PROPOSAL OF RECONNAISSANCE SURVEY (G-4)
FOR NICKEL, COPPER AND ASSOCIATED MINERALS
IN SALEWARA-KUMARWARA-MURUM BLOCK (52 Sq. Km.),
TEHSIL- CHHUIKHADAN, DISTRICT- RAJNANDGAON, CHHATTISGARH

COMMODITY: NICKEL, NICKEL AND ASSOCIATED MINERALS

BY

MINERAL EXPLORATION CORPORATION LIMITED
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SEMINARY HILLS
NAGPUR (MH)

PLACE: NAGPUR
DATE: 20.04.2022

Summary of the Block for Reconnaissance Survey (G-4 Stage)

GENERAL INFORMATION ABOUT THE BLOCK

	Features	**Details**
	Block ID	Salewara-Kamarwara-Murum Block
	Exploration Agency	Mineral Exploration Corporation Limited (MECL)
	Commodity	Copper, Nickel and Associated Minerals
	Mineral Belt	Dongarharh Super Group, Southern Extension of Malanjkhand
	Completion period with entire Time schedule to complete the project	21 months
	Objectives	Based on the evaluation of previous work, the present exploration program has been formulated to fulfil the following objectives: i) To carry out Geological & structural mapping on 1: 12,500 scale for demarcation of copper, nickel and associated mineral bearing formations (host rock) with the structural features to identify the surface manifestations and lateral disposition of the mineralized zones. ii) To collect gride wise surface (Bedrock/soil/stream sediment) samples in identified anamolous zones of copper near Murum and nickel zones near Kumarwara. The samples will be analysed for Cu, Ni and associated minerals and decide further course of Exploration program. iii) The sampling and analytical results will decide the future course of Exploration program at G-3/G-2 category of UNFC.
	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	Work will be carried out by the proposed agency (MECL).
	Name/Number of Geoscientists	Two nos. Geoscientist
	Expected Field days (Geology, Geophysics, surveyor)	Geologist Party days: 120 days

<table>
<tr><td>1.</td><td>Location</td><td></td></tr>
<tr><td></td><td>Latitude and Longitude</td><td>
<table>
<tr><th rowspan="2">BB Point</th><th colspan="2">DMS</th></tr>
<tr><th>LONGITUDE</th><th>LATITUDE</th></tr>
<tr><td>A</td><td>80° 49' 18.1196" E</td><td>21° 42' 29.9295" N</td></tr>
<tr><td>B</td><td>80° 52' 26.3419" E</td><td>21° 42' 30.0068" N</td></tr>
<tr><td>C</td><td>80° 52' 27.5281" E</td><td>21° 37' 11.1574" N</td></tr>
<tr><td>D</td><td>80° 49' 25.0263" E</td><td>21° 37' 11.1574" N</td></tr>
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</td></tr>
<tr><td></td><td>Villages</td><td>Salewara, Kumarwara, Dhotha and Murum villages in Chhuikhadan Tehsil situated in the Block. Rampur is an important village in northern parts or the area and can be approached via Salewara another important village located at a distance of about 7 km to the NE of Rampur. In turn Salewara is well connected by an all-weather metalled road with the district headquarters of Rajnandgaon about 55km and Balaghat which also serve as the nearest rail heads at distances of about 130 km on the south Eastern Railway. Other villages are connected to metalled road by recently developed Forest Roads</td></tr>
<tr><td></td><td>Tehsil/Taluk</td><td>Chhuikhadan</td></tr>
<tr><td></td><td>District</td><td>Rajnandgaon</td></tr>
<tr><td></td><td>State</td><td>Chhattisgarh</td></tr>
<tr><td>2.</td><td>Area (hectares/ square kilometres)</td><td></td></tr>
<tr><td></td><td>Block Area</td><td>52 sq.km</td></tr>
<tr><td></td><td>Forest Area</td><td>The block co-ordinates have been found is under Go Area- Forest area as per DFO, Khairagarh letter dated 03.02.2022.</td></tr>
<tr><td></td><td>Government Land Area (Bilanam)</td><td>Data not available</td></tr>
<tr><td></td><td>Charagaha</td><td>Data not available</td></tr>
<tr><td></td><td>Private Land Area</td><td>Most of the area is forest land</td></tr>
<tr><td>3.</td><td>Accessibility</td><td></td></tr>
<tr><td></td><td>Nearest Rail Head</td><td>Rajnandgaon (55km)</td></tr>
<tr><td></td><td>Road</td><td>The block is 7 km south of Rampur and connected by metalled road, which passes through the block.</td></tr>
<tr><td></td><td>Airport</td><td>Raipur (90 km)</td></tr>
<tr><td>4.</td><td>Hydrography</td><td></td></tr>
<tr><td></td><td>Local Surface Drainage Pattern (Channels)</td><td>The drainage of the area is mainly formed by the Magurdah and Trishul nalas and their tributaries. The Magurdah Nala flows towards north west. The drainage pattern formed by Magurdah and its tributaries is of dendritic type. The topography is hilly with a valley in the central part flanked by steeply rising N-S trending ridges on either side. The general ground level in the valley area is around 600m above msl, whereas the maximum</td></tr>
</table>

		elevation in the Western part is about 600m above msl and 690 in the eastern parts. The general slope of the area to the north is indicated by general northerly flowing drainage.
	Rivers/ Streams	The drainage of the area is mainly formed by the Magurdah, Trishul, Chhattara and Kundi nalas and their tributaries. The Magurdah Nala flows towards north west, whereas other two are westerly flowing as far as the area is concerned. The drainage pattern formed by Magurdah and its tributaries is of dendritic type.
5.	**Climate**	
	Mean Annual Rainfall	The annual average rainfall recorded is about 1200 mm
	Temperatures (December) (Minimum) Temperatures (June) (Maximum)	Minimum temperatures 13^{O}C. Maximum temperatures up to 38^{O}C.
6.	**Topography**	
	Toposheet Number	64C/14
	Morphology of the Area	The area is a hilly terrain with a broad valley in the central part flanked by steeply rising N-S trending ridges on either side. The general ground level in the valley area is around 620m above msl, whereas the maximum elevation in the Western part is about 600m above msl and 690m in the eastern parts. The general slope of the area to the north is indicated by general northerly flowing drainage
7.	**Availability of baseline geosciences data**	
	Geological Map (1:50K/25K)	Geological map on 1:50000 scale (Source: Bhukosh)
	Geochemical Map	NGCM data available (Bhukosh)
	Geophysical Map (Aeromagnetic, ground geophysical, Regional as well as local scale GP maps)	Not available
8.	**Justification for taking up Reconnaissance Survey/ Regional Exploration**	i. The proposed study area falls in the Rajnandgaon District of Chhattisgarh State and porphyritic copper deposit of Malanjkhand is at a distance of 60km towards North. The area south of the well-known "Malanjkhand Copper deposit designated as the Malanjkhand Extension Area. ii. S.G. Udhoji (F.S. 1975-1977) carried out regional stream sediment survey in the Malanjkhand extension area, central block, Rajnandgaon district and recommended that the anomaly zones near Dhans and Kamarwara may be further investigated in detail for nickel mineralization and near Murum for copper mineralization.

		iii. The Stream Sediment Surveys carried out over an area of 260 sq km in the Rampur-Kamarwara part of toposheet No. 64C/l4, suggest that copper, lead, zinc, cobalt and nickel content of the stream sediment samples vary from 10 to 240, <10-60, 30-120, <10-190 and 150-260 ppm respectively. This area is underlain by folded metavolcanics (andesites and minor rhyolites) and metasediments (grits, sandstones, shales?) of the Dongargarh Super Group. iv. Statistical processing of the analytical data of 521 samples, brought out an anomaly zone for copper to the West of Murum and two zones for nickel near Dhans and Kamarwara. The anomalous nature of the values is also supported by the coefficient of correlation between Cu, Co and Ni. The copper anomaly zone is about a kilometre long, whereas the nickel anomaly zones are 2.5 and one sq km respectively. v. Out of the two anomaly Zones, the one near Kumarwara is associated with the NNW-SSE trending shear zone. This suggests that there may be a high concentration in such a zone leading a low granite deposit. vi. **Based on the potential of the block, S.G. Udhoji (F.S. 1975-1977) recommended that the anomaly zones near Dhans and Kumarwara may be further exploration potentiality in detail for nickel mineralization and Murum for copper mineralization**. vi. Short span of reconnaissance survey has been conducted by MECL and it was revealed that the area is evident of extensive lateritization and presence of metabasics rocks. The sample analysis of the area shown a descent value of nickel, cobalt and chromium with moderate value of copper. vi. Based on the evaluation of previous work and short field work undertaken by MECL, the present Reconnaissance Survey program at G-4 level has been prepared. Geological Mapping & surface sampling combined with Geophysical Survey (Gravity and Magnetic) will be helpful to locate anomalous, zones, if any. vii. on recommendation of TCC the anomaly zones near Murum for copper and near Kumarwara for nickel, initially taken up for detail grid pattern surface sampling. viii. The Reconnaissance Survey will help in planning of detailed exploration program (in case upgraded to G-3/G-2 level) which in turn will facilitate the state Government for Auction of Block.

