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SCHEME OF MINING

FOR SAND, *BAJRI* AND BOULDERS
IN
DABKA RIVER
AREA: 223.0 ha.

TARAI WEST FOREST DIVISION
TEHSIL – RAMNAGAR,
DISTRICT – NAINITAL (UTTARAKHAND)

APPLICANT

M/S UTTARAKHAND FOREST DEVELOPMENT CORPORATION (UKFDC),
ARANYA VIKAS BHAWAN, 73 NEHRU ROAD,
DEHRADUN (UTTARAKHAND) -248001

भूतत्व एवं खनिकर्म इकाई
उद्योग निदेशालय, उत्तराखण्ड
देहरादून
शर्तों के अधीन अनुमोदित
पत्रांक 416/ RQP/ भू०खनि०ई०-देहरा
दिनांक 24-05-2021

24/05/2021
अपर निदेशक
भूतत्व एवं खनिकर्म इकाई
उद्योग निदेशालय, उत्तराखण्ड
देहरादून

PREPARED BY

HARISH KAINTHOLA
भू०ख०/05/खनन/ RQP /2015–16

KainGeotech
DEHRADUN (UTTARAKHAND)

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CHAPTER - 1

GENERAL INFORMATION

M/s Uttarakhand Forest Development Corporation (UKFDC), Dehradun has got GO No. 349/ VII-1/22–ख/2013 dated 19-02-2013 for ten year from Government of Uttarakhand over an area of 223.0 ha for mining of RBM (sand, *bajri* & boulder) in Dabka river-section of Tarai Western Forest Division, Ramnagar, Distt Nainital (Uttarakhand) (Annexure No.-1). Copy of joint inspection report of area is enclosed as Annexure- 2 Demarcation report by forest department is enclosed as Annexure- 3. Demarcated map is enclosed as Annexure- 4. Replenishment study report for the year 2020- 21 done by Soil Conservation is enclosed as annexure 5. Environment clearance of the area has already been taken by the applicant (Annexure- 6). Work order for mining from forest department enclosed as Annexure- 7.

Mining plan is being prepared as per Uttarakhand Minor Mineral Concession Rule 2001, Uttarakhand Minor Mineral (Sand, bajri & boulder) picking policy 2016 and GO No 333/VII-1/2020/05(18)/19 dated 04/03/2020. This mining plan is being prepared considering depth upto 1.5m.

As per work order No. 3493/माइनिंग प्लान / कोसी एवं दाबका नदी & Agreement dated 10 November 2020 M/s Uttarakhand Forest Development Corporation (UKFDC), Office of Regional Manager (Western Region) Ramnagar, Nainital has assigned/ authorized to prepare the Mining Plan of Dabka River to Harish Kainthola, RQP registration No. मु0खo/05/खनन/ RQP /2015–16 (Annexure- 8), over an area of 223.0 ha. for minor mineral, falls under forest land in Dabka River, Tarai West Forest Division, Ramnagar, Distt Nainital (Uttarakhand) and acceptance for the same by RQP is enclosed as Annexure- 9. Georeference Satellite location map showing mineable area (56 ha) leaving 25% from both bank of the river is given in Annexure – 10. Copy of chalan for Rs 50,000/- for approval of mining plan is enclosed as Annexure- 11.

Mining plan has been prepared for the period of three years for exploitation of deposited mineral. Mining will be done manually in open cast method in quite systematic manner. As per Uttarakhand Govt. notification no. 334/VII-A-1/5(15)/19 dated 4 March 2020 from first year to third year mining is proposed upto 1.5m depth or upto underground water level whichever is less, which is 1867800.00 Tonnes (849000 Cum) per year. From first year to third year total extraction quantity will be around 5603400.00 Tonnes.

As per replenishment study about 63837.56m^3 (140442.63Tonnes) mineral can be exploited each year.

Mining of minerals is site specific in nature and the location of the proposed project is restricted to the mineral deposition of the area. Safety, economical and technical constraints determine the mining methods to be employed.

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CHAPTER - 2

GEOREFERENCING

Georeferencing means that the internal coordinate system of a map or aerial photo image can be related to a ground system of geographic coordinates. Geographic locations are most commonly represented using a coordinate reference system, which in turn can be related to a geodetic reference system.

To georeference an image, one first needs to establish control points, input the known geographic coordinates of these control points, choose the coordinate system and other projection parameters and then minimize residuals. Residuals are the difference between the actual coordinates of the control points and the coordinates predicted by the geographic model created using the control points. They provide a method of determining the level of accuracy of the georeferencing process.

To reduce the time and cost involved in data acquisition, this study develops an integrated approach by integrating global position system (GPS) data, remote sensing (RS) imagery, DGPS and existing maps. The regions of study are river bed in Dabka River of [illegible] West Forest Division, Ramnagar, Distt Nainital (Uttarakhand). The results are the creation of updated maps with a lot of information which can be used in updating the existing data. Pillar no. with coordinates of applied area is tabulated below:

Demarcated Pillar at Eastern End	Latitudes	Longitude	Demarcated Pillar at Western End	Latitudes	Longitude
E1	29°20'16.8"N	79°08'55.1"E	W1	29°20'18.7"N	79°08'50.8"E
E2	29°20'13.5"N	79°08'54.4"E	W2	29°20'15.3"N	79°08'50.9"E
E3	29°20'10.5"N	79°08'53.5"E	W3	29°20'12.6"N	79°08'48.3"E
E4	29°20'07.8"N	79°08'50.2"E	W4	29°20'09.2"N	79°08'42.8"E
E5	29°20'05.1"N	79°08'49.7"E	W5	29°20'05.7"N	79°08'45.1"E
6	29°20'02.2"N	79°08'43.3"E	W6	29°20'03.3"N	79°08'43.7"E
E7	29°20'59.1"N	79°08'47.0"E	W7	29°20'00.5"N	79°08'42.7"E
E8	29°19'56.6"N	79°08'46.1"E	W8	29°19'57.6"N	79°08'43.0"E
E9	29°19'53.7"N	79°08'46.2"E	W9	29°19'54.6"N	79°08'43.6"E
E10	29°19'50.4"N	79°08'45.8"E	W10	29°19'57.4"N	79°08'43.2"E
E11	29°19'47.2"N	79°08'45.11"E	W11	29°19'48.7"N	79°08'43.4"E
E12	29°19'43.8"N	79°08'45.6"E	W12	29°19'45.7"N	79°08'43.3"E
E13	29°19'40.6"N	79°08'45.9"E	W13	29°19'42.8"N	79°08'42.0"E
E14	29°19'37.1"N	79°08'46.9"E	W14	29°19'39.7"N	79°08'42.4"E
E15	29°19'34.1"N	79°08'47.5"E	W15	29°19'36.7"N	79°08'42.4"E
E16	29°19'30.6"N	79°08'47.9"E	W16	29°19'33.7"N	79°08'42.4"E
E17	29°19'27.3"N	79°08'47.4"E	W17	29°19'30.9"N	79°08'41.6"E
E18	29°19'23.9"N	79°08'46.1"E	W18	29°19'28.2"N	79°08'41.0"E
E19	29°19'20.7"N	79°08'45.1"E	W19	29°19'24.7"N	79°08'40.3"E
E20	29°19'17.5"N	79°08'44.4"E	W20	29°19'21.3"N	79°08'40.6"E
E21	29°19'14.2"N	79°08'43.6"E	W21	29°19'18.4"N	79°08'41.4"E
E22	29°19'11.2"N	79°08'42.2"E	W22	29°19'51.1"N	79°08'42.3"E
E23	29°19'08.2"N	79°08'40.9"E	W23	29°19'12.1"N	79°08'41.2"E
24	29°19'05.1"N	79°08'36.5"E	W24	29°19'09.4"N	79°08'39.7"E
E25	29°19'02.7"N	79°08'36.3"E	W25	29°19'06.9"N	79°08'37.7"E

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Demarcated Pillar at Eastern End	Latitudes	Longitude	Demarcated Pillar at Western End	Latitudes	Longitude
E26	29°19'00.5"N	79°08'33.2"E	W26	29°19'04.4"N	79°08'35.2"E
E27	29°18'58.3"N	79°08'29.6"E	27	29°19'02.4"N	79°08'17.4"E
E28	29°18'56.8"N	79°08'26.9"E	W28	29°19'00.9"N	79°08'28.7"E
E29	29°18'54.6"N	79°08'24.3"E	W29	29°18'59.1"N	79°08'25.6"E
E30	29°18'49.5"N	79°08'19.9"E	W30	29°18'57.2"N	79°08'22.4"E
E31	29°18'46.4"N	79°08'17.8"E	W31	29°18'54.7"N	79°08'19.9"E
E32	29°18'43.6"N	79°08'15.9"E	W32	29°18'52.3"N	79°08'17.4"E
E33	29°18'41.2"N	79°08'13.0"E	W33	29°18'49.6"N	79°08'53.3"E
E34	29°18'38.5"N	79°08'11.3"E	W34	29°18'47.1"N	79°08'13.3"E
E35	29°18'35.3"N	79°08'09.5"E	W35	29°18'44.3"N	79°08'11.3"E
E36	29°18'32.1"N	79°08'09.8"E	W36	29°18'41.2"N	79°08'10.1"E
E37	29°18'28.7"N	79°08'09.8"E	W37	29°18'37.8"N	79°08'08.7"E
E38	29°18'25.3"N	79°08'09.6"E	W38	29°18'34.6"N	79°08'07.8"E
E39	29°18'22.1"N	79°08'09.9"E	W39	29°18'31.5"N	79°08'07.2"E
E40	29°18'18.8"N	79°08'09.3"E	W40	29°18'28.4"N	79°08'06.7"E
E41	29°18'15.8"N	79°08'08.3"E	W41	29°18'24.8"N	79°08'05.9"E
E42	29°18'12.9"N	79°08'07.3"E	W42	29°18'21.4"N	79°08'05.3"E
E43	29°18'09.6"N	79°08'06.9"E	W43	29°18'18.2"N	79°08'06.3"E
E44	29°18'06.8"N	79°08'05.0"E	W44	29°18'15.3"N	79°08'05.2"E
E45	29°18'03.3"N	79°08'03.4"E	W45	29°18'12.1"N	79°08'03.5"E
E46	29°18'00.5"N	79°08'01.4"E	W46	29°18'08.7"N	79°08'02.8"E
E47	29°17'57.6"N	79°07'59.5"E	W47	29°18'05.3"N	79°08'01.8"E
E48	29°17'53.3"N	79°07'57.4"E	W48	29°18'02.2"N	79°08'00.8"E
E49	29°17'52.10"N	79°07'56.6"E	W49	29°17'59.8"N	79°07'57.8"E
E50	29°17'49.0"N	79°07'56.3"E	W50	29°17'56.6"N	79°07'55.4"E
51	29°17'45.7"N	79°07'50.1"E	W51	29°17'53.4"N	79°07'54.5"E
E52	29°17'42.5"N	79°07'56.6"E	W52	29°17'50.0"N	79°07'54.1"E
E53	29°17'39.7"N	79°07'55.1"E	W53	29°17'46.7"N	79°07'53.4"E
E54	29°17'36.5"N	79°07'55.5"E	W54	29°17'43.3"N	79°07'53.2"E
E55	29°17'34.5"N	79°07'58.4"E	W55	29°17'40.0"N	79°07'52.9"E
E56	29°17'32.7"N	79°08'01.5"E	W56	29°17'36.7"N	79°07'52.1"E
E57	29°17'30.1"N	79°08'03.7"E	W57	29°17'34.0"N	79°07'54.2"E
E58	29°18'52.4"N	79°08'21.2"E	W58	29°17'31.9"N	79°07'57.1"E
58	29°17'23.19"N	79°08'6.66"E			

PROJECT: Preparation of Georeference Map for Mine Plan

Scope of Work

- Survey of plots situated at the bank of River.
- Co-referencing of ground.
- Preparation of Map over imagery.

Taking GCPS on Ground

- GCPs are taken with the help of DGPS.
- Number of GCPs varies between 6 and 10, depending on the area of plot/Site.

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Assessment of extractable river bed material from river Dabka for the year 2020-2021

The mountain Rivers of Himalayas bring down huge quantity of sediment (sand, bajri, gravel and stones) from hilly catchments while flowing with high velocity on steep slopes. The riverbed material (RBM) rolls over the surface and is deposited while coming to the foothills with mild slopes due to reduction in flow velocity.

The RBM deposited on the river bed in the form of mounds/islands causes braiding of flow (i.e flowing through several streams instead of confined one) and meandering of the river course. This process continues and the river erodes adjoining lands thus increasing the total width of the river, though the required width for actual flow is much less. Further, the encroachment of river along the banks damages valuable property, agricultural lands and forests during the monsoon period.

The extraction/removal of this erratic deposited material, therefore, needs to be done periodically from the river bed in order to channelize the flow and consequently prevent bank erosion and flood damages along the banks.

On request from UKFDC, Ramnagar, Nainital (Uttarakhand) consultancy project was undertaken by IISWC (formerly CSWCRTI), Dehradun to conduct a study on river Dabka with following objectives

Objectives

1. Study the morphological profile (Cross section) of river Dabka for defined river reach.
2. Estimation of permissible limit of extraction of river bed material to improve the river flow.

The river Dabka originates (29°28'46"N & 79°20'14"E) from the hills of Nainital district of Uttarakhand and flows down to the foothills near Ramnagar, district Nainital. The river carries with it sediment/river bed material (RBM) consisting of sand, bajri, gravel and stones during every monsoon season.

Extraction of RBM in river Dabka:

The Study Area

The study area is located at river Dabka, under jurisdiction of UKFDC, Ramnagar, district Nainital, Uttarakhand River Dabka is about 6 km away from Ramnagar crossing the Ramnagar – Haldwani highway. The river reach under study is in the downstream of the road bridge.

Methodology

A team from ICAR-IISWC, Dehradun consisting of Dr. P.R. Ojasvi, Pr. Scientist & Head (H&E), Er. S.S. Shrimali, Sr. Scientist, Er. S.K. Sharma, Astt. Chief Technical Officer, Shri H.S. Bhatia, Technical Officer and Er. Amit Chauhan, Senior Technical Officer analyzed the data and studied the project site. The site was visited for pre & Post Monsoon survey on 2nd week of July & 1st - 3rd December, 2020 with of DLM, Dabka and other staff of UKFDC.

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The starting point of the survey was river bed downstream of the bridge on highway and thereafter river reach downstream upto 06 km. One km length from the bridge was left out of survey as no extraction is permitted from this zone in view of the safety of bridge. The elevations at different points along cross-sections at different locations were recorded and analyzed. The average slope of the river under extraction zone is 0.76 percent and undulated in nature.

To protect the land adjoining the river banks 25 per cent of the river bed width along each bank of river would be left undisturbed for extraction. Therefore, volume of extractable sediment within the middle 50 per cent of river width was worked out based on the average width of the segment and required shape for safe passage of flow.

Analysis, Results and Recommendations

1. The cross-sections of river Dabka at different locations are shown in It is seen from the cross-sections that a small amount of sediment deposits are occurring in the middle portion of the river (shown by hatched portion between MR – ML). Thus, it is suggested that these deposits may be removed in order to channelize the river flow.
2. The permissible quantity of RBM that can be extracted in different segments of the river is shown in Table 1. The estimated total scientifically extractable material is m3 as shown in Table 1.
3. The recommended depths in respect of different locations as mentioned in Table 2 should be strictly monitored during extraction of RBM.
4. The remaining area under lower reach of the river defined for the extraction feeding area of Baithkadi gate has been excluded from the survey keeping in view the negligible quantity of RBM deposition and may be suspended for extraction.
5. It is observed that rainfall in this region and therefore discharge of river in the past few years has reduced. Therefore, the quantity of RBM deposition in this reach of the river is reducing over the years and is not able to fill the river reach under study/ proposed extraction of RBM. It is, therefore, suggested that extraction of RBM in this river reach may be temporarily suspended for the period, till the sufficient quantum of RBM is deposited and restoring the natural river bed profile. Follow-up study has to be conducted at appropriated time for the remaining area to ensure the rejuvenation of river morphological profile river.
6. Suitable river training measures need to be taken for prevention of bank erosion and protection of adjoining lands from flood damages.

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Table 1: Estimation of the extractable RBM for the marked river reach of Dabka River.

Volume of safely extractionable RBM from River Dabka 2020-21								
Location	Length Segment (m)	Width of the river (m)	Extraction-able width (m)	Average Depth of Extraction	Cross-Section (m^2)	Average Cross-section (m^2)	Volume (m^3)	Cumulative Volume (m^3)
CS1	0	220.62	110.31	0.44	0.00	0	0	0
CS2	1124	123.1	17.8	0.22	3.92	1.96	2200.79	2200.79
CS3	1432	221.67	110.83	0.28	31.03	17.47	25023.05	27223.85
CS4	988	182.45	86.27	0.38	32.78	31.91	31524.61	58748.46
CS5	512	107.62	37.01	0.4	14.80	23.79	12182.17	70930.63
							Total Volume	70930.63
							Recommended volume of extraction (90% of total volume)	63837.56

Table 2: Distance and extraction depth across width

CS1	Distance	55.15	55.73	69.25	94.66	110.31	125.88	153.51	165.46		110.31
		0.00	0.27	0.19	1.15	1.03	0.81	0.06	0.00		0.44
CS2	Distance	32.92	35.00	47.32	50.72						17.80
		0.00	0.36	0.51	0.00						0.22
CS3	Distance	55.42	56.16	68.09	91.35	103.33	110.83	120.83	145.35	166.25	110.83
		0.36	0.37	0.31	0.31	0.41	0.27	0.07	0.30	0.16	0.28
CS4	Distance	45.61	52.18	73.35	90.12	91.22	108.48	113.97	131.88		86.27
		0.14	0.16	0.10	0.80	0.81	0.74	0.33	0.00		0.38
CS5	Distance	26.90	27.85	40.11	53.23	63.91					37.01
		0.00	0.46	0.73	0.83	0.00					0.40

Note: All dimensions are in meter.

