

EXECUTIVE SUMMARY OF DRAFT EIA REPORT

FOR

Environmental Clearance for Jotpur, Dulampur & Mahuapali Capacity Expansion of Dolomite Mine from 1,00,000 TPA to 2,00,198 TPA

S.N	Name of Project Proponent	Number and date of Terms of reference	Land Khasra	Area of applied lease (Ha.)	Annual Production Capacity (TPA)	Address of Applied land	Cluster Area (Ha.)
1.	M/s Aryan Minerals and Metals Private Limited Director - Sushil Kumar Agrawal	TO24B0108CG5863554N, Dated 03/11/2025	160/1 ka, 160/1 kha, 160/1 Ga, 160/1 Gha, 160/1 Da, 160/1 Cha, 160/1 Chha, 160/2 Ka, 160/2 kha, 160/2 Ga, 160/2 Gha, 160/2 Da, 16789/21, 16789/20, 16789/35, 16789/36, 16789/55, 16789/22, 16789/37, 106/9, 106/14, 106/15, 106/17, 106/11, 106/13, 106/24, 106/25	4.961	Capacity Enhancement of production from 1,00,000 to 2,00,198	Village – Jotpur, Dulampur & Mahuapali Tehsil-Sariya, District - Sarangarh-Bilaigarh, Chhattisgarh	14.02

Applicant Name Address

S.No	Name of Applicant	Address
1.	M/s Aryan Minerals and Metals Private Limited Director - Sushil Kumar Agrawal	Ground Floor, 53/53A, Krishna Crown, Dhimrapur Road, Jagatpur, Raigarh, District & Tehsil – Raigarh (Chhattisgarh) Pin Code – 496001

ENVIRONMENTAL CONSULTANT



Environmental Consultancy & Laboratory
(Lab. Gazetted by MoEF-Govt. of India)

M/s. ULTRA-TECH

ENVIRONMENTAL LABORATORY AND CONSULTANCY

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Executive Summary of Draft EIA Report of Jotpur Dulampur & Mahuapali Dolomite Mine at Village Jotpur Dulampur & Mahuapali, Tehsil- Sariya, District-Sarangarh-Bilaigarh, State- Chattisgarh.

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EXECUTIVE SUMMARY

1. Project Name and Location

This is project of production capacity enhancement from 1,00,000.00 TPA to 2, 00,198 TPA of existing Dolomite Stone Mine of 4.961 hect which is situated at village Jotpur Dulampur & Mahuapali, Tehsil Sariya, District Sarangarh Bilaigarh, State Chattishgarh. The lease holder is Aryan Minerals and Metals Private Limited, Director - Sushil Kumar Agrawal, Details of applicant are as follows -

SN	Name of Applicant	Mine Village	Type of Land	Khasra Details	Area (Ha)	Lease Deed	Mineral Type
1.	Aryan Minerals and Metals Private Limited , Director - Sushil Kumar Agrawal	Jotpur, Dulampur & Mahuapali	Private Land	160/1 ka, 160/1 kha, 160/1 Ga, 160/1 Gha, 160/1 Da, 160/1 Cha, 160/1 Chha, 160/2 Ka, 160/2 kha, 160/2 Ga, 160/2 Gha, 160/2 Da, 16789/21, 16789/20, 16789/35, 16789/36, 16789/55, 16789/22, 16789/37, 106/9, 106/14, 106/15, 106/17, 106/11, 106/13, 106/24, 106/25	4.961	25/07/2017 to 24/07/2067	Dolomite Stone

Applied project is falling in the cluster situation of 14.02 hect comprising 3 homoginious mineral mines. Therefore project is categorised under Category “B1” Project or activity 1(a) as per EIA Notifications 2006 and its subsequent amendments and will be appraised at SEAC, Chattisgarh. The lease is individual project 4.961 Ha area. As per EIA Notification dated 15thJanuary 2016 and MoEF&CC O.M. vide letter no. L-11011/175/2018-IA-II (M) Dated 12.12.2018 and NGT order dated 13th September 2018 all the area from 5 to 25 ha falling under category B2 will be considered as B1 including cluster situation and therefore it is B1 category project.

2. Production and Capacity – if expansion proposal then existing products with capacities and refrence to earlier ec -

This is project of production capacity enhancement from 1,00,000 TPA to 2, 00,198 TPA.

