

Scrutiny comments on examination of Modified Mining Plan including PMCP of Dabakuchi Nippani Manganese Mine over an area of 73.94 Hect. of M/s Aditya Minerals Private Limited in Adilabad District of Telangana State inspected by Shri S. Kartikeya, Senior Mining Geologist on 08/07/2021

- 1) **General oversight & Cover Page:** (a) The term 'A OTFM' in the Proposed Category of the Mine may be replaced with the term Category 'A' Fully Mechanised Mine in all the relevant places of the submitted document. (c) IBM Registration number along with the Mine Code, Email Id, Phone no. and Fax no. of the lessee and the qualified person should be mentioned in the cover page. (d) Period and validity of the mining lease should be mentioned in the cover page. (e) Number of volume of the submitted documents may be written for better identification. (f) Since, the Progressive Mine Closure Plan is the additional part of the Mining Plan; hence, same should be mentioned in the cover page along with the relevant rule of PMCP. (g) While referring, any supporting document, enclosure no. and page no. should be given. (h) Feasibility study report has not been enclosed. (i) During inspection it has been found that the electric power line is crossing the mining lease area in the south western part towards east-west direction. Whereas, details of the electric power line has not been discussed in the text as well as not shown in any of the plans and sections. Hence, the mineral/ore blocked under the statutory boundary of the electric power line may not be considered as reserve and no future development under this statutory barrier area will be considered. Further, the entire reserve and resources should be re-estimated based on the UNFC norms.
- 2) The following gist to be attached before the introduction chapter:

MINING PLAN/REVIEW OF MINING PLAN AT GLANCE		
1	Name of the Applicant /lessee	
2	IBM Registration no	
3	Address of Applicant	
4	Name of Mine	
5	Mine code	
6	Lease area in hect.	
7	Forest area	
8	Name of Mineral	
9	Lease period from to	
10	Plan proposal period-	
11	Mineral Reserve (111, 121 & 122) in tonnes	
12	Mineral Resources (211, 221,222, 331, 332, 333 & 334) in tonnes	
13	Production proposal 2021-22 (1st yr) in tonnes	
14	Production proposal 2022-23 (2nd yr) in tonnes	
15	Production proposal 2023-24 (3rd yr) in tonnes (up to 14/10/2023)	
16	OB/Waste handling proposal 2021-22 (1st yr) in CuM	
17	OB/Waste handling proposal 2022-23 (2nd yr) in CuM	
18	OB/Waste handling proposal 2023-24 (3rd yr) in CuM	
19	Present EC permission in tonnes	
20	Plantation proposal in three years in numbers	
21	Plantation area proposal in three years (ha).	
22	Back filling proposal in hectares in three years	
23	Check Dams numbers in three year	
24	Garland drain in meters three years	
25	Settling ponds (Numbers)	
26	Area put to use at end of three year in ha.	
27	Bank Guarantee Amount Rs.	
28	Validity of BG up to	
29	Any other important information	

Chapter No. 1.0 General

- 3) Page no. 2: Email id of the nominated owner should be given.

Chapter No. 2.0 Location and Accessibility of the Area/Mine

- 4) The following information may also be incorporated in this chapter :- **(a)** Name & Distance from National Park (in Km). **(b)** Name & Distance from Archaeological Monument (in Km). **(c)** Name & Distance from Wild Life Sanctuary (in Km). **(d)** Name & distance from Firing Range (in Km). **(e)** Name & distance from Ordnance Factory (in Km). **(f)** Name & distance of the Power Grid (in Km). **(g)** Name & distance of Dabakuchi and Nipani Village from the mine/deposit (in Km). **(h)** Source of water.
- 5) Page no. 3: Original land schedule should be enclosed for supporting.
- 6) Page no. 4: **(a)** Range of the latitude and longitude of the mining lease area obtained through the DGPS/GPS From to To may be given. **(b)** Whether the mentioned latitude and longitude of the lease boundary pillars are authenticated by the competent authority of the respective state government should be mentioned in the text.

Chapter 3.0 Details of Approved Mining Plan/Review/Scheme of Mining

- 7) Page no. 5; Para 3.1: **(a)** Para 3.1: Since the mine does not have the valid approved document from F.Y. 2014-15 to 2020-21, hence, the said period should be considered under lapse period. Details of the lapse period should be given in this table for reference along with the reason for lapsing of the above mentioned period. **(b)** Review chapter should be updated up to June 2021. **(c)** During F.Y. 2020-21 to 2021-22, total 41 nos. of DTH boreholes with the cumulative depth of 520.0 meters and 12 nos. of core boreholes with the cumulative depth of 132.0 meters have been drilled, whereas, in the table for review of the exploration achievement, NIL achievement during F.Y. 2020-21 has been mentioned. Hence, correct information should be given. **(d)** In this chapter, year wise proposal and its achievement for (i) Number of pits proposed for production, (ii) Location of Development (Range in UTM Co-ordinates), (ii) Overall Stripping ratio or Ore to OB ratio in five years period. (T/m^3), (iii) Height of benches in Overburden (mts), (iv) Height of benches in Ore (mts) (v) Location of topsoil dumps, OB & mineral reject dumps, (vi) Length of the Retaining wall or garland drain all along dump, (vii) Area under backfilling of mined out area, (viii)

Area proposed for put to use in last Mining Plan/Review of Mining proposals at end of five year period-				
	Item details	Proposed area in last document (ha.)	Actual area as on date (ha.)	Remark
i)	Area under mining			
ii)	Storage for top soil			
iii)	Waste dump site			
iv)	Mineral storage			
v)	Infrastructure –workshop, Administrative building etc.			
vi)	Roads			
vii)	Railways			
viii)	Tailing pond			
ix)	Effluent Treatment Plant			
x)	Mineral Separation Plant			
xi)	Township area			
xii)	Others (to specify)			
xiii)	Total in ha			

Details of earlier submitted Financial Assurance	
a) Amount of Financial Assurance	
b) Validity of Financial Assurance-	
c) Details of Performance security, if any	

are to be given.

