



REGISTERED POST

ORCEM/DVP/ENV/

27th July, 2022

To,
Member Secretary,
Telangana State Pollution Control Board,
Paryavaran Bhavan, A-3, Industrial Estate, Sanathnagar,
Hyderabad – 500018, Telangana.

Sub: Submission of FORM-V (Environmental Statement) under Rule No. 14 of Environment (Protection) Rules, 1986 and amendments thereof for the period of FY2021-22 for our Devapur Limestone Mine - Reg.

Ref: 1. CFO & HWA Order No. TSPCB/CFO/NZB/HO/2017-831, Dated 01.06.2017.
2. CFO & HWA Order No. 220823620495, Date 27.05.2022.

Dear Sir,

We are herewith submitting FORM-V (Environmental Statement) under Rule No. 14 of Environment (Protection) Rules, 1986 and amendments thereof for the period of FY2021-22 for our Devapur Limestone Mine of M/s TSMDC located at Devapur (V), Kasipet (M), Mancherial District, Telangana.

This is for your kind information and record please.

Thanking you,

Yours faithfully
For Devapur Limestone Mine of M/s. TSMDC Limited.


Mines Manager

Encl: A/a

CC: Environmental Engineer,
Telangana State Pollution Control Board,
Regional Office,
H. No. 6-2-166/A, 1st Floor, Subhash Nagar,
Nizamabad - 503002, Telangana.

FORM-V

(Environmental Statement)

FY2021-22



Devapur Limestone Mine

M/s. Telangana State Mineral Development Corporation Limited

Devapur (V), Kasipet (M), Mancherla (Dist.) – 504218, Telangana

Devapur Limestone Mine
M/s. Telangana State Mineral Development Corporation Limited
Devapur (V), Kasipet (M), Mancherial (Dist.) – 504218, Telangana

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PART – A

1. Name and address of the owner/ occupier of the industry operation or process.	: Dr. G. Malsur Vice Chairman & Managing Director Devapur Limestone Mine of M/s TSMDC Devapur (V), Kasipet (M), Mancherial (Dist.), Telangana – 504218
2. Industry category	: Primary STC Code: NA Secondary STC Code: NA
3. Production capacity	: Limestone – 5.3 MTPA
4. Year of establishment	: 1981
5. Date of the last environmental statement submitted	: 29 th July, 2021

PART – B
WATER AND RAW MATERIAL CONSUMPTION

1. Water Consumption (m³/day)		
i.	Process & Washings (Dust Suppression & Plantation)	: 77.9
ii.	Domestic	: 9.2

Name of Products	Process Water Consumption per unit of product output	
	During the previous financial Year 2020-21	During the current financial Year 2021-22
i. Limestone	10.27 Lit/MT	8.21 Lit/MT

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2. Raw Material Consumption - MT/MT of Product				
*Name of raw materials	Name of products	Consumption of raw material per unit of output		
		During the previous financial Year 2020-21	During the current financial Year 2021-22	
i. HSD	Limestone	0.389 Lit/MT	0.388 Lit/MT	
ii. Explosives	Limestone	0.087 Kg/MT	0.095 Kg/MT	

**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 PRODUCT
(Parameters as specified in the consent issued)

Pollutants	Quantity of Pollutants Discharged (Kg/day)	Concentrations of Pollutants in Discharges (mg/L)	Percentage of variation from prescribed standards with reasons
A. Water			
Effluent Water: Workshop Waste Water & Battery Waste Water			
i. pH	--	7.6	Within the Limits
ii. Total Dissolved Solids	--	894.8	-57.3
iii. Total Suspended Solids	--	48.3	-75.8
iv. Chemical Oxygen Demand	--	55.3	-77.8
v. Biochemical Oxygen Demand	--	15.6	-84.3
vi. Oil & Grease	--	0.6	-94.4

Pollutants	Quantity of Pollutants Discharged (Kg/day)	Concentrations of Pollutants in Discharges (mg/Nm³)	Percentage of variation from prescribed standards with reasons
B. Air			
i. Crusher Stack - PM	9.18	25.8	-77.51

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PART - D
HAZARDOUS WASTE

As specified under
Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016

Hazardous Waste	Total Quantity, MT	
	During the previous financial Year 2020-21	During the current financial Year 2021-22
A. From Process		
i. Used Oil (5.1)	7300 Litres	6300 Litres
B. From Pollution Control Facilities	Nil	Nil