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No. C S	Coordinates	
	Latitude	Longitude
CS-1	29°20'18.66"N	78°08'49.60"E
CS-2	29°19'42.35"N	78°08'42.17"E
CS-3	29°19'1.76"N	78°08'25.52"E
CS-4	29°18'34.93"N	78°08'07.88"E
CS-5	29°18'19.31"N	78°08'06.85"E

Fig. 2: Cross-section of river Dabka, Ramnagar at different kilometers showing the extractable RBM

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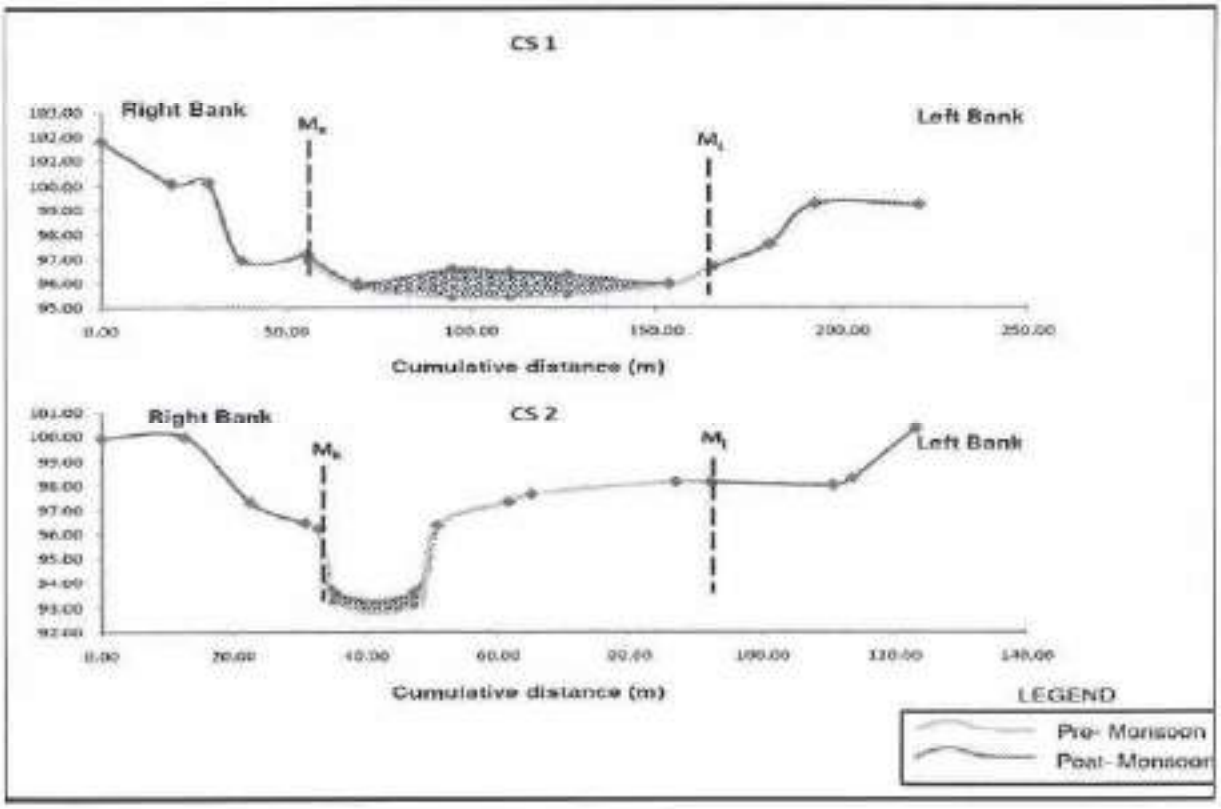

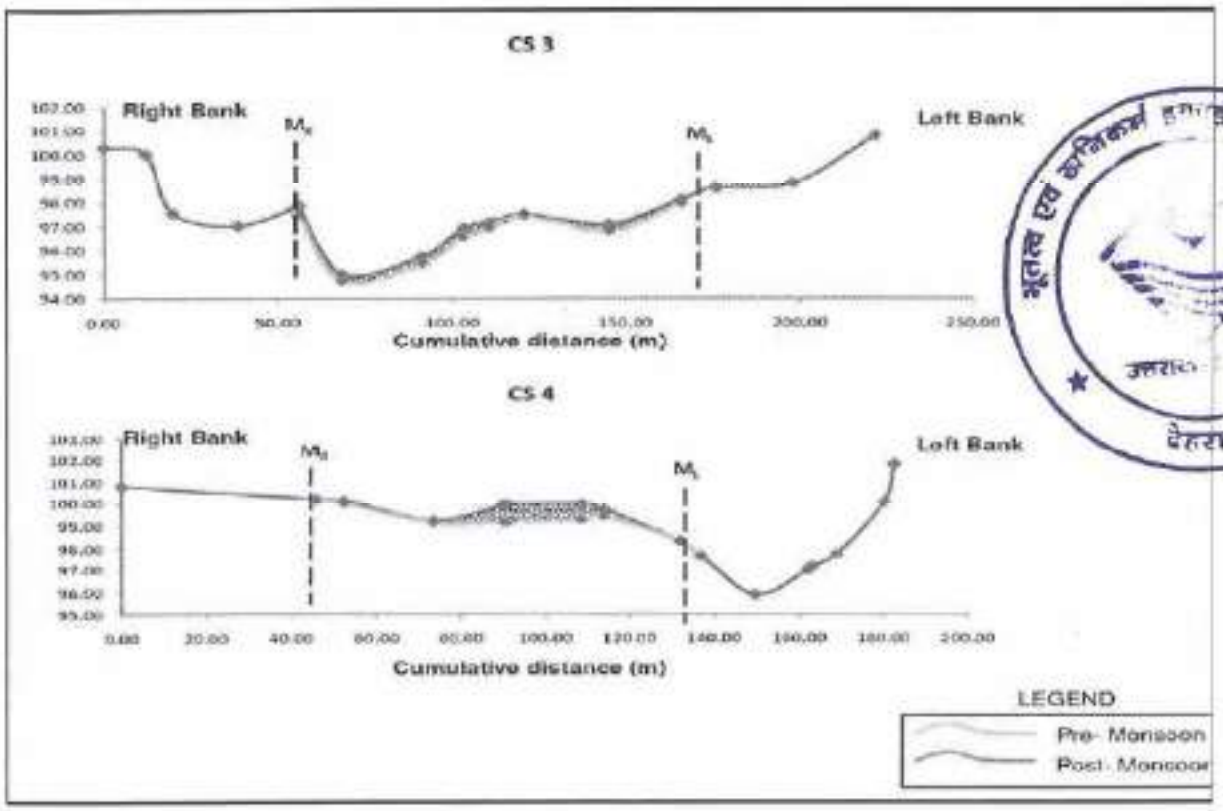

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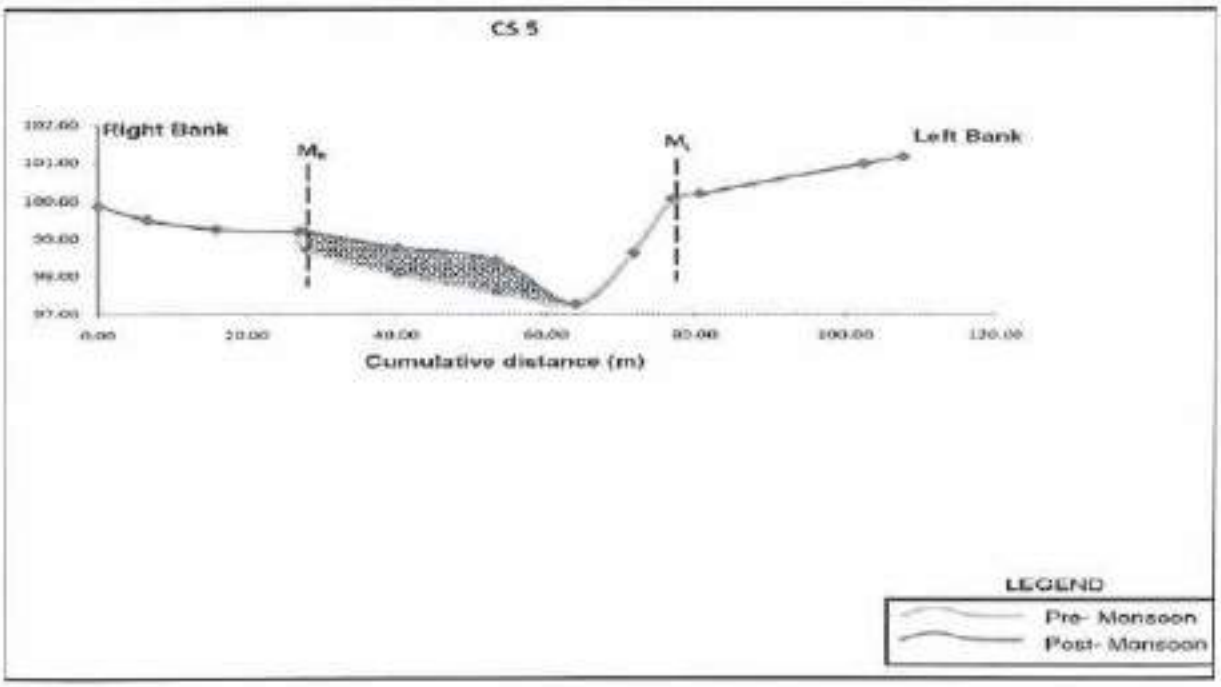

Cross-section of river Dabka, Ramnagar at different locations showing the extractable RBM

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CHAPTER – 3

DETAIL INFORMATION OF QUARRY LEASE

Name & Address of the Applicant:
M/s Uttarakhand Forest Development Corporation (UKFDC), Aranya Vikas Bhawan, 73 Nehru Road, Dehradun (Uttarakhand) -248001

Status of the Applicant:
Govt. Body. Applicant has more than 10 year experience in mining activities.

Minerals which are occurring in the area and which the applicant intends to mine:
Sand, *Bajri* and Boulder (RBM)

Status of the area:
M/s Uttarakhand Forest Development Corporation (UKFDC) has applied for an area of 223.0 ha falls under forest land in Dabka River, Tarai West Forest Division, Ramnagar, Distt Nainital (Uttarakhand).Demarcated area is 56ha which is jointly done by UKFDC with Forest Department.

Period for which the mining lease is granted / renewed / proposed to be applied:
10 years

Name, Address & Registration No. of the recognized person, who prepared the Mining Plan:

Harish Kainthola,
3/1 Ekta Enclave Way to Seemadwar- ITBP,
Opposite Hotel Sun Park Inn,
GMS Raod, Dehradun - 248001 (Uttarakhand)
Telephone (Cell): 08755182584.
E-mail – kaingeotech@gmail.com
Registration No. - मु0खा0/05/खनन/ RQP /2015–16

Kailash Chandra,
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E-mail – ksati84@gmail.com
Registration No. - RQP/UKGMU/NO 012/Year 2019

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Infrastructure facilities -

Power & Electricity:

The lease area falls near villages- Kyari Kham, Khempur, Barail, Madanpur, Lampur, Ompur, Gajpur, Haripur Tiwari and Choi which are electrified by 220 volt supply; nearly 80% area fall 5 km periphery of the area is electrified.

Water Supply:

Water table of this area is about 15-160 ft below the ground. Water supply from tank will be arranged for drinking purpose. Dug wells and spring water can also be used for drinking water purposes. For irrigation, small canal are made on the perennial *nalas* and water supply for drinking purpose through pipelines by Uttarakhand Jal Sasthan.

Post office & Telegraph:

Post Office is situated at Choi which is about 3.5 km away from lease hold area.

Education institute:

Primary school is situated in Choi which is about 3.5 km away from lease hold area.

Junior High School, High School and Intermediate collage are also situated in Choi which is about 3.5 km away from lease hold area.

For getting higher studies, people are going to Ramnager which is about 5 km from the lease area.

Health facility:

In Ramnager Primary Health Centre and Combined hospital are available, which are about 5 km from lease area.

Police station:

The nearest police station is at Ramnager which is about 5 km from applied area.

Bank:

There is a bank available at Choi which is about 3.5 km from the applied area.

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CHAPTER-4

GEOLOGY AND RESERVES

Physiography:

Geographically, the study region constitutes of plain area. The natural environment of the hilly region is greatly different from that of the remaining areas of the plains. The diversified topography, soil, climate and vegetation on the one hand and socio-cultural and economic on the other have formed these regions into two separate entities. The plains have two separate sub-regions which are, physiographically distinctive, i.e., Bhabar and Tarai.

The frontal ranges which are relatively lower from the Outer Himalaya greatly determine rainfall distribution in both area, i.e., Siwalik and upper interior areas. The Siwalik belt consists of parallel ridges which are covered with dense forests but sporadic agricultural patches are also found at several places. Bhabar is immediately to the south of the hills and is a narrow belt which is covered with forest at places, but devoid of water.

The foothill plain is composed of the recent deposits which mainly includes coarse deposits. On account of porous substratum this tract is superficially devoid of water. A major proportion of the region falls within the drainage basis of main rivers i.e. Kosi, Dubka while the southern face of the Siwalik gives rise to numerous streams that flow southwards across the foothill zone of Bhabar.

The climate of Ramnagar-Haldwani region is exceedingly diversified due to marked differences in attitude, rainfall, temperature, winds and configuration of land. The climate of this region is influenced by the south-west and north-east monsoons winds. Maximum temperature reaches 39^{0}C and the minimum even to freezing points in winters. Average rainfall is about 1565.9mm and most of it flows as runoff and some percolates in sandstones and conglomerates.

Geology:

The hilly physiographic unit comprises the northern hills of outer Himalaya, which is separated by Main Boundary Thrust (MBT) from east to west of the district. The region geologically comes under the lesser Himalaya and Siwalik.The study region is divisible into four distinct geological units, these from four units south to north are: (a) Bhabar, (b) Siwalik, (c) Tarai belt, and (d) Lesser Himalaya orogenic belt. Of these, the Siwalik Range and the Lesser Himalayan Range have folded mountains having medium to high relief and rugged terrain. The Siwaliks are also designated as a Sub-Himalayan zone. In general, the Bhabar belt formations contain alluvial fan deposits or piedmont deposits below the foothills or the Siwalik. This formation is made up of unconsolidated sand-boulder and clay boulder beds (Rao, 1965) The Bhabar stretches in the north from Siwalik Hills to the spring line and spring demarcates the starting of Tarai belt.

The autochthon Siwalik is separated from the Lesser Himalaya by a regional tectonic break (i.e., Main Boundary Fault). Along this fault, the rocks of the Nagthat, and/or the Blaini, Infra-Krol Krol Formations of the Krol Nappe have come in contact with the Siwaliks. This group is constituted of alternate bands of shales, sandstones, clay bands and pebbles. The Siwalik group has been divided into three formations: (a) the Lower Siwalik, (b) The Middle Siwalik; and (c) the Upper Siwalik. A generalized geological succession, of the area, is as follows;

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Age	Morphotectonic	Divisions	Lithology
Recent to Quaternary	Piedmont	Bhabar	Boulder, sand and clay
	Alluvial plain	Tarai	Sand, clay and silt.

Exploration:

It is an existing mine and exploitation of RBM is being carried out as the minerals are replenished every year in the proposed lease area.

Estimation and Categories of reserve:

The method of cross section has been adopted for computing the geological reserve. The mining lease boundary & mining limits are marked on the plans. The intersectional volume between two section lines has been determined by the following manner:

V= (S1+S2)/2 x L, where

V= volume

S1 & S2= Sectional area of the mineral body

L=Strike influence

The mining lease has been applied only in river bed area. Geological reserves have been estimated through geological cross sections. The strike influence of sections is 64.023m to 297.061m. The area of each section line is calculated and sectional area is multiplied by the strike influence in between two section line to give the volume of each section line. While computing the geological mineral reserves the depth of mineralization is taken upto 4m in all the applied area.

There are two categories of reserve; namely measured/proved and indicated/probable. The proved categories include mineral upto 2 m depth. The probable category includes 1 m after the proved depth as far as this lease in concerned.

The proved reserve and probable reserves are 7392000.125 tonnes, 2464008.051 tonnes, respectively. Following table shows the calculation of different categories of reserve.

