MINUTES OF THE I[st] MEETING OF TECHNICAL COMMITTEE OF NATIONAL MINERAL EXPLORATION TRUST HELD AT GSI, CENTRAL REGION NAGPUR ON 01.04.2016 & 02.04.2016

The I[st] Meeting of Technical Committee of National Mineral Exploration Trust (NMET) was held at GSI, Central Region, Nagpur on 01-04-2016 & 02-04-2016 under the Chairmanship of Dr P. R. Golani, Dy. Director General, GSI Training Institute, Hyderabad for evaluation of proposals prepared by MECL for undertaking exploration under NMET funding

Shri S.K. Thakur, G. M. (Exploration) MECL & Member Secretary Technical Committee of NMET welcomed all the members of the committee. He at the outset thanked the Ministry of Mines for constituting this technical committee. Shri Thakur briefed the house about the importance of NMET for acceleration of exploration programme and developing the projects for actionable blocks by State Governments. He requested members for technical evaluation of proposals prepared by MECL.

Dr. Golani gave the opening remarks and informed the house regarding general points & procedures that needs to be followed for evaluation of different exploration proposals i.e. whether the consent of State Government has been received for taking up exploration in the blocks, free hold status of the area has been provided or not and availability of sufficient geoscientific information, etc. Dr. Golani then advised to proceed for block wise evaluation.

The committee at the outset after discussions made the following general considerations for effective deliberations in the technical committee meetings:

1. All proposals are to be submitted at least one month before the meeting.
2. Data of earlier exploration by all the agencies are to be included in the proposals.
3. Proposal letter from the respective state governments to be annexed.
4. If the exploration proposal was initiated by MECL then it needs to be concurred with the respective state governments.
5. Status of lease and forest clearance, if applicable may be stated.
6. Details of data of GSI or any other organisation are to be referred properly in legends of all maps and sections.
7. Rates for Iron proposals may be taken, on adhoc basis as being charged from DMG, Karnataka by MECL. The rates being finalised by the committee constituted by Ministry of Mines for the purpose will take effect as an when it is notified.

8. Before finalisation of the geological report of the identified blocks, the state government should give the finalised block boundary for carrying out DGPS surveys. This shall be reflected by tripartite agreement.
9. MECL should only bring proposals to committee having adequate geoscientific information (at least G4 preferably of G3 level) of previous exploration work.
10. Forest clearance and lease status shall be provided by state government.
11. The exploration agency should have some ground knowledge of field area.

Shri B.P. Raturi, Dy. G.M. (Exploration), MECL presented the exploration proposals prepared by MECL for evaluation by the committee as per agenda.

The Committee recommendations in respect of various proposals are as under:

DETAILED EXPLORATION OF IRON ORE IN JUMKA-PATHARIPOSHI PAHAR BLOCK, DISTRICT: SUNDARGARH, ODISHA

The Committee recommends the proposal for compliance to the following comments:

1. Mineralisation is irregular as per previous work done by GSI. Hence, drilling at 100 m grid interval is justifiable for G2 level exploration.
2. Core boreholes are to be drilled in section lines having 200m spacing whereas non coring (RC drilling) shall be drilled at 100m apart.
3. Samples shall be collected at every 50 cm interval.
4. All boreholes shall be closed after one meter intersection of BHQ/ BHJ.
5. Based on the geological considerations PBH-20, PBH-32, PBH-57 and PBH-64 need not be drilled.
6. S900 and S1000 section lines are to be modified such that it should be equally spaced from S800 & S1100.
7. Consequent to the revised exploration scheme, the number of samples and analytical work shall be modified.
8. Haematite versus magnetite fraction studies are to be carried out.
9. Topographic survey is to be carried out on 1:2,000 scale at 2m contour interval.
10. Bulk density determination is to be carried out.
11. Lumps and fines ratio is to be determined.
12. Exploration block boundary is to be demarcated by fixing 100m distance outwards from the last borehole on the section line.

