

Ministry of Mines
National Mineral Exploration and Development Trust
Minutes of 11th Joint Meeting of Technical-cum-Cost Committees held on
21st and 22nd September 2026 through video conferencing mode

The 11th Joint meeting of Technical Cum-Cost Committees (TCC-I & TCC-II) of National Mineral Exploration and Development Trust (NMEDT) was held on 21st and 22nd September 2026 in VC mode. The meeting was chaired by Dr. S. Ravi, Dy. Director General, Geological Survey of India (GSI).

The list of participants is provided in Annexure-2.

Dr. S. Ravi, Chairman, TCC-I & TCC-II, extended a warm welcome to all members and apprised them of the agenda of the meeting.

11.1: Review of Ongoing RMT Project

Agenda 11.1.1. Regional Mineral Targeting in Parts of Lalitpur and Jhansi Districts of Uttar Pradesh and Shivpuri and Tikamgarh Districts of Madhya Pradesh

[Implementing Agency: Geovale Services Pvt. Ltd.]

- a. The agency informed that the 1st phase of the project was approved in 8th PSC meeting. The 1st phase of work was sanctioned on 19.05.2026 for four months. The scheduled date of completion of 1st phase of project was 18.09.2026. The 1st phase of work included data integration and interpretation of existing data.
- b. The agency presented a summary of the desktop studies and informed that the compiled database comprises GSI and DGM reports, 27 published papers, 81 exploration and other reports, 1:50000-scale geological and STM maps from NGDR, NGCM geochemical data covering 12 toposheets, aeromagnetic (RMI) data, ground gravity and magnetic survey data, and field data generated through the agency's NMEDT projects and regional traverses. The data have been georeferenced, digitised and integrated in GIS to develop a mineral-systems database.
- c. The Committee noted that the details regarding sanction, duration and timeline of the study are to be incorporated by the agency.
- d. The agency informed that 15 legacy exploration reports covering iron, diamond, copper, gold, molybdenum and pyrophyllite within the block were reviewed. Considering the extensive exploration carried out for multiple commodities, the agency proposed a mineral-system-based approach for further exploration.
- e. The legacy database includes Cu values up to 700 ppm in dacite porphyry, 0.30–0.39% Cu in malachite-stained quartz reefs, up to 5,632 ppm Cu in quartz veins and up to 3% Cu with 50 ppm Ag at Mailar. The database also includes REE values up to approximately 2,000 ppm in soils, W values up to 1,082 g/t, Mo up to 0.27%, and reported kimberlite indicator minerals including picro-ilmenite and kimberlite chromite, along with BMQ-hosted iron resources near Dhaurra.
- f. The agency informed that the 1:50,000-scale geological maps have been harmonised into a contiguous geological map incorporating larger-scale GSI maps and regional geochronological information. The integrated map also identifies


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- lamprophyre, dolerite, syenite, diorite, quartz reefs, aplite and pegmatite within the block.
- g. The agency further informed that aeromagnetic data indicate a substantial footprint of felsic volcanics that is not adequately represented in the existing geological maps. The agency interpreted this feature as a possible continental-arc-related felsic volcanic–granitic system.
 - h. Based on the integration of aeromagnetic (RMI) and Bouguer anomaly data, the agency identified three metallogenic domains and one geotectonic domain, comprising an Archean basement–supracrustal domain prospective for Au, PGE, Fe and Mn; a post-orogenic granitic terrain prospective for REE–RM; a continental-arc-related domain prospective for Au–Cu porphyry mineralisation; and a geotectonic domain prospective for kimberlite.
 - i. The agency informed that two possible trans-crustal shear zones have been interpreted, bounding several NNW–SSE-trending extensional magnetic lineaments. The coincidence of low K/Rb and high Rb/Sr ratios in NGCM data in the central part of the block was highlighted as indicative of highly fractionated granites with potential for REE–RM mineralisation.
 - j. The agency presented a district-scale exploration strategy comprising three target zones: Zone-1, focused on porphyry mineralisation through Sr/Y and La/Lu fertility studies, alteration mapping, Cu–Mo–Au soil geochemistry and ground magnetic surveys; Zone-2, focused on evolved granites through K/Rb, Rb/Sr, muscovite chemistry and heavy-mineral studies for Sn, W and diamond indicators; and Zone-3, focused on older TTG–mafic crust through targeted sampling for Au, Cr, Ni and PGE, ground magnetic surveys and heavy-mineral studies.
 - k. The agency informed that four priority areas for porphyry Cu–Au–Mo mineralisation (Cu₁ to Cu₄), priority areas for REE–Li–Sn–W mineralisation and three targets for diamond exploration have been identified for further investigation.
 - l. The Committee observed that the integration of geological, geochemical, aeromagnetic and gravity datasets has helped in identifying distinct metallogenic domains and structural features, which may provide a useful basis for prioritising prospective areas for further exploration.
 - m. The Committee noted that the identification of possible trans-crustal shear zones, NNW–SSE-trending magnetic lineaments and fractionated granite signatures based on K/Rb and Rb/Sr ratios provides useful exploration vectors, particularly for REE–RM and porphyry Cu–Au–Mo mineralisation.
 - n. The committee reviewed the progress and advised that the shallow and deep magnetic domains identified from the available geophysical data should be interpreted and correlated with the underlying geological and lithological domains to understand their possible mineralisation controls.
 - o. The Committee observed that the primary exploration data generated through the 14–15 G4/G3 exploration reports, including boreholes, bedrock samples, trenches and pits, have not been comprehensively collated during Phase-I desktop studies. The Committee advised that these data be integrated during Phase-II and the locations of boreholes, pits and trenches be plotted and indexed on the map as existing brownfield inputs.
 - p. The Committee noted that potential locales for different commodities, including Mo, REE and diamond, have been identified along the NW–SE-trending lineament. The

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Committee advised that during field investigations, the structural control and continuity of these mineralised locales along the same trend should be examined in relation to different geological/lithological domains and possible variations in fluid phases.

