

Ministry of Mines
National Mineral Exploration Trust
Minutes of 4th meeting of Technical-cum-Cost Committee -II (TCC-II)
held on 26th and 27th December, 2024

The 4th meeting of Technical-cum-Cost Committee – II (TCC-II) of National Mineral Exploration Trust (NMET) was held through video conferencing under the Chairmanship of Shri Pradeep Singh, Deputy Director General (DDG), Geological Survey of India (GSI) and Chairman, TCC-II, NMET on 26th and 27th December, 2024.

Members of TCC-II, NMET and representatives from DGM Mizoram, DGM Madhya Pradesh, DMM West Bengal, CGM Gujarat, Mineral Exploration and Consultancy Limited (MECL), CMPDI, *Maheshwari Mining Pvt. Ltd.* (MMPL), Critical Mineral Trackers, Gemcokati Exp. Pvt. Ltd, MPSMC, GMMCO Technology Services, Vardhan Environet LLP, Geovale Services Private Limited, Mining Tech Consultancy Solutions, PRB Infra Projects Private Limited. etc. have attended the meeting through video conferencing mode. The list of participants is at Annexure-1.

Shri Pradeep Singh, DDG, GSI and Chairman, TCC-II, NMET offered a warm welcome to all TCC-II members and participants representing various Notified Exploration Agencies (NEAs) and Notified Private Exploration Agencies (NPEAs).

Agenda 4.1 Technical Evaluation of New Project Proposals

Agenda 4.1.1. Preliminary exploration (G-3 Stage) Sirmaur Block, Rewa District, Madhya Pradesh
[Implementing Agency: MMPL]

- a) The proposed block of 9.93 sq km area falls in Survey of India Toposheet no. 63H/5 in parts of Rewa district, Madhya Pradesh.
- b) MMPL informed that during Investigation, bedrock (BRS) samples of aluminous laterite display varying compositions, with Al₂O₃ ranging from 10.76% to 60.22%, SiO₂ from 1.29% to 60.18%, Fe₂O₃ from 3.69% to 51.9%, TiO₂ from 0.60% to 6.55%, and L.O.I from 6.2% to 25.11%. In Fe₂O₃-Al₂O₃-SiO₂ triangular diagrams (Aleva, 1994), a reasonable numbers of these samples cluster within the bauxite zone.
- c) MMPL further informed that average grade of chemical analyses of core samples show 24.42% Al₂O₃. And, based on 8 short boreholes with maximum depth of 6.00m estimated resource is 1.76 mt in 334 class. In addition, a total of 1.32 MT with an average TiO₂ grade of 2.75% has been estimated
- d) The committee opined that the value of Al₂O₃ is low, but if the demand & supply certificate is issued by the State Government then the project may be taken. Further, As per MEMC Rules ,2015, BH spacing in G/3 for bedded, stratiform irregular habit Bauxite deposit is to be 400 m.

Recommendation TCC

The committee deferred the proposal for the next TCC-II meeting.



Agenda 4.1.2. Preliminary Exploration (G-3 stage) for Iron Ore, Amhawa Block, Sidhi District, Madhya Pradesh
[Implementing Agency: MMPL]

- a) In-principle approval has been given to this project in the 3rd Meeting of TCC-II, NMET held on 5th & 6th December 2024.
- b) The proposed block of 2. km² area falls in Survey of India Toposheet no. 63H/15 in parts of Sidhi district, Madhya Pradesh.
- c) MMPL informed that, in the proposed area for G3 investigation, a total of seven BRS samples have been collected with values ranging from 43.31% to 72.18 % of Fe₂O₃.
- d) BIF bands in studied in the area are prominent and have extensive exposures. At places either by deformation or by auto brecciation or by regional scale faulting, the bands are brecciated and developed massive rich iron zones which gave iron values ranging from 40 to 60 % (based on analytical results obtained till date).
- e) The committee advised that GSI report of FS 2017-18 of this area should be consulted. The area is covered in NAGMP project of GSI so the aeromagnetic data are available for the proposed block and no further magnetic survey is required. The committee opined that BIF is persistent and continuing in kms, BH planning to be as per regular habit of occurrences.
- f) The committee suggested drilling of 6 Boreholes of 80m to 90m depth in Phase-I keeping 800m x 800m spacing. The core sample length may be kept at one meter.

Recommendation TCC

The committee recommends the proposal for the approval of EC for “Preliminary exploration (G3) for Iron ore and associated minerals in Amhawa Block, Sidhi District, Madhya Pradesh” with an estimated cost of ₹397.47 Lakh (including GST) within the time schedule of 12 months and submission of the report as per Annexures 2A & 2B. The item will be reviewed after 4 months. Drilling of 6 Boreholes of 80m to 90m depth in Phase-I in 800m x 800m spacing was agreed.

Agenda 4.1.3. Reconnaissance Survey (G-4 Stage) for Bauxite exploration in Lakhond Block, Kachchh District, Gujarat
[Implementing Agency: Critical Mineral Trackers]

- a) The proposed block of 6.12 sq. km. area falls in Survey of India Toposheet nos. 41E/15 & 41E/16 in parts of Kachchh district, Gujarat.
- b) Critical Mineral Trackers informed that the area of the proposed block was previously investigated by CGM by means of trenching, pitting, and drilling which yielded positive results for bauxite. An estimated resource of 27.85 million ton bauxite has been reported in the area. Chemical analysis of the samples stated about 51.29% of Al₂O₃ and about 4.78% of SiO₂. The area was recommended by CGM for further investigation and thus, the block was proposed for G4 level of exploration.
- c) Based on the No Objection Certificate issued by the CGM, Gujarat on 11.11.2024, the geologists of CMT have undertaken reconnaissance traverses in Lakhond Block area during November, 2024 and collected few random samples from the block area which were sent to NABL- accredited labs in Hyderabad for analysis. The analytical results are encouraging.



- d) Critical Mineral Trackers further informed that clay and silica are being mined in the adjacent areas of the proposed block.
- e) The committee suggested that high silica values may be present due to clay, so reactive silica should be checked. REE, Gallium, Vanadium, Titanium and Scandium to be added for analysis. Potential zones should be marked for Channel Sampling.
- f) Scout drilling up to 120m in 4 Boreholes (30 m each) was recommended. Trench samples- horizontal 50 nos. and vertical 20 nos. were suggested by the committee.

Recommendation TCC

The committee recommends the proposal for the approval of EC for “Reconnaissance Survey (G4) for Bauxite, Ga, V, Ti & REE in Lakhond area, Kachchh District, Gujarat” with an estimated cost of ₹60.01 Lakh (including GST) within the time schedule of 10 months and submission of the report as per Annexures 3A & 3B. The item will be reviewed after 4 months. The committee recommends Scout Drilling of 4 boreholes of 30m depth each with a total drilling meterage of 120m.

**Agenda 4.1.4. Reconnaissance Survey (G-4 Stage) for Bauxite exploration in Nadapa Block, Kachchh District, Gujarat
[Implementing Agency: Critical Mineral Trackers]**

- a) The proposed block of 6.203 km² area falls in Survey of India toposheet no. 41E/15 in parts of Kachchh district, Gujarat.
- b) Critical Mineral Trackers informed that as per the compilation by the Commissioner of Geology and Mines, Gujarat, on Mineral resources of the Gujarat, the proposed block comprises Deccan traps and the analysis of the satellite imagery of the proposed block indicates the presence of laterite/bauxite deposits. Thus, the block seems to have potential for bauxite mineralization and is proposed for further investigations.
- c) Based on the No Objection Certificate issued by the CGM, Gujarat on 11.11.2024, the geologists of CMT have undertaken reconnaissance in Lakhond Block area during November, 2024 and collected few random samples from the block area which were sent to NABL -accredited labs in Hyderabad for analysis. The analytical results are encouraging.
- d) The committee advised Large Scale Geological Mapping on 1:12,500 scale. The committee suggested that high silica values may be present due to clay, so reactive silica should be checked. The committee advised to carry out orientation survey in 2-3 pits to identify which zone is fertile in respect of REE
- e) Scout drilling up to 120m in 4 Boreholes (30 m each) was recommended.

Recommendation TCC

The committee recommends the proposal for the approval of EC for “Reconnaissance Survey (G4) for Bauxite, Ga, V, Ti & REE in Nadapa area Kachchh District, Gujarat” with an estimated cost of ₹53.72 Lakh (including GST) within the time schedule of 10 months and submission of the report as per Annexures 4A & 4B. The item will be reviewed after 4 months. The committee recommends Scout Drilling of 4 Boreholes of 30m depth each with a total drilling meterage up to 120m.




Agenda 4.1.5. Reconnaissance Survey (G-4 Stage) Bauxite exploration in Reldi Moti Block, Kachchh District, Gujarat
[Implementing Agency: Critical Mineral Trackers]

- a) The proposed block of 7.95 sq. km. area falls in Survey of India toposheet no. 41E/16 in parts of Kachchh district, Gujarat.
- b) Critical Mineral Trackers informed that during the geological mapping and special thematic mapping, GSI has reported that rocks of the Matanomadh Formation consist of ferruginous laterites, laterite/bauxite and clay, besides the Deccan Traps. The proposed block was investigated by CGM by trenching, pitting, and drilling, and pocket type of deposits were reported in the area (Kukma). An estimated resource of bauxite in Kukma area was found to be 2342 tons. The results of the chemical analysis of samples show average $Al_2O_3\%$ to be 51.29% and average $SiO_2\%$ to be 4.78%.
- c) The committee advised for analysis of REE, Gallium, Vanadium, Titanium and Scandium. The committee also advised to carry out orientation survey in 2-3 pits to identify which zone is fertile in respect of REE and Scout drilling up to 120m in 4 Boreholes (30 m each).

Recommendation TCC

The committee recommends the proposal for the approval of EC for “Reconnaissance Survey (G4) for Bauxite, Ga, V, Ti & REE in Reldi Moti area Kachchh District, Gujarat” with an estimated cost of ₹54.94 Lakh (including GST) within the time schedule of 10 months and submission of the report as per Annexures 5A & 5B. The item will be reviewed after 4 months. The committee recommends Scout Drilling of 4 Boreholes of 30m depth each with a total drilling meterage up to 120m.

Agenda 4.1.6. Reconnaissance Survey (G-4 Stage) for Nickel, Cobalt and PGE in Botad Block, Botad District, Gujarat
[Implementing Agency: Critical Mineral Trackers]

- a) The proposed block of 224 km² area falls in Survey of India toposheet nos. 41N/11, 41N/12 and 41N/16 in parts of Botad district, Gujarat.
- b) Critical Mineral Trackers informed that about 224km² area around Botad- Hadadad- Senthali are known for picrite flows/ sills/ dykes within tholeiitic basalt flows. The area was mapped on 1:25,000 scale. About 30% of the area is covered by picritic flows/sills and dykes which are 10 m to 20 m thick. Sulphide - related PGE-Ni mineralization are usually localized at the basal part of thick picritic sills and flows. Weathered/ lateritic areas that developed over picritic basalts should also be tested for possible Ni- rich zones. Some of these picritic rocks have Ni concentration over 1000 ppm. MgO content of these picritic rocks goes up to 20%. Co and PGE content of these picritic rocks have not been analysed.
- c) High concentration of thick picritic flows/ sills and dykes with high MgO content along with isolated high Ni concentration in these rocks make them a good target for Ni-Co-PGE mineralization. Especially the basalt parts of thick picritic flows may host sulphur rich Ni-Co-PGE mineralization. However, Ghevariya et al. (1996) analysed 33 basaltic samples (picrite and other basalts) from the area of which nine samples yielded over 500 ppm Ni, the highest concentration being 0.1% Ni. All the above observations of Ghevariya et al., 1996 are positive indicators for presence of sulphide related PGE-Ni mineralization in the



area.

- d) As per the comments from GSI the proposed block is overlapping with G-4 block of GSI.
- e) The committee advised that the overlapping area may be shown on the map with the proposal.

Recommendation TCC

The committee deferred the proposal for next TCC-II meeting.

Agenda 4.1.7. Preliminary Exploration (G-3 Stage) for REE and Copper in Hirnoda Block, Jaipur District, Rajasthan.

