

**INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

Inspection under SDF for star rating of mines REPORT

Kolkata regional office

Mine file No : KOL/JHK/SB(W)/LST - 19

Mine code : 38BHR27013

- (i) Name of the Inspecting : **E025**) **NAMAN EKKA**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : Sanjeev Tripathi, DGM Mining
Official with
Designation
- (iv) Date of Inspection : 18/09/2019
- (v) Prev.inspection date : 18/12/2018

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **RAJANKA (598.88 HECT.)**
- (b) **Registration NO.** :
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : JHARKHAND
District : SINGHBHUM (WEST)
Village : RAJANKA
Taluka : CHAIBASA
Post office : JHINKPANI
Pin Code : 833215
FAX No. : (06589) 235250
E-mail :
Phone : (06589) 235224
- (f) Police Station :
- (g) First opening date : 12/08/1947
- (h) Weekly day of rest : SUN
2. Address for : PO-JHINKPANI, DIST-SINGHBHUM WEST
correspondance : JHARKHAND
PIN-833215
3. (a) Lease Number : BHR0030
(b) Lease area : 598.89
(c) Period of lease : 50
(d) Date of Expiry : 30/06/2030
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : ACC LIMITED
 CHAIBASA CEMENTS WORKS P.O
 - JHINKPANI DIST. -
 SINGHBHUM (W) SINGHBHUM
 (WEST) JHARKHAND
 Phone:06589-235224
 FAX :06589-235250

Owner : Sridhar Balakrishnan
 Cement House 121 Maharshi
 karve Road Mumbai 400020,
 India SINGHBHUM (WEST)
 JHARKHAND
 Phone: 912233024321
 FAX : 912266317407

Agent : RAJ GURUNG
 A.C.C. LTD., CHAIBASA
 CEMENT WORKS, P.O. -
 JHINKPANI SINGHBHUM (WEST)
 JHARKHAND
 Phone: 9798863126
 FAX :

Mining Engineer

Name : SANJEEV TRIPATHI, Full Time
 Qualification : B.E. (MINING ENGINEERING)
 Appointment/ : 01/04/2016
 Termination date

Geologist

Name : PANKAJ SHARMA, Full Time
 Qualification : M.Sc. (Geo)
 Appointment/ : 22/04/2013
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	03/07/2000
Plan/Scheme of Mining		Modif.approved Mining Scheme	30/06/2003
		Mining Scheme rule 12 MCDR1988	29/10/2005
		Renewal under rule 24 MCR1960	29/07/2010
		MP modif under 17(3) MCR 2016	06/03/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	5 drillhole proposed in Q Block	NIL	EC is pending for Q block.
1b	Exploration over lease area for geological axis 1 or 2	25 Ha	NIL	Could not be explored due to non availability of clearance.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No Proposal	Proposal was given to explore Q, Could not be explored due to non availability of clearance.	EC not obtained for Q block.
1d	Balance area to be explored to bring Geological axis in 1 or 2	48.094 Ha	NIL	Balance area includes other Blocks than F in main lease.
1e	Balance reserve as on 01/04/20	(111)-36.3 Lac Tonnes (211) -96.99 Lac Tonnes (333)-142.8 Lac Tonnes (334)-103 Lac Tonnes	(111)-35.5 Lac Tonnes (211) -96.99 Lac Tonnes (333)-142.8 Lac Tonnes (334)-103 Lac Tonnes	
1f	General remarks of inspecting officers on geology, exploration etc		Exploration could not be completed in the proposed area due to non-availability of EC.	Exploration could not be completed in the proposed area due to non-availability of EC.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	ML S16-ML S18	ML S16-ML S18	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in topsoil, OB & mineral is proposed	Yes, Separate benches in topsoil, OB & mineral present during inspection.	
2c	Stripping ratio or ore to OB ratio	1:0.23	1:0.24	
2d	Quantity of topsoil generation in m3	1799.92 m3	2000 m3	

2e	Quantity of overburden generation in m3	396110 m3	348536 m3	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		Development work is done as per proposal in approved document.	Development work is done as per proposal in approved document.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	02 nos. (Q1 & NP)	At the time of inspection 02 pits (Q1 & NP) were in production stage.	
3b	Quantity of ROM mineral production proposed	1657453 Ton	1245379 Ton	
3c	Recovery of sailable/usable mineral from ROM production	100%	Less tahn 100%	Recovery for Grey shaly limestone is less due to clay admixture.
3d	Quantity of mineral reject generation	NO proposal	No mineral rejects generated.	
3e	Grade of mineral rejects generation and threshold value declared.	No Proposal	No mineral rejects generated.	
3f	Quantity of sub grade mineral generation.	511134 Tonnes	351300 Tonnes	
3g	Grade of sub grade mineral generation	CaO-35-38%	CaO-35-38%	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	No work done.	