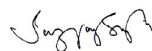
- q. The Committee advised that selective traverse mapping may be undertaken at 1:25,000 scale in the identified mineralised locales during Phase-II to validate the interpreted geological, structural and mineralisation relationships.
- r. The Committee further advised that the existing exploration database should be utilised in its entirety for preparation of mineral-derivative maps and integration with the geological, geochemical and geophysical datasets to refine and prioritise the prospective targets.

Recommendations of TCC:

The committee recommended the 2nd and 3rd phase of proposal titled “Regional Mineral Targeting in Parts of Lalitpur and Jhansi Districts of Uttar Pradesh and Shivpuri and Tikamgarh Districts of Madhya Pradesh” for approval of PSC, NMEDT with an estimated cost of ₹314.02 lakhs (including GST) within time schedule of 11 months for carrying out the proposed work (2nd & 3rd phase of work) as per Annexure 1A & 1B. The project will be reviewed after 3 & 7 months of initiation of 2nd phase of work.


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Annexure 1A						
Regional Mineral Targeting in Parts of Lalitpur and Jhansi Districts of Uttar Pradesh and Shivpuri and Tikamgarh Districts of Madhya Pradesh						
Name of the Exploration Agency - Geovale Services Pvt. Ltd.						
Total Area - 1000 sq. km; Core drilling: Total 2000m; 10 BH (Tentative); Completion Time -24 Months, Review: 6 months, 12 months & 18 months (For complete project)						
For 2nd & 3rd phase: Completion time is 11 months. Review to be done after completion of after 3 and 7 months of initiation of 2nd phase						
S.N	Item of work	Unit	Rates as per NMEDT SoC	Rates as per SOC	Quantum	Total Amount (Rs)
Phase II						
1	Geological Mapping & sampling	1000 sq km				
a	Geologists (HQ) days (1 No)	1 geologist/day	1.2.1a (a)	10,500.00	50	525,000.00
b	Geologist field-days	1 geologist/day	1.2.1a (b)	14,500.00	120	1,740,000.00
c	Labor (Field days)	per labor day	5.8	556.00	240	133,440.00
	Sub-Total 1					2,398,440.00
2	Pitting	per cu.m	2.1.2	4,725.00	300	1,417,500.00
	Sub-Total 2					1,417,500.00
3	Laboratory Studies					
	Geochemical Analysis for regional and detail survey					400 BRS; 200 SS;m 200 Soil samples and 150 pitting samples
a	XRF (major oxides)	per sample	4.1.17a	4,200.00	100	420,000.00
b	Check samples for XRF	per sample	4.1.17a	4,200.00	10	42,000.00


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c	Analysis of one rock/ soil sample for quantitative analysis of 14 REE elements + 9 trace element (U, Ta, Ge, Be, Hf, Sn, As, Rb, Th) by ICP-MS. + Addl. Elements (Cu, Pb, Zn, W)	per sample	4.1.15	9,084.00	950	8,629,800.00	(Rate of REE + Rs 421 extra for 4 addl. Elements each)
d	Check samples: Analysis of one rock/ soil sample for quantitative analysis of 14 REE elements + 9 trace element (U, Ta, Ge, Be, Hf, Sn, As, Rb, Th) by ICP-MS. + Addl. Elements (Cu, Pb, Zn, W)	per sample	4.1.15	9,084.00	95	862,980.00	
e	Analysis for gold by fire assay technique	per sample	4.1.5a	3,500.00	100	350,000.00	
f	Check samples: Analysis for gold by fire assay technique	per sample	4.1.5a	3,500.00	10	35,000.00	
g	EPMA	per hour	4.4.1	10,500.00	25	262,500.00	
h	XRD analysis for identification of minerals (Random)	per sample	4.5.2	4,000.00	100	400,000.00	
i	Heavy mineral separation by liquid	per sample	4.3.6a	2,890.00	200	578,000.00	
j	Sampler man-days	one sampler per day	1.2.1b	7,850.00	158	1,240,300.00	
j	Labor(4 workers per sampler)	per labor day	5.8	556.00	632	351,392.00	
	Sub-Total 3					13,171,972.00	
4	Petrological studies						
a	Thin section preparation	per sample	4.3.2	800.00	200	160,000.00	

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b	Complete petrographic /ore microscopic study/mineragraphic report of rock sample (along with 5 nos. digital photo microgrphs)	per sample	4.3.4	2,800.00	300	840,000.00	including 100 SS binocular study
d	Fluid Inclusion Studies	per sample	4.3.8	10,200.00	25	255,000.00	
e	Isotopic Studies	per sample	4.6.2	26,000.00	25	650,000.00	
	Sub-Total 4					1,905,000.00	
	Total Phase II						18,892,912.00
	Phase III						
5	Geophysical Survey						
a	Electromagnetic survey (per sounding)	sounding	3.7a	21,197.00	250	5,299,250.00	Subject to surface manifestation. Will be taken after review of 2nd phase
b	Drone Magnetic Survey	Per Line Km	7a	8,000.00	250	2,000,000.00	
c	Expert Charges for Geophysicist (HQ)	Geophysicist per day	3.18	10,500.00	40	420,000.00	
	Sub-Total 5					7,719,250.00	
	Total Phase III						7,719,250.00
	Total (Phase II+ Phase III)					26,612,162.00	
9	Preparation of Exploration Proposal (5 Hard copies with a soft copy)	Lumpsum	5.1	2% of the cost subject to a maximum of 5 lakhs	1	-	Final report submission, peer review and project conclusion would be done after all the four phases of work
10	Final report preparation		5.2 (iii)	Total cost of the project exceeding ₹150 lakh ₹7.5 lakh	1	-	
11	Report Peer Review	Lump sum	As per EC	30,000.00	1	-	