[Implementing Agency: MECL]

- a) The proposed block of 8.76 km² area falls in Survey of India toposheet no. 45N/05 in parts of Jaipur district, Rajasthan.
- b) MECL informed that the Hirnoda block falls in the Reconnaissance permit no. 7/2004 (Sawar-Jobner block) of M/s Hindustan Zinc Limited (HZL) measuring 4392.65 km² of area in Ajmer, Jaipur and Tonk districts of Rajasthan. RP was awarded by the state govt. order no. F-18(1)/Gr-2/2005 dated 23/10/08 as per approval given by central govt. vide letter no. 4/149/2005. MIV dated 10/10/2007. Four blocks viz Block A (90.4 km²), Block B (628.50km²), Block C- (104.70km²) and Block-D (170km²), were demarcated.
- c) M/S HZL drilled 31 inclined coring BHs in Block B, C and D. MECL has taken into account BH No.- DD10SJ004 which falls within the proposed block and BH No.- DD11SJ014, falling outside the proposed Block which is about 10km towards NE from BH No.- DD10SJ004. Both these BHs were positive in terms of REE and Copper Mineralization.
- d) AMD has informed that the proposed block falls within the active exploration area of AMD. Further, in view of reported U₃O₈ concentration in the area being more than the threshold value the committee asked MECL to obtain a written permission from AMD to carry out the exploration in the proposed block.

Recommendation TCC

The block will be considered for evaluation subject to MECL obtaining permission from AMD.

Agenda 4.1.8. Preliminary Exploration (G-3 Stage) for Bauxite, Titanium and Associated Minerals in Kandhay Block, Kachchh District, Gujarat.

[Implementing Agency: MECL]

- a) The proposed block of 2.31 km² area falls within Survey of India toposheet nos. 41E/03 and 41E04 in parts of Kachchh District, Gujarat.
- b) MECL informed that the Commissioner of Geology and Mining (CGM), Gujarat has carried out exploration in Kachchh basin for bauxite and identified several blocks for exploration of Bauxite based on their previous works. They published the information of these blocks in Gujarat's Mineral Wealth booklet. CGM, Gujarat (via official email dated 14/11/2024) sent MECL a NOC approval to take up exploration investigation in those blocks. The proposed Kandhay Bauxite block (G-3 stage) is one of them.
- c) In this area, the bauxite deposits are associated with the laterites of the sub-nummulitic group of rocks. Pitting and trenching have been done by CGM and the highest reported



resource is 17.8 million ton of Al_2O_3 . Chemical analysis data of the bauxite shows 52.05% of Al_2O_3 with 4.33% of SiO_2 . In the vicinity of this block, there are leases of bauxite and thus the block is proposed for G3 exploration.

- d) As informed by CGM, Gujarat the block boundaries mentioned in the NOC approval given to MECL do not match with the proposed block boundaries for this project.
- e) The committee asked MECL to revise the block boundaries as per the NOC of CGM, Gujarat.

Recommendation TCC

The committee deferred the proposal for the next TCC-II meeting.

Agenda 4.1.9. General Exploration (G-2 Stage) for Gold in Sinduari Ghansyampur Block, District- Ranchi, Jharkhand.

[Implementing Agency: MECL]

- a) The proposed block of 2.0 km² area falls in Survey of India toposheet nos. 73 E/16, 73E/12, 73F/9 & 73F/13 in parts of Ranchi district, Jharkhand.
- b) MECL informed that Sinduari-Ghansyampur Block is located in the extreme NE part of the prominent Lungtu-Parasi-Sinduari gold mineralized belt in Ranchi District, Jharkhand. The proposed block is in the vicinity and eastern extension of successfully auctioned Parasi Gold block.
- c) During the F.S. 2010-12, GSI investigated for gold in Sinduari –Ghansyampur Block, by way of detailed mapping (1:1000 scale), geochemical sampling, pitting trenching, petrological sampling, drilling and core sampling. Based on the gold assay results of core samples of boreholes SEB-6 to 10, a total of 1.147 million tons of inferred mineral resources with average grade 1.030 ppm have been estimated at 1.00m stoping width and 0.50 ppm Au cut - off and categorised as inferred mineral resource (333) as per UNFC classification.
- d) State DGM have given their consent for the proposed block.
- e) The committee opined that the agency needs to show the evidence of presence of economic gold values in the proposed exploration block.

Recommendation TCC

The committee deferred the proposal for next TCC-II meeting.

Agenda 4.2 New Procurement Proposals

Agenda 4.2.1. Financial Assistance from NMET funds to procure Machinery Laboratory Equipment/instruments etc. aimed at enhancing the exploration activities.

[Implementing Agency: DGM Mizoram]

- a) DGM Mizoram informed that the 27th EC meeting of NMET held on 10.01.2023, approved **financial Assistance to procure Machinery Laboratory Equipment/instruments etc.** with estimated cost of ₹309.32 Lakh and thereafter in the 29th EC meeting held on 31st March 2023, ₹ 195.9 Lakh was further approved.
- b) DGM Mizoram now submitted revised rates for 10 nos. of Handheld GPS and 2 nos. of DGPS for approval.
- c) The committee was informed that 10 Handheld GPS with total cost of ₹80,000 (₹8000 per item) and 01 no. DGPS with estimated cost ₹16,00,000 was approved to the state. However,

after tendering, the L1 rate for each Handheld GPS was ₹51,920(including GST) and DGPS was ₹ 25,00,000 (excluding GST)

- d) Further, DGM Mizoram asked for approval to purchase one more DGPS with cost of ₹ 25,00,000 (excluding GST). DGM informed that , if approved 02 nos. of DGPS will be purchased together.
- e) After due deliberation the committee agree to recommend the following:

S.No	Item	No.of Items	Cost approved by NMET		Revised Cost recommended in 4 th meeting of TCC-II of NMET		Total Addl. Cost in ₹
Revised cost for items approved in 27 th EC							
			Cost per Item (including GST) in ₹	Total Cost (including GST)	Cost per Item(including GST) in ₹	Total Cost (including GST) in ₹	
1	Handheld GPS	10	8,000	80,000	51,920	5,19,200	4,39,200
2	DGPS	1	16,00,000	16,00,000	29,50,000	29,50,000	13,50,000
Total Addl. Cost							17, 89,200
Additional Instrument approved by TCC							
1	DGPS	1			29,50,000	29,50,000	NA

Recommendation TCC

- The committee recommended the proposal for approval of EC for additional cost of to ₹4, 39,200 for 10 nos. of Handheld GPS and ₹13,50,000 for DGPS to DGM Mizoram.*
- The committee also recommended additional purchase of 01 no. of DGPS costing ₹29,50,000.*

Agenda 4.3 Review of Ongoing Projects/Completed Project & Timeline Extension

Agenda 4.3.1. Preliminary Exploration (G-3 Stage) for Bauxite in Dhuliapat block, Lohardaga District Jharkhand

[Implementing Agency: CMPDI]

- CMPDI informed that the project was approved in the 27th EC Meeting held on 10th January, 2023. The sanction order was issued on 06th February, 2023 with timeline of 12 months and approved cost was INR 82,20,938/-.
- CMPDI further informed that the exploration work has been completed in the block. Geological Report of the block has been submitted for PEER review on 11/12/2024 and Vetting comments has been received and all the comments have been incorporated in the Final Geological Report.

Recommendation TCC

The TCC recommended the project for submission of Geological Report on or before 31st December 2024

Agenda 4.3.2. Reconnaissance Survey (G-4 Stage) for PGE, Vanadium & associated minerals in Bhursadongari - Murum Block (100 Sq Km), Balaghat District, Madhya Pradesh

[Implementing Agency: Gemcokati Pvt. Ltd.]




- a) Gemcokati Pvt. Ltd. informed that the project was approved in the 62nd TCC Meeting held on 28th, 29th and 01st March, 2024. The OM was issued on 12th March, 2024 with timeline of 06 months and the approved cost was INR 61,01,057/-.
- b) Gemcokati Pvt. Ltd. further informed that Pitting and trenching work have not yet started as the Forest Clearance is awaited.
- c) The committee informed that as per latest guidelines of MoEFCC , agencies can approach forest authorities to get permission for pitting and trenching work . Accordingly , Gemcokati was asked to expedite the progress of work.

Recommendation TCC

The TCC recommended the proposal for approval of EC for timeline extension of 3 months up to 31st March 2025.

Agenda 4.3.3. Reconnaissance Survey (G-4 Stage) for PGE, Gold & REE in Maneri-Sitapala Block, Balaghat District, Madhya Pradesh.

[Implementing Agency: Gemcokati Pvt. Ltd.]

- a) Gemcokati Pvt. Ltd. informed that the project was approved in the 31st EC Meeting held on 12th September, 2023. The Sanction Order was issued on 05th October, 2023 with timeline of 08 months and approved cost was INR 64,92,482/-.
- b) Gemcokati Pvt. Ltd. further informed that Pitting and trenching work have not yet started as the Forest Clearance is awaited.
- c) The committee informed that as per latest guidelines of MoEFCC , agencies can approach forest authorities to get permission for pitting and trenching work . Accordingly , Gemcokati was asked to expedite the progress of work.

Recommendation TCC

The TCC recommended the proposal for approval of EC for timeline extension of 3 months up to 31st March 2025.

Agenda 4.3.4. Reconnaissance Survey (G-4 Stage) of Graphite, Ranibandh Block, Bankura District, West Bengal

[Implementing Agency: MMPL]

- a) MMPL informed that the project was approved in the 62nd TCC Meeting held on 28th, 29th and 01st march, 2024. The OM was issued on 12th March, 2024 with timeline of 10 months and approved cost was INR 1,43,35,493/-.
- b) The committee opined that SP anomaly is not matching with demarcated Graphite zone, there may be concealed graphitic zone correlating with the SP anomaly. Hence, this may be checked on ground. The committee suggested that Borehole planning should be done after confirming the trend of the bands of graphite.

Recommendation TCC

The TCC recommended the proposal for approval of EC for timeline extension of 3 months up to 11th April 2025.

Agenda 4.3.5. Reconnaissance Survey (G-4 Stage) for REE & Rare Metals in Kumhardih-Khijuri-Pachamba Block, Giridih District, State: Jharkhand

[Implementing Agency: MECL]

- a) MECL informed that the project was approved in the 31st EC Meeting held on 12th September, 2023. The Sanction Order was issued on 05th October, 2023 with timeline of 08 months and approved cost was INR 64,92,482/-.
- b) MECL informed that Geological Report of the block was submitted for PEER review and all the comments have been received and all the comments have been incorporated in the Final Geological Report.
- c) MECL asked for timeline extension of 10 days for submission of Geological Report.

Recommendation TCC

The TCC approved the project for submission of Geological Report with timeline extension of 10th days up to 10th January 2025.

**Agenda 4.3.6. Preliminary Exploration (G-3 Stage) for Rock Phosphate in Nimbli Block, Jaisalmer District, Rajasthan
[Implementing Agency: MECL]**

- a) MECL informed that the project was approved in the 32nd EC Meeting held on 06th September, 2023. The Sanction Order was issued on 12th December, 2023 with timeline of 12 months and approved cost was INR 3,55,98,122/-.
- b) MECL informed that currently the Geological Report is under preparation and asked for timeline extension up to 28th February 2025 for GR submission.

Recommendation TCC

The TCC approved the timeline extension of 2 months up to 28th February 2025 for submission of Geological Report.

**Agenda 4.3.7. Preliminary Exploration (G-3 Stage) for Diamond in Angira B Block, Chhatarpur District, Madhya Pradesh
[Implementing Agency: MECL]**

- a) MECL informed that the project was approved in the 30th EC Meeting held on 06th June, 2023. The Sanction Order was issued on 26th June, 2023 with timeline of 15 months and approved cost was INR 4,94,11,918/-.
- b) MECL further informed that Forest Clearance is pending at DFO/CF/Nodal Officer of the concerned department.

Recommendation TCC

The TCC recommended the project for approval of EC for timeline extension of 8 months up to 25th May 2025 for submission of Geological Report.

**Agenda 4.3.8. Reconnaissance Survey (G-4 Stage) for Iron, Manganese and Associated Minerals in Tikariya Block, Districts- Jabalpur, Katni and Umaria, Madhya Pradesh.
[Implementing Agency: MECL]**

- a) MECL informed that the project was approved in the 31st EC Meeting held on 12th September, 2023. The Sanction Order was issued on 05th October, 2023 with timeline of 10 months and approved cost was INR 2,21,83,799/-.




- b) MECL asked for approval of drilling for 250m and approval for analysis of 150 nos. of samples for TiO₂, Vanadium and Gallium.
- c) The Committee agreed for 200 m drilling and 10 nos. of XRD analysis and advised to incorporate detailed minerology, grain size analysis, ore microscopy for evaluating mineral extraction potentiality/viability. The committee advised to analyse Titanium, Vanadium and Gallium through XRF.

Recommendation TCC

The committee recommends revised estimated cost of ₹224.05 Lakh (including GST) for the project “Reconnaissance survey (G4) for Iron, Manganese and associated minerals in Tikariya Block, Districts: Katni, State: Madhya Pradesh.” with extended timeline 3 months up to 31st March 2025 for submission of the report as per Annexures 6. The TCC recommends the drilling for 200m.