3j	Provision of drilling and blasting in mineral benches	Yes, Proposal of Drilling and blasting in Mineral Benches proposed	Drilling and blasting done in mineral benches.	
3k	Provision of mining machineries in mineral benches	Yes, Provision of mining machineries in mineral benches present.	Yes, mining machineries in mineral benches were present during inspection.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	11.5 meters	Yes.	
3m	Total area covered under excavation/pits	116.48 Ha	112.42 Ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.23	1:0.27	
3o	Total area put in use under different heads at the end of year	128.316 Ha.	126.12 Ha.	
3p	Production of ROM mineral during the last five year period as applicable	2014-15 1800000 2015-16 1154000 2016-17 2020000 2017-18 1802000 2018-19 1657453	2014-15 475255 2015-16 621799 2016-17 1093050 2017-18 1158099 2018-19 1245379	
3q	General remarks of inspecting officers on method of mining etc.		Mining method as proposed in approved document is being practiced.	Mining method as proposed in approved document is being practiced.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No proposal of dumps only backfilling in ML S12-S18	Only backfilling in ML S12-S18 is being done.	
4b	Location of topsoil, OB and mineral reject dumps	No proposal	No external dump only backfilling is being done.	
4c	Number of dumps within lease area and outside of lease area	No dumps proposed, only backfilling	No dumps only backfilling is being done.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No Proposal	No dumps present.	
4e	Number of active and alive dumps.	No dumps	No Active and alive dumps present.	
4f	Number of dead dumps.	No proposal	No dead dumps present.	
4g	Number of dumps established.	No dumps proposal	No dumps present.	
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	No Dumps, No Retaining wall or garland drain.	
4i	Length of Retaining wall or garland drain all along dumps	NO proposal	No Retaining wall or garland drain.	
4j	Number of settling ponds	No proposal	No settling ponds present.	
4k	Specific comments of inspecting officer on waste dump management		No dumps present , only backfilling is being done in the mines out area.	No dumps present , only backfilling is being done in the mines out area.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Proposal of full extraction part wise and then backfilling part wise.	Full extraction part wise and then backfilling part wise is being practiced.	

5b	Area under backfilling of mined out area	A: 8.34 Ha D:16.68 Ha F: 15.96 Ha S:0.18 Ha Total 41.16 Ha	A: 8.34 Ha D:16.68 Ha F :21 Ha S:0.18 Ha Total 46.2 Ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	For Plantation on Backfilled area	Plantation in progress on backfilled areas.	
5d	Total area fully reclaimed and rehabilitated	26.7 Ha	23.8 Ha	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Plantation in the new areas as well as gap filling by new p[lantation is being done floowed by backfilling in the mined out areas.	Plantation in the new areas as well as gap filling by new p[lantation is being done floowed by backfilling in the mined out areas.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	No Proposal	Annual report on PMCP submitted on time under Rule 23E(2).	Annual report on PMCP submitted on time under Rule 23E(2)
6b	Area available for rehabilitation (ha) .	No Proposal	No area available for Rehabilitation.	
6c	afforestation done (ha).	Afforestation proposal in the backfilled area.	Afforestation is being done in the Backfilled area.	
6d	No. of saplings planted during the year	Proposal for 1875 plants to be planted.	Only 1000 plants have been pl;anted durinmg the year.	
6e	Cumulative no .of plants	Proposal for 9875 plants.	Total of 14800 plants ahve been planted as reported.	
6f	Any other method of rehabilitation	No Proposal	No work done.	