Measured/Proved Reserve:

Section Line	Sectional area (m^2)	Strike influence (m)	Volume $(m)^3$	Recoverable reserves (tonnes)
LB to 1-1'	423.154	64.023	27091.589	59601.495
1-1' to 2-2'	415.730	202.421	84152.482	185135.461
2-2' to 3-3'	404.944	217.112	87918.202	193420.044
3-3' to 4-4'	398.781	180.919	72147.060	158723.531
4-4' to 5-5'	417.450	208.514	87044.169	191497.172
5-5' to 6-6'	481.616	172.758	83203.017	183046.637
6-6' to 7-7'	455.105	146.897	66853.559	147077.830
7-7' to 8-8'	359.880	138.936	50000.288	110000.633
8-8' to 9-9'	381.608	150.809	57549.921	126609.826
9-9' to 10-10'	432.551	198.942	86052.561	189315.634
10-10' to 11-11'	460.436	148.897	68557.539	150826.586
11-11' to 12-12'	518.964	232.657	120740.607	265629.336
12-12' to 13-13'	600.226	219.942	132014.907	290432.795
13-13' to 14-14'	656.990	192.474	126453.493	278197.685
14-14' to 15-15'	671.571	249.063	167263.488	367979.674
15-15' to 16-16'	680.658	192.208	130827.913	287821.408

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Section Line	Sectional area (m^2)	Strike influence (m)	Volume $(m)^3$	Recoverable reserves (tonnes)
16-16' to 17-17'	746.031	233.943	174528.730	383963.207
17-17' to 18-18'	735.164	297.061	218388.553	480454.817
18-18' to 19-19'	634.656	252.037	159956.794	351904.947
19-19' to 20-20'	549.810	246.627	135597.991	298315.580
20-20' to 21-21'	581.525	184.302	107176.221	235787.685
21-21' to 22-22'	682.059	156.921	107029.380	235464.637
22-22' to 23-23'	657.132	141.352	92886.922	204351.229
23-23' to 24-24'	631.758	135.037	85310.705	187683.551
24-24' to 25-25'	658.637	171.999	113284.905	249226.792
25-25' to 26-26'	626.375	219.382	137415.400	302313.881
26-26' to 27-27'	614.190	165.012	101348.720	222967.185
27-27' to 28-28'	655.430	182.933	119899.776	263779.508
28-28' to 29-29'	757.615	190.382	144236.259	317319.770
29-29' to 30-30'	778.606	201.344	156767.646	344888.822
30-30' to LB	638.561	91.301	58301.258	128262.767
Total	**17707.213**		**3360000.057**	**7392000.125**

Indicated/Probable reserve:

Section Line	Sectional area (m^2)	Strike influence (m)	Volume $(m)^3$	Recoverable reserves (tonnes)
LB to 1-1'	141.051	64.023	9030.508	19867.118
1-1' to 2-2'	138.577	202.421	28050.895	61711.969
2-2' to 3-3'	134.981	217.112	29305.995	64473.189
3-3' to 4-4'	132.927	180.919	24049.020	52907.844
4-4' to 5-5'	139.150	208.514	29014.723	63832.391
5-5' to 6-6'	160.539	172.758	27734.397	61015.672
6-6' to 7-7'	151.702	146.897	22284.569	49026.051
7-7' to 8-8'	119.960	138.936	16666.763	36666.878
8-8' to 9-9'	127.203	150.809	19183.357	42203.386
9-9' to 10-10'	144.184	198.942	28684.253	63105.357
10-10' to 11-11'	153.479	148.897	22852.563	50275.638
11-11' to 12-12'	172.988	232.657	40246.869	88543.112
12-12' to 13-13'	200.075	219.942	44004.896	96810.770
13-13' to 14-14'	218.997	192.474	42151.229	92732.703
14-14' to 15-15'	223.857	249.063	55754.496	122659.891
15-15' to 16-16'	226.885	192.208	43609.112	95940.047
16-16' to 17-17'	248.677	233.943	58176.243	127987.736
17-17' to 18-18'	245.055	297.061	72796.283	160151.823
18-18' to 19-19'	211.552	252.037	53318.931	117301.649
19-19' to 20-20'	183.270	246.627	45199.330	99438.527
20-20' to 21-21'	193.842	184.302	35725.468	78596.030
21-21' to 22-22'	227.353	156.921	35676.460	78488.212
22-22' to 23-23'	219.044	141.352	30962.307	68117.076
23-23' to 24-24'	210.586	135.037	28436.902	62561.184
24-24' to 25-25'	219.546	171.999	37761.692	83075.723
25-25' to 26-26'	208.792	219.382	45805.207	100771.454
26-26' to 27-27'	204.730	165.012	33782.907	74322.395
27-27' to 28-28'	218.477	182.933	39966.653	87926.637
28-28' to 29-29'	252.538	190.382	48078.690	105773.117

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Section Line	Sectional area (m^2)	Strike influence (m)	Volume $(m)^3$	Recoverable reserves (tonnes)
29-29' to 30-30'	259.534	201.344	52255.614	114962.350
30-30' to LB	212.853	91.301	19433.692	42754.122
Total	**5902.404**		**1120000.023**	**2464000.051**

Category according to UNFC classification:

Reserves	UNFC code	Geological Reserves (tonnes)	Grade
Proved	111	7392000.125	Road, Bridges and building construction
Probable	122	2464000.051	Road, Bridges and building construction

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CHAPTER - 5

MINING

Mining (Past):

Area for mining is 111.5 ha out of 223.0 ha. Demarcated area is 56.0 ha which is done by forest department. The present topography shows some depositional and erosional activity during past years. Infect mining pits if any, are replenished every year during the rainy season. The lease area has gentle slope towards southern direction. Highest point is at RL 326 m in the NNE corner of the area where as lowest point RL 276 is in the southern corner of the area. The mining plan is being prepared as per Uttarakhand Minor Mineral Concession Rule 2001 and Uttarakhand Minor Mineral (Sand, *bajri* & boulder) picking policy 2016 and as per Uttarakhand Govt. notification no. 334/VII-A-1/5(15)/19 dated 4 March 2020 excavation is proposed more than 1.5 m depth from surface.

Proposed Method of Mining:

Applied area is a part of a river bed and mining will be done manually in open cast method in quite a systematic manner by forming benches. Considering the area of present mining lot as 111.5 ha out of 223.0 ha, the average volume of material available in each year cycle of replenishment would be 1867800.00 Tonnes (849000 Cum) and the same quantity has been granted by SEIAA in their EC letter.

The lease area does not involve any processes such as drilling, blasting and beneficiation. The mining process involves collection of material by simple hand tool such as shovel, pans and sieves. This is followed by sorting and manual picking, stacking and loading into trucks/tractor-trolley for transporting.

Mining will be carried out considering replenishment upto 1.5m in each years and flow shall follow the normal channel direction of the river. These get replenished during monsoon.

Mining will be carried out only during the day time. The factors such as topography, bed gradient, soils, rainfall etc will be taken into consideration for the same. The material is transported through the high velocity flow and is deposited where the bed slope is mild.

Exploitation of the mineral will be done after leaving 25% distance from both banks considering as non mining area. About 1867800.00 Tonnes (849000 Cum) mineral will be exploited each year. This mining plan is being prepared for three years. From first year to third year total 5603400.00 Tonnes mineral will be produced up to third year. The proposed area is within river bed and mined out area will be replenished during succeeding rainy season. The clayey sand is not to be scrapped manually with the help of pickaxe, spade & crowbar and will be stacked separately and will be used for plantation.

RBM is excavated depending upon the grain size variation; no blasting will be used to make the sand, *Bajri* & boulder containing material more amenable to excavation. Excavation is typically performed by manual means. Hand operated tools like spade; tasla etc. will be used to collect the sand. The excavated material may be directly loaded into trucks, dumpers, tippers and tractors trolleys and will be transported to the destination wherever it is required for construction and other purposes.

Transportation of sand, *Bajri* & boulder from the mine is a process to deliver mined out material to the location where it is going to be collected. Mined out sand, *Bajri* & boulder will

manually be loaded into truck and transported to its destination where it will ultimately be used. Sufficient space will be left for loading of trucks. Excavation of river bed minerals will commence from downstream to upstream and from centre of the river bed to outer site of the river bed and from top surface of the area and commence towards down removing the minerals manually. Mining will be restricted upto a maximum depth of 1.5 m. The entire area does not require excavating at once. About 1867800.00 Tonnes (849000 Cum) per year production of river RBM (sand *bajri* & boulder) and total 5603400.00 Tonnes from first year to third year have been proposed to meet the market requirement.

The mineral extraction will be done for a period of 245 days in a year. During this period the areas of mining quarry will be free from submergence. During mining operation the river bed will be dry to enable dry pit mining. During monsoon in the lease area the river flow being increased and sediment load get deposited. During flood season, the area gets replenished with sediments and source of erosion at this location will comparatively less.

The guidelines of the Ministry of Environment & Forests and Directorate of Geology and Mining will be followed; the most important is as under: Uttarakhand Minor Mineral (Sand, *Bajri*, Boulder) Mining Policy 2016.

- Dry pit mining will be followed which means mining an all times will be above the water flow level of river. Mining activity will be immediately stopped when water comes in the mining pits.
- RBM (sand *bajri* & boulder) will be collected more than a depth of 1.5m in every year as per Uttarakhand Govt. notification no. 334/VII-A-1/5(15)/19 dated 4 March 2020 or river water levels whichever less than prescribed. Bench/levels in pre monsoon & post monsoon are given according to sequence of mining from lower elevation to higher elevation shown in Plate No- 6 & 7 of pit layout plans.
- Mining at the concave side of the river channel will be avoided to prevent bank erosion.
- Mining will be restricted minimum 25% from both site of river bank to minimize effect of river bank erosion and to avoid consequent channel migration. No mining activity will be done at safety zone or non-mining area.
- Considering the cohesion factor of RBM the excavated pit slope have to be protected by maintaining the slope with average height of 1.5m in each bench.
- Area of mining lease will be demarcated prior to mining and Pillars will be erected on ground.
- No mining operations shall be carried out in proximity of any bridge and or embankment. Working will be done during day-time only; i.e. sunrise to sunset only;
- No constructions will be done at site except for construction of initial temporary shelter house and office hut.
- No water intake from river will be done. Water will be supplied by tankers from outside sources.
- No machineries will be used.
- Mining will be completely stopped during monsoon season.

Proposed Rate of Production and Life of Mine

Depending upon the market about 1867800.00 Tonnes (849000 Cum) per year & from first year to third year total 5603400.00 Tonnes RBM is proposed to be swiped out from the mining area. Each bench will be of 1.5m height or upto water table in per year. Tonnage factor of 2.2 has been considered. This material will be expected to be replenished during the next rainy season.

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Year Wise Mining & Development:

From I to III year the excavation of river bed will be according to Uttarakhand Minor Mineral (Sand, *bajri* & boulder) picking policy 2016, Uttarakhand Minor Mineral Concession Rule 2001 Notification. Extraction of RBM from river bed will not exceed the 1.5m/ annual replenishment rate or water level which ever less.

Area does not show any outcrop of in-situ deposit. The production is generally in the form of sand, *bajri* and boulder. Every year the extractable quantity of RBM is proposed 1867800.00 Tonnes (849000 Cum) per year and upto third year total extraction quantity will be around 5603400.00 tonnes.

Year	I	II	III	Total
Proposed Production (Tonne)	1867800.00	1867800.00	1867800.00	**5603400.00**

From first year to third year about 1230 meter long Retaining Wall will be constructed along the plantation and dumping area.

I Year:

The mining face will be started from southern direction from the lower level and advance towards higher levels. During this year mining is proposed from RL 280m to RL 312m in post monsoon (Plate No. 6) and from RL 308m to 324m in pre monsoon (Plate No. 7) to open the mining faces and transportation of mineral. The mining face will be advanced towards north to NE direction. Tonnage factor of 2.2 has been considered. Thus, total extractable quantity in Tonnes will be 1867800.00. During monsoon period only excavated depth/pit will be replenished from RL 280m to RL 324m. After monsoon mined out area of first year will be replenished.

About 410m long retaining wall will be constructed to protect the plantation & dump area in this year.

The bench wise proposed quantity, production and closing recoverable reserves are given below:

Post- Monsoon:-

Section No.	Bench / Level (m)		Area (m^2)	Mineable Depth (m)	Total Reserves (Tonne)	Production (Tonne)	Residue (Tonne)
	From	To					
LB to 1-1'	280-286	278.5-284.5	9029.523	1.5	29797.426	15882.029	13915.397
1-1' to 2-2'	284-286	282.5-284.5	28050.060	1.5	92565.198	49337.251	43227.947
2-2' to 3-3'	280-286	278.5-284.5	29305.451	1.5	96707.988	51545.358	45162.631
3-3' to 4-4'	286-288	284.5-286.5	24048.465	1.5	79359.935	42301.046	37058.889
4-4' to 5-5'	284-286	282.5-284.5	29013.421	1.5	95744.289	51031.706	44712.583
5-5' to 6-6'	284-286	282.5-284.5	27733.813	1.5	91521.583	48781.003	42740.580
6-6' to 7-7'	284-286	282.5-284.5	22283.740	1.5	73536.342	39194.870	34341.472
7-7' to 8-8'	274-294	282.5-284.5	16666.093	1.5	54998.107	29313.990	25684.117
8-8' to 9-9'	276-278	274.5-276.5	19182.671	1.5	63302.814	33960.399	29342.415
9-9' to 10-10'	290-292	288.5-290.5	28683.482	1.5	94655.491	50451.377	44204.114

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Section No.	Bench / Level (m)		Area (m^2)	Mineable Depth (m)	Total Reserves (Tonne)	Production (Tonne)	Residue (Tonne)
	From	To					
10-10' to 11-11'	290-296	288.5-294.5	22851.543	1.5	75410.092	40193.580	35216.512
11-11' to 12-12'	290-294	288.5-292.5	40246.006	1.5	132811.820	70790.900	62020.919
12-12' to 13-13'	294-298	284.5-296.5	44004.045	1.5	145213.349	77398.715	67814.634
13-13' to 14-14'	298-300	296.5-298.5	42150.123	1.5	139095.406	74137.851	64957.555
14-14' to 15-15'	298-304	296.5-302.5	55753.532	1.5	183986.656	98284.888	85701.768
15-15' to 16-16'	304-308	302.5-306.5	43608.560	1.5	143908.248	76703.317	67204.931
16-16' to 17-17'	298-306	296.5-304.5	53175.383	1.5	175478.764	93530.182	81948.582
17-17' to 18-18'	306-308	304.5-306.5	72795.581	1.5	240225.417	128040.367	112185.050
Non Mining Boundary to 20-20'	306-310	304.5-308.5	45198.800	1.5	149156.040	79500.172	69655.868
20-20' to 21-21'	309-312	307.5-310.5	35724.763	1.5	117891.718	62836.286	55055.432
21-21' to 22-22'	308-310	306.5-308.5	35675.705	1.5	117729.827	62749.999	54979.827
22-22' to 23-23'	308-312	306.5-310.5	30961.463	1.5	102172.828	54458.340	47714.488
23-23' to 24-24'	310-314	308.5-312.5	28435.970	1.5	93838.701	50016.248	43822.453
24-24' to 25-25'	310-312	308.5-310.5	37760.665	1.5	124610.195	66417.234	58192.960
Total			**822338.858**		**2713718.231**	**1446857.106**	**1266861.125**

Pre- Monsoon:-

Section No.	Bench / Level (m)		Area (m^2)	Mineable Depth (m)	Total Reserves (Tonne)	Production (Tonne)	Residue (Tonne)
	From	To					
25-25' to 26-26'	308-314	306.5-312.5	45804.182	1.5	151153.801	80564.977	70588.824
26-26' to 27-27'	310-318	308.5-316.5	33782.063	1.5	111480.808	59421.470	52059.338
27-27' to 28-28'	314-316	312.5-314.5	39965.833	1.5	131887.249	70295.903	61591.346
28-28' to 29-29'	315-318	313.5-316.5	48077.855	1.5	158656.922	84564.161	74092.761
29-29' to 30-30'	316-324	314.5-322.5	52255.230	1.5	172442.259	91913.945	80528.314
30-30' to LB	320-324	318.5-322.5	19432.735	1.5	64128.026	34182.438	29945.587
Total			**239317.898**		**789749.063**	**420942.894**	**368806.170**

The position of benches in pre monsoon and post monsoon in third year is shown in Plate No. 6, 7, 8A-8D, 9A-9B and 10 respectively.

II Year:

After monsoon mined out area of first year will be replenished. The mining face will be started from SSW direction from the lower level and advance towards higher levels. During this year mining is proposed from RL 280m to RL 312m in post monsoon (Plate No. 6) and from RL 308m to 324m in pre monsoon (Plate No. 7) to open the mining faces and transportation of mineral. The mining face will be advanced towards north to NNE direction. Tonnage factor of 2.2 has been considered. Thus, total extractable quantity in Tonnes will be 1867800.00. During monsoon period only excavated depth/pit will be replenished from RL 280m to RL 324m. After monsoon mined out area of first year will be replenished.

About 405m long retaining wall will be constructed to protect the plantation & dump area in this year. The bench wise proposed quantity, production and closing recoverable reserves are given below:

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Post- Monsoon:-

Section No.	Bench / Level (m)		Area (m^2)	Mineable Depth (m)	Total Reserves (Tonne)	Production (Tonne)	Residue (Tonne)
	From	To					
LB to 1-1'	280-286	278.5-284.5	9029.523	1.5	29797.426	15882.029	13915.397
1-1' to 2-2'	284-286	282.5-284.5	28050.060	1.5	92565.198	49337.251	43227.947
2-2' to 3-3'	280-286	278.5-284.5	29305.451	1.5	96707.988	51545.358	45162.631
3-3' to 4-4'	286-288	284.5-286.5	24048.465	1.5	79359.935	42301.046	37058.889
4-4' to 5-5'	284-286	282.5-284.5	29013.421	1.5	95744.289	51031.706	44712.583
5-5' to 6-6'	284-286	282.5-284.5	27733.813	1.5	91521.583	48781.003	42740.580
6-6' to 7-7'	284-286	282.5-284.5	22283.740	1.5	73536.342	39194.870	34341.472
7-7' to 8-8'	274-294	282.5-284.5	16666.093	1.5	54998.107	29313.990	25684.117
8-8' to 9-9'	276-278	274.5-276.5	19182.671	1.5	63302.814	33960.399	29342.415
9-9' to 10-10'	290-292	288.5-290.5	28683.482	1.5	94655.491	50451.377	44204.114
10-10' to 11-11'	290-296	288.5-294.5	22851.543	1.5	75410.092	40193.580	35216.512
11-11' to 12-12'	290-294	288.5-292.5	40246.006	1.5	132811.820	70790.900	62020.919
12-12' to 13-13'	294-298	284.5-296.5	44004.045	1.5	145213.349	77398.715	67814.634
13-13' to 14-14'	298-300	296.5-298.5	42150.123	1.5	139095.406	74137.851	64957.555
14-14' to 15-15'	298-304	296.5-302.5	55753.532	1.5	183986.656	98284.888	85701.768
15-15' to 16-16'	304-308	302.5-306.5	43608.560	1.5	143908.248	76703.317	67204.931
16-16' to 17-17'	298-306	296.5-304.5	53175.383	1.5	175478.764	93530.182	81948.582
17-17' to 18-18'	306-308	304.5-306.5	72795.581	1.5	240225.417	128040.367	112185.050
Non Mining Boundary to 20-20'	306-310	304.5-308.5	45198.800	1.5	149156.040	79500.172	69655.868
20-20' to 21-21'	309-312	307.5-310.5	35724.763	1.5	117891.718	62836.286	55055.432
21-21' to 22-22'	308-310	306.5-308.5	35675.705	1.5	117729.827	62749.999	54979.827
22-22' to 23-23'	308-312	306.5-310.5	30961.463	1.5	102172.828	54458.340	47714.488
23-23' to 24-24'	310-314	308.5-312.5	28435.970	1.5	93838.701	50016.248	43822.453
24-24' to 25-25'	310-312	308.5-310.5	37760.665	1.5	124610.195	66417.234	58192.960
Total			**822338.858**		**2713718.231**	**1446857.106**	**1266861.125**

Pre- Monsoon:-

Section No.	Bench / Level (m)		Area (m^2)	Mineable Depth (m)	Total Reserves (Tonne)	Production (Tonne)	Residue (Tonne)
	From	To					
25-25' to 26-26'	308-314	306.5-312.5	45804.182	1.5	151153.801	80564.977	70588.824
26-26' to 27-27'	310-318	308.5-316.5	33782.063	1.5	111480.808	59421.470	52059.338
27-27' to 28-28'	314-316	312.5-314.5	39965.833	1.5	131887.249	70295.903	61591.346
28-28' to 29-29'	315-318	313.5-316.5	48077.855	1.5	158656.922	84564.161	74092.761
29-29' to 30-30'	316-324	314.5-322.5	52255.230	1.5	172442.259	91913.945	80528.314
30-30' to LB	320-324	318.5-322.5	19432.735	1.5	64125.062	34182.438	29945.587
Total			**239317.898**		**789749.063**	**420942.894**	**368806.170**

The position of benches in pre monsoon and post monsoon in third year is shown in Plate No. 6, 7, 8A-8D, 9A-9B and 10 respectively.