**Agenda 4.3.9. Preliminary Exploration (G-3 Stage) for Limestone in Bhatura Block (1.5 sq.km.), Satna district, Madhya Pradesh
[Implementing Agency: MPSMC]**

- a) MPSMC informed that the project was approved in the 32nd EC Meeting held on 06th September, 2023. The Sanction Order was issued on 12th December, 2023 with timeline of 08 months and approved cost was INR 62,70,842/-.
- b) MPSMC presented the progress of the project work and asked for timeline extension for 7 months up to 11th March 2025.

Recommendation TCC

The TCC recommended the proposal for the approval of EC for timeline extension for 7 months up to 11th March 2025 for submission of Geological Report.

**Agenda 4.3.10. Reconnaissance Survey (G-4 Stage) for Limestone in Banki-Salaiya Block (25 sq.km.), Chhhattarpur district, Madhya Pradesh.
[Implementing Agency: MPSMC]**

- a) MPSMC informed that the project was approved in the 32nd EC Meeting held on 06th September, 2023. The Sanction Order was issued on 12th December, 2023 with timeline of 09 months and approved cost was INR 48,07,691/-.
- b) MPSMC informed that Forest Clearance has been received for this block and mapping has been completed. MPSMC asked for timeline extension up to 11th March 2025 for submission of Geological Report.

Recommendation TCC

The TCC recommended the proposal for the approval of EC for timeline extension for 3 months up to 11th March 2025 for submission of Geological Report.

**Agenda 4.3.11. Reconnaissance Survey (G-4 Stage) for Iron Ore in Mahakoshal Grouparound Chakdiya, Kushaniya, Jobra and Tusgaon area, Sonbhadra district, Uttar Pradesh
[Implementing Agency: GeoExpOre Pvt. Ltd]**




- a) GeoExpOre Pvt. Ltd informed that the project was approved in the 33rd EC Meeting held on 09th February, 2024. The Sanction Order was issued on 28th February, 2024 with timeline of 09 months (up to 27.11.2024) and approved cost was INR 95,41,116/-.
- b) GeoExpOre Pvt. Ltd informed that 150 nos. of channel samples were collected as per the recommendation of the TCC-II.
- c) The committee advised that out of present BHQ bands, band with highest value should be targeted through drilling. Committee suggested 8 nos. of Boreholes (6 boreholes in A1 block and 2 boreholes in A2 block).

Recommendation TCC

The committee recommends the revised estimated cost of ₹195.44 Lakh (including GST) for the approval of EC for “Reconnaissance Survey (G4) for Iron ore (Block A1 & A2) in Mahakoshal Group around Chakdiya , Kushniaya, Jorba and Tusgaon Area, Sonbhadra District – Uttar Pradesh” as per Annexures 7. Drilling will be done for 700m in 8 Boreholes. The review will be after 4 months.

**Agenda 4.3.12. Preliminary Exploration (G-3 Stage) for REE and Associated Minerals in Borana Block, Bhilwara District, Rajasthan
[Implementing Agency: GeoExpOre Pvt. Ltd]**

- a) GeoExpOre Pvt. Ltd informed that the project was approved in the 35th EC Meeting held on 16th May, 2024. The Sanction Order was issued on 10th June, 2024 with timeline of 12 months (up to 09.06.2025) and approved cost was INR 1,46,98,108/-.
- b) GeoExpOre Pvt. Ltd further informed that REE minerals are confirmed in EPMA studies. Six (6) boreholes were proposed with 400m total drilling depth.
- c) The committee advised Look for other REE minerals apart from Allantite. In case of REE exploration as per guidelines of AMD, analyse for radioactive minerals too. Further, BH spacing in G/3 for REE to be 200 m. The committee agreed for additional 74 m drilling.

Recommendation TCC

The committee recommends revised estimated cost of ₹166.30 Lakh (including GST) for “Preliminary Exploration (G3) for REE and associated minerals in Borana block, Dist: Bhilwara, Rajasthan”, as per Annexures 8. Drilling will be done for 474m in 6 Boreholes. Review will be after 6 months.

Agenda 4.4 Review of Ongoing Procurement Projects & Timeline Extension

**Agenda 4.4.1. Financial Assistance from NMET funds to procure Machinery Laboratory Equipment/instruments etc. aimed at enhancing the exploration activities.
[Implementing Agency: DGM, Madhya Pradesh]**

- a) DGM, Madhya Pradesh informed that the project was approved by in the 29th EC of NMET held on 31st March 2023 with estimated cost of INR 1,61,35,000. The Sanction Order was issued on 13th April, 2023 with timeline of 12 months .
- b) DGM, Madhya Pradesh presented the status of procurements and asked for 13 -monts extension for the project. The committee was informed that DGM had already purchased 4 hand held GPS, 4 hand held XRF, 1 core splitter and 09 Geologist hammer. The DGM informed that the procurement was delayed due to administrative formalities , elections




in state assembly and Lok Sabha.

Recommendation TCC

The TCC recommended the proposal for approval of EC for timeline extension of 13 months up to 12th May 2025.

Agenda 4.4.2. Financial Assistance from NMET funds to procure Machinery Laboratory Equipment/instruments etc. aimed at enhancing the exploration activities.

[Implementing Agency: DMM, West Bengal]

- a) DMM, West Bengal informed that the project was approved in the 29th EC of NMET held on 31st March 2023 with estimated cost of INR 54.50 Lakhs. The Sanction Order was issued on 17th April, 2023 with timeline of 12 months. Thereafter, time extension upto 15.10.2024 was approved by NMET in the 36th EC of NMET held on 29th July 2024. The delay in the procurement was attributed due to lack of bidders during tendering.
- b) The committee was apprised that out of the 4 items approved to DMM, all except for Binocular Polarizing Microscope with camera has been purchased. DMM West Bengal requested for 3 months extension for retendering for microscope.
- c) The committee noted the progress and opined that 5 months extension may be recommended for completion of retendering and purchase of microscope.

Recommendation TCC

The TCC recommended the proposal for approval of EC for timeline extension of 5 months up to 15th March 2025.

Agenda 4.6 Project Evaluation for In-Principle Approval

Agenda 4.6.1 Reconnaissance Survey (G-4 Stage) for REE in Manka, Chhota Udepur District, Gujarat

[Implementing Agency: M/s GMMCO Technology Services]

- a) The proposed block of 70.793 km² area falls in Survey of India toposheet no. 46J/04 in parts of Chhota Udepur District, Gujarat.
- b) GMMCO Technology Services informed that based on the findings of GSI, it has been recommended to initiate a G3 stage detailed drilling program for REE resource estimation in the Ambadungar area, along with an investigation into fluorite mineralization in the eastern part of the Ambadungar-Handevdungar area. Additionally, a focused exploration has been recommended for REE and RM mineralization in the Saidiwasan region and its extension towards Chhota Udepur. Given the high potential for REE mineralization, particularly associated with Ba, Sr, and Nb in both the ADCC and SCC areas, it has been advised to undertake G3 stage exploration to further assess and delineate the resource.
- c) As per the comments of AMD the proposed block is overlapping with the notified area for AMD.
- d) As per comments of GSI there is an overlap of proposed block with GSIs block of FS 2024-25 and 2025-26.

Recommendation TCC



The TCC does not agree for In-Principle Approval of the proposed block. The committee suggested that the proposal may be resubmitted after excluding the overlap area with AMD

Agenda 4.6.2 Reconnaissance Survey (G-4 Stage) for Nickle Copper, REE and associated minerals in Madawariya, Ajmer Rajasthan

[Implementing Agency: M/s Vardhan Environet Llp]

- a) The proposed block of 103.4 km² area falls in Survey of India toposheet no. 45 J/14 and 45J/15 in parts of Ajmer district, Rajasthan.
- b) Vardhan Environet LLP informed that during FS 2028-21, GSI has carried out investigation for Basemetals and reported anomalous copper value up to 0.95% and gold value 0.1g/t in bed rock samples near Harmara, along with elevated groundwater concentrations of zinc and strontium. During FS 2021-22 Regional Mineral Targeting (RMT) project of GSI included geophysical surveys has identified self-potential (SP) anomalies and magnetic features.
- c) As per the comments of GSI the proposed area falls in Forest, Urban limits/settlements. Also, 4 sq. km. area is overlapping with AMD block.
- d) The committee advised the agency to consult the GSI RMT project report for demarcating the blocks/areas for proposal. Also, the NAGMP & NGPM data of GSI to be consulted.

Recommendation TCC

The TCC does not agree for In-Principle Approval of the proposed block.

Agenda 4.6.3 Reconnaissance Survey (G-4 Stage) of Graphite, Korapara East Block, Bankura District, West Bengal

[Implementing Agency: M/s MMPL]

- a) MMPL presented the DPR for the project. The proposed block of 30.68 km² area falls in Survey of India Toposheet no. 73J/09 in parts of Bankura district, West Bengal.
- b) MMPL informed that Graphite bodies of economic importance occur in the North Singhbhum Mobile Belt (NSMB), India, which consists of calc-granulite, mica schists and phyllites along with metabasics. The graphite bodies are found to be associated with the mica schists and phyllites. Lodes of graphite are lithologically as well as structurally controlled given they occur along the contact zones of phyllites and calc-silicate rocks, and along the foliation planes which exhibit at least two generations of folding. The richest lodes are found to occur within the litho packages of mica schists and phyllites.
- c) During reconnaissance, exposures of graphite bearing mica schists and calc granulites have been noticed around Korapara village of variable dimensions in which graphite occurs as disseminations and minor veinlets.

Recommendation TCC

The committee recommends the proposal for the approval of EC for “Reconnaissance Survey (G-4 Stage) of Graphite, Korapara East Block, Bankura District, West Bengal” with an estimated cost of ₹125.17 Lakh (including GST) within the time schedule of 10 months and submission of the report as per Annexures 9A & 9B. The item will be reviewed after 4 months.



Agenda 4.6.4 Reconnaissance Survey (G-4 Stage) for Base Metal - Gold prospect in Burogaon-Biltala-Mogan, Lalitpur District, Uttar Pradesh
[Implementing Agency: M/s Geovale Seviles Pvt Ltd.]

- a) The proposed block of 186 sq. km. area falls in Survey of India Toposheet no. 54L/9 in parts of Lalitpur district, Uttar Pradesh.
- b) As per the GSI comments there is an overlap of the proposed block with GSIs block for FS 2025-26.
- c) Geovale Seviles Pvt Ltd. Informed that in the proposed block there is high mineralization potential for porphyry copper/IOCG/vein-type gold deposits
- d) It was informed that the block is overlapping with the GSI project proposed in FY 2025-26.
- e) In view of the above, the committee advised for modification of the block boundary.

Recommendation TCC

The TCC agreed for In-Principle Approval of the proposed block subject to consent of DGM, Uttar Pradesh and revision of the block boundary.

Agenda 4.6.5 Reconnaissance survey (G-4 Stage) for Base Metal in Chupra-Khet, Kuta area, Pithoragarh District, Uttarakhand
[Implementing Agency: M/s Geovale Seviles Pvt Ltd.]

- a) The proposed block of 58 sq. km. area falls in Survey of India Toposheet no. 62C/01 and 62C/2 in parts of Pithoragarh District, Uttarakhand.
- b) Geovale Seviles Pvt Ltd. Informed that they have already analyzed a few samples from the nearby area and got about 10% Zn from this Kuta limestone. Highest value of W is 277 ppm and V is 275 ppm. High values of polymetals (i.e. Pb is 161ppm, V 283, W 129 ppm, Zn 319 ppm). Similar carbonaceous shale/phyllite within the carbonates of Pithoragarh Formation in Askot project area is found to be rich in vanadium, Cu and other basemetals (W: max. 284 ppm, Mo: max. 222 ppm, As: max. 596 ppm, Cu: 543 ppm, Pb: 119 ppm).
- c) The committee suggested that modified proposal excluding overlap areas of GSI & AMD may in resubmitted in next TCC-II meeting.

Recommendation TCC

The TCC deferred the proposal for next TCC-II meeting.

Agenda 4.6.6 Reconnaissance Survey (G-4 Stage) for REE & RM near Mandli-Nagana, Barmer District, Rajasthan
[Implementing Agency: M/s Mining Tech Consultancy Solution]

- a) The proposed block of 100 km² area falls in Survey of India Toposheet no. 45B/08 & 45B/12 in parts of Barmer District, Rajasthan.
- b) GSI has taken up Reconnaissance Survey (G4) for REE mineralization around Patodi-Thob area within 100 km² area in toposheet 45B/08 for FSP 2024-25.
- c) The committee advised for identification of anomalous zone with the help of GSI NGCM data. Since the area has potential proper geochemical prospecting is needed. Upper



catchment basins should be demarcated and Bed rock samples to be collected in 500m x 500m grid pattern.