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1.1.0 PREAMBLE

1.1.1 Copper is a soft, malleable, and ductile metal with very high thermal and electrical conductivity. copper is one of the few metals that occurs in nature in directly usable metallic form (native metals) and is an important non-ferrous base metal having wide industrial applications, ranging from defence, space programme, railways, power cables, mint, telecommunication cables, etc. India is not self-sufficient in the production of copper ore. In addition to domestic production of ore and concentrates, India imports copper concentrates for its smelters. The domestic demand for copper and its alloys is met through domestic production, recycling of scrap and by imports.

1.1.2 The world reserves of copper metal are assessed at 830 million tonnes of copper content. Chile has the largest share, accounting for about 20% of world reserves, followed by Australia (11%), Peru (10%), Russia (7%), Indonesia, Mexico & USA (6% each) and China (3%). The world mine production of copper decreased by 2.41% at 20.2 million tonnes of metal content in 2017 as compared to 20.7 million tonnes of metal content during previous year. Chile continued to be the largest single producer of copper in 2017 with 27% share followed by Peru (12%), China (8%), USA (6%) and Congo Dem. Republic. (5%).

1.1.3 Copper is one of the most recycled metals of all the metals. The recycling of copper scrap is gaining importance worldwide simply because of the fact that recovery of copper metal from scrap requires much less energy than its recovery made from primary source. Besides, it enables conservation of natural resources.

1.1.4 Copper with its unique physical, mechanical and electrical properties, has played a vital role in the industrial growth of a nation. In India, around 75% of demand is met through imports. The increasing demand of copper metal in the country could be eased with the exploration of new copper deposits of economic importance.

1.1.5 Largest reserves/resources of copper ore to the tune of 813 million tonnes (53.81%) are in the state of Rajasthan followed by Jharkhand with 295 million tonnes (19.54%) and Madhya Pradesh with 283 million tonnes (18.75%). Copper reserves/ resources in Andhra Pradesh, Gujarat, Haryana, Karnataka, Maharashtra, Meghalaya, Nagaland, Odisha, Sikkim, Tamil Nadu, Telangana, Uttarakhand and West Bengal accounted for remaining 7.9% of the total all India resources.

1.1.6 The total reserves/resources of copper ore as on 1.4.2015 as per NMI database, based on UNFC system, are estimated at 1.51 billion tonnes. Of these, 207.77 million tonnes (13.74%) fall under 'Reserves category' while the balance 1.30 billion tonnes (86.25%) are remaining resources category. Grade wise there are no reserves with 1.85% or more copper grade. However, 203.83 million tonnes reserves fall under 1% to below 1.85% Cu grade. Of the total ore resources 8.28 million tonnes (0.55%)

comprise ore containing 1.85% Cu or more and 657.92 million tonnes (43.53%) resources fall under 1% to below 1.85% Cu grade.

1.1.7 Nickel is a lustrous, silvery-white metal. It is the fifth most common element of earth's crust. It has a melting point of 1453oC, relatively low thermal and electrical conductivities, high resistance to corrosion and oxidation, excellent strength and toughness at high temperatures and capable of getting magnetised. It is attractive and very durable as a pure metal and alloys readily with other metals. Nickel is not produced from primary sources in the country and the entire demand is met through imports. However, it is being recovered as nickel sulphate crystals, a by-product obtained during copper production.

1.1.8 Nickel occurs principally as oxides, sulphides and silicates in India. Important occurrence is nickeliferous limonite in the overburden of chromite in Sukinda Valley, Jajpur district, Odisha, where it occurs as oxide. A suitable process is being developed for its utilisation. Nickel also occurs in sulphide form along with copper mineralisation in East Singhbhum district, Jharkhand. In addition, it is found associated with uranium deposits at Jaduguda, Jharkhand. Other reported occurrences of nickel are from Karnataka, Kerala and Rajasthan. Polymetallic sea nodules are another source of nickel.

1.1.9 As per NMI database, based on UNFC, as on 1.4.2015, the total resources of nickel ore have been estimated at 189 million tonnes. About 93% resources; i.e., 175 million tonnes are in Odisha. The remaining 7% resources are distributed in Jharkhand (9 million tonnes) and Nagaland (5 million tonnes).

1.1.10 During preceding decades, no large scale metal deposit has been discovered in India. However, the possibility of working of small mineral bodies in proximity to each other, though technological advances and increased operational efficiency cannot be ruled out. Therefore, it is necessary and imperative to locate and explore such small metal deposits in cluster.

1.1.11 The geological milieu of Dongargarh Supergroup constitutes an interesting area for the mineral search especially for copper and nickel. The field study by GSI during FS. 1975-77 in its report of Regional Stream Sediment Survey in the Malanjkhand Extension Area, Central Block, Rajnandgaon District, Madhya Pradesh has established nickel and copper anomaly zones near Dhans, Kumarwara and Murum areas interest for reconnaissance survey (G4).

1.2.0 Background information

1.2.1 The Stream Sediment Surveys carried out by GSI (FS 1975-77) over an area of 260 sq km in the Rampur-Kumarwara part of toposheet No. 64C/l4, suggest that copper, lead, zinc, cobalt and nickel content of the stream sediment samples vary from 10 to 240, <10-60, 30-120, <10-190 and 150-260 ppm respectively. This area is underlain by folded metavolcanics (andesites and minor rhyolites) and metasediments (grits, sandstones, shales?) of the Dongargarh Super Group.

Statistical processing of the analytical data of 521 samples, brought out an anomaly zone for copper to the West of Murum (21°53':80°52') and two zones for nickel near Dhans (2l°40':80°45') and Kumarwara (21°37':80°50'). The anomalous nature of

the values is also supported by the coefficient of correlation between Cu, Co and Ni. The copper anomaly zone is about a kilometer long, whereas the nickel anomaly zones are 2.5 and one sq km respectively. Out of the two anomaly Zones, the one near Kamarwara is associated with the NNW-SSE trending shear zone.

Regional Stream Sediment Survey in the Malanjkhand Extension Area, Central Block, Rajnandgaon District, Madhya Pradesh has established nickel and copper anomaly zones near Dhans, Kumareara and Murum areas. However, concentration of pyrite and chalcopyrite is associated with quartz veins and brecciated quartzite and sheared andesite. Hence, shear zones/fault zones are one of the important loci akin for base metals mineralization.

The proposed area has been-subjected to intense shearing resulting from the intensity of folding and is evident in the Western part in the south as in the Hathijhola, Kumarwara etc. areas. The rock types affected by shearing are andesites, metabasics, feldspathic sandstones and tuffs. At places shearing is not evident and faults are developed as in the area. West of Kopra. Silicification is wide spread in the feldspathic sandstones in the proximity of shear zones. Andesitic rock is granulated due to shearing and has developed foliation resulting locally in Chlorite schist. The shear zones vary in length from about 100m in Dhans area and about 3 km in Kumarwara area and in width from a few metres to 500m. They trend usually N-S, some of the major one's trending NNW-SSE.

The thrust given after MMDR Amendment Act, 2015 by Government of India on mineral exploration as well as the impetus for Copper, Lead, Zinc, Nickel and Gold and which is imperative for MECL to put up the proposal of Reconnaissance Survey (G4 stage) for copper, nickel and associated minerals in Dhans-Kumarwara-Murum block, encompassing 132.00 Sq. Km, Rajnandgaon district, Chhattisgarh (erstwhile Madhya Pradesh).

1.3.0 Location and Accessibility

1.3.1 The block is 55 km north east of Rajnandgaon and connected by metalled road, which passes through the block. Salewara, Kumarwara, Murum are main villages in Chhuikhadan Tehsil of Rajnandgaon district situated within the proposed block. The block could be approached from Rajnandgaon city by metal road of 55km. The nearest railway station is Rajnandgaon, Chhattisgarh which is 55km. The nearest airport is Raipur, Chhattisgarh is about 90km. The block falls in Survey of India Toposheet No. 64C/14. The cardinal points of the block as below:

BB Point	DMS	
	LONGITUDE	LATITUDE
A	80° 49' 18.1196" E	21° 42' 29.9295" N
B	80° 52' 26.3419" E	21° 42' 30.0068" N
C	80° 52' 27.5281" E	21° 37' 11.1574" N
D	80° 49' 25.0263" E	21° 37' 11.1574" N

1.4.0 Physiography

1.4.1. The area is a hilly terrain with a broad valley in the central part flanked by steeply rising N-S trending ridges on either side. The general ground level in the valley area is around 620m above msl, whereas the maximum elevation in the Western part is about 600m above msl and 710 in the eastern parts. The general slope of the area to the north is indicated by general northerly flowing drainage.

1.4.2 The drainage of the area is mainly formed by the Magurdah, and its tributaries. The Magurdah Nala flows towards north, whereas other two are westerly flowing as far as the area is concerned. The drainage pattern formed by them and their tributaries is of dendritic type. Few streams having westerly flow in the extreme western part exhibit sub-parallel pattern. Numerous small streams and stream-lets drain the area.

