

Ministry of Mines
National Mineral Exploration and Development Trust
Minutes of the 90th Technical-cum-Cost Committee-1 (TCC-1) Meeting held on
12th February, 2026 through video conferencing

The 90th Meeting of the Technical-cum-Cost Committee-I (TCC-1) of the National Mineral Exploration and Development Trust (NMEDT) was held via video conferencing under the chairmanship of Dr. S. Ravi, Deputy Director General (DDG), Geological Survey of India Training Institute (GSITI) and Chairman, TCC-1, NMEDT, on 12th February, 2026. Members of TCC-1, NMEDT and representatives from GSI, DGM Arunachal Pradesh, DGM Chhattisgarh, DGM WB, M/s. MMPL Private Limited, M/s. Critical Mineral Trackers and PRB Infraprojects Ltd. have attended the meeting through their respective VC modes.

The list of participants is enclosed in Annexure-3.

Shri S. Dhanendran, Director, GSI and Member Secretary, TCC-1, NMEDT, welcomed Dr. S. Ravi, Dy. Director General, GSI and Chairman, TCC-1, NMEDT, Members of the TCC-1 and participants representing various Notified Exploration Agencies (NEAs) and Notified Private Exploration Agencies (NPEAs).

Dr. S. Ravi, Chairman of TCC-1, NMEDT, extended a warm welcome to all members of TCC-1 and participants representing various NEAs and NPEAs and conducted the proceedings as per circulated agenda.

Agenda 90.1: Technical evaluation of new project proposals

Agenda 90.1.1. Preliminary exploration (G3) for Nickel, Chromium, and PGE in Anjaniya Block, Districts: Mahasamund-Sarangarh Bilaigarh, Chhattisgarh.
[Implementing Agency: MMPL]

- a. The proposed block lies in SOI TS No. 64K/14 and is mainly occupied by metabasalt, acid volcanics, Chhattisgarh cover sediments, and ultrabasic–basic intrusives of the Sonakhan Group; metabasalts include schistose, ultramafic schist, massive/amygdaloidal and pyroclastic varieties, while acid volcanics comprise quartz–feldspar porphyries, banded rhyolite and granitoids.
- b. Intrusive rocks include ultrabasic rocks, pyroxenite, gabbro, aplite, felsite, and granite; high-Mg ultrabasic rocks occur as ultramafic schists and ultrabasic intrusives.
- c. Chandranagar block have yielded Cr 15–595 ppm, Co 50–580 ppm, Ni 300–2,900 ppm, and Au mostly <50 ppb (locally up to 80 ppb), while Lohardadar block shows Cr 132–1,500 ppm, Co 83–1,132 ppm, Ni 469–2,100 ppm, and Au <50 ppb.
- d. Partly received analyses of BRS, trench and channel samples indicated Ni mineralisation in ultrabasic rocks with value ranging from 0.04–0.29% Ni.
- e. The agency proposed G3-stage exploration involving detailed geological mapping (1:2,000), ground geophysical surveys (gravity, magnetic, ERT), pitting/trenching, and scout borehole drilling.
- f. The Committee reviewed the proposal and observed that the existing database and samples collected by the agency do not show encouraging values of Au, PGE, Cr, or other elements.
- g. The Committee further noted that the agency did not present the outcomes of the GSI G3-stage exploration during the technical presentation.
- h. The Committee advised the agency to revisit adjoining areas with favourable geology for Au mineralisation, consult all available datasets and exploration by GSI/DGM/other

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agencies (including NGDR), identify gap areas, and submit a revised proposal for G4/G3-stage exploration.

Sl. No.	Agency	Brief Comments
1.	GSI	The proposed blocks do not overlap with any past or ongoing projects.
2.	MECL	The proposed blocks do not overlap with any past or ongoing projects.
3.	AMD	AMD has carried out G4 stage of exploration for Uranium in the proposed area. Samples (n=16) assayed 10 -31 ppm U3O8 from the area
4.	State DMG/DGM/CGM	DGM Chhattisgarh has carried out survey in the proposed area during FS 1993-94. As of now, no ongoing exploration work/ reconnaissance project is carried out by DGM Chhattisgarh in the aforesaid area. No mineral concession is granted within the proposed block
5	NMEDT	There is no overlap with any of the ongoing NMEDT project. However, there is an auctionable block at a distance of 1.58 km towards south of proposed block

Recommendations of TCC-1:

The committee deferred the proposal as the agency has not presented sufficient justification and database for taking up the proposal. The Committee advised the agency to revisit adjoining areas with favourable geology for Au mineralisation, consult all available datasets and exploration by GSI/DGM/other agencies (including NGDR), identify gap areas, and submit a revised proposal for G4/G3-stage exploration.

Agenda 90.2: Project Evaluation for In-Principle Approval

Agenda 90.2.1. Reconnaissance Survey (G4) for basemetal and associated mineralization in Dumartola-Bhagwantola area, Mohalla-Manpur-Ambagarh Chowki districts, Chhattisgarh.