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Project Cost without GST				Project Cost without GST	26,612,162.00	GST will be reimbursed as per actual and as per the applicable notified rate
18% GST				18% GST	4,790,189.16	
				Total Project Cost	31,402,351.16	
Note:						
1	Strict adherence to the Ministry of Finance's and GFR guidelines is mandatory. Every transaction must adhere to GFR rule 21.					
	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.					
	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/NPEA on its own, a Certificate regarding non outsourcing of any component/project is required.					
	Necessary efforts should be made to minimize any adverse impact on the environment during exploration activities.					
	Any item of work not mentioned above shall be added as per SoC.					
	All the Geological Reports and data are to be uploaded on NGDR as per MERT template by the agency					


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Annexure 1B													
Regional Mineral Targeting in Parts of Lalitpur and Jhansi Districts of Uttar Pradesh and Shivpuri and Tikamgarh Districts of Madhya Pradesh Name of the Exploration Agency - Geovale Services Pvt. Ltd. Total Area - 1000 sq. km; Core drilling: Total 2000m; 10 BH (Tentative); Completion Time -24 Months, Review: 6 months, 12 months & 18 months (For complete project) For 2nd & 3rd phase: Completion time is 11 months. Review to be done after completion of after 3 and 7 months of initiation of 2nd phase													
S. No.			Phase II							Phase III			
			1	2	3	Review			4	5	6	7	8
1	Camp Setting	Months/Days				Review							11
2	Geological Mapping & Sampling, analysis	days				Review							
3	Geophysical survey	L.km				Review							
4	Geophysicist party days (HQ) for data interpretation & Report	Days				Review							
5	Trenching	cu.m				Review							
6	Drilling (4 rigs)	m				Review							
7	Camp Winding	months				Review							
8	Laboratory Studies	Nos.				Review							
9	Report Writing with Peer Review	months				Review							

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Agenda 11.1.2. (Addl. Agenda) Regional Mineral Targeting and integrated mineral system studies for identification of prospective blocks for Graphite, Niobium, REE and associated mineralisation in Yellikod-Azhikod areas, near Achankovil shear zone, Southern Granulite Terrain, Kerala and Tamil Nadu

[Implementing Agency: Geo Marine Solutions Pvt. Ltd.]

- a. The Committee noted that the first review of the project was held in the 6th Joint TCC meeting on 06.02.2026 and that the work is progressing as per the approved plan. The agency has so far collected 265 bedrock samples, including 31 channel samples, 185 soil samples and 5 stream sediment samples.
- b. The agency informed that ICP-MS analysis of 150 samples, comprising 80 BRS, 31 channel and 39 soil samples, and petrographic studies of 50 samples have been completed. Further, 71 of these samples have been analysed by XRF and LOI, XRD results of 5 samples have been received, and 11 samples have been analysed for fixed carbon.
- c. The agency presented that the area is mainly underlain by charnockite, khondalite and granitoids, with foliation varying locally in E–W, NE–SW, N–S and NW–SE directions. Three granitoid (syenite) bodies with anomalous REE and base-metal values have been identified in the southern part of the area at Marthandam, Neyyoor and Maruthoorkotta, with a total of 22 prospective zones delineated.
- d. The agency informed that the granitoid samples recorded TREE+Y+Sc values of up to about 3,537 ppm at Marthandam, 2,251 ppm at Neyyoor and more than 2,250 ppm at Maruthoorkotta, with four samples exceeding 1,000 ppm TREE.
- e. The agency further informed that channel samples collected across gossan zones in two quarries near Marthandam returned TREE+Y+Sc values up to about 1,647 ppm and Cu values up to about 1,152 ppm. Ore microscopy identified pyrite, pyrrhotite, chalcopyrite, bornite, sphalerite, galena, stibnite, covellite and molybdenite. Tungsten enrichment was also reported from Marthandam, with WO₃ values of 524 ppm and 237 ppm against a cut-off of 200 ppm.
- f. The agency informed that lateritic samples were collected from areas where pitting was undertaken. Of the 39 soil samples analysed from the southern part, six recorded TREE+Y+Sc values exceeding 1,000 ppm, with a maximum of about 1,745 ppm.
- g. The agency presented that graphite occurs in the northern part of the block within lateritic soil, pegmatite and khondalite. The agency stated that mineable graphite deposits may occur along with the laterite and that the area was historically mined by M/s Morgan Crucibles during 1898–1912, with several old workings now concealed beneath soil and laterite cover.
- h. For Phase-III, the agency proposed a high-resolution drone magnetic survey along with ground EM survey over about 60 sq. km in the northern block to delineate structures and conductive graphitic zones, and drone magnetic and radiometric surveys over about 77.8 sq. km in the southern block for sulphide and REE targeting.
- i. The agency requested reduction of 79 samples from the approved XRF and LOI analysis, approval for analysis of about 60 additional laterite and lateritic soil samples by ICP-MS, six additional ICP-MS check samples and 25 additional samples for petrographic studies. The


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Committee advised that the additional analytical requirements may be examined in light of the results obtained and the proposed Phase-III investigations.

- j. The Committee reviewed the progress of work and approved Phase-III investigations.
- k. The agency was advised to undertake the additional analytical studies based on the exploration requirements and results obtained during the ongoing work.

Recommendations of TCC:

The Committee reviewed the progress of work and approved Phase-III investigations. The decision on additional investigations and hence revision of cost was deferred for further consideration in the forthcoming Joint TCC meeting.