1.4.3 The area is covered by the deciduous forest with extensive bamboo plantation in parts of the area. Other common plants observed are Bija (Pterocarpus Marsupium) Sal (Shorea robusta) Tendu (Dyospyros tomentosa) and Saja (Terminalia tomentosa).

1.5.0 Regional Geology

1.5.1 The area comprises meta-volcanics and metasediments belonging to the Precambrian Dongargarh Super group (System). The area is occupied by igneous and sedimentary rocks of Nandgaon Group, Dongargarh granite, Chilpi Group, Khairagarh Group, and overlying Chhattisgarh Group. The Dongargarh granite shows intrusive relationship with the Nandgaon Group. The Bijli rhyolite is dated c. 2200 ma and the Dongargarh granite c. 2200 ma. The Dongargarh granite is correlated with Closepet granite of south India. Its relations with the overlying Chilpi Group is not clear since the contact is obscured by soil cover. The Chilpi Group is considered to be younger than the Dongargarh granite. The Chilpi Group consists slaty shale sandstone and sub greywacke, which in turn overlain by the rocks of the Khairagarh group (1700 to c 1000 ma). The Khairagarh Group consists of Dhans sandstone, Dhiri andesite, Malaidoh sandstone and Ghagra andesite. The Chhattisgarh Group consists of Chandarpur sandstone, Charmuria limestone and Khairagarh sandstone. The geological succession was established by Sarkar (1957 and 1980). The stratigraphic succession is compiled in the table given below:

	CUDDAPAH	Chhattisgarh Group	Shales, Limestones and Sandstones. Chermuria Limestone Chandrapur Sandstone
Unconformity			
ARCHAEN	D O N G A R G A R H SUPER GROUP	Khairagarh Group	Quartz veins, silicified fault breccias Mangikuta Andesite Karutola sandstone Sitagota Andesite Bortalao Sandstone
		Unconformity	
		Nandgaon Group	Dongargarh granites Pitepani Andesite Bijli Rhyolite

1.6.0. Geology of the Block

1.6.1. The area is underlain by the metasedimentary sequence of phyllites, quartzites, feldspathic grits and sandstones and metevolcanics formed of the rhyolites, andesites and associated tuffs. The metavolcanic sequence observed in the area has marked similarity to one established by S.N. Sarkar as part of the Dongargarh Super Group and in fact the formations continue southward into the adjoining sheets. Although the major phyllite sequence with the intercalated quartzite in the east and smaller out crops in the western parts of the area overlie the metavolcanic sequence, referred as the Chilpighat sequence. Since the Chilpighat group is traditionally considered to be below the Dongargarh Super Group. A compiled sequence of the area is given below: -

Stratigraphic Sequence (After GSI)

Dongargarh Super Group	Bortalao sandstone	Subarkosic to Arkosic sandstone with basal Pebble horizon
	Pitepani andesite	Pitepani andesite
	Bijli rhyolites	Rhyolites and associated tuffs
		Base not exposed

1.6.2 Bijli Rhyolite is the lowermost unit of the metavolcanic sequence observed in the area. These are exposed only in the north Western corner of the area. These are hard and compact, fine grained, porphyritic to massive. They vary in colour from reddish brown to purplish grey. The phenocrysts are composed of essentially of opalescent quartz and felspar, while the ground mass is fine grained and siliceous in nature.

1.6.3 Pitepani Andesite is a major formation of the area and is mainly exposed in the area as around Kumarwara, Tendubhata, Ghota, Kekrajhola, Bakarkata as well as in the Western parts as around Dhans, Hathijhola, Kumhi. The andesites are dirty green to dark green, hard and compact, vesicular to amygdular with quartz and calcite forming the amygdules in general. At places specks of chalcopyrite have been observed as vesicular fillings. They are often associated with thinly banded tuffs and tuff conglomerates separating different andesite flows.

1.6.4 Metabasic Intrusive body is exposed near Dhans over a length of about 1.5 km and exposed width varying from 500-600m. The intrusive nature of this body is indicated by chilled margins, coupled with increase in grain size towards the centre of the body. Due to shearing at places, it has acquired schistosity. It is a fine to medium grained rock, greenish black in colour essentially composed of ferromagnesium minerals and felspar.

1.6.5 Fairly large tracts in the area are covered by laterite, capping, and different rock types. It varies in thickness from two meters to a maximum of 20m. It is reddish brown to dark red and exhibit vescicular structure. Locally it has developed pisolitic structure.

1.6.6 The primary bedding is well recognizable in the metasedimentary rocks with the variation in the colour banding, grain size differences in the different units, current

and graded bedding etc. as in the area east of Kumarwara, West of the Hathijhola and West of Kopra etc. The phyllites/shales and associated quartzites in the eastern part of the area vary in strike from N-S to N20°E-S20°W with steep (around 75°) dips to the east and occasionally to the west to vertical.

1.6.7 It is well developed in the metavolcanic rocks in the western parts. In tuffaceous rocks it is marked by preferred orientation of chlorite flakes and in massive andesites by fissility planes, developed due to schistosity and in the feldspathic sandstones by small sericitic flakes.

1.6.8 Numerous sets of joints have been observed in all the rock types. The folds is deduced from few different and distantly located out crops in view of extensive laterite cover in the area. It has already been brought out that the bedding dips are both to the west as well as to the east and vary from about 25° to 75°.

1.6.9 The area has been-subjected to intense shearing resulting from the intensity of folding and is evident in the Western part in the south as in the Hathijhola, Kumarwara etc. areas. The rock types affected by shearing are andesites, metabasics, feldspathic sandstones and tuffs. At places shearing is not evident and faults are developed as in the area. Andesitic rock is granulated due to shearing and has developed foliation resulting locally in Chlorite schist. The shear zones vary in length from about 100m in Dhans area and about 3 km in Kumarwara area and in width from a few metres to 500m. They trend usually N-S, some of the major ones trending NNW-SSE.

1.7.0 Mineral Potentiality based on geology, geochemical sampling etc.

1.7.1 S.G. Udhoji (F.S. 1975-1977) carried out regional stream sediment survey in the Malanjkhand extension area, central block, Rajnandgaon district and recommended that the anomaly zones near Dhans and Kumarwara may be further investigated in detail for nickel mineralization and near Murum for copper mineralization. It was mentioned in the report that copper, lead, zinc, cobalt and nickel content of the stream sediment samples vary from 10 to 240, <10-60, 30-120, <10-190 and 150-260 ppm respectively. This area is underlain by folded metavolcanics (andesites and minor rhyolites) and metasediments (grits, sandstones, shales?) of the Dongargarh Super Group. On the basis of statistical processing of the analytical data of 521 samples, brought out an anomaly zone for copper to the West of Murum and two zones for nickel near Dhans and Kamarwara. The anamolorus nature of the values is also supported by the coefficient of correlation between Cu, Co and Ni. The copper anomaly zone is about a kilometre long, whereas the nickel anomaly zones are 2.5 and one sq km respectively. The anomaly zone for copper traced in the area near Murum is restricted to a tributary stream and its spring is not known. Further works is required condition and establish the extent of the anomaly. The two anomaly zones of nickel, the one near Kumarwara is associated with the NNW-SSE trending shear zone. This suggests that there may be a high concentration in such a zone leading a low granite deposit.

He also recommended that the anomaly zones near Dhans and Kumarwara may be further investigated in detail for nickel mineralization.

Based on the evaluation of previous work and rock formations in the area the present Reconnaissance Survey program at G-4 level has been proposed for Copper, Nickel and associated minerals in block area mainly covers anomaly zones near Murum and Kumarwara.

1.8.0 Previous Work

1.8.1 William King (1885) who mapped the area fringing the Chhattisgarh basin, refers to the Saletekri hills situated to the north of the area, as an extension of type chilpis southward (Pascoe, 1965, page 164). S.N. Sarkar (1957) carried out systematic mapping in the parts of Toposheets 64C/07, 64C/08 & 64C/12 (1958) which is to the south and southwest of the area under report. On the basis of his monumental work, he established a stratigraphic sequence of metavolcanics and metasediments and named it as Dongargarh Super Group.

1.8.2 In the Field Season 1974-1975, S.G. Udhoji carried out regional stream sediment survey in the parts of toposheet No. 64C/13, which is immediately to the north of the area under report. Dr. T.K. Charlu carried out regional stream sediment surveys in the SE parts of the toposheet 64C/14 during 1974-1975 field season. That area is to ESE of the area under report. G.V. Rao (1976) carried out reconnaissance mapping with the help of Photogeological maps and proposed that as the Bortalao sandstone formation of Sarkar was found to grade along strike into Chilpighat shales and continues westward forming the Mansar formation of Sausar, the Dongargarah and Chilpighat formations are one and the same.

1.8.3 S.G. Udhoji carried regional stream sediment sampling during Field Season 1975-1977, along with the geological mapping over an area of 260 sq. km in parts of toposheet No. 64C/14. In the course of work, 521 stream sediment samples and 64 bed rock samples were collected. On the basis of regional stream sediment survey in the malajkhand extension area, central block, Rajnandgaon district, he recommended that the anomaly zones near Dhans and Kamarwara may be further investigated in detail for nickel mineralization and near Murum for copper mineralization.

