

**RECONNAISSANCE GEOLOGICAL REPORT OF PROPOSED SITE OF SMT.
CHURNI DEVI D/o SHRI KYARKI FOR THE CONSTRUCTION OF OWNER
DRIVEN CONSTRUCTION FOR HOUSING (ODCH)
TOK ISTRAGAD, VILLAGE HADWADI, TEHSIL- MORI- DISTRICT
UTTARKASHI, UTTARAKHAND
KHASARA No. – 1460 & AREA – 0.020 ha.**

Date of Inspection: 21/01/14

In a 'World Bank' funded programme, Government of Uttarakhand has provided teams of Consultant Geologists and Consultant Associate Geologists to Director, Geology and Mining Unit, Uttarakhand for geological studies in proposed sites for Owner Driven Construction For Housing (ODCH) in disaster affected districts of Uttarakhand.

Director, Geology and Mining Unit, Directorate of Industries, Uttarakhand has issued an Office Order No.1612 Aa. Pra./Bhu.Ni./Bhu.Khani.E./2013-14 dated 10thDecember 2013 regarding geological studies in disaster affected five districts of Uttarakhand, Uttarkashi is one of them. Thus, undersigned have taken geological observation during traverses and collected field geological data under the management of cosignatory departmental 'Assistant Geologist'.

In the above mentioned questioned area, the reconnaissance geological investigation was carried out in the presence and co-operation of Shri Jaypal Singh, Homeguard. It is 31Km approx from Tehsil Headquarter Mori, Uttarkashi, Uttarakhand and the site is 8Km approx from Naitwad-Dhaura-Doni motarmarg through Dhaura-Hadwadi village bridle path. It falls on coordinate – N 30° 07' 26.7 E 78° 03' 32.9 El. 2123m. The site is in right bank of Istragad nala flowing towards NE direction in Istragad Tok of village Hadwadi which is less populated. At the proposed site a old construction is already present.

The proposed site is on colluvial overburden material varying in thickness range from 10-12m. The site is in between two perennial flows which are about 200m and 60m approx distance in west and east direction respectively. The general slope is about 30°-35° approx sloping in NNW direction. Around the proposed site location dense mix vegetation is present at about 60-70m approx in uphill side and in downhill side apple gardens are present.



Close views of the proposed site

The proposed site is on overburden material thus no insitu rock is found. Man-made cultivated terraces are present with few boulders of varying in size from 2-3m approx size intact in the yellowish silty clay soil having phyllite fragments of size 2-5cm mix in the soil matrix. The soil is consolidated; the rate of infiltration is medium making the soil moist. At and around the proposed site location the water seepage is low.

RECOMMENDATIONS:

1. Inclined retaining wall of 3m approx at the SSE backside boundary and NNW toe boundary of the site with depth of foundation more than the foundation depth of the house, with provisions of weep holes and sufficient gap of about 2-3feet in between the backside retaining wall and the proposed construction should be constructed. And also, proper drainage system between the retaining wall and the wall of house should be developed.
2. The surface drainage should be properly planned through lined drain/pipe, so both rain water as well as waste water from the existing houses to be release safe place in NE direction along a channel.
3. The foundation depth of the houses must be as per the compactness of the overburden material at the proposed site.
4. Framed structure with deep column and light roof must be constructed as the area falls in the earthquake zone IV, so it is essential that the house must be constructed with latest earthquake resistive techniques.
5. Massive plantation of trees, bushes and grasses which can hold the soil mass and retain the debris with dense and long rooted, wide leafed flora must be done to protect the soil erosion and minimize the surface erosion of sub-surface rock.
6. The soak pits and toilet foundations must be quiet away from the house so that the foundations are not directly affected from subsidence due to excessive seepage.
7. The premises of house must be made 'pukka' in order to avoid excessive seepage of the surface water.

