

**MCDR INSPECTION REPORT
BHUBANESWAR REGIONAL OFFICE**

MINE CODE: 40ORI08063

Part-I: General

S. N.	Particulars	Details
1	Name of the Mine	Katasahi Manganese Ore Mine.
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total lease area -200.509 ha, non-forest area-125.418 Ha & Forest area-75.091 ha
3	Mine code	40ORI08063
4	IBM Registration Number under rule 45 of	IBM/4530/2011
5	Name of the lessee, Address, phone, email and fax number	M/s. Agrasen Sponge (P) Limited, At: Mandiakudar, PO: Chungimati, Kansbahal, Dist-Sundergarh, Odisha-758035, Mob No.7894402799 Email: agrasensponge@gmail.com
6	Village	Katasahi
7	Taluka/Mandal	Barbil
8	District	Keonjhar
9	Pin code	758052
10	State	Odisha
11	Post office	Chormalda
12	Nearest police station	Rugudi
13	Nearest Railway station	Barbil
14	Date of Grant of Mining Lease	03.07.2020
15	Date of Execution	06.07.2020
16	Date of opening of Mine	23.10.2020
17	Date of first Renewal, if applicable and its	NA
18	Date of second Renewal, if applicable and its period & expiry	NA
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension.	NA
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Mr.Murali Lal Sharma , M/s. AGRASEN SPONGE PRIVATE LIMITED, AT. MANDIAKUDAR ,P.O.- CHUNGIMATI, RAJGANGPUR ,Sundargarh , Phone No – 7894402799 Email – agrasensponge@gmail.com
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	----
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Mr. Sunil Kumar, At- Katasahi, PO-Chormalda, Keonjhar, Odisha-754004 date of appointment, 01.10.2020 Email – agrasensponge@gmail.com

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23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Mr. Sunil Kumar Diploma in mining Engineering with 2 nd class certificate of competency-1, 20 years of experience Address: At- Katasahi, PO-Chormalda, Keonjhar, Odisha- Date of appointment, 01.10.2020
24	Name of the Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Mr. .Chittaranjan Pani, Msc Mphil Geology ,17.10 years of Experience, Phone no :9938213964 DOA:15.12.2021 Email:chittaranjanpani566@gmail.com
25	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55& carrying out their duties as per rule 56 & 57.	Yes
26	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	The Modified Mining Plan was approved on 19.05.2022, vide IBM letter No. BBS/KJR/MN/2168/MPM/2022-23/147. No specific condition was there in approval letter.
27	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	NA
28	Mineral(s) granted in lease and proved for	Manganese
29	Method of Mining(Open cast, Underground)	Open cast
30	Category (Fully Mechanized, Others or Manual)	OTFM
31	Captive/Non Captive	Non captive

Details about Mining Plan/ Mining Scheme

a) Letter No. and date of approval of mining plan	:	Letter No : MP/A/27-ORI/BHU/2020-21/2237, Date:02.12.2020
b) Letter No. and date of approval of Review of Mining Plan	:	Not Applicable
c) Period of mining plan/ mining scheme in force :	:	2020-21 to 2024-25.

PART II-

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining.

Exploration:

S.N.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	100 Nos. of holes	NIL	No exploration work has been carried out during the year 2023-24 due to lack of Forest Clearance.
1b	Exploration over lease area for Geological axis 1 or 2.	G1-16.5 ha G2-23.0 ha G4-24.98 ha	G1-1.92 ha	Due to pending of forest clearance
1c	Exploration Agency & Expenditure in lakh Rupees during the year	---	Nil	

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1d	Balance area to be explored to bring Geological axis in 1 or 2	24.980 (G4 Area)	Nil	Due to pending of forest clearance
1e	Balance reserves as on 01.04.2022	Reserve :-609602 Tonnes Resources: - 49588 Tonnes	Reserve:- 600043.948 Tonnes Resources: - 49588 Tonnes	As per approved Modification Mining plan
1f	General remarks of inspecting officer on geology, exploration etc.	Proposed exploration has not been achieved due to pending of Forest clearances, however violation has been issued under MCDR, 2017		