2.0.0 Observation and Recommendations of previous work

2.0.1 S.G. Udhoji carried regional stream sediment sampling during Field Season 1975-1977, along with the geological mapping over an area of 260 sq. km in parts of toposheet No. 64C/14. In the course of work, 521 stream sediment samples and 64 bed rock samples were collected. On the basis of regional stream sediment survey in the malajkhand extension area, central block, Rajnandgaon district, he recommended that the anomaly zones near Dhans and Kamarwara may be further investigated in detail for nickel mineralization and near Murum for copper mineralization.

3.0.0 Observation of Field visit

A short field visit has been carried out for due diligence study of the proposed area. The geological observations are as below:

The Dhans Kumarwara Murum block is located about 55 km north of Rajnandgaon town and 130km. south west of Balaghat, falls in the Survey of India Toposheet No. 64C/14. The proposed area is characterized by is hilly with a valley in the central part flanked by steeply rising N-S trending ridges. The pediplane covered intermittently with cultivated fields and valleys. The drainage 5 pattern formed by Magurdah and its tributaries is of dendritic type. The area is underlain by the metasedimentary sequence of phyllites and sandstones and metevolcanics formed of the rhyolites, andesites and associated tuffs. The laterite has been observed to cap on either side of the meta basic rock. The knolls have steep to gentle gradient and rise up. It is mainly developed on the meta basics, sandstones and shales exposed in the block. The primary sedimentary feature i.e., bedding is observed in the tuffaceous rocks and the overlying sedimentary rocks the feldspathic sandstone and shales. Generally, it trends from N-S to N20° W - S20° E direction with moderate (35°) to steep dips towards west. However, the strike varies between N20° W-S20°E and N20°E-S20° W in the north eastern parts with steep to vertical dips on either side. Foliation generally trend between N20°W-S20°E and N20°E –S20° W direction almost parallel to subparallel with the bedding plane with steep to vertical dips. The surface manifestation of sulphides has not been seen during field visit. Lateritization and Iron oxidation are seen in the majority. From the Chemical analysis by ICPMS of collected samples of metabasics, laterite, andesite, it is observed that that silica, magnesia, iron and alumina are the major elements with decent amounts of chromium, nickel, cobalt and vanadium (Annexure-I). The high iron and manganese content may have been added by late-stage hydrothermal fluids.

Photo 1: Laterite exposed near Pandripani village.

Photo 2: Knoll of Laterite.

Photo 3: Exposures of Andesite near Dhans village

Photo 4: Exposures of metabasics near Dhans village

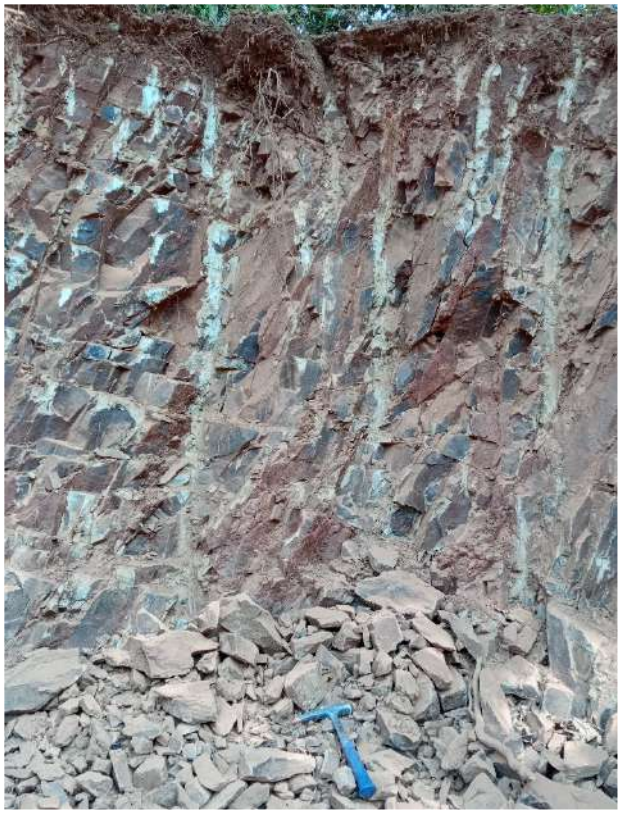


Photo 5: Exposures of metabasics near Kumarwara village.

Photo 6: Laterite with botryoidal structure.

Photo 7: Laterite with pisolitic structure.

Photo 8: Altered metabasics near Dhans village.

Photo 9: Andesite near Dhans village.

Photo 10: Basalt near Murum village.

Photo 11: Andesite near Kumarwara village.

4.0.0 Scope of Proposed Exploration

4.0.1 The Reconnaissance survey at G-4 stage proposed exploration program comprises of Geological mapping (1:12,500 scale), grid wise surface sampling (Bedrock/ soil), Trenching, , chemical analysis, physical analysis and Report preparation.

4.1.0 Block description

4.1.1 The Dhans Kumarwara Murum block falls in Survey of India Toposheet No. 64C/14 and covers an area of about 132.00 sq.km. The villages in and around the blocks are Dhans, Kumarwara, Murum, Hathipathar, Dhotha of Rajnandgaon District of Chhattisgarh State. The block location is given in **PLATE-I.** The Co-ordinates of the corner points of the block is given in **para 1.3.1**.

5.0.0 Planned Methodology

5.0.1 In accordance to the objective set for the block, the exploration programme is proposed. The Exploration shall be carried out as per Minerals (Evidence of Mineral Contents) Rules-2015 and Minerals (Evidence of Mineral Contents) Amendment Rules-2021. The details of different activities to be carried out are presented in subsequent paragraphs:

5.1.0 Geological Mapping (1:12,500 Scale)

5.1.1 Geological Mapping will be done in the entire 52.00 sq.km area on 1:12,500 scale. Rock types, their contact, structural features will be mapped. Surface manifestations of the ore bodies available along with their surface disposition will be marked on the map.

5.2.0 Geochemical Sampling

5.2.1 Surface sampling (Bed Rock /soil):

During the course of Geochemical Sampling the bed rock and soil samples shall be collected in 400mx400m grid pattern from the outcrops for copper & Nickel in and around anomaly zones identified by S.G. Udhoji near Murum and Kumarwara. Where outcrop is not available, soil samples will be collected. A total of 340 nos of primary samples from bed rock/soil will be collected and analysed for assay of Cu, Pb, Zn, Co & Ni. Total 51 nos of check samples (5% internal + 10% external) will also be analysed for assay of Cu, Pb, Zn, Co & Ni. A few grab samples are taken from the gap remaining areas.

5.5.0 Petrological & Mineralogical Studies:

5.5.1 During the course of Geochemical sampling and core logging 10 samples from various litho units from surface will be studied for petrography in thin section.

6.0.0 Nature, Quantum and Target

6.0.1 Details of the particular, quantum and the targets are tabulated in **Table No.-2.**

Table No-2
Envisaged Quantum of proposed work in Salewara Kumarwara Murum Block

Sl. No.	Item of Work	Unit	Target
1	**Large Scale Mapping (1:12500)**	Sq km	52.00
2	**Geochemical Sampling (Bed Rock/Soil)**		
	a) For Cu, Pb, Ni, Co & Zn	Nos.	340
3	**Laboratory Studies**		
	I. Geochemical Sampling (Bed Rock/Soil)		
	i) Primary Samples		
	a) For Co, Ni, Cu, Pb, Zn	Nos	340
	ii) Check Samples (5% Internal + 10% External)		
	a) For Co, Ni, Cu, Pb, Zn	Nos	51
4	**Petrological Samples (Surface Samples)**		

Sl. No.	Item of Work	Unit	Target
	a) Preparation of Thin Section	Nos	10
	b) Study of Thin Section	Nos	10
5	**Report Preparation (5 Hard copies with one soft copy)**	Nos.	1
6	**Preparation of Exploration Proposal (5 Hard copies with a soft copy)**	Nos.	1
* **The work to be decided after review of Geological Mapping, surface sampling.**			

7. 0.0 Manpower Deployment

7.0.1 Manpower deployment List may be provided later.

8.0.0 Break-up of Expenditure

8.0.1. Tentative cost has been estimated based on Schedule of Charges (SoC) of projects funded by National Mineral Exploration Trust (NMET) w.e.f. 01/04/2020 and the total estimated cost is **Rs. 38.68 Lakhs.** The summary of tentative cost estimates for Reconnaissance Survey (G-4 Level) is given in **Table No.- 3** and details of tentative cost estimates is given in **Table No. – 4. The approval of actual cost incurred for forest clearance will be taken as post facto basis.**

Table No- 3
Summary of Cost Estimates for Reconnaissance Survey (G-4 Level) Exploration

Sl. No.	Item	Total
1	Geological Work	2,003,040.00
2	Laboratory Studies	1,048,496.00
	Sub total	**3,051,536.00**
3	Report	152,576.80
4	Peer Review	10,000.00
5	Proposal Preparation	64,082.26
	Total	**3,278,195.06**
6	GST (18%)	590,075.11
Total cost including 18% GST		**3,868,270.17**
SAY, in Lakhs		**38.68**