DETAILED EXPLORATION OF IRON ORE IN PURHEIBAHAL-CHANDIPOSHI-BARHA INDIPUR BLOCKS, DISTRICT: SUNDARGARH, ODISHA

The Committee recommends the proposal in compliance to the following comments:

A - PURHEIBAHAL

1. Mineralisation is regular as per previous work done by GSI. Hence, drilling at 200m grid interval is justifiable for G2 level of exploration.
2. Soil is to be marked on the section line.
3. Based on the geological considerations PBH-1, PBH-2, PBH-5 & PBH-8 need not be drilled.
4. Exploration block boundary is to be modified accordingly.
5. PBH-4 to be shifted towards west and it should be 200m from LBH-21.
6. PBH-10 is to be shifted such that it should be 200m from LBH-29.
7. Magnetite versus Haematite shall be determined.
8. Lumps to fine ratio shall be determined, if possible.

B - CHANDIPOSHI

1. Committee suggested that possibility of exploring the southern portion may be taken up as separate proposal of G3 level as it appears promising area, as understood from GSI reports. If the area is encouraging, boreholes may be drilled following guidelines of G3 stage investigation.
2. In northern part boreholes are to be planned on 200X100m grid.
3. Boreholes proposed in extreme section lines are to be shifted by 100m as suggested in the maps.

EXPLORATION PROPOSAL FOR LIMESTONE DEPOSIT IN JAMPALI AND PIKIRIJHARAN, DISTRICT- SAMBALPUR, ODISHA

Committee after going through the proposal found that DMG has done sufficient closed spaced drilling in the block. The work done by DMG qualifies under G2 level of exploration. The committee recommends that at this juncture the level of exploration qualifies for auctioning and therefore possibility of auctioning be may be considered by the state government.

EXPLORATION PROPOSAL FOR GOLD IN G.R. HALLI SOUTH BLOCK, CHITRADURGA SCHIST BELT, DISTRICT- CHITRADURGA, KARNATAKA

The Committee recommends the proposal in compliance to the following comments:

1. Committee suggested that block may be taken for exploration after concurrence from the state, after checking lease status. Committee recommended exploration in the block as the block is promising and exploration proposal is technically correct.
2. The exploration may be restricted up to three levels up to maximum depth of 200m. The drilling may be restricted to upgrade the block up to G2 level of exploration.
3. Geophysical reports of GSI on the area may be consulted.
4. Based on the geological considerations PBH-05, PBH-16, PBH-18 and PBH-10 need not to be drilled.
5. PBH-07 to be drilled vertical to reduce meterage.
6. PBH-15 and PBH-17 to be shifted towards south west as marked on the map.
7. A new borehole to be proposed for shallower level intersection in section S8.
8. PBH-11and PBH-12 to be shifted for proper intersection at 50m level.
9. PBH-14 and PBH-13 to be shifted towards GSI boreholes.
10. PBH-06 to be drilled steep for intersecting at a deeper level.
11. The deeper level boreholes are to be drilled conditionally after positive intersection of lodes in the corresponding boreholes of shallower levels.
12. Drilling of PBH-20 is conditional after positive intersection in PBH-19.
13. The positive result in deeper boreholes should be highlighted at proper places and during auctioning of the block.
14. Considering the existing map of GSI, mapping and survey component in the proposal shall be dropped except for borehole fixation and RL determination.
15. Number of primary samples to be reduced to 1600 with analyses by fire assay. Proportionately all other samples to be reduced in the proposal.
16. Tellurium and Tungsten should be analysed.
17. Grain size studies of gold in ore petrographic samples should be recorded.
18. Exploration block boundary to be marked outward about 50m from the last borehole in the map.

EXPLORATION PROPOSAL FOR IRON ORE (MAGNETITE) IN, RAJAMPALAYAM BLOCK, DISTRICT- NAMAKKAL, TAMILNADU

The proposal has been examined in detail. The width of BMQ bands varies from 7 to 25m with steep dips as per available reports. The grade of iron ore bands determined by surface exposure has average of 30.35% Fe. In the present scenario, the reported grade and tonnage of magnetite rich deposit is too small to be explored at this juncture.

EXPLORATION PROPOSAL FOR IRON ORE (MAGNETITE) IN MANI PUDUR BLOCK, DISTRICT- NAMAKKAL, TAMILNADU

The proposal is similar to earlier proposal and it has been examined in detail. The width of BMQ bands varies from 7 to 25m with steep dips as per available reports. The grade of iron ore bands determined by surface exposure ranges between 28 - 38% Fe. In the present scenario, the reported grade and tonnage of magnetite rich deposit is too small to be explored at this juncture.