3. Requirement of Land, Raw Material, Water, Power, Fuel with Source of supply.

- **Land Area:** The total land area is 4.961 hectare.
- **Raw Material:** No raw material is required for the mining of Dolomite Stone.
- **Water:** Total water requirement will be around 9.00 KLD out of which 8.50 KLD will be used in dust suppression and plantation. Remaining 0.50 KLD will be used for domestic purposes (drinking).

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The water will be collected from water Tanker and /or from jurisdictional Gram Panchayat through tankers.

- **Power:** No power is required for mining purpose except labour and admin building. Power will be sourced State electricity board. Electric power line is available in the lease area.
- **Fuel:** Fuel is to be used in form of diesel for mining operations and running of tractor and other transportation vehicles.
Quantity for fuel will depend upon the usage of transportation vehicle, other machineries and level of achievement of estimated production. Diesel will be sourced from nearby diesel pumps.

4. Process Description in brief, specifically indication the gaseous emission, liquid effluent and solid/hazardous waste.

- **Gaseous emission:**

1) Stationery sources: Nil

2) Mobile sources: The emission of SO_x and NO_x may cause due to use of diesel operated tractors, excavator etc.

- **Liquid effluent:** Only domestic effluent is expected to be generated which will be treated through septic tank followed by soak pits.

Solid Waste: No sub-grade/waste mineral will be generated from mine. All ROM mineral is useful and saleable in stone mines as building and industries supply. Therefore no subgrade or reject mineral will be generated which requires their due disposal management plan.

- **Mine Waste –**

- i) Top Soil**

- Total 5,007 cum of topsoil generated from the mine area.
 - 3,877 cum topsoil will be stacked over 7.50 m wide outer part of 1,474.33 m long safety zone (Mine boundary) with maximum 1 m height and 28 degree of slope and plantation will be done.
 - Rest of 1,130 cum top soil will be preserved over unused part of lease area and later it will be used for plantation purpose within lease area.

- ii) Overburden**

- Total 35,046 cum of overburden generated from the mine area.
 - Overburden will be used for development and maintenance of ramp of mine, haul road and development of bund around the lease area. OB will also be used for development of ramp of hopper and development of foundation and levelling work for proposed crusher plant within lease area.
 - Rest of OB will be used for backfilling of mined-out pit during progressive mine closure.

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- Overburden will also be used as stemming material for blasting holes.

OB may also be transported from lease area after payment of applicable royalty and duties as per CG MMR 2015.

5. Measures for mitigating the impact on the environment and mode of discharge or disposal.

- Before the mining activity the top soil will be scrapped and stored in the lease area, which will be utilized for plantation purpose.
- The dolomite stone excavated from the lease area will be completely sellable, resulting no dump with in the lease area.
- Due to semi-mechanized open cast method excavation & loading of minerals, the mining operation, emission from mines is very less. There will be least impact on the surrounding air quality and noise quality of the area.
- At the end of conceptual period the excavated quarry will converted into water reservoir to supply water for local use like irrigation and pisciculture besides improving the ground water potential.

6. Capital Cost of the Project, Estimated time of completion.

The total cost of the entire project will be Rs. 65.00 lakhs. The mining project has a lease agreement valid from 25/07/2017 to 24/07/2067.

7. Site selected for the project- Nature of land – Agricultural (Single/double crop), barren, Govt. /Private Land, status of is acquisition, nearby (in 2-3 km) water body, population, within 10 km other industries, forest. Eco-sensitive zones, accessibility.

- **Land Details:** The mining lease area of Jotpur, Dulampur & Mahuapali dolomite mine covers an area of 4.961 Ha.
- **Water Body:** The nearest water body is Mahanadi river flows at a distance of 3.60 km from the mining area.
- **Eco-sensitive zones:** There is no National Park or wild life sanctuary within 10 Km surrounding from the project site.
- **Forest Land:** forest land is approximately 10.00 km. away.
- **Industries within 10 Km:** None within 10 km.
- **Population:** According to recent censuses (2011) Population of study area is (10 Km radius from project site) 1,12,233 in 29,623 households. Male population is 56,605 and female population is 55,628. Highest population in study area is in Chandrapur (NP) (7,688).