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III Year:

After monsoon mined out area of second year will be replenished. The mining face will be started from SSW direction from the lower level and advance towards higher levels. During this year mining is proposed from RL 280m to RL 312m in post monsoon (Plate No. 6) and from RL 308m to 324m in pre monsoon (Plate No. 7) to open the mining faces and transportation of mineral. The mining face will be advanced towards north to NNE direction. Tonnage factor of 2.2 has been considered. Thus, total extractable quantity in Tonnes will be 1867800.00. During monsoon period only excavated depth/pit will be replenished from RL 280m to RL 324m. After monsoon mined out area of first year will be replenished.

About 415m long retaining wall will be constructed to protect the plantation & dump area in this year. The bench wise proposed quantity, production and closing recoverable reserves are given below:

Post- Monsoon:-

Section No.	Bench / Level (m)		Area (m^2)	Mineable Depth (m)	Total Reserves (Tonne)	Production (Tonne)	Residue (Tonne)
	From	To					
LB to 1-1'	280-286	278.5-284.5	9029.523	1.5	29797.426	15882.029	13915.397
1-1' to 2-2'	284-286	282.5-284.5	28050.060	1.5	92565.198	49337.251	43227.947
2-2' to 3-3'	280-286	278.5-284.5	29305.451	1.5	96707.988	51545.358	45162.631
3-3' to 4-4'	286-288	284.5-286.5	24048.465	1.5	79359.935	42301.046	37058.889
4-4' to 5-5'	284-286	282.5-284.5	29013.421	1.5	95744.289	51031.706	44712.583
5-5' to 6-6'	284-286	282.5-284.5	27733.813	1.5	91521.583	48781.003	42740.580
6-6' to 7-7'	284-286	282.5-284.5	22283.740	1.5	73536.342	39194.870	34341.472
7-7' to 8-8'	274-294	282.5-284.5	16666.093	1.5	54998.107	29313.990	25684.117
8-8' to 9-9'	276-278	274.5-276.5	19182.671	1.5	63302.814	33960.399	29342.415
9-9' to 10-10'	290-292	288.5-290.5	28683.482	1.5	94655.491	50451.377	44204.114
10-10' to 11-11'	290-296	288.5-294.5	22851.543	1.5	75410.092	40193.580	35216.512
11-11' to 12-12'	290-294	288.5-292.5	40246.006	1.5	132811.820	70790.900	62020.919
12-12' to 13-13'	294-298	284.5-296.5	44004.045	1.5	145213.349	77398.715	67814.634
13-13' to 14-14'	298-300	296.5-298.5	42150.123	1.5	139095.406	74137.851	64957.555
14-14' to 15-15'	298-304	296.5-302.5	55753.532	1.5	183986.656	98284.888	85701.768
15-15' to 16-16'	304-308	302.5-306.5	43608.560	1.5	143908.248	76703.317	67204.931
16-16' to 17-17'	298-306	296.5-304.5	53175.383	1.5	175478.764	93530.182	81948.582
17-17' to 18-18'	306-308	304.5-306.5	72795.581	1.5	240225.417	128040.367	112185.050
Non Mining Boundary to 20-20'	306-310	304.5-308.5	45198.800	1.5	149156.040	79500.172	69655.868
20-20' to 21-21'	309-312	307.5-310.5	35724.763	1.5	117891.718	62836.286	55055.432
21-21' to 22-22'	308-310	306.5-308.5	35675.705	1.5	117729.827	62749.999	54979.827
22-22' to 23-23'	308-312	306.5-310.5	30961.463	1.5	[illegible]	56768.340	47714.488
23-23' to 24-24'	310-314	308.5-312.5	28435.970	1.5	[illegible]	30078.248	43822.453
24-24' to 25-25'	310-312	308.5-310.5	37760.665	1.5	[illegible]	[illegible]	58192.960
Total			**822338.858**		**2713718.231**	**1446857.106**	**1266861.125**

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Pre- Monsoon:-

Section No.	Bench / Level (m)		Area (m^2)	Mineable Depth (m)	Total Reserves (Tonne)	Production (Tonne)	Residue (Tonne)
	From	To					
25-25' to 26-26'	308-314	306.5-312.5	45804.182	1.5	151153.801	80564.977	70588.824
26-26' to 27-27'	310-318	308.5-316.5	33782.063	1.5	111480.808	59421.470	52059.338
27-27' to 28-28'	314-316	312.5-314.5	39965.833	1.5	131887.249	70295.903	61591.346
28-28' to 29-29'	315-318	313.5-316.5	48077.855	1.5	158656.922	84564.161	74092.761
29-29' to 30-30'	316-324	314.5-322.5	52255.230	1.5	172442.259	91913.945	80528.314
30-30' to LB	320-324	318.5-322.5	19432.735	1.5	64128.026	34182.438	29945.587
Total			**239317.898**		**789749.063**	**420942.894**	**368806.170**

The position of benches in pre monsoon and post monsoon in third year is shown in Plate No. 6, 7, 8A-8D, 9A-9B and 10 respectively.

Ultimate pit limit and life of the mine:

The proposed area is within river bed and mined out area will be replenished gradually during succeeding rainy season. Hence there will be no change in land use, land cover or topography of the area. Mining will be undertaken through manually. The height and width of the mining faces will be kept 1.5m from first year to third as per Uttarakhand Govt. Notification the existing track will be used for the opening of the faces and transportation of mineral. The waste material will stack separately and will be kept in the earmarked stack site. Mineable reserve of the area is calculated with the help of cross sectional and is tabulated below:

Mineable reserve:

Section	Bench / Level (m)		Area (m^2)	Depth (m)	Total Volume (m^3)	Reserves (Tonne)
LB to 1-1'	280-286	278.5-284.5	9030.513	1.5	13545.770	29800.693
1-1' to 2-2'	284-286	282.5-284.5	28050.79	1.5	42076.185	92567.607
2-2' to 3-3'	280-286	278.5-284.5	29306.121	1.5	43959.182	96710.199
3-3' to 4-4'	286-288	284.5-286.5	24049.145	1.5	36073.718	79362.179
4-4' to 5-5'	284-286	282.5-284.5	29014.351	1.5	43521.527	95747.358
5-5' to 6-6'	284-286	282.5-284.5	27734.523	1.5	41601.785	91523.926
6-6' to 7-7'	284-286	282.5-284.5	22284.42	1.5	33426.630	73538.586
7-7' to 8-8'	274-294	282.5-284.5	16666.873	1.5	25000.310	55000.681
8-8' to 9-9'	276-278	274.5-276.5	19183.311	1.5	28774.967	63304.926
9-9' to 10-10'	290-292	288.5-290.5	28684.212	1.5	43026.318	94657.900
10-10' to 11-11'	290-296	288.5-294.5	22852.533	1.5	34278.800	75413.359
11-11' to 12-12'	290-294	288.5-292.5	40246.856	1.5	60370.284	132814.625
12-12' to 13-13'	294-298	284.5-296.5	44005.045	1.5	66007.568	145216.649
13-13' to 14-14'	298-300	296.5-298.5	42151.123	1.5	63226.685	139098.706
14-14' to 15-15'	298-304	296.5-302.5	55754.832	1.5	83632.248	183989.626
15-15' to 16-16'	304-308	302.5-306.5	43604.340	1.5	65406.965	143910.723
16-16' to 17-17'	298-306	296.5-304.5	53176.903	1.5	79764.455	175481.800
17-17' to 18-18'	306-308	304.5-306.5	72796.271	1.5	109194.407	240227.694

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Section	Bench / Level (m)		Area (m^2)	Depth (m)	Total Volume (m^3)	Reserves (Tonne)
18-18' to 19-19'	308-310	306.5-308.5	53318.864		79978.296	175952.251
19-19' to 20-20'	306-310	304.5-308.5	45199.250	1.5	67798.875	149157.525
20-20' to 21-21'	309-312	307.5-310.5	35725.533	1.5	53588.300	117894.259
21-21' to 22-22'	308-310	306.5-308.5	35676.425	1.5	53514.638	117732.203
22-22' to 23-23'	308-312	306.5-310.5	30962.203	1.5	46443.305	102175.270
23-23' to 24-24'	310-314	308.5-312.5	28436.800	1.5	42655.200	93841.440
24-24' to 25-25'	310-312	308.5-310.5	37761.545	1.5	56642.318	124613.099
25-25' to 26-26'	308-314	306.5-312.5	45805.152	1.5	68707.728	151157.002
26-26' to 27-27'	310-318	308.5-316.5	33782.863	1.5	50674.295	111483.448
27-27' to 28-28'	314-316	312.5-314.5	39966.653	1.5	59949.980	131889.955
28-28' to 29-29'	315-318	313.5-316.5	48078.745	1.5	72118.118	158659.859
29-29' to 30-30'	316-324	314.5-322.5	52256.100	1.5	78384.150	172445.130
30-30' to LB	320-324	318.5-322.5	19433.735	1.5	29150.603	64131.326
Total			**1115000.000**		**1672500.000**	**3679500.000**

Conceptual Mine Plan and Life of Mine:

A margin of 25% from both banks has been left from the lease boundary which will help in proper channelization of the river as a statutory condition. No RBM will be collected from the 100m proximity of any bridge/embankment. Collection of RBM is restricted up to a maximum depth of 1.5m or river water levels whichever less from first to third year. River/stream will not be diverted in any case. No mining is proposed during rainy season. A quantity of material about 7623.67 tonnes per day ROM from first year to third year has been proposed to collect during the course of mining. This will be replenished during the next rainy season. Mining will be done within 111.5 ha area only. The environment/ultimate pit plan is shown in Plate No.11.

Afforestation:

The entire mining lease area being a part of river bed, there is no vegetation in the leased out area. Hence there would be no clearance of existing land and vegetation. Plantation will be done on both side of river bank for stabilising the slope.

Infrastructure:

Track having width 3.0m and gradient varies 1:20 to 1:50 will be made for different working pits and up to sandy soil stockyard. The entire mining lease area being a part of riverbed, there is no buildings in the leased out area. Hence there would be no clearance of existing land. Coordinates of the approach route from lease area is given below and also shown in annexure 8.

ARP1- 29°20'48.20"N, 79°9'9.97"E, 2- 29°20'15.40"N, 79°8'45.78"E

Backfilling:

The mining will be undertaken on the river bed. The mined out area will be replenished during extraction of RBM (sand *bajri* & boulder) from Dabka river bed clayey sand will also be removed in form of waste materials. The excavated clayey sand/sandy clay will be used in plantation area. Therefore there is no risk associated with failure of waste dump. During the monsoon season mined out pit will be replenished and the mineral will be filled back over the mined out pit itself.

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CHAPTER – 6

USE OF MINERAL

The RBM containing sand, *bajri* & boulder is an important material for construction and developmental activities. The RBM will be used in road, bridge and building constructions. It is an essential minor mineral used extensively across the country for construction purposes.

CHAPTER – 7

MINE DRAINAGE

The deposit is situated in the river bed and area has a moderate to heavy rainfall. In proposed pit location the maximum highest RL is about 326 m in the NNE part of the area, while the lowest RL recorded on the southern part of the area is about RL 276m and general slope is towards southern direction. Provision of garland drainage is given along the lease boundary with proper gradient towards southern direction.

CHAPTER – 8

STACKING OF MINERAL REJECTS AND DISPOSAL OF WASTE

The top RBM containing sandy soil will be removed with the help of pickaxe, spade & crowbar and stacked separately. Part of these rejects will be utilized in construction and maintenance of retaining walls.

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CHAPTER - 9

OTHER

Site Services

The following site services will be provided:

(i) Office
(ii) Store
(iii) First Aid Centre
(iv) Drinking water shed
(v) Rest shelter

Employment Potential

The mine manager should be a graduate engineer holding at least second class manager's certificate. The category-wise employments are given as below:

Category	
Manager/Foreman	1
Skilled	
Supervisor	6
Time Keeper	2
Office Assistant/Dispatch Supervisor	4
Un-skilled	
Daily wages/mining workers	1270
Total	**1283**

The services of following persons/agencies may be retained on part time basis.

(i) Geologist
(ii) Mining Engineer
(iii) Environment consultancy agency
(iv) Surveyor

CHAPTER - 10

BENEFICIATION

No beneficiation of mineral processing will required for RBM. There for no such investigations have been conducted.

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CHAPTER - 11

ENVIRONMENT

Land use:

Land degradation and ecological disturbances generally occurs in open cast mining. In preparation of mining plan in River Dabka, Area- 111.5 ha out of 223.0 ha sand, *bajri* & boulders Mine of M/s Uttarakhand Forest Development Corporation (UKFDC), emphasis on environmental protection has been given to minimize the adverse impact on the present environmental status. Opencast method of mining causes some land degradation and disturbs the ecology of the area. While preparing the Environment Management Plan (EMP) emphasis have been laid on restoring the ecology of the area as much as possible. Applied area is almost barren. This has been made possible by planning the mine workings in the most systematic, safe and scientific manner with due regard to conservation of mineral.

Water regime:

The ground water table in Dabka valley region is at shallow depth below ground surface and hence ground water may interfere in opencast mining below 1.5m

The variations in topography make the district rich with different fauna and flora. Such a variation in topography makes the district a natural zoo, having rich biodiversity. The common faunal species are Leopard, Tiger, Blackbear, Barking Deer, Cheetal, Lizard, Python and Cobra. Besides these Apes, Monkey, Musk dear is the rare species found in the district. Doves, Patridge, Vulture, Kite Eagle, Wild-Fowl, Sparrow, Crow and various other species are common in the district. Honeybee and colorful butterflies with various other insects makes the study area more lively and colourful. The valleys and slops of hills are full of mixed vegetation comprising chiefly Pine, Deodar, Oak, Rhododandren, Thuner, Kail, Khair, Bhimal, Kharik, Tun, Amla, Harada etc. Different fruit trees like Mango, Apple, Peach, Apricot, Nut and Citrus give delicious test to life.

Shrubs: *Calotropis procera*, with a few *Datura innoxia* and *Ipomoea carnea* etc. occurs in the depressions.

Herbs: Ageratum conyzoides, Amaranthus spinosus, Cannabis savita and Hydrocta zeylanica.

Quality of air, ambient noise level and water

Mining activities includes excavation and lifting of minerals. The proposed mining activity is manual in nature. No drilling and blasting is envisaged for the mining activity. Hence the only impact anticipated is due to movement of vehicles deployment for transportation of minerals. Ambient air quality monitoring will be done in the Core zone and in the buffer zone within the study area. The monitoring will be done for 24 hrs twice a week for one season except monsoon. The location of the monitoring stations will be selected based on predominant wind direction and sensitive locations within the study area. Noise pressure level will be monitored from the surrounding of the project from residential, commercial, sensitive locations and at traffic junctions. Monitoring will be done for day and night and noise pressure level once every month during study period.

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Water quality:

The surface drainage system in the area is perennial. The flow of the tributaries of Dabka River is observed more after the rainfall and then its tributary become entirely dry. Drinking water quality will not deteriorate by mining and allied activities.

Climatic condition:

Rainfall: Dabka valley is characterized by humid climate with moderate temperature, rainfall and luxuriant vegetation. The total annual rainfall in the area is 1028.6 mm. Maximum rainfall seems during July and August. On an average there are about 48 rainy days in a year.

Temperature: Mean Maximum temperature is 36.2^{0}C and the mean minimum temperature is 6.1^{0}C. In association with the cold waves arising in the wake of the western disturbance which travels East wards, the minimum temperature goes down to about 3^0 and at times leads to frosts.

Socio-Economics:

Social and demographic profile:

The scale of operation is small. It is expected that 90% employment will be local. Therefore there will be positive impact on socio-economic status of people.

Historical monuments etc

There is no historical building in the lease area.

Programme of afforestation:

Plantation is proposed along the slope on both bank of the river. Rehabilitation of extracted land has to be designed skilfully in order to restore it to its formal use, or to an alternative use that is compatible with the surroundings. Plantation with grasses, herbs, shrubs and trees is an important means for restoring such areas.

Stabilizing and re-vegetate the de-vegetated areas viz. debris, dumps and slopes which get degraded due to vehicle movement, rolling stones, etc are important for conservation of soil, regulation of surface and underground water and for rehabilitation of wild life habitat. These generally are extracting operations and need planting in various phases by select species. Protective engineering measures, in conjunction, become necessary.

Top layer of RBM having some sandy soil is considered as an overburden and will be stacked separately and nature of this dump will be temporary.

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CHAPTER - 12

CLOSURE PLAN

Mined Out land:

Plantation is proposed along the slope on both bank of the river. The mining will commence from the lower levels and will advance towards higher levels.

