details of Sample	Monitoring of Stack Emission			
[c] Sample Collected by	SHIVA TEST HOUSE on 08.11.17			
[d] Sampling Location	Premises of Ramco Bihya			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	37	Humidity (%)	88
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger			
[h] Sample Quantity	2			
[i] Item required to be tested	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	09.11.17			
[l] Analysis Start Date / Analysis Completion Date	09.11.17 / 11.11.17			
Parameters	Method of Test	Results		
1. Stack Connected to		Cement / Fly Ash Circuit		
2. Stack No.		11		
3. Height of Stack (as reported)		15.0 m.		
4. Dia of Stack at Top (as reported)		0.4 m.		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		24.0		
8. Flue Gas Temperature, °C		40.0		
9. Velocity, msec.		IS 11255 (Part-3)	6.3	
10. Volumetric Flow Rate (NM ³ /hr.)			2539.89	
11. Sampling Point			5 m.	
		Concentration (mg / NM ³)	Limit as per I (P) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	42.6	100.00 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable	—	
14. Oxides of Nitrogen (NO _x)	IS 11255 (Part-7)	12.1	—	

20/11/17
 Authorized Signatory
 Quality Manager - D. Quality Manager

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Lab. Office :
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TEST REPORT

Ref. No. <i>RII/TR/17-18/408(c)</i> Dt : <i>20.11.2017</i> Your Work Order No. <i>MANUAL/RII/BIH/17 D1 - 28.03.2017</i>				
[a] Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, GIADA Industrial Area Bihya Bhojpur - 802 152			
[b] Details of Sample	Monitoring of Stack Emission			
[c] Sample Collected by	SHIVA TEST HOUSE on 09.11.17			
[d] Sampling Location	Premises of Ramco Bihya			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	37	Humidity (%)	80
[g] Details of Sample Container (No. & Type of Container)	Tumble & Glass impinger			
[h] Sample Quantity	2			
[i] Items required to be tested	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	09.11.17			
[l] Analysis Start Date / Analysis Completion Date	09.11.17 / 11.11.17			
Parameters	Method of Test	Results		
1. Stack Connected to		Furnace Plant		
2. Stack No.		111		
3. Height of Stack (as reported)		15.0 m.		
4. Dia of Stack at Top (as reported)		0.15 m.		
5. Draft		Natural		
6. Material of Construction		S.S.		
7. Ambient Temperature, °C		24.0		
8. Flue Gas Temperature, °C		38.0		
9. Velocity, m/sec		IS 11255 (Part-3)	5.1	
10. Volumetric Flow Rate (NM ³ /hr)			310.72	
11. Sampling Point			5 m.	
		Concentration (mg / Nm ³)	Limit as per E.P. Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	1.16	1.0 mg / Nm ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable	—	
14. Oxides of Nitrogen (NOx)	IS 11255 (Part-7)	9.4	—	

Harish
20/11/17
Authorized Signatory
Quality Manager / Dy. Quality Manager

Head Office :
 D Extn. : (Chatterjee Lane)
 Gardanibagh
 PATNA - 800 001 (Bihar)



Laboratory Address :-
 01st Floor, Rajhans Niketan,
 Near Canal, Rukunpura,
 Bailey Road,
 Patna - 800 014 (Bihar)



SHIVA TEST HOUSE

Tel. : 0612 - 2247538/ 2240752 ; TeleFax : 0612 - 2590705
 E.mail : sthpatna1@yahoo.co.in



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RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986 (VALID UPTO MAR. 2018),
 BY DEPT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. RIL/TR/17-18/408(d) Dt: 20.11.2017 Your Work Order No. MANUAL/RIL/BIH/17 Dt: 28.03.2017

(a) Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur - 802 152		
(b) Details of Sample	Monitoring of Stack Emission		
(c) Sample Collected by	SHIVA TEST HOUSE on 08.11.17		
(d) Sampling Location	Premises of Ramco Bihya		
(e) Method of Sampling	IS 11255 (Part-1,2,3 & 7)		
(f) Sampling Environmental Condition	Temp. (°C)	37	Humidity (%)
(g) Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger		
(h) Sample Quantity	5		
(i) Items required to be tested:	As per contract		
(j) Whether any specific Method of Test has been suggested by the customer	No		
(k) Date of receiving the sample in Laboratory	09.11.17		
(l) Analysis Start Date / Analysis Completion Date	09.11.17 / 11.11.17		
Parameters	Method of Test	Results	
1. Stack Connected to	IS 11255 (Part-3)	DG Set 1010 KVA	
2. Stack No.		IV	
3. Height of Stack (as reported)		9.0 m.	
4. Dia of Stack at Top (as reported)		0.15 m	
5. Draft		Natural	
6. Material of Construction		M.S.	
7. Ambient Temperature, °C		24.0	
8. Flue Gas Temperature, °C		187.0	
9. Velocity, m/sec.		9.2	
10. Volumetric Flow Rate (NM ³ /hr.)		378.96	
11. Sampling Point		3.6 m.	
		Concentration (mg / NM ³)	Limit as per E.P.A Rules Schedule I
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	44.7	75.00 mg / NM ³
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	60.1	Not Specified
14. Oxides of Nitrogen (NO _x)	IS 11255 (Part-7)	194.3	750.00 mg / NM ³
15. NMHC (as C) (at 15% O ₂)	CPCB	16.2	100.00 mg / NM ³
16. Carbon Monoxide as CO (at 15% O ₂)	IS 13270 - 2003	30.9	150.00 mg / NM ³

[Signature]
 20/11/17
 Authorized Signatory
 Quality Manager / Dr. Quality Manager

1. This report applies only to sample tested as above.
 2. Total Liability of our Laboratory is limited to invoiced amount.

Head Office :
J Extn. ; (Chatterjee Lane)
Gardanibagh
PATNA – 800 001 (Bihar)



Laboratory Address :-
01st Floor, Rajhans Niketan,
Near Canal, Rukunpura,
Bailey Road,
Patna – 800 014 (Bihar)



SHIVA TEST HOUSE

Tel. : 0612 – 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail. : sthpatna1@yahoo.co.in



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RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986 (VALID UPTO MAR. 2018),
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TEST REPORT

Ref. No. <i>RH/TR/17-18/408(e)</i> Dt: <i>20.11.2017</i> Your Work Order No. <i>MANUAL/RH/BIH/17</i> Dt: <i>28.03.2017</i>			
(a) Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Ehojpur – 802 152		
(b) Details of Sample	Monitoring of Stack Emission		
(c) Sample Collected by	SHIVA TEST HOUSE on 09.11.17		
(d) Sampling Location	Premises of Ramco Bihya		
(e) Method of Sampling	IS 11255 (Part-1, 2, 3 & 7)		
(f) Sampling Environmental Condition	Temp. (°C): 37 Humidity (%) 86		
(g) Details of Sample Container (No. & Type of Container)	Tremble & Glass impinger		
(h) Sample Quantity	5		
(i) Items required to be tested	As per contract		
(j) Whether any specific Method of Test has been suggested by the customer	No		
(k) Date of receiving the sample in Laboratory	09.11.17		
(l) Analysis Start Date / Analysis Completion Date	09.11.17 / 11.11.17		
Parameters	Method of Test	Results	
1. Stack Connected to		DG Set 750 KVA	
2. Stack No.		V	
3. Height of Stack (as reported)		0.0 m.	
4. Dia of Stack at Top (as reported)		0.15 m.	
5. Draft		Natural	
6. Material of Construction		M.S.	
7. Ambient Temperature, °C		24.0	
8. Flue Gas Temperature, °C		178.0	
9. Velocity, m/sec		IS 11255 (Part-1)	6.4
10. Volumetric Flow Rate (Nm ³ /hr.)			268.98
11. Sampling Point			3.5 m.
		Concentration (mg / Nm ³)	Limit as per E (P) Value Schedule I
12. Particulate Matter (PM ₁₀)	IS 11255 (Part-1)	33.3	75.00 mg / Nm ³
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	54.9	Not Specified
14. Oxides of Nitrogen (NO _x)	IS 11255 (Part-7)	162.7	710.00 mg / Nm ³
15. HAPs (as C) (at 15% O ₂)	CPCB	11.8	100.00 mg / Nm ³
16. Carbon Monoxide as CO (at 15% O ₂)	IS 11255 – 20x1	21.3	150.00 mg / Nm ³

As per
20/11/17
Authorized Signatory:
Quality Manager / Dr. Quater / Manager

Regd. Office :
6D Extn. : (Chatterjee Lane)
Gardanibagh
PATNA - 800 001 (Bihar)



Laboratory Address :-
01st Floor, Rajhans Niketan,
Near Canal, Rukunpura,
Bailey Road,
Patna - 800 014 (Bihar)



SHIVA TEST HOUSE

Tel. : 0612 - 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail : sthpatna1@yahoo.co.in



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TEST REPORT

Ref. No. <i>RI/TR/17-18/362(a)</i> Dt : <i>21.10.2017</i> Your Work Order No. <i>MANUAL/RI/BIH/17</i> Dt : <i>28.03.2017</i>			
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152	
[b] Description of Sample		Monitoring of Stack Emission.	
[c] Sample Collected by		SHIVA TEST HOUSE on 10.10.17	
[d] Sampling Location		Premises of Ramco Bihiya	
[e] Method of Sampling		IS 11255 (Part-1,2,3 & 7)	
[f] Sampling Environmental Condition		Temp. (°C)	37
		Humidity (%)	85
[g] Details of Sample Container (No. & Type of Container)		Thimble & Glass Impinger	
[h] Sample Quantity		1	
[i] Tests required to be tested		As per contract	
[j] Whether any specific Method of Test has been suggested by the customer		No	
[k] Date of receiving the sample in Laboratory		11.10.17	
[l] Analysis Start Date / Analysis Completion Date		11.10.17 / 14.10.17	
Parameters		Method of Test	Results
1. Stack Connected to			Fibre Circuit
2. Stack No.			1
3. Height of Stack (as reported)			30.0 m
4. Wind Speed at Top (as reported)			0.4 m/s
5. Wind Dir.			Natural
6. Method of Construction			M.S.
7. Ambient Temperature, °C			29.0
8. Flue Gas Temperature, °C			47.0
9. Velocity, m/sec.	IS 11255 (Part 3)		6.1
10. Volumetric Flow Rate (NM ³ /hr)			2568.15
11. Sampling Point			10 m
		Concentration (mg/NM³)	Limit as per E.P.A. India Schedule I
12. Particulate Matter (PM ₁₀)	IS 11255 (Part-1)	1.48	2.0 mg/NM ³
13. Sulphur Dioxide (SO ₂)	IS 11205 (Part-2)	Not Detectable	—
14. Oxides of Nitrogen (NO _x)	IS 11255 (Part-7)	Not Detectable	—

K. S. N. D.
21/10/17
Authorized Signatory
Quality Manager / Dr. Quality Manager

Head Office :
 Extn. : (Chatterjee Lane)
 Sardanibagh
 PATNA – 800 001 (Bihar)



Laboratory Address :-
 01st Floor, Rajhans Niketan,
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 Bailey Road,
 Patna – 800 014 (Bihar)



SHIVA TEST HOUSE

Tel : 0612 – 2247538/ 2240752 , TeleFax : 0612 - 2590705
 E.mail : sthpatna1@yahoo.co.in

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TEST REPORT

Ref. No. <i>RIL/TR/17-18/362(b)</i> Dt : <i>21.10.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>			
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur – 802 159	
[b] Details of Sample		Monitoring of Stack Emission	
[c] Sample Collected by		SHIVA TEST HOUSE on 10.10.17	
[d] Sampling Location		Premises of Ramco Bihya	
[e] Method of Sampling		IS 11255 (Part-1, 2, 3 & 7)	
[f] Sampling Environmental Condition		Temp. (°C)	37 Humidity (%) 80
[g] Details of Sample Container (No. & Type of Container)		Thimble & Glass Impinger	
[h] Sample Quantity		2	
[i] Items required to be tested		As per contract	
[j] Whether any specific Method of Test has been suggested by the customer		No	
[k] Date of receiving the sample in Laboratory		11.10.17	
[l] Analysis Start Date / Analysis Completion Date		11.10.17 / 14.10.17	
Parameters		Method of Test	
1. Stack Connected to		Results	
2. Stack No.		Concentr.: PM Ann Group	
3. Height of Stack (as reported)		11	
4. Dia of Stack at Top (as reported)		15.2 m	
5. Draft		0.4 m	
6. Material of Construction		None	
7. Ambient Temperature, °C		M.S.	
8. Flue Gas Temperature, °C		28.0	
9. Velocity, m/sec		45.0	
10. Volumetric Flow Rate (NM ³ /hr.)		IS 11255 (Part-3)	
11. Sampling Point		8.3	
		3492.15	
		5 m	
		Concentration (mg / NM ³)	
12. Particulate Matter (P.M.)		Limit as per C (P) Rules Schedule I	
13. Sulphur Dioxide (SO ₂)		51.7	
14. Oxides of Nitrogen (NO _x)		IS 11255 (Part 2) Not Detectable	
		IS 11255 (Part-7) 14.2	

Heena
 21/10/17
 Authorized Signatory
 Quality Manager / Ex. Quality Manager

1. This report applies only to sample tested as above.
 2. Total Liability of our Laboratory is limited to invoiced amount.
 3. Test Report endorsement only the tests and use the product certificates.

