

**DPR FOR THE RECONNAISSANCE SURVEY (G-4)
FOR TIN TANTALUM AND NIOBIUM BEARING PEGMATITES
AT WESTERN PERIPHERY OF BASTER-KORAPUT PEGMATITE
BELT, DISTRICT DANTEWADA, CHHATTISGARH.
(KATEKALYAN BLOCK)
(Part of Toposheet No 65F/ 10)**

COMMODITY: Tin (Sn), Tantalum (Ta) and Niobium (Nb)
(Base metals/ Ferrous/ Non-Ferrous/ Industrial/ Strategic & Critical/ Precious metals etc.)

**SUBMITTED FOR APPROVAL OF DETAILED PROPOSAL TO
National Mineral Exploration & Development Trust
Technical & Cost Committee**

PREPARED BY



**Deepsar Mineral Explorer
6-Ka-16, Jawahar Nagar, Jaipur, Rajasthan**

**DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing
Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh**

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Summary of the Tin (Sn), Tantalum (Ta)& Niobium (Nb.) block proposed for the Reconnaissance Survey (G-4)

Table-1 General Information about the block

General Information about the Block																
Features	Details															
Block ID	Katekalyan Block															
Exploration Agency	Deepsar Mineral Explorer, Jaipur															
Commodity	Sn, Ta, and Nb.															
Mineral Belt	Baster-Koraput Pegmatite Belt, erstwhile Baster-Jeypor Pegmatite Belt															
Budget and time schedule to complete the project	10 months															
G4 level Reconnaissance Survey work	During 1974 to 1991, GSI, AMD and NGRI has investigated the central and eastern part of E-W trending 153 Km long belt of BKPB and established for Sn, Ta and Nb mineralized zone. However, due to administrative problems in the area, it remains unexplored for a long time. The western part of this belt still needs attention for the point of mineralization.															
Objectives	1. Preliminary Geological survey for mapping of pegmatite. 2. Characterization of all the pegmatites, especially fertile. 3. To Established fertility of pegmatites for RM. 4. Sn, Ta and Nb. mineralization and its genetics 5. To establish economic potential of the mineralization.															
Whether the work will be carried out by the proposed agency or through sourcing, and details thereof.	The entire geological work and its component shall be taken up by DME only, except for Geophysical Survey.															
Components to be outsourced and the name of the outsourcing agency	Geophysical Survey shall be carried out by M/s DMT, Calcutta (DME Have MoU with DMT)															
Name/Number of Geoscientists	Geologist (2) Party days: Field-165 days & HQ-120 days. (Including pitting, trenching and sampling) Geophysical Survey: 30 days															
	Survey Party days: 30 days (for Topographical survey)															
Location	The proposed block area falls under Survey of India Toposheet numbers 65F10, in and around the villages of Bacheli, Nerli, Samgiri and Gongpal District Dantewara, Chhattisgarh.															
Area and Perimeter	Area is 114 Km.															
Latitude and Longitude	Coordinates of Corner Points <table><tr><td>Point</td><td>Latitude</td><td>Longitude</td></tr><tr><td>A</td><td>18°45'0"</td><td>81°30'0"</td></tr><tr><td>B</td><td>18 °45'0"</td><td>81°37'30"</td></tr><tr><td>C</td><td>18 °40'20"</td><td>81°37'30"</td></tr><tr><td>D</td><td>18 °40'20"</td><td>81°30'00"</td></tr></table>	Point	Latitude	Longitude	A	18°45'0"	81°30'0"	B	18 °45'0"	81°37'30"	C	18 °40'20"	81°37'30"	D	18 °40'20"	81°30'00"
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Villages	Katekalyan, Badegudra, Michwarand Kundapal															
Tehsil/ Taluk	Bacheli															
District	Dantewada															



DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh

Features	Details
State	Chhattisgarh
Area (Hectares/Square Kilometer)	
Block Area	114.00 Sq km
Forest Area	Not known
Government Land Area	Not known
Charagaha	Not known
Private Land Area	Not known
Accessibility	
Nearest Rail Head	Bhansi, Bachel and kirandul located on Raipur-Jagdalpur-Kirandul rail line.
Road	26 Km from District Head quarter i.e. Dantewada well connected by metalled road
Airport	Jagdalpur
Hydrography	----
Local Surface Drainage Pattern (Channels) Rivers/Streams	There is not a single major drainage system located in the vicinity of area. A few minor nals and small drainage passing from the area. The existing river not producing any flood pain or alluvial plain.
Climate	
Mean Annual Rainfall	The mean annual rainfall is 45 to 52 cm. Temperature ranges from 9° C to 30°C during winter (November to March) and from 27° to 42° C during summer (April to June). Kailashnagar and Akashnagar are two hill station in the area with pleasant climate round the area.
Topography	Undulating topography with small mounds of about 30 to 45 meters from ground contour occupied by meta-basalt and dykes. Otherwise, flat terrain covered by granites.
Topo-sheet Number	65 F 10
Availability of baseline Geoscience Data	
Geological Map (1:50K)	Not available
Geochemical Map	Not available
Geophysical Map (Aeromagnetic, Ground geophysical, Regional as well as local scale GP maps)	Not available
Justification for taking up Reconnaissance Survey/ Regional Exploration	GSI conducted investigation in 1981-82 for tin occurrence in Katekalyan area which is located east of the proposed area. GSI proved 990 ppm Sn in pegmatites of the area. The proposed area witnessed several old working probably for Tin at Nerli, Padapur and East of Bachel. In pursuance to the directives of TCC, DME Geoscientist visited the area for limited field work in April 2026. Three



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Features	Details
	cassiterite bearing pegmatites have been identified. The sample collected and same has been chemically analyzed for Sn, Ta, Nb and associated REE in GSI, Central Region, Nagpur. The analytical result revealed that the Tin, Tantalum and Niobium concentration in the samples varies from 972 to 1504 ppm, 194 to 335 ppm and 233 to 262 ppm respectively and 75-205 ppm REE. The geological setup of the area shows promising Sn mineralization. The Ta and Nb. association with Sn has also established from the area.



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**PROPOSAL FOR THE RECONNAISSANCE SURVEY (G-4) FOR TIN TANTALUM AND NIOBIUM BEARING PEGMATITES AT WESTERN PERYPHERY OF BASTER-KORAPUT PEGMATITE BELT. DISTRICT DANTEWARA, CHHATTISGARH.
(Katekalyan Block)
(PART OF TOPOSHEET NO 65F 10)**

1. INTRODUCTION

The 26th Meeting of the Technical-cum-Cost Committee-II (TCC-II) of the National Mineral Exploration and Development Trust (NMEDT) was held on 1st and 2nd April 2026 via video conferencing under the chairmanship of Shri Pradeep Singh, Deputy Director General (DDG), Geological Survey of India (GSI) and Chairman, TCC-II, NMEDT.

During the meeting, Agenda no. 26.2.2 titled “Reconnaissance survey (G-4) for Tin Tantalum and Niobium bearing Pegmatites in Katekalyan Area, (Area 146 sq. km.) Western Periphery of Baster-Koraput Pegmatite Belt, Dantewada District, Chhattisgarh” was discussed in detailed. The implementation agency M/S Deepsar Mineral Explorer, Jaipur appraised the project. The project reviewed by various agency for overlapping and to avoid any duplicity.

The area found suitable and free for G4 level Reconnaissance Survey for Sn, Ta, Nb and associated REE bearing minerals. *The Committee granted In-PRINCIPAL approval to the proposal.*

Moreover, Prior to submission of Detailed Project Report Proposal TCC suggested:

- To visit the area,
- Carry out limited field work
- Collect samples to obtain mineralogical evidence from the field.
- To reduce total area from 146 sq km to around 100 sq Km.

In pursuance to committee’s suggestion, DME undertake following action:

- A team of One Geologist and One assistant Geologist visited proposed Katekalyan area between 10th April to 18th April 2026.
- The field party took limited reconnaissance traverses and find out 3 cassiterite bearing pegmatites. Moreover, **field party met the district collector office, met DM, Dantewara, who assured all possible help for execution of field work and DM also instructed the concerned SDO also to facilitate the exploration.**
- **Besides, field party also met the officials of DMG at Raipur, they also assured all possible help needed from the State Government.**
- Location of identified pegmatites are provided in the table below-

Location No.	Latitude	Longitude
DME-KTY-01	18°42'10.11	81°34'29.68
DME-KTY-02	18°44'27.79	81°35'11.09
DME-KTY-0.3	18°43'33.48	81°30'53.078

- One Sr. Geologist also joined filed party on 14th and carryout field work with field party, collected samples and took geo-tag photographs.
- The samples were sent to GSI, Central Region, Nagpur for Chemical Analysis (XRF and ICPMS). The results of Chemical analysis received **on 21st May 2026.**



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- Taking up limited field traverse, based on alignment of pegmatite body and litho unit delineation, original block (146Sq. Km.) has been reduce to 114Sq.Km.

