



o/c

TSPL/ENV/PCB/ES/2015-16/ 1007

Srikakulam,
13.08.2016

To
The Joint Chief Environment Engineer
AP Pollution Control Board
Paryavaran Bhavan, A3, IE
Sanathnagar
Hyderabad-38

Dear Sir,

Sub: Environmental Statement – Form-V - 2015-16 – Reg.
Ref: APPCB/VSP/VZM/152/HO/CFO/2015 Dated 30.10.2015

As per the reference cited, please find herewith Environmental Statement in Form-V for the financial year 2015-16.

Thanking You

Yours faithfully

Vice President
Mining

Cc:
The Environment Engineer
AP Pollution Control Board
Regional Office, Plot no – 11
1st floor, Shivaji Colony
Pradeep Nagar, Vizianagaram-535002

Trimex Sands Pvt Ltd: Vatchavalasa (V), Gara Mandal, Srikakulam District - 532 404, Andhra Pradesh, India.
Tel: +91 8942 283755, Fax: +91 8942 283758, email: info@trimexsands.com

Hyderabad Office: 2nd Floor, Sri Durga Towers, Plot No. 201, Road No. 10, Banjara Hills, Hyderabad - 500 034, Andhra Pradesh, India.
Tel: +91 40 2338 4380 / 3371 3600 Fax: +91 40 2338 4068

Reg. Office: Trimex Towers, No.1 Subbaraya Avenue, C.P. Ramaswamy Road, Alwarpet, Chennai - 600 018. Tamilnadu, India.
Tel: +91 44 2498 8822 / 8813 Fax: +91 44 2498 6047 web: www.trimexsands.com

CIN : U14299TN2004PTC071437

FORM – V
(See Rule 14)

Environmental Statement for the financial year ending with 31st March, 2016

PART - A

- (i) Name and Address of the Owner/ Occupier of the Industry Operation or process **M/S TRIMEX SANDS PVT. LTD.**
Vatsavalsa (V), Gara (M),
Srikakulam Dist – 532 404
- (ii) Industry category Primary 1360, 1533 & 1595
(SIC Code), Secondary –
(SIC Code)
- (iii) Production capacity –
(Permitted quantity as per CFO)

S.No	Product	Quantity (TPD)
1	Ilmenite	1100
2	Sillimanite	550
3	Garnet	550
By Products		
4	Rutile	44
5	Zircon	44
6	Mineral Rich Tailings	260

- (iv) Year of establishment 2009 - 2010
- (v) Date of the last environmental statement submitted. 28.09.2015
(Vide Ir no TSPL/ENV/PCB/2014-15/909)

PART - B

(i) Water consumption, m³/d :

Process :- 7908 KLD
Cooling :- - NA -
Domestic :- 14.62 KLD

Name of Product	Process Water Consumption in m3 per unit of products	
	During the Previous Financial Year 2014-15	During the Current Financial Year 2015-16
	(1)	(2)
Ilmanite, Rutile, Garnet, Zircon, Sillimanite	9.36	8.40

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ii) Raw Material Consumption:

Name of Raw Material	Name of Products	Process Raw Materials in tons per unit of products	
		During the Previous Financial Year 2014-15	During the Current Financial Year 2015-16
Beach Sand	Ilmanite, Rutile, Garnet, Zircon, Sillimanite	5.81	8.20

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

PART C

Pollution discharged to environment / unit of output (Parameter as specified in the consent issued)			
Pollutants	Quantity of Pollutants Discharged (mass / day)	Concentration of Pollutants in discharges (mass/volume)	Percentage of Variation from prescribed Standards with Reasons
(a) Water :		There is no discharge from the industry. 10 no.s observation wells and 7 No.s of piezometer wells are being monitored for water table and quality parameters. It is observed that all the parameters are under permissible limit.	NA
(b) Air		Monthly Ambient Air Quality monitoring is being carried out within and outside the mining lease area (surrounding villages). Stack Emission Details Annexure I.	NA

PART -- D

HAZARDOUS WASTES

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

Hazardous Wastes (Waste Lubricant Oil)	Total Quantity (lit)	
	During the Previous Financial Year 2014-15	During the Current Financial Year 2015-16
(a) From Process	1927	2690
(b) From Pollution control facilities	NA	NA