Accessibility:

1. Nearest Railway Station which is approximately 29.30 km away from the project site.
2. Nearest Highway is Sarangarh-Raigarh highway which is 9.00 km away from the project site.
3. Bilasa Devi Kevat Airport, Bilaspur 127 km towards North -west.

8. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition, of the nearby population.

Parameters	Number of Location	Particulars
Analysis of Air quality Station	8 Air quality Analysis	PM ₁₀ – 45 to 65 µg/m ³ . PM _{2.5} – 15 to 28 µg/m ³ . SO ₂ – 6 to 15 µg/m ³ . NO _x – 7 to 19 µg/m ³ . CO – 0.2 to 1.2 µg/m ³ .
Noise Level Analysis	8 Noise quality Analysis	Day Time Noise Level – 47.2 to 57.0 dB(A) Night Time Noise Level – 36.0 to 47.0 dB(A)
Ground Water Analysis	4 ground water quality Analysis	PH – 7.5 to 7.8 Total Dissolved Solids – 459 to 1088 mg/L Total Hardness – 252 to 312 mg/L Chlorides – 53 to 81 mg/L Sulphates – 53 to 65 mg/L
Surface Water Analysis	4 Surface water quality Analysis	PH – 7.4 to 7.6 Dissolved Oxygen – 5.2 to 5.5 mg/L Total Dissolved Solids – 228 to 596 mg/L Chlorides – 51 to 121 mg/L Sulphates – 28 to 75 mg/L Total Hardness – 114 to 312 mg/L
Soil Analysis	8 Soil quality Analysis	PH – 7.5 to 7.8 Nitrogen – 142 to 245 kg/ha Phosphorus – 32 to 41 kg/ha Potassium – 105 to 234 kg/ha

Flora: Core area Project site (A) includes very less vegetation which are sparsely within cluster area (core zone). Tree species commonly seen in the core zone are *Acacia nilotica* (Babool), *Butea monosperma* (Palash), *Pithecellobium dulce* (Vilayatichinch), While Shrubs like *Calotropis-gigantea* (Aak), *Lantana camara* (Ganeri) & *Ricinus communis* (Castor) etc. Herbs *Argemone mexicana* (Satynasi), *Hyptis suaveolens* (Natitulasi), *Sphaeranthusindicus* (Gorakhmundi) & *Datura metel*

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(Daturu), are dominant in study area. During survey no endangered and endemic fauna or flora were found in core zone.

Fauna: Mammals like *Canis lupus familiaris* (Dog) and *Funambulus pennantii* (Squirrel) were observed within project site (core zone) In avifauna commonly observed local bird species as *Corvus splendens* (House crow) and *Merops orientalis* (Greenbee eater) were found in the core zone.

SOCIO ECONOMIC - According to recent censuses (2011) Population of study area is (10 Km radius from project site) 1,12,233. Working population of the study area is 51,426 whereas Non-working population in study area is 60,807 which also includes population of below 15 years age and population which are not willing to any work and population after retirement age are also included in this category. Working males are 32,722 and 18,704 are female in population whereas 23,883 male & 36,924 female are non-working.

	Total Village	Total Population	Working Population		Non Working Population		SC Population		ST Population	
			Male	Female	Male	Female	Male	Female	Male	Female
Total	119	1,12,233	32,722	18,704	23,883	36,924	8,883	8,788	11,974	12,091

9. Identification of hazardous in handling processing and storage of hazardous material and safety system provided to mitigate the risk

There is not any hazardous material involved in this process as it is Dolomite stone mining project. The construction materials (during operational and during mining phase) to be handled, stored and used are mostly of non-hazardous type.

10. Likely impact of the project on Air, Water, Land, Flora-fauna nearby population.

S N	Components	Potential Sources of pollution	Magnitude of pollution	Control Measures	Responsibility	Time frame	Monitoring
1	Air	- Movement of Vehicles - Excavation - Blasting - Loading & Unloading - Transport of Stone/OB	High	- Mobile Sprinklers - Wet Drilling with sharp drill bits - Plantation - Periodic Maintenance of vehicles - PUC certified vehicles - Barricades which acts as the dust barriers. - Parking provision and proper traffic arrangement	EMP Cell	6 month	Twice a week
2	Noise &	- Blasting &	Moderate	- Plantation	EMP	6	Once a