Regd. Office :
3D Extn. ; (Chatterjee Lane)
Gardanibagh
PATNA – 800 001 (Bihar)



Laboratory Address :-
01st Floor, Rajhans Niketan,
Near Canal, Rukunpura,
Bailey Road,
Patna – 800 014 (Bihar)



SHIVA TEST HOUSE

Tel. : 0612 – 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E mail : sthpatna1@yahoo.co.in



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TEST REPORT

Ref. No. <i>RIL/TR/17-18/362(c)</i> Dt: <i>21.10.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt: <i>28.03.2017</i>				
[a] Name and address of the Customer:	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur – 802 152			
[b] Details of Sample	Monitoring of Stack Emission			
[c] Sample Collected by	SHIVA TEST HOUSE on 10.10.17			
[d] Sampling Location	Premises of Ramco Bihya			
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)			
[f] Sampling Environmental Condition	Temp. (°C)	37	Humidity (%)	80
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger			
[h] Sample Quantity	2			
[i] Items required to be tested	As per contract			
[j] Whether any specific Method of Test has been suggested by the customer	No			
[k] Date of receiving the sample in Laboratory	11.10.17			
[l] Analysis Start Date / Analysis Completion Date	11.10.17 / 11.10.17			
Parameters	Method of Test	Results		
1. Stack Connected to		Pulveriser Plant		
2. Stack No.		111		
3. Height of Stack (as reported)		16.0 m		
4. Dia of Stack at Top (as reported)		0.15 m		
5. Draft		Natural		
6. Material of Construction		M.S		
7. Ambient Temperature, °C		29.0		
8. Flue Gas Temperature, °C		41.0		
9. Velocity, m/sec.		IS 11255 (Part-3)	5.4	
10. Volumetric Flow Rate (NM ³ /hr.)			325.65	
11. Sampling Point			5 m	
		Concentration (mg / NM ³)	Limit as per E (P) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	1.55	2.0 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable	—	
14. Oxides of Nitrogen (NO _x)	IS 11255 (Part-7)	10.2	—	

[Signature]
21/10/17
Authorized Signatory
Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.

Head Office :
 10 Extn. : (Chatterjee Lane)
 Gardenibagh
 PATNA – 800 001 (Bihar)



Laboratory Address :-
 01st Floor, Rajhans Niketan,
 Near Canal, Rukunpura,
 Bailey Road,
 Patna – 800 014 (Bihar)



SHIVA TEST HOUSE

Tel. : 0612 – 2247538/ 2240752 ; TeleFax : 0612 - 2590705
 E.mail : sthpatna1@yahoo.co.in



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TEST REPORT

Ref. No. <i>RIL/TR/17-18/362(f)</i> Dt: <i>21.10.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt: <i>28.03.2017</i>						
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD Plot No. A 1, BIADA Industrial Area Bihlya Bhojpur – 802 152				
[b] Details of Sample		<i>Monitoring of Ambient Air Quality</i>				
[c] Sample Collected by		<i>Shiva Test House on 10.10.17</i>				
[d] Sampling Location		<i>Premises of Ramco Bihlya</i>				
[e] Method of Sampling		IS 5182 (Part - 14)				
[f] Sampling Environmental Condition		Temp. (°C)	37	Humidity (%)	86	
[g] Details of Sample Container (No. & Type of Container)		Filter Paper ; Glass impinger				
[h] Sample Quantity		12				
[i] Items required to be tested		As per contract				
[j] Whether any specific Method of Test has been suggested by the customer		No				
[k] Date of receiving the sample in Laboratory		11.10.17				
[l] Analysis Start Date / Analysis Completion Date		11.10.17 / 14.10.17				
Parameters	Method of Test	Sampling Station				Limit as NAAQS Nov 2009
		Near Office	Near Rear Gate	Near Shipping Area	Near Laboratory	
1. Particulate Matter (PM ₁₀), µg / m ³	IS 5182 (Part-23)	52.4	44.1	19.0	56.7	100 µg / m ³
		50.1	41.1	54.7	50.0	
		47.0	35.4	49.6	49.1	
2. Particulate Matter (PM _{2.5}), µg / m ³	USEPA	27.3	26.0	13.1	31.8	60 µg / m ³
		25.6	23.8	29.9	26.1	
		23.0	20.4	27.8	23.9	
3. Sulphur Dioxide as SO ₂ , µg / m ³	IS 5182 (Part-2)	13.8	11.4	17.3	11.4	80 µg / m ³
		15.1	14.3	16.2	15.4	
		16.5	16.6	15.1	10.6	
		12.5	7.7	13.7	9.0	
		11.1	6.7	13.0	8.0	
4. Nitrogen Dioxide as NO ₂ , µg / m ³	IS 5182 (Part-6)	22.5	14.1	20.7	21.4	80 µg / m ³
		23.5	17.3	22.5	22.6	
		24.9	18.2	20.2	18.0	
		18.9	12.4	19.8	16.5	
		16.4	10.3	18.2	16.6	
Average Value						
PM ₁₀		49.6	40.2	54.5	51.9	
PM _{2.5}		25.3	23.4	30.3	27.3	
SO ₂		15.2	10.9	14.7	10.7	
NO ₂		20.0	14.2	19.8	18.6	

Handwritten Signature
 Authorized Signatory
 Quality Manager / Dy. Quality Manager

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Head Office :
 D Extn. : (Chatterjee Lane)
 Gardanibagh
 PATNA - 800 001 (Bihar)



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 01st Floor, Rajhans Niketan,
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SHIVA TEST HOUSE

Tel. : 0612 - 2247538/ 2240752 ; TeleFax : 0612 - 2590705
 E.mail : sthpatna1@yahoo.co.in

JAS ANZ



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TEST REPORT

Ref. No. <i>RIL/TR/17-18/362(g)</i> Dt: <i>21.10.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt: <i>28.03.2017</i>							
[a] Name and address of the Customer				Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152			
[b] Details of Sample				Monitoring of Ambient Air Quality			
[c] Sample Collected by				Shiva Test House on 10.10.17			
[d] Sampling Location				Premises of Ramco Bihiya			
[e] Method of Sampling				IS 5182 (Part - 14)			
[f] Sampling Environmental Condition				Temp. (°C)	37	Humidity (%)	88
[g] Details of Sample Container (No. & Type of Container)				Filter Paper : Glass Impinger			
[h] Sample Quantity				5			
[i] Items required to be tested				As per contract			
[j] Whether any specific Method of Test has been suggested by the customer				No			
[k] Date of receiving the sample in Laboratory				11.10.17			
[l] Analysis Start Date / Analysis Completion Date				11.10.17 / 14.10.17			
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g}/\text{m}^3$)	
		Near Office	Near Rear Gate	Near Striping Area	Near Laboratory		
1. Carbon Monoxide (CO) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-10)	58.0	85.0	42.0	30.0	4000 $\mu\text{g}/\text{m}^3$	
2. Lead (Pb) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	1 $\mu\text{g}/\text{m}^3$	
3. Ammonia as NH_3 , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-5)	NIL	NIL	NIL	NIL	400 $\mu\text{g}/\text{m}^3$	
4. Ozone (O_3) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-9)	6.1	8.2	9.4	5.6	180 $\mu\text{g}/\text{m}^3$	
5. Benzene (C_6H_6) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	5 $\mu\text{g}/\text{m}^3$	
6. Arsenic (As) , ng/m^3	AAS Method	BDL	BDL	BDL	BDL	6 ng/m^3	
7. Nickel as Ni , ng/m^3	AAS Method	BDL	BDL	BDL	BDL	20 ng/m^3	
CO : BDL Denotes Below Detectable Limit < 21.09 ($\mu\text{g}/\text{m}^3$)				Pb : BDL Denotes Below Detectable Limit < 0.02 ($\mu\text{g}/\text{m}^3$)			

[Signature]
 21/10/17
 Authorized Signatory
 Quality Manager / Dr. Quality Manager

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount
3. Test Results entitles only the tests and not the product certificate

Regd. Office :
8D Extn. (Chatterjee Lane)
Gardanibagh
PATNA - 800 001 (Bihar)



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TEST REPORT

Ref No. <i>RIL/TR/17-18/362(0)</i> Dt : <i>21.10.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>						
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur - 802 152				
[b] Details of Sample		Monitoring of Ambient Air Quality				
[c] Sample Collected by		Shiva Test House on 10.10.17				
[d] Sampling Location		Premises of Ramco Bihya				
[e] Method of Sampling		IS 5182 (Part - 14)				
[f] Sampling Environmental Condition		Temp. (°C)	37	Humidity (%)	88	
[g] Details of Sample Container (No. & Type of Container)		Filter Paper : Glass Impinger				
[h] Sample Quantity		1				
[i] Items required to be tested		As per contract				
[j] Whether any specific Method of Test has been suggested by the customer		No				
[k] Date of receiving the sample in Laboratory		11.10.17				
[l] Analysis Start Date / Analysis Completion Date		11.10.17 / 14.10.17				
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification (ug / m ³)
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Benzene (a) Pyrene, (Particulate Phase only) ng / m ³	IS 5182 (Part-10)	<0.1	<0.1	<0.1	<0.1	1.0 ng / m ³

Authorized Signatory
Quality Manager / Dy. Quality Manager

Regd. Office :
8D Extn. : (Chatterjee Lane)
Gardanibagh
PATNA - 800 001 (Bihar)



Laboratory Address :-
01st Floor, Rajhans Niketan,
Near Canal, Rukunpura,
Bailey Road,
Patna - 800 014 (Bihar)



SHIVA TEST HOUSE

Tel. : 0612 - 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E mail : sthpatna1@yahoo.co.in



ISO 18001:2007
OHSAS Certified

RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986 (VALID UPTO MAR. 2018),
BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref No. *RII/TR/17-18/362(d)* Dt : *21.10.2017* Your Work Order No. *MANUAL/RII/BIH/17 Dt : 28.03.2017*

[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihija Bhojpur - 802 152		
[b] Details of Sample		<i>Monitoring of Stack Emission</i>		
[c] Sample Collected by		SHIVA TEST HOUSE on 10.10.17		
[d] Sampling Location		<i>Premises of Ramco Bihija</i>		
[e] Method of Sampling		IS 11255 (Part-1,2,3 & 7)		
[f] Sampling Environmental Condition		Temp. (°C)	37	
		Humidity (%)	86	
[g] Details of Sample Container (No. & Type of Container)		Thimble & Glass Impinger		
[h] Sample Quantity		5		
[i] Items required to be tested		As per contract		
[j] Whether any specific Method of Test has been suggested by the customer		No		
[k] Date of receiving the sample in Laboratory		11.10.17		
[l] Analysis Start Date / Analysis Completion Date		11.10.17 / 14.10.17		
Parameters	Method of Test	Results		
1. Stack Connected to		DG Set 1010 KVA		
2. Stack No.		IV		
3. Height of Stack (as reported)		8.0 m		
4. Dia of Stack at Top (as reported)		0.15 m		
5. Draft		Natural		
6. Material of Construction		M.S.		
7. Ambient Temperature, °C		29.0		
8. Flue Gas Temperature, °C		210.0		
9. Velocity, m/sec.		IS 11255 (Part-3)	7.6	
10. Volumetric Flow Rate (NM ³ /hr.)			298.15	
11. Sampling Point			3.5 m.	
		Concentration (mg / NM ³)	Limit as per E (P) Rules Schedule I	
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	40.9	75.00 mg / NM ³	
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	54.7	Not Specified	
14. Oxides of Nitrogen (NOx)	IS 11255 (Part-7)	188.2	710.00 mg / NM ³	
15. NMHC (as C) (at 15% O ₂)	CPCB	21.4	105.00 mg / NM ³	
16. Carbon Monoxide as CO (at 15% O ₂)	IS 13270 - 2003	36.1	150.00 mg / NM ³	