Recommendation TCC

The TCC deferred the proposal for next TCC-II meeting.

Agenda 4.6.7 Reconnaissance Survey (G-4 Stage) for Base Metals near Sowaniya Village, Pali District, Rajasthan

[Implementing Agency: M/s Mining Tech Consultancy Solution]

- a) The proposed block of 35 km² area falls in Survey of India toposheet no. 45G/05 in parts of Pali District, Rajasthan.
- b) Mining Tech Consultancy Solution informed that National Geochemical Mapping (NGCM) had been carried out in toposheet 45G/5 covering part of Pali district during FS 2017-18. The area around Punagarh showed surface indications of mineralization in the form of ferruginization, feeble gossanization and silicification with a positive correlation between iron and copper along with Ni, Pb, Zn and Co. These factors indicated basemetal mineralization within this area.
- c) As per the comments of GSI there is major overlap of the proposed block with GSI G4 area of FS 2025-26.

Recommendation TCC

The TCC deferred the proposal for next TCC-II meeting.

Agenda 4.6.8 Reconnaissance Survey (G-4 Stage) for HREE, Ge, Ga, and Sc in Bhavnagar District, Gujarat

[Implementing Agency: M/s Mining Tech Consultancy Solution]

- a) The proposed block of 125 sq. km. area falls in Survey of India toposheet no. 46C/01 and 46C/02 in parts of Bhavnagar District, Gujarat.
- b) Mining Tech Consultancy Solution informed that NOC has been given by CGM, Gujarat for 62 sq. km. area.

Recommendation TCC

The TCC agreed for In-Principle Approval of the proposed block subject to revised boundary of the block as per NOC given by CGM, Gujarat.

Agenda 4.6.9 Reconnaissance Survey (G-4 Stage) for Tin (Sn), Tungsten (W), Tantalum (Ta), Niobium (Nb), Rare Earth Elements (REE) and Lithium within Idar Granite Block, Sabarkantha & Mahesana Districts, Gujarat

[Implementing Agency: M/s Mining Tech Consultancy Solution]

- a) The proposed block of 982 km² area falls in Survey of India toposheet nos. 46E/01, 46E/02, 45D/16, 45H/04, 46A/13 and 46A/14 in parts of Sabarkantha & Mahesana Districts, Gujarat.
- b) The committee is of the view that at first the potentiality of the area for mineralisation has to be established. Therefore, the NPEA may first submit a proposal for 200 km² area in next TCC-II meeting.
- c) As per the comments from AMD, there is an overlap of proposed block with AMD block.



Recommendation TCC

The TCC deferred the proposal for next TCC-II meeting.

Agenda 4.6.10 Reconnaissance Survey (G-4 Stage) for Limestone in Bhatiya Area (6.33 sq, kms) situated in the village Bhatiya, Gokalpur, District-Devbhumi Dwarka, State Gujarat

[Implementing Agency: M/s PRB Infraprojects Private Limited]

- a) The proposed block of 6.33 sq. km. area falls in Survey of India Toposheet no. 41F/4 and 41F/8 in parts of Devbhumi Dwarka, Gujarat.
- b) PRB Infraprojects Private Limited informed that NOC has been given by CGM, Gujarat.
- c) The committee suggested inclusion of 3 boreholes in 1.6 km spacing in the proposal.

Recommendation TCC

The TCC agreed for In-Principle Approval of the proposed block



Annexure 1

List of participants attended 4th meeting of Technical-cum-cost Committee (TCC-II) of NMET held on 26th and 27th December, 2024 through video conferencing mode

S.no	Name	Designation	Email ID	Contact No	Organization
1.	Shri. Pradeep Singh	Dy. Director General, GSI, Kolkata	ddg.it@gsi.gov.in	9810233957	Chairman, TCC -II
2.	Shri. Sanjay Singh	Director, GSI, Western Region	sanjay.singh3@gsi.gov.i n	9928860884	Member Secretary TCC-II
3.	Shri. B S Jodha	Dy. Director General (Retired), GSI	jodha1961@gmail.com	9414023478	Member TCC-II
4.	Shri. Sunil Kumar Vashisth	GM (Retired), Hindustan Zinc Limited	sunilhzi@gmail.com	982905923 6	Member TCC-II
5.	Shri. Dilip Kanungo	Chief Ore Dressing officer, IBM	codo@ibm.gov.in	8237047897 9405147897	Member TCC-II
6.	Shri. D.S.Jeere	Director, GSI, RSAS Bengaluru.	dattatreya.jeere@gsi.gov.in	-	Member TCC-II
7.	Shri M.K.Patel	Dy. Director General (Retired), GSI	patelmk27@gmail.com	904001123 1	Member TCC-II
8.	Dr. T.S.Sunil Kumar	Addl. Director (Retired), AMD	ts.sunilkumar@gmail.co m	9502560153	Member TCC-II
9.	Shri. Ravi Kumar Gupta	ED (Finance), HCL,	ravi_g@hindustancopper.com	943327432 8	Member TCC-II
10.	Shri. P.K. Maharana	GM (Finance), NALCO,	pmaharana@rediffmail.c om	850066950 0	Member TCC-II
11.	Shri. Anoop Kumar	CAO, GSI, CHQ Kolkata, GSI	anoop.kumar2@gsi.gov.in	-	Member TCC-II
12.	Shri. Balkrishan Vishwakarma	Senior Geologist	balkrishan.v@maheshwaree.c om	9651143638	Maheshwari Mining Pvt Ltd
13.	Shri. Promit Roy	Geologist	promit.roy@maheshwaree.in	6289104640	Maheshwari Mining Pvt Ltd
14.	Shri. Shravya Mehta	Geologist	shravya.mehta@maheshwaree.in	8349962239	Maheshwari Mining Pvt Ltd
15.	Mr.K.Nageswara Rao	Director-Geology,PR & Co-ordination	knrao.ag.mines@gmail.com	7893847742	Critical Mineral Trackers
16.	Dr.K.Mahender Reddy	Director - Geology & Mineral Exploration	mahikam.reddy0@gmail.com	9032012955	Critical Mineral Trackers
17.	Mr.S.Soma Rama Murthy	Director - Geology & Mineral Exploration	soma.ramamurthy@gmail.co m	9490685131	Critical Mineral Trackers




18.	Mr. Vikram K. Y	Director-Operations, HR, Admin, Finance & Technology	yelliahvikram@gmail.com	9849574333	Critical Mineral Trackers
19.	Mr. S. Uma Maheswara Rao	Director - Geology & Mineral Exploration	umraohyd@gmail.com	7993935619	Critical Mineral Trackers
20.	Dr. G. Nagendra Babu	CMT - Technical Area Expert	nagen57gadela@gmail.com	9441184740	Critical Mineral Trackers
21.	Shri. P. Gandhi	CMT - Technical Area Expert	gandhisarathy1958@gmail.com	9824806386	Critical Mineral Trackers
22.	Shri P. Ravindran	General Manager (Exploration)	Ravindran.mecl@gmail.com	9407607309	MECL, Nagpur
23.	Shri Shrikant Sharma	Sr. Manager (Geology)	Shrikant.mecl@gmail.com	9131229758	MECL, Nagpur
24.	Shri. Naveen Kumar Pala	Sr. Manager (Geology)	Naveenpala.mecl@gmail.com	7738368657	MECL, Nagpur
25.	Shri MD Dastageer	Manager (Geology)	dastageermd@gmail.com	9560739350	MECL, Nagpur
26.	Shri Vikash Kumar	Manager (Geology)	vikgeo@gmail.com	9110065089	MECL, Nagpur
27.	Shri Peeyush Kumar	Asst. Manager (Geology)	piyushkalwani99@gmail.com	8960379991	MECL, Nagpur
28.	Shri Sayandeep Chakraborty	Asst. Manager (Geology)	Sayanchak2011@gmail.com	9038956935	MECL, Nagpur
29.	Ms Moumita Ghosh	Sr. Geologist	moumitaghosh03091991@gmail.com	9001801591	MECL, Nagpur
30.	Md Kaif	Sr. Geologist	mdkaif@mecl.gov.in	7992359363	MECL, Nagpur
31.	Shri. C. Malsawmkima	Geologist	directordgmr@gmail.com	-	DGM, Mizoram
32.	Dr R. P Singh	Senior Manager (Geology)	-	-	CMPDI
33.	Shri Arijit Saha	Senior Manager (Geology)	-	-	CMPDI
34.	Dr. Vinay Sahay	Senior Manager (Geology)	vinay.sahay@geologist.com	9730514284	Gemco Kati Exploration Pvt. Ltd
35.	Mr. Tejeswar Barik	Geologist	tejeswarbarik73@gmail.com	6294601759	Gemco Kati Exploration Pvt. Ltd
36.	Representative				MPSMC

37.	Shri. Sohan Baghel	Deputy Director (Technical)	dirgeomn@nic.in	9179070994	DGM Madhya Pradesh
38.	Shri. Vivek Nema	Deputy Director (Technical)	dirgeomn@nic.in	8463898368	DGM Madhya Pradesh
39.	Shri. Animesh Das	Geologist	dasanimesh187@gmail.com	8016048446	DMM, West Bengal
40.	Shri. Brij Bhushan Sharma	Technical Area Expert - Geology	exploration@vardan.co.in	9460116555	Vardan Environet LLP
41.	Shri. Anshul Yadav	General Manager and Partner	anshul@vardan.co.in	9953147268	Vardan Environet LLP
42.	Shri. RS Yadav	Managing Partner	exploration@vardan.co.in	9899651342	Vardan Environet LLP
43.	Shri. Nitesh Mishra	Exploration Geologist	exploration@vardan.co.in	9664468038	Vardan Environet LLP
44.	Shri. Rohit Gupta	Geologist	exploration@vardan.co.in	9079113142	Vardan Environet LLP
45.	Shri. Kapil Chaudhary	Geologist	exploration@vardan.co.in	9672936858	Vardan Environet LLP
46.	Dr. Taraknath Pal	Associate Principal (Exploration)	tarakpal22@gmail.com	6300985508	Geovale Service Pvt. Ltd., Kolkata
47.	Dr. Suparna Goswami	Sr. Project Manager (Exploration)	suparna.goswami@geovale.com	9874320018	Geovale Service Pvt. Ltd., Kolkata
48.	Shri. Deepak Rathod	Principal Consultant	deepak.rathod@mtcspl.com	6358935667	NPEA- Mining Tech Consultancy Services Limited
49.	Shri. Santosh Kumar Sadangi	Senior Project Consultant	santoshkumar.sadangi@mtcspl.com	7486025037	NPEA- Mining Tech Consultancy Services Limited
50.	Shri. Suman Aich	Senior Project Consultant	suman.aich@mtcspl.com	7227038405	NPEA- Mining Tech Consultancy Services Limited
51.	Shri. Ritwik Ganguly	Staff Consultant	ritwik.ganguly@mtcspl.com	7908626708	NPEA- Mining Tech Consultancy Services Limited
52.	Mr. M.Chandra Das	Project Co-ordinator	chandrasm@yahoo.com		PRB INfraprojects Private Limited Nagpur
53.	Mr. Prem Babu	TAE (Geo)	-	-	-

54.	Shri Sumit Chauhan	Senior Geologist	sg-tech-cgm@gujarat.com	9167409718	Commissioner of Geology & Mining, Gujarat
55.	Dr. Yerriswamy Pateel	Director	ypateel@geoexpore.com	9980118930	GeoExpOre Pvt Ltd
56.	Mr.Channamallika rjun Patil	Director	cm@geoexpore.com	9980554498	GeoExpOre Pvt Ltd
57.	Dr. Fareeduddin	Chief Advisor	fareedromani@gamil.com	9886402487	GeoExpOre Pvt Ltd
58.	Dr. R Chandrasekaran	Project Coordinator	chandru@geoexpore.com	6361206452	GeoExpOre Pvt Ltd
59.	Mr. A Gopal	Asstt. Geologist	gopal@geoexpore.com	7411559399	GeoExpOre Pvt Ltd
60.	Mr. Shashank S Mahapatra	Asstt. Geologist	shashank@geoexpore.com	9438430412	GeoExpOre Pvt Ltd
61.	Mr. M Nani Babu	Dy. Manager (Geology and Exploration)	info@gts-india.com	8919213290	GMMCO Technology Services Ltd (GTS)
62.	Representative		dmg.mines-hry@gov.in	-	DGM Haryana
63.	Representative		biharmines@gmail.com	-	DGM Bihar
64.	Shri Sudeep Toppo	Superintending Geologist	sudeep.toppo@gsi.gov.in	-	CHQ, GSI
65.	Smt. Anju C.S	Superintending Geologist	-	8588836933	NMET
66.	Shri. Rajesh Sharma	Sr. Geologist	-	8377851047	NMET
67.	Shri. Akshay Verma	Geologist	-	9167919949	NMET