Water Quality Management:

The mineral as well as soil are non-toxic and mining is also proposed at medium scale. Hence no proposal has been provided for the surface and ground water bodies. The expected depth of water table in applied area likely to be more than the exploitation depth.

Necessary arrangement shall be made at stockpiles to prevent silt and sediments flowing into water body. Domestic waste water if any generated at site should be disposed off through septic tank-soak pit. Water shall be required in mining to cater for drinking purposes, dust suppressing at faces and on haul roads, and plantation. The water bodies flowing water channel remains in unaltered condition because the site conditions are in virgin form i.e. the topography, landscape etc. remains in unaltered form. Portable bio toilets will be provided for the workers at site. The sewage generated from toilet will be collected and treated.

Air Quality Management:

The proposed sand, *bajri* & boulder mining activities shall be entirely manual in operations. No machinery, explosive etc. shall be used for blasting, excavations and loading of sand into trucks or tippers. Therefore, the proposed mining activities shall generate negligible fugitive particulates. Further, there shall be no usage of machinery or explosives which generate heavy load of dust particulates. This shall not be taking place in the proposed mining.

- Approach road shall be sprinkled with water at regular intervals for controlling fugitive emission during vehicular movement.
- Vehicles shall not be overloaded and RBM transportation shall be done only through covered trucks so that no spillage of RBM takes place.
- Vehicles used in mining and transportation shall be maintained well so as keep Vehicular emissions in control.
- Ambient air quality shall be monitored at site and the nearest human habitation and it shall conform to the norms prescribed by SEIAA, MoEF, Govt. of India.

Waste Management:

The RBM containing sandy soil will be stacked separately and these dumps are temporary in nature. The dumping will be undertaken manually. The toe wall having width 1.5m and height 3.0m will be made along the side and slope of the soil and width & height 1.5m each retaining wall for protecting RBM dump to avoid the wash off material during intermittent rains.

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Top Soil Management:

Some sandy soil shall be generated during plan period therefore precautionary measures have been proposed for its preservation and utilization.

Infrastructure:

In river bed sand, bajri and boulders is manual open cast mining. No mechanization is required. The tracks having width of 3.0m and gradient 1:20 to 1:50 will be made for the advancement of mining faces and for the transportation of RBM and waste material. There will not be any changed in existing infrastructure.

Disposal of Mining Machinery:

The RBM (sand *bajri* & boulder) mine is manual open cast. Hence disposal of mining machineries are not required.

Safety and Security:

Each worker employed in the mine will be provided helmets and shoes will be used for working in the benches. Protective works like parapet walls, garland drains shall be provided before the mine/pit is abandoned.

A worker in a mine should be able to work under adequately safe and healthy condition. Safety of the mine and the employees is taken care of by the Mining Rules & Regulations. The minerals will be mined out in a uniform wash so that the river flow/course shall not get disturbed. Mining is to be done leaving safety barrier on both sides and maximum barrier should be on concave side of the river, preferably the flow channel (excavation void) created should be kept straight so as to help avoid erosion. River banks will not be excavated to form access ramps. Only excavated river gravel should be used to deposit against the river bank to form access ramps.

Disaster management and risk assessment:

At present the mining is proposed in a sloping forest land in river bed. The mining faces shall be dressed properly because any hanging boulders/loose material may create fatal accidents to the labourers while working in the pit. The mine shall be critically examined for its proneness to any natural hazard and assessment regarding danger of hazard and precautions to be taken and should be reviewed so that chances of slope failures will be minimized. At present the mining is proposed in a mild sloping forest land in river bed. Pits will be created of limited depth of 1.5m thus the chance of failure of pit slope may not exist. A worker in a mine should be able to work under adequately safe and healthy condition. Safety of the mine and the employees is taken care of by the Mining Rules & Regulations. The minerals will be mined out in a uniform wash so that the river flow/course shall not get disturbed. Mining is to be done leaving safety barrier on both bank and maximum barrier should be on concave side of the river, preferably the flow channel (excavation void) created should be kept straight so as to help avoid erosion.

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CHAPTER - 13

CONCLUSION

This applied area is suitable for producing material for making road, bridge, buildings and other constructional work. This is a part of Govt. of India's policy to develop maximum infrastructure facility in India. This making of road or bridge will generate direct & indirect employment to the local people. M/s Uttarakhand Forest Development Corporation (UKFDC) will undertake mining activity as per the plan indicated in the above chapters with proper taking care of environmental aspects i.e. without disturbing the ambient condition. Mining is proposed from RL 280 m to RL 312m in post monsoon and from 308m to 324m in pre monsoon for exploitation of the mineral. Quantity of RBM is proposed 1867800.00 Tonnes (849000 Cum) per year and total extractable quantity will be 5603400.00 Tonnes. During monsoon period excavated depth/pit will be replenished from RL 280m to RL 324m. Pits will be created of limited depth of 1.5m in each year as per Uttarakhand Govt. Notification. Thus the chance of failure of pit slope seems to be least. The proposed river bed mining is unlikely to change any characteristic of the river bed as the permitted mining volume will be based upon 1.5m depth. Collection of RBM is restricted up to a maximum depth of 1.5m or river water level or replenishment.

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Annexure-1

(15)

संख्या: 349 /VII-1/22-ख/2013

प्रेषक,

राकेश शर्मा,
प्रमुख सचिव,
उत्तराखण्ड शासन।

सेवा में,

जिलाधिकारी,
नैनीताल।

औद्योगिक विकास अनुभाग

देहरादून : दिनांक 19 फरवरी, 2013

विषयः जनपद नैनीताल के तराई पश्चिमी वन प्रभाग रामनगर के अन्तर्गत दाबका नदी के 223.00 हैक्टेयर नदी तल क्षेत्रफल में पत्थर एवं अन्य उपखनिजों का खनन पट्टा उत्तराखण्ड वन विकास निगम को स्वीकृत किये जाने के सम्बन्ध में।

महोदय,

उपरोक्त विषयक अपर सचिव, वन एवं पर्यावरण विभाग, उत्तराखण्ड शासन के कार्यालय ज्ञाप संख्या 217(1)/X-3-13-8(14)2009, दिनांक 18 फरवरी, 2013 के द्वारा जनपद नैनीताल के अन्तर्गत दाबका नदी के 223.00 हेक्टेयर नदी तल क्षेत्रफल को पत्थर एवं अन्य उपखनिजों के खनन हेतु आगामी दस वर्षों तक उत्तराखण्ड वन विकास निगम को हस्तान्तरित किया गया है।

2- अतः वन एवं पर्यावरण विभाग, उत्तराखण्ड शासन द्वारा निर्गत उपरोक्त आदेश के क्रम में सम्यक् विचारोपरान्त मुझे यह कहने का निदेश हुआ है कि जनपद नैनीताल [illegible] दाबका नदी तल के 223.00 हैक्टेयर वन क्षेत्र में 10 (दस) वर्ष की अवधि हेतु उपखनिज [illegible] के खनन किये जाने की अनुमति, वन संरक्षण अधिनियम, 1980 के प्राविधानों एवं वन मंत्रालय, भारत सरकार के पत्र संख्या F No-8-61/1999-FC(pt-I) [illegible] 2013 एवं पर्यावरण संरक्षण अधिनियम, 1986 के प्राविधानों के अन्तर्गत पर्यावरण एवं [illegible] भारत सरकार के पत्र संख्या J-11015/359/2009-IA.II(M) दिनांक 15 अप्रैल, 2011 [illegible] उत्तराखण्ड वन विकास निगम को निम्नलिखित शर्तों के अधीन प्रदान की जाती है:-

1. वन भूमि की वैधानिक स्थिति में कोई परिवर्तन नहीं होगा।
2. उत्तराखण्ड वन विकास निगम द्वारा उक्त नदी से उपखनिजों के खनन से पूर्व भारत सरकार, पर्यावरण एवं वन मंत्रालय, नई दिल्ली के आदेश संख्या [illegible] IA.II(M) दिनांक 15 अप्रैल, 2011 एवं आदेश संख्या F No-8-[illegible] दिनांक 15 फरवरी, 2013 में उल्लिखित समस्त शर्तों [illegible] किया जायेगा।

3. पर्यावरण एवं वन मंत्रालय, भारत सरकार द्वारा वन संरक्षण अधिनियम, 1980 तथा पर्यावरण संरक्षण अधिनियम, 1986 के अधीन अन्य संगत अधिनियमों के अन्तर्गत समय–समय पर दिये गये निर्देशों का अनुपालन सुनिश्चित किया जायेगा।
4. निगम चुगान कार्य से किसी भी वन सम्पदा को क्षति नहीं पहुंचायेगा। यदि वन सम्पदा को कोई क्षति पहुंचती है या पहुंचायी जाती है तो उसके लिये सम्बन्धित प्रभागीय वनाधिकारी द्वारा निर्धारित प्रतिकर उत्तराखण्ड वन विकास निगम द्वारा देय होगा।
5. उक्त वन भूमि उत्तराखण्ड वन विकास निगम के उपयोग में तब तक बना रहेगा जब तक कि उत्तराखण्ड वन विकास को उसकी उक्त प्रयोजन हेतु आवश्यकता रहेगी। यदि उत्तराखण्ड वन विकास निगम को उक्त भूमि अथवा उसका ऐसा भाग, जो उत्तराखण्ड वन विकास निगम के लिए आवश्यक न रहे, वन विभाग को बिना किसी प्रतिकर का भुगतान किये यथा स्थिति वापस हो जायेगी।
6. वन विभाग/भूतत्व एवं खनिकर्म विभाग एवं राज्य सरकार के कर्मचारी/अधिकारी या उनके अभिकर्ताओं को किसी भी समय जब वे आवश्यक समझें, प्रश्नगत वन भूमि का निरीक्षण करने का पूर्ण अधिकार होगा।
7. प्रश्नगत क्षेत्र में उपखनिजों के चुगान हेतु किसी भी विस्फोटक पदार्थ का प्रयोग नदी में नहीं किया जायेगा व चुगान कार्य केवल हैण्ड टूल्स द्वारा ही किया जायेगा।
8. प्रश्नगत क्षेत्र में उपखनिजों के चुगान का कार्य सूर्योदय से पूर्व तथा सूर्यास्त के पश्चात नहीं किया जायेगा।
9. उत्तराखण्ड उपखनिज परिहार नियमावली, 2001 तथा उत्तराखण्ड खनिज नीति, 2011 के प्राविधानों का अनुपालन सुनिश्चित किया जायेगा।
10. खनन पट्टा की स्वीकृति के पश्चात् उक्त स्थल का सीमांकन भूतत्व एवं खनिकर्म इकाई के अधिकारियों द्वारा राजस्व एवं वन विभाग के अधिकारियों की उपस्थिति में किया जायेगा।
11. किसी सार्वजनिक विनोदस्थल, श्मशान अथवा कब्रिस्तान या व्यक्तियों के किसी वर्ग [illegible] पवित्र माने जाने वाला स्थान, मकान अथवा ग्रामस्थल, सार्वजनिक सड़क [illegible] स्थान जो जिलाधिकारी द्वारा सार्वजनिक स्थान घोषित किया गया हो, ऐसे स्थानों पर न [illegible] कोई चीज खड़ी की जाय न ही स्थापित की जायेगी और न ही कोई सतह संक्रिया [illegible] जायेगी, जिससे कोई भवन, भवन निर्माण कार्य, सम्पत्ति या अन्य व्यक्तिगत अधिक[illegible] क्षति पहुंचे।
12. पट्टे में असम्मिलित निर्माण कार्यों या अन्य प्रयोजनों के निमित्त कोई ऐसी भूमि, सतह संक्रियाओं के लिए प्रयुक्त नहीं की जायेगी, जो राज्य सरकार [illegible] के पहले में पहले से ही हो।
13. किसी भी मार्ग का उपयोग करने के अधिकार पर हस्तक्षेप [illegible] किया जायेगा।
14. प्रस्तावित क्षेत्र में खनन कार्य करने से पूर्व प्रवेश व [illegible] सीमा में अस्थाई चैक पोस्ट स्थापित किये जायेंगे। [illegible] अभिलेखों का रखरखाव उत्तराखण्ड वन विकास निगम [illegible]
15. वन विकास निगम द्वारा उपखनिज की निकासी की [illegible] पर [illegible] रायल्टी आदि नियमानुसार जमा किया जायेगा।

16. उत्तराखण्ड उपखनिज परिहार नियमावली–2001 के नियम–70 के अनुसार उपखनिजों का परिवहन खनन विभाग द्वारा निर्गत प्रपत्र एम०एम०–11 पर किया जायेगा तथा नियम–73 के अनुसार प्रपत्र एम०एम०–12 पर त्रैमासिक विवरण निगम द्वारा जिलाधिकारी, नैनीताल तथा खान अधिकारी, भूतत्व एवं खनिकर्म इकाई हल्द्वानी–नैनीताल को प्रेषित किया जायेगा।
17. इसके अतिरिक्त इस हेतु जो भी शर्तें स्थानीय जिला प्रशासन तथा भूतत्व एवं खनिकर्म इकाई द्वारा निर्धारित की जायेंगी, का अनुपालन उत्तराखण्ड वन विकास निगम द्वारा किया जायेगा।
18. उत्तराखण्ड वन विकास निगम द्वारा दाबका नदी से उपखनिजों के चुगान हेतु वन विभाग/अन्य प्राधिकारियों को प्रदत्त समस्त प्रतिबद्धताओं का अनुपालन सुनिश्चित किया जायेगा।
19. निगम द्वारा उपखनिजों के चुगान हेतु मुख्य वन्य जीव प्रतिपालक, उत्तराखण्ड की संस्तुतियों व उनके द्वारा समय–समय पर जारी निर्देशों का अनुपालन सुनिश्चित किया जायेगा।

संलग्नक : भारत सरकार के आदेश दिनांक 15 अप्रैल, 2011
एवं दिनांक 15 फरवरी, 2013

भवदीय,

(राकेश शर्मा)
प्रमुख सचिव।

पृष्ठांकन संख्या: 549 (1)/VII-1/22-ख/2013, तददिनांकित।

प्रतिलिपि : निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित :–

1. सचिव, पर्यावरण एवं वन मंत्रालय, भारत सरकार, पर्यावरण भवन, सी०जी०ओ० काम्प्लेक्स, लोदी रोड, नई दिल्ली।
2. प्रमुख सचिव, मा० मुख्यमंत्री जी, उत्तराखण्ड शासन।
3. प्रमुख सचिव, वन एवं पर्यावरण विभाग, उत्तराखण्ड शासन।
4. स्टाफ आफीसर–मुख्य सचिव, उत्तराखण्ड शासन।
5. आयुक्त, कुमाऊँ मण्डल, नैनीताल।
6. प्रमुख वन संरक्षक, उत्तराखण्ड, देहरादून।
7. निदेशक, भूतत्व एवं खनिकर्म इकाई, उद्योग निदेशालय, देहरादून।
8. अपर प्रमुख वन संरक्षक एवं नोडल अधिकारी, वन संरक्षण, इन्दिरानगर, फॉरेस्ट कॉलोनी, देहरादून।
9. प्रबन्ध निदेशक, उत्तराखण्ड वन विकास निगम, देहरादून।
10. गार्ड फाईल।

आज्ञा से,

(शैलेश बगौली)
अपर सचिव।

Annexure – 2

संयुक्त निरीक्षण रिपोर्ट

जिलाधिकारी/अध्यक्ष खनन समिति–नैनीताल के पत्रांक–710/30 जी0सी0/2020–21 दिनांक 28.09.2020 के द्वारा दिये गये निर्देशों के अनुपालन में दिनांक 15.10.2020 को कोसी एवं दाबका नदियों में खनन सत्र 2020–21 के अन्तर्गत कार्य प्रारम्भ करने से पूर्व संयुक्त निरीक्षण किया गया था जिसमें गठित समिति द्वारा एक बार पुनः उक्त दोनों नदियों में संयुक्त निरीक्षण किये जाने हेतु सहमति व्यक्त की गई।

दिनांक 16.10.2020 को आहूत क्षेत्रीय खनन समिति की बैठक में उपजिलाधिकारी/अध्यक्ष क्षेत्रीय खनन समिति, रामनगर द्वारा कोसी एवं दाबका नदियों में चुगान कार्य से पूर्व दिनांक 23.10.2020 को संयुक्त निरीक्षण किये जाने हेतु निर्देशित किया गया, जिस क्रम में इस कार्यालय के पत्रांक–1433/खनन सत्र 2020–21/दिनांक 17.10.2020 द्वारा गठित समिति के सदस्यों को संयुक्त निरीक्षण हेतु अनुरोध पत्र प्रेषित किया गया।

चयनित तिथि 23.10.2020 को उपजिलाधिकारी/अध्यक्ष क्षेत्रीय खनन समिति, रामनगर की अध्यक्षता में गठित समिति, जिसमें जिला खान अधिकारी, हल्द्वानी, उपप्रभागीय वनाधिकारी, त0प0 वन प्रभाग, रामनगर एवं प्रभागीय प्रबन्धक, खनन प्रभाग, उ0 वन विकास निगम, रामनगर सदस्य थे के द्वारा कोसी एवं दाबका नदियों का पुनः संयुक्त निरीक्षण किया गया निरीक्षण में पाया गया कि दोनों नदियों में सीमांकन का कार्य वन विभाग द्वारा पूर्व कर लिया गया है तथा निकासी मार्गों की मरम्मत का कार्य प्रगति पर है। माह अक्टूबर के अन्तिम सप्ताह में कई राजपत्रित अवकाश होने तथा इस सप्ताह तक निकासी मार्गों के निर्माण का कार्य पूर्ण होने व नदियों में जल स्तर न्यून हो जाने पर दिनांक 02.11.2020 से कोसी एवं दाबका नदियों में उपखनिज चुगान कार्य प्रारम्भ करने का निर्णय लिया गया।

उपजिलाधिकारी/
अध्यक्ष क्षेत्रीय खनन समिति,
रामनगर (नैनीताल)

सहायक भू–वैज्ञानिक/
प्रभारी अधिकारी,
भूतत्व एवं खनिकर्म इकाई, हल्द्वानी (नैनीताल)

प्रभागीय प्रबन्धक, (खनन)
उ0 वन विकास निगम, रामनगर
/सदस्य सचिव क्षेत्रीय खनन समिति,

उप प्रभागीय वनाधिकारी,
तराई पश्चिमी वन प्रभाग,
रामनगर (नैनीताल)

कार्यालय अपर प्रमुख वन संरक्षक एवं नोडल अधिकारी, वन संरक्षण,
इन्दिरानगर फॉरेस्ट कालोनी, उत्तराखण्ड, देहरादून।

पत्रांक:- /1डी-2764 (डी-पी0) दिनांक:देहरादून 07 अक्टूबर, 2012

सेवा में,

सहायक वन महानिरीक्षक (एफ0सी0)
भारत सरकार, पर्यावरण एवं वन मंत्रालय,
पर्यावरण भवन सी0जी0ओ0, काम्पलेक्स,
लोदी रोड, नई दिल्ली

विषय:- जनपद-नैनीताल के अन्तर्गत वन भूमि से बहने वाली दाबका नदी से उप-खनिजों के चुगान हेतु 223 हे0 (संशोधित 56 हे0) वन भूमि में उत्तराखण्ड वन विकास निगम को आगामी वर्षों हेतु अनुमति दिये जाने के सम्बन्ध में।

सन्दर्भ:- भारत सरकार, पर्यावरण एवं वन मंत्रालय, नई दिल्ली की पत्र संख्या 8-61/1999 (पार्ट-II) एफ0सी0 दिनांक 8-4-2011 एवं पत्र दिनांक 18-4-2011.

