

3. Proposal for Preliminary Exploration (G3) for Molybdenum in Mannadipatti South Block & Ponnaiyar North Block (total 4.75 sq.km. area), Uttangarai Sector, Harur-Uttangarai Belt (HUB), Krishnagiri Distirct: State- Tamil Nadu.

[Implementing Agency- MECL]

	Features	Details
	BlockID	Mannadipatti South Block &Ponnaiyar North Block
	ExplorationAgency	Mineral Exploration And Consultancy Limited (MECL)
	Commodity	Molybdenum
	MineralBelt	Harur-Uttangarai Molybdenum Belt,Tamil Nadu
	Completion Period with entire Time schedule and cost	Rs.790Lakhs; 15 months
	Objectives	<p>The present G3 stage Exploration has been planned in Mannadipatti South &Ponnaiyar North Block to estimate the Mo resource under 333 category of UNFC. Objectives of present exploration is as follows</p> <p align="center">Phase-I</p> <p>To carry out Detailed geological mapping on 1:2000 scale with surface geochemical samples (Bedrock/channel) from the area to demarcate the litho-units along with structural features.</p> <p>To carry out Topographical survey in the entire block area (4.75 sq.km.).</p> <p>To carryout ground geophysical survey (Induced Polarization (I.P) cum Resistivity, S.P. & Magnetic method) to delineate the sub-surface continuity of mineralized zones in the area.</p> <p>To carry out Trenching work in the identified anomalous areas at suitable profiles to trace the concealed strike extensions of the ore body.</p> <p align="center">Phase-II</p> <p>Based on the positive outcome of Geological mapping, surface geochemical samples, ground geophysical survey, exploratory drilling work shall be carried out in the identified anomalous zones to establish the strike and depth</p>

		<p>persistence of ore zones at 100m interval for 1st level intersections (50m vertical depth) and 2nd level intersections (100m vertical depth) on selected alternate profiles (200m interval) throughout the demarcated potential strike length of the ore body.</p> <p>Additionally, few scout boreholes shall be drilled in the extension areas of potential area to establish the continuity of mineralisation at 50m vertical depth.</p> <p>To estimate the resource under 333 categories of UNFC.</p>		
	Whether the work will be carried out by the proposed agency or through outsourcing and details thereof. Components to be outsourced And name of the outsource agency	The work will be carried out by MECL.		
	Name/Number of Geoscientists	Geologist: 02 Nos. Geophysicist: 01 No Will be provided during execution.		
	Expected Field days(Geology)Geological Party Days	Geologist:02 Nos. Surveyor :01 No.		
1.	Location	Proposed Mannadipatti South Block and Ponnaiyar North Block is part of the Uttangarai sector of HarurUttangarai Molybdenum Belt (HUB) in Uttangarai tahsil and located in the southeastern part of Krishnagiri District of Tamil Nadu. The nearest town and Tehsil isUttangarai (10km) and District headquarter Krishnagiri is about 60km from the proposed block area.		
	Latitude and Longitude	Mannadipatti South &Ponnaiyar North block total area is 4.75 sq.km. and bounded by the following corner cardinal points		
		Block corner cardinal point	Latitude	Longitude
		A	12° 12' 37.0704" N	78° 28' 33.5433" E
		B	12° 12' 31.1000" N	78° 28' 44.9000" E
		C	12° 12' 30.0000" N	78° 29' 03.4000" E