PROPOSAL FOR DETAILED EXPLORATION (G2 LEVEL) FOR BAUXITE IN THE SENDURKHAR BLOCK, TEHSIL-PANDARIA, DISTRICT - KABIRDHAM, CHHATTISGARH

The Committee recommends the proposal in compliance to the following comments:

In view of insufficiency of the exploration data, it is proposed that surface investigation for this potential bauxite deposit may be undertaken for UNFC compliant G4 level of exploration. Committee recommends G4 level of exploration by taking up geological mapping and surveying on 1:10,000 scale with surface sampling following systematic 400mX400m grid. Scout boreholes may be drilled if required. Decision for taking the further exploration will be reviewed by the committee after appraisal of the chemical results of samples.

PROPOSAL FOR DETAILED EXPLORATION FOR BAUXITE IN THE SARAIPANI DADAR BLOCK, TEHSIL- PANDARIA, DISTRICT - KABIRDHAM, CHHATTISGARH

The Committee recommends the proposal in compliance to the following comments:

In view of insufficiency of the exploration data such as chemical analysis, it is proposed that surface investigation for this potential bauxite deposit may be undertaken for UNFC compliant G4 level of exploration. Committee recommends G4 level of exploration by taking up geological mapping and surveying on 1:10,000 with surface sampling following systematic 400mX400m grid. Scout boreholes may be drilled if required. Decision for taking the further exploration will be reviewed by technical committee after appraisal of the chemical results of samples.

PROPOSAL FOR EXPLORATION FOR LIMESTONE IN RANIGAON-GONDAIYA BLOCK, TEHSIL - KOTA, DISTT.- BILASPUR, CHHATTISGARH

The Committee recommends the proposal in compliance to the following comments:

1. Data is insufficient for initiating G2 level of exploration; however ten boreholes may be drilled, as the formation is known to be Carbonate rich, for developing exploration database.
2. The carbonate rock on the west bank of the river may be tested for its CaO content through surface sampling. If the results are encouraging (cement grade and above), drilling of 7 boreholes falling in carbonate terrain as depicted in map to be carried out.
3. The borehole depth may be restricted to generally 25-30m. Boreholes to be closed within 1m of intersection of shale.
4. Drilling meterage, sampling and analyses shall be changed accordingly.

PROPOSAL FOR EXPLORATION FOR LIMESTONE IN NAHARDIH MADHAIPAUR BLOCK, TEHSIL -TILDA, DISTT. RAIPUR, CHHATTISGARH

The Committee recommends the proposal in compliance to the following comments:

The information provided by the state government for the block is found to be insufficient to take up the detailed exploration; therefore, committee recommended to acquire surface

data for systematic exploration from G4/G3 to G2 level of exploration, in phased manner. Committee recommends G4 level of exploration by taking up geological mapping and surveying on 1:10,000 scale with surface sampling following systematic 400mX400m grid. Decision for taking up the further exploration will be reviewed by technical committee after appraising the chemical analyses of samples.

REGIONAL EXPLORATION PROPOSAL FOR MANGANESE ORE IN MANDRI-PANCHALA BLOCK, RAMTEK TEHSIL, DISTRICT- NAGPUR, MAHARASHTRA

The Committee recommends the proposal in compliance to the following comments:

1. The data provided is insufficient for taking up G2 level exploration as proposed. However, it is recommended that exploration should be done by carrying out geological mapping on 1:2,000 scale and surface sampling to generate exploration database.
2. Further, if required scout boreholes, maximum of 5 boreholes (4 shallow and 1 deeper level), can be drilled.
3. The proposed geophysical component may be considered after appraisal of the acquired data.

REGIONAL EXPLORATION PROPOSAL FOR MANGANESE ORE IN LANJERA-FUTALA BLOCK, TEHSIL- MOHADI. TUMSAR, DISTRICT-BHANDARA, MAHARASHTRA

The Committee recommends the proposal in compliance to the following comments.

