

KATORI JHIRIYA BLOCK

PETROGRAPHIC STUDY RESULTS

Sl. No.	Sample Number & Location	Texture	Mineral Composition			Description
			Major >5%	Minor <5%->1%	Accessory <1%	
1	MP-KJ/P/2 Surface sample North of Chorpinkep ar Village	It is a fine to medium grained rock showing schistosity.	Quartz Muscovite Biotite Garnet	Chlorite Feldspar Opakes	Ferruginous matter	Quartz occurs as fine to medium anhedral grains and as lensoidal clusters showing parallel alignment. Muscovite and biotite are present as fine to medium mutually interleaved flaky segregations showing parallel alignment. Garnet occurs as fine to medium subrounded grains showing very fine inclusions of quartz. Chlorite is present as flakes and patches in association with muscovite and biotite. Feldspar occurs as fine to medium subhedral to anhedral grains in association with quartz. Opakes are noted as very fine to fine granular and bladed disseminations. Reddish ferruginous patches are found present in areas. The specimen is a <u>garnetiferous quartz-muscovite-biotite schist.</u>
2	MP-KJ/P/4 Surface sample South of Manegaon Village	It is a whitish grey coloured fine grained compact rock.	Quartz	Sericite Tourmaline	Opakes Ferruginous matter Zircon	The specimen is monomineralic, composed of fine anhedral grains of quartz showing well sorting and compact contacts. Sericite is present as very fine disseminated flakes showing crude alignment. Tourmaline occurs as fine subhedral prismatic grains in dissemination. Opakes are present as very fine specks and as fillings. Reddish ferruginous patches and fillings are noted in areas. Zircon is noted as very fine slender shaped grains in accessories. The specimen is a <u>quartzite.</u>

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3	MP-KJ/P/21 Surface sample Near Dongariya Village	It is a fine to medium grained rock showing gneissosity.	Microcline Quartz Biotite Plagioclase	Sericite Opaques	Microcline occurs as fine to medium subhedral to anhedral grains and as moderately coarse lensoidal blasto-porphyritic grains. Quartz occurs as fine to medium anhedral and lensoidal grains, often clustering in pockets. Plagioclase is present as fine to medium subhedral grains altering to sericite. Sericite occurs as very fine flakes and flaky segregations, mostly developing after plagioclase alterations. Opaques are noted as very fine specks in accessories. The specimen is a <u>granite gneiss.</u>
4	MP-KJ/P/23 Surface sample North West of Chorpinkepar Village	It is a medium to fine grained rock showing crude gneissosity.	Microcline Quartz Hornblende Epidote/ Zoisite	Garnet Plagioclase Sphene Chlorite	Zircon Opaques	Microcline occurs as fine to medium subhedral grains. Quartz occurs as fine anhedral grains. Hornblende is present as medium to fine subhedral prismatic grains showing crude alignment. Epidote/ Zoisite are present as fine to medium subhedral prismatic grains and patchy segregations. Garnet occurs as fine to medium subrounded grains, often clustering in pockets. Plagioclase occurs as fine subhedral prismatic grains and turbid patches showing myrmekitic intergrowths in areas. Sphene is present as fine to very fine wedges and medium patchy segregations in areas. Chlorite occurs as pseudomorphic patches developing after hornblende replacement. Zircon occurs as very fine inclusions within hornblende around which pleochroic haloes are observed. Opaques are noted as very fine specks in accessories. The specimen is a <u>hornblende rich granite gneiss.</u>

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5	MP-KJ/P/26 Surface sample West of Amai and Bhajiyadand Village	It is a fine to medium grained rock showing schistosity.	Muscovite Quartz Feldspar Opaques	Chlorite Biotite	Garnet	Muscovite occurs as fine to medium flakes and flaky segregations showing parallel alignment. Quartz and feldspar are present as fine to medium anhedral grains, lensoidal clusters and subrounded porphyro-clasts showing rotational movement and parallel alignment. Opaques occur as medium to moderately coarse subrounded and patchy porphyroblasts and as very fine to fine blades aligned along the schistosity. Chlorite and biotite are present as fine flakes in association with muscovite and showing parallel alignment. Garnet is noted as fine subrounded grains showing rotation and parallel alignment. The specimen is an <u>opaque rich muscovite-quartz-feldspar schist.</u>
6	MKJP-01 Borehole Sample of MKJ-01 depth 31.0m - 31.10m	It is a fine to medium grained rock showing schistosity.	Quartz Garnet Muscovite Biotite	Opaques Tourmaline	Chlorite	Quartz occurs as fine to medium anhedral and elongated grains showing tight quartzitic contacts and evidences of recrystallization. Garnet occurs as fine to medium subrounded grains showing very fine inclusions of quartz. Muscovite and biotite are present as fine flakes showing parallel alignment. Opaques occur as very fine to fine disseminated grains and as fine to very fine fillings. Tourmaline is noted as very fine subhedral prismatic grains in dissemination. Chlorite is seen present as very fine to fine flakes, seen replacing garnet and biotite in areas. The specimen is a <u>garnetiferous quartz-muscovite-biotite schist.</u>