1.1 Background

As described above, the Baster-Koraput pegmatite Belt (BKPB) is well known for tin occurrence. It is nearly E-W trending belt with N-S thickness about 15 Km and E-W length is about 150 Km (Fig.1). Earlier the belt was known as Baster-Jeypore Pegmatite belt. Later on Babu TM (1994) named it BKPB. Geological Survey of India and Atomic Mineral Directorate taken up a few projects for exploration of tin in BKPB during early 1970 to 1985 and proved its economic importance in production of tin.

The pegmatites of BKPB are typically associated with tin and rare metal (Nb, Ta, Be and Li) mineralization in the form of Cassiterite, Columbite-tantalite, beryl, Lepidolite and amblygonite (Ramesh Babu, 1999). Based on the study of over 200 pegmatites in the Tongpal-Mundval-Dammoguda sector, the pegmatites of BKPB are characterized in terms of mode of occurrence, size, shape, internal zoning and mineralization. Considering the mineralogy, internal zoning and associated mineralization, the pegmatites of BKPB are classified into five types, viz., I-Simple, un-zoned biotite or muscovite-microcline pegmatites without tin and rare metal minerals, II-Partly differentiated, muscovite-microcline pegmatites with beryl, III-Fully differentiated muscovite-microcline pegmatites with beryl, Columbite-tantalite and Cassiterite, IV-Replaced Lepidolite-albite-muscovite pegmatites with amblygonite, Cassiterite, beryl anti Columbite tantalite and V-Replaced muscovite-albite pegmatites with Cassiterite and beryl. The five types of pegmatites have diagnostic sizes and shapes and form a pegmatite sequence with increasing internal evolution from types-I to V. Such a classification aids in prospecting for tin and rare metal minerals since pegmatites of types-III to V in BKPB are highly potential for these metals.

In India Three major pegmatite Belts-Bihar, Rajasthan and Nellore are well known for its commercial production of mica and substantial production of rare Metal (Nb, Ta, Be, and Li)- bearing minerals, and have been studied for different aspects by numerous workers since long. In contrast, the Baster-Koraput Pegmatite Belt in parts of Chhattisgarh and adjoin Orissa state containing Tin and rare metals-bearing pegmatites with Cassiterite, Columbite-tantalite, beryl. Lepidolite, amblygonite etc., but with no commercial mica.

Babu (1994) classified the BKPB in 5 sectors i.e.

1. Tongpal-Mundwal,
2. Katekalyan,
3. Raninala-Bodenar,
4. Bacheli-Degalras and
5. Mundagura-Korapur sectors

The present study falls in Bacheli-Degalras sector which lies in North-Western part of the BKPB.

Due to administrative problems (Naxalite activity) the further exploration program was stopped. The last Known work from BKPB was taken up by GSI 1981-82. After that entire exploration was stopped. A few independent researchers were also taken up the area for proving tin mineralization from BKPB. Most of the work for tin exploration in BKPB taken up towards central and eastern part of the belt. The western part is still remains for tin exploration.



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Amphibolites and meta-sedimentary rocks, belonging to the Archaean Bengpal Group having a regional metamorphic event around 2530 ± 89 Ma, were intruded by mineralized and hitherto partly exploited RM (Nb-Ta, Be and Li)- and Sn-bearings granite pegmatites in the BMPB in the SE part of the Bastar craton in the states of Chhattisgarh and Odisha.

1.2 Block Description

The Katekalyan Block falls in toposheet no. 65F/10 with an area of 114 Sq. km. The block is located in and around the villages-Katekalyan, Badegudra, Michwarand Kundapal. The location map is provided in Fig. 2 & 3. The coordinates of the corner points of the block area are provided in the table below (dd:mm:ss.ss).

Co-ordinates of Cardinal Points for Katekalyan Block

Table-2 Block Coordinates

Point	Latitude	Longitude
A	18°45'0"	81°30'0"
B	18°45'0"	81°37'30"
C	18°40'20"	81°37'30"
D	18°40'20"	81°30'00"

Block Area- 114 Sq. Km.

1.3 Location and Accessibility

The Katekalyan Block located 26 km from District Headquarter i.e. Dantewada by road and rail. Bacheli which is dumping yard of NMDC for iron ore is major locality in the vicinity of study area.

1.4 Physiography

The N-S trending high rise hills of Bailadila occurs towards west of the Bacheli town. Whereas the study area has moderately undulating topography. Small mounds occupied by meta basalt and dykes and plain area generally occupied by granites.

The Sankini River which is a tributary of Dankini River originated from the study area and have small course. There are few nalas also occur in the area.

The area experiences a tropical to sub-humid climate. The green belt of Baster is supported by moderate to good rain fall and fairly good temperature for vegetation. There are three season shot summers (April to June), monsoon/rainy season (July to October) and winters (November to March).

1.6 Flora & Fauna

The study area has fairly good vegetation with lush green forest and well known for its unique variety of teak. Sal, Bamboo, Sirsa, Bijasal, Kusum, Palas, Mahua, Imli (Tamarind), Tendu etc found in the forest area.

The wild life also very flourish in the study area. Tigers, leopards, wild water buffalo are key animals. Deep forest also witnesses presence of sloth bears, wild dogs (dhole), chital (spotted deer), sambar, barking deer, mouse deer, gaur (Indian bison), and various species of monkeys and langurs. Rare like the Binturong (civet) and giant squirrel.

The area is home to both resident and migratory birds, with over 319 species identified in the district. The most famous is the Bastar Hill Myna (*Gracula religiosa peninsularis*), known for its ability to mimic human voices and the state bird of Chhattisgarh. Other



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species include spotted owls, red jungle fowl, peacocks, parrots, steppe eagles, and racket-tailed drongos.

Reptiles and Amphibians: Rivers and caves in the area, such as the Kotumsar caves and the Kanger River at Bhainsadhara, are habitats for freshwater crocodiles, pythons, cobras, monitor lizards, and various species of frogs, geckos, and snakes.

2. REGIONAL GEOLOGY

The Baster is a well known craton of Indian Shield. Baster craton is graben between Godavari and Mahanadi faults. In the south margin Eastern Ghat mobile belt mark the boundary of Baster craton. The rocks of the Baster craton comprises Archean and Proterozoic litho assemblages viz.

Archean Basement Gneisses: Thetonalite-trondhjemite-granodiorite (TTG) gneisses and granites are oldest Lithounits provide basement for younger greenstone and metasedimentary rocks.

Greenstone Belts: Greenstone belts characterize the area as highly metamorphosed supracrustal sequences. Major belts include the Bengpal-Sukma, Bailadila, Dongargarh, and Sonakhan belts. These contain meta-sediments, meta-Volcanics (basalt, andesite, rhyolite), and significant Banded Iron Formations (BIF).

Proterozoic Basins: The paleo to meso-Proterozoic sedimentary rocks occur as “Purana Formation” comprises Indravati Chhattisgarh basin characterized by sandstone, shale, and limestone/dolomite alternative litho units.

Polyphasic Intrusive: The region has experienced multiple episodes of acidic, mafic and ultramafic discordant intrusions and granites.

2.1 Geological Set-Up of Proposed Block

Geological set up in the area is defined by granitic intrusives found emplaced into the Pelitic and siliceous meta-sediments of Bengpal group of rocks (Crookshank, 1963) of Proterozoic age (Fig 4 & 5). Basic activity as sills, dykes and subaqueous lava ejections preceded the granitic phase. Pegmatites and quartz veins with metasomatic and pneumatolytic activity hosting the tin and associated rare metal mineralization succeeded the granitic phase. The order of super-position worked out in the vicinity of the area is given below: -

Stratigraphic Arrangement of Litho units

Younger Purana sediments	Not exposed in the area. Seen north of the area
----- Unconformity -----	
Quartz veins	At places sericitized; represents the last phase of acid magmatic activity
Younger basic dykes/ pegmatites	Simple un-zoned, greisenised albitised metasomatic re-crystallized pegmatite with rare metal minerals.
Granite	Leucocratic, biotite-muscovite granite at places migmatitic, foliated and porphyritic.
Basic intrusives	Gabbroic to amphibiotic in composition emplaced as sills and dykes into the



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	Bengpal group of rocks.
Basic extrusives	Meta basalt and spillitic with pillow lava structures.
Bengpalmeta-sediments	Sericite-Andalusite schist, Quartzites and sandstones.