[Implementing Agency: MMPL]

- The proposed block lies in SOI TS Nos. 64D/10, 64D/13 and 64D/14 and comprises pyritiferous gabbro and tuffite, and ferruginous shale of the Bailadila Group.
- GSI has carried out (P-II) Au prospecting in Dangarh-Chauki and targeted pyritiferous gabbro and tuffite. The reconnaissance survey (>480 sq km) showed 1–20 Au grains per 5 kg pan sample. Au values mostly <0.20 ppm; one soil sample showed anomaly of 0.70 ppm at Bhagwantola block. In the Goplinchua, gold prospect, the analytical results of bedrock samples yielded gold values ranging from <0.10 ppm to 0.10 ppm.
- Pan concentrates around Dewarsur and north of Kunwardalli yielded up to 8 Au grains per 5 kg sample from soils/stream sediments draining Bailadila ferruginous shale; active panning is observed during and post-monsoon.
- Reconnaissance by Mira Exploration Pvt. Ltd. (2002–06) over 418.25 sq km identified multiple Cu–Pb–Zn–PGE mineralised zones with anomalies in Au, Ag, Cu, Pb, Ni, and PGEs.
- Based on multi-element anomalies correlated with favourable lithologies and major structures, the agency proposed the block for G4-stage exploration to assess polymetallic base metals (Cu–Pb–Zn) and precious metals (Ag–Au) potential.
- The Committee reviewed the proposal and observed that the proposed block overlaps with the NMEDT-approved project of Hindustan Copper Ltd. in the Boddal–Hidder area, Rajnandgaon District, which is currently under execution.

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- g. The proposed area also overlaps with an AMD-explored block having proven uranium resources.
- h. The Committee advised the agency to revisit the proposal and exclude all overlapping areas. Any inclusion of overlapping portions, if required, should be duly justified with supporting data.

Sl. No.	Agency	Brief Comments
1.	GSI	100% overlapping found in the proposed Block with GSI previous works (G4) of FS 1996-97.
2.	MECL	NA
3.	AMD	AMD has undertaken G4-G2 stage uranium exploration in phases in and around the proposed block and established ~1,530 tonnes of U ₃ O ₈ resources in the Bodal area, Rajnandgaon District, Chhattisgarh.
4.	State DMG/DGM/CGM	No earlier work carried out by DGM, Chhattisgarh. Earlier the proposed block was explored by RP Holder Mira Explorations Pvt. Ltd by using Mobile Metal Ion Soil Geochemistry Study. Presently overlapping with the proposal of Joint Venture of Chhattisgarh Mineral Development Corporation and Hindustan Copper Ltd. In Boddal & Hiddar area of Rajnandgaon Dist. Proposal has been forwarded to NMEDT on 28-08-2024.
5.	NMEDT	The area is overlapping with ongoing NMEDT funded G4 project being carried out by HCL

Recommendations of TCC-1:

The Committee deferred the proposal, as the proposed block overlaps with the ongoing NMEDT approved project of Hindustan Copper Ltd. in the Boddal-Hiddar area, Rajnandgaon District, and also overlaps with AMD-explored areas having proven uranium resources.

Agenda 90.2.2. Reconnaissance survey (G4) of graphite and associated minerals in Likor area, Upper Siang District, Arunachal Pradesh.

[Implementing Agency: Earthenviro Lab Pvt. Ltd.]

- a. The proposed block lies in SOI TS Nos. 82P/01 and 82L/13 and comprises biotite gneiss with mafic enclaves, leucogranite, grey quartzite, graphitic schist with garnet porphyroblasts, biotite-quartz schist, locally intruded by garnetiferous amphibolite.
- b. Mapping on 50000 scale by GSI has delineated Tuting Crystallines (north) and Linkong Sub-Group of the Siang Group (south), separated by a regional MCT thrust.
- c. In the Sippu Chu section, graphitic schists are thinly foliated and tightly folded, with quartz lenses, sulphurous encrustations, and variable garnet development.
- d. Different works from GSI have established graphitic schist with quartz-mica schist, calc-silicate and metabasic rocks near Ninging (~6 km NW). Three graphite zones (I.B., T.N., T.R.) with amorphous to semi-flaky graphite were delineated. Probable reserves ~4.48 Mt; samples show high ash (85-94%) and low fixed carbon (2-5%) was established.
- e. GSI conducted G4 basemetal-precious metal investigation in the Pakke Kessang-Khadoso (Ningcho) area, East Kameng, Arunachal Pradesh and a small Cu zone (0.14% over 3 m; ~20 m strike) was delineated; samples show 0.12-0.36% Cu and

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0.15–0.31 ppm Au. At Ningcho, a sulphide zone (~60 m strike, ~20 m width) hosts Cu mineralisation (0.15% over 9 m and 0.75% over 6 m); Au up to 300 ppb. The delineated resource at Ningcho is low (~0.01 Mt @ ~0.15% Cu).