Development:

S.N.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	Quarry-6&7:- 2428977N to 2429148N/327823E to 328036E , Bench-562,568,574 Rola Pit:- 2429328N to 2429498N /327716E to 327943E, Bench-586,592,598 Centre Pit-2429380 N to 2429549 N / 327324E to 327542E, Bench-598 &604 GS Pit :- 2429825N to 2429992N / 326844E to 327081E, Bench – 568,574,580,586 Nala Pit :- 2428777N to 2428947N/ 3278070E to 328178E, Bench – 550,556,562,568	Centre Pit- 2429380 N to 2429549 N / 327324E to 327542E, Bench-598 &604 .	Work in centre pit has been carried out within the approved limit.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Top soil bench : Nil Overburden bench : 11 Mineral bench :10	Top soil bench : Nil Overburden bench : 3 Mineral bench :2	Other proposed quarries are not under working due to pending of forest clearances.
2c	Stripping ratio or ore to OB ratio	14:1	5:1	Only one pit was under operation
2d	Quantity of topsoil generation in m ³	No proposal	Nil	
2e	Quantity of Overburden Generation in m ³	279153 m ³	23954.167 m ³	Only one pit was under operation during 2023-24.
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc	Development work has been carried out from centre pit only and waste was disposed in Dump-4 only. Dump no-5 is associated with those quarries (like –Quarry 6&7 and Nala pit) which are not under operation due to lack of forest clearance/transfer		

Exploitation

S.N.	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	5 nos(Quarry 6&7,Rola pit, centre pit ,Nala pit & GS Pit)	Centre pit	GS Pit is under forest land, and other non working quarries are under forest transfer issues.
3b	Quantity of ROM mineral production proposed	19291 Tonnes	4568.33 Tonnes	Less Production due to only one pit was under operation.
3c	Recovery of salable/ usable mineral from ROM production	16%	As per approved Mod. Mining Plan, it was proposed to recover 84% of 10-25 grade and 16% of +25% grade of Mn. Ore from the total ROM.	Total ROM production contains the grade in between 10-25 % of Mn Ore during the year 2023-24.
3d	Quantity of mineral reject generation	16167 Tonnes	4568.33 Tonnes	Total ROM production contains the grade in between 10-25 % of Mn Ore during the year 2023-24.
3e	Grade of mineral reject generation and threshold value declared	Grade of mineral reject is 10-25%Mn & threshold value is considered as 10% Mn	Grade of mineral reject is 10-25%Mn & threshold value is considered as 10% Mn	
3f	Quantity of sub-grade mineral generation	16167 Tonnes	4568.33 Tonnes	Less Production due to only one pit was under operation due to De reservation proposal
3g	Grade of sub-grade mineral generation	10-25%Mn	10-25%Mn	
3h	Manual / Mechanized method adopted for segregating from ROM	Mechanized method. ROM manganese ore produced from the mine is processed manually by breaking, sorting and sizing.	Mechanized method. ROM manganese ore produced from the mine is processed manually by breaking, sorting and sizing.	As per approved proposal
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No Proposal	Nil	

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3j	Provision of drilling & blasting in mineral benches	No Proposal	Nil	Mechanized method without drilling and blasting without drilling and blasting .ROM manganese ore produced from the mine is processed manually by breaking, sorting and sizing
3k	Provision of mining machineries in mineral benches	Excavators of 0.9 cum bucket capacity and dumpers having 20 tones have been proposed for use	Excavators of 0.9 cum bucket capacity and dumpers having 20 tones are being used.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	The height & width of benches are proposed to be maintained as 6m & 9 m respectively	More or less as per approved proposal	
3m	Total area covered under excavation/pits	3.191 ha	1.491 Ha.	Only one pit was under operation.
3n	Ore to OB ratio for the pit/mine during the year	14:1	5:1	Only one pit was under operation.
3o	Total area put in use under different heads at the end of year	Mining -3.191 ha Overburden - 2.999 ha	Mining -1.491 ha Overburden -0.290 ha	
3p	Production of ROM mineral during the last five year period as applicable.	2020-21:- 2050 T 2021-22 :- 3550 T 2022-23 :-19291T 2023-24 :-19291T	2020-21 :-1620 T 2021-22:-3550 T 2022-23:- 4989 T 2023-24 :-4568 T	
3q	General remarks of inspecting officer on method of	Less Production due to only one pit was under operation as De reservation proposal (DRP) clearance and forest transfer issue are pending for rest pits.		