Authorized Signatory
Quality Manager / Dy. Quality Manager

Regu. Office :
6D Extn. ; (Chatterjee Lane)
Gardanibagh
PATNA - 800 001 (Bihar)



Laboratory Address :-
01st Floor, Rajhans Niketan,
Near Canal, Rukunpura,
Bailey Road,
Patna - 800 014 (Bihar)



SHIVA TEST HOUSE

Tel. : 0612 - 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail.: sthpatna1@yahoo.co.in



ISO 18001:2007
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RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986 (VALID UPTO MAR. 2018),
BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>RIL/TR/17-18/362(e)</i> Dt : <i>21.10.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>			
[a] Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur - 802 155		
[b] Details of Sample	Monitoring of Stack Emission		
[c] Sample Collected by	SHIVA TEST HOUSE on 16.10.17		
[d] Sampling Location	Premises of Ramco Bihya		
[e] Method of Sampling	IS 11255 (Part-1,2,3 & 7)		
[f] Sampling Environmental Condition	Temp. (°C) 37 Humidity (%) 86		
[g] Details of Sample Container (No. & Type of Container)	Thimble & Glass Impinger		
[h] Sample Quantity	5		
[i] Items required to be tested	As per contract		
[j] Whether any specific Method of Test has been suggested by the customer	No		
[k] Date of receiving the sample in Laboratory	11.10.17		
[l] Analysis Start Date / Analysis Completion Date	11.10.17 / 14.10.17		
Parameters	Method of Test	Results	
1. Stack Connected to		DG Set 750 KVA	
2. Stack No.		V	
3. Height of Stack (as reported)		5.0 m.	
4. Dia of Stack at Top (as reported)		0.15 m.	
5. Draft		Natural	
6. Material of Construction		M.S.	
7. Ambient Temperature, °C		29.0	
8. Flue Gas Temperature, °C		154.0	
9. Velocity, m/sec.		IS 11255 (Part-3)	6.1
10. Volumetric Flow Rate (NM ³ /hr.)			335.84
11. Sampling Point			3.5 m
		Concentration (mg / NM ³)	Limit as per E (P) Rules Schedule I
12. Particulate Matter (P.M.)	IS 11255 (Part-1)	37.9	75.00 mg / NM ³
13. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	51.6	Not Specified
14. Oxides of Nitrogen (NOx)	IS 11255 (Part-7)	191.8	710.00 mg / NM ³
15. NMHC (as C) (at 15% O ₂)	CPCB	14.6	100.00 mg / NM ³
16. Carbon Monoxide as CO (at 15% O ₂)	IS 15270 - 2003	26.1	150.00 mg / NM ³

Handwritten Signature
21/10/17

Authorized Signatory
Quality Manager / Dy. Quality Manager

1. This report applies only to samples tested as above.
2. Total liability of our Laboratory is limited to the value of the work done.

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample	:-	Monitoring of Ambient Air Quality
Sample Collected by	:-	Mr.Ganesh
Sample Location	:-	Premises of Ramco Bihya
Method of Sampling	:-	IS5182(Part-14)
Details Of Sample Container	:-	Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009. ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	24.03.18	25.03.18	26.03.18	27.03.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	43.8	45.8	48.6	5.3	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	21.5	26.4	30.9	24.1	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	5.8	11.4	9	8.1	30
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	12.3	17.1	14.1	12	80


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For RAMCO INDUSTRIES LTD.


AUTHORISED SIGNATORY

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample :- Monitoring of Ambient Air Quality
Sample Collected by :- Mr.Ganesh
Sample Location :- Premises of Ramco Bihiya
Method of Sampling :- ISS182(Part-14)
Details Of Sample Container :- Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	21.03.18	21.03.18	22.03.18	23.03.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	42.5	52.2	54.4	42.1	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	35.2	23.1	22	12.8	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	21.7	12.5	14	9.5	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	12.8	21.4	12.8	17.2	80


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For RAMCO INDUSTRIES LTD.

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RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample : Monitoring of Ambient Air Quality
 Sample Collected by : Mr.Ganesh
 Sample Location : Premises of Ramco Bihiya
 Method of Sampling : IS5182(Part-14)
 Details Of Sample Container : Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	18.03.18	18.03.18	19.03.18	20.03.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	62.3	64.5	54.2	32.1	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	62.3	18.6	12.6	11.8	60
3	Sulphur Dioxide as SO_2 , $\mu\text{g}/\text{m}^3$	14.6	9.6	7.6	10.5	80
4	Nitrogen Dioxide as NO_2 , $\mu\text{g}/\text{m}^3$	11.8	8.5	8.7	12.6	80


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For RAMCO INDUSTRIES LTD.

 AUTHORIZED SIGNATORY

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample :- Monitoring of Ambient Air Quality
 Sample Collected by :- Mr.Ganesh
 Sample Location :- Premises of Ramco Bihiya
 Method of Sampling :- IS5182(Part-14)
 Details Of Sample Container :- Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	15.03.18	15.03.18	16.03.18	17.03.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	62.5	32.6	52.2	45.0	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	35.2	23.1	32.6	9.8	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	26.1	12.5	13.7	12.4	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	18.2	21.4	18.6	9.5	80


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For RAMCO INDUSTRIES LTD.


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RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample	:-	Monitoring of Ambient Air Quality
Sample Collected by	:-	Mr.Ganesh
Sample Location	:-	Premises of Ramco Bihiya
Method of Sampling	:-	IS5182(Part-14)
Details Of Sample Container	:-	Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	11.03.18	12.03.18	13.03.18	14.03.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	43.8	45.7	48.6	51.3	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	21.5	26.4	30.9	24.1	60
3	Sulphur Dioxide as SO_2 , $\mu\text{g}/\text{m}^3$	5.8	11.4	9	8.1	80
4	Nitrogen Dioxide as NO_2 , $\mu\text{g}/\text{m}^3$	12.3	17.1	14.1	12	80


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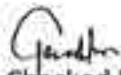
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RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample :- Monitoring of Ambient Air Quality
Sample Collected by :- Mr.Ganesh
Sample Location :- Premises of Ramco Bihiya
Method of Sampling :- ISS182(Part-14)
Details Of Sample Container :- Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	08.03.18	08.03.18	09.03.18	10.03.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	42.5	52.2	54.4	42.1	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	35.2	23.1	22	12.8	60
3	Sulphur Dioxide as SO_2 , $\mu\text{g}/\text{m}^3$	21.7	12.5	14	9.5	80
4	Nitrogen Dioxide as NO_2 , $\mu\text{g}/\text{m}^3$	12.8	21.4	12.8	17.2	80


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For RAMCO INDUSTRIES LTD.

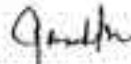
AUTHORISED SIGNATORY


RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample :- Monitoring of Ambient Air Quality
 Sample Collected by :- Mr.Ganesh
 Sample Location :- Premises of Ramco-Bihiya
 Method of Sampling :- IS5182(Part-14)
 Details Of Sample Container :- Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	04.03.18	04.03.18	05.03.18	05.03.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	42.5	52.2	54.4	42.1	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	35.2	23.1	22	12.8	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	21.7	12.5	14	9.5	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	12.8	21.4	12.8	17.2	80


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RAMCO INDUSTRIES LIMITED

Test Report

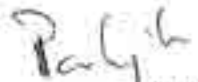
Details Of Sample :- Monitoring of Ambient Air Quality
 Sample Collected by :- Mr.Ganesh
 Sample Location :- Premises of Ramco Bihiya
 Method of Sampling :- IS5182(Part-14)
 Details Of Sample Container :- Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	01.03.18	01.03.18	02.03.18	03.03.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	62.5	42.6	58.7	48.9	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	35.2	23.1	33.6	15.8	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	27.1	12.5	13.7	18.4	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	12.5	21.4	16.8	8.5	30


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For RAMCO INDUSTRIES LTD.


 AUTHORIZED SIGNATORY

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample	:-	Monitoring of Ambient Air Quality
Sample Collected by	:-	Mr.Ganesh
Sample Location	:-	Premises of Ramco Bihiya
Method of Sampling	:-	IS5182(Part-14)
Details Of Sample Container	:-	Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2005 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	01.02.18	01.02.18	06.02.18	06.02.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	62.5	45.6	58.7	48.9	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	35.2	23.1	33.6	14.2	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	21.1	9.5	18.6	11.2	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	8.5	6.8	22.2	10.2	80


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For RAMCO INDUSTRIES LTD.


AUTHORISED SIGNATORY

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample :- Monitoring of Ambient Air Quality
Sample Collected by :- Mr.Ganesh
Sample Location :- Premises of Ramco Bihiya
Method of Sampling :- IS5182(Part-14)
Details Of Sample Container :- Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	02.02.18	03.02.18	04.02.18	05.02.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	62.5	42.6	58.7	48.9	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	35.2	23.1	33.6	15.8	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	27.1	12.5	13.7	18.4	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	12.5	21.4	16.8	8.5	80

Checked by

T. Maiyappa

(Mr. Maiyappa T.)

Verified by

For RAMCO INDUSTRIES LTD.

P. Singh
AUTHORIZED SIGNATURE

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample	:	Monitoring of Ambient Air Quality
Sample Collected by	:	Mr.Ganesh
Sample Location	:	Premises of Ramco Bihiya
Method of Sampling	:	IS5182(Part-14)
Details Of Sample Container	:	Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	09.02.18	09.02.18	12.02.18	13.02.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	51.2	61	56	32.5	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	30.2	23.4	23.6	23.6	60
3	Sulphur Dioxide as SO_2 , $\mu\text{g}/\text{m}^3$	9.6	12.6	32.2	9.6	80
4	Nitrogen Dioxide as NO_2 , $\mu\text{g}/\text{m}^3$	9.6	11.8	12.5	12.6	80


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Verified by

FOR RAMCO INDUSTRIES LTD.


AUTHORISED SIGNATORY

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample :- Monitoring of Ambient Air Quality
Sample Collected by :- Mr.Ganesh
Sample Location :- Premises of Ramco Biliya
Method of Sampling :- IS5182(Part-14)
Details Of Sample Container :- Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	07.02.18	08.02.18	10.02.18	11.02.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	52.4	41.6	56.6	42.8	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	34.2	26.1	32.2	14.2	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	26.1	13.5	12.7	27.1	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	13.5	22.7	15.8	12.5	80

Checked by

T. Maiyappan

(Mr.Maiyappan T.)

Verified by

For RAMCO INDUSTRIES LTD.

Rafiq
AUTHORISED SIGNATORY

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample	:-	Monitoring of Ambient Air Quality
Sample Collected by	:-	Mr.Ganesh
Sample Location	:-	Premises of Ramco Bihiya
Method of Sampling	:-	IS5182(Part-14)
Details Of Sample Container	:-	Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	14.02.18	14.02.18	15.02.18	15.02.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	6.4	59.8	62.2	22.6	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	32.2	24.2	31.6	11.6	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	15.6	11.6	22.3	23.2	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	12.6	9.8	11.5	9.7	80

Govind Singh
Checked by

[Signature]
Verified by

For RAMCO INDUSTRIES LTD.

[Signature]
AUTHORISED SIGNATORY

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample :- Monitoring of Ambient Air Quality
 Sample Collected by :- Mr.Ganesh
 Sample Location :- Premises of Ramco Bihiya
 Method of Sampling :- ISS182(Part-14)
 Details Of Sample Container :- Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	16.02.18	17.02.18	18.02.18	19.02.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	62.4	51.6	53.2	42.1	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	33.5	11.5	32.8	13.2	60
3	Sulphur Dioxide as SO_2 , $\mu\text{g}/\text{m}^3$	18.8	18.5	13.7	22.1	80
4	Nitrogen Dioxide as NO_2 , $\mu\text{g}/\text{m}^3$	9.6	21.8	9.8	7.6	80

Checked by


 (Mr.Maiyappan T.)