- f. Based on earlier work, the agency proposed the block for G4-stage assessment of graphite mineralisation; two BRS analysed showed anomalous fixed carbon values of ~2% and ~3%.
- g. **The Committee reviewed the proposal and observed that most of the proposed area is occupied by gneisses and limestone. The agency was advised to exclude these litho-units, focus on the graphitic schist zone, revise the block accordingly, and rename the block with reference to the nearest major town.**

Sl. No.	Agency	Brief Comments
1.	GSI	The proposed NMET block overlaps ~6% with a previously explored GSI G4 limestone block (FS 2023–24). Graphitic schist occurs as discontinuous bands within quartz–mica schist, with continuity obscured by soil cover; analyses of 36 samples show very high ash (85.13–94.31%), low carbonate carbon (0.21–0.39%), and low fixed carbon (2.17–4.78%), indicating poor graphite quality.
2.	MECL	NA
3.	AMD	NA
4.	State DMG/DGM/CGM	No Past Reconnaissance/Exploration work carried out by State DGM. No Composite License (CL) or Mining Lease (ML) granted within the proposed block.
5.	NMEDT	There are no completed or ongoing NMEDT-funded projects in and around the proposed block

Recommendations of TCC-1:

The Committee deferred the proposal and advised the agency to modify the block to cover the graphitic schist zone and resubmit the revised proposal for in-principle approval in the next TCC meeting.

Agenda 90.2.3. Preliminary exploration (G3) of graphite and associated minerals exploration in Pakro block, East Kameng District, Arunachal Pradesh. [Implementing Agency: Eartnenviro Lab Pvt. Ltd.]

- a. The proposed block lies within Survey of India Toposheet Nos. 83E/3, 83E/4 and 83E/8 and comprises Paleoproterozoic litho-units of the Bomdila Group, represented by the Khetabari Formation and Ziro Gneiss, intruded by younger Rilo Granite, basic dykes, pegmatites, and quartz veins.
- b. During FS 2000–02, STM in parts of SOI TS Nos. 83E/3, 83E/4 & 83E/8 yielded anomalous values from 145 BRS of the Khetabari Formation (Au up to 500 ppb; Cu up to 4,600 ppm; Pb up to 100 ppm; Zn up to 500 ppm; Ni up to 320 ppm; Co up to 2,000 ppm).
- c. G4 work at Pakke Kessang–Khadoso (Ningcho) delineated a sulphide zone (~60 m strike) with Cu mineralisation (0.15% Cu over 9 m) and Au up to 300 ppb.
- d. G4 exploration in Pakro–Rilo–Pakke Kessang and Longchung–Sagali–Balapu delineated a graphite-schist mineralised zone (~1.4 km strike; 20–25 m thick) with associated base-metal and REE potential near south of Pakro village.
- e. The proposed block is presented for G3-stage exploration for graphite and associated mineralisation, with the objective of resource assessment under UNFC (333) category.

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- f. The Committee reviewed the proposal and observed that about 80% of the proposed block overlaps with the Pakro G3 block (Vanadium & Graphite) explored by GSI during FS 2021–23, which has already been handed over for auction.

Sl. No.	Agency	Brief Comments
1.	GSI	The proposed NMET Pakro block lies within the Pakro–Ningcho G4 base-metal block of FS 2012–13. Further, the eastern part of the proposed NMET block shows approximately 80% overlap with the Pakro G3 block (Vanadium & Graphite) of FS 2021–23 and about 35% overlap with the Pakro–Rilo–Balapu G4 block of FS 2018–19. The Pakro G3 block (Vanadium & graphite) of GSI is already handed over for auction.
2.	MECL	NA
3.	AMD	NA
4.	State DMG/DGM/CGM	No Past Reconnaissance/Exploration work carried out by State DGM. No Composite License (CL) or Mining Lease (ML) granted within the proposed block.
5.	NMEDT	GSI has informed that the Pakro G3 block (Vanadium & graphite) of GSI is already handed over for auction.

Recommendations of TCC-1:

The Committee deferred the proposal, as about 80% of the proposed block overlaps with the Pakro G3 block (Vanadium & Graphite) explored by GSI during FS 2021–23, which has already been handed over for auction.

Agenda 90.2.4. Reconnaissance survey (G4) of rare metals (tin, tungsten) in Gelling area, Upper Siang District, Arunachal Pradesh.

[Implementing Agency: Eartnenviro Lab Pvt. Ltd.]