Estimate cost for Preliminary exploration (G3) for Iron ore and associated minerals in Amhawa Block, Sidhi District, Madhya Pradesh

Total area: 2.3 sq km, Period of Completion: 12 months BH: 18nos. , 1680m , Review: After 4 months

			Rates as per NMET		Estimated Cost of the		
			SoC 2020-21		Proposal		
S. No.	Item of Work *	Unit *	SoC-	Rates as per SoC * (a)	Qty. (b)	Total Amount (Rs)	Remarks
			Item No.			(a*b)	
A	Geological Mapping Other Geological Work & Surveying						
	Geological mapping, (1:4,000 scale) & Trenching , drilling work						
i	a. Charges for Geologist per day (Field) for geological mapping & trenching work, drilling work	day	1.2. b	11,000	180	1980000	1:4,000 scale mapping of 2.3 sq km
ii	b. Labours Charges; Base rate	day	5.7	526	360	189360	Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher.
	c. Charges for Geologist per day (HQ)	day	1.2. a	9,000	60	540000	
	Sub Total- A					2709360	
B	Survey work						
a	DGPS Survey for BH fixation & RL determination	Per Point of observation	1.6.2	19,200	24	460800	




		of observation					
b	Charges of one qualified surveyor with Total Station for carrying out topographical survey in different RF and surface contouring at different interval, fixation of borehole and determination of co- ordinates & Reduced Level (RL) of the boreholes with total station etc.		1.6.1a	8,300	30	249000	For Topographical survey
c	Labours Charges for survey work;	day	5.7	526	120	63120	4 labours per day
	Sub-Total B					7,72,920	
C	Trenching/Pitting						
	a) Trenchs	per cu.m	2.1.2	3,330	60	199800	6 trench
	Sub Total C					199800	
D	DRILLING (after review)- In -house						
1	Drilling up to 1200 m (very Hard rock)	m	2.2.1.5a	12,650	1680	21252000	6 first level boreholes with 800 m spacing (80-90m depth), remaining post review. Total 18 boreholes.
2	Land / Crop Compansation (in case the BH falls in agricultural Land)	per BH	5.6	20,000	18	360000	As per actuals
3	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7a	2,000	18	36000	
4	Transportation of Drill Rig & Truck associated per drill (2 rig)	Km	2.2.8	36	1,880	67680	Raniganj to Sidhi to and fro (470 Km)
5	Monthly Accomodation Charges for drilling Camp (up to 2 Rigs)	month	2.2.9	50,000	4	200000	
6	Drilling Camp Setting Cost	Nos	2.2.9a	250000	2	500000	

7	Drilling Camp Winding up Cost	Nos	2.2.9a	250000	2	500000	
8	Road Making (Flat Terrain)	Km	2.2.10a	22,020	5	110100	As per actuals
9	Drill Core Preservation	per m	5.3	1,590	630	1001700	120 m 1 BH, 17 BH * 30
10a	Charges for one Sampler per day (1 Party)	one sampler per day	1.5.2	5,100	116	591600	
10b	Labours (4 Nos)	day	5.7	526	464	244064	Amount will be reimbursed as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher.
	Sub Total D					24863144	
E	LABORATORY STUDIES						
1	Chemical Analysis						
i)	Geochemical Sampling-Surface samples (Bedrock/Channel /Soil/Stream sediment)						BRS 50, Channel 100
	a. Analysis of major oxides and trace samples by XRF	Nos	4.1.15a	4,200	150	630000	
	b. Analysis for Au by fire assay technique		4.1.5a	2,380	20	47600	
ii)	Surface Check samples (10% External)					0	
	a. Analysis of major oxides samples by XRF	Nos	4.1.15a	4,200	15	63000	
	b. Analysis for precious metals by fire assay technique		4.1.5a	2,380	2	4760	
iii)	Trench & Check Samples from Trench					0	
	a. Analysis of major oxides samples by XRF	Nos	4.1.15a	4,200	60	252000	

	Trench samples					0	
iv)	Trench Check samples (10% External)					0	
	a. Analysis of major oxides samples by XRF	Nos	4.1.15a	4,200	6	25200	
v)	BH Core samples					0	
	a. Analysis of major oxides samples by XRF	Nos	4.1.15a	4,200	540	2268000	30*12=360, 6*30=180, 1 bh 30 m zone approx. The total no.of sample is subjected to the iron ore bands intersected in the boreholes
	b. Complete analysis of dolomite/ limestone/ gypsum/ clay/ manganese ore/ bauxite/ iron ore samples		4.1.9	2,900	54	156600	3 samples per BH
	C. Analysis for precious metals by fire assay technique		4.1.5a	2,380	20	47600	
vi)	BH Core samples (10%External)					0	
	a. Analysis of major oxides samples by XRF	Nos	4.1.15a	4,200	54	226800	
	b. Complete analysis of dolomite/ limestone/ gypsum/ clay/ manganese ore/ bauxite/ iron ore samples		4.1.9	2,900	5	14500	3 samples per BH
	c. Analysis for precious metals by fire assay technique		4.1.5a	2,380	2	4760	
2	<u>Physical & Petrological Studies</u>					0	
i	Preparation of thin section	Nos	4.3.1	2,353	10	23530	
ii	Study of thin section	Nos	4.3.4	4,232	10	42320	
iii	Preparation of polish section	Nos	4.3.2	1549	5	7745	
iv	study of polished section	Nos	4.3.4	4,232	5	21160	

v	Digital Photographs	Nos	4.3.7	280	10	2800	
vii	Bulk density analysis	Nos	4.8.1	1,605	3	4815	
	Total E					3643185	
F	Total A to E					3,21,88,409	
G	Geological Report Preparation	5 Hard copies with a soft copy	5.2	ii		965652.27	Reimbursement will be made after submission of the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
H	Peer review Charges		As per EC decision	30,000	1	30,000	
I	Preparation of Exploration Proposal (5 Hard copies with a soft copy)	5 Hard copies with a soft copy	5.1	2% of the Cost or Rs. 5.0 Lakhs whichever is less		500000	EA will be reimbursed after submission of the Hard Copies and the soft copy of the final proposal along with Maps and Plan as suggested by the TCC-NMET in its meeting while clearing the proposal.
J	Total Estimated Cost without GST					3,36,84,061	
K	Provision for GST (18% of J)					60,63,131.03	GST will be reimburse as per actual and as per notified prescribed rate
L	Total Estimated Cost with GST					3,97,47,192	
				Rs. In Lakhs		397.471923	
Note:							
1	Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.						
2	In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.						




3	If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.
5	Any item of work not mentioned above shall be added as per SoC.
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.




Time Schedule/ Action Plan for Preliminary exploration (G3) for Iron ore and associated minerals in Amhawa Block, Sidhi District, Madhya Pradesh

	Months												
Item of work	1	2	3	4	REVIEW	5	6	7	8	9	10	11	12
Camp Setup													
Detailed Mapping (1:4000)													
Bed Rock Sampling													
Geochemical Survey													
Pitting and sampling													
Chemical analysis of surface samples													
Scout Drilling / systematic drilling													
Core sampling and its preparation													
Chemical analysis of Core Samples													
Processing of Analytical data													
Preparation of geological report													

Estimate Cost for Reconnaissance Survey (G4) for Bauxite, Ga, V, Ti & REE in Lakhond area, Kachchh District, Gujarat

Name of the Exploration Agency – Critical Mineral Trackers, Hyderabad

Total Area - 4.95sq.km ; No of Boreholes- 4 ; Completion Time - 10 months , Review: 4months

S.No	Item of Work	Unit	Rates as per NMET SoC		Estimated Cost of the Proposal		Remarks
			SoC-Item-SI No.	Rates as per SOC	Qt m	Total Amount(Rs)	
A	Geological Work						
1	Geological Mapping(1:12,500) & sampling – Geologist field-days	4.95	1.2	11000	150	16,50,000	man days
2	Geologists(HQ)days, pre & post field interpretation 15 +20 days	One Geologist Per Day	1.2	9000	35	3,15,000	man days(including Remotes sensing studies
3	Pitting-20nos each one size 1*1*1m(1 Cu.m each)	Per Cu.m	2.1.2	3800	20	76,000	20 cu.m
4	Trenching-5 nos, each one size 10*1*1(5 cu.m each)	Per Cu.m	2.1.1	3300	50	1,65,000	50 cu.m
5	sampler	60 days	1.5.2	5100	23	1,17,300	60 man days
6	Labour(4 labour) attached to sampler	120 labour days	5.7	526	92	48,392	labour days
7	Labour (for Geologist)		5.7	526	300	1,57,800	labour days
	Sub-Total -A					25,29,492	




B	Survey Work:						
1	Surveyor: Fixation & connection of boundary points(4 nos),4 Bh by Total station/DGPS	One surveyor	1.6.2	19,200	8	1,53,600	Total 8 points
	Sub-total-B					1,53,600	
C	Core Drilling - Outsourced						
1	Scout drilling(coring) :4points(each 30m deep) 4*30	Per meter	2.2.1.1b	7,168	120	8,60,160	120 m,soft rock-MoC rate
2	Construction of BH pillar(12"*12"*30")	Per pillar	2.2.7a	2000	0	0	4 pillars
3	**Mob & demob drilling machine & iner BH shifting	Per shifting	lumpsum			0	lumpsum
4	Compensation for 4 Bhs		5.6	20,000	0	0	4 BHs
5	Drill core preservation in GI boxes	Per meter	5.3	1590	120	1,90,800	120m core
	Sub total-C					10,50,960	
D	Laboratory Studies						
1	Trench Samples (5*5=25nos):by AAS method	First five radicals+5 radicals (Ga, V, Ti, Sc, REE)	4.1.7a &7b	0	90	0	90 samples
2	Pitting Sample: (20*1=20nos)-AAS method	First five radicals+5 radicals	4.1.7a &7b	0	60	0	60 samples




3	Core drilling Samples-3*60=180	First five radicals+5 radicals	4.1.7a & 7b	0	24	0	24 samples
	Total depth 30m each, samples will be collected at every 5m interval.						
	AAS method						
	XRF - Major Oxide		4.1.15a	4200	143	6,00,600	Trench : 50 horiz, 20 Vertical , Pits: 20, Bhs: 40= 130 (+13 check samples)
4	Analysis for REE(14 elements/radicals) by ICP-MS		4.1.13	5380	36	1,93,680	Pit -20, Trench - 5 , Bhs: 8 (33 + 3 check samples)
5	Combined determination of THA,MHA and Reactive silica		4.1.17A	6700	4	26,800	4 samples
6	Preparation of Polished thin section	Per sample	4.3.2	1549	10	15,490	4 sections
7	Complete petrographic/oremicroscopic/mineragraphic studies		4.3.4	4232	10	42,320	4 sections
8	XRD analysis for identification of minerals(random)	Per sample	4.5.1	4000	4	16,000	4 samples
	Sub-total-D					8,94,890	
E	Surface Geophysical Survey		Not recommended				
1	Electrical resistivity	Per Station					
2	gravity surveys	Per station					
3	Geo Physicist Man days						
	(Field Man-days)						




4	Geo Physicist Man days (HQ)						
	Sub-total-E						
	TOTAL (A+B+C+D)					46,28,942	
F	Preparation of Exploration Proposal						
	(5 Hard copies with a soft copy)		5.1	2% of the project cost subject to a maximum of 5 lakhs	1	92,579	2% of the Project cost.
G	Geological Report						
	(5 Hard copies with a soft copy)		5.2	5% of the Project cost		2,31,447	5% of the Project Cost.
	Tender Process Cost		2.3	2% of approved cost or 5 lakhs, whichever lower		17,203	
	Operational Charges		6	In case of total outsourced cost up to ₹50 lakh: Cost for outsourced component(s) of project work will be reimbursed as per actuals. In addition, 10 percent of the total outsourced cost will be paid to Exploration Agency towards operational charges.		86,016	
	Peer Review		30000			30,000	
	Additional Copy			1000	0	0	
	Project Cost without GST					50,86,187	
	18% GST					9,15,514	
	Total Project Cost					60,01,701	
Note:							
1	Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.						




2	In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.
3	If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.
5	Any item of work not mentioned above shall be added as per SoC.
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.