After Babu TM (1981-82)

2.2 Description of Rock Types:

Bengpal Meta-sediments:

Bengpal meta-sediments comprising Andalusite sericite schist, sericitic sandstone, Quartzites, silicified shear zones, cherty bands and banded hematite-grunerite Quartzites are the oldest rocks exposed in the area represented by Tulsidongar Formation (Crookshank (1963). Bands of Quartzites, mostly sericitic in nature show sedimentary structures like ripple marks and cross bedding found interbedded with schistose rocks at Bothapara, Korapal and Parcheli areas.

Basic Extrusive

Basic Volcanics of basaltic to amphibolitic composition are exposed as NW-SE trending Dotradongri hill ranges, south of DumamNadi in Katekalyan area and along Pothdongri hill ranges, north of Korapal village. Basic Volcanics lie at the contact of Bengpal meta-sediments and granitic gneiss around Katekalyan area.

Basic Intrusives

Medium to coarse grained, non-foliated gabbroic, dioritic and amphibolitic intrusions are found into the Bengpal Group of rocks. Ring dyke structure and crisscross basic swarms also reported from the area.

Granite Gneiss and Granite

There are three known episodes of granite reported from the Baster. Oldest episode is Sukma granite, intermediate Dabha granite and youngest episode is Palim granite. The proposed area occurs in Darbha granite and intrusive pegmatites. It is leucocratic per aluminous, S-type granite quartz and feldspar and muscovite and occasionally two mica granite found in the proposed area.

Pegmatites

Coarsely crystalline well-developed pegmatites have a range of characterization viz., simple un-zoned, zoned, greisenised and graphic are reported into the basic intrusives, extrusive, granites and Bengpalmeta-sediments. Pegmatites are trending mainly along NNW-SSE, N-S, E-W and NE-SW directions.

3. PLANNED METHODOLOGY

In accordance with the objective of Reconnaissance Survey (G-4), the Reconnaissance Survey programme is proposed. The Reconnaissance Survey shall be carried out as per the Minerals (Evidence of Mineral Contents) Rule 2015. Accordingly, the following scheme of Reconnaissance Survey is formulated in order to achieve the objectives. The details of different activities to be carried out are presented in the subsequent paragraph.

4. GEOLOGICAL MAPPING

Reconnaissance and Geological mapping will be carried out over an area of 114 sq. km at a 1:25,000 scale. The survey will focus on the spatial distribution of different litho units. The pegmatites will identify during the geological traverses.



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The Detail Geologic Mapping for characterization of pegmatites will be taken up at 1:4000 scale. The fertility of pegmatites for Sn, Ta and Nb mineralization will be proved on the basis of geochemical, mineralogical and mineralo-chemical studies.

Pitting and trenching will be taken up for pegmatites only to prove mineralization and zoning of the pegmatites.

Geophysical approach will be taken up for subsurface distribution of pegmatites. The thrust will be given on marking of granites, pegmatites and basic, Ultrabasic dykes. Other structural and geological features will be systematically studied in the area.

5. TOPOGRAPHIC MAPPING:

Topographic survey will be carried out on selected area near by granitic-pegmatite zones.

6. PITTING-TRENCHING

The pitting and trenching will be restricted only around pegmatitic zone. As the pegmatites are sensitive for alteration and afresh sample for their characterization is not possible from the surface. Hence the pitting and trenching become vital.

7. SAMPLING

Sampling from pegmatites and granites will be taken up for petrological, mineralogical chemical and if possible chronological studies.

8. LABORATORY COMPONENT:

Petrography

The Thin Polished Section (TPS) and Doubly Polished Section (DPS) preparation will be taken up from house facilities and optical petrography, mineralography will be done in collaboration with Rajasthan University/GSI WR, Jaipur. The detailed mineralogy and mineralo-chemistry by EPMA, SEM-EDS or LA-ICPMS will be take up with concern laboratories.

Chemical Analysis:

About 200 samples from pegmatites, granites, meta- basalts and other intrusive will be analyzed for major oxides on payment basis from nearby laboratory. For trace and REE analysis by ICPMS the accredited laboratory will be contacted.

Mineralogical and Mineralo-chemical Studies:

X-ray diffraction studies will be performed for bulk mineralogy and also grain separated mineralogical studies. The grains will again mounted on glass slide or stubs to perform SEM-EDS study to know the morphology of the grain and chemical composition of minerals.

9. ITEMS TO BE VERIFIED BY AGENCY

- a. Geospatial scrutiny completed using KML/coordinate dataset and AOI assessed (including exploration activities, mining areas, eco zones, dependencies).**

Yes

- b. Total Forest area in proposed block - with pic from PM Gatishakti portal. Type of forest (RF/PF/Sanctuary/National Reserve forest) to be mentioned.**

We are unable to access PM Gatishakti portal, moreover, Forest department Chhattisgarh i.e https://forest.cg.gov.in/FMIS_AIApp/WPhome.html shows errors.



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- c. Overlap study of previous exploration work carried out in any exploration agencies/departments, or ongoing/proposed exploration work by any agencies/departments done.**

Except exploration blocks of GSI, G4, Tin and rare metal (1979-1980) overlap the proposed area as per NGDR. No other overlapping with previous exploration work carried out by any exploration agencies/departments, or ongoing/proposed exploration work by any agencies/departments done.

- d. Baseline data availability (NGCM, NGPM, Geological Maps, Airborne geophysical data etc) on NGDR confirmed and reflected in comments.**

No base line data is available (NGCM, NGPM, Geological Maps, Airborne geophysical data etc) on NGDR except Gravity 5mGal map of the proposed area.

- e. Processing of Baseline Geoscience data (NGCM, NGPM, Geological Maps, Airborne geophysical data etc), legacy exploration data of proposed area, integration, analysis and interpretation presented in the project proposal/DPR.**

Non-availability of Baseline Geoscience data.

- f. Existing leases (ML/CL/EL etc.) in and around project area verified through NGDR/State DGM/Ministry of Mines.**

No Existing leases (ML/CL/EL etc.) in and around project area verified through by State DGM while visiting their office on 17.04.2026

- g. Whether the area falling within the buffer zone of International Boundary, Wildlife sanctuary, no-go zone, Biodiversity Park etc.**

No, such buffer zone of International Boundary, Wildlife sanctuary, no-go zone, Biodiversity Park etc.

- h. Literature review and previous findings submitted by agency verified and reflected in DPR/In-principle (Page number of the particular to be mentioned in Reference/Bibliography).**

Yes, it reflected in Reference.

- i. Whether the agency has carried out field work in the proposed area, collected samples and presented their findings with analytical data in project proposal/DPR.**

Yes, DME Geo-scientist undertaken limited field work as per advice of TCC-II. Details are as under:

The DME Geo-scientist team reached Dantewada, District headquarter of Katekalyan on 10th April 2026 and carried out limited field work to find out pegmatite bodies in the area. With the help of local labours, there were three pegmatitic bodies identified by the Team. The location of these pegmatites are as follows:

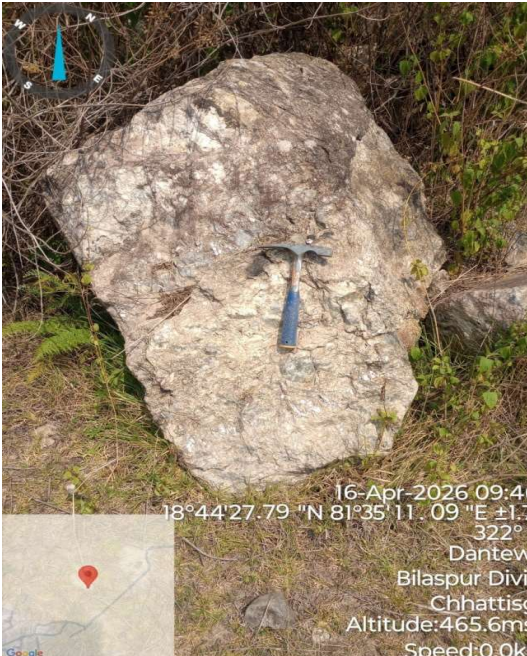
Location No.	Latitude	Longitude
DME-KTY-01	18°42'10.11	81°34'29.68
DME-KTY-02	18°44'27.79	81°35'11.09
DME-KTY-0.3	18°43'33.48	81°30'53.078



DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh

The pegmatite bodies were located in the Northern, Central and Western part of proposed block. The shallow trench dug and collected sample from highly altered phase of pegmatite. Sample location marked on Google Map is placed at Fig 7

Geotagged photograph:

	
Sample location DME-KTY-01	Sample location DME-KTY-02
	
Sample location DME-KTY-03	



DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh

Analytical Results

The Chemical analysis of the sample were done at Geological Survey of India, Central Region laboratory. The XRF analysis was done for major oxides and ICPMS analysis done for rare metals and REE.