11.2: Proposal under scheme for partial reimbursement of exploration expenses for the holder of composite licenses

Agenda 11.2.1. Partial reimbursement of exploration expenses in respect of the Katghora (Lithium and REE) Composite Licence (CL) Block [Implementing Agency: Maiki South Mining Pvt. Ltd. (CL Holder)]

- a. The agency informed that they are proposing partial reimbursement of exploration expenses for holders of Composite Licences under NMEDT scheme.
- b. The agency apprised the committee that the Katghora Lithium and Rare Earth Elements (REE) Block located in Korba District of Chhattisgarh, encompassing an area of 2.56 sq. km. The block has been auctioned to M/S Maiki South Mining Pvt. Ltd under CL category and the agency is executing the work through M/s Maheshwari Mining Pvt. Ltd.
- c. The agency also informed that the Composite License deed executed on April 4, 2025 while the prospecting operations commenced on June 5, 2025.
- d. The committee was further apprised that the proposal was earlier discussed in TCC-I meeting. However, it was kept on hold as SoP of CL scheme was under formulation stage that time.
- e. The committee reviewed the proposal and after a long deliberations opined that the exploration scheme carried out by the agency should be discussed by the Technical-cum-Cost Committee (TCC) of NMEDT for technical validation and alignment with NMEDT guidelines. The progress of work should be periodically reviewed by the TCC to ensure alignment with approved objectives and technical standards.
- f. The Committee advised the agency to clearly indicate the changes and additional information established through the existing LSM and DM data. The Committee also enquired whether pegmatites, aplite bands/veins and other relevant lithological units can be distinctly mapped and delineated in the area.
- g. Since Li mineralisation has been reported to be associated with lepidolite mica, the Committee advised the agency to undertake detailed mineralogical and mineral-chemical studies of the mica and establish the spatial distribution of Li-bearing pegmatites/leucogranites, including the number and distribution of samples collected from these lithologies.
- h. The Committee advised that the primary and secondary rock fabrics should be established before finalising the drilling programme, as vertical boreholes may not adequately intersect


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the contacts between different lithological units or the structurally controlled REE/Li-bearing zones.

- i. The Committee further advised the agency to present the Li analytical values, particularly samples reporting Li values of at least 300 ppm, with corresponding depth of intersection and host lithology, and correlate the values with the borehole core geology to establish the continuity and controls of Li mineralisation.
- j. The Committee advised that the drilling orientation and inclination should be planned considering the established lithological and structural controls so as to effectively intersect the potential REE–Li-bearing zones and avoid underestimation of mineralisation due to an inappropriate borehole orientation.
- k. The Committee deliberated on the proposal and advised the agency to submit year-wise expenditure details, along with details of the work completed and expenditure incurred against the same.
- l. The agency furnished the details as sought by the Committee.
- m. The Committee examined the expenditure details submitted by the agency and observed that certain aspects require further clarification. Accordingly, the Committee suggested deferring the proposal to the next meeting of the Joint TCC.
- n. In the meantime, the Technical and Financial Divisions of the NMEDT Secretariat were advised to examine the submitted details thoroughly for further discussion in the forthcoming Joint TCC meeting.

Recommendations of TCC:

The Committee deferred the proposal to the next meeting of the Joint TCC, as certain aspects of the expenditure details submitted by the agency require further clarification. In the meantime, the Technical and Financial Divisions of the NMEDT Secretariat were advised to examine the submitted details thoroughly for further consideration in the forthcoming Joint TCC meeting.

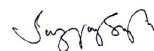
Agenda 11.2.2. Partial reimbursement of exploration expenses in respect of the Dombarahalli Phosphate (Apatite) and REE Composite Licence (CL) Block

[Implementing Agency: Ramgad Minerals and Mining Limited (CL Holder)]

- a. The agency informed that they are proposing partial reimbursement of exploration expenses for holders of Composite Licences under NMEDT scheme.
- b. The agency informed that the Dombarahalli Phosphate and REE auction block, covering 558.28 ha in Koppal taluk, was explored by GSI at G3 level during 2022–23 through six boreholes totalling 581.50 m, supported by 220 core samples and 100 soil samples collected on a 200 × 400 m grid.
- c. The agency informed that the block forms part of the NE–SW trending Koppal syenite–pyroxenite complex of the Eastern Dharwar Craton, with phosphate and REE mineralisation hosted by a plug-like phoscorite (biotite–magnetite–apatite) intrusive within syenite. The mineralised zones range from 2.0 to 23.3 m in thickness, with apatite as the principal phosphate mineral and allanite as the principal REE phase.
- d. The agency presented the analytical results, wherein the drill core samples averaged 4.2%


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P₂O₅ and approximately 2,005 ppm TREO. As per the GSI Geological Report, resources of 3.28 Mt @ 6.24% P₂O₅ and 15.69 Mt @ 4.26% P₂O₅ were estimated at 5% and 3% cut-offs, respectively, along with 1.22 Mt @ 0.34% TREO at 0.25% TREO cut-off.

- e. The agency further presented its own resource estimation of about 14.03 Mt @ 4.75% P₂O₅ and 0.21% TREO, including 1.62 Mt @ 0.29% TREO at 0.25% TREO cut-off, and stated that the resource has been estimated from exploration over only about 14 ha against the mapped phoscorite area of approximately 165 ha, indicating scope for further resource augmentation.
- f. The agency informed that 59 pits have been excavated within and outside the phoscorite plug, with P₂O₅ values ranging from below 1% to 12%, and presented the drill cores of boreholes DBH-04 and DBH-05 to the Committee.
- g. The proposed exploration programme comprises detailed geological mapping, pitting, ground magnetic and resistivity surveys, and 3,000 m of core drilling in 29–30 boreholes at 100 × 200 m spacing. The agency also proposed analysis of pit and core samples for P₂O₅ and REE, supported by QA/QC and detailed mineralogical studies including petrology, XRD, EPMA/SEM, QEMSCAN and bulk density studies.
- h. The agency further proposed a beneficiation study on a 500 kg representative sample, followed by scoping and hydrometallurgical investigations for REE separation, to assess the beneficiation characteristics and recovery potential of phosphate and REE mineralisation.
- i. The Committee reviewed the proposal and advised undertaking detailed geochemical and petrographic studies to characterise the lithological variants of the mineralised zone (MZ) in the drill cores, particularly in relation to P₂O₅ cut-offs of 5% and <3%.
- j. The Committee advised examining borehole DBH-08, drilled to a depth of 200 m, to assess the variation and continuity of P₂O₅ grade with depth.
- k. The Committee observed that beneficiation studies at the G2 stage would help establish the beneficiation characteristics and economic viability of phosphate hosted by magmatic apatite.
- l. The Committee deliberated on the proposal and advised the agency to submit year-wise expenditure details, along with details of the work completed and expenditure incurred against the same.
- m. The agency furnished the details as sought by the Committee.
- n. The Committee examined the expenditure details submitted by the agency and observed that certain aspects require further clarification. Accordingly, the Committee suggested deferring the proposal to the next meeting of the Joint TCC.
- o. In the meantime, the Technical and Financial Divisions of the NMEDT Secretariat were advised to examine the submitted details thoroughly for further discussion in the forthcoming Joint TCC meeting.