महोदय,

उपरोक्त विषयक संदर्भित पत्रों द्वारा विषयांकित प्रकरण में भारत सरकार, पर्यावरण एवं वन मंत्रालय, नई दिल्ली की पत्र संख्या 8-61/1999 एफ0सी0 दिनांक 8-4-2011 एवं पत्र दिनांक 18-4-2011 के द्वारा [illegible] में अतिरिक्त शर्तों की अनुपालन आख्या वन [illegible], पश्चिमी वृत्त, नैनीताल एवं प्रबन्ध निदेशक, उत्तराखण्ड वन विकास निगम, देहरादून द्वारा इस कार्यालय को उपलब्ध करायी गई है। भारत सरकार द्वारा [illegible] गई शर्तों की अनुपालन आख्या निम्नानुसार संलग्न कर प्रेषित किया जा रहा है -

शर्त संख्या-1 प्रभागीय वनाधिकारी, तराई पश्चिमी वन प्रभाग, रामनगर द्वारा अवगत कराया गया है कि वन भूमि की [illegible] स्थिति में कोई परिवर्तन न करने सम्बन्धी शर्त का अनुपालन किया जायेगा। (संलग्नक-1 पृष्ठ सं0 I पर अंकित)

शर्त संख्या-2 व 3 के अनुपालन में प्रभागीय वनाधिकारी, तराई पश्चिमी वन प्रभाग, रामनगर द्वारा अवगत कराया गया है कि [illegible] वन क्षेत्र में क्षतिपूरक वृक्षारोपण हेतु [illegible] की विस्तृत [illegible] [illegible] के अनुसार तैयार की गई है। क्षतिपूरक वृक्षारोपण के बाद [illegible] के प्रभावित क्षेत्र में क्षतिपूरक वृक्षारोपण कार्य किया जायेगा। (संलग्नक-1 [illegible]-II व III पर अंकित)

शर्त संख्या-4 व 5 के अनुपालन में [illegible] के सम्बन्ध में [illegible] आदेश दिनांक [illegible] के क्रम में निदेशक, उत्तराखण्ड वन [illegible] द्वारा [illegible] प्रस्तुत किया गया है। (संलग्नक-2)

शर्त संख्या-6 के सम्बन्ध में सम्बन्धित प्रभागीय वनाधिकारी द्वारा अवगत कराया गया है, कि [illegible] [illegible] ट्रेनिंग/अभियांत्रिक कार्य, क्षतिपूरक वृक्षारोपण एवं [illegible] की [illegible] कार्यवाही की जा रही है। (संलग्नक-1 पृष्ठ-VI पर अंकित है)

शर्त संख्या-7 के अनुपालन में वन विकास निगम द्वारा भारत सरकार [illegible] एवं पर्यावरण मंत्रालय द्वारा [illegible] (संलग्नक-3)

शर्त संख्या-8 के अनुपालन में [illegible] संस्थान, देहरादून की टीम द्वारा किये गये अध्ययन [illegible] (संलग्नक-4)

शर्त संख्या-9 [illegible] प्रभागीय वनाधिकारी [illegible] अनुपालन किया जा रहा है। (संलग्नक-1 [illegible]

शर्त संख्या–10 के अनुपालन में प्रभागीय वनाधिकारी द्वारा 1:50,000 पैमाने का मानचित्र [illegible] गया गया है। (संलग्नक–6) मानचित्र में उप खनिजों के चुगान हेतु नदी के दोनों ओर 25 प्रतिशत [illegible] पर नदी की संशोधित लगभग 86.00 है० शुद्ध वन क्षेत्र में ही उप खनिज किया जाना है। (संलग्नक–1 क०सं०–X)

शर्त संख्या–11 के क्रम में अवगत कराना है कि मर्चौर एवं पावलगढ़ को वन्य जीव [illegible] अधिसूचित किये जाने का प्रस्ताव राज्य सरकार के स्तर पर [illegible] अधीन है व इस प्रस्ताव पर निर्णय होने में समय लगने की सम्भावना है। राज्य सरकार द्वारा इस बिन्दु पर लिये गये निर्णय के सम्बन्ध में भारत सरकार को पृथक से अवगत कराया जायेगा।

शर्त संख्या–12 का अनुपालन किया जायेगा।

शर्त संख्या–13 सम्बन्धित प्रभागीय वनाधिकारी द्वारा शर्त का अनुपालन किया जा रहा है। (संलग्नक–1 क०सं०–xiii)

शर्त संख्या–14 दाबका नदी से उपखनिज चुगान के क्रम में प्रभागीय वनाधिकारी द्वारा हाइड्रोलॉजिकल सर्वे/अध्ययन की प्रारम्भिक रिपोर्ट संलग्न कर प्रेषित कि जा रही है। (संलग्नक–7)

शर्त संख्या–15 वन विकास निगम द्वारा अवगत कराया गया है कि निर्देशानुसार शर्त का अनुपालन किया जा रहा है। (संलग्नक–3 क०सं०–xv)

शर्त संख्या–15 वन विकास निगम द्वारा निर्देशों का पालन किया जा रहा है। (संलग्नक–3क०सं०–xv)

शर्त संख्या–16 राज्य सरकार द्वारा कार्यदल [illegible] स्थापित करने हेतु उत्तराखण्ड शासन के शासनादेश संख्या–177/X-3-12-9(14)/2009 दिनांक 30-05-2012 के द्वारा शासनादेश निर्गत किया गया है। (संलग्नक–8)

शर्त संख्या–17 प्रभागीय वनाधिकारी द्वारा अवगत कराया गया है कि नदी के [illegible] भाग में चुगान करने हेतु एवं नदी के दोनों किनारों में 25–25 प्रतिशत क्षेत्र को चुगान हेतु प्रतिबन्धित क्षेत्र घोषित किया गया है, प्रतिबन्धित क्षेत्र को चिन्हित करने हेतु पीलरों द्वारा सीमांकन किया गया है। (संलग्नक–1 क०सं०–xvii)

शर्त संख्या–18 वन विकास निगम द्वारा अवगत कराया गया है कि निगम द्वारा निर्देशों का पालन किया जा रहा है। (संलग्नक–3 क०सं०–xviii)

शर्त संख्या–19 सम्बन्धित प्रभागीय वनाधिकारी द्वारा अवगत कराया गया है कि दाबका नदी से उप खनिज की निकासी नियंत्रण हेतु 3 गेट स्थापित किये गये हैं, निर्धारित गेटों से ही निकासी की जा रही है। समस्त अभिलेख [illegible] एवं वन विकास निगम द्वारा संधारित किया जा रहा है। (संलग्नक–1 क०सं०–xix)

शर्त संख्या–20 इस शर्त के सम्बन्ध में प्रभागीय वनाधिकारी द्वारा अनुरोध किया गया है कि आगामी स्वीकृति में उक्त नदियों से उप खनिजों के चुगान हेतु अवधि 1 अक्टूबर से 31 मई तक निर्धारित की जाय। (संलग्नक–1 क०सं०–xx)

शर्त संख्या–21 प्रभागीय वनाधिकारी द्वारा अवगत कराया गया है कि शर्त के अनुपालन हेतु वन विकास निगम को निर्देशित किया गया है। (संलग्नक–1 क०सं०–xxi)

शर्त संख्या–22, 23 व 24 वन विकास निगम द्वारा अवगत कराया गया है कि उनके द्वारा भारत सरकार की शर्तों का पालन किया जा रहा है। (संलग्नक–3 क०सं०–xxii, xxiii व xxiv)

शर्त संख्या–25 प्रभागीय वनाधिकारी द्वारा अवगत कराया गया है कि वन विकास निगम में पंजीकृत श्रमिकों को वन विकास निगम द्वारा अन्य श्रोतों से प्राप्त कर ईंधन का निःशुल्क वितरण किया जायेगा। (संलग्नक–1 क०सं०–xxv)

शर्त संख्या–26 भारत सरकार द्वारा दिये गये निर्देशों के क्रम में प्रभागीय वनाधिकारी द्वारा अवगत कराया गया है कि खनन हेतु चिन्हित क्षेत्र की सीमाओं [illegible] के माध्यम से चिन्हित किया गया है। स्थापित पीलरों की स्थिति हेतु अक्षांश व देशान्तर की रीडिंग जी०पी०एस० से लेकर अभिलेख संधारित किये जा रहे हैं। (संलग्नक–1 क०सं०–xxvi)

शर्त संख्या–27 प्रभागीय वनाधिकारी द्वारा अवगत कराया गया है कि निर्धारित क्षेत्रों से उप खनिजों का भुगतान कार्य ही किया जा रहा है। उल्लिखित वन भूमि का अन्य उपयोग भारत सरकार, पर्यावरण एवं वन मंत्रालय के बिना नहीं किया जायेगा (संलग्नक–1 क्रमांक–xxvii)

शर्त संख्या–28 प्रभागीय वनाधिकारी द्वारा अवगत कराया गया है कि उपरोक्त क्षेत्र में कोई भी अनुसूचित जन–जाति एवं परम्परागत वनवासी निवास नहीं कर रहे हैं एवं इस संबंध में कोई दावा भी Recognition of forest Rights Act, 2006 के अन्तर्गत वन विभाग के समक्ष अब तक प्रस्तुत नहीं किया गया है। (संलग्नक–1 क्रमांक– xxviii पर अंकित)

शर्त संख्या–29 प्रभागीय वनाधिकारी द्वारा अवगत कराया गया है कि अन्य शर्तें निर्धारित होने पर आवश्यक कार्यवाही की जायेगी। (संलग्नक–1 क्रमांक– xxix पर अंकित)

शर्त संख्या–30 सम्बन्धित प्रभागीय वनाधिकारी द्वारा अवगत कराया गया है कि समस्त निर्धारित शर्तों एवं दिशा–निर्देश का पालन किया जा रहा है व इस सम्बन्ध में वन विकास निगम को भी निर्देशित किया गया है। (संलग्नक–1 क्रमांक– xxx पर अंकित)

अतः अनुरोध है कि विषयांकित प्रकरण की महत्ता एवं सामयिकता को दृष्टिगत रखते हुए प्रकरण पर वन (संरक्षण) अधिनियम, 1980 के अन्तर्गत शेष अवधि के लिये उक्त नदी से उप खनिज भुगतान की स्वीकृति राज्य सरकार को प्रदान किये जाने पर विचार करने का कष्ट करें।

संलग्न–यथोक्त।

भवदीय,

(सजेन्द्र कुमार)
अपर प्रमुख वन संरक्षक एवं नोडल अधिकारी

संख्या– 875 /1जी–2758 (नैनीडा) दिनांकित।

प्रतिलिपि निम्नलिखित को को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित :–

1. प्रमुख वन संरक्षक, उत्तराखण्ड, देहरादून।
2. प्रमुख वन संरक्षक, वन्य जीव, उत्तराखण्ड।
3. प्रबन्ध निदेशक, उत्तराखण्ड वन विकास निगम, देहरादून।
4. उप संरक्षक, पौरवी वृत्त, उत्तराखण्ड, नैनीताल।
5. प्रभागीय वनाधिकारी, तराई पश्चिमी वन प्रभाग रामनगर।

(राजेन्द्र कुमार)
अपर प्रमुख वन संरक्षक एवं नोडल अधिकारी

भूतत्व एवं खनिकर्म तराई उद्यान निदेशालय
देहरादून

Annexure - 1

कार्यालय, वन क्षेत्राधिकारी (रामनगर), तराई पश्चिमी वन प्रभाग, रामनगर

पत्रांक 142/ 9-2 रामनगर, दिनांक 30/9 2020

सेवा में,

प्रभागीय वनाधिकारी
तराई पश्चिमी वन प्रभाग, रामनगर

विषयः दाबका नदी खनन क्षेत्र वर्ष 2020 में सीमांकन पिलरों के जी0पी0एस0 लोकेशन बाबत।

महोदय,

दाबका नदी में 120 सीमांकन पिलरों का जी0पी0एस0 लोकेशन नय नवरो के आवश्यक कार्यवाही हेतु प्रेषित है।— जी0पी0एस0 लोकेशन निम्न प्रकार है—

पूर्वी किनारा

क्र0 सं0	अक्षांश	देशान्तर	क्र0 सं0	अक्षांश	देशान्तर
1	N 29°20'16.8"	E79°08'55.1"	30	N 29°18'49.5"	E79°08'19.9"
2	N 29°20'13.5"	E79°08'54.4"	31	N 29°18'46.4"	E79°08'17.8"
3	N 29°20'10.5"	E79°08'53.5"	32	N 29°18'43.6"	E79°08'15.9"
4	N 29°20'07.8"	E79°08'50.2"	33	N 29°18'41.2"	E79°08'13.0"
5	N 29°20'05.1"	E79°08'49.7"	34	N 29°18'38.5"	E79°08'11.3"
6	N 29°20'02.2"	E79°08'43.3"	35	N 29°18'35.3"	E79°08'09.5"
7	N 29°20'59.1"	E79°08'47.0"	36	N 29°18'32.1"	E79°08'09.8"
8	N 29°19'56.6"	E79°08'46.1"	37	N 29°18'28.7"	E79°08'09.8"
9	N 29°19'53.7"	E79°08'46.2"	38	N 29°18'25.3"	E79°08'09.6"
10	N 29°19'50.4"	E79°08'45.8"	39	N 29°18'22.1"	E79°08'09.9"
11	N 29°19'47.2"	E79°08'45.11"	40	N 29°18'18.8"	E79°08'09.3"
12	N 29°19'43.8"	E79°08'45.6"	41	N 29°18'15.8"	E79°08'08.3"
13	N 29°19'40.6"	E79°08'45.9"	42	N 29°18'12.9"	E79°08'07.3"
14	N 29°19'37.1"	E79°08'46.9"	43	N 29°18'09.6"	E79°08'06.9"
15	N 29°19'34.1"	E79°08'47.5"	44	N 29°18'06.8"	E79°08'05.0"
16	N 29°19'30.6"	E79°08'47.9"	45	N 29°18'03.3"	E79°08'03.4"
17	N 29°19'27.3"	E79°08'47.4"	46	N 29°18'00.5"	E79°08'01.4"
18	N 29°19'23.9"	E79°08'46.1"	47	N 29°17'57.6"	E79°07'59.5"
19	N 29°19'20.7"	E79°08'45.1"	48	N 29°17'55.3"	E79°07'57.4"
20	N 29°19'17.5"	E79°08'44.4"	49	N 29°17'52.10"	E79°07'56.6"
21	N 29°19'14.2"	E79°08'43.6"	50	N 29°17'49.0"	E79°07'56.3"
22	N 29°19'11.2"	E79°08'42.2"	51	N 29°17'45.7"	E79°07'50.1"
23	N 29°19'08.2"	E79°08'40.9"	52	N 29°17'42.5"	E79°07'56.6"
24	N 29°19'05.1"	E79°08'36.5"	53	N 29°17'39.7"	E79°07'55.1"
25	N 29°19'02.7"	E79°08'36.3"	54	N 29°17'36.[illegible]	E79°07'[illegible]
26	N 29°19'00.5"	E79°08'33.2"	55	N 29°17'[illegible]	E79°07'58.2"
27	N 29°18'58.3"	E79°08'29.6"	56	N 29°17'[illegible]	E79°08'01.5"
28	N 29°18'56.8"	E79°08'26.9"	57	N 29°17'[illegible]	E79°08'03.1"
29	N 29°18'54.6"	E79°08'24.3"	58	N 29°18'[illegible]	E79°08'21.2"

पश्चिमी किनारा

क्र0 सं0	अक्षांश	देशान्तर	क्र0 सं0	अक्षांश	देशान्तर
1	N 29°20'18.7"	E79°08'50.8"	30	N 29°18'57.2"	E79°08'22.4"
2	N 29°20'15.3"	E79°08'50.9"	31	N 29°18'54.7"	E79°08'19.9"
3	N 29°20'12.6"	E79°08'48.3"	32	N 29°18'52.3"	E79°08'17.4"
4	N 29°20'09.2"	E79°08'42.8"	33	N 29°18'49.6"	E79°08'15.3"
5	N 29°20'05.7"	E79°08'45.1"	34	N 29°18'47.1"	E79°08'13.3"