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	Vibration	Vibration - Movement of vehicle - Machinery Operation		- Controlled Blasting & use of Noneal - Avoide Secondary Blasting by using rock breaker - PPE kit for workers - Enclosures for equipment - Barricades which acts as the noise barriers. - Maintanance of Ramp & Haul Road - Periodic Maintinance of vehicles - lubrication, muffling and modernization - No noise polluting work at night hours	Cell	month	month
3	Water	- Mine Drainage - Domestic sewage - Oil Spills	High	- Garland drains. - Temporary toilets with Saptic Tank & Soak Pit. - No wastewater will be discharged into the water body. - Prevention of spillage of oil from machine & equipments.	EMP Cell	12 month	Once in a quarter
4	Soil	- Top Soil Quality	Moderate	- Mobile Sprinklers. - Wet Drilling. - Plantation. - Controlled Blasting.	EMP Cell	6 month	Once in a year
5	Solid Waste	- OB Dump - Domestic Solid	Moderate	- Reclamation Plan - OB Management - Transport of OB on payment of Royalty - Settilling Tank	EMP Cell	Life of mine	Once a month
6	Land Use	- Change in land use	High	- Reclamation Plan - Precautions will be taken for the avoidance of spillage of oil, diesel etc. from vehicles and equipments	EMP Cell	Life of mine	At conseptual stage
7	Ecology & Biodiversity	- Vehicle Movement - Change in land use	Moderate	- Plantation - Construction of boundary / fencing - Educating locals	EMP Cell	6 month	Once in a month
8	Risk & Hazard	- Inundation - Slope failure - Blasting - Fire	High	- Mine Sump development - Pumps for dewatering and settling tank - Dump slope stabilization - Garland drains - Fire extinguisher	EMP Cell	12 month	Once in a month
9	Socio-Economic	- Loss of Agriculture land - Blasting - Reduction/loss of water availability - Effect on health due to mining activities	High	- Local population will be employed - Wet Drilling, - Mobile Sprinklers, - Controlled Blasting - Public Hearing Compliances - CER - First Aid & Periodic Medical Checkup	EMP Cell	12 month	Once in a year

11. Emergency preparedness plan in case of natural or in plant emergencies-

Impact of disaster can be significantly reduced through attempts at preparedness, mitigation, and post-event rehabilitation work. Based on hazard identification in the proposed project, an emergency plan has been prepared and the same plan will be implemented by the project implementing agency with the coordination of District Authorities to minimize the damage.

12. Issues raised during public hearing- Not yet to be done.

13. CSR/CER plan

As per para 3 & 6 of MOEF office memorandum number F. No. 22-65/2017-IA.III dated 01/05/2018 and 30/09/2020 CER is included in EMP which is applicable for B1 projects in place of CSR.

During the production, the mine owner will pay royalty and contribute 30-35% of it as DMF & cess to the state government. State government will utilize the DMF funds for Corporate Social Responsibility (CSR) activities in the affected region, prioritizing the needs of local people and regional development.

The proposal for CER is given below-

S.N	Name of Applicant	Present estimated market value of land nearby applied area based on Central Valuation Board, Chhattisgarh	Cost of Office & Rest Huts with toilet	Cost of Machineries and Equipment	Miscellaneous cost	Total Project Cost (in Lacs)	Percentage of Capital Investment to be spent	Amount required for CER (in Rs.)
1.	Aryan Minerals & Metals Pvt. Ltd,	50.00	5.00	15.00	5.00	75.00	2%	1,50,000

14. Occupational Health Measures-

Occupational safety and health is very closely related to productivity and good employer-employee relationship. The factors of occupational health in mining of Dolomite Stone mining project are mainly dust and land degradation. Safety of employees during operation and maintenance etc. shall be as per Mines rules and regulations.

Occupational hazards involved in mines are related to dust pollution, noise pollution and injuries from equipment and fall from high places. DGMS has given necessary guidelines for safety against these occupational hazards. The management will strictly follow these guidelines.

15. Post Project monitoring plan-

Post-project environmental monitoring is a complex system of observations, assessment and forecast of changes in the state of the environment under the influence of anthropogenic factors, monitoring is an information system of observations with an optimal number of parameters for assessing and forecasting changes.