8.0.2 The proposed exploration programme envisages geological mapping, surface sampling, sample preparation and laboratory studies, which will be completed within 6 months, geological report preparation will take 3 months, peer review will take 1 month with one month overlapping with lab works. Therefore, a total of 9 months is planned for completion of the entire proposed programme with review of exploration data after 5th months in the TCC meeting of NMET. Time schedule/action plan for proposed Reconnaissance Survey (G-4) for Nickel, Copper and associated minerals is given in **Table No.- 5.**

9.0.0 Justifications:

i) The proposed study area falls in the Rajnandgaon District of Chhattisgarh State. The area about 60km south of the well-known "Malanjkhand Copper deposit" designated as the Malanjkhand Extension Area.

ii) S.G. Udhoji (F.S. 1975-1977) carried out regional stream sediment survey in the Malanjkhand extension area, central block, Rajnandgaon district and recommended that the anomaly zones near Dhans and Kumarwara may be further investigated in detail for nickel mineralization and near Murum for copper mineralization.

iii) The Stream Sediment Surveys carried out over an area of 260 sq km in the Rampur-Kamarwara part of toposheet No. 64C/l4, suggest that copper, lead, zinc, cobalt and nickel content of the stream sediment samples vary from 10 to 240 ppm, <10-60 ppm, 30-120 ppm, <10-190 ppm and 150-260 ppm respectively. This area is underlain by folded metavolcanics (andesites and minor rhyolites) and metasediments (grits, sandstones, shales?) of the Dongargarh Super Group.

iv) Statistical processing of the analytical data of 521 samples, brought out an anomaly zone for copper to the West of Murum and two zones for nickel near Dhans and Kumarwara. The anomalous nature of the values is also supported by the coefficient of correlation between Cu, Co and Ni. The copper anomaly zone is about a kilometre long, whereas the nickel anomaly zones are 2.5 and one sq km respectively.

v) Out of the two anomaly Zones, the one near Kumarwara is associated with the NNW-SSE trending shear zone. This suggests that there may be a high concentration in such a zone leading a low granite deposit.

vi) Based on the potential of the block, S.G. Udhoji (F.S. 1975-1977) recommended that the anomaly zones near Dhans and Kumarwara may be further exploration potentiality in detail for nickel mineralization and Murum for copper mineralization. Based on the potentiality of the block, GSI recommended for further exploration studies in these areas.

vii) A short span of reconnaissance survey has been revealed that the area is evident of extensive lateritization and presence of metabasics rocks. The sample analysis of the area shown a descent value of nickel, cobalt and chromium with moderate value of copper. Hence, the proposed area may be thoroughly explored/examined to check the possibility of any base metal deposit of economic interest, if any.

viii) Based on the evaluation of previous work, the present Reconnaissance Survey program at G-4 level has been prepared. The Geological Mapping combined with surface sampling and Geophysical Survey will be helpful in assessing the disposition of the mineralized zones, structural features like shears and faults if any.

ix) The Exploration will be helpful in estimation of reconnaissance resources of Copper, Nickel and associated minerals in the block.

x) The Reconnaissance Survey will help in planning of detailed exploration program (in case upgraded to G-3/G-2 level) which in turn will facilitate the state Government for Auction of Block.

10.0.0 References:

1. Udhoji, S.G. (F.S. 1975-77): Regional Stream Sediment Surveys in the Malanjkhand Extension Area, Central Block, Rajnandgaon District, Madhya Pradesh
2. Rao, G.V. (1976) The Correlation of the Dongargarh, Chilpi and Sausar Groups. 125th Year Celebration, Geological survey of India, CR.
3. Sarkar, S.N. (1957) Stratigraphy and Tectonics of Dongargarh System Journal of Science & Engineering Research.

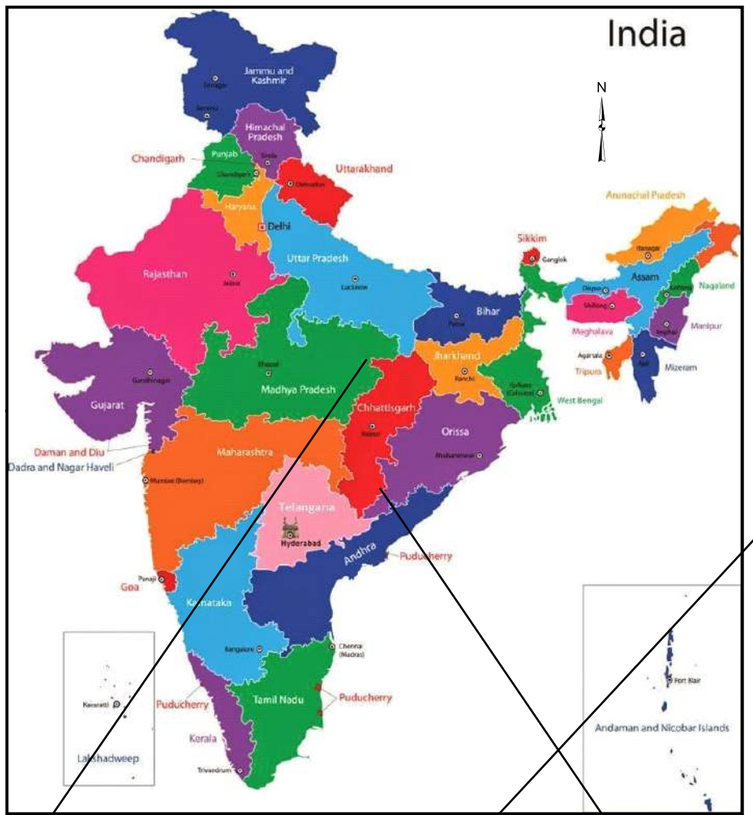
List of Annexure:

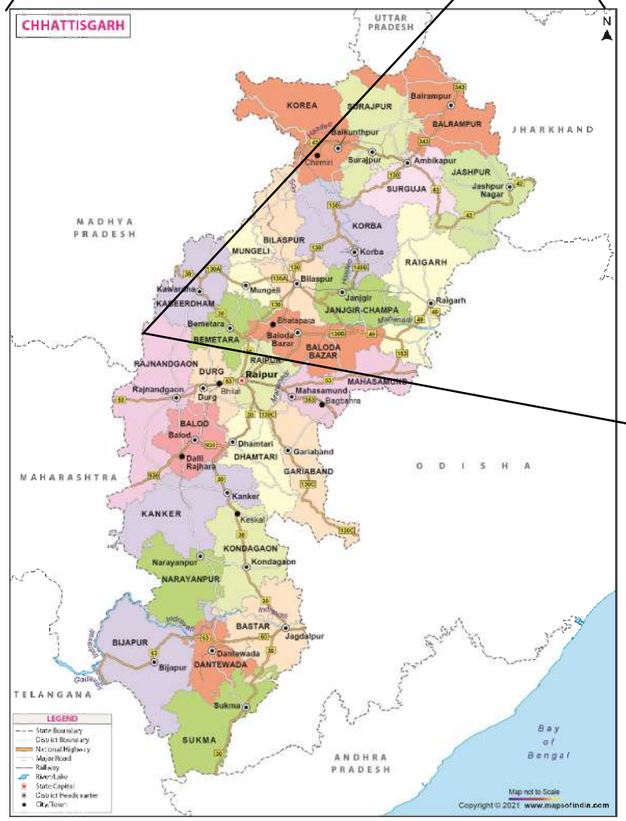
1. **Annexure-I**: Analytical results of samples by handheld XRF.