- The proposed block lies in Survey of India Toposheet No. 82K/16 and comprises litho-units of the Buxa/Miri Group, Rotung Volcanics, and the Tertiary Geku Formation with intermittent Geku Volcanics.
- During the 1979–80, Tiwari et.al., carried out systematic geological mapping of about 490 sq. km in the Yingkiong–Tuting area.
- Dolomite bands have been reported near Puding, Rikor, Paling, Jambo, and Bomdo. Disseminated pyrite and sulphide mineralisation occurs within metavolcanics around the Getta area, while base-metal mineralisation is associated with the Singing Formation near Arguing. Extensive exposures of amorphous graphite are noted in the Ninging–Pango sector.
- During 2023–24, Bhattacharya and Baile conducted G4-stage exploration in and around the Puding–Paling–Jambo–Likor areas of Upper Siang district, Arunachal Pradesh. Analytical results indicated average CaO values below the cement-grade cut-off ($\geq 44\%$), with elevated MgO and SiO₂ contents, suggesting that the material is non-cement grade.
- Five discontinuous dolomite bands were delineated in Puding–Paling–Likor–Bomdo areas, from which 58 BRS samples yielded CaO 20.48–28.12%, MgO 14.9–20.25%, and SiO₂ 5.45–53.25%. Only a few samples from Likor meet flux-grade dolomite criteria (IBM, 2019), while most are inferior, high-SiO₂ dolomites unsuitable for industrial use. No graphitic schist or carbonaceous phyllite was identified in the block area.

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- f. The agency has presented the proposed block for G4-stage exploration for Rare Metals and associated minerals, with objective of assessing the mineral potential of leucogranite/biotite granite of the Lohit Granitoid Complex (Late Cretaceous–Palaeocene), which is envisaged as the potential host rock for Rare Metals and associated REEs.
- g. The agency has collected bedrock samples from the proposed area, and the analytical results are awaited.
- h. The Committee reviewed the proposal and noted, as informed by the NMEDT Secretariat, that the proposed block lies approximately 1 km from the international boundary with China. It was further observed that, based on available data, no anomalous values of rare metals or other mineral commodities have been reported from the area. The analytical results of the samples collected by the agency are also awaited.
- i. On enquiry regarding security clearances for work in the area, representative from DMG (Sh. Anand Kr. Rawat), Arunachal Pradesh, present in meeting, informed that they would facilitate the agency in obtaining the necessary clearances, if the project is sanctioned.

Sl. No.	Agency	Brief Comments
1.	GSI	The proposed NMEDT block does not overlap with any previously explored blocks of GSI. At present, no exploration or reconnaissance projects for Rare Metals, associated minerals, or any other mineral commodities are being carried out by GSI in the proposed area.
2.	MECL	NA
3.	AMD	AMD has not carried out any exploration /reconnaissance project in the proposed block.
4.	State DMG/DGM/CGM	No Past Reconnaissance/Exploration work carried out by State DGM. No Composite License (CL) or Mining Lease (ML) granted within the proposed block.
5.	NMEDT	There are no completed or ongoing NMEDT-funded projects in and around the proposed block.

Recommendations of TCC-1:

The Committee deferred the proposal, as no encouraging values of Rare Metals or other mineral commodities have been reported from the proposed area. The agency was advised to present the analytical results of the samples submitted and to revise and resubmit the proposal in line with the Committee's suggestions.

Agenda 90.3: Technical Evaluation of New Procurement Proposal

Agenda 90.3.1. Financial assistance from NMEDT to procure additional Softwares for already purchased ArcGIS for the 2nd phase.

[Implementing Agency: DMM West Bengal]

- a. The agency apprised the committee that an earlier NMEDT-funded procurement was undertaken by the Directorate of Mines & Minerals (DMM), West Bengal, and the GIS-based work is being carried out using ArcMap (2D) for preparation and scrutiny of geological maps, District Survey Reports (DSR), and initiation of a State-wide Minor Mineral Data Repository.
- b. The agency also informed that the existing GIS setup based on legacy ArcMap (2D) has operational limitations, including absence of Spatial Analyst and 3D Analyst extensions and lack of cloud-based GIS capabilities, which restrict advanced terrain analysis, 3D

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geological modelling, volumetric assessment, real-time data sharing, and centralized data management.

- c. Accordingly, the Directorate has proposed procurement of ArcGIS Pro with Spatial Analyst & 3D Analyst extensions and ArcGIS Online to enable advanced 2D/3D analysis, cloud-based dashboards, and centralized data management.
- d. The Committee reviewed the proposal and recommended it in principle. The detailed procedure and other protocols are to be discussed with the NMET Secretariat.

Recommendations of TCC-1:

The committee recommended the proposal in principle and suggested the agency to submit proposal alongwith justification in NMEDT format.

Agenda 90.4: Review of Ongoing Procurement Proposal

Agenda 90.4.1. Financial assistance towards the establishment of Advanced Geophysical Laboratory at the GSITI, Hyderabad.