Recommendations of TCC:

The Committee deferred the proposal to the next meeting of the Joint TCC, as certain aspects of the expenditure details submitted by the agency require further clarification. In the meantime, the Technical and Financial Divisions of the NMEDT Secretariat were advised to examine the submitted details thoroughly for further consideration in the forthcoming Joint TCC meeting.


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11.3: Review of Ongoing Projects in Siwana Ring Complex

Agenda 11.3.1. Geological and Geophysical Investigation in part of Siwana Ring Complex, Balotra district, Rajasthan (Block A)

[Implementing Agency: Shijay Projects India Pvt. Ltd.]

- a. The Committee noted that under Phase-I of Block RSRC-A, covering 86 sq. km, geological mapping, gravity survey of 1,077 stations on a 200 × 400 m grid with DGPS support, and drilling of 1,375 m in 11 boreholes have been completed. Forest approval was received on 30.07.2026, and geological mapping commenced in the first week of June 2026.
- b. The agency informed that 20 BRS samples, comprising 9 channel and 11 grab samples, were collected, with relatively higher sampling density in the western and central parts due to the presence of porphyritic granite. ICP-MS results indicate Σ REE+Y values of 202.6–5,343.1 ppm, averaging 2,832 ppm, and xenotime has been identified in rhyolite porphyry through petrographic studies.
- c. The agency informed that 166 core samples have been generated, of which samples from five boreholes have been dispatched for analysis. Handheld XRF results indicated encouraging values in BH-02, BH-05 and BH-08; however, core recovery was not achieved in BH-02 and BH-07, where weathered rhyolite was encountered up to a depth of 125 m.
- d. The GSI representative informed that drilling has commenced in the NW sector, where basalt and rhyolite flows/beds, not exposed at the surface, are being intersected in the boreholes. The Committee advised the agency to integrate the drilling observations with the surface geological framework.
- e. The Committee observed that the results presented by the agency were not sufficiently encouraging and advised the agency to establish the REE distribution across different lithological variants, justify the relatively dense sampling in the western part, prepare a map showing the thickness of the sand/alluvium cover, identify the different rhyolite flows and analyse at least one representative sample from each flow on priority.
- f. The Committee further advised the agency to indicate the mineralized zones delineated from handheld XRF results, clarify the basis for selecting samples for REE analysis with reference to Zr values and present the corresponding analytical results. The agency was also advised to undertake drilling in soil/alluvium-covered areas, followed by infill drilling based on the results.
- g. The agency proposed to proceed with Phase-II drilling at approximately 4 sq. km spacing. The Committee advised the agency to consult the Nodal Officer, WR, GSI for planning the Phase-II boreholes and decided that the project would be reviewed after receipt of the analytical results of the samples.

Recommendations of TCC:

The Committee observed that the results are not sufficiently encouraging and advised the agency to undertake Phase-II drilling in the soil-covered areas followed by infill drilling, identify the different flows and analyze one representative sample from each flow on priority, and plan the Phase-II boreholes in consultation with the Nodal Officer, WR, GSI.

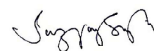
Agenda 11.3.2. Geological and Geophysical Investigation in part of Siwana Ring Complex, Balotra district, Rajasthan (Block B)

[Implementing Agency: MMPL Pvt. Ltd.]

- a. The Committee noted that Phase-I of Block-B, covering 130 sq. km, has been substantially


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completed, including geological mapping at 1:12500 scale, analysis of 40 BRS samples by XRF and ICP-MS, petrographic studies, gravity survey of 1,625 stations on a 200 × 400 m grid, DGPS survey, and drilling of 16 boreholes totalling 2,000 m.

- b. The agency informed that most of the block is soil-covered, with porphyritic rhyolite being the dominant lithology. Granite, microgranite, welded tuff and basalt flows/dykes also occur, with granite and rhyolite occurring in the NE part of the block.
- c. The agency informed that the BRS samples show TREE+Y values up to about 4,480 ppm, averaging about 1,885 ppm, while BH-07 indicates enrichment in Zr, REE, Y and Nb in the 70–100 m interval. Five gravity anomaly zones (A–E) and basalt zones have also been delineated through integration of gravity, aeromagnetic and radiometric data.
- d. The Committee observed that a transition from alkali granite to rhyolite has been encountered in a borehole and advised the agency to differentiate the individual rhyolite flows and rationalise their nomenclature.
- e. The Committee advised the agency to prepare a predictive map based on the Phase-I borehole data and to prepare an isopach map showing the thickness of the sand/soil cover, along with a regolith-thickness map.
- f. The Committee advised the agency to correlate the borehole results with those from the adjoining blocks of the Siwana Ring Complex (SRC) to establish the continuity and distribution of mineralised zones and to assist in the nomenclature of the different flows.
- g. The agency proposed infill drilling in the next phase at approximately one borehole per 4 sq. km, along with additional BRS sampling and flexibility in positioning boreholes based on geophysical anomalies. The Committee advised that the drilling plan may be suitably refined based on the predictive and regolith maps.
- h. The Committee advised that the agency may proceed with the next phase of infill drilling simultaneously with preparation of the predictive, sand-cover and regolith maps and integration of the Phase-I analytical results.