Time Schedule/ Action Plan for Reconnaissance Survey (G4) for Bauxite, Ga, V, Ti & REE in Lakhond area, Kachchh District, Gujarat

Sno	Activity	Unit	Months										
			1	2	3	4		5	6	7	8	9	10
1	Geologist Party Days HQ	Days					Review						
2	Geologist Party Days Field	Days											
3	Sampling (Pitting & Trenching)	Days											
4	Laboratory Studies	Days											
5	Core Drilling	Days											
6	Survey Party Days	Days											
8	Post Field Interpretation	Days											
9	Report Compilation & Submission	Days											

Estimate Cost for Reconnaissance Survey (G4) for Bauxite, Ga, V, Ti & REE in Nadapa area Kachchh District, Gujarat

Name of the Exploration Agency – Critical Mineral Trackers, Hyderabad

Total Area -6.203sq.km ; No of Boreholes- 4 , 120m ; Completion Time -10 months , Review 4 months

S.No	Item of Work	Unit	Rates as per NMET SoC		Estimated Cost of the Proposal		Remarks
			SoC-Item-SI No.	Rates as per SOC	Qtm	Total Amount(Rs)	
A	Geological Work						
1	Geological Mapping(1:12500) & sampling – Geologist field-days	6.12	1.2	11000	160	17,60,000	man days
2	Geologists(HQ)days, pre & post field interpretation 15 +20 days	One Geologist Per Day	1.2	9000	35	3,15,000	man days(including Remote sensing studiesman days(including Remote sensing studies
3	Pitting-20nos each one size 1*1*1m(1 Cu.m each)	Per Cu.m	2.1.2	3800	20	76,000	20 cu.m
4	Trenching-5 nos, each one size 10*1*1(10 cu.m each)	Per Cu.m	2.1.1	3300	50	1,65,000	50 cu.m
5	sampler	45 days	1.5.2	5100	23	1,17,300	man days
6	Labour(2 labour) attached to sampler	90 labour days	5.7	526	92	48,392	labour days
7	Labour	Per Team of 2 Geologists	5.7	526	320	1,68,320	labour days
		(2*2=4)					
		Labour/Field workers					
	Sub-Total -A					26,50,012	
B	Survey Work:						
1	Surveyor: Fixation & connection of boundary points(4 nos),4 Bh by Total station/DGPS	One surveyor	1.6.2	19,200	8	1,53,600	
	Sub-total-B					1,53,600	
C	Core Drilling - Outsourced						




1	Scout drilling(coring) :4 points(each 30m deep) 4*30	Per meter	2.2.1.1b	7,168	120	8,60,160	120m,soft rock- MoC rate
2	Construction of BH pillar(12''*12''*30'')	Per pillar	2.2.7a	2000	0	0	4 pillars
3	**Mob & demob drilling machine & iner BH shifting	Per shifting	lumpsum			0	lumpsum
4	Compensation for 4 Bhs		5.6	20,000	0	0	4 BHs
5	Drill core preservation in GI boxes	Per meter	5.3	1590	120	1,90,800	120m core
	Subtotal-C					10,50,960	
D	Laboratory Studies						
1	Trench and channel Samples (5*5=25 nos):by AAS method	First five radicals+5	4.1.7a &7b	4181	0	0	90 samples
2	Pitting Sample: (20*1=20 nos)-AAS method	First five radicals+5	4.1.7a &7b	4181	0	0	60 samples
3	Core drilling Samples-4*60=240	First five radicals+5	4.1.7a &7b	4181	0	0	24 samples
	Total depth 30m each, samples will be collected at every 5m interval.						
	AAS method						
	XRF - Major Oxide		4.1.15a	4200	143	6,00,600	Trench-70, Pit-20, BH-40 (130+13 Check)
4	Analysis for REE(14 elements/radicals) by ICP-MS+Check Samples	14 elements/radicals	4.1.13	5380	36	1,93,680	33+3 check
5	Combined determination of THA,MHA and Reactive silica		4.1.17a	6700	4	26,800	4 samples
6	Preparation of Polished thin section	Per sample	4.3.2	1549	10	15,490	4 sections
7	Complete petrographic/oremicroscopic/mineral graphic studies	Per sample	4.3.4	4232	10	42,320	4 sections
8	XRD analysis for identification of minerals(random)	Per sample	4.5.1	4000	4	16,000	4 samples
	Subtotal-D					2,51,970	
E	Surface Geophysical Survey		Not recommended				
1	Electrical resistivity	Per Station					
2	gravity surveys	Per station					
3	Geophysicist Man days						

	(Field Man-days)						
4	Geophysicist Man days (HQ)						
	Subtotal-E						
	TOTAL (A+B+C+D)					41,06,542	
F	Preparation of Exploration Proposal			2% of the project cost subject to a maximum of 5 lakhs	1	82,131	2% of the Project cost.
	(5 Hard copies with a soft copy)		5.1				
G	Geological Report			5% of the Project cost		2,05,327	5% of the Project Cost.
	(5 Hard copies with a soft copy)		5.2				
	Operational Charges		6.0			86,016	
	Tender Process Cost		2.3			43,008	
	Peer review					30,000	
	Additional Copy			1000	0	0	
	Project Cost without GST					45,53,024	
	18% GST					8,19,544	
	Total Project Cost					53,72,568	
Note:							
1	Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.						
2	In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.						
3	If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.						
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.						
5	Any item of work not mentioned above shall be added as per SoC.						
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.						




Annexure 4B

Time Schedule/ Action plan for Reconnaissance Survey (G4) for Bauxite, Ga, V, Ti & REE in Nadapa area Kachchh District, Gujarat

S. no	Activity	Unit	Months										
			1	2	3	4		5	6	7	8	9	10
1	Geologist Party Days HQ	Days					Review						
2	Geologist Party Days Field	Days											
3	Sampling (Pitting & Trenching)	Days											
4	Laboratory Studies	Days											
5	Core Drilling	Days											
6	Survey Party Days	Days											
8	Post Field Interpretation	Days											
9	Report Compilation & Submission	Days											




Estimate Cost for Reconnaissance Survey (G4) for Bauxite, Ga, V, Ti & REE in Reldi Moti area Kachchh District, Gujarat

Name of the Exploration Agency – Critical Mineral Trackers, Hyderabad

Total Area -7.95 sq.km ; No of Boreholes- 4 , 120m ; Completion Time -10 months , Review 4 months

S.No	Item of Work	Unit	Rates as per NMET SoC		Estimated Cost of the Proposal		Remarks
			SoC-Item-SI No.	Rates as per SOC	Qtm	Total Amount(Rs)	
A	Geological Work						
1	Geological Mapping(1:12500) & sampling – Geologist field-days	7.95	1.2	11000	170	18,70,000	man days
2	Geologists(HQ)days, pre & post field interpretation 15 +20 days	One Geologist Per Day	1.2	9000	35	3,15,000	man days(including Remote sensing studiesman days(including Remote sensing studies
3	Pitting-20nos each one size 1*1*1m(1 Cu.m each)	Per Cu.m	2.1.2	3800	20	76,000	20 cu.m
4	Trenching-5 nos, each one size 10*1*1(10 cu.m each)	Per Cu.m	2.1.1	3300	50	1,65,000	50 cu.m
5	sampler	45 days	1.5.2	5100	23	1,17,300	man days
6	Labour(4 labour) attached to sampler	90 labour days	1.5.2	526	92	48,392	labour days
7	Labour		5.7	526	340	1,78,840	labour days
	Sub-Total -A					27,70,532	
B	Survey Work:						
1	Surveyor: Fixation & connection of boundary points(4 nos),4 Bh by Total station/DGPS	One surveyor	1.6.2	19,200	8	1,53,600	Total 8 points
	Sub-total-B					1,53,600	
C	Core Drilling - Outsourced						




1	Scout drilling(coring) :4 points(each 30m deep) 4*30	Per meter	2.2.1.1b	7,168	120	8,60,160	120m,soft rock- MoC rate
2	Construction of BH pillar(12''*12''*30'')	Per pillar	2.2.7a	2000	0	0	4 pillars
3	**Mob & demob drilling machine & iner BH shifting	Per shifting	lumpsum			0	lumpsum
4	Compensation for 4 Bhs		5.6	20,000	0	0	4 Bhs
5	Drill core preservation in GI boxes	Per meter	5.3	1590	120	1,90,800	120m core
	Subtotal-C					10,50,960	
D	Laboratory Studies						
1	Trench and channel Samples (5*5=25 nos):by AAS method	First five radicals+5	4.1.7a & 7b	4181	0	0	90 samples
2	Pitting Sample: (20*1=20 nos)-AAS method	First five radicals+5	4.1.7a & 7b	4181	0	0	60 samples
3	Core drilling Samples-4*60=240	First five radicals+5	4.1.7a & 7b	4181	0	0	24 samples
	Total depth 30m each, samples will be collected at every 5m interval.						
	AAS method						
	XRF - Major Oxide		4.1.15a	4200	143	6,00,600	Trench-70, Pit-20, BH-40 (130+13 Check)
4	Analysis for REE(14 elements/radicals) by ICP-MS+Check Samples	14 elements/radicals	4.1.13	5380	36	1,93,680	33+3 check
5	Combined determination of THA,MHA and Reactive silica		4.1.17a	6700	4	26,800	4 samples
6	Preparation of Polished thin section	Per sample	4.3.2	1549	10	15,490	4 sections
7	Complete petrographic/oremicroscopic/mineral graphic studies	Per sample	4.3.4	4232	10	42,320	4 sections
8	XRD analysis for identification of minerals(random)	Per sample	4.5.1	4000	4	16,000	4 samples
	Subtotal-D					2,51,970	
E	Surface Geophysical Survey		Not recommended				
1	Electrical resistivity	Per Station					

2	gravity surveys	Per station					
3	Geophysicist Man days (Field Man-days)						
4	Geophysicist Man days (HQ)						
	Subtotal-E						
	TOTAL (A+B+C+D)					42,27,062	
F	Preparation of Exploration Proposal			2% of the project cost subject to a maximum of 5 lakhs	1	84,541	2% of the Project cost.
	(5 Hard copies with a soft copy)		5.1				
G	Geological Report			5% of the Project cost		2,11,353	5% of the Project Cost.
	(5 Hard copies with a soft copy)		5.2				
	Operational Charges		6.0			86,016	
	Tender Process Cost		2.3			17,203	
	Peer review					30,000	
	Additional Copy			1000	0	0	
	Project Cost without GST					46,56,176	
	18% GST					8,38,112	
	Total Project Cost					54,94,287	
Note:							
1	Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.						
2	In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.						
3	If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.						
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.						
5	Any item of work not mentioned above shall be added as per SoC.						
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.						




Time Schedule/ Action plan for Reconnaissance Survey (G4) for Bauxite, Ga, V, Ti & REE in Reldi Moti area Kachchh District, Gujarat

Sno	Activity	Unit	Months											
			1	2	3	4	Review	5	6	7	8	9	10	
1	Geologist Party Days HQ	Days												
2	Geologist Party Days Field	Days												
3	Sampling (Pitting & Trenching)	Days												
4	Laboratory Studies	Days												
5	Core Drilling	Days												
6	Survey Party Days	Days												
8	Post Field Interpretation	Days												
9	Report Compilation & Submission	Days												

Estimate cost for Reconnaissance survey (G4) for Iron, Manganese and associated minerals in Tikariya Block, Districts: Katni, State: Madhya Pradesh

[Block area- 58.7 sq. km; Schedule timeline- Up to 31st march 2025]

