

SUMMARY
FOR PROPOSED PROJECT

OF

N.P. MINERALS

At

**Mouza- Kharia, P.O.- Md. Bazar (T.S.), P.S.- Md. Bazar,
Dist: Birbhum, Pin: 731132, West Bengal**

PREPARED BY:



PACIFIC SCIENTIFIC CONSULTANCY PVT. LTD., KOLKATA

SUMMARY FOR PROPOSED PROJECT

Mining of 19349 TPA China clay and 8687 TPA Fire clay
At

J.L. No. 145, Mouza: Kharia, P.O.- Md. Bazar, P.S.- Md. Bazar, Dist: Birbhum, West Bengal

1. COMPANY:

M/S. N.P. Minerals has taken decision to mine both Fire Clay & China Clay as Kharia China Clay Mine in Mouza- Kharia, P.O.- Md. Bazar (T.S.), P.S.- Md. Bazar, Dist: Birbhum, Pin: 731132.

The project has been proposed for mining of 19349 TPA of china clay and 8687 TPA Fire clay by opencast semi mechanized method. The mine lease area is 7.22Ha (17.84 Acre). The area of Block-I is already explored, and Block-II proposed to be explored. Present mine development was proposed in Block-I, which is already proved.

2. PROJECT SITE

The latitude and longitude of the project site is given below:

B. P. No.	Latitude	Longitude	B. P. No.	Latitude	Longitude
1	23° 59' 24.012" N	87° 35' 59.4026" E	15	23° 59' 16.154" N	87° 36' 3.907" E
2	23° 59' 23.989" N	87° 36' 3.249" E	16	23° 59' 18.586" N	87° 36' 4.283" E
3	23° 59' 20.809" N	87° 35' 3.189" E	17	23° 59' 20.310" N	87° 36' 4.017" E
4	23° 59' 21.933" N	87° 36' 59.925" E	18	23° 59' 22.818" N	87° 36' 4.365" E
5	23° 59' 19.023" N	87° 35' 58.461" E	19	23° 59' 22.879" N	87° 36' 6.613" E
6	23° 59' 16.481" N	87° 36' 0.763" E	20	23° 59' 23.537" N	87° 36' 7.778" E
7	23° 59' 16.482" N	87° 35' 57.736" E	21	23° 59' 25.868" N	87° 36' 8.568" E
8	23° 59' 14.305" N	87° 35' 59.537" E	22	23° 59' 25.828" N	87° 36' 6.487" E
9	23° 59' 13.412" N	87° 35' 58.047" E	23	23° 59' 26.656" N	87° 36' 5.299" E
10	23° 59' 9.761" N	87° 35' 59.318" E	24	23° 59' 27.829" N	87° 36' 6.263" E
11	23° 59' 9.956" N	87° 36' 1.325" E	25	23° 59' 28.618" N	87° 36' 3.104" E
12	23° 59' 14.001" N	87° 36' 3.129" E	26	23° 59' 28.622" N	87° 36' 0.428" E
13	23° 59' 14.001" N	87° 36' 2.134" E	27	23° 59' 28.038" N	87° 35' 58.786" E
14	23° 59' 14.317" N	87° 36' 3.340" E	28	23° 59' 26.766" N	87° 35' 59.562" E

The area is well connected by road to Durgapur town as well as to other industrial town like Asansol, Raniganj, Dhanbad and other the adjoining areas by NH-60. The place is connected to railway station (Easter Railway) and towns by bus, jeeps, taxi and rickshaw. All the civic amenities like market, bus stand, hospital, school, college, hotel, restaurant etc. all are available in the town which is about 3-4 km from the site.

3. PROJECT DETAILS

The project has been proposed for mining of 19349 TPA of china clay and 8687 TPA Fire clay by opencast semi mechanized method. The mine lease area is 7.22Ha (17.84 Acre).

Total Project Cost:

The Project cost has been estimated at Rs. 73,30,000 /-.