The results of analysis are as tabulated below (Report of GSI is annexed as Annexure-1

Major Oxide (in %)

Sample ID	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	MgO	Na ₂ O	K ₂ O	TiO ₂	MnO	P ₂ O ₅	LOI
DME-KTY-01	52.66	34.46	1.41	0.07	0.26	0.28	2.98	0.1	0.04	0.03	6.35
DME-KTY-02	53.35	31.06	2.31	0.1	0.4	0.81	3.8	0.12	0.12	0.03	6.18
DME-KTY-03	64.74	16.03	5.94	0.37	1.27	0.33	3.13	0.73	0.08	0.11	5.38

Rare Metals (in PPM)

Sample ID	Sn	Ta	Nb	Total RM
DME-KTY-01	972.65	335.22	233.74	1541.61
DME-KTY-02	1504.49	274.16	262.11	2040.76
DME-KTY-03	1380.44	194.16	239.22	1813.82

Rare Earth Concentration (in PPM)

Sample ID	La	Ce	Pr	Nd	Eu	Sm	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Total REE
DME-KTY-01	18.28	33.02	3.76	12.59	0.2	2.69	2.06	0.31	1.38	0.18	0.55	0.08	0.56	0.08	75.74
DME-KTY-02	36.78	54.93	7.13	24.37	0.54	4.83	3.57	0.55	2.52	0.35	1.09	0.16	1.12	0.16	138.1
DME-KTY-03	46.85	88.51	9.9	35.01	1.05	6.71	5.32	0.82	4.45	0.85	2.47	0.37	2.45	0.38	205.14

The analytical result revealed that the Tin, Tantalum and Niobium concentration in the samples varies from 972 to 1504 ppm, 194 to 335 ppm and 233 to 262 ppm respectively.

- j. Justification for proposed commodities and details of previous work included in DPR/In-principle. Reference to NMEDT's ongoing/completed projects verified and included in comments.**

Yes, Justification for proposed commodities and details of previous work included in DPR/In-principle. Reference to NMEDT's ongoing/completed projects also verified and included in comments.

10. NATURE AND QUANTUM (NQT) OF WORK

The details of the quantum of work are furnished below:

Table-3 Nature and Quantum pf Proposed Work

Sl. No.	Item of Work	Unit	Proposed Quantum of work
1	RS studies using IRS, Landsat (ETM) and multispectral Data)	sq. km	150
2	Geological Mapping (1:25,000)	sq. km	114
3	Large Scale Mapping using DGPS only for pegmatite	sq. km	30



DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh

Sl. No.	Item of Work	Unit	Proposed Quantum of work
	and granite zones (1:4000) with Topographic Mapping		
4	Geo-Magnetic survey (Geo-physical) for subsurface spatial distribution of pegmatites.	LKM	20
4	Sample Collection from Different Litho units.	No.	200
5	Pitting and Trenching	Cu. m	80
Sample Preparation & Chemical Analysis			
7	Petrography and Minerallography	Nos.	60
8	Chemical Analysis – XRF 24 Major oxide, Trace element	Nos.	100
9	XRD - Minerology	Nos.	20
10	EPMA/SEM-EDS (Mineralo-chemistry)	Nos	10
11	LA-ICPMS (Zr)	Nos	10
12	ICPMS (Pegmatite)	Nos	30

11. COST ESTIMATE

Tentative Cost has been estimated based on the Schedule of Charges (SoC) of projects funded by National Mineral Exploration & Development Trust (NMEDT) w.e.f. 04/12/2025. The total estimated cost is **Rs. 129.70** Lakhs. The summary of cost estimates for the Reconnaissance Survey (G-4 Level) is given in Table-4. The tentative Time schedule/action plan for the proposed Reconnaissance Survey (G-4) is given in Table No.5.

Table-4 Cost Estimates as per SoC Dec 2025

Table 1 Cost Estimates as per SoC Dec 2025									
S. N	Item of Work	Unit	Rates as per NMET SoC 2025-26		Estimated Cost of the Proposal for		Remarks		
			SoC-Item - Sl no.	Rates as per SoC	Qty.	Total Amount (Rs)			
A	GEOLOGICAL WORK								
	1	Geological Mapping (1:2000), Borehole logging, sampling & Report writing							
		a	LSM Geological Mapping (1:4000)	Per Sq. Km	1.1	18300	30	549000	
		b	Charges for one Geologist per day at HQ for RS studies using IRS, Landsat (ETM) and multispectral Data)	day	1.2.1a	10,500	120	12,60,000	
		c	Charges for one Geologist per day (1:12500) at field for mapping,	day/ geologist	1.2.1a (b))	18,300	165	30,19,500	Calculated on the basis of Geologists Party



DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh

S. N	Item of Work	Unit	Rates as per NMET SoC 2025-26		Estimated Cost of the Proposal for		Remarks
			SoC-Item - Sl no.	Rates as per SoC	Qty.	Total Amount (Rs)	
	channel sampling and logging.						Mapping- 6 months
	d Labour Charges (02Nos) for one Geologist; (Base rate - Rs.526/- +PF Rs.63.12/- +ESI- Rs.17.10/- +Bonus- Rs.43.82/-+EL- Rs.29.46/-=Rs. 679.50/-)	day	5.8	679.5	330	2,24,235	As per rates prescribed by Central Labour Commission rates or respective State Govt. whichever is higher
	e Charges for Sampler (1 party)	one sampler per day	1.2.1b	7,850	150	11,77,500	
	f Labour Charges (4 Nos) for Sampling Work; (Base rate - Rs.526/-+PF Rs.63.12/-+ESI- Rs.17.10/- +Bonus- Rs.43.82/-+EL- Rs.29.46/-=Rs. 679.50/-)	day	5.8	679.5	600	4,07,700	As per rates prescribed by Central Labour Commission rates or respective State Govt. whichever is higher
2	Survey						
	a Topographical Survey	day	1.3.1	10500	30	315000	Topographical Survey on 1:4000
	b Labour Charges (4 Nos) for Sampling Work; (Base rate - Rs.526/-+PF Rs.63.12/-+ESI- Rs.17.10/- +Bonus- Rs.43.82/-+EL- Rs.29.46/-=Rs. 679.50/-)	day	5.8	679.5	120	81,540	As per rates prescribed by Central Labour Commission rates or respective State Govt. which ever is higher



DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh

S. N	Item of Work	Unit	Rates as per NMET SoC 2025-26		Estimated Cost of the Proposal for		Remarks
			SoC-Item - Sl no.	Rates as per SoC	Qty.	Total Amount (Rs)	
	679.50/-)						
	Total A					70,34,475	
B	EXCAVATION						
	1	Channel and Trenching	per Cu.m	2.1.1	4,125	20	82500
	2	Pitting	per Cu.m	2.1.3	6,662	60	3,99,720
	Total - B					4,82,220	
C	GEOPHYSICAL						
	1	Geo-Magnetic survey (Geo-physical) for subsurface spetial distribution of pegmatites.20 Line Kilometer at detailed stage (50 point per line kilometer)	Station	3.2a	1800	1000	1800000
	2	Labour Charges (2 Nos) for Sampling Work; (Base rate - Rs.526/-+PF Rs.63.12/-+ESI- Rs.17.10/-+Bonus- Rs.43.82/-+EL- Rs.29.46/-=Rs. 679.50/-)	day	5.8	679.5	120	81540
	Total C					18,81,540	
D	LABORATORY STUDIES						
	1	Chemical Analysis					
		(i) Primary Samples – XRF (Major Oxides + traces – 24 elements)	per sample	4.1.17a	4,200	100	420000
		(ii) Check Samples – 7 radicals (same)	per sample	-	4,200	10	42000
		(iii) Mineral Physics Study (XRD)	per sample	4.5.2	4,000	20	80000
		(iv) EPMA/SEM-	per	4.41a	8,800	10	88000



DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh

S. N	Item of Work	Unit	Rates as per NMET SoC 2025-26		Estimated Cost of the Proposal for		Remarks
			SoC-Item - Sl no.	Rates as per SoC	Qty.	Total Amount (Rs)	
2		EDS	sample				
	(v)	LA-ICPMS	per sample	4.6.3	10,400	10	104000
	(vi)	Analysis of REE (14 Element) by ICPMS	per sample	4.1.15	7,400	30	222000
	Petrological Studies						
	(i)	Preparation of polished thin section of rock		4.3.2	800	60	48000
	(ii)	Complete petrographic/ ore microscopic studies		4.3.4	2,800	60	168000
	TOTAL - D					9,56,000	
	Total (A+B+C+D)					1,03,54,235	
E	Preparation of Exploration Proposal	-	5.1	2% of the Cost or Rs. 5 Lakhs whichever is lower		2,07,085	EA has to submit 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.
F	Land Crop Compensation	Per Borehole	5.6	30,000	5	1,50,000	As per actual as certified by locals authorities subjec tto maximum of Rs. 30,000 per borehole
G	Administrative Charges for getting forest clearance	As per Actual	5.7	As per Actual	-	-	As per actuals



DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh

S. N		Item of Work	Unit	Rates as per NMET SoC 2025-26		Estimated Cost of the Proposal for		Remarks
				SoC-Item - Sl no.	Rates as per SoC	Qty.	Total Amount (Rs)	
H	Geological Report Preparation		Soft copy	5.2	Total Cost Exceeding 50 laks and less than 150 lakhs	1	2,50,000	
I	Peer review Charges			As per EC decision			30,000	
	Total Estimated Cost without GST						1,09,91,320	
J	Provision for GST (18% of GST)		%				19,78,438	GST will be reimbursed as per actual and as per notified prescribed rate
Total Estimated Cost with GST							1,29,69,757	
or Say Rs. In Lakhs							129.70	
Note - 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.								