S. No.	Item of Work	Unit	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal		Additional Cost		Remarks
			SoC-Item -Sl No.	Rates as per SoC					
					Qty.	Amount (Rs)	Qty.	Amount (Rs)	
A	GEOLOGICAL WORK (1:12,500 scale)								
i	Charges for one Geologist- Field	day	1.2	11,000	120	13,20,000			
ii	Charges for one Geologist per-HQ	day	1.2	9,000	30	2,70,000			
iii	2 labours/ party (Rs 477/day/labour) (As per rates of Central Labour Commissioner)	day	5.7	494	240	1,18,560			Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
iv	Core Sampling -1 Samplers Labour charge not included	day	1.5.2	5,100	115	5,86,500			
v	4 labours/ party (Rs 477/day/labour) (As per rates of Central Labour Commissioner)	day	5.7	494	460	2,27,240			Amount will be reimburse as per the notified rates by the Central Labour Commissioner or




									respective State Govt. whichever is higher
	Sub Total- A					25,22,300		-	
B	PITTING AND TRENCHING								
i	Trenching	Cu m	2.1.1	3330	100	3,33,000			
	Sub Total- B					3,33,000		-	
C	LABORATORY STUDIES								
1	Chemical Analysis								
i	Primary & Check samples for Iron-Manganese BRS/Chip/Channel/Trench/BH samples)								
	a. Primary Samples for Total Fe, Total Mn, Al ₂ O ₃ , P ₂ O ₅ , Cao, SiO ₂ and Acid insolubles	Nos	4.1.15a	4,200	800	33,60,000			Surface Samples-120, Trench Samples-80, BH Samples-600
	b. External (10%) Check samples for 4 Radicals Fe, Al ₂ O ₃ , P ₂ O ₅ & SiO ₂	Nos	4.1.15a	4,200	80	3,36,000			
ii	a. BH samples for Vanadium and Gallium	Nos	4.1.15b	842		-	150	1,26,300	The committee advised to analyse Titanium, Vanadium and Gallium through XRF- Additional approval in 4th TCC-II (TiO ₂ is analysed as part of the XRF package)
iii	Primary & Check samples for gold (BRS/Channel/Core)								

	a. Primary Samples for Au & Ag by Fire Assay	Nos	4.1.5a	2,380	30	71,400			Selective samples from BIF (Surface Samples-10, Trench Samples-10, BH Samples-10)
	b.External (15%) Check samples for 4 Radicals Fe, Al ₂ O ₃ , P ₂ O ₅ & SiO ₂	Nos	4.1.5a	2,380	3	7,140			
iv	Trace element study (34 Elements)	Nos	4.1.14	7,731	20	1,54,620			
2	Physical,Petrological, Mineralogical Studies								
i	Preparation of thin section	Nos	4.3.1	2,353	10	23,530			
ii	Complete petrographic study report	Nos	4.3.4	4,232	10	42,320			
iii	Preparation of polished section	Nos	4.3.2	1,549	10	15,490			
iv	Complete mineragraphic study report	Nos	4.3.4	4,232	10	42,320			
v	Digital Photographs	Nos	4.3.7	280	10	2,800			
vi	Whole Rock Analysis (Major oxide and additional trace elements)	Nos	4.1.15a & b	7,568	10	75,680			
vii	Bulk Density	Nos	4.10	3,540		-	5	17,700	Additional approval in 4th TCC-II
viii	XRD Studies	Nos	4.5.1	4,000		-	10	40,000	For BH samples (Additional approval in 4th TCC-II)
	Sub Total- C					41,31,300		1,84,000	
D	DRILLING								
i	Drilling upto 300m (Hard Rock) (1 rigs)	m	2.2.1.4a	11,500	750	86,25,000			

ii	Land / Crop Compansation	per BH	5.6	20,000	15	3,00,000			Amount will be reimburse as per actuals or max. Rs. 20000 per BH with certification from local authorities
iii	Construction of concrete Pillar (12"x12"x30")	per borehole	2.2.7a	2,000	15	30,000			
iv	Transportation of Drill Rig & Truck associated per drill	Km	2.2.8	36	600	21,600			Certification in this regard is required to be provided
v	Monthly Accomodation Charges for drilling Camp (up to 2 Rigs)	month	2.2.9	50,000	3	1,50,000			
vi	Drilling Camp Setting Cost	Nos	2.2.9a	2,50,000	1	2,50,000			
vii	Drilling Camp Winding up Cost	Nos	2.2.9b	2,50,000	1	2,50,000			
viii	Approach Road Making (Flat Terrain)	Km	2.2.10a	22,020	5	1,10,100			Road Making will be considered as per the requirement and Road Making Charges will be reimbursed for max. 4 km.
ix	Bore Hole Fixation and determination of co-ordinates & Reduced Level of the boreholes and by DGPS	Nos	1.6.2	19,200	16	3,07,200			*15 Boreholes and 1 base station
x	One complete borehole plus mineralised cores of all the remaining Bhs	m	5.3	1,590	400	6,36,000			This amount will be reimbursed after successful delivery of the cores to concerned libraries/authorities
	Sub Total- D					1,06,79,900		-	
E	Total A to D					1,76,66,500		1,84,000	

F	Geological Report Preparation		5.2	For the projects having cost exceeding Rs. 150 lakhs but less than 300 lakhs - A minimum of Rs. 7.5 lakhs or 3% of the value of work whichever is more		7,50,000			Reimbursement will be made after submission of the final Geological Report in Hard Copies (5 Nos) and the soft copy to NMET.
G	Peer review Charges		As per EC decision			30,000			
H	Preparation of Exploration Proposal	5 Hard copies with a soft copy	5.1	2% of the Cost or Rs. 5.0 Lakhs whichever is lower		3,53,330		3,680	EA has to submit the final proposal along with Maps and Plan as suggested by the TCC-NMET in its meeting while clearing the proposal.
I	Total Estimated Cost without GST					1,87,99,830		1,87,680	
J	Provision for GST (18% of I)					33,83,969.40		33,782.40	GST will be reimburse as per actual and as per notified prescribed rate
K	Total Estimated Cost with GST					2,21,83,799.40		2,21,462.40	
				or Say Rs. In Lakhs		221.84		2.21	
	Total Revised Estimated Cost (Rs.221.84 +Rs. 2.21)					224.05			Initial approval was for 221.84 lakh (Additional 2.21 Lakh, i.e., 1 % may be approved)




Note:	
1	Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.
2	In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.
3	If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.
5	Any item of work not mentioned above shall be added as per SoC.
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.




Revised Estimate Cost for Reconnaissance Survey (G4) for Iron ore (Block A1 & A2) in Mahakoshal Group around Chakdiya , Kushniaya, Jorba and Tusgaon Area, Sonbhadra District – Uttar Pradesh Area 18.56sq. km, No.of BH: 08, Borehole depth range 700m; Schedule timeline: 09months Review: After 4 Months]											
S. No.	Item of Work *	Unit *	Rates as per NMET SoC 2020-21		Approved Cost of the Proposal		Additional cost approved by TCC - II		Revised cost		Remarks
			SoC-Item No. *	Rates as per SoC * (a)	Qty. (b)	Total Amount (Rs) (a*b)	Qty. (b)	Total Amount (Rs) (a*b)	Qty. (b)	Total Amount (Rs) (a*b)	
A	GEOLOGICAL WORK					-					
i	Geologist party Days H Q	day	1.3	9,000	35	3,15,000		-	35	3,15,000	
ii	Geologist Party Days - Field	day	1.3	11,000	120	13,20,000		-	120	13,20,000	
iii	Labourers (2 Nos.)	day	5.7	504	240	1,20,960		-	240	1,20,960	
iv	Sampler Party Days (Bed Rock / Soil Stream) and Core Sampling (1 Party)	one sampler per day	1.5.2	5,100	56	2,85,600		-	56	2,85,600	
v	Labours for Sampling	day	5.7	504	224	1,12,896		-	224	1,12,896	
Sub Total of A						21,54,456		-		21,54,456	
B	Ground Geophysical Survey										
i	Magnetic Survey (25 30 Line Km) with 200 m spacing	No. of station	3.2 a	1,800	-	-	-	-	-	-	




ii	Expert charges for Geophysicist H Q	Per Day	3.18	9,000	-		-	-	-	-	
iii	Geophysicist - monitoring of Geophysical investigation (Field)	per day	3.19	11,000	-	-	-	-	-	-	
iv	Labourers (Rs.477 / day / labour) Geophysical survey (4 Nos.)	Days	5.7	477	-	-	-	-	-	-	
Sub Total- B						-		-		-	
C	Survey work										
i	Survey party Days (1 Party)	Days	1.6.1a	8,300	5	41,500		-	5	41,500	
ii	DGPS Survey - Demarcation of Boundary, fixation of Boreholes, determination of coordinates at reduced level (including) labourer		1.6.2	19,200	5	96000	4	76,800	9	1,72,800	
iii	Labourer (Rs.477 / days / labour) for Survey party (4 Nos.)	Days	5.7	477	10	4770		-	10	4,770	
Sub-Total C					20	1,42,270		76,800		2,19,070	
Sub-Total A + B + C						22,96,726	-	76,800	-	23,73,526	
D	Trenching/Pitting										




	Trenching (1 m x 2 m x 10 m) (5 Nos.)	Per Cu.m	2.1.1	3,330	-	0	0	0	0	0	
Sub-Total D						0		0		0	
E	DRILLING (out sourced)										
i	Surface Drilling (2 Rigs) (30 m Vertical Depth) 5 Scout BHs	mts	2.2.1.5 a	12,650	300	3795000	400	5060000	700	8855000	
ii	Drill core preservation charges - "one complete borehole plus mineralised cores of all the BHs of the block, all cost included	Per mts.	5.3	1,590	150	238500	200	318000	350	556500	
iii	Approach road making for Rugged / Hilly terrain	Per Km.	2.2.10b	32,200	-	0	-	0	-	0	
iv	Land compensation	Per Borehole	5.6	20,000	-	0	-	0	-	0	
v	construction of concrete pillor (12" X 12" X 30")	Per Borehole	2.2.7a	2,000	-	0	-	0	-	0	
Sub-Total E						4033500		5378000		9411500	
F	LABORATORY STUDIES										
	a) Chemical Analysis										
p	Primary samples (Bed rock / Soil / Stream / Core) for 5 Radical Fe, Al ₂ O ₃ ,	Per Sample	4.1.15a	4,200	375	15,75,000	175	7,35,000	550	2310000	




	P2O5&SiO2,LOI (XRF Techniques)										
ii	Check sample ((Bed rock / Soil / Stream) (10 %)	Per Sample	4.1.15a	4,200	38	1,59,600	18	75,600	56	2,35,200	
iii	For Ag, Ni, Co, Cr, Cu, Pb, Zn, V, Ti by AAS Method (Check samples)	Per Sample	4.1.14	7,731	10	77,310		-		-	
	Analysis for precious metals by fire assay techniques	per sample	4.1.5a	2,380			10	23,800	10	23,800	
	Primary + Check samples								-	-	
	a) Primary Samples (Drill core) for 5 Radical Fe, Al2O3, P2O5 & SiO2,LOI	Per Sample	4.1.15a	4,200	-	-	-	-	-	-	
	b) Check Samples for 5 Radical Fe, Al2O3, P2O5 & SiO2, LOI (20 %)	Per Sample	4.1.15a	4,200	-	-	-	-	-	-	
	c) Composite Samples for 5 Radical Fe, Al2O3, P2O5 & SiO2, LOI	Per Sample	4.1.15a	4,200	-	-	-	-	-	-	
	d) Whole Rock Analysis	Per Sample	4.1.15a	4,200	-	-	-	-	-	-	
	b) Petrography Studies										
	a) XRD studies	Per Sample	4.5.1	4,000	-	-	-	-	-	-	
	b) ICP-MS Studies (34 Trace elements)	Per Sample	4.1.14	7,731	-	-	-	-	-	-	




	c) Preparation of Thin Sections	Per Sample	4.3.1	2,353	10	23,530	-	-	10	23,530	
	d) Complete Petrographic / Ore microscopic study / Mineralgraphic studies	Per Sample	4.3.4	4,232	10	42,320	-	-	10	42,320	
	e) Preparation of Polished Sections	Per Sample	4.3.2	1,549	10	15,490	-	-	10	15,490	
	f) Complete Ore microscopic study / Mineralgraphic studies	Per Sample	4.3.4	4,232	10	42,320	-	-	10	42,320	
Sub-Total F						19,35,570		8,34,400		26,92,660	
G	Geotechnical Studies										
	Sp. Gravity Determination	per sample	4.8.1	1,605	-	-	-	-	-	-	
	Bulk desnity	per sample	4.10	3,540	10	35,400	10	35,400	20	70,800	
Sub-Total G						35,400		35,400		70,800	
Total A + B + C + D + E + F + G						83,01,196	-	63,24,600	-	1,45,48,486	
H	Preparation of Exploration Proposal (5 +1 soft copy)	Per Project	5.1		1	1,66,024				2,90,970	
I	Peer review Charges	As per EC Committee				30,000				30,000	

J	Geological Report Preparation 5 + 5 Hard Copies + 2 Soft Copies (@ 5%)	Per Project	5.2		1	4,15,060				7,27,424	
L	Tender Processing Cost				2.30	75,900				1,77,100	
M	Operational Charge				6.00	3,79,500				7,89,125	
Total A to M						93,67,680				1,65,63,105	
L	Total Estimated Cost without GST					93,67,680				1,65,63,105	
M	Provision for GST (18% of J)					16,86,182				29,81,359	
N	Total Estimated Cost with GST					1,10,53,862				1,95,44,464	
				or Say Rs. In Lakhs		110.54				195.44	<i>The revised cost is 76.80 % higher than the eariler cost</i>
Note:											
1	Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.										
2	In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.										
3	If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.										
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.										
5	Any item of work not mentioned above shall be added as per SoC.										
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.										