PART – E

SOLID WASTES:-

SOLID WASTES (silica sand tailings)	Total Quantity (tons)	
	During the Previous Financial Year 2014-15	During the Current Financial Year 2015-16
(a) From Process	14,88,119	23,74,980
(b) From Pollution Control Facility	NA	NA
(c)(i) Quantity to be recycled or reutilized within the unit	1,14,689	65,527
(ii) Sold	NA	
(iii) Disposed	The above qty under (a) is backfilled at mined out area for reclamation and afforestation	The above qty under (a) is backfilled at mined out area for reclamation and afforestation

PART – F

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

S.No	Name of HW / Solid Waste	Quantity	Type / Nature	Mode of Disposal
1	Waste Lubricant Oil	2690 liters (2015-16)	Inflammable	Stored in closed barrels in designated area and disposed by sale to the authorized agencies.
2	Silica Sand Tailings	23,74,980 tones (2015-16)	Non – hazardous in nature	The same qty is back filled at mined out areas for reclamation and afforestation.
3	Waste Batteries	59 No.s	Hazardous in nature	Used Batteries is being disposed to the authorized agency on buyback basis.

PART – G

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

AFFORESTATION & GREEN BELT DEVELOPMENT AT PCP, MSP & MINING AREA

Plantation details for the year 2015-16 as follows

Types of species	PCP & MSP	Mining Area
Casuarina	--	65,464
Eucalyptus & Acacia	---	450
Palm Seeds	---	
Forest tree variety (Gulmohar, Badam, Neem, Kanuga)	4640	--
Total	4640	65,914

Expenditure on Pollution control measures and Conservation of Natural Resources

S.No	Description	During the Financial Year 2014-2015 (in Rs.)	During the current Financial Year 2015-2016 (in Rs.)
1	Environmental Monitoring – Air, Water & Noise (outsourced).	1,69,000	65,000
2	Dust suppression on roads in factory	3,83,652	2,08,000
3	PPE cost for dust and sound (dust masks, ear muffs, etc.).	4,43,561	2,96,000
4	De dusting & Bag filter –addition of bag filter and maintenance.	14,42,000	12,15,000
5	Expenditure on refilling / pumping from PCP, leveling by dozer.	1,18,67,046	68,85,000
6	Slime management cost in mines.	1,50,55,875	3,85,34,000
7	Thickener Operation.	1,65,97,741	1,37,90,000
8	Afforestation, Nursery maintenance (Seeds, Saplings, Manure, Watering, Wages etc.)	18,42,000	11,87,000
9	Fencing 100mts from HTL	---	60,000
Capital Expenditures			
1	Thickener	---	8,27,08,000
2	Slime management cost in mines	---	44,59,000
3	Water recovery plant	---	4,06,73,000
Total		3,59,81,000	19,00,80,000

PART – H

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

Air Pollution Control Measures

- Inside the plant premises CC roads are laid and mining area haul roads are being sprinkled with water periodically to ensure that there is no dust generation due to plying of vehicles.
- The plant is equipped with Air Pollution Control devices such as pulse jet bag filters & dust extraction systems etc. designed to control the emission (SPM) level below 115 mg/Nm³ from any stacks installed at the plant.

- Bag filter efficiency test is being carried out periodically and report is being submitted to APPCB
- Installed water treatment plant to treat the process water and thereby reduce dependability on river water. It is generating about 150 m³/hr of clean water.

PART - I

Any other particulars for improving the quality of the environment.

- Using Conventional Florescent Lamps (CFL) at administrative building for energy conservation.
- Separate flow meter being maintained.
- Conducting World Environment Day & Vanamahostavam day celebrations by massive plantation program.
- Vermi compost being developed in house nursery to enrich the plantation pits.
- Concentrate produced at wet plant is transported to the dry plant through pumping instead of tripper transportation.

Place: Srikakulam

Signature:



Date: 13-08-16

Designation: Vice President



BHAGAVATHI ANA LABS

TEST REPORT

Test Report No .BALL /V/Env/ TSPL/1/225

dt 31.03.2016

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Baghouse attached to IRZ Dryer

Date of Sampling: 16-03-16

No	Parameter	Stack attaced to combined Bagfilter of Garnet & Sillimanite Dryers	IRZ Dryer Bag filter Outlet
1	Date of sampling	16-3-16	16-3-16
2	Stack height(m)	35	35
3	Duct diameter (m)	0.6	1.1
4	Stack area (m)	0.283	0.950
5	Flue gas temp ⁰ c	62	65
6	Exit gas velocity (m/s)	10.4	17.5
7	Flue gas flow rate NM ³ /hr	9417	52786
8	Emission Rates		
9	Dust concentration mg/NM ³	78	89

