INDIAN BUREAU OF MINES
MINERALS DEVELOPMEMT AND REGULATION DIVISION

MCDR inspection REPORT

Hyderabad regional office

Mine file No : AP/VZNR/MN-24/HYD **Mine code : 40APR20046**

(i) Name of the Inspecting Officer and ID No. : **KQ07) SHAIVAL KARTIKEYA**

(ii) Designation : Senior Mining Geologist

(iii) Accompaning mine Official with Designation : Shri A. V. Naidu, Manager (Mines)

(iv) Date of Inspection : 25-AUG-22

(v) Prev.inspection date : 04-MAR-20

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **DEVADA NEW**

   (b) Registration NO. : **IBM/536/2011**

   (c) Category : A Fully Mechanised

   (d) Type of Working : Opencast

   (e) Postal address

   State : ANDHRA PRADESH

   District : VIZIANAGARAM

   Village : DEVADA

   Taluka : GARIVIDI

   Post office : SHREERAMNAGAR

   Pin Code :

   FAX No. : 08952-282021

   E-mail : montymor@rediffmail.com

   Phone : 82041,82021

   (f) Police Station :

   (g) First opening date : 06-FEB-95

   (h) Weekly day of rest : SUN

2. Address for correspondance : M/S.R.B.S.S.D.&F.N.DAS
   DEVADA,(V),GARVIDI(M), 535101.
   SREERAMNAGAR(P) VIIANAGARAM

3. (a) Lease Number : APR1281

   (b) Lease area : 41.06

   (c) Period of lease : ~~20~~ 50 yrs.

   (d) Date of Expiry : ~~31-MAR-20~~
   23-JAN-2025

4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the

Lessee	:	M/S RBSSD &FN DAS M/S RBSSD &FN DAS PO SHREERAMNAGAR DIST:VZIANAGARAM VIZIANAGARAM ANDHRA PRADESH Phone: NIL. FAX : NIL
Owner	:	M/SRBSSD%F.N.DAS SREERAMNAGAR(P), VIZIANAGARAM VIZIANAGARAM ANDHRA PRADESH Phone: 0892-282041 FAX :
Agent	:	D.SURYANARAYANA M/S.RBSSD&FNDAS SREERAMNAGAR GARVIDI VIZIANAGARAM ANDHRA PRADESH Phone: FAX :

Mining Engineer

Name	:	Songala Appala Naidu,Full Time
Qualification	:	B.Tech. (Mining)
Appointment/ Termination date	:	01-JAN-21

Geologist

Name	:	Shri Uriti V. D. Prasad Rao,Full Time
Qualification	:	M. Sc. Geology
Appointment/ Termination date	:	25-NOV-17

Manager

Name	:	A. Vishwanath Naidu
Qualification	:	!st Class Manager
Appointment/ Termination date	:	31-MAR-18

6. Date of approval of Mining Plan/Scheme of Mining :

Mining Scheme rule 12 MCDR1988	09-SEP-04
Mining Scheme rule 12 MCDR1988	25-JAN-06
Modif.approved Mining Scheme	16-JAN-15
MP modif under 17(3) MCR 2016	14-MAR-22

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal.	NIL.	The entire mineralized zone has been explored under G1 level. Based on the previous exploration G1 level: 10.47 Ha. Non-mineralized: 30.584 Ha.
1b	Exploration over lease area for geological axis 1 or 2	No proposal.	NIL.	-do-
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not mentioned in the approved document.	NIL, as no exploration has been done during F.Y. 2021-22.	-do-
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal.	NIL.	-do-
1e	Balance reserve as on 01/04/20	Balance reserves as on 01.04.2022 Under (111): 1.046 Million Tonnes	Balance reserves as on 01.04.2022 Under (111): 1.062 Million Tonnes	Average grade of Manganese Mn: 28.00%

1f	General remarks of inspecting officers on geology, exploration etc	The host rock of manganese in Vizianagram-Visakhapatnam belt are Khondalites and Charnokites belongs to Dharwar Supergroup of Precambrian age which forms a part of the Eastern Ghat Complex. The manganese ore mineralizatio n is mainly associated with garnetiferrou s quartzites and calc granulites with intercalation s of pockets of clay and lithomarge and occurrence of manganese ore with chert at margins of some of the ore bodies suggest that some of the mineralizatio n is also from garnet granulites.	The Garnet Gneisses occurs intermittently with Kaolin or Red loam. Garnet Gneisses with Kaolin are predominant in the area. The lithomarge (a compact massive form of Kaolin, considered as claystone) is generally yellow to brown in colour and at the contacts of the ore body; it is dull grey due to presence of Manganese Oxide termed as Wad.	The Manganese form intrusive contact on both the sidesby Calc gneisses/Kaolin. The in the pits is generally Psilomelane - brown, brownish black to black in colour and it is friable in nature.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks

2a	Location of development w.r.t.lease area	F.Y. 2021-22: In between UTM co-ordinates N2020850 to N2021245 and E769110 to E769375	F.Y. 2021-22: In between UTM co-ordinates N2020850 to N2021245 and E769110 to E769375	Broadly development and production have been carried out within the proposed co-ordinates. Common boundary permission has been obtained for 40APR20028 and 40APR20046.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	OB/Waste: 10 nos. Mineral/Ore: 02 nos.	OB/Waste: 10 nos. Mineral/Ore: 02 nos.	-
2c	Stripping ratio or ore to OB ratio	1 : 1.45	Stripping ratio increased due to less mineral/ore production.	-
2d	Quantity of topsoil generation in m3	No proposal.	NIL.	-
2e	Quantity of overburden generation in m3	148271.40 CuM	21500.00 CuM	-
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The development and production is being done through fully mechanized means.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	01 no.	01 no.	-
3b	Quantity of ROM mineral production proposed	102122.37 Metric Tonnes	8310.00 Metric Tonnes	-

3c	Recovery of sailable/usable mineral from ROM production	70 %	100 %	-
3d	Quantity of mineral reject generation	No proposal.	Nil, no mineral-reject has been generated during F.Y. 2021-22.	-
3e	Grade of mineral rejects generation and threshold value declared.	No Proposal.	NIL.	-
3f	Quantity of sub grade mineral generation.	No Proposal.	Nil, no mineral sub-grade has been generated during F.Y. 2021-22.	-
3g	Grade of sub grade mineral generation	No Proposal.	NIL.	-
3h	Manual / Mechanised method adopted for segregating from ROM	ROM will be screened manually and sorted for removal of waste/gangue material.	Rom is being screened manually and sorted for removal of waste/gangue material.	-
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Proposal.	NIL.	-
3j	Provision of drilling and blasting in mineral benches	No proposal has been given in the approved document for drilling and blasting, as the ore/mineral is soft and friable in nature.	NIL.	-

3k	Provision of mining machineries in mineral benches	1. Excavator 06 nos. with 0.90 CuM bucket capacity 2. Dumpers 23 nos. with 10 Tonnes capacity 3. Crawler Bulldozer 02 nos. with 100 HP capacity 4. Water Tanker 01 no. with 5000 Liters capacity 5. Pumps 02 nos. with 188 Liter/Minute capacity	1. Shovel 01 no. with 1.10 CuM bucket capacity 2. Tippers 04 nos. with 4.0 CuM carrying capacity 3. Pumps 02 nos. with 188 Liter/Minute capacity 4. Water Tanker 01 no. with 5000 Liters capacity	-
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height: 4.0 m to 5.0 m Width: 10.0 m	Height: 4.0 m to 5.0 m Width: 10.0 m	-
3m	Total area covered under excavation/pits	10.95 Ha. up to end of F.Y. 2021-22	10.470 Ha. up to end of F.Y. 2021-22	-
3n	Ore to OB ratio for the pit/mine during the year.	1 : 1.45	1 : 2.58	Stripping ratio increased due to less mineral/ore production.
3o	Total area put in use under different heads at the end of year	Pit- 10.95 Ha. Waste/reject- 5.344 Ha. Others- 1.887 Ha. Up to end of F.Y. 2021-22	Pit- 10.47 Ha. Waste/reject- 5.50 Ha. Others- 1.837 Ha. Up to end of F.Y. 2021-22	-

3p	Production of ROM mineral during the last five year period as applicable	Yr. 2017-18: 81000.00 Metric Tonnes Yr. 2018-19: 87210.00 Metric Tonnes Yr. 2019-20: 107190.00 Metric Tonnes Yr. 2020-21: No proposal. Yr. 2021-22: 145889.10 Metric Tonnes	Yr. 2017-18: 40475.00 Metric Tonnes Yr. 2018-19: 87180.00 Metric Tonnes Yr. 2019-20: 100000.00 Metric Tonnes Yr. 2020-21: NIL production. Yr. 2021-22: 8310.00 Metric Tonnes	Mining lease has been lapsed during F.Y. 2020-21 (01/04/2020 to 15/03/2022). Period of the mining lease has been extended up to 23/01/2025 vide G.O. Ms. No. 82 dated 08/12/2021 issued by the Govt. of A.P.
3q	General remarks of inspecting officers on method of mining etc.			Mining has been carried out through the opencast method with fully mechanized means without drilling and blasting.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Proposal has been given in the approved document for separate dumping/stacking of OB/Waste and Mineral/Ore in the earmarked locations within lease area.	Separate dumping/stacking of OB/Waste and Mineral/Ore have been done in the earmarked locations within lease area.	-