**Revised Estimate Cost for Preliminary Exploration (G3) for REE and associated minerals in Borana block, Dist: Bhilwara, Rajasthan
Area 1.14sq. km, No.of BH: 04, Borehole depth range 474m; Schedule timeline: 12 months Review: After 6 Months]**

S. No.	Item of Work *	Unit *	Rates as per NMET SoC 2020-21		Initial Approved Cost of the Proposal		Additional cost approved by TCC - II		Revised cost		Remarks
			SoC-Item No. *	Rates as per SoC * (a)	Qty. (b)	Total Amount (Rs) (a*b)	Qty. (b)	Total Amount (Rs) (a*b)	Qty. (b)	Total Amount (Rs) (a*b)	
A	GEOLOGICAL WORK					-					
i	Geologist party Days H Q	day	1.3	9,000	30	2,70,000		-	30	2,70,000	
ii	Geologist Party Days - Field	day	1.3	11,000	120	13,20,000		-	120	13,20,000	
iii	Labourers (2 Nos.)	day	5.7	504	240	1,20,960		-	240	1,20,960	
iv	Sampler Party Days (Bed Rock / Soil Stream) and Core Sampling (1 Party)	one sampler per day	1.5.2	5,100	55	2,80,500		-	55	2,80,500	
v	Labours for Sampling	day	5.7	504	220	1,10,880		-	220	1,10,880	
Sub Total of A						21,02,340		-		21,02,340	
B	Survey										
i	Survey Party Days (1 party)	Days	1.6.1a	8300	30	2,49,000	-	-	30	2,49,000	
ii	Labourers (Rs 504/day/labour) for Survey Party (4 Nos)	Days	5.7	504	120	60,480	-	-	120	60,480	




iii	DGPS Survey - Demarcation of Boundary, fixation of Boreholes, determination of coordinatates anre reduced level (including) labourer	Per Point	1.6.3	19,200	-	-	5	96,000	5	96,000	1 Base station + 4 DGPS points
					-	-	-	-	-	-	
Sub Total- B						3,09,480		-		4,05,480	
Sub-Total A + B											
C	Trenching/Pitting										
	Trenching (1 m x 2 m x 10 m) (5 Nos.)	Per Cu.m	2.1.1	3,330	100	333000	0	0	100	3,33,000	
Sub-Total C						333000		0		333000	
D	DRILLING					0					
i	Surface Drilling (2 Rigs) (30 m Vertical Depth) 5 Scout BHs	mts	2.2.1.4 a	11,500	400	4600000	74	851000	474	5451000	TCC approved for total depth of 474 m as per field conditions
ii	Drill core preservation charges - "one complete borehole plus mineralised cores of all the BHs of the block, all cost included	Per mts.	5.3	1,590	400	636000	74	117660	474	753660	TCC approved for total depth of 474 m as per field conditions




iii	Approach road making for Rugged / Hilly terrain	Per Km.	2.2.10b	32,200	3	96600	-	0	3	96600	
iv	Land compensation	Per Borehole	5.6	20,000	6	120000	-	0	6	120000	
v	construction of concrete pillor (12" X 12" X 30")	Per Borehole	2.2.7a	2,000	6	12000		0	6	12000	
vi	Accommodation	Per month	2.2.9	50,000	3	150000		0	3	150000	
vii	Drilling camp setting cost	Per Project	2.2.9b	2,50,000	1	250000	-	0	1	250000	
viii	Drilling camp winding cost	Per Project	2.2.9a	2,50,000	1	250000	-	0	1	250000	
ix	Transportation of drill rig and truck associated with it (To & pro)	km	2.2.8	36	3,400	122400	-	0	3,400	122400	
Sub-Total D						6237000				7205660	
E	LABORATORY STUDIES										
	a) Chemical Analysis										
i	Analysis of Geochemical - BRS, Trench / Pit samples - REE Analysis (14 elements)- ICPMS	Per Sample	4.1.13	5,380	200	10,76,000		-	200	1076000	
	Primary + Check samples (other than Drill Core)								-	-	




	a) Check samples - 10 % External	Per Sample	4.1.13	5,380	20	1,07,600	-	-	20	1,07,600	
	Drill Core samples										
	b) Analysis of Geochemical REE analysis (14 elements)	Per Sample	4.1.13	5,380	200	10,76,000	35	1,88,300	235	12,64,300	
	Primary + Check samples (Drill Core)								-	-	
	a) Check samples - 10 % External	Per Sample	4.1.13	5,380	20	1,07,600	7	37,660	27	1,45,260	
	b) Petrography Studies										
	a) XRD studies	Per Sample	4.5.1	4,000		-	20	80,000	20	80,000	it will be helpful for identification of associated minerals
	b) ICP-MS Studies (34 Trace elements)	Per Sample	4.1.14	7,731		-	20	1,54,620	20	1,54,620	it will be helpful for identification of associated minerals
	c) Preparation of Thin Sections	Per Sample	4.3.1	2,353	10	23,530	-	-	10	23,530	
	d) Complete Petrographic / Ore microscopic study / Mineralgraphic studies	Per Sample	4.3.4	4,232	10	42,320	-	-	10	42,320	
	e) Preparation of Polished Sections	Per Sample	4.3.2	1,549	10	15,490	-	-	10	15,490	
	f) Complete Ore microscopic study / Mineralgraphic studies	Per Sample	4.3.4	4,232			10	42,320	10	42,320	last time it was missed out

	g) EPMA studies	Per hour	4.4.1	8,540	10	85,400			10	85,400	
	h) Whole Rock Analysis	Per sample	4.1.15a	4,200	10	42,000			10	42,000	
Sub-Total E						25,75,940		5,02,900		30,78,840	
F	Geotechnical Studies										
	Sp. Gravity Determination	per sample	4.8.1	1,605	5	8,025	-	-	-	-	
	Bulk desnity	per sample	4.10	3,540	-	-			5	17,700	
Sub-Total G						8,025		-		17,700	
Total A + B + C + D + E + F + G						1,15,65,785		-		1,31,43,020	
G	Preparation of Exploration Proposal (5 +1 soft copy)	Per Project	5.1		1	2,31,316				2,62,860	
H	Peer review Charges	As per EC Committee				30,000				30,000	
	Total A-H	Per Project				1,18,27,101				1,34,35,880	
I	Geological Report Preparation 5 + 5 Hard Copies + 2 Soft Copies (@ 5%)	Per Project	5.2 ii		1	5,78,289				6,57,151	




Total A to J					1,24,05,390				1,40,93,031	
L	Total Estimated Cost without GST				1,24,05,390				1,40,93,031	
M	Provision for GST (18% of J)				22,32,970				25,36,746	
N	Total Estimated Cost with GST				1,46,38,360				1,66,29,777	
				or Say Rs. In Lakhs	146.38				166.30	<i>Revised cost is 13.61 % higher than the eariler cost</i>
Note:										
1	Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.									
2	In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.									
3	If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.									
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.									
5	Any item of work not mentioned above shall be added as per SoC.									
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.									




Estimate cost for Reconnaissance Survey (G-4 Stage) of Graphite, Korapara East Block, Bankura District, West Bengal

Total area: 30.68 sq km, Period of Completion: 10months, No. of Bh:5 Review: after 4 months

Sl. Nos.	Item of work	Unit	Rates as per NMET SoC 2020-21		Estimated Cost of the Proposal		Remarks
			SoC-Item-SI No	Quantity	Rates as per SoC	Total	
1	Geological Mapping (on 1:12,500) (30.68 sq km)						
	(a) Charges for Geologist in field (without labourer)	per day per Geologist	1.2. b	180	11,000	1980000	(Mapping- 4, Pitting & Trenching- 1 Drilling-3) Total= 8 months
	(b) Charges for Geologist at Headquarters	per day per Geologist	1.2. a	60	9,000	540000	
	(c) Wages for 2 labourers for geologist	per day	5.7	360	526	189360	
2	Land/Crop compensation	per borehole	5.6	5	20000	100000	As per actual
3	Geochemical sampling (Bedrock sampling)	150nos (BRS:50 & PT:100)					
4	Geophysical survey (SP survey 10 L.km)	10 L.km					
	(a) Charges for 1 Geophysicist in field (without labourer)	per day	3.18b	0	11000	0	
	(b) Charges for 1 Geophysicist at Headquarters	per day	3.18a	30	9000	270000	
	(c) Wages for 4 labourers in field with geophysicist	per day	5.7	0	526	0	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher




	(d) Charge for Gravity survey	per station	3.1a.i	0	3800	0	
	(e) Charge for Magnetic survey	per station	3.2a.i	0	1800	0	
	(f) Charge for SP survey	per L.km	3.3a	10	29600	296000	
5	Survey work						
	(a) Surveyor Charges (without labourer)	per day	1.6.1a	0	8300	0	
	(b) Labour(4nos) charges for survey work	per day	5.7	0	526	0	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
6	Technological Survey						
	(a) Pitting (Where BRS are not available)	per cu m	2.1.2	0	3800	0	
	(a) Trenching	per cu m	2.1.1	100	3330	333000	
	(b) Drilling	per m in medium hard rock	2.2.1.3a	350	10100	3535000	
	(c) Borehole pillaring (construction of concrete pillar) 12 inches x12 inches x 30 inches	per borehole	2.2.7a	5	2000	10000	
	(d) Transportation of Drill Rig and truck(to and from Headquarters or Previous drill site)	per km	2.2.8	250	36	9000	
	(e) Drilling camp setting cost	per drill	2.2.9a	1	250000	250000	
	(f) Drilling camp winding cost	per drill	2.2.9a	1	250000	250000	
	(g) Monthly accommodation charges for drilling camp	per month	2.2.9	2	50000	100000	
	(h) Approach road making to drill site (as per actual)	per km	2.2.10a	5	22020	110100	




7	Laboratory Studies						
	(a) Proximate analysis for graphite (BRS: 100; PT: 75; BH Core: 120)	per sample	4.1.16	295	3000	885000	BRS-100, CS-100, PIT-30, TRENCH-100
	(b) Proximate analysis for graphite 10% external check	per sample	4.1.16	30	3000	90000	
	(c) Analysis of one rock/ soil sample for determination of a package by 34 elements by ICP-AES / ICPMS (sequential technique)+10 % Check	per sample	4.1.14	22	7731	170082	
8	Petrographic studies						
	(a) Preparation of thin sections	per sample	4.3.1	10	2353	23530	
	(b) Study of thin sections	per sample	4.3.4	10	4232	42320	
	(c) Whole Rock Analysis by XRF	per sample	4.1.15a	10	4200	42000	
	(d) Sampler	per day	1.5.2	45	5100	229500	
	(e) Labour	per day	5.7	180	526	94680	Amount will be reimburse as per the notified rates by the Central Labour Commissioner or respective State Govt. whichever is higher
9	Bulk Density Determination (density of core samples)	per sample	4.10	5	3540	17700	
10	Drill core preservation (1 bh+ mineralised zone : as per actual)	per m	5.3	200	1590	318000	
	Total					988527 2	




11	Geological Report preparation (5 hard copies with a soft copy)	cost per 5 hard copies along with soft copy	5.2		As the exploration cost is exceeding 50 lakhs but less than 150 lakhs.	494264	494263.6
12	Peer Review	lumpsum	as per EC decision	1	30000	30000	
13	Preparation of exploration proposal (5 hard copies with a soft copy)	one number (5 hard copies) along with soft copies	5.1	1	2% of approved project cost or 5lakh, whichever is lower	197705	
	Grand Total of estimated cost:					₹ 1,06,07,241.04	10607241
	Grand Total including 18%GST					₹ 1,25,16,544.43	1909303.387
Total							12516544
Note:							
1	Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.						
2	In case of delay/non- performance, the appropriate action will be taken by competent authority against delinquent agency as per prevailing govt. of India rules/guidelines on procurement.						
3	If any part of the project is outsourced, the amount will be reimbursed as per the Paragraph 3 of NMET SoC and Item no. 6 of NMET SoC. In case of execution of the project by NEA on its own, a Certificate regarding non outsourcing of any component/project is required.						
4	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.						
5	Any item of work not mentioned above shall be added as per SoC.						
6	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency.						




Time Schedule/ Action plan for Reconnaissance Survey (G-4 Stage) of Graphite, Korapara East Block, Bankura District, West Bengal

	Months											
Item of work	1	2	3	4	Review	5	6	7	8	9	10	
Camp Setup												
Large Scale Mapping (1:12,500)												
Bed rock sampling												
Trenching & Sampling												
Chemical analysis of surface samples												
Drilling												
Core Sampling & its preparation												
Chemical analysis of core samples												
Processing of Analytical data												
Preparation of Geological report												