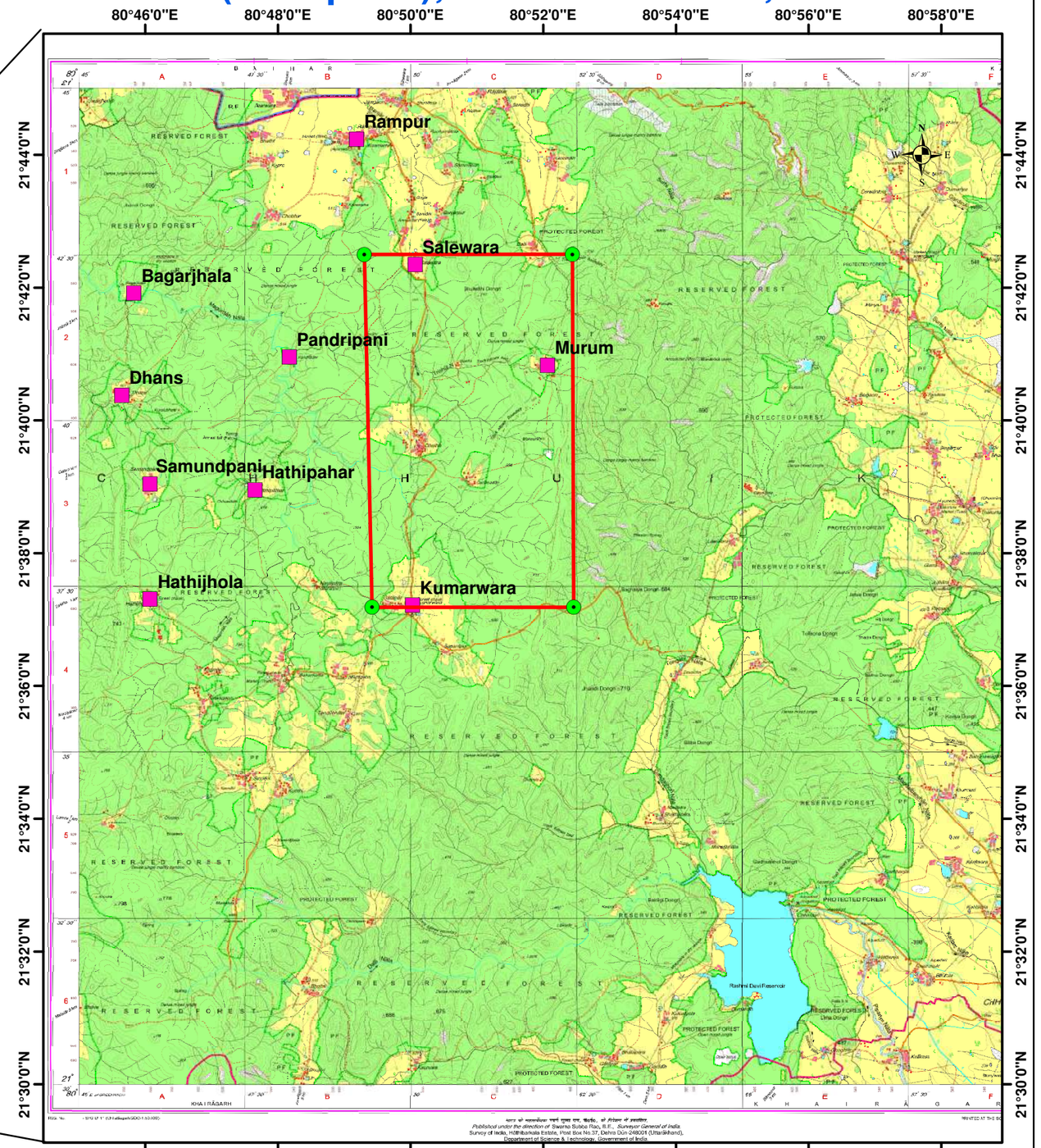
List of Plates:

1. **Plate-I:** Location Map of Salewara Kumarwara Murum Block, District Rajnandgaon, Chhattisgarh.
2. **Plate-II:** Regional Geological Map showing Salewara Kumarwara Murum Block, District Rajnandgaon, Chhattisgarh (Source: Bhukosh).
3. **Plate-III:** Regional Geological Map showing Salewara Kumarwara Murum Block, District Rajnandgaon, Chhattisgarh (Source: S.G. Udhoji (F.S. 1975-77)).
4. **Plate-IV**: Map showing Location of stream sediment samples along with geochemical values for copper (Source: S.G. Udhoji (F.S. 1975-77)).
5. **Plate-V**: Map showing Location of stream sediment samples along with geochemical values for nickel (Source: S.G. Udhoji (F.S. 1975-77)).

LOCATION MAP OF DHANS KUMARWARA MURUM BLOCK (52 Sq. Km), RAJNANDGAON, C.G.







BB POINT	LONGITUDE	LATITUDE
A	80° 49' 18.1196" E	21° 42' 29.9295" N
B	80° 52' 26.3419" E	21° 42' 30.0068" N
C	80° 52' 27.5281" E	21° 37' 11.1574" N
D	80° 49' 25.0263" E	21° 37' 11.1574" N

0 1.5 3 6 9 12
Kilometers

Legend

- BB Points
- Proposed Block_N
- Village

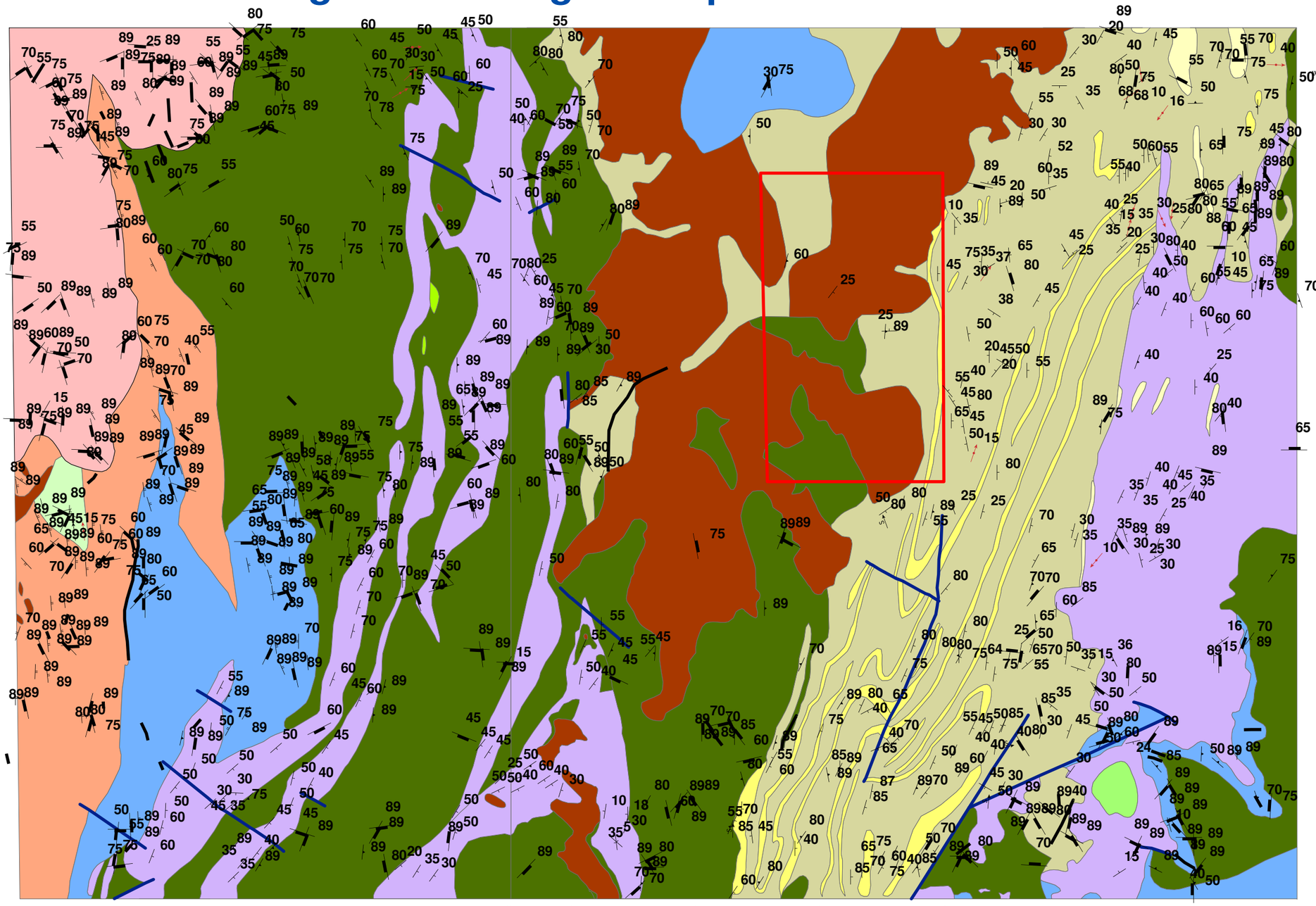
Part of Toposheet No. 64C/14

मिनरल एक्सप्लोरेशन कार्पोरेशन लिमिटेड
MINERAL EXPLORATION CORPORATION LTD.
Govt of India Enterprise, A miniratna PSE

Regional Geological Map of the Block

80°36'0"E 80°38'0"E 80°40'0"E 80°42'0"E 80°44'0"E 80°46'0"E 80°48'0"E 80°50'0"E 80°52'0"E 80°54'0"E 80°56'0"E 80°58'0"E 81°0'0"E

21°46'0"N 21°44'0"N 21°42'0"N 21°40'0"N 21°38'0"N 21°36'0"N 21°34'0"N 21°32'0"N 21°30'0"N 21°28'0"N 21°26'0"N



0 2 4 8 12 16
Kilometers

LEGEND

- ANDALUSITE SCHIST
- BASALT
- CONGLOMERATE
- GRANITE
- GRANITE GNEISS/MIGMATITE
- LATERITE
- PERIDOTITE
- QUARTZITE
- RHYOLITE
- SANDSTONE
- SLATY SHALE
- STROMATOLITIC DOLOMITIC LIMESTONE
- Dyke
- Fault
- Shear_Zone
- BEDDING
- CLEAVAGE/FOLIATION/SCHISTOSITY (S1)
- CRENULATION CLEAVAGE
- GNEISSIC FOLIATION
- JOINT
- SLICKENSIDE
- Proposed Block_N
- FOLD AXIS
- MINERAL LINEATION