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For RAMCO INDUSTRIES LTD.

 AUTHORIZED SIGNATORY

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample :- Monitoring of Ambient Air Quality
 Sample Collected by :- Mr.Ganesh
 Sample Location :- Premises of Ramco Bihiya
 Method of Sampling :- IS5182(Part-14)
 Details Of Sample Container :- Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	20.02.18	20.2.18	21.02.18	22.02.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	62.3	52.6	18.6	42.1	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	35.2	23.1	22	12.8	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	21.7	12.5	14	9.5	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	14.8	9.6	18.7	12.5	80


 Checked by


 Verified by

FOR RAMCO INDUSTRIES LTD.

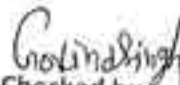

 AUTHORIZED SIGNATORY

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample :- Monitoring of Ambient Air Quality
 Sample Collected by :- Mr.Ganesh
 Sample Location :- Premises of Ramco Bihiya
 Method of Sampling :- IS5182(Part-14)
 Details Of Sample Container :- Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	23.02.18	23.02.18	24.02.18	24.02.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	60.6	52.1	60.56	32.1	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	35.6	18.6	31.2	24.4	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	14.2	23.2	18.9	10.2	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	9.6	16.4	9.7	15.5	80


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For RAMCO INDUSTRIES LTD.

 AUTHORIZED SIGNATORY

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample	:	Monitoring of Ambient Air Quality
Sample Collected by	:	Mr.Ganesh
Sample Location	:	Premises of Ramco Bihiya
Method of Sampling	:	ISS182(Part-14)
Details Of Sample Container	:	Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	25.02.18	26.02.18	27.02.18	28.02.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	53.8	34.1	55.2	51.2	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	29.7	11.7	30.2	26.9	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	7.2	15.2	7.2	7.3	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	12.5	18.6	17.3	16.3	80

Ganesh
Checked by

[Signature]
Verified by

For RAMCO INDUSTRIES LTD.
[Signature]
AUTHORISED SIGNATORY

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample :- Monitoring of Ambient Air Quality
Sample Collected by :- Mr.Ganesh
Sample Location :- Premises of Ramco Bihiya
Method of Sampling :- IS5182(Part-14)
Details Of Sample Container :- Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	23.01.18	23.01.18	30.01.18	30.01.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	60.56	48.6	55.2	52.3	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	25.25	22.1	21.5	14.3	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	21.1	9.5	18.6	12.6	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	8.5	6.8	22.2	10.2	80

Ganesh Singh
Checked by

[Signature]
Verified by

For RAMCO INDUSTRIES LTD.

Parbh
AUTHORISED SIGNATORY

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample	+	Monitoring of Ambient Air Quality
Sample Collected by	+	Mr.Ganesh
Sample Location	+	Premises of Ramco Bihiya
Method of Sampling	+	IS5182(Part-14)
Details Of Sample Container	+	Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	21.01.18	22.01.18	28.01.18	29.01.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	62.5	42.6	58.7	48.9	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	35.2	23.1	33.6	15.8	60
3	Sulphur Dioxide as SO_2 , $\mu\text{g}/\text{m}^3$	27.1	12.5	12.5	18.4	80
4	Nitrogen Dioxide as NO_2 , $\mu\text{g}/\text{m}^3$	9.5	21.4	12.2	6.8	80

Checked by

T. Maiyappan

(Mr. Maiyappan T.)

Verified by

P. L. L.
For RAMCO INDUSTRIES LTD.

AUTHORISED SIGNATORY

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample :- Monitoring of Ambient Air Quality
Sample Collected by :- Mr.Ganesh
Sample Location :- Premises of Ramco Bihiya
Method of Sampling :- ISS182(Part-14)
Details Of Sample Container :- Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	16.01.18	17.01.18	18.01.18	19.01.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	62.5	42.6	58.7	48.9	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	35.2	23.1	33.6	15.8	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	27.1	12.5	12.5	18.4	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	9.5	21.4	12.2	6.8	80

Checked by

T. Mayyan

(Mr.Maiyappan T.)

Verified by

THE RAMCO INDUSTRIES LTD.

P. G. L.
AUTHORISED SIGNATORY

RAMCO INDUSTRIES LIMITED

Test Report

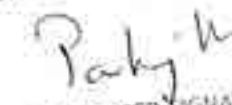
Details Of Sample	:-	Monitoring of Ambient Air Quality
Sample Collected by	:-	Mr. Ganesh
Sample Location	:-	Premises of Ramco Bihiya
Method of Sampling	:-	IS5182(Part-14)
Details Of Sample Container	:-	Filter paper: Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	13.01.18	13.01.18	14.01.18	15.01.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	52.2	50.1	59.9	32.5	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	30.2	23.4	23.6	23.6	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	9.6	12.6	32.2	11.2	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	12.8	18.6	15.4	9.6	80

Checked by 

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For RAMCO INDUSTRIES LTD.


AUTHORISED SIGNATORY

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample :- Monitoring of Ambient Air Quality
Sample Collected by :- Mr.Ganesh
Sample Location :- Premises of Ramco Bihya
Method of Sampling :- IS5182(Part-14)
Details Of Sample Container :- Filter paper:Glass Impinger

S.No.	Parameters :	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	08.01.18	10.01.18	11.01.18	12.01.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	57.7	57.6	51.8	50.2	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	25.9	33.1	32.4	26.6	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	8.6	10.5	8.7	9.7	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	21.4	23.3	17.7	14.8	80

Checked by

T. Maiyappan

(Mr.Maiyappan T.)

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For RAMCO INDUSTRIES LTD.

P. S. K.

AUTHORISED SIGNATORY

RAMCO INDUSTRIES LIMITED

Test Report

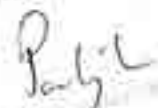
Details Of Sample :- Monitoring of Ambient Air Quality
Sample Collected by :- Mr.Ganesh
Sample Location :- Premises of Ramco Bihya
Method of Sampling :- IS5182(Part-14)
Details Of Sample Container :- Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	04.01.18	05.01.18	06.01.18	07.01.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	49.9	53	62.6	37.5	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	29	27.7	29.5	27.6	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	10.2	16.4	13.7	11.9	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	14.8	20.8	18.7	11.5	80

Checked by


(Mr. Maiyappan T.)

Verified by


Parthiv

RAMCO INDUSTRIES LIMITED

Test Report

Details Of Sample :- Monitoring of Ambient Air Quality
Sample Collected by :- Mr.Ganesh
Sample Location :- Premises of Ramco Bihiya
Method of Sampling :- ISS182(Part-14)
Details Of Sample Container :- Filter paper:Glass Impinger

S.No.	Parameters	Sampling Station				Limit as NAAQS Nov 2009 ($\mu\text{g}/\text{m}^3$)
		Near Office	Main Gate	Stripping Area	Near Laboratory	
	Sample taken Date	01.01.18	01.01.18	02.01.18	03.01.18	
1	Particulate Matter (PM_{10}) $\mu\text{g}/\text{m}^3$	57.6	52.1	60.56	32.1	100
2	Particulate Matter ($\text{PM}_{2.5}$) $\mu\text{g}/\text{m}^3$	32.5	18.6	30.2	24.4	60
3	Sulphur Dioxide as SO_2 $\mu\text{g}/\text{m}^3$	9.2	23.2	26.9	9.7	80
4	Nitrogen Dioxide as NO_2 $\mu\text{g}/\text{m}^3$	14.6	16.4	9.7	15.5	80

Gourmand Singh
Checked by


Verified by

For RAMCO INDUSTRIES LTD.
Perby k
AUTHORISED SIGNATURE

Regd. Office :
6D Extn. : (Chatterjee Lane)
Gardanibagh
PATNA – 800 001 (Bihar)



Laboratory Address :-
01st Floor, Rajhans Niketan,
Near Canal, Rukunpura,
Bailey Road,
Patna – 800 014 (Bihar)



SHIVA TEST HOUSE

Tel. : 0612 – 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail : sthpatna1@yahoo.co.in



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OHSAS Certified

RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986 (VALID UPTO MAR. 2018),
BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>RH/TR/17-18/514(a)</i> Dt: <i>04.01.2018</i> Your Work Order No. <i>MANUAL/RH/BIH/17</i> Dt: <i>28.03.2017</i>						
[a] Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur – 802 152					
[b] Details of Sample	Monitoring of Ambient Air Quality					
[c] Sample Collected by	Shiva Test House on 30.12.17.					
[d] Sampling Location	Premises of Ramco Bihya					
[e] Method of Sampling	IS 5182 (Part - 14)					
[f] Sampling Environmental Condition	Temp. (°C)	14	Humidity (%)	81		
[g] Details of Sample Container (No. & Type of Container)	Filter Paper : Glass Impinger					
[h] Sample Quantity	12					
[i] Items required to be tested	As per contract					
[j] Whether any specific Method of Test has been suggested by the customer	No					
[k] Date of receiving the sample in Laboratory	31.12.17					
[l] Analysis Start Date / Analysis Completion Date	31.12.17 / 03.01.18					
Parameters	Method of Test	Sampling Station				Limit as NAAQS Nov. 2009
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Particulate Matter (PM ₁₀), $\mu\text{g} / \text{m}^3$	IS 5182 (Part-23)	57.7	61.8	59.2	50.2	100 $\mu\text{g} / \text{m}^3$
		54.6	57.8	53.5	53.6	
		49.6	50.1	51.8	50.1	
2. Particulate Matter (PM _{2.5}), $\mu\text{g} / \text{m}^3$	USEPA	31.6	35.9	32.4	27.2	60 $\mu\text{g} / \text{m}^3$
		29.3	33.1	27.7	28.8	
		25.9	28.6	25.3	26.6	
3. Sulphur Dioxide as SO ₂ , $\mu\text{g} / \text{m}^3$	IS 5182 (Part-2)	<5.0	12.1	8.3	9.7	80 $\mu\text{g} / \text{m}^3$
		8.6	10.5	10.4	10.9	
		10.2	14.6	8.7	8.2	
		9.5	10.0	7.6	7.4	
		<5.0	8.9	6.2	<5.0	
4. Nitrogen Dioxide as NO ₂ , $\mu\text{g} / \text{m}^3$	IS 5182 (Part-6)	15.2	18.2	15.9	14.8	80 $\mu\text{g} / \text{m}^3$
		21.4	23.3	17.4	12.1	
		16.8	20.9	14.5	10.2	
		13.6	16.4	12.1	8.0	
		12.8	11.6	10.2	7.4	
10.2	9.7	8.4	6.2			
Average Value						
PM ₁₀		54.0	56.5	54.8	51.3	
PM _{2.5}		28.9	32.5	28.5	27.5	
SO ₂		9.4	11.2	8.2	9.0	
NO ₂		15.0	16.7	13.1	9.8	

Handwritten signature/initials

Handwritten signature
04/01/18
Authorized Signatory
Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above.
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Gardanibagh
PATNA – 800 001 (Bihar)



Laboratory Address :-
01st Floor, Rajhans Niketan,
Near Canal, Rukunpura,
Bailey Road,
Patna – 800 014 (Bihar)



SHIVA TEST HOUSE

Tel. : 0612 – 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail : sthpatna1@yahoo.co.in