PART - E
SOLID WASTES

Solid Waste	Total Quantity, MT	
	During the previous financial Year 2020-21	During the current financial Year 2021-22
A. From Process (Top Soil Generation)	Nil	Nil
B. From Pollution Control Facilities	Nil	Nil
C.		
i. Quantity recycled or re-utilized within the unit	660382	85633
ii. Sold	NA	NA
iii. Disposed	262415	547958

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PART – F

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

Sl. No	Type of Wastes Generated / Handling	Nature of Waste	Disposal Pathway
1	Used Oil (5.1 of Schedule-I)	Hazardous	Authorized Re-processors / Recyclers
2	Lead Acid Batteries	Batteries	Authorized recycler & Buyback to vendors
3	Crusher Bag House Dust	Solid	Recycle back in to the process
4	Liquid Waste - Effluent	Effluent	Disposal on land for irrigation
5	Liquid Waste - Sewage	Sewage	Disposal on land for irrigation
6	Over Burden	Solid	Used for backfilling/reclamation
7	Top Soil	Solid	Used for greenbelt development
8	Low Grade Limestone	Solid	Recycle in to Cement Manufacturing

Sl. No	Type of Wastes Generated / Handling	Nature of Waste	Disposed Quantity, FY2021-22
1	Used Oil (5.1 of Schedule-I)	Hazardous	6300 Litres
2	Lead Acid Batteries	Batteries	Nil
3	Crusher Bag House Dust	Solid	100% Recycle
4	Over Burden	Solid	927033
5	Top Soil	Solid	Nil
6	Low Grade Limestone	Solid	238029

PART – G

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

Low grade limestone and sub-grade limestone mineral is used in the manufacturing process thus conserving the natural resources. Reclamation of mined out area and development of water storage reservoirs is done to facilitate increase in water regime in mined out areas.

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PART – H

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

Adequate funds are earmarked for environmental management activities. Recurring expenditure incurred for the same for the period FY2021-22 is tabulated as under.

Sl. No	Nature of Revenue/ Recurring Expenditure	Amount incurred in Lakh Rs.
1	Dust Suppression on Haulage Roads	39.12
2	Environmental Monitoring	6.78
3	Electricity Charges for Pumps	6.18
4	Maintenance of Gardens	11.31
5	Maintenance & Watering of Plantation	13.54
6	Civil and Maintenance Charges for Gardens	11.43
7	Operation of Bag House (PCE) at Crusher	5.26
	Total	93.62

PART – I

Any other particulars for improving the quality of the environment.

- Forming pits, retaining tanks and bunds in the mining area, improve water resources. Water harvesting pits were dug in the adjoining area.
- For noise pollution control & ground vibration Non electric delay detonators are used. Greenbelt is developed along the boundary of mine area for reducing the impact of noise due to mining activity on the surrounding Environment.
- Regular water sprinkling is done at mine face and haulage roads to suppress dust.
- Conservation of resources is done as per the approved mining plan.
- In Devapur Limestone Mine, so far total plantation of 39192 saplings was carried out covering an area of 36.785 ha. In the year 2021-22 as per mining plan we have planned to plant 1175 nos. of saplings. Year wise plantation details:

Year	Area in Ha.	No's of Saplings
Up to 2020-21	32.583	39192
2021-22	2.2	2294
Total as on 31.03.2022	34.783	41486

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Annexures

Annexure-1

Ambient Air Quality Monitoring Data

Parameters	Limits	Near Loading Area	Near Unloading Area	Near Drilling Area	Near Haulage Road
PM10	100	71.1	74.3	67.6	63.3
PM2.5	60	27.3	29.4	25.6	23.2
SO ₂	80	9.2	12.0	8.9	11.3
NO ₂	80	20.8	22.6	33.3	23.5
Lead (Pb)	1.0	0.1	0.1	0.1	0.1
Carbon Monoxide mg/m ³	02	BDL	BDL	BDL	BDL
Ammonia (NH ₃)	400	BDL	BDL	BDL	BDL
Ozone (O ₃)	100	6.3	6.3	5.6	6.2
Benzene (C ₆ H ₆)	05	<0.02	<0.02	<0.02	<0.02
Arsenic (As) ng/m ³	06	ND	ND	ND	ND
Nickle (Ni) ng/m ³	20	ND	ND	ND	ND
Benzo Pyrene (Bap) ng/m ³	01	ND	ND	ND	ND