PLATE- II

Source: Bhukosh

Parts of Toposheet Nos.: 64C/10 & 64C/14

मिनरल एक्सप्लोरेशन कार्पोरेशन लिमिटेड
MINERAL EXPLORATION CORPORATION LTD.
Govt of India Enterprise, A miniratna PSE

GEOLOGY OF THE MALANJKHAND EXTENSION AREA, CENTRAL BLOCK, DISTRICT RAJNANDGAON M.P. (PART OF TOPO SHEET No.64 C/14)

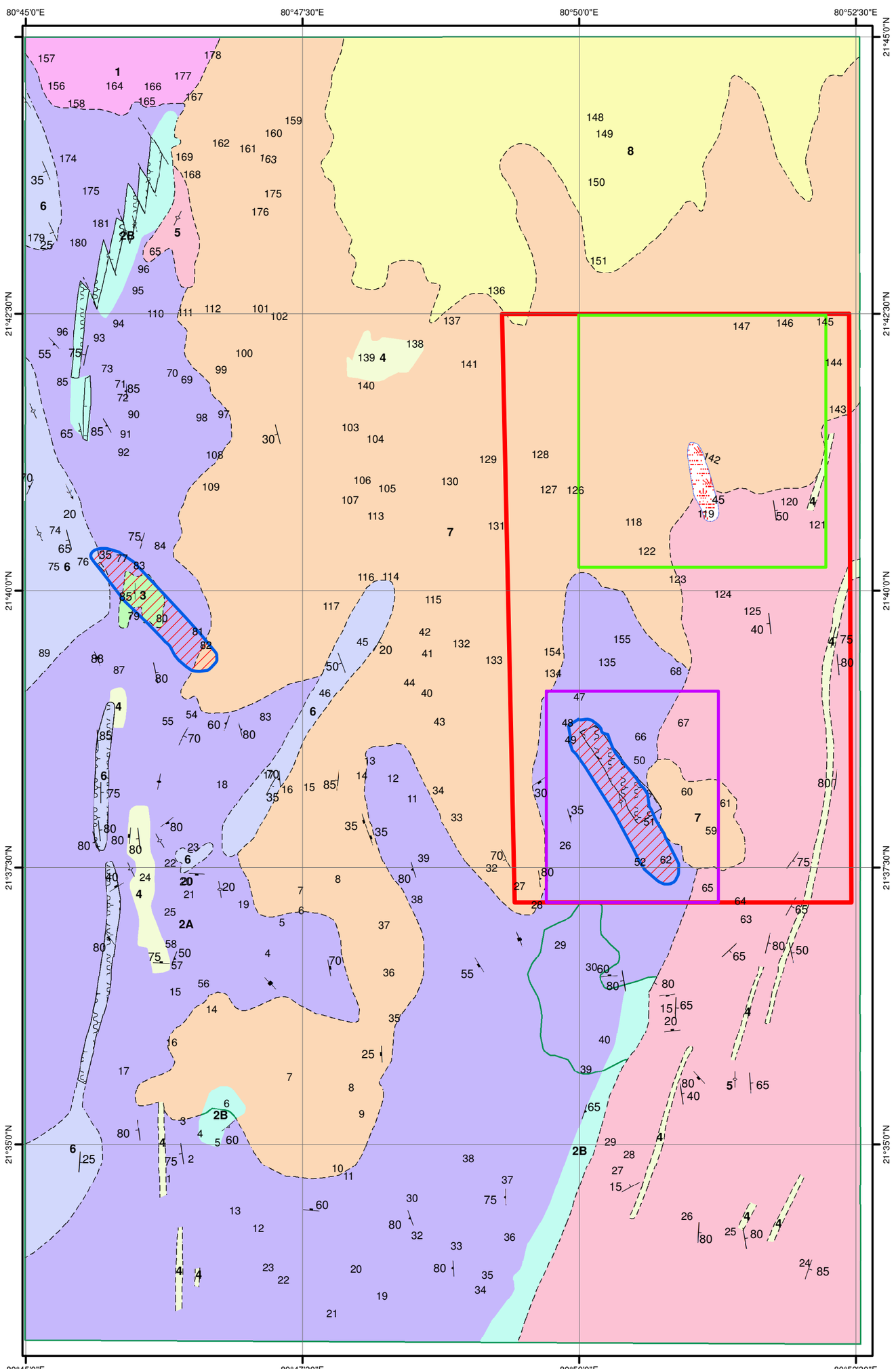
Report :- CR-012309

Plate No.01

N

1:69,578

1 0.5 0 1 2 3 4 Miles



L E G E N D

8	SOIL & ALLUVIUM	
7	LATERITE	
6	QUARTZITES	CHILPIGHAT GROUP
5	PHYLLITE	CHILPIGHAT GROUP
4	FELSPATHIC, SANDSTONE, LITHIC TUFFS	DONGARGARH GROUP
3	BASIC INTRUSIVE	DONGARGARH GROUP
2B	TUFFS	DONGARGARH GROUP
2A	ANDESITES	DONGARGARH GROUP
1	RHYOLITES	DONGARGARH GROUP

I N D E X

- Shear Zone
- Bedding Inclined
- Fold Antiform Plunge b
- Foliation Inclined
- Foliation Inclined S2
- Foliation Vertical
- Foliation Vertical S2
- Joint Inclined
- Joint Vertical
- Inferred
- Fault
- River

- Target Block_Nickel
- Target Block_Copper
- Proposed Block_N

Authors

Mapped By- S.G.Udhoji

G.S.I./CR/Doris-89/77

Field Season 1975-1977

MAP SHOWING LOCATION OF STREAM SEDIMENT SAMPLES PART OF TOPOSHEET No.64 C/14 ALONG WITH GEOCHEMICAL VALUES FOR COPPER

Report :-CR-012309

Plate No.02

N

1:58,428

1 0.5 0 1 2 3 4 Miles

80°45'0"E 80°47'30"E 80°50'0"E 80°52'30"E

21°45'0"N 21°42'30"N 21°40'0"N 21°37'30"N

Agarwara Jamgaon BHursatola Sarodi Rampur Kopra Chubha Banjarpur Salewara Magurdah N. Trichu N. Muruni Dhans Kallubhatti Ghoipani Ghota Chattara N. Gerukhadan Chhapla Magurdah N. Kamarwara Bakarkata