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BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>RIL/TR/17-18/514(b)</i> Dt: <i>04.01.2018</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt: <i>28.03.2017</i>							
[a] Name and address of the Customer				Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur – 802 152			
[b] Details of Sample				<i>Monitoring of Ambient Air Quality</i>			
[c] Sample Collected by				<i>Shiva Test House on 30.12.17</i>			
[d] Sampling Location				<i>Premises of Ramco Bihiya</i>			
[e] Method of Sampling				IS 5182 (Part - 14)			
[f] Sampling Environmental Condition				Temp. (°C)	14	Humidity (%)	81
[g] Details of Sample Container (No. & Type of Container)				Filter Paper ; Glass Impinger			
[h] Sample Quantity				5			
[i] Items required to be tested				As per contract			
[j] Whether an specific Method of Test has been suggested by the customer.				No			
[k] Date of receiving the sample in Laboratory				31.12.17			
[l] Analysis Start Date / Analysis Completion Date				31.12.17 / 03.01.18			
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g}/\text{m}^3$)	
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory		
1. Carbon Monoxide (CO) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-10)	40.0	110.0	BDL	30.0	4000 $\mu\text{g}/\text{m}^3$	
2. Lead (Pb) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	1 $\mu\text{g}/\text{m}^3$	
3. Ammonia as NH_3 , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-5)	NIL	NIL	NIL	NIL	400 $\mu\text{g}/\text{m}^3$	
4. Ozone (O_3) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-9)	5.8	12.1	8.1	7.3	180 $\mu\text{g}/\text{m}^3$	
5. Benzene (C_6H_6) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	5 $\mu\text{g}/\text{m}^3$	
6. Arsenic (As) , ng/m^3	AAS Method	BDL	BDL	BDL	BDL	6 ng/m^3	
7. Nickel as Ni , ng/m^3	AAS Method	BDL	BDL	BDL	BDL	20 ng/m^3	
CO : BDL Denotes Below Detectable Limit < 21.09 ($\mu\text{g}/\text{m}^3$)				Pb : BDL Denotes Below Detectable Limit < 0.02 ($\mu\text{g}/\text{m}^3$)			

gd

[Signature]
04/01/18
Authorized Signatory
Quality Manager / Dy. Quality Manager

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Gardanibagh
PATNA – 800 001 (Bihar)



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BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>RIL/TR/17-18/514(c)</i> Dt : <i>04.01.2018</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>						
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur – 802 152				
[b] Details of Sample		<i>Monitoring of Ambient Air Quality</i>				
[c] Sample Collected by		<i>Shiva Test House on 30.12.17</i>				
[d] Sampling Location		<i>Premises of Ramco Bihiya</i>				
[e] Method of Sampling		IS 5182 (Part - 14)				
[f] Sampling Environmental Condition		Temp. (°C)	14	Humidity (%)	81	
[g] Details of Sample Container (No. & Type of Container)		Filter Paper ; Glass Impinger				
[h] Sample Quantity		1				
[i] Items required to be tested		As per contract				
[j] Whether any specific Method of Test has been suggested by the customer		No				
[k] Date of receiving the sample in Laboratory		31.12.17				
[l] Analysis Start Date / Analysis Completion Date		31.12.17 / 02.01.18				
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g}/\text{m}^3$)
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Benzo (a) Pyrene, (Particulate Phase only) ng/m^3	IS 5182 (Part-10)	<0.1	<0.1	<0.1	<0.1	1.0 ng/m^3

g

Hasim
04/01/18
Authorized Signatory
Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above.
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Regd. Office :
6D Extn. : (Chatterjee Lane)
Gardanibagh
PATNA – 800 001 (Bihar)



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TEST REPORT

Ref. No. RIL/TR/17-18/501(a) Dt : 01.01.2018 Your Work Order No. MANUAL/RIL/BIH/17 Dt : 28.03.2017						
[a] Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur – 802 152					
[b] Details of Sample	Monitoring of Ambient Air Quality					
[c] Sample Collected by	Shiva Test House on 26.12.17					
[d] Sampling Location	Premises of Ramco Bihya					
[e] Method of Sampling	IS 5182 (Part - 14)					
[f] Sampling Environmental Condition	Temp. (°C)	13	Humidity (%)	87		
[g] Details of Sample Container (No. & Type of Container)	Filter Paper : Glass Impinger					
[h] Sample Quantity	12					
[i] Items required to be tested	As per contract					
[j] Whether any specific Method of Test has been suggested by the custom	No					
[k] Date of receiving the sample in Laboratory	27.12.17					
[l] Analysis Start Date / Analysis Completion Date	27.12.17 / 30.12.17					
Parameters	Method of Test	Sampling Station				Limit as NAAQS Nov. 2009
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Particulate Matter (PM ₁₀), µg / m ³	IS 5182 (Part-23)	51.6	55.2	52.8	44.8	100 µg / m ³
		48.7	51.4	47.8	47.8	
		44.3	44.8	46.3	44.7	
2. Particulate Matter (PM _{2.5}), µg / m ³	USEPA	28.2	32.0	28.9	24.3	60 µg / m ³
		26.2	29.6	24.8	25.7	
		23.1	25.5	22.6	23.8	
3. Sulphur Dioxide as SO ₂ , µg / m ³	IS 5182 (Part-2)	10.0	10.6	7.4	8.7	80 µg / m ³
		8.7	9.3	9.3	9.7	
		11.7	12.5	10.2	7.3	
		8.5	8.9	8.5	6.6	
		7.6	7.9	7.9	<5.0	
4. Nitrogen Dioxide as NO ₂ , µg / m ³	IS 5182 (Part-6)	13.6	16.2	14.2	17.6	80 µg / m ³
		19.1	20.8	18.7	17.4	
		15.0	18.7	14.3	15.3	
		12.1	14.6	11.6	13.8	
		11.4	12.2	9.1	11.7	
		10.8	11.8	8.2	11.9	
Average Value						
PM ₁₀		48.2	50.4	49.0	45.8	
PM _{2.5}		25.8	29.0	25.4	24.6	
SO ₂		9.0	9.3	8.7	7.5	
NO ₂		13.7	15.7	12.7	14.6	

d.

Prasanna
01/01/18
Authorized Signatory
Quality Manager / Dy. Quality Manager

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Near Canal, Rukunpura,
Bailey Road,
Patna - 800 014 (Bihar)



SHIVA TEST HOUSE

Tel : 0612 - 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail : sthpatna1@yahoo.co.in



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RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986 (VALID UPTO MAR. 2018),
BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref No. <i>RIL/TR/17-18/501(b)</i> Dt : <i>01.01.2018</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>						
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur - 802 152				
[b] Details of Sample		<i>Monitoring of Ambient Air Quality</i>				
[c] Sample Collected by		<i>Shiva Test House on 26.12.17</i>				
[d] Sampling Location		<i>Premises of Ramco Bihya</i>				
[e] Method of Sampling		IS 5182 (Part - 14)				
[f] Sampling Environmental Condition		Temp. (°C)	13	Humidity (%)	87	
[g] Details of Sample Container (No. & Type of Container)		Filter Paper : Glass Impinger				
[h] Sample Quantity		5				
[i] Items required to be tested		As per contract				
[j] Whether any specific Method of Test has been suggested by the customer		No				
[k] Date of receiving the sample in Laboratory		27.12.17				
[l] Analysis Start Date / Analysis Completion Date		27.12.17 / 30.12.17				
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g}/\text{m}^3$)
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Carbon Monoxide (CO) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-10)	60.0	90.0	40.0	50.0	4000 $\mu\text{g}/\text{m}^3$
2. Lead (Pb) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	1 $\mu\text{g}/\text{m}^3$
3. Ammonia as NH_3 , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-5)	NIL	NIL	NIL	NIL	400 $\mu\text{g}/\text{m}^3$
4. Ozone (O_3) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-9)	8.1	13.5	9.4	6.8	180 $\mu\text{g}/\text{m}^3$
5. Benzene (C_6H_6) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	5 $\mu\text{g}/\text{m}^3$
6. Arsenic (As) , ng/m^3	AAS Method	BDL	BDL	BDL	BDL	6 ng/m^3
7. Nickel as Ni. ng/m^3	AAS Method	BDL	BDL	BDL	BDL	20 ng/m^3
CO : BDL Denotes Below Detectable Limit < 21.09 ($\mu\text{g}/\text{m}^3$)		Pb : BDL Denotes Below Detectable Limit < 0.02 ($\mu\text{g}/\text{m}^3$)				

g

Signature
5/10/18
Authorized Signatory
Quality Manager / Dy. Quality Manager

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Gardanibagh
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TEST REPORT

Ref. No. <i>RIL/TR/17-18/501(c)</i> Dt : <i>01.01.2018</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>						
[a] Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152					
[b] Details of Sample	Monitoring of Ambient Air Quality					
[c] Sample Collected by	Shiva Test House on 26.12.17					
[d] Sampling Location	Premises of Ramco Bihiya					
[e] Method of Sampling	IS 5182 (Part - 14)					
[f] Sampling Environmental Condition	Temp. (°C)	13	Humidity (%)	87		
[g] Details of Sample Container (No. & Type of Container)	Filter Paper : Glass Impinger					
[h] Sample Quantity	1					
[i] Items required to be tested	As per contract					
[j] Whether any specific Method of Test has been suggested by the customer	No					
[k] Date of receiving the sample in Laboratory	27.12.17					
[l] Analysis Start Date / Analysis Completion Date	27.12.17 / 28.12.17					
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g} / \text{m}^3$)
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Benzo (a) Pyrene, (Particulate Phase only) ng / m^3	IS 5182 (Part-10)	<0.1	<0.1	<0.1	<0.1	1.0 ng / m^3

d

[Signature]
21/01/18
Authorized Signatory
Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be re-used and certified as a reference.



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TEST REPORT

Ref. No. <i>RIL/TR/17-18/490(a)</i> Dt : <i>28.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>						
[a] Name and address of the Customer			Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1. BIADA Industrial Area Bihuya Bhojpur – 802 152			
[b] Details of Sample			Monitoring of Ambient Air Quality			
[c] Sample Collected by			Shiva Test House on 23.12.17			
[d] Sampling Location			Premises of Ramco Bihuya			
[e] Method of Sampling			IS 5182 (Part – 14)			
[f] Sampling Environmental Condition			Temp. (°C)	16	Humidity (%)	85
[g] Details of Sample Container (No. & Type of Container)			Filter Paper ; Glass Impinger			
[h] Sample Quantity			12			
[i] Items required to be tested			As per contract			
[j] Whether any specific Method of Test has been suggested by the customer			No			
[k] Date of receiving the sample in Laboratory			24.12.17			
[l] Analysis Start Date / Analysis Completion Date			24.12.17 / 27.12.17			
Parameters	Method of Test	Sampling Station				Limit as NAQS Nov. 2009
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Particulate Matter (PM ₁₀), µg / m ³	IS 5182 (Part-23)	53.8	58.6	55.2	51.2	100 µg / m ³
		50.9	55.0	49.9	49.9	
		46.3	46.8	48.3	46.7	
2. Particulate Matter (PM _{2.5}), µg / m ³	USEPA	29.5	34.1	30.2	28.4	60 µg / m ³
		27.3	32.8	25.9	26.9	
		24.1	26.7	23.6	24.8	
3. Sulphur Dioxide as SO ₂ , µg / m ³	IS 5182 (Part-2)	7.2	11.7	7.2	8.0	80 µg / m ³
		6.5	9.6	9.2	7.3	
		9.5	13.3	9.2	6.6	
		7.2	9.0	7.6	6.1	
		<5.0	8.1	<5.0	5.2	
4. Nitrogen Dioxide as NO ₂ , µg / m ³	IS 5182 (Part-6)	<5.0	<5.0	<5.0	<5.0	80 µg / m ³
		12.5	15.2	17.3	16.8	
		18.3	18.6	18.3	16.3	
		19.1	19.7	14.6	14.6	
		14.7	13.4	13.4	13.2	
		12.7	11.1	12.6	10.9	
Average Value:						
PM ₁₀		50.3	53.5	51.1	49.3	
PM _{2.5}		27.0	31.2	26.6	26.7	
SO ₂		7.6	10.3	8.3	6.6	
NO ₂		14.7	15.3	15.1	13.7	