4b	Location of topsoil, OB and mineral reject dumps	In between UTM co-ordinates: OB/Waste: (1) Dump No. 3: N2020885 to N2021070 and E769480 to E769495 (2) Dump No. 6: N2020785 to N2021005 and E769495 to E769720 Mineral Stock Yard: N2021090 to N2021180 and E769320 to E769455	In between UTM co-ordinates: OB/Waste: (1) Dump No. 3: N2020885 to N2021070 and E769480 to E769495 (2) Dump No. 6: N2020785 to N2021005 and E769495 to E769720 Mineral Stock Yard: N2021090 to N2021180 and E769320 to E769455	No major deviatio has been observed
4c	Number of dumps within lease area and outside of lease area	02 nos.	02 nos.	Total 07 nos. of dumps are present within lease area including 02 nos. of active dumps.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposed beyond ultimate pit limit.	Waste dumps are situated beyond ultimate pit limit.	-
4e	Number of active and alive dumps.	Active: 02 nos.	Active: 02 nos.	-
4f	Number of dead dumps.	No Proposal.	NIL.	-
4g	Number of dumps established.	No Proposal.	NIL.	-
4h	Whether Retaining wall or garland drain all along dumps are there.	No Proposal.	NIL.	-
4i	Length of Retaining wall or garland drain all along dumps	No Proposal.	NIL.	-
4j	Number of settling ponds	No Proposal.	NIL.	-

4k	Specific comments of inspecting officer on waste dump management			NIL

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.	No Proposal.	Nil, as the mineral/ore has not been mined-out completely from the existing pit.	-
5b	Area under backfilling of mined out area	No Proposal.	Nil, as the mineral/ore has not been mined-out completely from the existing pit.	-
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No Proposal.	Nil, as no topsoil has been generated during F.Y. 2021-22.	-
5d	Total area fully reclaimed and rehabilitated	No Proposal.	Nil, as the area not matured for reclamation and rehabilitation.	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.			NIL

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).	Not submitted.	Violation has been issued.	-

6b	Area available for rehabilitation (ha) .	No Proposal.	NIL.	-
6c	afforestation done (ha).	No Proposal.	NIL.	-
6d	No. of saplings planted during the year	No Proposal.	NIL.	-
6e	Cumulative no .of plants	No Proposal.	NIL.	-
6f	Any other method of rehabilitation	No Proposal.	NIL.	-
6g	Cost incurred on watch and care during the year	No Proposal.	NIL.	-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No Proposal.	NIL.	-
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No Proposal.	NIL.	-
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No Proposal.	NIL.	-
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Proposal.	NIL	-

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	300 nos.	Not done.	For achievement of the plantation shortfall proposed in the previous FY. i.e. 2021-22, during running F.Y. i.e. 2022-23, 500 nos. of saplings have been planted over an area of 0.10 Ha. area along 7.5 m barrier zone.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.149 Ha.	Not done.	-do-
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	By plantation.	NIL.	-do-
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposal has been given in the approved document for regular monitoring of the environmental parameters in the core and buffer zone.	Being done as per proposal.	All the parameters are within the permissible limits.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			NIL

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Manual screening and sorting of the manganese ore from the ROM has been proposed.	Manual screening and sorting from the ROM is being done.	-
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	-do-	-do-	-
7c	Different grade of mineral sorted out at mines.	No proposal.	NIL	-
7d	Any beneficiation process at mines .	No proposal.	NIL.	-
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			NIL

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal.	NIL.	-
8b	Concurrent use or storage of topsoil	No proposal.	NIL.	-

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of Waste/OB has been proposed in between UTM co-ordinates (1) Dump No. 3: N2020885 to N2021070 and E769480 to E769495 (2) Dump No. 6: N2020785 to N2021005 and E769495 to E769720	Separate dumping has been done in between UTM co-ordinates (1) Dump No. 3: N2020885 to N2021070 and E769480 to E769495 (2) Dump No. 6: N2020785 to N2021005 and E769495 to E769720	No major deviation has been observed.
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)	Green Belt in South - Eastern side of the lease area. through 300 nos. of saplings over 0.149 Ha.	Not done.	For achievement of the plantation shortfall proposed in the previous FY. i.e. 2021-22, during running F.Y. i.e. 2022-23, 500 nos. of saplings have been planted over an area of 0.10 Ha. area along 7.5 m barrier zone.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	300 nos. of saplings will be planted over an area of 0.149 Ha. for making green belt at south-eastern side of the lease area.	Not done.	-do-