Recommendations of TCC:

The Committee agreed upon taking up the next phase of infill drilling and advised the agency to simultaneously prepare the predictive, sand-cover and regolith-thickness maps based on the Phase-I borehole data, and correlate the results with the adjoining blocks of the Siwana Ring Complex for delineation of mineralized zones and rationalization of flow nomenclature.

Agenda 11.3.3. Geological and Geophysical Investigation in part of Siwana Ring Complex, Balotra district, Rajasthan (Block C)

[Implementing Agency: Critical Mineral Tracker]

- a. The Committee was apprised that Phase-I of Block-C, covering 114 sq. km, has been completed, comprising geological mapping at 1:12500 scale, gravity and DGPS surveys, drilling of 1,722.8 m in 14 boreholes, collection and analysis of 30 BRS and 450 core samples by ICP-MS, and petrographic, XRD and WD-XRF studies. The gravity data indicate a dominant NW–SE structural trend.
- b. The agency presented the borehole-wise analytical results and informed that SBH-02 intersected porphyritic rhyolite, welded tuff and felsitic veins, while the reported black veins could not be identified.
- c. The agency informed that SBH-06 recorded REE values up to about 1,000 ppm, which are not very encouraging, although a boulder fragment returned values of up to about 4,500 ppm. SBH-08 intersected about 72 m of soil cover followed by rhyolite and granite.


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- d. The agency informed that SBH-09, predominantly drilled in granite, recorded comparatively higher REE values of about 6,000–13,000 ppm and represents one of the more prospective boreholes. SBH-10 intersected porphyritic rhyolite, SBH-11 recorded REE values up to about 1,500 ppm, while SBH-12 intersected rhyo-dacite with encouraging values.
- e. The Committee observed that about 100 m of sand cover has been encountered in two boreholes and advised that deeper drilling beneath such thick sand cover may not be economical.
- f. The Committee advised the agency to avoid positioning boreholes in the next phase in areas having approximately 100 m of sand cover, particularly around BH-06, BH-07 and BH-08, and to prepare a sand-cover thickness map based on the Phase-I borehole data.
- g. The Committee advised the agency to prepare a predictive map based on the borehole results and to delineate the mineralised zones, particularly where felsic veins occur within rhyolite, for guiding the subsequent drilling programme.
- h. The Committee advised the agency to undertake detailed mineralogical studies to identify and quantify the REE-bearing mineral phases. Such studies are to be carried out by all agencies involved in the exploration of the Siwana Ring Complex.
- i. The Committee advised the agency to initiate Phase-II drilling, commencing with the delineation of G3 blocks, based on the geological, analytical, predictive and sand-cover data generated during Phase-I.
- j. The Committee noted the agency's request for additional core sampling, petrographic studies, BRS sampling and deeper drilling at selected high-REE borehole locations, and advised that the requirements may be examined and discussed in the forthcoming review.

Recommendations of TCC:

The Committee agreed for Phase-II drilling, with priority to delineation of G3 blocks, and advised the agency to avoid areas with thick sand cover, prepare sand-cover and predictive maps based on Phase-I borehole data, and delineate mineralised zones supported by detailed mineralogical studies of the REE-bearing phases.

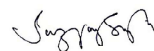
Agenda 11.3.4. Preliminary Exploration (G3) for REE and associated critical minerals in the NB 14 block (2.42 sq. km.) in the northern part of the Siwana Ring Complex, Balotra district, Rajasthan

[Implementing Agency: M/s Gemcokati Exploration Pvt. Ltd.]

- a. The Committee noted that the project, covered under SOI Toposheet No. 45C/06, was approved in the 4th Joint TCC and 3rd PSC, with the OM issued on 09.01.2026 and project duration up to 08.01.2027. Field work commenced on 25.02.2026, and three additional boreholes (BH-07, BH-19 and BH-25) were approved in the 100th TCC-I on the recommendation of WR, GSI.
- b. The agency informed that Phase-I work comprising detailed geological mapping at 1:2,000 scale over 2.42 sq. km, drilling of 1,268 m in eight boreholes, collection of 62 BRS samples, WD-XRF analysis of 50 samples, petrographic studies of 10 samples, check analysis of 36 samples and reinterpretation of NAGMP data has been completed.
- c. The agency further informed that ICP-MS analysis of 333 out of 380 samples is in progress, the samples have been forwarded for XRD studies, while the proposed trenching of 70 cu. m remains pending.
- d. The agency requested permission to undertake a ground magnetic survey along E–W profiles on a modified grid with 200 m line spacing covering the entire block, initiate Phase-II drilling of 20 boreholes totalling 2,232 m, and drop the proposed trenching programme.


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- e. The Committee advised the agency to increase the station interval suitably within the modified grid of NB-14 for the proposed ground magnetic survey.
- f. The Committee permitted remaining Phase-II drilling comprising 20 boreholes, subject to adherence to the prescribed guidelines and approved exploration parameters.
- g. The Committee observed that the proposed trenching is not required and accordingly advised that the trenching component of 70 cu. m may be dropped.

Recommendations of TCC:

The Committee agreed upon for completion of remaining Phase-II drilling and dropping of the proposed trenching. The agency was advised to suitably modify the ground magnetic survey grid by increasing the station interval in NB-14.