[Implementing Agency: GSI]

- a. The proposal for establishment of an Advanced Geophysical Laboratory at GSITI, Hyderabad was recommended in the 75th TCC-I meeting, and financial sanction was accorded on 13.08.2025.
- b. The original proposal envisaged procurement of 25 high-end computers, one workstation with UPS, 25 licences of Intrepid and Geomodeller software, an 86-inch digital display, and allied infrastructure, with a total approved cost of ₹3.53 crore.
- c. It was informed that due to escalation in the cost of computer systems, modification in the size of the digital display, and the requirement of additional items such as a PTZ camera, three conference systems, and LAN switches with cabinet routers for the Advanced Geophysical Laboratory, a revised proposal has been submitted involving an additional cost of ₹34,27,202/-.
- d. The revised estimated budget is Rs. 3,87,29,417/-.
- e. The Committee reviewed the proposal and recommended for approval.

Recommendations of TCC-1:

The committee recommended the revision of cost from Rs. 3,53,02,215/- to Rs. 3,87,29,417/- (including GST) with a change in amount of Rs. 34,27,202/- (~9.70% escalation) for the approval of PSC.

**** The decision has been kept on hold on request of Implementing Agency, i.e.,**

GSI.

Agenda 90.5: Review of Ongoing Exploration Project & Timeline Extension

Agenda 90.5.1. Reconnaissance survey (G4) for REE and associated minerals in Nellikudur area Mahabubabad and Warangal districts, Telangana

[Implementing Agency: Critical Mineral Trackers]

- a. The agency informed the committee that the project was approved in the 39th EC Meeting held on 24th January, 2025. The Sanction Order was issued on 10th February, 2025 with timeline of 10 months (up to 09.12.2025) and approved cost was INR 1,03,14,572/-.
- b. During its 82nd meeting, the committee had discussed the chemical data and observed that though, several blocks were identified as having potential; the analytical values obtained were not encouraging. The highest REE concentration reported is 1170 ppm. The committee advised the agency to compile and synthesize the available field and

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geochemical data and submit the final report accordingly. The drilling component was dropped from the project quantum target.

- c. The agency apprised the committee that the report has been peer reviewed.
- d. The Committee enquired about the compliance status of Peer Reviewers' comments, and the agency informed that no actionable comments have been received to be complied with.
- e. The Committee enquired about the peer reviewer, and the agency informed that the Geological Report was **reviewed by Shri Pramod Kumar, Retd. Additional Director, AMD.**
- f. The committee suggested the agency to submit the GR and upload it on NGDR portal.
- g. The cost of the project was revised as the drilling component was dropped.

Recommendations of TCC-1:

The project is recommended to PSC, NMEDT for revision of cost from Rs. 103.15 lakh to Rs. 57.48 lakh with a change in amount of (-) Rs 45.67 lakhs (~44.27% de-escalation) as per Annexure 1.

The committee also recommended timeline extension upto 28.02.2026 for submission of GR.

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Annexure 1

Revised cost sheet for Reconnaissance survey (G4) for REE and associated minerals in Nellikudur area Mahabubabad and Warangal districts, Telangana

Total Area -154 sq.km ; No of Boreholes- 4 nos, 200m ; Completion Time -10 months , Review after 6 months

S.No	Item of Work	Unit	Rates as per NMET SoC (2020-21)		Estimated Cost of the		Revised Cost Sheet as per NMET SoC (2020-21)		Remarks
			SoC-Item-SI No.	Rates as per SOC	Quantum	Total Amount(Rs.)	Achieved Quantum	Total Amount (Rs.)	
A	Geological Work								
1	Large Scale Geological Mapping(1:12500) & sampling — Geologist field-days	154 sq.km	1.	11000	150	16,50,000	120	13,20,000	man days
2	Geologists(HQ)days, pre & post field interpretation 15 +30 days	One Geologist Per Day	1.	9000	45	4,05,000	45	4,05,000	man days
3	Pitting-150 Nos each one size 1*1*1m(1 Cu.m each)	Per Cu.m	2.1.2	3800	150	5,70,000	150	5,70,000	Full quantum completed
4	Trenching	Per Cu.m	2.1.1	3300		0	0	0	cu.m
5	sampler	60 days	1.5.2	5100	45	2,29,500	35	1,78,500	TCC advise not to go for drilling hence the variation
6	Labour attached to sampler	labours	1.5.2	526	240	1,26,240	200	1,05,200	
7	Labour for Geologist	Labour/Field workers	5.7	526	300	1,57,800	240	1,26,240	
	Sub-Total -A					31,38,540		27,04,940	
B	Survey Work:								
1	DGPS Survey	Per Point	1.6.2	19,200	4	76,800	0	0	TCC advise not to go for drilling hence not taken up
	Sub-total-B					76,800	0	0	
C	Core Drilling (After Review of mapping and analytical results)- Outsourced						0	0	