I N D E X

Anamoly Zone

Village point

River

Proposed Block_N

Target Block_Copper

Authors

Mapped By-

GSI/CR/DO No.-13/79

Field Season

MAP SHOWING LOCATION OF STREAM SEDIMENT SAMPLES PART OF TOPO SHEET No. 64 C/14 ALONG WITH GEOCHEMICAL VALUES FOR NICKEL

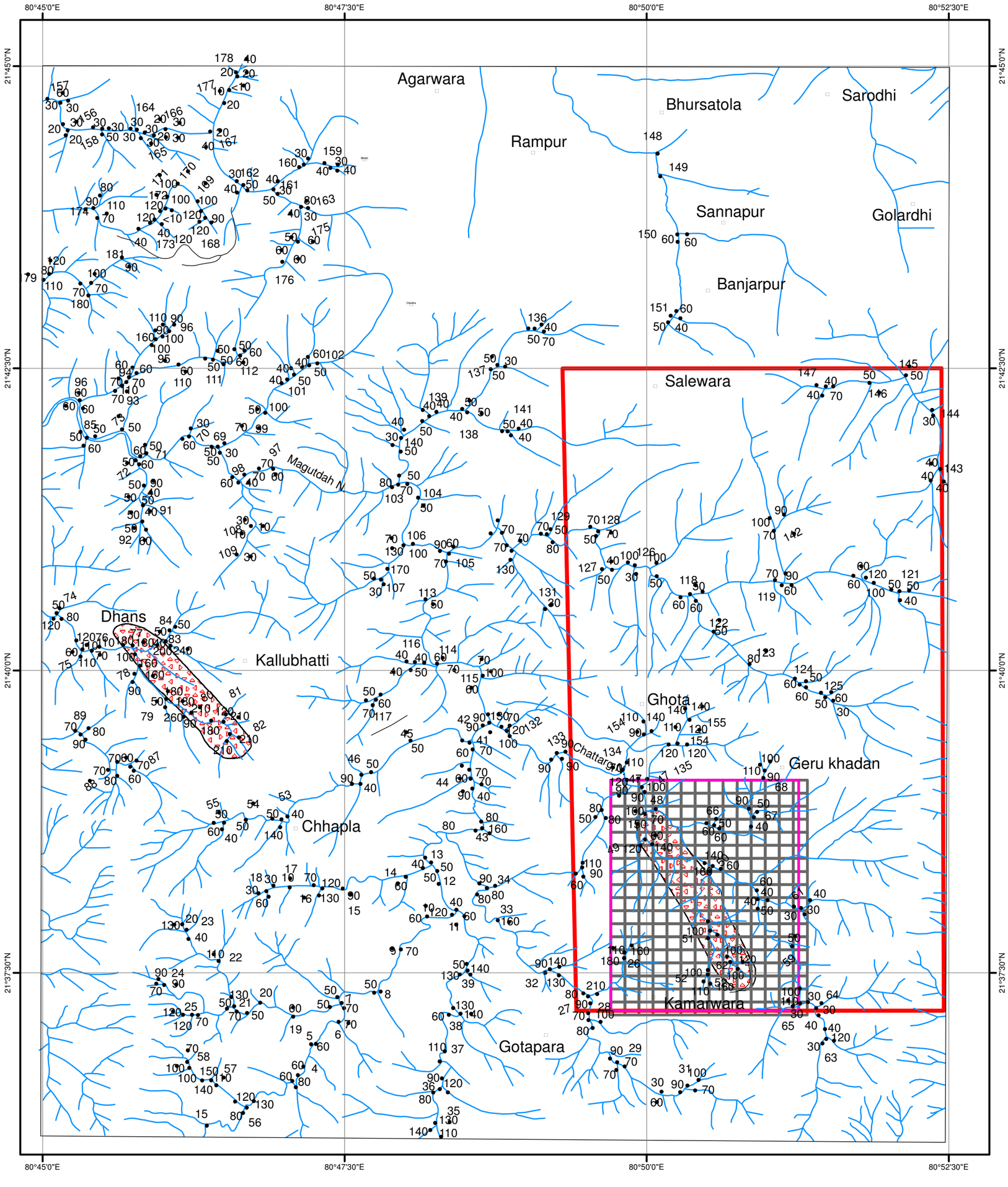
Report :- CR-012309

Plate No.04

1:58,298

1 0.5 0 1 2 3 4 Miles

N



I N D E X

- Anamoly Zones
- Sample Point
- Village Point
- Observed
- River
- Proposed Block_N
- Target Block_Nickel

Authors

Mapped By-

GSI/CR/Doris-16/79

Field Season

संचालनालय भौमिकी तथा खनिकर्म, छत्तीसगढ़

इन्द्रावती भवन, ब्लॉक 4, द्वितीय तल, अटल नगर, नवा रायपुर, छत्तीसगढ़ – 492002
फोन: 0771 – 2221840, 2511093 फैक्स: 0771 – 2221841, PBX 0771- 2221845 Email: dgm.cg.@nic.in

क्रमांक 1294 /भौमिकी -I/न.क्र.01/MECL/2021 नवा रायपुर, दिनांक 11 MAR 2022

To,

Chairman – Cum – Managing Director
MECL (Mineral Exploration Company Limited)
Dr. Babasaheb Ambedkar Bhawan,
Seminary Hills, Nagpur 440006, Maharashtra

विषय :– **जिला राजनांदगांव, तहसील छुईखदान के धान–कमरवारा No go Area क्षेत्र की स्थिति के संबंध में।**

संदर्भ :– वनमण्डल अधिकारी खैरागढ़ का पत्र क./तक.अधि./न.क.5–9/285 दिनांक 03.02.2022

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उपरोक्त विषयांतर्गत आपके द्वारा जिला राजनांदगांव, तहसील छुईखदान के धान–कमरवारा क्षेत्र में No go Area की स्थिति के संबंध जानकारी चाही गई थी। तत्संबंध में कृपया संलग्न संदर्भित पत्र का अवलोकन करें। तदानुसार वन संरक्षण अधिनियम में प्रदत्त शर्तों के अधीन आवश्यक कार्यवाही सुनिश्चित कर वांछित प्रस्ताव तैयार करते हुए आगामी 39वी TCC की बैठक में प्रस्तुत कर संचालनालय को सूचित करें।

संलग्न – उपरोक्तानुसार।

संचालक
भौमिकी तथा खनिकर्म
छत्तीसगढ़

PUD-1

कार्यालय क्षेत्रीय प्रमुख
संचालनालय भौमिकी तथा खनिकर्म, क्षेत्रीय कार्यालय रायपुर

सोनाखान भवन रिंग रोड नं.1,रविग्राम रायपुर – 492001(छ.ग.)
टेलीफेक्स 0771–2225493, Email: rhraipur.dgm-cg@gov.in

क्र. \38 /भौमिकी/न.क्र. 206/2022 रायपुर, दिनाक 4 FEB 2022

Office of the Director Geology & Mining
Receip No. 582
Dated 4 FEB 2022
इन्द्रावती नया रायपुर छत्तीसगढ़

प्रति,

सचालक
भौमिकी एव खनिकर्म
इद्रावती भवन, द्वितीय तल, डी ब्लॉक,
अटल नगर, नवा रायपुर, छत्तीसगढ,

4 FEB 2022

विषय जिला राजनादगाव तहसील छुईखदान के धान कमरवारा No go Area क्षेत्र की स्थिति के सबध मे।

सदर्भ कार्यालय वनमडल अधिकारी, वन एव जलवायु परिवर्तन विभाग खैरागढ वनमडल खैरागढ जिला राजनादगाव का पत्र क./तक.अधि./न.क.5–9/285 खैरागढ दिनाक 03.02.2022

:00:

PUD-1 4/2/2022

उपरोक्त संदर्भित विषयातर्गत जिला राजनादगाव तहसील छुईखदान के धान कमरवारा No go Area क्षेत्र की स्थिति के सबध में जानकारी आवश्यक कार्यवाही हेतु सलग्न प्रेषित है।

सलग्न :– उपरोक्तानुसार।

4.2.22

क्षेत्रीय प्रमुख
क्षेत्रीय कार्यालय रायपुर

कार्यालय वनमंडल अधिकारी,
वन एवं जलवायु परिवर्तन विभाग
खैरागढ़ वनमंडल खैरागढ़, जिला–राजनांदगांव (छ.ग.)

E_Mail :- khairagarhdfo@yahoo.com, Phone & Fax - (07820) 234278

क्रमांक / तक.अधि. / न.क्र. 5–9 / 285 खैरागढ़, दिनांक 03/01/2022

प्रति,

क्षेत्रीय प्रमुख,
संचालनालय भौमिकी तथा खनिकर्म, छत्तीसगढ़,
क्षेत्रीय कार्यालय रायपुर सोनाखान भवन रिंग रोड़ नं.1,
रविग्राम रायपुर (छ.ग.)

विषय :– **जिला राजनांदगांव, तहसील छुईखदान के धान कमरवारा No go Area क्षेत्र की स्थिति के संबंध में।**

संदर्भ :– आपका कार्यालयीन पत्र क्रमांक / 67 / भौमिकी / न.क्र.206 / 2022 दि. 21.01.2022

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विषयान्तर्गत संदर्भित पत्र द्वारा अवगत कराया गया है कि खैरागढ़ वनमंडल के साल्हेवारा परिक्षेत्र के अंतर्गत कॉपर धातु का G-4 अन्वेषण कार्य प्रस्तावित किया गया है। इस हेतु संदर्भित पत्र द्वारा प्रस्तावित क्षेत्र में No go Area की स्थिति स्पष्ट करने का अनुरोध करते हुए अक्षांश, देशांश दिया गया है।

उक्त पत्र के तारतम्य में अक्षांश, देशांश के आधार पर स्थिति स्पष्ट की गई जिसके अनुसार उक्त परिक्षेत्र के 52 वनकक्षों का 13167.00 हे. वनक्षेत्र इस परिधि में आ रहा है। जिसमें पूर्वेक्षण के माध्यम से कॉपर धातु G-4 का पता लगाया जाना है।

भारत सरकार के पत्र दिनांक 24.12.2018 के अनुसार वन संरक्षण अधिनियम के अंतर्गत स्वीकृति के बिना बिन्दु क्रमांक 4.4 के अनुसार 10 वर्ग कि.मी. में अधिकतम 4" इंच व्यास के वृक्ष विदोहन नहीं किये जाने की शर्त पर 25 नग बोरहोल किये जा सकते है। बोरहोल कम से कम 2000 हे. में किये जाने की स्थिति में ही वन संरक्षण अधिनियम से छूट प्रदान की जा सकती है। इस प्रकरण में आपके द्वारा जो अक्षांश, देशांश दर्शित किया गया है, उस परिधि में 52 वनकक्ष का 13167.00 हे. वनक्षेत्र आ रहा है। इसलिये आपको वन संरक्षण अधिनियम के अंतर्गत प्रस्ताव दिया जाना होगा। तदुपरान्त ही समस्त औपचारिकता उपरांत स्वीकृति दिये जाने की कार्यवाही की जा सकती है। बगैर अनुमति के वनक्षेत्र में किसी भी प्रकार का कार्य प्रतिबंधित रहेगा, इस बात का विशेष ध्यान रखे।

वनमंडल अधिकारी,
वन एवं जलवायु परिवर्तन विभाग
खैरागढ़ वनमंडल खैरागढ़

पृ.क्र. / तक.अधि. / न.क्र.5–9 / 286 खैरागढ़, दिनांक 3 / 01 / 2022

प्रतिलिपि:–

उप वनमंडल अधिकारी गण्डई एवं परिक्षेत्र अधिकारी साल्हेवारा को सूचनार्थ एवं आवश्यक कार्यवाही हेतु अग्रेषित।

वनमंडल अधिकारी,
वन एवं जलवायु परिवर्तन विभाग
खैरागढ़ वनमंडल खैरागढ़

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