6	N 29°20'03.3"	E79°08'43.7"	35	N 29°18'44.3"	E79°08'11.3"
7	N 29°20'00.5"	E79°08'42.7"	36	N 29°18'41.2"	E79°08'10.1"
8	N 29°19'57.6"	E79°08'43.0"	37	N 29°18'37.8"	E79°08'08.7"
9	N 29°19'54.6"	E79°08'43.6"	38	N 29°18'34.6"	E79°08'07.8"
10	N 29°19'57.4"	E79°08'43.2"	39	N 29°18'31.5"	E79°08'07.2"
11	N 29°19'48.7"	E79°08'43.4"	40	N 29°18'28.4"	E79°08'06.7"
12	N 29°19'45.7"	E79°08'43.3"	41	N 29°18'24.8"	E79°08'05.9"
13	N 29°19'42.8"	E79°08'42.0"	42	N 29°18'21.4"	E79°08'05.3"
14	N 29°19'39.7"	E79°08'42.4"	43	N 29°18'18.2"	E79°08'06.3"
15	N 29°19'36.7"	E79°08'42.4"	44	N 29°18'15.3"	E79°08'05.2"
16	N 29°19'33.7"	E79°08'42.4"	45	N 29°18'12.1"	E79°08'03.5"
17	N 29°19'30.9"	E79°08'41.6"	46	N 29°18'08.7"	E79°08'02.8"
18	N 29°19'28.2"	E79°08'41.0"	47	N 29°18'05.3"	E79°08'01.8"
19	N 29°19'24.7"	E79°08'40.3"	48	N 29°18'02.2"	E79°08'00.8"
20	N 29°19'21.3"	E79°08'40.6"	49	N 29°17'59.8"	E79°07'57.8"
21	N 29°19'18.4"	E79°08'41.4"	50	N 29°17'56.6"	E79°07'55.4"
22	N 29°19'15.1"	E79°08'42.3"	51	N 29°17'53.4"	E79°07'54.5"
23	N 29°19'12.1"	E79°08'41.2"	52	N 29°17'50.0"	E79°07'54.1"
24	N 29°19'09.4"	E79°08'39.7"	53	N 29°17'46.7"	E79°07'53.4"
25	N 29°19'06.9"	E79°08'37.7"	54	N 29°17'43.3"	E79°07'53.2"
26	N 29°19'04.4"	E79°08'35.2"	55	N 29°17'40.0"	E79°07'52.9"
27	N 29°19'02.4"	E79°08'17.4"	56	N 29°17'36.7"	E79°07'52.1"
28	N 29°19'00.9"	E79°08'28.7"	57	N 29°17'34.0"	E79°07'54.2"
29	N 29°18'59.1"	E79°08'25.6"	58	N 29°17'31.9"	E79°07'57.1"

उत्तरी छोर बंद सीमा पिलर

1	N 29°20'18.2"	E79°08'57.9"
2	N 29°20'17.6"	E79°08'53.3"

दक्षिणी छोर बंद सीमा पिलर

1	N 29°17'30.7"	E79°08'01.3"
2	N 29°17'31.3"	E79°07'59.6"

संलग्नक– जी0पी0एस0 सैट 4 प्रतियों में।

(गोविन्दसिंह)

नवदीय,

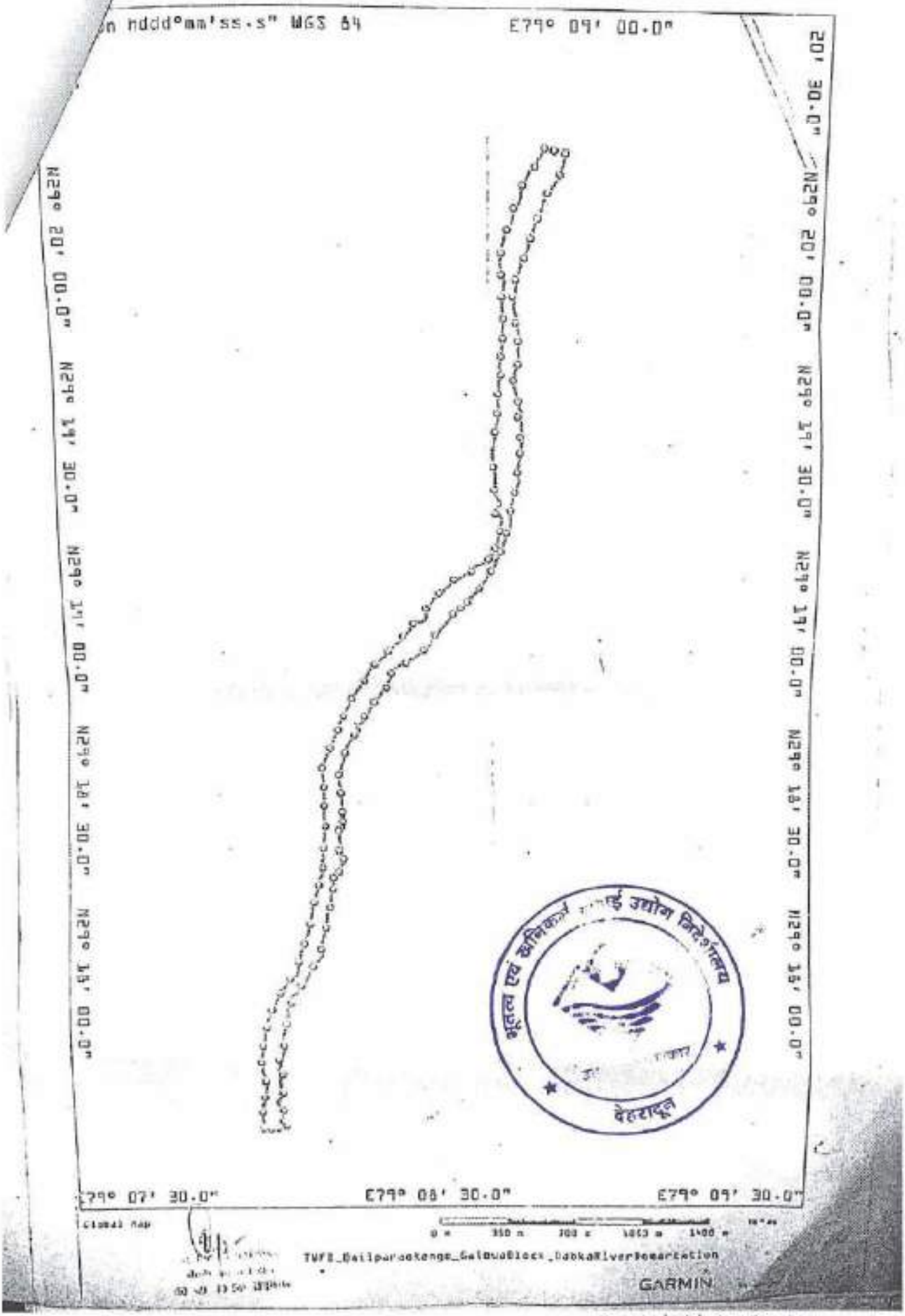
वन क्षेत्राधिकारी,
पैलपड़ाव वन क्षेत्र

दिनांक / दिनांकित

प्रतिलिपि– क्षेत्रीय प्रबंधक खनन उद्यन विकास निगम पूर्वी को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित है।

वन क्षेत्राधिकारी,
पैलपड़ाव वन क्षेत्र

Annexure - 4



Annexure-5

REPORT

ON

Assessment of extractable river bed material from river Dabka for the year 2020-21

FOR

Uttarakhand Forest Developmet Corporation (UKFDC), Ramnagar, Nainital (Uttarakhand)

BY

Dr. P R Ojasvi
Er. S S Shrimali
Er. S.K. Sharma
Sh H S Bhatia
Er. Amit Chauhan

ICAR-Indian Institute of Soil and Water Conservation,
(INDIAN COUNCIL OF AGRICULTURAL RESEARCH)
218, KAULAGARH ROAD, DEHRADUN-248 195 (UTTARAKHAND)
(December, 2020)

REPORT

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218, KAULAGARH ROAD, DEHRADUN-248 195 (UTTARAKHAND)
(December, 2020)

Executive Summary

A study on consultancy basis was undertaken by ICAR-IISWC (formerly CSWCRTI), Dehradun during 2020 entitled "Assessment of extractable river bed material from river Dabka for the year 2020-21" for the UKFDC, Ramnagar, Nainital (Uttarakhand). The study area was river Dabka downstream to the bridge on Ramnagar – Haldwani highway about 06 km from Ramnagar under jurisdiction of RM, UKFDC covering a length of 06 km. The area was critically examined for the entire length and the cross-sections were taken at the locations mentioned in the Fig. 2. However the survey was carried out for the length of 4.056 km as rest of the area does not have material for extraction. ***Remaining area of the river is exposed with the Clay strata and hence suggested to exclude the 1.5 – 2 km length of the defined river reach.***

Based on the survey conducted and volume calculation for permissible extraction of deposited RBM is worked out as **63837.56 cum**. It is also suggested that for estimation of RBM in the following year, a reassessment study will be required to be conducted during the post monsoon period.

It is recommended to confine the extraction of RBM from middle half of the river width in order to channelize the flow and for protecting the adjoining land from flood damages. The various depths of cut at different distance from the bank of the river have been mentioned in Table 2, which is strictly required to be followed for safe passage of river flow.

Hence, it is strongly recommended that extraction of RBM should be undertaken in a scientific and regulated manner by marking the extraction boundaries in order to improve the safe passage of flow and protect the adjoining river ecosystem.

Assessment of extractable river bed material from river Dabka for the year 2020-2021

Introduction

The mountain Rivers of Himalayas bring down huge quantity of sediment (sand, bajri, gravel and stones) from hilly catchments while flowing with high velocity on steep slopes. The riverbed material (RBM) rolls over the surface and is deposited while coming to the foothills with mild slopes due to reduction in flow velocity.

The RBM deposited on the river bed in the form of mounds/islands causes braiding of flow (i.e flowing through several streams instead of confined one) and meandering of the river course. This process continues and the river erodes adjoining lands thus increasing the total width of the river, though the required width for actual flow is much less. Further, the encroachment of river along the banks damages valuable property, agricultural lands and forests during the monsoon period.

The extraction/removal of this erratic deposited material, therefore, needs to be done periodically from the river bed in order to channelize the flow and consequently prevent bank erosion and flood damages along the banks.

On request from UKFDC, Ramnagar, Nainital (Uttarakhand) consultancy project was undertaken by IISWC (formerly CSWCRTI), Dehradun to conduct a study on river Dabka with following objectives

Objectives

1. Study the morphological profile (Cross section) of river Dabka for defined river reach.
2. Estimation of permissible limit of extraction of river bed material to improve the river flow.

River Dabka

The river Dabka originates (29°28'46"N & 79°20'14"E) from the hills of Nainital district of Uttarakhand and flows down to the foothills near Ramnagar, district Nainital (Fig. 1) The river carries with it sediment/river bed material (RBM) consisting of sand, bajri, gravel and stones during every monsoon season.

Extraction of RBM in river Dabka:

The Study Area

The study area is located at river Dabka, under jurisdiction of UKFDC, Ramnagar, district Nainital, Uttarakhand (Fig.1). River Dabka is about 6 km away from Ramnagar crossing the Ramnagar – Haldwani highway. The river reach under study is in the downstream of the road bridge.

Methodology

A team from ICAR-IISWC, Dehradun consisting of Dr. P.R. Ojasvi, Pr. Scientist & Head (H&E), Er. S.S. Shrimali, Sr. Scientist, , Er. S.K. Sharma, Astt. Chief Technical Officer, Shri H.S. Bhatia, Technical Officer, and Er. Amit Chauhan, Senior Technical Officer analyzed the data and studied the project site. The site was visited for pre & Post Monsoon survey on 2nd week of July & 1st - 3rd December, 2020 with of DLM, Dabka and other staff of UKFDC.

The starting point of the survey was river bed downstream of the bridge on highway and thereafter river reach downstream upto 06 km. One km length from the bridge was left out of survey as no extraction is permitted from this zone in view of the safety of bridge. The elevations at different points along cross-sections at different locations were recorded and analyzed. The average slope of the river under extraction zone is 0.76 percent and undulated in nature Fig.3.

To protect the land adjoining the river banks 25 per cent of the river bed width along each bank of river would be left undisturbed for extraction. Therefore, volume of extractable sediment within the middle 50 per cent of river width was worked out based on the average width of the segment and required shape for safe passage of flow.

Analysis, Results and Recommendations

1. The cross-sections of river Dabka at different locations are shown in Fig. 4. It is seen from the cross-sections that a small amount of sediment deposits are occurring in the middle portion of the river (shown by hatched portion between $M_R - M_L$). Thus, it is suggested that these deposits may be removed in order to channelize the river flow.

2. The permissible quantity of RBM that can be extracted in different segments of the river is shown in Table 1. The estimated total scientifically extractable material is m^3 as shown in Table 1.

3. The recommended depths in respect of different locations as mentioned in Table 2 should be strictly monitored during extraction of RBM.

4. The remaining area under lower reach of the river defined for the extraction feeding area of Baithkadi gate has been excluded from the survey keeping in view the negligible quantity of RBM deposition and may be suspended for extraction.

5. It is observed that rainfall in this region and therefore discharge of river in the past few years has reduced. Therefore, the quantity of RBM deposition in this reach of the river is reducing over the years and is not able to fill the river reach under study/ proposed extraction of RBM.. It is, therefore, suggested that extraction of RBM in this river reach may be temporarily suspended for the period, till the sufficient quantum of RBM is deposited and restoring the natural river bed profile. Follow-up study has to be conducted at appropriated time for the remaining area to ensure the rejuvenation of river morphological profile river

6. Suitable river training measures need to be taken for prevention of bank erosion and protection of adjoining lands from flood damages.

Acknowledgements

The project team is grateful to, Director, IISWC, Dehradun for approving this project and providing necessary support and facilities.

The team is thankful to Regional Manager, Kumaon Region for sponsoring this project and providing all help and facilities for timely completion of this study. The logistics and field assistance provided by the officers and staff of Uttarakhand Forest Corporation is thankfully acknowledged.

The help rendered by the Division of Hydrology & Engineering officers and staff on preparation of the project report is duly acknowledged.

(P.R. Ojasvi)
Project Leader
ICAR-IISWC,
Dehradun (Uttarakhand)

Table 1: Estimation of the extractable RBM for the marked river reach of Dabka River.

Volume of safely extractionable RBM from River Dabka 2020-21								
Location	Length Segment (m)	Width of the river (m)	Extraction-able width (m)	Average Depth of Extraction	Cross-Section (m^2)	Average Cross-section (m^2)	Volume (m^3)	Cumulative Volume (m^3)
CS1	0	220.62	110.31	0.44	0.00	0	0	0
CS2	1124	123.1	17.8	0.22	3.92	1.96	2200.79	2200.79
CS3	1432	221.67	110.83	0.28	31.03	17.47	25023.05	27223.85
CS4	988	182.45	86.27	0.38	32.78	31.91	31524.61	58748.46
CS5	512	107.62	37.01	0.4	14.80	23.79	12182.17	70930.63
							Total Volume	**70930.63**
							Recommended volume of extraction (90% of total volume)	**63837.56**

Table 2: Distance and extraction depth across width

CS1	Distance	55.15	55.73	69.25	94.66	110.31	125.88	153.51	165.46		**110.31**
	Depth	0.00	0.27	0.19	1.15	1.03	0.81	0.06	0.00		**0.44**
CS2	Distance	32.92	35.00	47.32	50.72						**17.80**
	Depth	0.00	0.36	0.51	0.00						**0.22**
CS3	Distance	55.42	56.16	68.09	91.35	103.33	110.83	120.83	145.35	166.25	**110.83**
	Depth	0.36	0.37	0.31	0.31	0.41	0.27	0.07	0.30	0.16	**0.28**
CS4	Distance	45.61	52.18	73.35	90.12	91.22	108.48	113.97	131.88		**86.27**
	Depth	0.14	0.16	0.10	0.80	0.81	0.74	0.33	0.00		**0.38**
CS5	Distance	26.90	27.85	40.11	53.23	63.91					**37.01**
	Depth	0.00	0.46	0.73	0.83	0.00					**0.40**