Authorised Signatory

E. Shyam Sundar
Head – Environment

Bhagavathi Ana Labs Pvt. Ltd. Central Laboratory - Industrial Testing Division

(A Bureau Veritas Group Company)

Plot No. 7-2-C 14, Industrial Estate, Sanathnagar, Hyderabad - 500 018, INDIA

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A281657



BHAGAVATHI ANA LABS

TEST REPORT

Test Report No .BALL /V/Env/ TSPL/1/216

dt 31.03.2016

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Baghouse attached to IRZ Dryer

Date of Sampling: 17-2-16

No	Parameter	Stack attaced to combined Bagfilter of Garnet & Sillimanite Dryers	IRZ Dryer Bag filter Outlet
1	Date of sampling	17-2-16	17-2-16
2	Stack height(m)	35	35
3	Duct diameter (m)	0.6	1.1
4	Stack area (m)	0.283	0.950
5	Flue gas temp ⁰ c	60	63
6	Exit gas velocity (m/s)	10.2	17.4
7	Flue gas flow rate NM ³ /hr	9299	52778
8	Emission Rates		
9	Dust concentration mg/NM ³	82	87

For Bhagavathi Ana Labs PvtLtd

Bhagavathi Ana Labs Pvt. Ltd. Central Laboratory - Industrial Testing Division

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BHAGAVATHI ANA LABS

TEST REPORT

Test Report No .BALL /V/Env/ TSPL/1/0116

dt 05.02.2016

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Baghouse attached to IRZ Dryer

Date of Sampling: 18.01.2016

No	Parameter	Stack attaced to combined Bagfilter of Garnet & Sillimanite Dryers	IRZ Dryer Bag filter Outlet
1	Date of sampling	18.01.2016	18.01.2016
2	Stack height(m)	35	35
3	Duct diameter (m)	0.6	1.1
4	Stack area (m)	0.283	0.950
5	Flue gas temp ⁰ c	66	61
6	Exit gas velocity (m/s)	11.0	17.0
7	Flue gas flow rate NM ³ /hr	9822	52029
8	Emission Rates		
9	Dust concentration mg/NM ³	82	76

For Bhagavathi Ana Labs Pvt Ltd

Bhagavathi Ana Labs Pvt. Ltd. Central Laboratory - Industrial Testing Division

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BHAGAVATHI ANA LABS

TEST REPORT

Test Report No .BALL /V/Env/ TSPL/1/1215

dt 31.12.2015

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Baghouse attached to IRZ Dryer

Date of Sampling: 10.12.2015

No	Parameter	Stack attaced to combined Bagfilter of Garnet & Sillimanite Dryers	IRZ Dryer Bag filter Outlet
1	Date of sampling	10.12.2015	10.12.2015
2	Stack height(m)	35	35
3	Duct diameter (m)	0.6	1.1
4	Stack area (m)	0.283	0.950
5	Flue gas temp ⁰ c	67	60
6	Exit gas velocity (m/s)	12.0	15.0
7	Flue gas flow rateNM ³ /hr	10715	45908
8	Emission Rates		
9	Dust concentration mg/NM ³	94	88

For Bhagavathi Ana Labs PvtLtd

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BHAGAVATHI ANA LABS

TEST REPORT

Test Report No .BALL /V/Env/ TSPL/1/1115

dt 14.12.2015

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Baghouse attached to IRZ Dryer

Date of Sampling: 24.11.2015

No	Parameter	Stack attaced to combined Bagfilter of Garnet & Sillimanite Dryers	IRZ Dryer Bag filter Outlet
1	Date of sampling	24.11.2015	24.11.2015
2	Stack height(m)	35	35
3	Duct diameter (m)	0.6	1.1
4	Stack area (m)	0.283	0.950
5	Flue gas temp ⁰ c	44	65
6	Exit gas velocity (m/s)	11.0	20.7
7	Flue gas flow rate NM ³ /hr	10535	62416
8	Emission Rates		
9	Dust concentration mg/NM ³	98	90

For Bhagavathi Ana Labs PvtLtd

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BHAGAVATHI ANA LABS

TEST REPORT

Test Report No .BALL /V/Env/ TSPL/1/1015

dt 14.11.2015

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Baghouse attached to IRZ Dryer