All the values are expressed in µg/m³, ND-Non Detectable, BDL-Below Detectable Limits

Parameters	Limits	Devapur Village	Forest Area Salpalavagu	Gatralpalli Village	Maddi-madugu Village
PM10	100	60.9	46.6	50.6	60.9
PM2.5	60	22.4	17.8	18.7	23.4
SO ₂	80	9.9	7.1	7.5	10.3
NO ₂	80	21.2	16.5	18.0	21.7
Lead (Pb)	1.0	0.1	0.0	0.0	0.1
Carbon Monoxide mg/m ³	02	BDL	BDL	BDL	BDL
Ammonia (NH ₃)	400	BDL	BDL	BDL	BDL
Ozone (O ₃)	100	5.5	2.2	2.5	6.1
Benzene (C ₆ H ₆)	05	<0.02	<0.02	<0.02	<0.02
Arsenic (As) ng/m ³	06	ND	ND	ND	ND
Nickle (Ni) ng/m ³	20	ND	ND	ND	ND
Benzo Pyrene (Bap) ng/m ³	01	ND	46.6	ND	ND

All the values are expressed in µg/m³, ND-Non Detectable, BDL-Below Detectable Limits

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[Annexure-2](#)

Ambient Noise Monitoring Data

Ambient Monitored Location	Noise Levels in Leq dB(A)			
	Day Time		Night Time	
	Monitored Value	Limits	Monitored Value	Limits
1. Devapur Village	65.30	75	60.08	70
2. Maddimadugu Village	65.03	75	59.90	70
3. Core Zone (Near Temple)	65.20	75	60.15	70
4. Township (Om Store)	62.00	75	57.10	70
5. Gatralpalli (Near Govt. School)	55.40	75	50.38	70
6. Forest Land (Salphalavagu)	50.75	75	45.30	70

[Annexure-3](#)

Effluent Water Analysis Data

Battery Discharge Effluent Parameters	UoM	Limits	Average Measured Concentration
pH	--	6.5-8.5	7.48
Total dissolved solids	mg/l	2100	1016.5
Total Suspended solids	mg/l	200	76.3
Chemical oxygen demand	mg/l	250	88.4
Biochemical oxygen demand (3 Days at 27°C)	mg/l	100	22.1
Oil & Grease	mg/l	10	0.80

Vehicle Washing Oil separator Effluent Parameters	UoM	Limits	Average Measured Concentration
pH	--	6.5-8.5	7.70
Total dissolved solids	mg/l	2100	772.9
Total Suspended solids	mg/l	200	20.2
Chemical oxygen demand	mg/l	250	22.2
Biochemical oxygen demand (3 Days at 27°C)	mg/l	100	9.08
Oil & Grease	mg/l	10	0.31

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Annexure-4

Ground Water Quality Analysis Data

Locations	1	2	3	4	5
Color (Hazen Units)	2.75	3.5	5.25	<01	3.25
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	9.0	1.8	4.5	1.5	2.3
pH	7.5	7.7	7.5	7.4	7.5
E.C (micro mhos/cm)	652.3	1144.8	1055.0	1151.5	1016.0
Total dissolved solids	399.75	616.5	614.25	658.3	523.75
Total alkalinity as CaCO ₃	163.8	146.5	302.3	266.8	323.5
Phenolphthaleine alkalinity as CaCO ₃	Nil	Nil	Nil	Nil	Nil
Methylorange alkalinity as CaCO ₃	163.8	146.5	302.3	266.8	323.5
Total hardness as CaCO ₃	253.8	421.8	393.3	330.3	361.5
Calcium as Ca	50.3	108.3	116.9	85.9	99.6
Magnesium as Mg	30.9	37.5	24.7	28.3	23.0
Sodium as Na	28.0	55.0	61.5	109.2	37.7
Potassium as K	3.5	2.4	2.5	3.6	1.1
Copper as Cu	<0.01	0.1	0.1	0.1	0.1
Iron as Fe	0.3	0.2	0.4	0.2	0.2
Manganese as Mn	0.0	<0.01	0.1	0.1	0.1
Chlorides as Cl	67.5	194.2	112.7	163.8	61.9
Sulphates as SO ₄	48.0	181.4	55.3	59.6	52.9
Nitrates as NO ₃	19.0	<0.01	21.5	<0.01	26.0
Fluorides as F	1.0	0.8	0.4	0.7	0.5
Phenolic compounds as C ₆ H ₅ OH	<0.001	<0.001	<0.001	<0.001	<0.001
Mercury as Hg	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium as Cd	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium as Se	<0.001	<0.001	<0.001	<0.001	<0.001
Cyanide as CN	<0.001	<0.001	<0.001	<0.001	<0.001
Lead as Pb	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc as Zn	<0.001	<0.001	<0.001	<0.001	<0.001
Anionic Detergents as MBAS	Absent	Absent	Absent	Absent	Absent
Residual chlorine	0.1	Nil	0.3	Nil	0.2
Pesticides	Absent	Absent	Absent	Absent	Absent
Silver as Ag	<0.001	<0.001	<0.001	<0.001	<0.001
Mineral Oil	<0.001	<0.001	<0.001	<0.001	<0.001
Hexavalent chromium as Cr+6	<0.001	<0.001	<0.001	<0.001	<0.001
Poly nuclear aromatic hydrocarbons as PAH	Absent	Absent	Absent	Absent	Absent