1. The data provided is insufficient for taking up G2 level exploration as proposed. However, it is recommended that exploration should be done by carrying out geological mapping on 1:2,000 scale and surface sampling to generate exploration database.
2. Further, if required scout boreholes, maximum of 5 boreholes (4 shallow and 1 deeper level), can be drilled.
3. The proposed geophysical component may be considered after appraisal of the acquired data.

PROPOSAL FOR EXPLORATION FOR BAUXITE IN THE KARAM BLOCK, DISTRICT - SAHIBGANJ, JHARKHAND

1. The data provided is insufficient for taking up G2 level exploration as proposed. However, it is recommended that geological mapping on 1:1,000 scale is to carried out. G3 level of exploration is to be carried out by taking up 1st phase of the proposed work (44 Boreholes) and further quantum of the work shall be taken up after appraisal of the 1st phase.
2. Chemical analyses should also include determination of Titanium, Vanadium, Gallium and Nickel. Analysis of manganese may be dropped.

EXPLORATION PROPOSAL FOR CEMENT GRADE LIMESTONE IN GHUNCHIHAI AREA, RAMPUR BAGHELAN TEHSIL, DISTRICT-SATNA, MADHYA PRADESH

The Committee recommends the proposal in compliance to the following comments:

1. The data provided is insufficient for taking up G2 level exploration as proposed.
2. The area is mostly covered by soil and is under agriculture. However, observing the presence of a number of quarries in the map, the blocks can be taken up for G4 level of exploration, with maximum of 5 Boreholes (Scout drilling) to be drilled up to slightly below the depth of limestone intersection. The depth of boreholes should be maximum of 50m depth or intersection of Nagod shale, whichever is shallower.
3. After appraisal of the analytical results the proposal for exploration can be revised for further exploration, if necessary.

EXPLORATION PROPOSAL FOR CEMENT GRADE LIMESTONE IN NAUBASTA, KOLARD AND VASUDHA AREAS, TEHSIL- NAGOD, DISTRICT - SATNA (M. P.)

The Committee recommends the proposal for compliance to the following comments:

1. The data provided is insufficient for taking up G2 level exploration as proposed.
2. The area is mostly covered by soil and is under agriculture. However, observing the number of quarries in the map, the blocks can be taken up for G4 level of exploration,

with maximum of 5 Boreholes (Scout drilling) to be drilled up to slightly below the depth of limestone intersection. The depth of borcholes should be maximum of 50m depth or intersection of Nagod shale, whichever is shallower.

3. After appraisal of the analytical results the proposal for exploration can be revised for further exploration, if necessary.

EXPLORATION PROPOSAL FOR CEMENT GRADE LIMESTONE IN JAMODI-MAHANNA, BLOCKS, TEHSIL – RAGHURAJPUR, DISTRICT- SATNA (M.P.)

The Committee recommends the proposal for compliance to the following comments:

1. The data provided is insufficient for taking up G2 level exploration as proposed.

2. The area is mostly covered by soil and is under agriculture. However, observing the number of quarries in the map, the blocks can be taken up for G4 level of exploration, with maximum of 5 Boreholes (Scout drilling) to be drilled up to slightly below the depth of limestone intersection. The depth of boreholes should be maximum of 50m depth or intersection of Nagod shale, whichever is shallower.

3. After appraisal of the analytical results the proposal for exploration can be revised for further exploration, if necessary.

List of participants attending 1st meeting of Technical Committee of NMET

Sl. No.	Name	Designation and Address	
1.	Dr. P R Golani	Dy. Director General, GSI Training Institute, Hyderabad	In chair
2.	S K Thakur	General Manager (Exploration), MECL	Member Secretary
3.	Dr. M. Mohanty	Dy. Director General, RSAS, GSI, Bengaluru	Member
4.	Dr. J. Bagchi	Director (Technical), Ministry of Mines, New Delhi	Member
5.	P. Tarafdar	Director, Mission II, GSI, Nagpur	Member
6.	D Mohan Raj	Dy. Director General, Head Mission II, GSI, Nagpur	Special invitee
7.	Dr. Anjani Kumar	DGM (Exploration), MECL	Invitee
8.	B P Raturi	DGM (Exploration), MECL	Invitee
9.	Dr. S Kamlakaram	Sr. Manager (Geology), MECL	Invitee
10.	Lalit Khasdeo	Sr. Geologist, GSI	Invitee