[Signature]
Authorized Signatory
Quality Manager / Dy. Quality Manager

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TEST REPORT

Ref. No. <i>RIL/TR/17-18/490(b)</i> Dt : <i>28.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>						
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur - 802 152				
[b] Details of Sample		Monitoring of Ambient Air Quality				
[c] Sample Collected by		Shiva Test House on 23.12.17				
[d] Sampling Location		Premises of Ramco Bihya				
[e] Method of Sampling		IS 5182 (Part - 14)				
[f] Sampling Environmental Condition		Temp. (°C)		Humidity (%)		85
[g] Details of Sample Container (No. & Type of Container)		Filter Paper : Glass Impinger				
[h] Sample Quantity		5				
[i] Items required to be tested		As per contract				
[j] Whether any specific Method of Test has been suggested by the customer		N				
[k] Date of receiving the sample in Laboratory		24.12.17				
[l] Analysis Start Date / Analysis Completion Date		24.12.17 / 27.12.17				
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g} / \text{m}^3$)
		Near Office	Near Rear Gate	Near Strapping Area	Near Laboratory	
1. Carbon Monoxide (CO) , $\mu\text{g} / \text{m}^3$	IS 5182 (Part-10)	BDL	40.0	BDL	BDL	4000 $\mu\text{g} / \text{m}^3$
2. Lead (Pb) , $\mu\text{g} / \text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	1 $\mu\text{g} / \text{m}^3$
3. Ammonia as NH_3 , $\mu\text{g} / \text{m}^3$	IS 5182 (Part-5)	NIL	NIL	NIL	NIL	400 $\mu\text{g} / \text{m}^3$
4. Ozone (O_3) , $\mu\text{g} / \text{m}^3$	IS 5182 (Part-9)	10.1	18.6	11.3	9.8	180 $\mu\text{g} / \text{m}^3$
5. Benzene (C_6H_6) , $\mu\text{g} / \text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	5 $\mu\text{g} / \text{m}^3$
6. Arsenic (As) , ng / m^3	AAS Method	BDL	BDL	BDL	BDL	6 ng / m^3
7. Nickel as Ni , ng / m^3	AAS Method	BDL	BDL	BDL	BDL	20 ng / m^3
CO : BDL Denotes Below Detectable Limit < 21.09 ($\mu\text{g} / \text{m}^3$)		Pb : BDL Denotes Below Detectable Limit < 0.02 ($\mu\text{g} / \text{m}^3$)				

d

Prasanna
28/12/17
Authorized Signatory
Quality Manager / Dy. Quality Manager

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TEST REPORT

Ref. No. <i>RIL/TR/17-18/490(c)</i> Dt: <i>28.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt: <i>28.03.2017</i>							
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur – 802 152					
[b] Details of Sample		Monitoring of Ambient Air Quality					
[c] Sample Collected by		Shiva Test House on 23.12.17					
[d] Sampling Location		Premises of Ramco Bihya					
[e] Method of Sampling		IS 5182 (Part - 14)					
[f] Sampling Environmental Condition		Temp. (°C)		16		Humidity (%)	85
[g] Details of Sample Container (No. & Type of Container)		Filter Paper ; Glass Impinger					
[h] Sample Quantity		1					
[i] Iter 's required to be tested		As per contract					
[j] Whether any specific Method of Test has been suggested by the customer		No					
[k] Date of receiving the sample in Laboratory		24.12.17					
[l] Analysis Start Date / Analysis Completion Date		24.12.17 / 26.12.17					
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification (µg / m ³)	
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory		
t. Benzo (a) Pyrene, (Particulate Phase only) ng / m ³	IS 5182 (Part-10)	<0.1	<0.1	<0.1	<0.1	1.0 ng / m ³	

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Tarun
28/12/17
Authorized Signatory
Quality Manager / Dr. Quality Manager

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TEST REPORT

Ref. No. <i>RIL/TR/17-18/488(a)</i> Dt : <i>24.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>						
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur – 802 152				
[b] Details of Sample		Monitoring of Ambient Air Quality				
[c] Sample Collected by		Shiva Test House on 19.12.17				
[d] Sampling Location		Premises of Ramco Bihiya				
[e] Method of Sampling		IS 5182 (Part - 14)				
[f] Sampling Environmental Condition		Temp. (°C)	18	Humidity (%)	76	
[g] Details of Sample Container (No. & Type of Container)		Filter Paper / Glass Impinger				
[h] Sample Quantity		12				
[i] Items required to be tested		As per contract				
[j] Whether any specific Method of Test has been suggested by the customer		No				
[k] Date of receiving the sample in Laboratory		20.12.17				
[l] Analysis Start Date / Analysis Completion Date		20.12.17 / 23.12.17				
Parameters	Method of Test	Sampling Station				Limit as NAAQS Nov. 2009
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Particulate Matter (PM ₁₀), µg / m ³	IS 5182 (Part-23)	51.0	54.3	52.2	51.9	100 µg / m ³
		48.2	50.5	47.3	47.3	
		43.8	44.3	45.8	44.2	
2. Particulate Matter (PM _{2.5}), µg / m ³	USEPA	27.9	31.5	28.6	29.1	60 µg / m ³
		25.9	28.7	24.5	25.4	
		22.8	25.3	22.3	23.5	
3. Sulphur Dioxide as SO ₂ , µg / m ³	IS 5182 (Part-2)	6.8	11.0	6.8	7.6	60 µg / m ³
		6.1	9.1	8.7	8.1	
		9.0	12.6	8.8	6.6	
		6.6	8.5	7.2	5.6	
		6.1	7.7	7.0	<5.0	
4. Nitrogen Dioxide as NO ₂ , µg / m ³	IS 5182 (Part-6)	<5.0	<5.0	<5.0	<5.0	80 µg / m ³
		13.1	16.0	18.2	17.6	
		19.2	19.5	19.1	17.1	
		20.0	20.6	15.3	15.4	
		15.4	14.0	14.0	13.8	
		13.3	11.6	13.2	11.4	
Average Value						
	PM ₁₀	47.7	49.7	48.4	47.8	
	PM _{2.5}	25.5	28.5	25.1	27.1	
	SO ₂	7.0	9.8	7.7	7.0	
	NO ₂	15.4	16.0	15.8	14.4	

[Signature]
24/12/17
Authorized Signatory
Quality Manager / Dy. Quality Manager

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Gardanibagh
PATNA – 800 001 (Bihar)



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SHIVA TEST HOUSE

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TEST REPORT

Ref. No. <i>RIL/TR/17-18/488(c)</i> Dt : <i>24.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>						
(a) Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur – 802 152				
(b) Details of Sample		Monitoring of Ambient Air Quality				
(c) Sample Collected by		Shiva Test House on 19.12.17				
(d) Sampling Location		Premises of Ramco Bihya				
(e) Method of Sampling		IS 5182 (Part - 14)				
(f) Sampling Environmental Condition		Temp. (°C)	18	Humidity (%)	76	
(g) Details of Sample Container (No. & Type of Container)		Filter Paper : Glass Impinger				
(h) Sample Quantity		5				
(i) Items required to be tested		As per contract				
(j) Whether any specific Method of Test has been suggested by the customer		No				
(k) Date of receiving the sample in Laboratory		20.12.17				
(l) Analysis Start Date / Analysis Completion Date		20.12.17 / 23.12.17				
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g}/\text{m}^3$)
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Carbon Monoxide (CO), $\mu\text{g}/\text{m}^3$	IS 5182 (Part-10)	BDL	70.0	30.0	BDL	4000 $\mu\text{g}/\text{m}^3$
2. Lead (Pb), $\mu\text{g}/\text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	1 $\mu\text{g}/\text{m}^3$
3. Ammonia as NH_3 , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-5)	NIL	NIL	NIL	NIL	400 $\mu\text{g}/\text{m}^3$
4. Ozone (O_3), $\mu\text{g}/\text{m}^3$	IS 5182 (Part-9)	9.6	13.2	6.1	7.9	180 $\mu\text{g}/\text{m}^3$
5. Benzene (C_6H_6), $\mu\text{g}/\text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	5 $\mu\text{g}/\text{m}^3$
6. Arsenic (As), ng/m^3	AAS Method	BDL	BDL	BDL	BDL	6 ng/m^3
7. Nickel as Ni, ng/m^3	AAS Method	BDL	BDL	BDL	BDL	20 ng/m^3
CO : BDL Denotes Below Detectable Limit < 21.09 ($\mu\text{g}/\text{m}^3$)		Pb : BDL Denotes Below Detectable Limit < 0.02 ($\mu\text{g}/\text{m}^3$)				

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24/12/17
Authorized Signatory
Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be extended beyond notified period for its validity.

Regd. Office :
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PATNA – 800 001 (Bihar)



Laboratory Address :-
01st Floor, Rajhans Niketan,
Near Canal, Rukunpura,
Bailey Road,
Patna – 800 014 (Bihar)



SHIVA TEST HOUSE

Tel. : 0612 – 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail : sthpatna1@yahoo.co.in



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RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986 (VALID UPTO MAR. 2018),
BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>RH/TR/17-18/488(c)</i> Dt: <i>24.12.2017</i> Your Work Order No. <i>MANUAL/RH/BIH/17 D</i> : <i>28.03.2017</i>						
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihija Bhojpur – 802 152				
[b] Details of Sample		Monitoring of Ambient Air Quality				
[c] Sample Collected by		Shiva Test House on 19.12.17				
[d] Sampling Location		Premises of Ramco Bihija				
[e] Method of Sampling		IS 5182 (Part - 14)				
[f] Sampling Environmental Condition		Temp. (°C)	18	Humidity (%)	76	
[g] Details of Sample Container (No. & Type of Container)		Filter Paper - Glass Impinger				
[h] Sample Quantity		1				
[i] Items required to be tested		As per contract				
[j] Whether any specific Method of Test has been suggested by the customer		No				
[k] Date of receiving the sample in Laboratory		20.12.17				
[l] Analysis Start Date / Analysis Completion Date		20.12.17 / 23.12.17				
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g} / \text{m}^3$)
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Benzo (a) Pyrene, (Particulate Phase only) ng / m^3	IS 5182 (Part-10)	<0.1	<0.1	< 0.1	< 0.1	1.0 ng / m^3

[Handwritten signature]

[Handwritten signature]
24/12/17
Authorized Signatory
Quality Manager / Dy. Quality Manager

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2. Total Liability of our Laboratory is limited to invoiced amount.
3. For details of our services, visit our website and get the product certificate.

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TEST REPORT

Ref. No. <i>RIL/TR/17-18/482(a)</i> Dt : <i>19.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>						
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur – 802 152				
[b] Details of Sample		Monitoring of Ambient Air Quality				
[c] Sample Collected by		Shiva Test House on 15.12.17				
[d] Sampling Location		Premises of Ramco Bihiya				
[e] Method of Sampling		IS 5182 (Part - 14)				
[f] Sampling Environmental Condition		Temp. (°C)	21	Humidity (%)	83	
[g] Details of Sample Container (No. & Type of Container)		Filter Paper : Glass Impinger				
[h] Sample Quantity		12				
[i] Items required to be tested		As per contract				
[j] Whether any specific Method of Test has been suggested by the customer		No				
[k] Date of receiving the sample in Laboratory		16.12.17				
[l] Analysis Start Date / Analysis Completion Date		16.12.17 / 19.12.17				
Parameters	Method of Test	Sampling Station				Limit as NAAQS Nov. 2009
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Particulate Matter (PM ₁₀), µg / m ³	IS 5182 (Part-23)	46.9	57.1	55.2	51.3	100 µg / m ³
		46.6	53.1	48.6	47.6	
		43.8	45.8	47.8	43.3	
2. Particulate Matter (PM _{2.5}), µg / m ³	USEPA	25.4	33.7	30.9	28.8	60 µg / m ³
		23.8	30.8	25.4	26.0	
		21.5	26.4	23.2	24.1	
3. Sulphur Dioxide as SO ₂ , µg / m ³	IS 5182 (Part-2)	6.8	11.4	7.1	7.6	80 µg / m ³
		<5.0	9.4	9.0	8.1	
		9.3	13.0	6.4	6.6	
		7.0	8.8	<5.0	<5.0	
		6.3	7.9	7.3	<5.0	
4. Nitrogen Dioxide as NO ₂ , µg / m ³	IS 5182 (Part-6)	14.0	17.1	19.4	18.8	80 µg / m ³
		20.5	20.9	20.5	16.3	
		21.4	22.1	16.4	16.4	
		16.5	15.0	15.0	14.8	
		14.3	12.4	14.1	12.2	
		12.3	15.5	16.0	12.0	
Average Value						
PM ₁₀		46.4	52.0	50.5	47.4	
PM _{2.5}		23.6	30.3	26.5	26.3	
SO ₂		7.0	9.5	7.9	7.5	
NO ₂		16.5	17.2	16.9	15.4	