Table :5 The tentative time schedule/action plan for the proposed Reconnaissance Survey (G-4) for Sn. Ta, Nb and associated REE mineralization.

Total Area –114 Sq Km

Completion Time – 10 Months*

Reconnaissance survey (G4) (114 Sq. Km.) for Rare Metals in Katekalyan Area, western periphery of the Baster–Koraput Pegmatite Belt, District Dantewada, Chhattisgarh.													
Completion time- 10 months, Review- After 3 months and 6- months													
S.No.	Particulars	Months											
		1	2	3	REVIEW	4	5	6	REVIEW	7	8	9	10
1	Pre-field Preparation and RS Studies	30											
2	Mobilisation & Reconattory traverses		15										
3	Large Scale Mapping & Sampling			30		30	30	30					
4	Surface samples analysis					30	30	30					
5	Pitting & Trenching							30		30			
6	Pitting & Trenching Sample Analysis							15		30	30		
7	Geologist Man days		10	10		10	30	30		30			
8	Sampler Man Days			10			10	10		10			
9	Report writing & Peer reviewing										30	30	30



**DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing
Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh**

Note: Dantewada, Chhattisgarh, experiences an average annual rainfall ranging between 1,350 mm and 1,450 mm. Approximately 85% to 90% of this precipitation falls during the southwest monsoon season, which spans from mid-June to September. Due to rainy days and subsequent possibility of grass in the field the Large Scale mapping duration likely to be extended.

Geologist Party days: Field -240 days. (Including pitting, trenching and sampling) & HQ-120 days
Survey Party days: 30 days (for Topographical survey)

13.0 REFERENCES

- Dipak C. Pal, Biswajit Mishra, Heinz-J. Bernhardt (2007): Mineralogy and geochemistry of pegmatite-hosted Sn, Ta, Nb, and Zr,H bearing minerals from the southeastern part of the Bastar-Malkangiri pegmatite belt, Central India. Ore Geology Reviews, Vol.30 (1), Pages 30-55
- <https://doi.org/10.1016/j.oregeorev.2005.10.004>Get rights and content.
- Ramesh Babu P V, Dhana Raju R (2019): Amphibolites in the rare metal- and tin-bearing Bastar–Malkangiri pegmatite belt in Chhattisgarh and Odisha, India. Journal of Earth System Science Vol. 128 (2) <https://www.ias.ac.in/article/fulltext/jess/128/02/0038>
- Ramesh Babu, P V (1999): Rare metal and rare earth pegmatites of Central India Exploration and Research for Atomic Minerals; Journal Volume: 12, Page 7-52
- P. V. Ramesh Babu: Tin and Rare Metal Pegmatites of the Bastar-Koraput Pegmatite Belt, Madhya Pradesh and Orissa, India: Characterization and Classification. Jour. Geol. Soc. India (1993) 42 (2): 180–190.<https://doi.org/10.17491/jgsi/1993/420207>
- T. M. Babu (1994): Tin in India. Geological Society of India: Mineral Resources in India, Sp. Publ. No. 7. ISBN 81 85867
- Soni L. K., Trivedi R. K. and Purohit M. K. (2010): Stanniferous pegmatites of Bacheli-Nerli, District Dantewara, Chhattisgarh. Memo. Geol. Soc. of India No. 76. Page 103-113.

14.0 COMMENTS OF NODAL PERSON (AGENCY) (Difficulty in placing to NMEDT Portal)

In Principle Approval to the Project has been granted by NMEDT, accordingly limited reconnaissance traverses were undertaken by a team of Geologists (1-PC & 2-TAE) of DME, collected three samples got analyzed from GSI, Central Region, Nagpur, Results are encouraging, Tin values are upto 1505 PPM, Tantalum values are up to 335 PPM and Niobium values are up to 262 PPM. Therefore, area warrants at least G4 survey. However, direct G3 exploration is need of the hour.



DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh

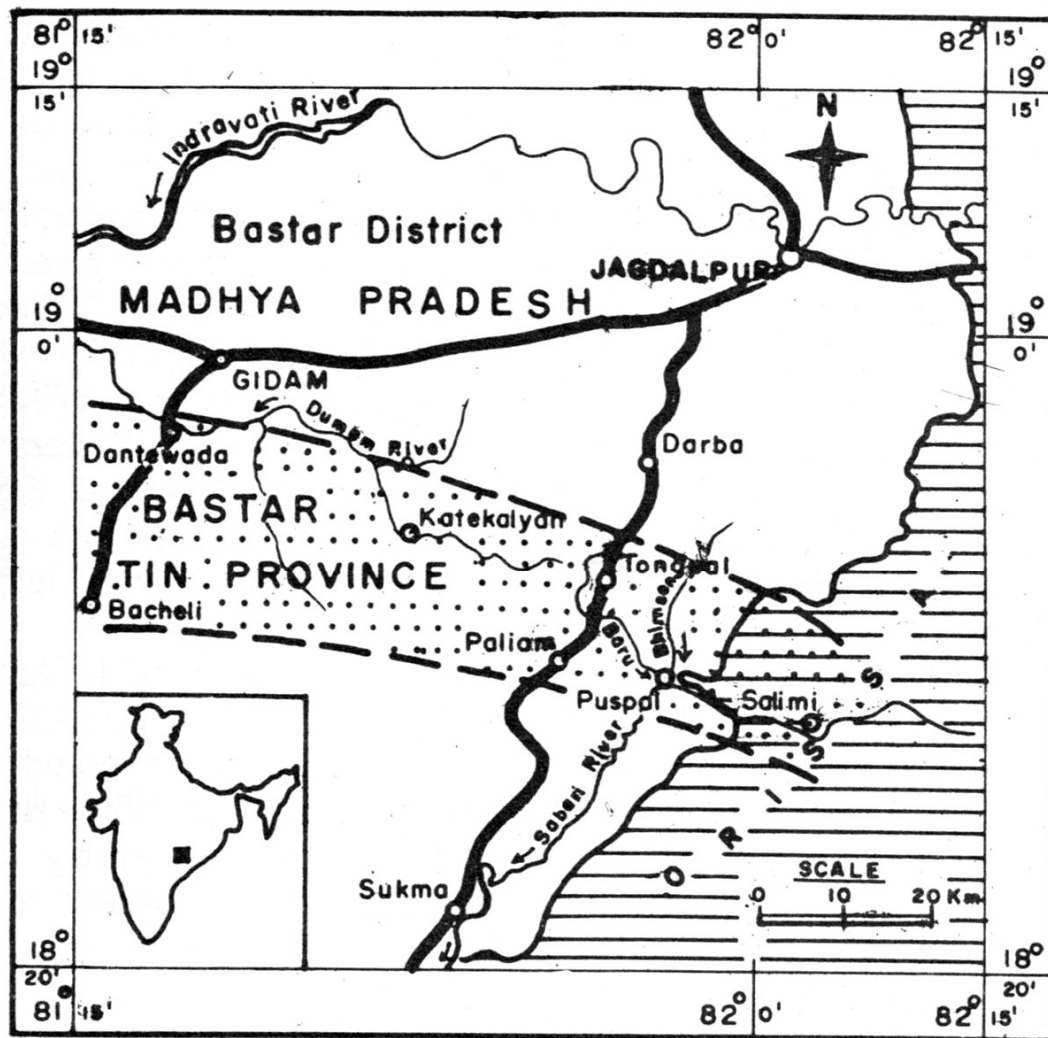


Fig. 1. Location of Bastar tin province of Central India.