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1	core drilling :4 points(each 50m deep)	Per meter	2.2.1.4	11,500	200	23,00,000	0	0	
2	Construction of BH pillar(12"*12"*30")	Per pillar	2.2.7a	2000	0	0	0	0	
3	**Mob & demob drilling machine & iner BH shifting	Per shifting	lumpsum		0	0	0	0	
4	Compensation for 4 Bhs		5.6	20,000	0	0	0	0	
5	Drill core preservation in GI boxes	Per meter	5.3	1590	100	1,59,000	0	0	
	Sub total-C					24,59,000	0	0	
D	Laboratory Studies								
1	Trench Samples (20*5=100 nos):ICP-MS	Per Sample (17 elements)	4.1.13	5380	0	0	0	0	
	BRS and Stream Sediment samples:ICP- MS(including 10% Check samples)	Per Sample (17 elements)	4.1.13	5380	138	7,42,440	138	7,42,440	100 BRS + 25 +3(+10% check)
2	Pitting Sample:-ICP-MS(including 10% Check samples)	Per Sample (17 elements)	4.1.13	5380	165	8,87,700	165	8,87,700	150+15
3	Core drilling Samples-ICP-MS+ 10 % check	Per sample (14 Elements)	4.1.13	5380	55	2,95,900	0	0	TCC advise not to go for drilling hence not taken up
4	Preparation of standard thin section	Per sample	4.3.1	2353	30	70590	30	118800	Preparation of thin sections & Petrographic studies-GSI
5	Complete petrographic/ ore microscopic/mineragraphic studies	Per sample	4.3.4	4232	30	126960			
6	EPMA / SEM (SEM Studies were carried out because of non-availability of EPMA dates)	Hours	4.4.1	8540	10	85,400	10	70,686	SEM Studies were carried out because of non-

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								availability of EPMA dates (Check as per old SoC)	
	Sub-total-D					22,08,990		18,19,626	
	TOTAL (A+B+C+D)					78,83,330		45,24,566	
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	1,57,667		90,491	2% of the Project cost.
G	Geological Report (5 Hard copies with a soft copy)		5.2	5% of the Project cost		3,94,167		2,26,228	5% of the Project Cost.
	Additional Copy			1000					
	Peer Review Charges			30000		30000		30000	
	Tender Processing cost					46000		0	
	Operational Charges					2,30,000		0	
	Project Cost without GST					8,77,41,163		48,71,285	
	18% GST					1573409		876831	
	Total Project Cost					10314572		5748116	
	Rs. In lakhs					103.15		57.48	
						Change in cost		4566456.00	
						Change in cost in Lakh		45.67	De-escalation of 44.27%
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.								

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Agenda 90.5.2. Reconnaissance survey (G4) for Nickel, Cobalt and PGE in Botad area, Botad District, Gujarat
[Implementing Agency: Critical Mineral Trackers]

- a. The Committee noted that the project has been regularly reviewed in TCC-II meetings and opined that further review may continue under TCC-II.

Recommendations of TCC-1:

The committee deferred the review of project to TCC-II of NMEDT.

Agenda 90.5.3. Reconnaissance Survey (G4 Stage) for Iron ore in Yaparlapadu - Dhone Area, Kurnool & Nandyal Districts, Andhra Pradesh
[Implementing Agency: Critical Mineral Trackers]

- a. The agency informed that the project was approved in the 42nd EC Meeting held on 2nd June, 2025. The Sanction Order was issued on 1st July, 2025 with timeline of 10 months (up to 30.04.2026) and approved cost was Rs. 1,52,82,042/-.
- b. The agency apprised the committee that geological mapping has been completed; 95 out of 100 BRS have been collected, with analytical results received for 71 samples and results for 24 samples awaited; 52 out of 120 pits have been completed in non-forest areas, while remaining pits and drilling are pending forest clearance.
- c. The committee was apprised that 33 pits in Kurnool RF and 8 pits in Nandyal RF are pending due to forest clearance; inspections by Forest Official have been completed and proposals have been submitted on the PARIVESH portal, with clearances awaited.
- d. The Committee reviewed the progress and noted that BRS samples yielded Fe₂O₃ values up to 97.06%, and sought clarification from the agency on whether these results represent whole-rock analyses or iron ore bodies.
- e. The Committee advised detailed mapping of the NW–SE fracture system and systematic channel/trench sampling to delineate mineralised zones and trace strike continuity of iron ore and limestone bands; **grab sampling should be avoided.**
- f. The agency was further directed to maintain close coordination with DGM, Andhra Pradesh and the Forest Department, regularly update NMEDT Secretariat on progress.
- g. The agency sought timeline extension for pitting, drilling and associated analyses and completion of work.
- h. The committee noted that present timeline stands upto 30.04.2026 and it may be considered later, depending upon forest clearance status.

Recommendations of TCC-1:

The committee advised detailed mapping of the NW–SE fracture system and systematic channel/trench sampling to delineate mineralised zones and trace strike continuity of iron ore and limestone bands.

The agency was further directed to maintain close coordination with DGM, Andhra Pradesh and the Forest Department, regularly update NMEDT Secretariat on progress of Forest Clearance.

Agenda 90.5.4. Reconnaissance Survey (G4) for Iron Ore in Nawagarh-Nelsod-Antagarh area, District Uttar Bastar Kanker, Chhattisgarh
[Implementing Agency: PRB Infraprojects Pvt. Ltd.]

