

**INSPECTION VISIT BY SHRI GODISE VIDYA SAGAR, ADG & HOD, GSI,
CENTRAL REGION TO THE PROJECT OF TUNGSTEN INVESTIGATION
IN LODHA-TOLA AREA MAHARASHTRA**

Shri Godise Vidya Sagar, Addl. Director General & HOD, GSI, CR along with Shri M.V Dhakate, Director, PSS, GSI, CR made a field inspection visit to the Tungsten investigation project (G3) in Lodhatola-Garra area on 27.12.18 and 28.12.18 of item no. M2ASMIF-SML/NC/CR/SU-MH-NAG/2018/18214 of SU: Maharashtra.

Dr. V.V Sessa Sai, Director & Supervisory officer of the investigation along with field officer Shri. D.B.K Khuntia, Geologist & Ms. Subhashree Lenka, Geologist, explained the geological set-up of the area and the targets achieved in detailed geological mapping and sampling at Dolara and Chawari block in the area of investigation. ADG & HOD enquired about the background information and objective of the investigation. He verified the field dossier, Detailed Geological Map and discussed on the tungsten analyses pertaining to the bed rock samples collected from Dolara and Chawari block. ADG & HOD has also inquired about the field stay of both the officers as well as technical input by supervisory officer.

On the second day of visit, field traverses were taken along Dhoriya nala section, Dolara and Chawari DM block area. During the field traverses different rock types of Sausar group and basement were studied. The location wise description of field work is given below

Visited site location 1: Lat: 21° 38' 02.0" E **Long:** 79° 24' 07.0" E

Tirodi Biotite Gneiss (TBG), basement to Sausar group was studied at Dhoriya nala section, east of Bandra village. These are biotite rich quartzo–feldspathic granitic gneisses. Gneissic foliation is well developed with strongly defined alternate leucocratic (quartzo-feldspathic) and melanocratic (biotite ± amphiboles) bands. The foliation trends in NNW-SSE direction. the gneiss is typically augen gneiss as there are small augens of quartz and feldspar aligned along the foliation plane. Two generation pegmatite also observed, one parallel to the gneissic foliation and another cross cutting the foliation. The pegmatite exposed was coarse to very coarse grain and predominantly composed of quartz, K-feldspar and muscovite with accessory tourmaline, garnet and beryl. Very well developed graphic texture is also observed as intergrowth between quartz & K-feldspar in this pegmatite.

Visited site location 2: Lat: 21° 38' 45.7" E **Long:** 79° 24' 44.8" E

Dolomitic marble of Bichhua formation was observed at west of Dolara village. The rock is coarse granular in hand specimen with well developed sacchroidal texture, white to dull white in color

with a characteristic 'elephant skin' weathering pattern on exposure surface. It is mainly composed of calcite with minor amount of quartz, and muscovite.

Visited site location 3: Lat: 21° 38' 45.7" E **Long:** 79° 24' 44.8" E

Magnetite bearing quartz mica rock is studied in Dolara DM block, where detailed mapping has been completed. The Rock is light grey to reddish grey in colour, medium grained and mainly composed of quartz and mica. Grains of magnetite are scattered within the rock unit. Thin veins of quartz and pegmatite also observed intruded into the rock. The rock exposed in form of small ridge like topography. The rock is well foliated and shows foliation N70°W-S70°E/70° towards South.

Visited site location 4: Lat: 21° 38' 11.7"N **Long:** 79° 28' 12.4"E

Magnetite bearing quartz mica rock is studied in Chawari DM block, where work of detailed mapping is under progress in the area. The rock well exposed with a length of approximately 800 m and width 5-40 m. The Rock is light grey to reddish grey in colour, medium grained and mainly composed of quartz and mica and at places intruded by with tourmaline bearing later thin quartz veins. Grains of magnetite are scattered within the rock unit. Few features such as asymmetrical porphyroclasts suggest evidence of shearing.

Suggestions:

1. The supervisory officer of the investigation along with the field officers informed to the ADG & HoD, that the bed rock samples collected from Dolara and Chawari block were processed by agate mortar and the analytical results indicated a very low tungsten value from 1.5 to 20 ppm 'W' and no surface zone of mineralisation could be established. In view of very low tungsten values received, the ADG & HoD suggested to submit a request to concern competent authorities to convert the investigation from G3 to a G4 stage without involving any drilling work.
2. He advised to submit the rest of the prioritised samples from Chawari block and adjacent area for chemical analyses. He also suggested to carry out field work to locate possible mineralised zones in and around the area of investigation and also further to carry out detailed petrographic studies and SEM studies.



Discussion on the geological set up of the study area at GSI Camp



Megascopic study of the rock samples at GSI Camp, Deolapahar



Field observations of the basement Tirodi Biotite Gneiss



Field officers showing the pegmatite vein intruded into basement gneiss



ADG & HOD studying the tourmaline bearing quartz mica rich rock in Dolara block