Agenda 11.3.5. Preliminary Exploration (G3) for REE and associated critical minerals in the NB 15 block (2.00 sq. km.) in the northern part of the Siwana Ring Complex, Balotra district, Rajasthan

[Implementing Agency: M/s Ocean Drilling and Exploration Private Limited]

- a. The Committee was informed that the project, covered under SOI Toposheet No. 45C/06, was earlier reviewed in the 8th, 9th and 10th Joint TCC meetings. Geological mapping, topographical survey and collection of BRS, channel and trench samples have been completed, and the Phase-II drilling plan was discussed with GSI, WR.
- b. The agency informed that five Phase-I boreholes (BH-05, BH-12, BH-15, BH-19 and BH-22), out of the 24 planned on a 200 × 400 m grid, have been completed for a total of 400 m of HQ drilling.
- c. The analytical results of BH-12 and BH-19 indicate TREE+Y values of 474.92–1,306.62 ppm (average 891.56 ppm) and 847.28–3,742.44 ppm (average 2,381.63 ppm), respectively. The Committee noted that BH-19, despite being located within a relatively low magnetic-anomaly domain, has returned a positive REE+Y response.
- d. The agency informed that core samples from BH-05, BH-15 and BH-22 are under processing. The agency was advised to expedite the analysis of the pending samples to facilitate planning and prioritisation of Phase-II drilling.
- e. The agency informed that 11 Phase-II boreholes have been planned in consultation with GSI, targeting low magnetic-anomaly zones coinciding with high-gradient responses and the vicinity of BH-19, to assess the lateral continuity, depth persistence, thickness and geometry of the enriched zones.
- f. The Committee advised that Phase-II boreholes may be prioritised based on the analytical results of Phase-I drilling, with BH-06, BH-07, BH-08, BH-09, BH-10, BH-16, BH-17, BH-18, BH-20 and BH-21 tentatively identified for priority drilling.
- g. The Committee advised all concerned agencies to expedite sample analysis, and directed that the proposed Phase-II borehole plan be finalised in consultation with the Nodal Officer, GSI, WR. The proposed magnetic survey with 200 m line spacing and 25 m station interval may also be taken up as planned.
- h. It was decided that the agency may claim analysis charges for 250 samples, while the analysis of the remaining samples shall be undertaken by the agency.

Recommendations of TCC:

The Committee agreed upon for Phase-II drilling, with priority to boreholes selected based on the analytical results of Phase-I, and advised the agency to expedite the pending


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sample analysis and finalise the borehole plan in consultation with the Nodal Officer, GSI, WR.

The committee also decided that the agency may claim analysis charges for 250 samples, while the analysis of the remaining samples shall be undertaken by the agency.

11.4: Project Evaluation for In-Principle Approval

Agenda 11.4.1. Preliminary exploration (G3) of REE & Associated Mineralization West of Nakoda, Tehsil- Pachpadra, District - Balotra, Rajasthan (Area: 2.30 sq. km)

(Proposal ID: ME/IN/G3/RJ/P/26-27/188)

[Implementing Agency: Vibrant Techno Lab Private Limited]

- The proposed block covers 2.30 sq. km in SOI Toposheet No. 45C/1, and is proposed with the objective of delineating REE potential zones and establishing resources through G3-stage exploration, including drilling.
- The agency informed that the block lies in the central part of the Nakoda Ring Complex of the Malani Igneous Suite, with rhyolite constituting about 80% of the area, along with pyroclastics, hydrothermal breccia, dolerite dykes and calcrete. The sand cover varies from about 10 m to more than 50 m.
- The agency presented the available GSI data, wherein 36 out of 151 regional samples recorded TREE+Y values exceeding 1,000 ppm. Within the proposed block, nine GSI bedrock samples returned TREE+Y values of 669.05–2,503.22 ppm, Zr of 1,316–3,468 ppm and Nb+Ta+Sc of 51.2–181.5 ppm.
- The Committee noted the available aeromagnetic and radiometric signatures, with RMI values of +150 to +900 nT and a magnetic low in the south-central part of the block, while the radiometric dose rate ranges from 60 to 120 nGy/h.
- The agency proposed detailed exploration comprising DGPS demarcation, 1:2,000 scale geological mapping using drone and DGPS, pitting and trenching, bedrock sampling, geophysical surveys, core drilling with geophysical logging, and laboratory studies including chemical analysis, petrography, XRD, EPMA and geotechnical investigations.
- The Committee observed that the REE values in most of the BRS samples presented by the agency are lower than those reported from the Siwana Ring Complex (SRC). The agency was advised to undertake a field visit and collect representative samples from different lithological variants/flows.
- The Committee advised that, if the samples collected during the field visit return REE values exceeding 2,000 ppm, the agency may prepare and submit a DPR for further evaluation by the TCC.

Sl. No.	Agency	Brief Comments
1	GSI	Based on previous G4 exploration work in Nakoda area (G4), the proposed area seems feasible for taking up REE, RM and associated elements.
2	MECL	The proposed block is not overlapping with any of the ongoing/completed blocks of MECL.
3	AMD	The proposed block has no overlapping with the AMD's ongoing or completed projects.


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4	State DMG/DGM/CGM	DMGR has not carried out exploration for mineral REE and Associated Mineralisation in this area. DMGR has not conducted any exploration activities for said mineral, thus, no comments from DMGR. This proposal area does not conflict with any mineral concessions and litigations.
5	NMEDT	The proposed block does not overlap with NMEDT funded block. The proposed block (66%) falls in Recorded Forest area.

Recommendations of TCC:

The Committee accorded in principle approval to the proposal and advised the agency to undertake a field visit and collect representative samples from different lithological variants/flows. If REE values exceeding 2,000 ppm are established, the agency may submit a DPR for further evaluation by the TCC. The agency may submit DPR within 3 months.

Agenda 11.4.2. Preliminary Exploration (G3) for REE & associated Mineralization Southwest of Nakoda block, Tehsil-Pachpadra, District -Balotra, Rajasthan (Area- 3.51 Sq. Km).

(Proposal ID: ME/IN/G3/RJ/P/26-27/190)

[Implementing Agency: Vibrant Techno Lab Private Limited]

- a. The Committee dropped the proposal as the proposed area completely overlaps with the Tapra-Keetpala Exploration Licence block. Accordingly, the proposal was not reviewed.