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- a. M/s PRB Infraprojects Ltd. informed that the project was approved in the 40th EC Meeting held on 21st February, 2025. The Sanction Order was issued on 3rd March, 2025 with timeline of 10 months (up to 02.01.2026) and approved cost was Rs.1,16,66,705/-.
- b. The agency apprised the committee that DGPS survey, geological mapping (33 sq km out of 35 sq km), bedrock and channel sampling, chemical analysis, and borehole inspection by Forest Department have been completed, while drilling is pending due to forest clearance.
- c. The committee was also apprised of the geological setting of the area within the Bastar Craton comprising BSHQ/BHQ ridges with specularite–hematite mineralisation trends in Antagarh, Kanagaon, Karegaon–Nelsod and Nawagarh–Metabodeli sectors.
- d. Chemical analyses of BRS of hematite have yielded Fe values up to ~67% and there is a ridge-wise variation in iron grades across the block.
- e. The agency informed the committee that three boreholes were proposed for subsurface exploration; forest clearance has been accorded for BH-1 and BH-2, while BH-3 requires additional permission from the local Collector as it falls in revenue forest land.
- f. The committee reviewed the progress of work and agreed that drilling of BH-1 and BH-2 may commence immediately, and the agency shall pursue expeditious approval for BH-3 and keep TCC-I informed of the status.
- g. The agency sought timeline extension of 3 months for drilling and further 4 months for interpretation, mapping and report preparation).
- h. The committee recommended timeline extension up to 31.05.2026 for completion of the work and submission/upload of the final report on the NGDR Portal, and clarified that no further extension shall be granted.

Recommendations of TCC-1:

The committee recommended timeline extension up to 31.05.2026 for completion of the work and submission/upload of the final report on the NGDR Portal, and clarified that no further extension shall be granted.

Agenda 90.6: Technical Evaluation of Special Studies Proposal

**Agenda 90.6.1. Undertaking geochemical analysis of samples collected from Granite and Masonry Stone leases associated with the Siwana Ring Complex (SRC), Western Rajasthan, for assessment of REE potential
[Implementing Agency: Indian Bureau of Mines (IBM)]**

- a. IBM has presented a proposal under NMEDT to undertake geochemical analysis of granite and masonry stone leases in the Siwana Ring Complex, Rajasthan, to evaluate REE and associated critical mineral potential using mine samples.
- b. Siwana Ring Complex (SRC), part of the Malani Igneous Suite, hosts peralkaline granites enriched in REE and associated critical elements, comparable to global REE-bearing alkaline complexes, and is a promising indigenous target to bridge India's REE demand–supply gap.
- c. A meeting chaired by the Addl. Secretary (Mines) on 30 Jan 2026 deliberated on the REE potential of the Siwana Ring Complex with MoM, DGM Rajasthan, GSI, AMD and IBM. It was noted that 117 active leases (98 granites, 19 masonry stone) covering ~231 ha in SRC have REE mineralisation potential.
- d. In line with national priority on critical and strategic minerals, it was directed to systematic evaluate REE of 117 active SRC leases (98 granites and 19 masonry stones).
- e. Systematic sampling with QA/QC by IBM will be undertaken, and geochemical analysis will be outsourced to MECL and JNARDDC due to heavy in-house laboratory load.

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- f. The proposed coverage includes 117 mines with 386 samples (294 from granite leases, 57 from masonry stone leases, and 35 check samples).
- g. Analysis will cover major oxides (XRF), trace elements (Nb, Ta, Zr, Hf, Y, Sc, U, Th, Sn, Rb, etc.) and 14 REEs by ICP-MS (La–Lu) to identify REE enrichment trends and geochemical signatures.
- h. Representative sampling from mine faces, stockpiles and processing residues will be carried out following NMEDT SoC protocols, with uniform methodology, parameters and evaluation criteria across all blocks, aligned with the approach earlier adopted for SRC block allocation.
- i. The study will identify REE-enriched granite and masonry stone leases, generate a baseline geochemical database for SRC, support prioritisation of blocks for detailed REE exploration, and contribute to the national critical minerals roadmap.
- j. The committee deliberated the proposal and suggested the agency that all samples will be collected by IBM officers following established protocols to ensure representativeness and data quality.
- k. The Committee also suggested inclusion of tungsten analysis.

Recommendations of TCC-1:

The committee recommended the proposal titled Undertaking Geochemical Analysis of mine samples of Siwana Ring Complex, Rajasthan by IBM through NMEDT fund” for approval of PSC, NMEDT with an estimated cost of Rs. 70.01 lakh (including GST) within time schedule of 3 months for carrying out the proposed work and submission of report as per Annexure – 2A & 2B.