CONCLUSION:

Prima-facie, presently, the proposed site of Smt. Churni Devi D/o Shri Kyarki is geologically feasible for the proposed construction, only if, the above mentioned recommendations will be followed strictly, otherwise, in their contravention; geologically suitability will be deemed annulled.


(Shashank Sharma)

Consultant Associate Geologist

Place: Camp Uttarkashi



(Deepak Singh)

Consultant Geologist



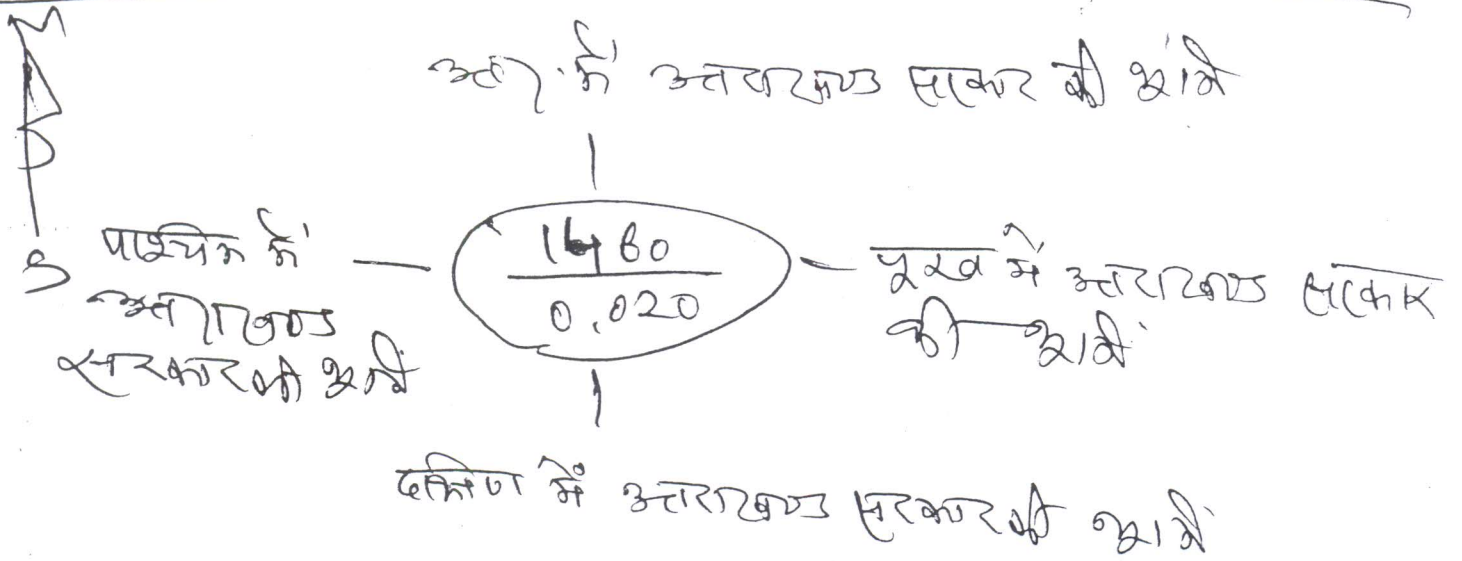
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दक्षिण मोड़ी के ग्राम हडवाड़ी में देवी कापवा के कारण पूर्ण शक्ति प्राप्त करने के कारण पर वनाम पात्र वाले पुत्रावित प्राप्त करने के कारण असादी के भवन की गजरी गजरा।



खपरा

ग्राम	कुल खपरा	उत्तराखण्ड खपरा
1460	0.020 ₹	0.020 ₹

सिद्धि

- 1) पूर्व में उत्तराखण्ड सरकार की शक्ति
- 2) पश्चिम में उत्तराखण्ड सरकार की शक्ति
- 3) असादी में उत्तराखण्ड सरकार की शक्ति
- 4) दक्षिण में उत्तराखण्ड सरकार की शक्ति

R. P. N.