6g	Cost incurred on watch and care during the year	Rs. 57500/- for the year 2018-19.	Rs. 20000/- spent for the year 2018-19.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	1.182 Ha available for backfilling	0.75 Ha have been backfilled in 2018-19.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Proposal for 1.1 Ha. to be bachfilled by tailings.	0.5 Ha. have been backfilled by tailings.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No proposal	No work done.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	No work done.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	No work done.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NO proposal	No work done.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	NO work done

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NO proposal	No work done.	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Prposal for enviromental monitoring in the core and buffer zone.	Enviromental monitoring in the core and buffer zone done.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		Backfilling in the mined out areas by mill waste / tailings is being done.	Backfilling in the mined out areas by mill waste / tailings is being done.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grey Lst >35% lime not consumable will be stacked	Stock of stipulated quality maintained.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanized	Mechanized	
7c	Different grade of mineral sorted out at mines.	No proposal	All the minerals are blended to get min. of 35 % CaO	
7d	Any beneficiation process at mines	No proposal	No work done.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		No Mineral Benificiation done within the lease area.	No Mineral Benificiation done within the lease area.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Proposal for Separate removal and utilization of topsoil .	Directly spread on backfilled area	
8b	Concurrent use or storage of topsoil	Directly spread on backfilled area	Directly spread on backfilled area for plantation	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes proposal made	Yes, work done as per made proposal	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	No work done.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal Made for phased restrotation.	No work done against phased resotoration.	
8g	Survival rate	85%	86.83%	
8h	Water sprinkling on roads to control airborne dust	Done with permanent and Mobile Sprinkler	Done with permanent and Mobile Sprinkler	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Mines is in Plain area with little elevation compared with the nearby Village Road. Aesthetic beauty is good inand around the mines area.	Mines is in Plain area with little elevation compared with the nearby Village Road. Aesthetic beauty is good inand around the mines area.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		Monthly Returns and Annual Returns Submitted on time.	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		Information on Mining Engineer, Geologist and Manager present on Annual Returns.	Mining Engineer, Geologist and Manager were present on the day of inspection.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) Workings - 36.50 Ha. Reclaimed/Rehabilitated - 4.50 Ha. Used for waste disposal - 1 Ha. Work done under PMCP - 12.00 Ha.	Covered under current (O/C) Workings - 36.50 Ha. Reclaimed/Rehabilitated - 4.50 Ha. Used for waste disposal - 1 Ha. Work done under PMCP - 12.00 Ha.	
9d	Scrutiny of Annual return on afforestation	Number of trees planted during the year - 1000 nos.	Number of trees planted during the year - 1000 nos.	Within the lease area.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No Mineral Rejects Generated	NO Mineral Rejects generated was reported during inspection.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Total ROM Ore production (tonnes) - 1245379 Tonnes.	Total ROM Production as per Monthly An annual Returns is - 1245379 Tonnes.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex Mines Price reported for the Year at Cement Grade is - Rs. 335/-	Ex Mines Price reported for the Year at Cement Grade is - Rs. 335/-	
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets (in .) - 353804980/-	Value of Fixed Assets (in .) - 353804980/-	

9k	Scrutiny of Annual return on mining machineries	BACK HOE 3.500 CUM 1 nos. SHOVEL (HYDRAULIC) 5.000 CUM 2 nos. DUMPER 45.000 TONNE 3 nos. DUMPER 55.000 TONNE 4 nos. WHEEL LOADER 5.000 CUM 1 nos. WATER TANKER 10000.000 LITRE 2 nos. BLAST HOST DRILL 115.000 MM 3 nos. SHOVEL (HYDRAULIC) 6.500 CUM 1nos. SHOVEL (HYDRAULIC) 4.000 CUM 1 nos. DUMPER 35.000 TONNE 1 nos.	BACK HOE 3.500 CUM 1 nos. SHOVEL (HYDRAULIC) 5.000 CUM 2 nos. DUMPER 45.000 TONNE 3 nos. DUMPER 55.000 TONNE 4 nos. WHEEL LOADER 5.000 CUM 1 nos. WATER TANKER 10000.000 LITRE 2 nos. BLAST HOST DRILL 115.000 MM 3 nos. SHOVEL (HYDRAULIC) 6.500 CUM 1nos. SHOVEL (HYDRAULIC) 4.000 CUM 1 nos. DUMPER 35.000 TONNE 1 nos.
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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
MCDR17	Rule 11(1)	25/11/2019	08/06/2020				
MCDR17	Rule 26(2)	25/11/2019	08/06/2020				
MCDR17	Rule 35(2)	25/11/2019	08/06/2020				

Date :**(NAMAN EKKA)**

Indian Bureau of Mines