(After Babu-1994)



DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh

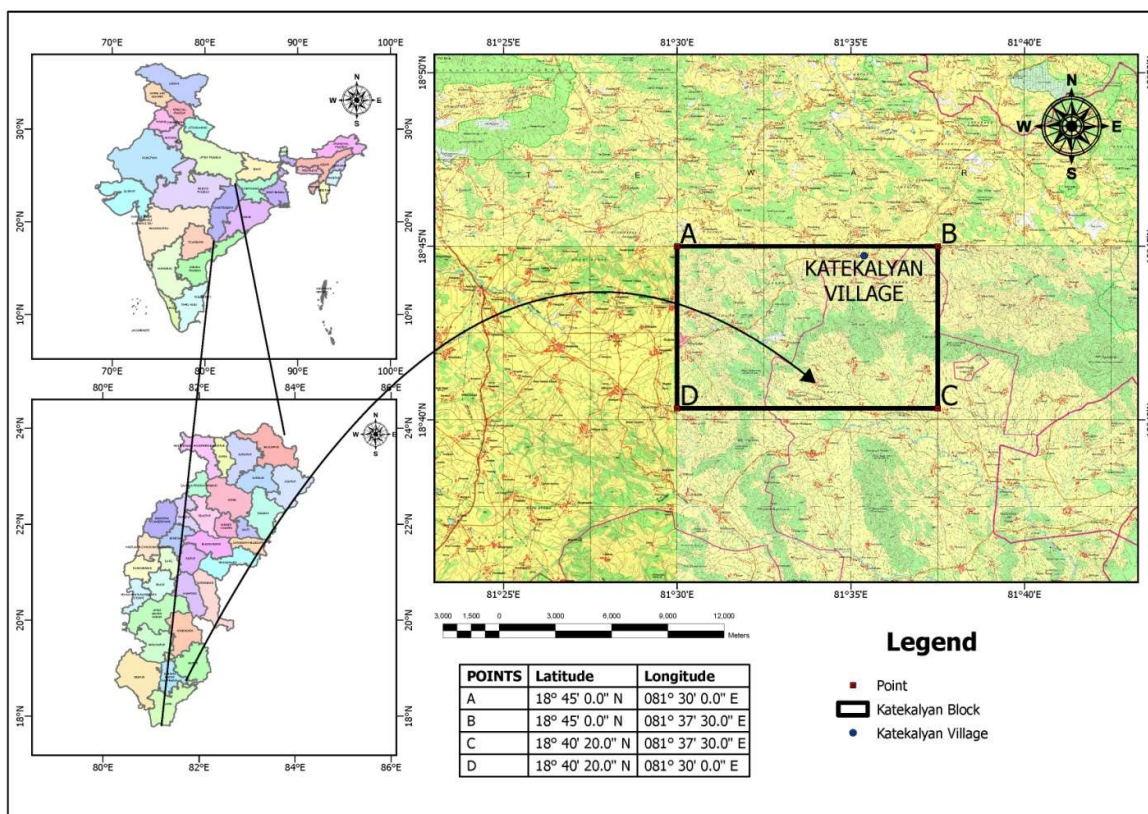


Fig. 2 Location Map of Proposed block on GT Sheet for G4 level survey N/v Katekalyan, Distt. South Bastar-Dantewada, Chhattisgarh



DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh

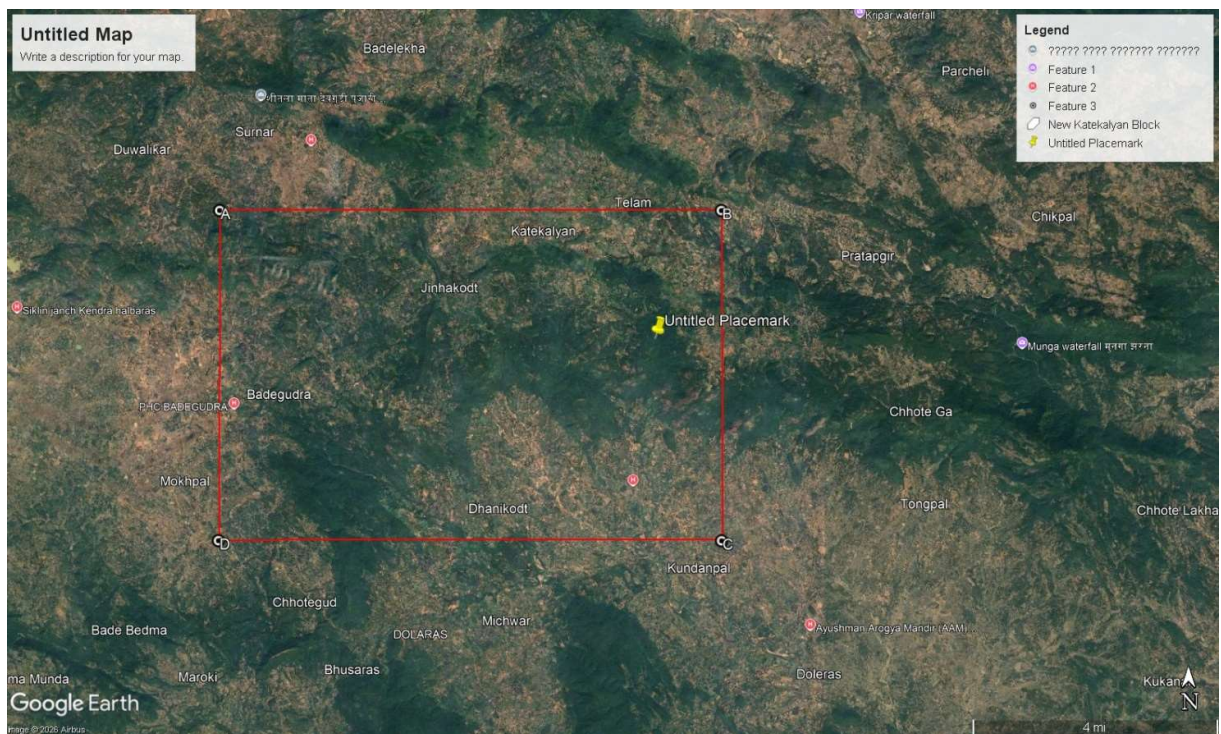


Fig. 3 Google Location Map of the Proposed Area of Investigation.

DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh

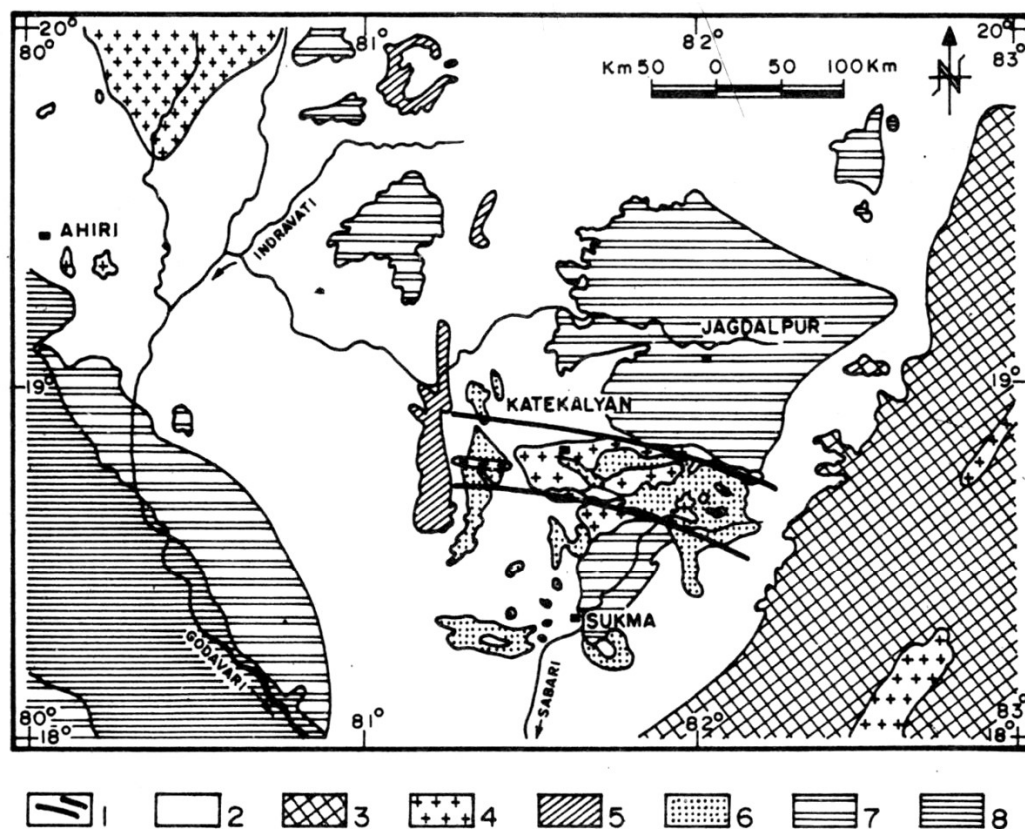


Fig..4. Regional geological setup of the area around Bastar tin province.
 1. Location of Bastar tin province, 2. Unclassified gneiss, 3. Eastern Ghats 4. Intrusive granites, 5. Bailadilla Iron Ore Group, 6. Bengpal/Sukma metamorphics, 7. Indravati Group of Upper Proterozoic cover sediments, 8. Godavari Graben with Gondwana sediments.