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Undertaking Geochemical Analysis of mine samples of Siwana Ring Complex, Rajasthan by IBM through NMEDT fund							
Time schedule: 3 months							
Sl. No.	Item of Work	Unit	Rates as per NMET SoC December, 2025		Total Cost of the Project		Remarks
			SoC- Item- S. No.	Rates as per SoC	Qty./days	Total Amount (Rs)	
1.0	Sample Processing						
1.1	Sampling man days for Sample processing work - Charges of one sampler per day (without Labour)	day	1.2.1b	7,850	48	3,76,800	386 (total samples)/8 (no. of samples processed each day) = 48.25 days*
1.2	4 labours/sampler for sampling work	day	5.8	541.00	192	1,03,872	Charges of Unskilled workers (NMET 5.8 & 02(01)/2017-MWA dated 21.02.2025)
Sub-Total 1						4,80,672	
2.0	Laboratory Studies						
2.1	Major Oxides (WD XRF) - (oxides + Traces-24 elements)	per sample	4.17a	4,200	386	16,21,200	
2.3	Analysis of one rock sample for quantitative analysis of 14 REE elements + 9 trace elements (U, Ta, Ge, Be, Hf, Sn, As, Rb, Th) by ICP-MS (sequential technique)	per sample	4.1.15	7,400	386	28,56,400	
2.4	For each additional trace elements by ICP-MS	per sample	4.1.17b	2,526	386	9,75,036	421 * 6 additional elements (Sc, Y, Zr, Nb, Ta, W)= 2526 per sample
Sub-Total 2						54,52,636	
Total Estimated Cost without GST						59,33,308	

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Provision for GST (18%)	CGST (@ 9%)	5,33,997.72	GST will be reimbursed as per actual and as per notified prescribed rate
	SGST (@9%)	5,33,997.72	
	IGST	—	
Total GST (CGST+SGST+IGST)		10,67,995.44	
Gross Value		59,33,308	
Tax Value		10,67,995.44	
Final Amount (Gross Value + Tax Value)		70,01,303.44	
Round off		70,01,303	
Rs. In Lacs		70.01	
Amount in words		Rupees Seventy Lakh Sixty-Seven Thousand Three Hundred Twenty-Eight Only	
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 6 of NMET SoC. In case of execution of the project by NEA/NPEA 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		

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Timeline for Undertaking Geochemical Analysis of mine samples of Siwana Ring Complex, Rajasthan by IBM through NMEDT fund				
S.No.	Activities	March	April	May
1	Collection of Samples from Mines			
2	Sub-Sampling and Geochemical Analysis of the samples collected			
3	Data Compilation & Final Report Preparations			

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List of participants who attended the 89^h Meeting of Technical-cum-cost Committee (TCC-I) of NMEDT held on 30th and 31st January, 2026 through video conferencing mode

S.no	Name	Designation	Email ID	Contact No	Organization
1	Dr. S. Ravi	Dy. Director General, GSITI, Hyderabad	s.ravi1@gsi.gov.in	9441138834	Chairman, TCC-1
2	Shri. I.R. Kirmani	ADG (Retd.), GSI	irkirmani@yahoo.com	9414014723	Member TCC-1
3	Shri. M. Mohan	Dy. Director General (Retd.), GSI	mariappan.mohan@gmail.com	9423686547	Member TCC-1
4	Shri. K. Koteswara Rao	Dy. Director General (Retd.), GSI	kkrao1957@gmail.com	9000117969	Member TCC-1
5	Dr. S. K. Kulshrestha	DDG-RMH-III, NER, GSI, Shillong	s.kulshrestha@gsi.gov.in	9413330658	Member TCC-1
6	Shri A. R. Mukundhan	Regional Director, AMD, South Central Region	mukuagaram@rediffmail.com	6303606347	Member TCC-1
7	Dr. E.V.S.S.K. Babu	Scientist (G), NGRI	evsskbabu@ngri.res.in	9441535852	Member TCC-1
8	Shri. P.K. Maharana	DGM (Finance), NALCO, Bhubaneswar	pmaharana@rediffmail.com	8500669500	Member TCC-1
9	Shri. Ravi Kumar Gupta	General Manager (Finance) HCL, Kolkata	ravi_g@hindustancopper.com	9433274328	Member TCC-1
10	Smt. Vandana	Cost Accounts Officer, RSAS, Bangalore, GSI	vandana@gsi.in	8660939235	Member TCC-1
11	Shri S Dhanendran	Director, GSITI & Member Secretary, TCC-I	s.dhanendran@gsi.gov.in	9944882204	Member Secretary TCC-1
12	Representatives from DMG, West Bengal				
13	Representatives from DGM, Chhattisgarh				
14	Representatives from DGM, Arunachal Pradesh				
15	Representatives from MMPL Pvt. Ltd.				
16	Representatives from Eartnenviro Pvt. Ltd.				
17	Representatives from Critical Mineral Trackers				
18	Representatives from PRB Infraprojects Ltd.				
19	Ms. Bishakha	Sr. Geologist	nmet-mines@gov.in	8126541605	NMEDT
20	Smt. Palak Kapoor	Sr. Geologist	nmet-mines@gov.in		NMEDT

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