Solid Waste Management-Dumping:

S.N.	Item	Proposals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Separate dumping of OB was proposed in two proposed dumps ,Dump-4&5 Top soil –No proposal	OB dumping is carried out in Dump-4 Top soil :Nil	Only Dump-4 is working for waste dumping and Dump no-5 is associated with –Quarry 6&7 and Nala pit) which are not under operation due to lack of forest clearance/transfer
4b	Location of topsoil, OB & mineral reject dumps	OB: Dump-4 : 2429443N to 2429549N/327613E to 327700E & Dump-5: 2429167N to 2429314N/327646 E to 327778 E	Dump-4: 2429443N to 2429543N/327613E to 327692E	Only Dump has been established within the approved proposal
4c	Number of dumps within lease area and outside lease area	Within Lease : Two Nos. Outside :Nil	Within Lease : Two Nos. Outside :Nil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	D-4 : 2429443N to 2429549N/327613E to 327700E & D-5: 2429167N to 2429314N/327646 E to 327778 E	2429443N to 2429543N/327613E to 327692E	At the earmarked site
4e	Number of active & alive dumps	02	01(Dump-4)	Dump-5 has not been established
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilized	Dump –D1&2	Dump –D1&2	Old dumps
4h	Whether Retaining wall or garland drain all along dumps are there	Retaining wall &garland drain were proposed at Dump no -,4 & Dump no-5	Retaining wall made all along the Dump No -4	To be maintained along Dump-4
4i	Length of Retaining wall or garland drain all along dump	Length of Retaining wall: 620 m x1.5 mx 1.5 m Length of Garland Drain: 620m x1.5 mx 1.5 m(D-,4 & 5)	Length of Retaining wall(Dump no -4) 190 m x1.5 mx 1.5 m Length of Garland Drain: 190 m x1.5 mx 1.5 m	
4j	Number of settling ponds	No Proposal	1	
4k	Specific comments of inspecting officer on waste dump	Waste Dump-5 has not been made as no mining operation has been carried out in the associated pits. Further no terrace has been made in Dump-4 for protective measures.		

Solid Waste Management-Backfilling:

S.N.	Item	Proposals	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Adjoining area south side of Dump-1 and South end of Quarry no -6&7 : 2428900N to 2428950N/327870E to 327980E	Quarry no -6&7 : 2428900N to 2428950N/327870E to 327980E	As per approved proposal
5b	Area under backfilling of mined out area	0.065ha	0.0620 ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No Proposal	Nil	
5d	Total area fully reclaimed & rehabilitated	No proposal	Nil.	Not yet matured for fully reclaimed & rehabilitated.
5e	General remarks of inspecting officer on backfilling, reclamation etc	Backfilling has been carried out as per approved proposal.		