Sl. No.	Agency	Brief Comments
1	GSI	The proposed area seems feasible for taking up REE, RM and Associated elements however, proposed block overlaps completely with Tapra-Keetpala exploration license block.
2	MECL	The proposed block is not overlapping with any of the ongoing/completed blocks of MECL.
3	AMD	The proposed block has no overlapping with the AMD's ongoing or completed projects.
4	State DMG/DGM/CGM	DMGR has not carried out exploration for mineral REE and Associated Mineralisation in this area. DMGR has not conducted any exploration activities for said mineral, thus, no comments from DMGR. This proposal area conflict with 01 held minor mineral mining lease having an area of 01 hectares.
5	NMEDT	The proposed block do not overlap with NMEDT funded block, however proposed block does not falls in Recorded Forest area.

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Recommendations of TCC:

The Committee dropped the proposal as the proposed area completely overlaps with the Tapra-Keetpala Exploration Licence block.

**Agenda 11.4.3. Preliminary Exploration (G3 Stage) of REE & associated Mineralization Southeast of Nakoda Block, Tehsil- Pachpadra, District - Balotra, Rajasthan (Area- 2.04 Sq. Km.)
(Proposal ID: ME/IN/G3/RJ/P/26-27/189)**

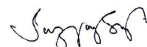
[Implementing Agency: Vibrant Techno Lab Private Limited]

- a. The proposed block covers 2.04 sq. km in SOI Toposheet No. 45C/1 and is proposed with the objective of delineating REE and associated mineral potential zones and assessing their resource potential through G3-stage exploration.
- b. The agency informed that the block lies in the central part of the Nakoda Ring Complex of the Malani Igneous Suite, with rhyolite constituting about 80% of the area. The rhyolite occurs as porphyritic and aphyric, flow-banded varieties, along with pyroclastic breccia, agglomerate, lapilli tuff, hydrothermal breccia, dolerite dykes and calcrete.
- c. The agency informed that the sand cover in the block varies locally from about 10 m to more than 50 m, while dolerite dykes trend NW–SE and E–W to ENE–WSW, with thicknesses ranging from 0.5 to 3 m.
- d. The agency presented the GSI data, wherein 36 out of 151 bedrock and channel samples from the Nakoda area recorded TREE+Y values exceeding 1,000 ppm, including 18 samples above 1,500 ppm and five samples above 2,000 ppm. Within the proposed block, GSI bedrock samples returned TREE+Y values of 617.15–3,833.18 ppm and Zr values up to about 3,021 ppm.
- e. The agency informed that the higher TREE+Y value of 3,833.18 ppm was recorded in porphyritic grey rhyolite (BRS-58), while other samples were mainly collected from hydrothermal breccia, ferruginous veins and rhyolite.
- f. The Committee noted the geophysical signatures presented by the agency, including moderate aeromagnetic RMI values of about +150 to +900 nT, magnetic gradients along the south-western margin and the southern periphery of the regional E–W magnetic corridor. The radiometric dose rate ranges from 60 to 100 nGy/h, with relatively higher values in the north-eastern part.
- g. The agency proposed detailed exploration comprising DGPS demarcation, 1:2000 scale geological mapping using drone and DGPS, pitting and trenching, bedrock sampling, geophysical surveys, core drilling with geophysical logging, and laboratory studies including chemical analysis, petrography, XRD, EPMA and geotechnical investigations.
- h. The Committee observed that the REE values in most of the BRS samples presented by the agency are lower than those reported from the Siwana Ring Complex (SRC). The agency was advised to undertake a field visit and collect representative samples from different lithological variants/flows.
- i. The Committee advised that, if the samples collected during the field visit return REE values exceeding 2,000 ppm, the agency may prepare and submit a DPR for further evaluation by the TCC.

Sl. No.	Agency	Brief Comments
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1	GSI	Based on previous G4 exploration work in Nakoda area (G4), the proposed area seems feasible for taking up REE, RM and associated elements.
2	MECL	The proposed block is not overlapping with any of the ongoing/completed blocks of MECL.
3	AMD	The proposed block has no overlapping with the AMD's ongoing or completed projects.
4	State DMG/DGM/CGM	DMGR has not carried out exploration for mineral REE and Associated Mineralisation in this area. DMGR has not conducted any exploration activities for said mineral, thus, no comments from DMGR. This proposal area does not conflict with any other than conflicting with 12 held minor mineral mining leases/ LOI.
5	NMEDT	The proposed block do not overlap with NMEDT funded block, however proposed block does not falls in Recorded Forest area.

Recommendations of TCC:

The Committee accorded in principle approval to the proposal and advised the agency to undertake a field visit and collect representative samples from different lithological variants/flows. If REE values exceeding 2,000 ppm are established, the agency may submit a DPR for further evaluation by the TCC. The agency may submit DPR within 3 months.

Agenda 11.5 Standardisation of ICPMS Analysis being carried out

The agenda was not discussed and deferred to next meeting of Joint TCC.


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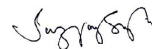


List of participants attended 11th Joint Meeting of Technical-cum-cost Committees (TCC-I & TCC-II) of NMEDT held on 21st and 22nd September, 2026 through VC mode

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16.	Representatives from DGM Chhattisgarh				
17.	Representatives from Maiki South Mining Pvt. Ltd.				
18.	Representatives from DMG Karnataka				
19.	Representatives from DMG Karnataka				
20.	Representatives from Ramgad Minerals and Mining Limited				


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21.	Representatives of M/s. Shijay Projects India Private Ltd.
22.	Representatives of M/s. MMPL Pvt. Ltd.
23.	Representatives of M/s. Critical Mineral Trackers
24.	Representatives of M/s. Geovale Services Pvt. Ltd.
25.	Representatives of Geo Marine Solutions Pvt. Ltd.
26.	Representatives of M/s. Gemcokati Exploration Pvt. Ltd.
27.	Representatives of M/s. Ocean Drilling Pvt. Ltd.


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