Date of Sampling: 14.10.2015

No	Parameter	Stack attaced to combined Bagfilter of Garnet & Sillimanite Dryers	IRZ Dryer Bag filter Outlet
1	Date of sampling	14.10.2015	14.10.2015
2	Stack height(m)	35	35
3	Duct diameter (m)	0.6	1.1
4	Stack area (m)	0.283	0.950
5	Flue gas temp ⁰ c	73	77
6	Exit gas velocity (m/s)	14.0	9.0
7	Flue gas flow rateNM ³ /hr	12284	26206
8	Emission Rates		
9	Dust concentration mg/NM ³	90	62

For Bhagavathi Ana Labs PvtLtd

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TEST REPORT

Test Report No .BALL /V/Env/ TSPL/1/0915

dt 12.10.2015

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Baghouse attached to IRZ Dryer

Date of Sampling: 08.09.2015

No	Parameter	Stack attaced to combined Bagfilter of Garnet & Sillimanite Dryers	IRZ Dryer Bag filter Outlet
1	Date of sampling	08.09.2015	08.09.2015
2	Stack height(m)	35	35
3	Duct diameter (m)	0.6	1.1
4	Stack area (m)	0.283	0.950
5	Flue gas temp ⁰ c	65	70
6	Exit gas velocity (m/s)	15.0	9.0
7	Flue gas flow rateNM ³ /hr	13473	26742
8	Emission Rates		
9	Dust concentration mg/NM ³	98	68

For Bhagavathi Ana Labs PvtLtd

Bhagavathi Ana Labs Pvt. Ltd. Central Laboratory - Industrial Testing Division

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A280098



BHAGAVATHI ANA LABS

TEST REPORT

Test Report No .BALL /V/Env/ TSPL/1/0815

dt 08.09.2015

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Baghouse attached to IRZ Dryer

Date of Sampling: 08.08.2015

No	Parameter	IRZ Dryer Bag filter	IRZ Dryer Bag filter
		Inlet	Outlet
1	Date of sampling	08.08.2015	08.08.2015
2	Stack height(m)	-	35
3	Duct diameter (m)	1.0	1.1
4	Stack area (m)	0.785	0.950
5	Flue gas temp ⁰ c	81	63
6	Exit gas velocity (m/s)	12.3	10.0
7	Flue gas flow rate NM ³ /hr	29737	30332
8	Emission Rates		
9	Dust concentration mg/NM ³	285	60
10	Removal efficiency	78.9%	

For Bhagavathi Ana Labs Pvt Ltd

Bhagavathi Ana Labs Pvt. Ltd. Central Laboratory - Industrial Testing Division

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BHAGAVATHI ANA LABS

TEST REPORT

Test Report No .BALL /V/Env/ TSPL/3/0815

dt 08.09.2015

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Stack attached to Combined Bag filter of Garnet & Sillimanite Dryers

Date & Time

of measurement: 07.08.2015

Stack data

Stack Height : 35.0 Mtrs

Stack dia : 0.6 Mtrs

Stack gas Temperature: 65 °C

Stack gas Velocity : 19.9 M/Sec

Flow rate : 17865 NM³/Hr

Stack emission analysis data

1. Particulate matter: 105 mg/NM³

For Bhagavathi Ana Labs Pvt Ltd

Bhagavathi Ana Labs Pvt. Ltd. Central Laboratory - Industrial Testing Division

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BHAGAVATHI ANA LABS

TEST REPORT

Test Report No .BALL /V/Env/ TSPL/5/0715

dt 04.08.2015

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Stack attached to IRZ Dryer Bag filter

Date & Time

of measurement: 21.07.2015

Stack data

Stack Height : 35.0 Mtrs

Stack dia : 1.1 Mtrs

Stack gas Temperature: 77°C

Stack gas Velocity : 4.8 M/Sec

Flow rate : 13987NM³/Hr

Stack emission analysis data

1. Particulate matter: 64 mg/NM³

For Bhagavathi Ana Labs PvtLtd



BHAGAVATHI ANA LABS

TEST REPORT

Test Report No .BALL /V/Env/ TSPL/6/0715

dt 04.08.2015

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Stack attached to Combined Bag filter of Garnet & Sillimanite Dryers

Date & Time

of measurement: 21.07.2015

Stack data

Stack Height : 35.0 Mtrs

Stack dia : 0.6 Mtrs

Stack gas Temperature: 72°C

Stack gas Velocity : 6.0 M/Sec

Flow rate : 5277 NM³/Hr

Stack emission analysis data

1. Particulate matter: 54 mg/NM³

For Bhagavathi Ana Labs Pvt Ltd

Bhagavathi Ana Labs Pvt. Ltd. Central Laboratory - Industrial Testing Division
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BHAGAVATHI ANA LABS