8g	Survival rate	Expected survival rate: 60%	NIL plantation has been done during F.Y. 2021-22.	-do-
8h	Water sprinkling on roads to control airborne dust	Proposal has been given in the approved document for water sprinkling on roads to control airborne dust through the water tanker.	Being done as per proposal.	-
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			NIL

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to August 2022. A. R. Submitted up to F.Y. 2021-22.	M.R. Submitted up to August 2022. A. R. Submitted up to F.Y. 2021-22.	NIL
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager: Shri Addala Vishwanath Naidu Mining Engineer: Shri Songala Appala Naidu Geologist: Shri Ganesh Pappala	Manager: Shri Addala Vishwanath Naidu Mining Engineer: Shri Songala Appala Naidu Geologist: Shri V. D. Prasad Rao w.e.f. 25/11/2017	NIL

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit- 10.47 Ha. Waste/reject- 5.50 Ha. Others- 1.837 Ha. Up to end of F.Y. 2021-22	Pit- 10.47 Ha. Waste/reject- 5.50 Ha. Others- 1.837 Ha. Up to end of F.Y. 2021-22	NIL
9d	Scrutiny of Annual return on afforestation	Within lease area: 300 nos. with 50% survival rate.	NIL plantation has been done during F.Y. 2021-22.	For achievement of the plantation shortfall proposed in the previous FY. i.e. 2021-22, during running F.Y. i.e. 2022-23, 500 nos. of saplings have been planted over an area of 0.10 Ha. area along 7.5 m barrier zone.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral-reject: NIL Grade: NIL	Mineral-reject: NIL Grade: NIL	NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing Stock: ROM: NIL Grade Wise: (1) Below 25% Mn: 3030.00 Metric Tonne (2) 25% to below 35% Mn: 660.00 Metric Tonne (3) 35% to below 46% Mn: 1670.00 Metric Tonne	Closing Stock: ROM: NIL Grade Wise: (1) Below 25% Mn: 3030.00 Metric Tonne (2) 25% to below 35% Mn: 660.00 Metric Tonne (3) 35% to below 46% Mn: 1670.00 Metric Tonne	NIL

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale value: (1) Below 25% Mn: Rs. 7425776.80 (2) 25% to below 35% Mn: Rs. 2685709.99 (3) 35% to below 46% Mn: Rs. 18304693.95 Cost of Production: Rs. 2184.51 Per Metric Tonne Ex-Mine Price: (1) Below 25% Mn: Rs. 4950.52 Per Metric Tonne (2) 25% to below 35% Mn: Rs. 10742.84 Per Metric Tonne (3) 35% to below 46% Mn: Rs. 15253.91 Per Metric Tonne	Sale value: (1) Below 25% Mn: Rs. 7425776.80 (2) 25% to below 35% Mn: Rs. 2685709.99 (3) 35% to below 46% Mn: Rs. 18304693.95 Cost of Production: Rs. 2184.51 Per Metric Tonne Ex-Mine Price: (1) Below 25% Mn: Rs. 4950.52 Per Metric Tonne (2) 25% to below 35% Mn: Rs. 10742.84 Per Metric Tonne (3) 35% to below 46% Mn: Rs. 15253.91 Per Metric Tonne	NIL
9h	Scrutiny of Annual return on fixed assets	Rs. 27122432/-	Rs. 27122432/-	NIL

9k	Scrutiny of Annual return on mining machineries	1. Shovel 01 no. with 1.10 CuM bucket capacity 2. Tippers 04 nos. with 4.0 CuM carrying capacity 3. Pumps 02 nos. with 188 Liter/Minute capacity 4. Water Tanker 01 no. with 5000 Liters capacity	1. Shovel 01 no. with 1.10 CuM bucket capacity 2. Tippers 04 nos. with 4.0 CuM carrying capacity 3. Pumps 02 nos. with 188 Liter/Minute capacity 4. Water Tanker 01 no. with 5000 Liters capacity	Cross verified from the field logbooks.

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

Violation observed			Show couse position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on

Date : 16/09/2022

शैवाल कार्तिकेय
(SHAIVAL KARTIKEYA) 16/09/2022

Indian Bureau of Mines