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Locations	6	7	8	9
Color (Hazen Units)	<0.01	3.0	3.3	Clear
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2.0	5.5	8.0	Nil
pH	7.5	7.8	7.5	7.5
E.C (micro mhos/cm)	816.0	551.8	528.5	134.5
Total dissolved solids	472.3	332	294.5	52.25
Total alkalinity as CaCO ₃	144.5	145.5	150.5	39.8
Phenolphthalene alkalinity as CaCO ₃	Nil	Nil	Nil	Nil
Methylorange alkalinity as CaCO ₃	144.5	145.5	150.5	39.8
Total hardness as CaCO ₃	283.5	225.8	84.0	38.3
Calcium as Ca	135.8	44.7	19.0	6.4
Magnesium as Mg	43.6	27.4	9.6	5.4
Sodium as Na	41.3	24.8	22.3	4.5
Potassium as K	11.6	3.1	0.8	1.2
Copper as Cu	0.4	0.0	0.2	<0.01
Iron as Fe	0.2	0.2	0.3	0.1
Manganese as Mn	0.1	<0.01	0.0	<0.001
Chlorides as Cl	56.7	60.0	37.3	6.7
Sulphates as SO ₄	61.0	42.0	29.7	3.6
Nitrates as NO ₃	<0.01	16.9	<0.01	0.3
Flourides as F	5.7	0.6	0.8	0.1
Phenolic compounds as C ₆ H ₅ OH	<0.001	<0.001	0.0	<0.001
Mercury as Hg	<0.001	<0.001	<0.001	<0.001
Cadmium as Cd	<0.001	<0.001	<0.001	<0.001
Selenium as Se	<0.001	<0.001	<0.001	<0.001
Cyanide as CN	<0.001	<0.001	<0.001	<0.001
Lead as Pb	<0.001	<0.001	<0.001	<0.001
Zine as Zn	<0.001	<0.001	0.19	<0.001
Anionic Detergents as MBAS	Absent	Absent	Absent	Absent
Residual chlorine	<0.04	<0.04	Nil	<0.04
Pesticides	Absent	Absent	Absent	Absent
Silver as Ag	<0.001	<0.001	<0.001	<0.001
Mineral Oil	<0.001	<0.001	<0.001	<0.001
Hexavalent chromium as Cr+6	<0.001	<0.001	<0.001	<0.001
Poly nuclear aromatic hydrocarbons as PAH	Absent	Absent	Absent	Absent

1. Open Well (Near Devapur Vagu), 2. Bore well (Near Magazine), 3. Open well (Devapur village), 4. Bore well Water (Maddimadugu Village), 5. Bore Well (Devapur Village), 6. Borewell Water (Near Colony), 7. Borewell Water (Near Gatralapally), 8. Pit water (Mines), 9. Drinking water (Near Mines).