File No.: AP/ADB/MP/MN-8/HYD**Part A; 1.0 Geology and Exploration**

- 8) In this chapter, dimension of the deposit/belt (describing strike length, width, depth, thickness of the deposit, either of the belt and/or of individual lenses, veins, bands, pockets etc.) should be given along with the length (in Km), Minimum, Maximum and Average Width (in Meters).
- 9) Page no. 9: **(a)** Name of the manganese ore should be given. **(b)** Source of the Regional Geological Succession should be mentioned for reference. **(c)** During inspection it has been observed that the lease area is structurally deformed and the mineralization of manganese ore is structurally controlled. Hence, the detail structural features present within the mining lease area may also be discussed in this chapter.
- 10) Page no. 16; Para (iii): No. of Sample drawn, No. of Samples analysed and the No. of samples analysed in the NABL Accredited Laboratory/Government Laboratory are to be mentioned in the tabular form.
- 11) Page no. 17: **(a)** Based on the exploration data and the analytical results of the borehole samples, minimum, maximum of all the analysed radicals should be given. **(b)** Non-mineralised area should be given in hectares.
- 12) Page no. 26 Para (i): Future Exploration Programme: During the study of the document and the field observations, it has been found that the mineralization of the manganese ore within the lease area is not uniform and the depth of mineralization is varying from borehole to borehole. It has also been found that the boreholes drilled through the DTH method are having a low confidence level to prove the mineralization and most of the drawn samples are contaminated with the surrounding rocks. Hence, to improve the confidence level of the mineral evidence and the precision level of the analytical results, few core boreholes may also be proposed to drill in close interval. Therefore, the following parameters may be considered for the proposal of future exploration programme:
 - a) The entire mining lease area should be explored under G1 axis during this Review period.
 - b) Year wise proposal for the future exploration plan may be given.

2.0 Mining

- 13) Page no. 43: During inspection following things have been observed:-
 - a) It has been found that the development and the mineral/ore production have been proposed from the different pits during review period and the existing pits are developed in irregular and unscientific manner without forming any sustainable benches. In view of the Scientific, Systematic and Sustainable mining, development and the mineral production may be proposed from the Pit no. 5C to towards south eastern zone where the existence of the mineral/ore has been established through the exploration. Hence, the entire production and development planning may be modified accordingly.
 - b) Most of the waste dumps are been made adjacent to the existing quarries, these waste rocks should be utilised for backfilling in the mined out quarries. All the necessary protective measures should be taken around the existing waste dumps to protect the surface runoff of the waste rocks from the dumps.
- 14) Page no. 27: **(a)** Table 18: Unit for the Recovery Factor may be mentioned. **(b)** Table 19: Proposal for year wise generation of ROM and Ore/Mineral may also be given in tonnes. Incorrect stripping Ratio has been calculated. Same may be cross checked and corrected accordingly.
- 15) Page no. 29: Table 21: Proposal for utilizing the rock breaker may also be given for sizing of the oversize ore/mineral and removing of the overburden, where the mineral/ore is occurring in shallow depth and having less thickness of the overburden.

4.0 Stacking of Mineral Reject/Sub-grade Material and Disposal of Waste

- 16) Page no. 35: **(a)** Details of the existing topsoil dumps and waste dumps present in the lease area should be mentioned including their locations in the form of range of UTM co-ordinates. **(b)** Number of active/alive, dead and stabilized dumps present in the lease area, should be mentioned.

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- 17) Part of the Pit no. 2A should be backfilled as it is coming under statutory barrier zone of the canal.

8.0 Progressive Mine Closure Plan

- 18) Page no. 42: Proposal for regular monitoring of the quality of the Ambient Air, Water and Noise Vibration are to be given.

Enclosures:

- 1) Instead of RQP Certificate, professional experience of five years of working in a supervisory capacity in the field of mining after obtaining the degree as specified under Rule 15 of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016 along with the Qualification degree are to be enclosed.
- 2) Khasra wise details of the land schedule should be given.
- 3) Copy of the financial assurance should be enclosed.

Plates:

- 1) **General:** (a) Shape file/KML file of the mining lease may be submitted. (b) Shape file/KML file of the surface plan, proposed year wise development, working pit dimension, dump position and afforestation are to be submitted.
- 2) **Plate I; Key Plan:** Co-ordinate range of the mining lease area may be drawn.
- 3) **Plate IV; Geological Plan:** (a) Structural features present within the existing pit should be marked. (b) Without exploration, part of the lease area has been marked under G1 level of exploration. Same should be corrected in all the relevant plans and sections.
- 4) **Plate IV (A); Geological Cross Sections:** (a) UNFC codification has not been shown in any of the sections. (b) Area explored under G1, G2, G3 and Non-mineralised should be marked in all the sections.
- 5) **Plate VIII; Financial Assurance Plan:** (a) A detail calculation table should be given. (b) Area utilization in different heads should be marked with the distinct patterns for better identification.
- 6) Location plan has not been drawn.