Handwritten Signature
19/12/17
Authorized Signatory
Quality Manager / Dr. Quality Manager

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TEST REPORT

Ref. No. <i>RIL/TR/17-18/482(b)</i> Dt : <i>19.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>							
[a] Name and address of the Customer				Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihliya Bhojpur – 802 152			
[b] Details of Sample				Monitoring of Ambient Air Quality			
[c] Sample Collected by				Shiva Test House on 15.12.17			
[d] Sampling Location				Premises of Ramco Bihliya			
[e] Method of Sampling				IS 5182 (Part - 14)			
[f] Sampling Environmental Condition				Temp. (°C)	21	Humidity (%)	83
[g] Details of Sample Container (No. & Type of Container)				Filter Paper : Glass impinger			
[h] Sample Quantity				5			
[i] Items required to be tested				As per contract			
[j] Whether any specific Method of Test has been suggested by the customer				No			
[k] Date of receiving the sample in Laboratory				16.12.17			
[l] Analysis Start Date / Analysis Completion Date				16.12.17 / 19.12.17			
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g} / \text{m}^3$)	
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory		
1. Carbon Monoxide (CO) , $\mu\text{g} / \text{m}^3$	IS 5182 (Part-10)	45.0	110.0	60.0	30.0	4000 $\mu\text{g} / \text{m}^3$	
2. Lead (Pb) , $\mu\text{g} / \text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	1 $\mu\text{g} / \text{m}^3$	
3. Ammonia as NH_3 , $\mu\text{g} / \text{m}^3$	IS 5182 (Part-5)	NIL	NIL	NIL	NIL	400 $\mu\text{g} / \text{m}^3$	
4. Ozone (O_3) , $\mu\text{g} / \text{m}^3$	IS 5182 (Part-9)	7.8	8.1	6.2	5.4	180 $\mu\text{g} / \text{m}^3$	
5. Benzene (C_6H_6) , $\mu\text{g} / \text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	5 $\mu\text{g} / \text{m}^3$	
6. Arsenic (As) , ng / m^3	AAS Method	BDL	BDL	BDL	BDL	6 ng / m^3	
7. Nickel as Ni , ng / m^3	AAS Method	BDL	BDL	BDL	BDL	20 ng / m^3	
CO : BDL Denotes Below Detectable Limit < 21.09 ($\mu\text{g} / \text{m}^3$)				Pb : BDL Denotes Below Detectable Limit < 0.02 ($\mu\text{g} / \text{m}^3$)			

d

Prasanna
19/12/17
Authorized Signatory
Quality Manager / Dy. Quality Manager

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E.mail : sthpalna1@yahoo.co.in



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TEST REPORT

Ref. No. <i>RIL/TR/17-18/482(c)</i> Dt : <i>19.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>						
[a] Name and address of the Customer :		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur - 802 152				
[b] Details of Sample		Monitoring of Ambient Air Quality				
[c] Sample Collected by		Shiva Test House on 15.12.17				
[d] Sampling Location		Premises of Ramco Bihya				
[e] Method of Sampling		IS 5182 (Part - 14)				
[f] Sampling Environmental Condition		Temp. (°C)	21	Humidity (%)	83	
[g] Details of Sample Container (No. & Type of Container)		Filter Paper : Glass Impinger				
[h] Sample Quantity		1				
[i] Items required to be tested		As per contract				
[j] Whether any specific method of Test has been suggested by the customer		No				
[k] Date of receiving the sample in Laboratory		16.12.17				
[l] Analysis Start Date / Analysis Completion Date		16.12.17 / 17.12.17				
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g} / \text{m}^3$)
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Benzo (a) Pyrene. (Particulate Phase only) ng / m^3	IS 5182 (Part-10)	<0.1	<0.1	<0.1	<0.1	1.0 ng / m^3

[Handwritten signature]

[Handwritten signature]
Authorized Signatory
Quality Manager / Dy. Quality Manager

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3. Test Report endorsed only the tests and not the product certificate.
4. Test Report is valid only for the tests mentioned in the report.

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TEST REPORT

Ref. No. <i>RIL/TR/17-18/466(a)</i> Dt : <i>16.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>						
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur - 802 152				
[b] Details of Sample		Monitoring of Ambient Air Quality				
[c] Sample Collected by		Shiva Test House on 11.12.17				
[d] Sampling Location		Premises of Ramco Bihiya				
[e] Method of Sampling		IS 5182 (Part - 14)				
[f] Sampling Environmental Condition		Temp. (°C)	24	Humidity (%)	81	
[g] Details of Sample Container (No. & Type of Container)		Filter Paper : Glass Impinger				
[h] Sample Quantity		12				
[i] Items required to be tested		As per contract				
[j] Whether any specific Method of Test has been suggested by the customer		No				
[k] Date of receiving the sample in Laboratory		12.12.17				
[l] Analysis Start Date / Analysis Completion Date		12.12.17 / 15.12.17				
Parameters	Method of Test	Sampling Station				Limit as NAAQS Nov. 2009
		Near Office	Near Rear Gate	Near Shipping Area	Near Laboratory	
1. Particulate Matter (PM ₁₀), µg / m ³	IS 5182 (Part-23)	45.6	53.3	51.5	47.8	100 µg / m ³
		43.5	49.6	45.4	44.4	
		40.8	42.7	44.6	40.4	
2. Particulate Matter (PM _{2.5}), µg / m ³	USEPA	23.7	31.4	28.9	26.9	60 µg / m ³
		22.2	28.7	23.7	24.3	
		20.0	24.6	21.7	22.5	
3. Sulphur Dioxide as SO ₂ , µg / m ³	IS 5182 (Part-2)	<5.0	10.7	6.6	<5.0	80 µg / m ³
		6.1	8.8	8.4	<5.0	
		8.7	12.1	9.1	6.3	
		6.6	8.2	7.2	5.6	
		5.9	7.4	6.8	<5.0	
4. Nitrogen Dioxide as NO ₂ , µg / m ³	IS 5182 (Part-6)	12.2	14.8	16.9	16.3	80 µg / m ³
		17.8	18.1	17.8	15.9	
		18.6	19.2	14.2	14.3	
		14.3	13.0	13.1	12.8	
		12.4	10.8	12.3	10.6	
Average Value						
	PM ₁₀	43.3	48.5	47.2	44.2	
	PM _{2.5}	22.0	28.3	24.7	24.6	
	SO ₂	6.5	8.9	7.6	6.0	
	NO ₂	14.3	14.9	14.7	13.4	



[Signature]
16/12/17
Authorized Signatory
Quality Manager / Dy. Quality Manager

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6D Extn. (Chatterjee Lane)
Gardanibagh
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Laboratory Address :-
01st Floor, Rajhans Niketan,
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TEST REPORT

Ref. No. <i>RIL/TR/17-18/466(b)</i> Dt : <i>16.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>						
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhojpur – 802 152				
[b] Details of Sample		<i>Monitoring of Ambient Air Quality</i>				
[c] Sample Collected by		Shiva Test House on <i>11.12.17</i>				
[d] Sampling Location		<i>Premises of Ramco Bihiya</i>				
[e] Method of Sampling		IS 5182 (Part - 14)				
[f] Sampling Environmental Condition		Temp. (°C)	24	Humidity (%)	81	
[g] Details of Sample Container (No. & Type of Container)		Filter Paper : Glass Impinger				
[h] Sample Quantity		5				
[i] Items required to be tested		As per contract				
[j] Whether any specific Method of Test has been suggested by the customer		No				
[k] Date of receiving the sample in Laboratory		12.12.17				
[l] Analysis Start Date / Analysis Completion Date		12.12.17 / 15.12.17				
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g}/\text{m}^3$)
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Carbon Monoxide (CO) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-10)	30.0	85.0	BDL	BDL	4000 $\mu\text{g}/\text{m}^3$
2. Lead (Pb) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	1 $\mu\text{g}/\text{m}^3$
3. Ammonia as NH_3 , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-5)	NIL	NIL	NIL	NIL	400 $\mu\text{g}/\text{m}^3$
4. Ozone (O_3) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-9)	5.4	10.8	7.1	6.3	180 $\mu\text{g}/\text{m}^3$
5. Benzene (C_6H_6) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	5 $\mu\text{g}/\text{m}^3$
6. Arsenic (As) , ng/m^3	AAS Method	BDL	BDL	BDL	BDL	6 ng/m^3
7. Nickel as Ni, ng/m^3	AAS Method	BDL	BDL	BDL	BDL	20 ng/m^3
CO : BDL Denotes Below Detectable Limit < 21.09 ($\mu\text{g}/\text{m}^3$)		Pb : BDL Denotes Below Detectable Limit < 0.02 ($\mu\text{g}/\text{m}^3$)				



Handwritten Signature
16/12/17
Authorized Signatory
Quality Manager / Dy. Quality Manager

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SHIVA TEST HOUSE

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TEST REPORT

Ref. No. <i>RIL/TR/17-18/466(c)</i> Dt : <i>16.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>						
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1. BIADA Industrial Area Bihya Bhojpur – 802 152				
[b] Details of Sample		<i>Monitoring of Ambient Air Quality</i>				
[c] Sample Collected by		<i>Shiva Test House on 11.12.17</i>				
[d] Sampling Location		<i>Premises of Ramco Bihya</i>				
[e] Method of Sampling		IS 5182 (Part - 14)				
[f] Sampling Environmental Condition		Temp. (°C)	24	Humidity (%)	81	
[g] Details of Sample Container (No. & Type of Container)		Filter Paper : Glass Impinger				
[h] Sample Quantity		1				
[i] Items required to be test:		As per contract				
[j] Whether any specific tv od of Test has been suggested by the customer		No				
[k] Date of receiving the sample in Laboratory		12.12.17				
[l] Analysis Start Date / Analysis Completion Date		12.12.17 / 13.12.17				
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g} / \text{m}^3$)
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Benzo (a) Pyrene, (Particulate Phase only) ng / m^3	IS 5182 (Part-10)	<0.1	<0.1	<0.1	<0.1	1.0 ng / m^3



Handwritten Signature
16/12/17
Authorized Signatory
Quality Manager / Dy. Quality Manager

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TEST REPORT

Ref. No. RII/TR/17-18/445(a) Dt : 07.12.2017 Your Work Order No. MANUAL/RII/BIH/17 Dt : 28.03.2017						
[a] Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur – 802 152					
[b] Details of Sample	Monitoring of Ambient Air Quality					
[c] Sample Collected by	Shiva Test House on 04.12.17					
[d] Sampling Location	Premises of Ramco Bihya					
[e] Method of Sampling	IS 5182 (Part - 14)					
[f] Sampling Environmental Condition	Temp. (°C)	37	Humidity (%)	86		
[g] Details of Sample Container (No. & Type of Container)	Filter Paper / Glass Impinger					
[h] Sample Quantity	12					
[i] Items required to be tested	As per contract					
[j] Whether any specific Method of Test has been suggested by the customer	No					
[k] Date of receiving the sample in Laboratory	05.12.17					
[l] Analysis Start Date / Analysis Completion Date	05.12.17 / 07.12.17					
Parameters	Method of Test	Sampling Station				Limit as NAAQS Nov. 2009
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Particulate Matter (PM ₁₀), µg / m ³	IS 5182 (Part-23)	58.5	52.6	50.1	50.0	100 µg / m ³
		54.5	48.8	47.6	49.9	
		46.9	44.4	44.9	46.0	
2. Particulate Matter (PM _{2.5}), µg / m ³	USEPA	34.5	29.5	26.1	21.7	60 µg / m ³
		31.3	26.7	24.4	26.0	
		27.1	24.8	22.0	23.6	
3. Sulphur Dioxide as SO ₂ , µg / m ³	IS 5182 (Part-2)	19.2	8.1	9.2	11.4	80 µg / m ³
		16.0	9.7	11.2	15.4	
		22.1	11.5	15.7	10.4	
		14.9	10.2	11.9	9.5	
		12.3	8.0	10.6	7.9	
4. Nitrogen Dioxide as NO ₂ , µg / m ³	IS 5182 (Part-6)	11.4	7.5	9.8	10.0	80 µg / m ³
		16.3	18.0	13.4	16.5	
		19.2	17.5	19.6	19.5	
		21.1	15.7	20.4	15.0	
		14.3	14.1	15.7	14.3	
Average Value		11.9	11.7	13.4	13.9	
		14.6	11.4	11.7	15.3	
		53.3	48.6	47.6	51.8	
		31.1	27.0	24.2	27.3	
		16.0	9.3	11.4	10.7	
NO ₂		16.4	14.7	15.7	16.1	