Year-wise production programme for next five years:

Period / Year	Block	Pit Size (m ³)	Over Burden (m ³)	Tonnage Factor/ Conversion Factor	Mining Loss +Geological Loss	Gross Fire Clay in M.T.	Net mineable F.C. in M.T.	Gross China Clay in M.T.	Net mineable C.C. in M.T.	Net Ore (F.C + C.C.) in M.T.
1 st	I	105 x15 x21	105x15 x6=9450	1.3	15%	99x15x 4.5x1.3 =8687	8687x85 %=7384	94.5x1 5x10.5 x1.3= 19349	19349 x 85%= 16447	7384+1 6447=2 3831
2 nd	I	105 x15 x21	105x15 x6=9450	1.3	15%	99x15x 4.5x1.3 =8687	8687x85 %=7384	94.5x1 5x10.5 x1.3= 19349	19349 x 85%= 16447	7384+1 6447=2 3831
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In Five Years			47250			43435	36920	96745	82235	119155

List of Mining Equipments:

- i) Diesel pump 5 H.P.- 1 No.
- ii) Dumper/ truck 5 m³ – 3 Nos.

- iii) Water sprinkler- 1 No.
- iv) Mine Inspection car- 1No.
- v) Safety equipments – (Safety belt, Safety Helmet, Safety Shoe etc.) – Adequate Nos.

4. OTHER REQUIREMENT:

Water: No industrial water is required. Water requirement for the proposed project will be for domestic & other purposes. Water will be sourced through tankers.

Particulars	Water Requirement (KLD)
Water for Sprinkling	0.8
Domestic purposes & other uses	0.2
Green Belt Development	0.5
Total	1.5

Manpower:

The total requirement of manpower for the proposed project is estimated at 21 numbers. The required manpower will be available locally. The implementation of industrial laws and regulations and locational factors of labour employment will also have to be considered.

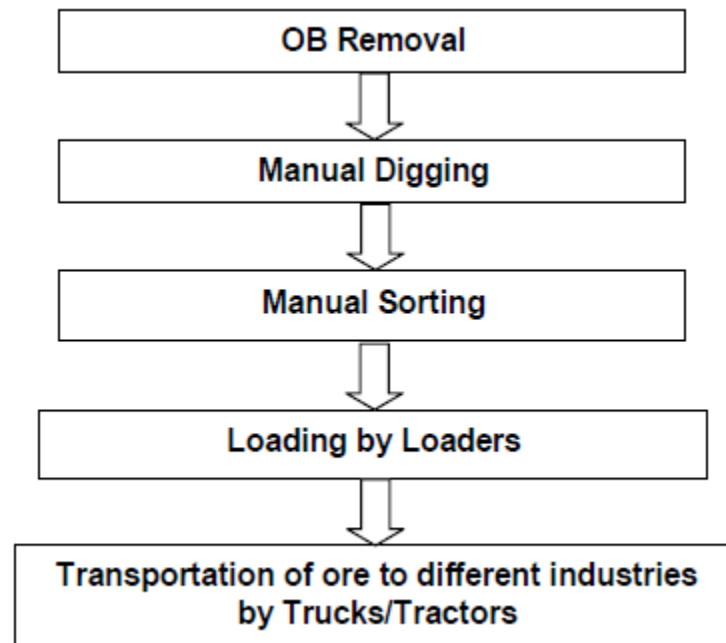
Power:

No electricity is required to be used in Mine. One 5 KVA D.G. will be required.

Fuel Requirement: Diesel used for D.G. sets @ 3 L/hr.

5. MANUFACTURING PROCESS:

FLOW SHEET OF MANUFACTURING PROCESS AS A WHOLE



6. ENVIRONMENTAL CONSIDERATIONS:

The factory is planned as far as practicable as an inherently non polluting unit.