(After Babu-1994)

**DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing
Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh**

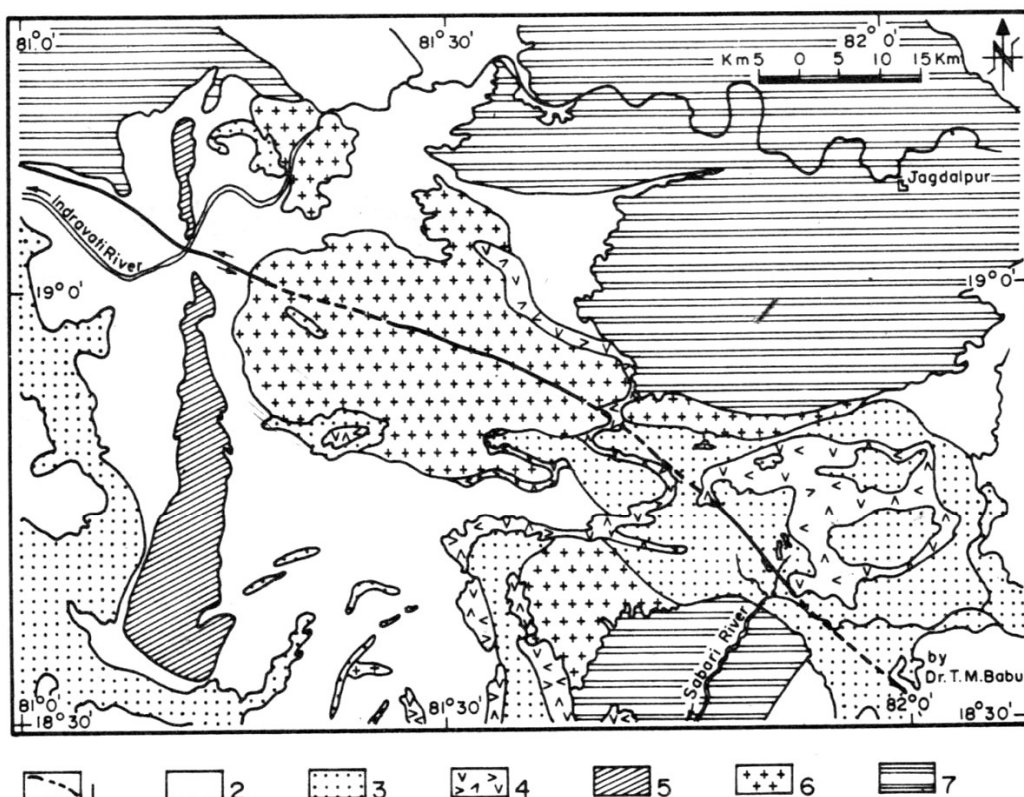
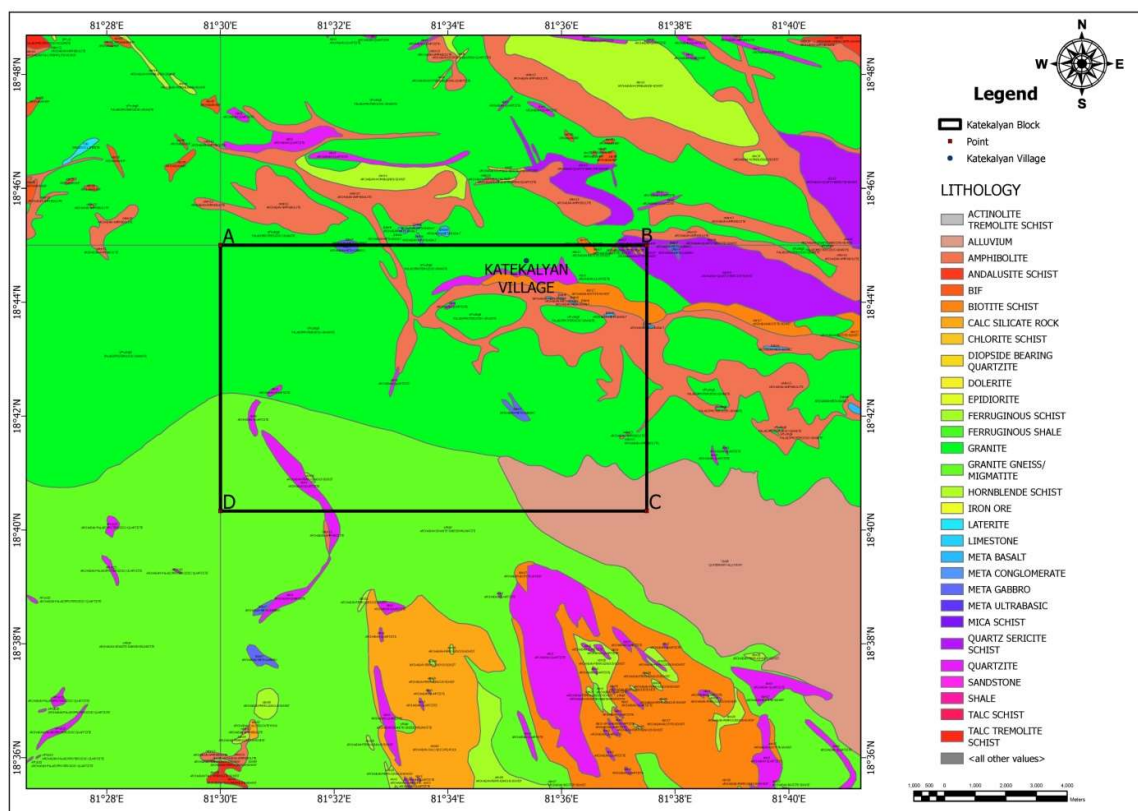


Fig.5. Geological setup of the area based on satellite imagery studies of Bastar tin province. 1. Mega lineament, 2. gneissic complex, 3. Bengpal/Sukma metasediments, 4. Basic suite of rocks, 5. Bailadilla Group, 6. Intrusive granitic complex, 7. Indravati Group of cover sediments.

**DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing
Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh**



**Fig. 6 Location Map of Proposed block on Geological Map for G4 level survey N/v
Katekalyan, Distt. South Bastar-Dantewada, Chhattisgarh
(Courtesy: BHUKOSH)**



DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh

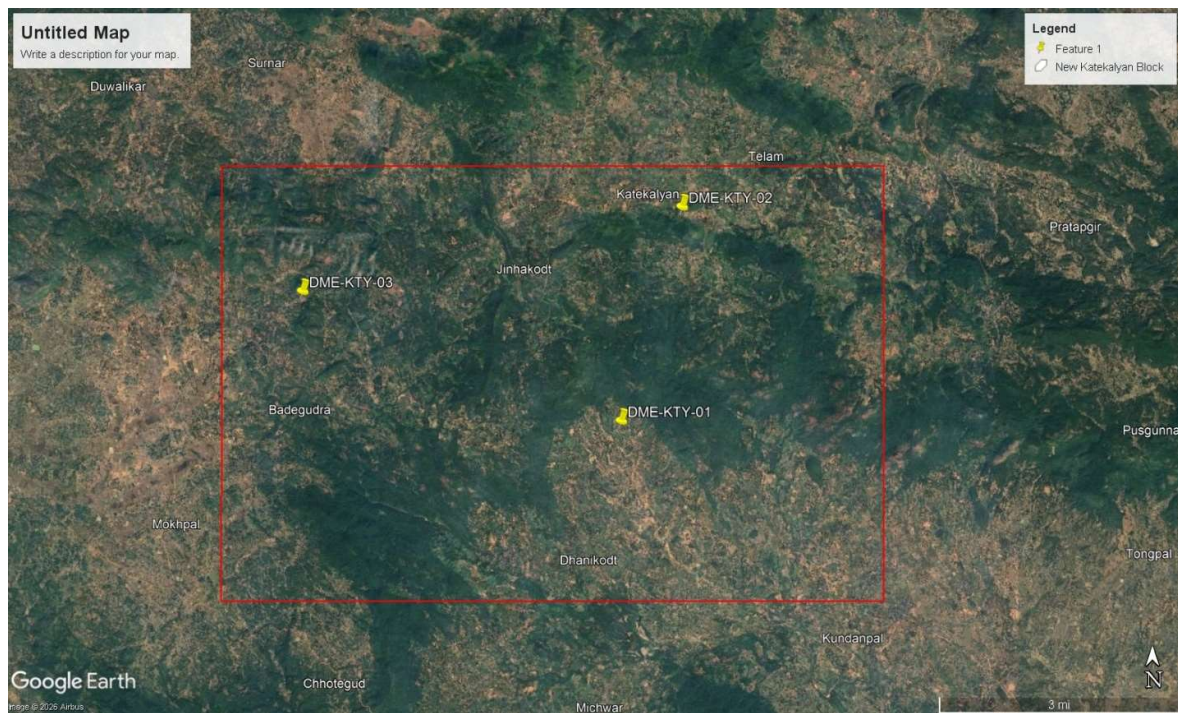


Fig. 7 Showing location of 3 location of samples drawn from Pegmatite bodies



DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh

Annexure – A



भारत सरकार
भारतीय भूवैज्ञानिक सर्वेक्षण, मध्य क्षेत्र
तकनीकी परामर्श सेवाए प्रभाग