07/12/17
Authorized Signatory
Quality Manager / Dy. Quality Manager

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Regd. Office :
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Gardanibagh
PATNA – 800 001 (Bihar)



Laboratory Address :-
01st Floor, Rajhans Niketan,
Near Canal, Rukunpura,
Bailey Road,
Patna – 800 014 (Bihar)



SHIVA TEST HOUSE

Tel : 0612 – 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail : sthpatna1@yahoo.co.in



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RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986 (VALID UPTO MAR. 2018),
BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>RIL/TR/17-18/445(b)</i> Dt : <i>07.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt. <i>25.03.2017</i>						
[a] Name and address of the Customer		Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur – 802 152				
[b] Details of Sample		Monitoring of Ambient Air Quality				
[c] Sample Collected by		Shiva Test House on 04.12.17				
[d] Sampling Location		Premises of Ramco Bihya				
[e] Method of Sampling		IS 5182 (Part - 14)				
[f] Sampling Environmental Condition		Temp. (°C)	37	Humidity (%)	86	
[g] Details of Sample Container (No. & Type of Container)		Filter Paper : Glass Impinger				
[h] Sample Quantity		5				
[i] Items required to be tested		As per contract				
[j] Whether any specific Method of Test has been suggested by the customer		No				
[k] Date of receiving the sample in Laboratory		05.12.17				
[l] Analysis Start Date / Analysis Completion Date		05.12.17 / 07.12.17				
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g}/\text{m}^3$)
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Carbon Monoxide (CO) : $\mu\text{g}/\text{m}^3$	IS 5182 (Part-10)	BDL	54.0	26.0	30.0	4000 $\mu\text{g}/\text{m}^3$
2. Lead (Pb) : $\mu\text{g}/\text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	1 $\mu\text{g}/\text{m}^3$
3. Ammonia as NH_3 : $\mu\text{g}/\text{m}^3$	IS 5182 (Part-5)	NIL	NIL	NIL	NIL	400 $\mu\text{g}/\text{m}^3$
4. Ozone (O_3) : $\mu\text{g}/\text{m}^3$	IS 5182 (Part-9)	6.9	8.4	9.6	5.7	180 $\mu\text{g}/\text{m}^3$
5. Benzene (C_6H_6) : $\mu\text{g}/\text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	5 $\mu\text{g}/\text{m}^3$
6. Arsenic (As) : ng/m^3	AAS Method	BDL	BDL	BDL	BDL	6 ng/m^3
7. Nickel as Ni : ng/m^3	AAS Method	BDL	BDL	BDL	BDL	20 ng/m^3
CO : BDL Denotes Below Detectable Limit < 21.09 ($\mu\text{g}/\text{m}^3$)		Pb : BDL Denotes Below Detectable Limit < 0.02 ($\mu\text{g}/\text{m}^3$)				

[Signature]
Authorized Signatory
Quality Manager / Dy. Quality Manager

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Gardanibagh
PATNA - 800 001 (Bihar)



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Bailey Road,
Patna - 800 014 (Bihar)



SHIVA TEST HOUSE

Tel. : 0612 - 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail. : sthpatna1@yahoo.co.in



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TEST REPORT

Ref. No. <i>RH/TR/17-18/445(c)</i> Dt : <i>07.12.2017</i> Your Work Order No. <i>MANUAL/RH/BIH/17</i> Dt : <i>28.03.2017</i>						
[a] Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihya Bhojpur - 802 152					
[b] Details of Sample	Monitoring of Ambient Air Quality					
[c] Sample Collected by	Shiva Test House on 04.12.17					
[d] Sampling Location	Premises of Ramco Bihya					
[e] Method of Sampling	IS 5102 (Part - 14)					
[f] Sampling Environmental Condition	Temp. (°C)	37	Humidity (%)	88		
[g] Details of Sample Container (No. & Type of Container)	Filter Paper : Glass Impinger					
[h] Sample Quantity	1					
[i] Items required to be tested	As per contract					
[j] Whether any specific Method of Test has been suggested by the customer	No					
[k] Date of receiving the sample in Laboratory	05.12.17					
[l] Analysis Start Date / Analysis Completion Date	05.12.17 / 07.12.17					
Parameters	Method of Test	Sampling Stations				Limit as per EPA Notification (µg / m ³)
		Near Office	Near Rear Gate	Near Stripping Area	Near Laboratory	
1. Benzo (a) Pyrene, (Particulate Phase only) ng / m ³	IS 5102 (Part-10)	<0.1	<0.1	<0.1	<0.1	1.0 ng / m ³

[Signature]
Authorized Signatory
Quality Manager / In- Charge

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PATNA – 800 001 (Bihar)



Laboratory Address :-
01st Floor, Raihans Niketan,
Near Canal, Rukumpura,
Bailey Road,
Patna – 800 014 (Bihar)



SHIVA TEST HOUSE

Tel : 0612 – 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail: sthpatna1@yahoo.co.in



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TEST REPORT

Ref. No. <i>RIL/TR/17-18/441(a)</i> Dt : <i>05.12.2017</i> Your Work Order No. <i>MANUAL/RIE/BIH/37 D</i> <i>26.03.2017</i>						
[a] Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, SIADA Industrial Area Bithura Shreepur – 802 152					
[b] Details of Sample	Monitoring of Ambient Air Quality					
[c] Sample Collected by	Shiva Test House on 01.12.17					
[d] Sampling Location	Premises of Ramco Bithura					
[e] Method of Sampling	IS 5182 (Part - 1)					
[f] Sampling Environmental Condition	Temp. (°C) : 30 Humidity (%) : 60					
[g] Details of Sample Container (No. & Type of Container)	Filter Paper / Glass Impinger					
[h] Sample Quantity	1L					
[i] Items required to be tested	As per contract					
[j] Whether any specific Method of Test has been suggested by the customer	No					
[k] Date of receiving the sample in Laboratory	02.12.17					
[l] Analysis Start Date / Analysis Completion Date	02.12.17 / 04.12.17					
Parameters	Method of Test	Sampling Station				Limit as per MAQS (Nov. 2009)
		Near Office	Near Road Gate	Near Shipping Area	Near Laboratory	
1. Particulate Matter (PM ₁₀), µg / m ³	IS 5182 (Part-2)	55.6	60.2	62.6	46.6	100 µg / m ³
		53.1	53.0	56.1	43.4	
2. Particulate Matter (PM _{2.5}), µg / m ³	USEPA	29.9	52.1	52.8	17.1	60 µg / m ³
		29.0	33.7	32.2	17.2	
3. Sulphur Dioxide as SO ₂ , µg / m ³	IS 5182 (Part-2)	27.1	27.7	31.8	24.3	80 µg / m ³
		24.4	25.2	29.5	21.1	
		10.2	12.1	9.6	13.3	
		12.4	16.4	11.5	12.3	
		17.5	11.1	13.7	12.7	
4. Nitrogen Dioxide as NO ₂ , µg / m ³	IS 5182 (Part-2)	12.7	9.0	11.1	11.9	80 µg / m ³
		11.8	8.4	10.2	8.9	
		10.9	11.6	8.9	9.1	
		12.7	16.7	11.8	11.1	
Average Value		22.7	21.6	20.4	16.7	80 µg / m ³
		22.1	6.8	18.7	11.6	
		17.5	15.3	16.8	11.8	
		15.1	14.4	10.8	9.2	
		11.8	16.3	13.8	11.3	
		52.9	50.1	57.2	42.4	
		26.8	21.9	32.1	24.8	
		12.7	11.1	11.0	12.8	
		17.5	17.2	17.3	13.1	

Handwritten Signature
Authorized Signatory
Quality Manager / Sr. Quality Manager

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Bailey Road,
Patna – 800 014 (Bihar)



SHIVA TEST HOUSE

Tel. : 0612 – 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail.: sthpatna1@yahoo.co.in



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TEST REPORT

Ref. No. <i>RIL/TR/17-18/441(b)</i> Dt : <i>05.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt : <i>28.03.2017</i>						
[a] Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIADA Industrial Area Bihiya Bhogpur – 802 152					
[b] Details of Sample	<i>Monitoring of Ambient Air Quality</i>					
[c] Sample Collected by	Shiva Test House on 01.12.17					
[d] Sampling Location	<i>Premises of Ramco Bihiya</i>					
[e] Method of Sampling	IS 5182 (Part - 14)					
[f] Sampling Environmental Condition	Temp. (°C)	37	Humidity (%)	86		
[g] Details of Sample Container (No. & Type of Container)	Filter Paper : Glass Impinger					
[h] Sample Quantity	5					
[i] Items required to be tested	As per contract					
[j] Whether any specific Method of Test has been suggested by the customer	No					
[k] Date of receiving the sample in Laboratory	02.12.17					
[l] Analysis Start Date / Analysis Completion Date	02.12.17 / 04.12.17					
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g}/\text{m}^3$)
		Near Office	Near Rear Gate	Near Shipping Area	Near Laboratory	
1. Carbon Monoxide (CO) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-10)	30.0	80.0	45.0	BDL	4000 $\mu\text{g}/\text{m}^3$
2. Lead (Pb) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	1 $\mu\text{g}/\text{m}^3$
3. Ammonia as NH_3 , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-5)	NIL	NIL	NIL	NIL	400 $\mu\text{g}/\text{m}^3$
4. Ozone (O_3) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-9)	5.3	9.8	7.1	6.1	180 $\mu\text{g}/\text{m}^3$
5. Benzene (C_6H_6) , $\mu\text{g}/\text{m}^3$	IS 5182 (Part-22)	BDL	BDL	BDL	BDL	5 $\mu\text{g}/\text{m}^3$
6. Arsenic (As) , ng/m^3	AAS Method	BDL	BDL	BDL	BDL	6 ng/m^3
7. Nickel as Ni , ng/m^3	AAS Method	BDL	BDL	BDL	BDL	20 ng/m^3
CO : BDL Denotes Below Detectable Limit < 21.09 ($\mu\text{g}/\text{m}^3$)		Pb : BDL Denotes Below Detectable Limit < 0.72 ($\mu\text{g}/\text{m}^3$)				

Handwritten Signature
05/12/17
Authorized Signatory
Quality Manager / Dr. Quality Manager

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Gardanibagh
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Patna – 800 014 (Bihar)



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TEST REPORT

Ref No. <i>RIL/TR/17-18/441(c)</i> Dt: <i>05.12.2017</i> Your Work Order No. <i>MANUAL/RIL/BIH/17</i> Dt: <i>28.03.2017</i>						
[a] Name and address of the Customer	Sr. General Manager (Works) RAMCO INDUSTRIES LTD. Plot No. A 1, BIAOA Industrial Area Bihliya Bhojpur – 802 152					
[b] Details of Sample	Monitoring of Ambient Air Quality					
[c] Sample Collected by	Shiva Test House on 01.12.17					
[d] Sampling Location	Premises of Ramco Bihliya					
[e] Method of Sampling	IS 5182 (Part - 14)					
[f] Sampling Environmental Condition	Temp. (°C)	37	Humidity (%)	80		
[g] Details of Sample Container (No. & Type of Container)	Filter Paper : Glass Impinger					
[h] Sample Quantity	1					
[i] Items required to be tested	As per contract					
[j] Whether any specific Method or Test has been suggested by the customer	No					
[k] Date of receiving the sample in Laboratory	02.12.17					
[l] Analysis Start Date / Analysis Completion Date	02.12.17 / 04.12.17					
Parameters	Method of Test	Sampling Station				Limit as per EPA Notification ($\mu\text{g}/\text{m}^3$)
		Near Office	Near Rear Gate	Near Stopping Area	Near Laboratory	
1. Benzene (a) Pyrene, (Particulate Phase only) ng/m^3	IS 5182 (Part-10)	<0.1	<0.1	<0.1	<0.1	1.0 ng/m^3

File No
05/12/17
Authorized Signature
Quality Manager / By Quality Manager

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to involved amt. only.
3. Test Report and result is the result and not the original certificate.