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[Annexure-5](#)
Soil Quality Analysis Data

Parameters	1	2	3	4
pH	7.5	7.8	7.5	7.6
E.C.	266.5	259.8	223.8	241.0
Calcium as Ca	38.5	35.5	19.8	32.8
Magnesium as Mg	11.9	10.1	7.6	11.0
Sodium as Na	40.5	33.8	11.0	24.8
Potassium as K	62.5	45.5	112.0	136.0
Phosphorous as P	9.5	8.3	19.8	24.8
Nitrogen as N	118.0	108.0	228.0	243.8
Organic Carbon	0.2	0.3	0.5	0.6
Sulphates as SO ₄	0.3	0.3	0.1	0.2
Chlorides as Cl	0.5	0.6	0.1	0.2
Silt & Clay	52.0	55.8	54.3	51.5
Sand	46.8	44.0	45.8	48.5
Textural Class	Loamy sand	Silty clay	Silty Clay	Loam sand
Physical Appearance	Mixed soil	Black cotton	Black cotton	Mixed soil

1.Maddimada, 2. Agriculture Land Devapur Village, 3. Agriculture Land Gatra Pally, 4.Colony

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[Annexure-6](#)
Greenbelt Development Details

Year	Area in Ha.	No's of Saplings
Up to 2020-21	32.583	39192
2021-22	2.2	2294
Total as on 31.03.2022	34.783	41486



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Annexure-7

Environmental Management Practices



Fixed Water Sprinklers



Muck Pile Wetting



Wet Drilling



Rubber Curtains at Crusher Dump Hopper



Water Sprinkling on Haul Road



Dust Suppression at Internal Roads

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Annexure-8

Activities under Corporate Social Responsibility

Description of CSR Activity	Details of Expenditure & work done during the reporting year	Rs. in Lacs
Supporting for drinking water & agriculture	1. RO Water supply to villagers; Water harvesting pits in nearby villages;	0.75
Support to Health & Medical Services	2. Regular medical check-up of mine employees.	1.11
	3. To conduct health check-up camps for villagers, expenses for sulabh shouchalaya, dispensary expenses	42.20
Support to Skill development & Education	4. Classes conducted for skill development and vocational training	2.89
	5. School running expenses, repairing & providing facilities to nearby govt. schools	285.3
Social & Livelihood Support	5. Community development of surrounding villages & recreation activities	3.47
	7. Donation to Vanavasi Kalyan Ashram	1.44
Support to Transportation Services & Infrastructure	8. ESI hospital rent & repairs; Road repairs of surrounding villages, infrastructure development of gram panchayat office; transportation facility to school children & workers	2.10
Environmental Expenditure	9. Environmental Expenditure	88.37
Total		427.63



Devapur Limestone Mine
M/s. Telangana State Mineral Development Corporation Limited
Devapur (V), Kasipet (M), Mancherla (Dist.) – 504218, Telangana

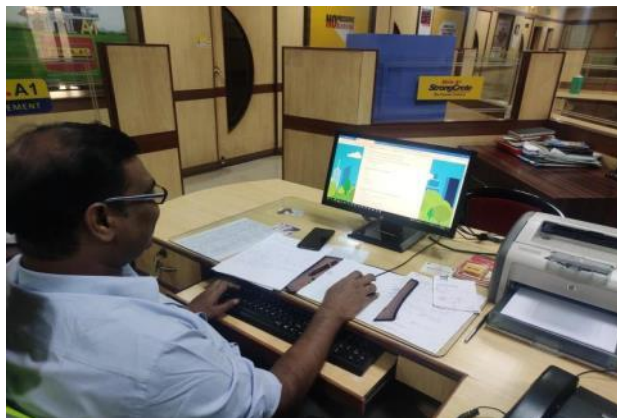
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Annexure-9

Environmental Awareness Campaigns



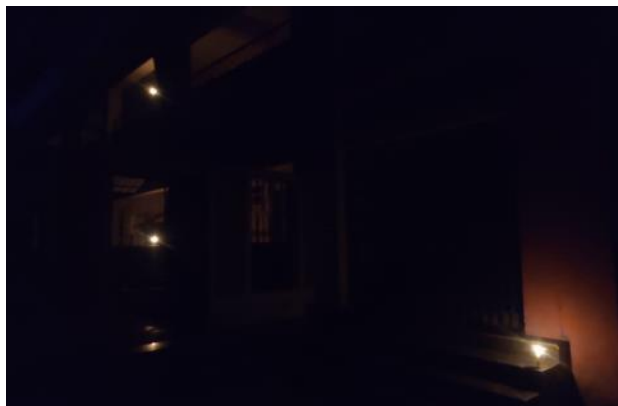
World Environment Day & Energy Conservation Week Celebrations, Plantation & Awareness Competitions

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World Water Day & Earth Hour Celebration



Plantation on the occasion of Energy Conservation Week Celebrations