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7	MKJP-02 Borehole Sample of MKJ-02 depth 66.80m - 66.90m	It is a fine to medium grained rock showing schistosity.	Quartz Muscovite Garnet	Biotite Chlorite Opaques	Quartz occurs as fine to medium anhedral and elongated grains showing crude alignment. Muscovite occurs as fine to medium flakes and flaky aggregates showing parallel alignment. Garnet is present as fine to medium subhedral to anhedral grains disseminated throughout the specimen. Biotite is seen present as fine to medium flakes, mostly being interleaved with muscovite. Chlorite occurs as flakes and patches replacing garnet and biotite in areas. Opaques occur as very fine to fine subhedral to anhedral and bladed grains showing alignment along the schistosity. The specimen is a <u>garnetiferous quartz-muscovite schist.</u>
8	MKJP-03 Borehole Sample of MKJ-04 depth 38.35m - 38.45m	It is a medium grained rock showing gneissosity.	Hornblende Plagioclase Garnet	Biotite Chlorite Carbonates Quartz Opaques	Kaolinite	Hornblende occurs as medium subhedral prismatic, rhombic and anhedral grains showing crude alignment. Plagioclase is present as medium to moderately coarse subhedral to anhedral patchy grains, segregating into moderately thick bands. Garnet is present as fine subrounded grains, seen segregated in zones, especially in contact with plagioclase bands. Biotite occurs as fine disseminated flakes. Chlorite occurs as patches and flaky segregations in areas, seen replacing garnet and biotite. Carbonates have seen intruded as thin fillings along the gneissosity. Quartz is present as fine anhedral grains in the assemblage and also seen present in association with carbonate fillings. Opaques occur as very fine to fine

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						disseminated grains. Kaolinite is present as cloudy patches comprising very fine particles and seen developing after plagioclase alterations. The specimen is an <u>amphibolite gneiss.</u>
9	MKJP-04 Borehole Sample of MKJ-05 depth 42.30m - 42.40m	It is a fine to medium grained rock showing granular texture.	Garnet Quartz	Opagues Biotite	Garnet occurs as patchy segregations comprising fine to medium subrounded grains. Quartz occurs as fine to medium anhedral and patchy grains along interstitial places of garnet. Opagues are seen present as fine intrusive fillings and patches. Biotite is noted as fine to very fine flakes and patches seen replacing garnet in areas. The specimen is a <u>garnet rich quartzite.</u>
10	MKJP-05 Borehole Sample of MKJ-06 depth 41.64m - 41.74m	It is a fine to medium grained rock showing schistosity.	Quartz Muscovite Garnet Biotite	Staurolite Chlorite Opagues	Tourmaline	Quartz occurs as fine to medium anhedral grains. Muscovite occurs as fine to medium flakes and flaky aggregates showing parallel alignment and micro-folds. Garnet is present as medium to fine subhedral to euhedral grains in dissemination and showing very fine inclusions of quartz within it. Biotite occurs as fine flakes being interleaved with muscovite. Staurolite is noted as medium to fine subhedral prismatic and anhedral patchy grains. Chlorite is present as flakes and patches seen replacing garnet, staurolite and biotite. Opagues occur as very fine to fine subhedral to anhedral and bladed grains aligned along the foliation. Tourmaline is noted as very fine prismatic grains in accessories. The specimen is a <u>garnetiferous quartz-muscovite-biotite schist.</u>

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11	MKJP-06 Borehole Sample of MKJ-07 depth 47.70m - 47.80m	It is a medium to fine grained rock showing gneissosity.	Microcline Quartz Plagioclase Biotite	Sericite	Calcite Muscovite Zircon	Microcline and plagioclase are present as medium to fine subhedral to anhedral grains showing crude alignment. Microcline is also seen present as moderately coarse blasto-porphyritic grains showing rotational movement. Quartz occurs as fine to medium anhedral grains and as clustered pockets. Biotite is present as fine to medium flakes and flaky aggregates showing parallel alignment. Sericite is seen developing after plagioclase alterations. Calcites filling have seen intruded in areas. Muscovite occurs as fine flakes in associating with biotite. Zircon is noted as very fine inclusions within biotite, around which pleochroic halos are observed. The specimen is a <u>granite gneiss</u> .