- Dust may be generated.
- There will be no generation of effluent water from process and the domestic sewerage about 2 KLD will be discharged in the local Govt. Body's Sewerage system after treated as per PHE rules.
- No industrial waste will be generated from the project.
- To attain the guide line standards all the dust generating areas will have dust suppression systems to contain the fugitive dust with in the limits of the plant.
- About 9450 MT over burden (O.B.) will be generated in this scheme period per year and about 47250 MT of O.B. will be accumulated in ensuring five years of the scheme period. The O.B./ waste generated will be stacked within barrier. Hence entire lease area becomes totally dump free on permanent basis, creating no environment problem on this account, once the dumps O.B. is backfilled during the 5 yrs. Scheme period.

Stacking of mineral reject and disposal of waste

Selection of dumping site

- The area should be barren or mineral free. The west side of the present quarry will be selected for dumping.
- The area should be free from proneness to natural erosion, shall not be devoid of vegetation, shall have no its surface minimum thickness of top soil compared to the adjoining area and finally match the surroundings without creating visual intrusions.

Maximum height and slope of the dump

Maximum height of the dump should be around 3.0 m and slope at angle of 37⁰.

Precautions for confinement of dumps to prevent pollution of surface water bodies

Confinement of dumps shall be done by arranging garland drain all around, so that no spill shall be drained out. Decantation tank may be arranged near boundary and its water quality may be checked from time to time. Thus surface water body may not be polluted by spill water from dump.

Preservation of top soil

No top soil, so not applicable.

Sub-grade Mineral stack

There are no sub-grade minerals, which will require separate stacking as per statue for its probable future use.

Noise Pollution Control

Proper acoustic enclosure for rotating equipment and providing silencers for DG set will help in keeping noise level within CPCB norms.

GREENBELT

An extensive plantation within the boundary limits of the area is considered during the project work by planting saplings making a two row deep green belt along the periphery (spacing 2.0 m x 2.0 m) leaving only adequate truck access. The total land area covered for greenbelt will be 33% of the total area i.e., 24424.39 sq. mt.

Lit of big trees for proposed plantation is given below.

No.	Common name	Scientific name	Family
01.	Arjun, Arjuna	<i>Terminalia arjuna</i>	Combretaceae
02.	Akashmoni	<i>Acacia moniliformis</i>	Mimosaceae
03.	Aam	<i>Mangifera indica</i>	Anacardiaceae
04.	Chatim	<i>Alstonia scholaris</i>	Apocynaceae
05.	Debdaru	<i>Polyalthia longifolia</i>	anonaceae
06.	Ghoranim	<i>Melia azedarch</i>	Meliaceae
07.	Jhaun	<i>Casuarina equisetifolia</i>	Casuarinaceae
08.	Jarul	<i>Lagerstroemia speciosa</i>	Lythraceae
09.	Karanj	<i>Derris indica</i>	Fabaceae
10.	Krishnachura	<i>Caesalpinia pulcherrima</i>	Caesalpinaceae
11.	Nim	<i>Azadirachta indica</i>	Meliaceae
12.	Pakur	<i>Ficus infectoria</i>	Moraceae
13.	Radhachura	<i>Delonix regia</i>	Caesalpinaceae
14.	Tantul, Tentuli	<i>Tamarindus indica</i>	Caesal pinaceae
15.	Sisso	<i>Dalbergia sissoo</i>	Papilionaceae
16.	Sirish	<i>Albizia Lebbeck</i>	Mimosaceae

7. ENVIRONMENTAL MANAGEMENT COST

An initial budget of Rs. 2.0 lacs to be made on the following heads as included in the project cost in the proposed project. The recurring cost is estimated to be around Rs. 0.5 lacs.

	Capital cost (lac)	Recurring cost (lac)
Water sanitation and septic tank	0.75	0.10
Plantation	0.75	0.25

Miscellaneous safety including fire fighting purpose	0.50	0.15
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This budget provision may be reviewed at the time of commissioning of the unit.

8. ENVIRONMENTAL SETTING OF THE PROJECT SITE:

Land- The mine lease area is 7.22Ha (17.84 Acre).

Air Quality – Residential Air Quality is important for the area.

Water Quality – Zero discharge will be attempted to minimize water pollution so that there is no impact on local water resources.

Ecology - Not significant, no reserve forest area or sensitive place is around.

Social – Significant for job and development.