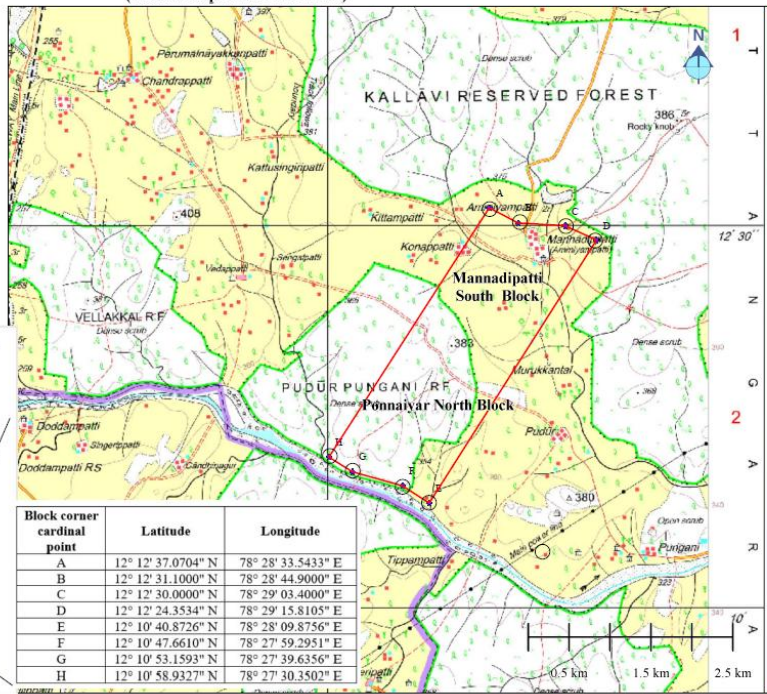
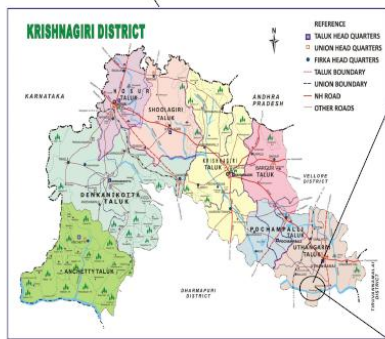
		D	12° 12' 24.3534" N	78° 29' 15.8105" E
		E	12° 10' 40.8726" N	78° 28' 09.8756" E
		F	12° 10' 47.6610" N	78° 27' 59.2951" E
		G	12° 10' 53.1593" N	78° 27' 39.6356" E
		H	12° 10' 58.9327" N	78° 27' 30.3502" E
	Villages	Mannadipatti, Konapatti and Pudur		
	Tehsil/Taluk	Uttangarai		
	District	Krishnagiri		
	State	Tamil Nadu		
2.	Area(hectares/squarekilometers)			
	BlockArea	Total Area 4.75 sq.km. (Mannadipatti South – 2.75 sq.km.+Ponnaiyar North- 2.0 sq.km.)		
	ForestArea	Southern part of proposed block area falls in Pudurpungani R.F.		
	GovernmentLandArea	-		
	PrivateLandArea	-		
3.	Accessibility			
	NearestRailHead	The Jolarpettai –Salem section of the Chennai-Coimbatore Broad Gauge line of the SouthernRailway passes through the area. Uttangarai is the main railhead, about 13 kmNNE of the exploration block.		
	Road	The proposed block area is approachable by about 11 km fair weather metalled road from Hanumantheertham situated on the Uttangarai-Salem State High way and is about 160km from Bengaluru and about 265 km from Chennai. Uttangarai is the taluk headquarter and is well connected by all weather roads with Dharamapuri, the district headquarter, as well as withSalem, Krishnagiri and Tirupattur, the adjoining major towns.		
	Airport	The nearest airport is Bengaluru at a distance of195 Km from the exploration block.		
4.	Hydrography			
	LocalSurfaceDrainagePattern(Channels)/	The general slope of the country is towards south and the drainage is collected by easterly flowing Ponnaiyar River. Mannadipatti South &Ponnaiyar North Block available.		

	Rivers/Streams	Ponnaiyar River is outside of the Mannadipatti South &Ponnaiyar North Block flowing in the south of the block
5.	Climate	
	MeanAnnualRainfall	The area experiences a hot semi-arid climate to tropical savanna climate. The average annual rainfall is 794 millimetres
	Temperatures(December)(Minimum) Temperatures(June)(Maximum)	The temperature averages at 36 °C.Summer is from the months of March to June. During this timetemperatures are hot to sweltering and mercury rise up to around 44°C and dipping a minimum of 32 °C April and May are generally the hottest months of the year.
6.	Topography	
	ToposheetNumber	57L/8
	Morphology of the Area	The area forms an undulating terrain with a number of NNE- SSW trending ridges, mounds and isolated hillocks. The general ground level drops from 400m above mean sea level (MSL) in the west to about 340m in the east. The area is drained by an ephemeral river Ponnaiyar, which has an easterly flow. It has several northeasterly and southeasterly flowing tributaries.
7	Availabilityofbaselinegeosciencesd ata	
	GeologicalMap(1:50K/25K)	Traversegeological Map (1:2000 scale) of GSI (F.S. 1998-2001) for Mannadipatti South &Ponnaiyar North Block is available.
	GeochemicalMap	Geochemical (Soil/Trench) profiles of GSI (F.S. 1998-2001) for Mannadipatti South &Ponnaiyar North Block available.
	GeophysicalMap	
8.	JustificationfortakingupG-3orG- 2Stage mineralExploration	<p>1.Mannadipatti South Block &Ponnaiyar North Block area is part of Uttangara sector of Haur-Uttangarai Molybdeum Molybdenum Belt (HUB) of Tamil nadu and the area was previously explored by various workers of GSI and MECL. The list of available reports of the area as listed below.</p> <p>1. Report on the Reconnoitory Exploration for Molybdenum in the Extension areas of Uttangarai Sector, Harur-Uttangarai Belt, Dharmapuri Dist, Tamil Nadu, (GSI, 2002)</p> <p>2. Geological Report on Preliminary Exploation for Molybdenum in Mannadipatti Central Block, Uttangarai</p>