पत्र संख्या: 69/TCS/GSI/CR/2026

नागपुर, दिनांक 21.05.2026

प्रेषक,
निदेशक,
तकनीकी परामर्श सेवाए प्रभाग,
भारतीय भूवैज्ञानिक सर्वेक्षण,
मध्य क्षेत्र, सेमीनरी हिल्स, नागपुर- 440006

सेवा में,
CEO & Proprietor,
दीपसर मिनरल एक्सप्लोरर को,
जयपुर (राजस्थान)

विषय: 06 शैल नमूनों के XRF एवं ICPMS विश्लेषण के परिणाम हेतु।

महोदय/महोदया,

उपरोक्त संदर्भानुसार, आपके द्वारा भेजे गये 06 नमूनों के XRF एवं ICPMS परीक्षण के परिणाम आपके अवलोकन हेतु संलग्नित है।

यह आपकी सूचना एवं आवश्यक कार्रवाई हेतु प्रेषित है।

भवदीय,

(क्षिप्रा मेश्राम)
निदेशक (भूविज्ञान)

भवदीय,

क्षिप्रा मेश्राम
21/05/2026

(क्षिप्रा मेश्राम)

निदेशक (भूविज्ञान)



Deepsar Mineral Explorer, Jaipur, Rajasthan

DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh



भारत सरकार / Government of India

भारतीय भूवैज्ञानिक सर्वेक्षण / Geological Survey of India,

मध्य क्षेत्र /Central Region

रसायन प्रयोगशाला/ Chemical Laboratory

GSI Complex, Seminary Hills, Nagpur-440006 Telephone: 0712- 2510378 Fax: 0712- 251037

TEST REPORT OF ANALYSIS

ULR ID											Format No. :	GS/CR/NGP/FM/50
Test Report No./ Lab. No.:	2026-1029(1-06)										Method No.:	GS/CR/NGP/SOP/XRF/02
Sender's Name & Address :	M/S Deepsar Mineral Explorer										Date of receipt:	05.05.2026
Ref. Letter No.:	48/2-22A/TCS/GSI/CR/2026, Dated 05.05.2026										Date of issued	07.05.2026
Item No.:											Date of analysis:	08.05.2026
Descriptions:											Date of Report:	12.05.2026
Locality:	Bacheli, Nerli, Padapur, Talem , Dhanikot, Atepal, Chhatisgarh.										Field Season:	2025-26
Analyzed By:	Sh.Rajarshi Dhar,Mrs. Rashmi Deshmukh,Pranamita Mukherjee,Rinki,Karan Asnani										Project:	
											Location :	Permanent facility at Chemical laboratory, GSI, CR, nagpur
S No.	Ref.No	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃ T	CaO	MgO	Na ₂ O	K ₂ O	TiO ₂	MnO	P ₂ O ₅	LOI
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
1	DME-BCH-01	52.53	33.3	1.9	0.08	0.34	0.43	3.04	0.17	0.02	0.33	6.35
2	DME-BCH-02	50.69	36.81	0.56	0.13	0.27	0.78	2.73	0.04	0.01	0.32	6.85
3	DME-BCH-03	51.57	28.78	6.35	0.26	0.89	1.38	2.81	0.81	0.09	0.35	5.17
4	DME-KTY-01	52.66	34.46	1.41	0.07	0.26	0.28	2.98	0.1	0.04	0.33	6.35
5	DME-KTY-02	53.35	31.06	2.31	0.1	0.4	0.81	3.8	0.12	0.12	0.33	6.18
6	DME-KTY-03	64.74	16.03	5.94	0.37	1.27	0.33	3.13	0.73	0.08	0.11	5.38

Note:

- Results relate only to the items tested as received
- Test Report shall not produced without approval of competent authority.
- Samples were analysed by pressed pellet method.
- "nd" = not detected.
- CAB is not involved in sampling
- Test is carried out at room temperature and controlled environment condition as per instrument manual.
- Remarks, if any:

Analyzed By: *Rashmi*
Name: *Rashmi Deshmukh*
Designation: *Chemist*
Date: *19.05.2026*

Checked By: *PShar*
Name: Sh.Rajarshi Dhar
Designation: Sr. Chemist
Date: *19.5.26*

Patil
Authorised By:
Name: Ms.M. R.Patil
Designation: Director
Date: *19/05/26*

* End of Test Report *



Deepsar Mineral Explorer, Jaipur, Rajasthan

DME- DPR for the Reconnaissance Survey(G-4) for Tin Tantalum and Niobium bearing Pegmatites, (Katekalyan Block), District Dantewada, Chhattisgarh



भारत सरकार / Government of India
भारतीय भूवैज्ञानिक सर्वेक्षण / Geological Survey of India,
मध्य क्षेत्र /Central Region
रसायन प्रयोगशाला/ Chemical Laboratory

GSI Complex, Seminary Hills, Nagpur-440006 Telephone: 0712- 2510378 Fax: 0712- 251037

TEST REPORT OF ANALYSIS

URL ID		Format No. :	GSI/CRNGP/FM/50
Test Report No./ Lab. No.:	2026-1029(1-6)	Method No.:	GSI/CRNGP/SOP/ICP/01
Sender's Name & Address :	Pradeep Agarwal, Deepsar Mineral Explorer	Date of receipt:	05.05.2026
Ref. Letter No.:	48/2-22A/TCS/GSI/CR/2026 Dated 05.05.2026	Date of issued:	NA
Item No.:	NM	Date of analysis:	15.05.2026
Descriptions:	NM	Date of Report:	18.05.2026
Locality:	Bacheli, Nirli, Padapur, Talem, Dhanikot, Atepal, Chhattisgarh.	Field Season:	NA
Analyzed By:	Smt. Himani Khattar, Sr. Chemist, Dr. Kiritbala D. Bhaisare, Chemist, Miss Roshni Topno, Chemist, Miss Sandhya Lata Dhan, Chemist, Shri. Pushpak Bhandari, Chemist & Shri. Chakradhar Sahu, ACH	Project:	NA

		Permanent Facility at Chemical Laboratory, GSI, CR, Nagpur															
Sample ID	Ref No.	Nb	Sn	La	Ce	Pr	Nd	Eu	Sm	Gd	Tb	Dy	Ho	Er	Tm	Yb	Ta
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
2026-1029-1	DME-BCH-01	298.96	1235.90	38.44	77.81	8.44	29.50	0.44	6.76	3.87	0.55	2.45	0.36	1.08	0.17	1.11	406.15
2026-1029-2	DME-BCH-02	272.75	862.12	20.99	20.96	3.38	10.72	0.36	1.90	1.44	0.19	0.84	0.09	0.30	0.04	0.26	353.32
2026-1029-3	DME-BCH-03	294.67	1855.09	48.27	132.69	11.22	39.52	1.22	8.28	6.66	1.10	5.93	1.13	3.39	0.52	3.48	234.35
2026-1029-4	DME-KTY-01	233.74	972.65	18.28	33.02	3.76	12.59	0.20	2.69	2.06	0.31	1.38	0.18	0.55	0.08	0.56	335.22
2026-1029-5	DME-KTY-02	262.11	1504.49	36.78	54.93	7.13	24.37	0.54	4.83	3.57	0.55	2.32	0.35	1.09	0.16	1.12	274.16
2026-1029-6	DME-KTY-03	239.22	1380.44	46.85	88.51	9.90	35.01	1.05	6.71	5.32	0.82	4.45	0.85	2.47	0.37	2.45	194.16

- Note:
1. Results relate only to the items tested as received
2. Test Report shall not produced without approval of competent authority.
3. "nd" = not detected.
4. CAB is not involved in sampling
5. Test is carried out at room temperature and controlled environment condition as per instrument manual.
6. Remarks, if any

Analyzed By: Roshni Topno
Name: Roshni Topno
Designation: Chemist
Date: 18.05.2026

Checked By: Himani Khattar
Name: Himani Khattar
Designation: Sr. Chemist
Date: 18.05.2026

Approved By: Dr. S. Chandrawanshi
Name: Dr. S. Chandrawanshi
Designation: Director (Chemistry)
Date: 18.05.2026

END OF TEST REPORT



Deepsar Mineral Explorer, Jaipur, Rajasthan