TEST REPORT

Test Report No .BALL /V/Env/ TSPL/5/0615

dt 14.07.2015

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Stack attached to IRZ Dryer Bag filter

Date & Time

of measurement: 19.06.2015

Stack data

Stack Height : 35.0 Mtrs

Stack dia : 1.1 Mtrs

Stack gas Temperature: 79°C

Stack gas Velocity : 4.5 M/Sec

Flow rate : 13039 NM³/Hr

Stack emission analysis data

1. Particulate matter: 60 mg/NM³

For Bhagavathi Ana Labs Pvt Ltd



BHAGAVATHI ANA LABS

TEST REPORT

Test Report No .BALL /V/Env/ TSPL/6/0615

dt 14.07.2015

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Stack attached to Combined Bag filter of Garnet & Sillimanite Dryers

Date & Time

of measurement: 19.06.2015

Stack data

Stack Height : 35.0 Mtrs

Stack dia : 0.6 Mtrs

Stack gas Temperature: 69°C

Stack gas Velocity : 6.0 M/Sec

Flow rate : 5324 NM³/Hr

Stack emission analysis data

1. Particulate matter: 57 mg/NM³

For Bhagavathi Ana Labs Pvt Ltd



BHAGAVATHI ANA LABS

TEST REPORT

Test Report No .BALL /V/Env/ TSPL/5/0515

dt 10.06.2015

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Stack attached to IRZ Dryer Bag filter

Date & Time

of measurement: 25.05.2015

Stack data

Stack Height : 35.0 Mtrs

Stack dia : 1.1 Mtrs

Stack gas Temperature: 77°C

Stack gas Velocity : 5.0 M/Sec

Flow rate : 14570 NM³/Hr

Stack emission analysis data

1. Particulate matter: 67 mg/NM³

For Bhagavathi Ana Labs Pvt Ltd



BHAGAVATHI ANA LABS

TEST REPORT

Test Report No .BALL /V/Env/ TSPL/6/0515

dt 10.06.2015

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Stack attached to Combined Bag filter of Garnet & Sillimanite Dryers

Date & Time

of measurement: 25.05.2015

Stack data

Stack Height : 35.0 Mtrs

Stack dia : 0.6 Mtrs

Stack gas Temperature: 67°C

Stack gas Velocity : 6.0 M/Sec

Flow rate : 5355 NM³/Hr

Stack emission analysis data

1. Particulate matter: 54mg/NM³

For Bhagavathi Ana Labs Pvt Ltd

Bhagavathi Ana Labs Pvt. Ltd. Central Laboratory - Industrial Testing Division

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BHAGAVATHI ANA LABS

TEST REPORT

Test Report No .BALL /V/Env/ TSPL/5/0415

dt 08.05.2015

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Stack attached to IRZ Dryer Bag filter

Date & Time

of measurement: 21.04.2015

Stack data

Stack Height : 35.0 Mtrs

Stack dia : 1.1 Mtrs

Stack gas Temperature: 69°C

Stack gas Velocity : 6.0 M/Sec

Flow rate : 17894 NM³/Hr

Stack emission analysis data

1. Particulate matter: 78 mg/NM³

For Bhagavathi Ana Labs Pvt Ltd



BHAGAVATHI ANA LABS

TEST REPORT

Test Report No .BALL /V/Env/ TSPL/6/0415

dt 08.05.2015

Description of Test: Stack Emissions Analysis

Name of the client: Trimex Sands Pvt. Ltd. Vatchavalasa, Srikakulam Dt.

Location of sampling: Stack attached to Combined Bag filter of Garnet & Sillimanite Dryers

Date & Time

of measurement: 21.04.2015

Stack data

Stack Height : 35.0 Mtrs

Stack dia : 0.6 Mtrs

Stack gas Temperature: 60°C

Stack gas Velocity : 6.0 M/Sec

Flow rate : 5468 NM³/Hr

Stack emission analysis data

1. Particulate matter: 57 mg/NM³

For Bhagavathi Ana Labs Pvt Ltd

Bhagavathi Ana Labs Pvt. Ltd. Central Laboratory - Industrial Testing Division

(A Bureau Veritas Group Company)

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Note: This Report is subject to the terms and conditions mentioned overleaf

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