		sector of Harur-Uttangarai Belt, Dist. Dharmapuri, Tamil Nadu. MECL (2017)
9.	Justification for taking up G3 stage mineral exploration.	<p>Reconnoitry exploration for molybdenum was carried out by GSI during FS 1998-2000 under an MoU with TAMIL (Tamil Nadu state Govt. undertaking) in the Uttangarai sector of Harur-Uttangarai Molybdenum Belt (HUB), Dharmapuri & Krishnagiri districts of Tamil Nadu. Uttangarai sub area of Uttangarai sector comprises of sub-blocks i.e. Ponnaiyar North (PN), Mannadipatti South (MNS), Mannadipatti Central (MNC), Mannadipatti North (MNN) and Nochipatti (NP) blocks. Exploration work comprises of traverse geological mapping, soil sampling, trenching and scout drilling.</p> <p>Based on the results of combined surface and sub-surface anomalies, a total cumulative strike length of 4.1 km (at minimum 0.01% Mo at 1m thickness) comprising of three segments delineated as anomalous and areas were prioritised for further detailed exploration.</p> <p>Scout boreholes drilled in Mannadipatti South Block & Ponnaiyyar North sub blocks of Uttangarai sector intersected significant zones for molybdenum mineralisation and the area hold potential for further exploration.</p> <p>Moreover, as a follow up work of GSI's Reconnoitroy Exploration, MECL (2016-17) carried out G3 stage exploration in the adjoining Mannadipatti Central Block (northern extension of Mannadipatti South Block) over 0.60 sq.km. area. Total 7 boreholes involving 1221 m drilled over a strike length of 700m up to vertical depth of 100m. A total of 0.699 m.t. with 0.031% Mo at 0.010% Mo cut-off and 0.335 m.t. with 0.055% Mo at 0.030% cut-off estimated in the area and further work was recommended.</p> <p>Mannadipatti Central Block was kept for auction in 1st trench by Ministry of Mines (MoM), Govt. of India during 2023-24. However, due to small size of the block with low resources/other reasons resulted in poor participation of bidders and the block was annulled. Subsequently, MoM advised upgradation and amalgamation of blocks to make a sizable block for auction in future.</p>

		<p>In line with this, a meeting was held on 07/08/24 through VC, chaired by Dy.Secretary, Ministry of Mines along with officials from GSI & MECL to discuss amalgamation of Mo blocks in Tamil Nadu. Based on mutual consent between MECL & GSI, Mannadipatti central block was handed over to GSI and Mannadipatti South Block & Ponnaiyyar North Block handed over to MECL for further upgradation (up to G2 stage) and amalgamation to make a sizable block for auction.</p> <p>Considering the potentiality of the block, poor participation of bidders in auction and advice from Ministry of Mines, Govt. of India for amalgamation and auction of the block, MECL has formulated G3 stage exploration proposal for Mannadipatti South Block & Ponnaiyyar North Block over an extent of total 4.75 sq.km area to prove the strike and depth continuity of shear-controlled molybdenum mineralisation and to estimate the resource and grade at G3 stage.</p> <p>The proposed preliminary exploration (G3 stage) work comprises of detailed geological mapping, topographical survey, associated with surface Bedrock/trench sampling, ground geophysical survey and followed by exploratory drilling.</p> <p>The present exploration (G-3 stage) in Mannadipatti South Block & Ponnaiyyar North block area would be helpful to estimate the Molybdenum resource under 333 category of UNFC. Moreover, this will in turn facilitate for further upgradation (up to G2 stage) and amalgamation of the blocks to make a sizable block for auction.</p>
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LOCATION MAP OF PROPOSED MANNADIPATTI SOUTH BLOCK - PONNAIYAR NORTH BLOCK (Total 4.75 sq.km.) FOR G3 EXPLORATION (MOLYBDENUM), HARUR-UTTANGARAI BELT, KRISHNAGIRI DISTRICT, TAMIL NADU
(Part of Toposheet No.57L/8)



Text Figure-1: Location of the proposed Mannadipatti South & Ponnaiyar North Block

Uttangarai Sector, Harur-Uttangarai Molybdenum Belt, Tamil Nadu