Progressive Mine Closure Plan:

S.N.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23E (2). Details should be given in the format as given in Annexure-20.	yes	The PMCP return is already submitted.	
6b	Area available for rehabilitation (ha)	No proposal	Nil	

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6c	Afforestation done (ha)	0.100 ha(250 saplings)	500(Saplings)0.25 0 ha	
6d	No. of saplings planted during the year	250 saplings	500 saplings planted	
6e	Cumulative no. of plants	No proposal	2000(Saplings)0.7 31 ha	
6f	Any other specific method of rehabilitation	No proposal	Nil	
6g	Cost incurred on watch & care during the year	No proposal	Nil	
6h	Compliance on reclamation and rehabilitation by backfilling (i)Voids available for backfilling (L X B X D).	650 m ² (0.065 ha)	0.065 ha	
6i	Compliance on reclamation and rehabilitation by (ii)backfilling (ii) Void filled by	4875 m ³	4820 m ³	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on the backfilled area.	No proposal	Nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir.	Backfilling	Backfilling is carried out in the earmarked area.	
6l	Compliance on reclamation and rehabilitation by backfilling (v) Any other specific means	No proposal	Nil	
6m	Compliance of Rehabilitation of waste land within lease (i)Afforestation	No proposal	Nil	
6n	Compliance of Rehabilitation of waste land within lease (ii) Area rehabilitated (ha) Method of rehabilitation	No proposal	Nil	
6o	Compliance of Rehabilitation of waste land within lease (iii) Method of rehabilitation	No proposal	Nil	

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6p	Compliance of Environmental monitoring (core zone & buffer zone)	Quarterly environmental monitoring at 4 locations for air monitoring, 3 locations for water quality, 4 stations for noise level survey.	Monthly environmental monitoring at 5 locations for air monitoring, 3 locations for water quality (2 is surface & other 1 is for ground water), 4 stations for noise level survey & Monthly for soil sample study from 1 location.	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations	PMCP activities were carried out as per the approved plan and plantation done.		

Mineral Conservation:

S.N.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within the lease area	Grade wise sorting within the lease area	As per proposal
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	
7c	Different grade of mineral sorted out at mines	Low grade-10% to 25% and 25% to 35% Mn	Low grade-10% to 25% and 25% to 35% Mn	
7d	Any beneficiation process at mines	No proposal	Nil	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	ROM manganese ore produced from the mine is processed manually by breaking, sorting and sizing		

Environment:

S.N.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No top soil proposed to be generated	Nil	
8b	Concurrent use or storage of topsoil	No Proposal	Nil	

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8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes, the waste dump & mineral reject dump are proposed to be done separately	As per proposal	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No Proposal	Nil	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	-	Total 2000 nos saplings planted.	
8g	Survival rate	80%	More or less 80%	
8h	Water sprinkling on roads to control airborne dust	Yes, one water sprinkler is proposed to deploy	One water sprinkling is carried out by	
8h	General remarks of inspecting officer on aesthetic beauty in and around mines area	Plantations have been done in the lease area. One water tanker was deployed for suppression of dust .Greenery is maintained in & around the lease area		

Compliance of Rule 45

S.N.	Item	Details given in Annual Return for the year 2022-23	Observation of I/Officer	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to <u>May 2024</u> A.R. Submitted up to <u>FY 2022-23</u>		
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager-1: Mr. Sunil Kumar, Geologist-1: Mr. .Chittaranjan Pani Mining Engineer-1: Mr. Sunil Kumar,	Found in Order	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mining/pits-10.152 ha,Dumping-6.125ha ,Mineral Storage-0ha ,Reclamation -0.065 ha	Found in Order	
9d	Scrutiny of Annual return on Afforestation	500 nos Saplings planted	Found in Order	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Quantity -4989.730 ton ,Grade-10-25%Mn	Found in Order	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM -4989.730 ton ,Closing Stock- Nil	Found in Order	

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9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost etc.	Ex mine price :3464.275(Average) Cost of Production :11671.02	Found in Order	
9h	Scrutiny of Annual return on fixed assets	Annual Return with all fixed assets cost :5999458	Found in Order	
9i	Scrutiny of Annual return on mining machineries	Excavator-1(PC -210), Dumper 20 t -1 nos	Details are given	

Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed			Show cause position		
Rule No.	Issued on	Compliance on	Rule No.	Issued on	Compliance on
11(1)	16.07.2024				
37(2)	16.07.2024				

Date : 25.06.2024

(Rajani Kanta Rautaray)
INDIAN BUREAU OF MINES