Note: *All dimensions are in meter.*

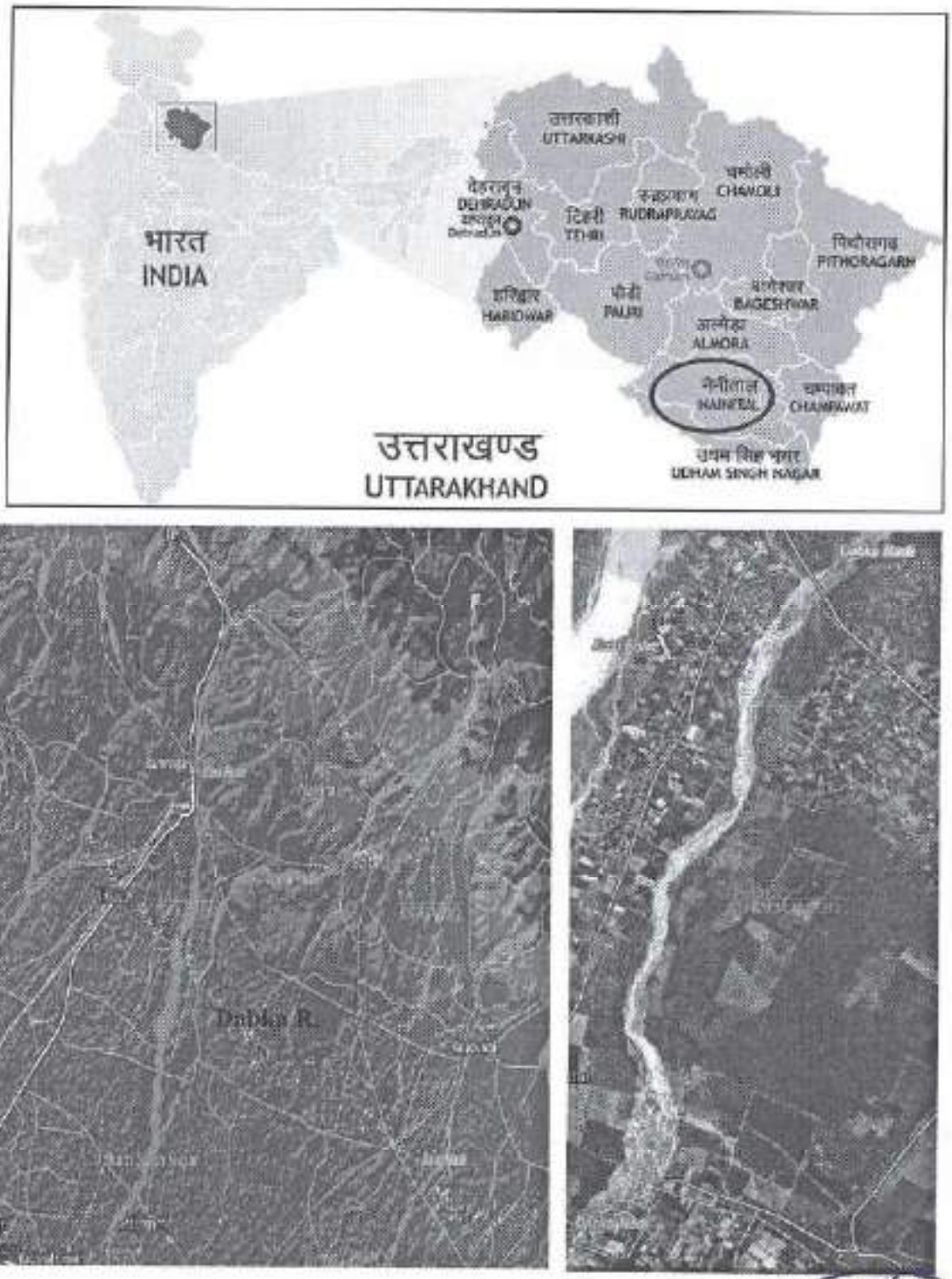
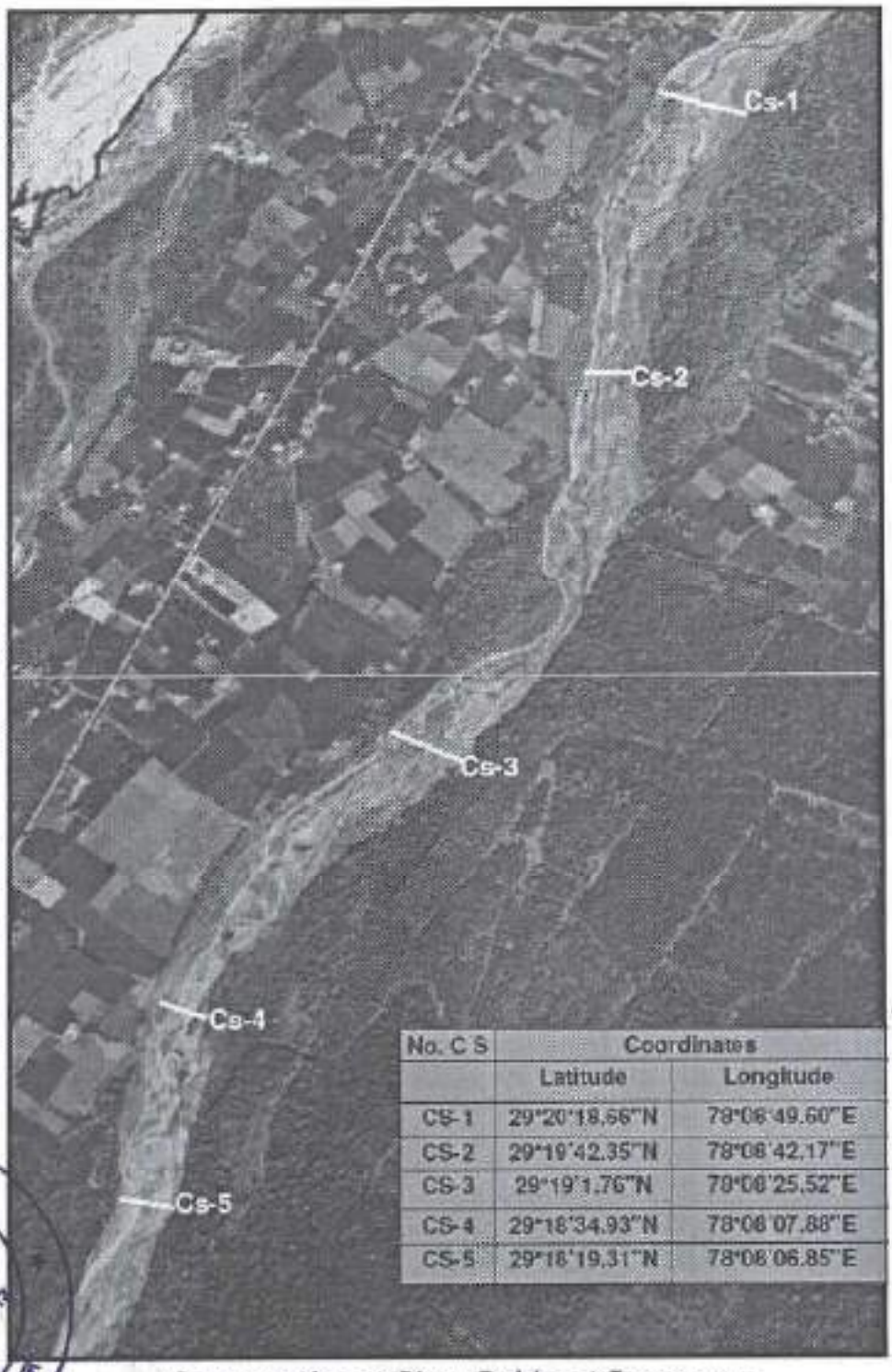
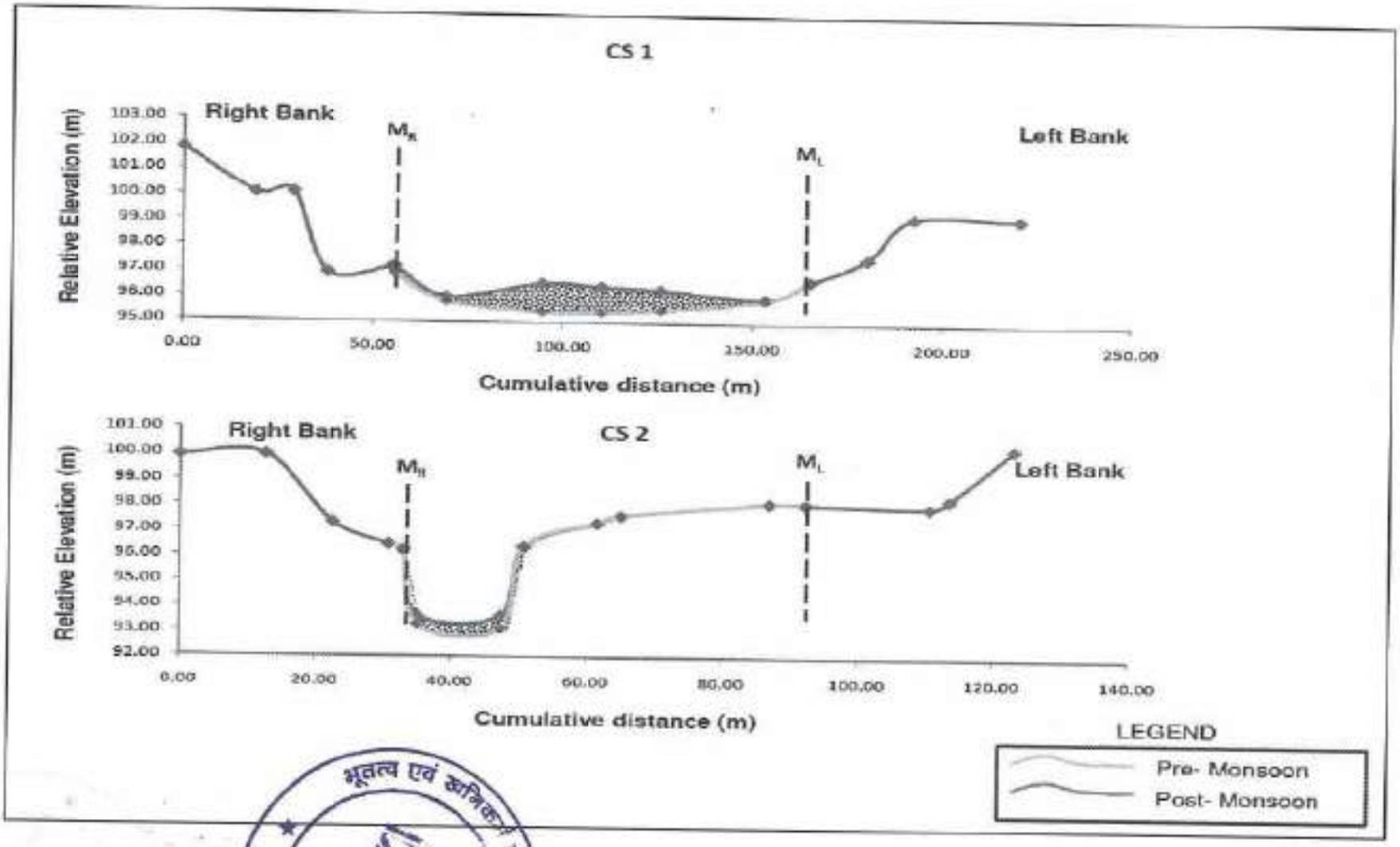


Fig.1: Location of the study area



No. C S	Coordinates	
	Latitude	Longitude
CS-1	29°20'18.66"N	78°06'49.60"E
CS-2	29°19'42.35"N	78°06'42.17"E
CS-3	29°19'1.76"N	78°06'25.52"E
CS-4	29°18'34.93"N	78°06'07.88"E
CS-5	29°18'19.31"N	78°06'06.85"E

★ **Fig. 2: Cross-section of river Dabka, Ramnagar at different kilometers showing the extractable RBM**


CS 1
Right Bank
M_R
M_L
Left Bank
Relative Elevation (m)
103.00
102.00
101.00
100.00
99.00
98.00
97.00
96.00
95.00
0.00
50.00
100.00
150.00
200.00
250.00
Cumulative distance (m)
CS 2
Right Bank
M_R
M_L
Left Bank
Relative Elevation (m)
101.00
100.00
99.00
98.00
97.00
96.00
95.00
94.00
93.00
92.00
0.00
20.00
40.00
60.00
80.00
100.00
120.00
140.00
Cumulative distance (m)
LEGEND
Pre- Monsoon
Post- Monsoon

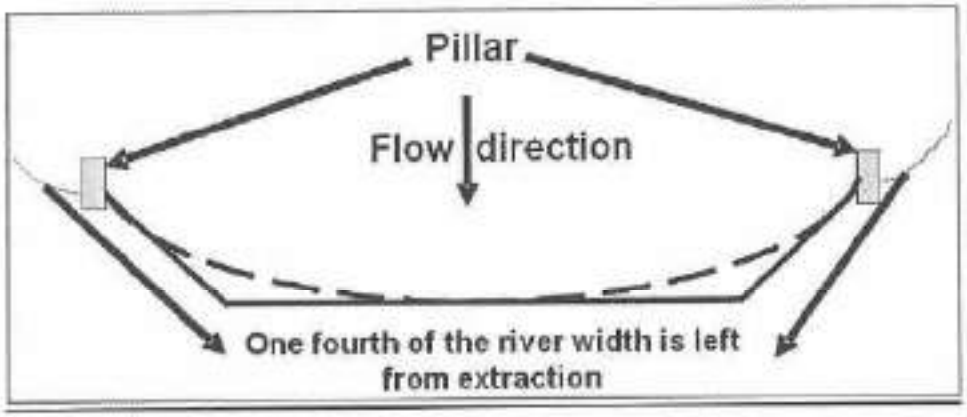


Diagram: 1. Procedure of extraction of river bed material

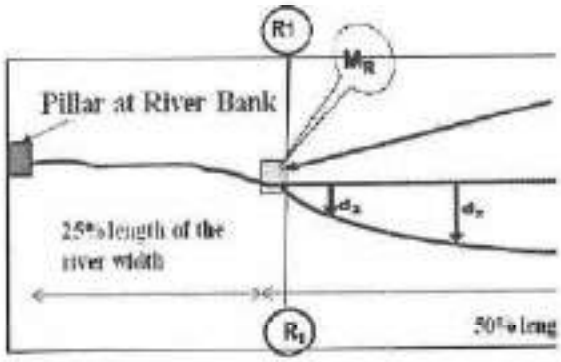
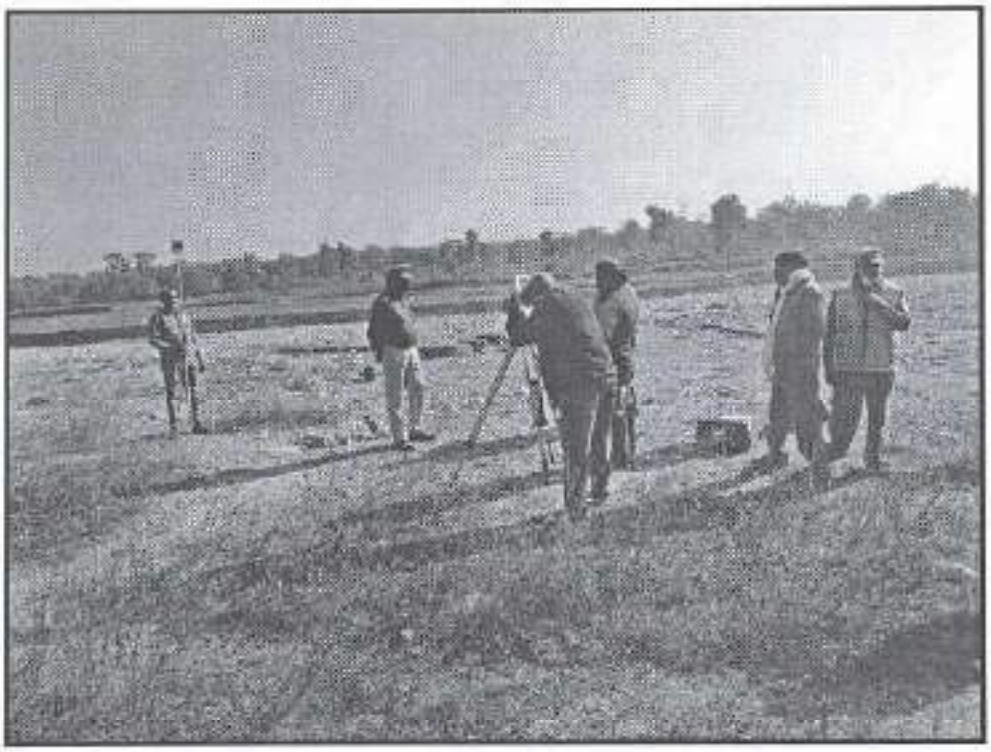


Diagram 2: Anticipated shape of the river after proper extraction of river bed material

Photo: Survey of river Dabka for RBM estimation



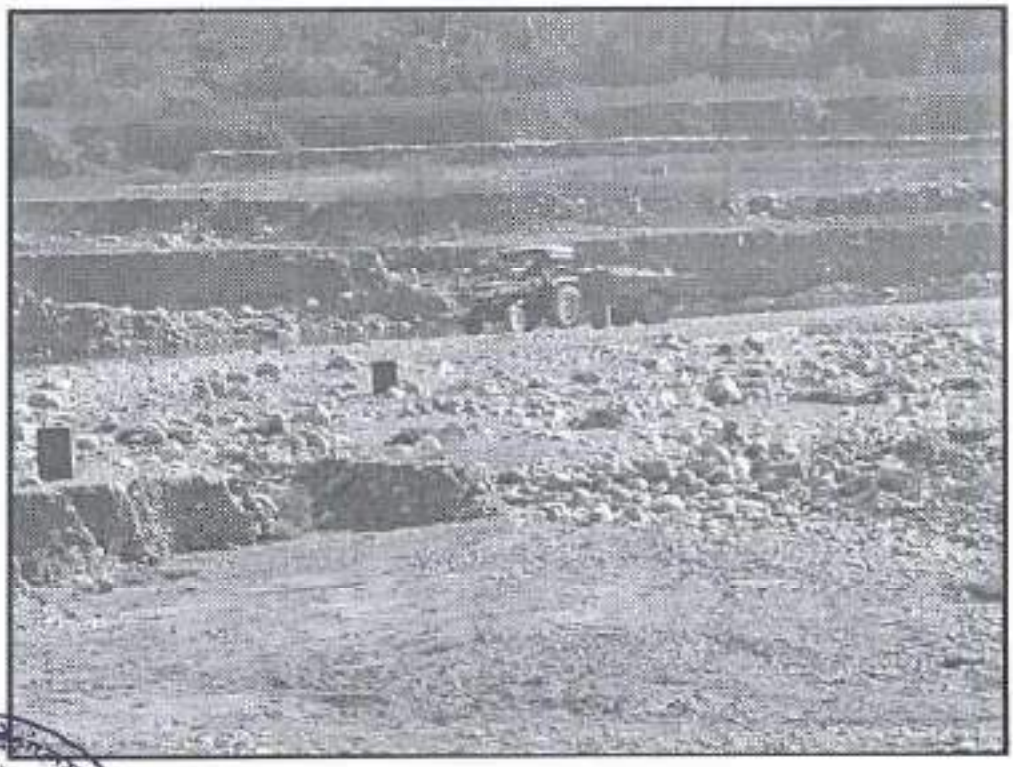


Photo: Survey of river Dabka for RBM estimation

Annexure- 6

No. J-11015/359/2009-IA.II(M)
Government of India
Ministry of Environment and Forests
IA Division

Paryavaran Bhawan
CGO Complex, Lodhi Road,
New Delhi-110 003

Dated the 15th April, 2011

To

M/s Uttaranchal Forest Development Corporation
Aranya Vikas Bhawan,
73, Nehru Road,
Dehradun-248001
E-mail: uafdemd@yahoo.com
Vanvikas12@gmail.com

Subject: Collection of Reta, Bajri and Boulder (Minor Mineral) from the River Bed of Dabka River by M/s Uttaranchal Forest Development Corporation, located in Tarai West Forest Division, Ramnagar, District Nainital, Uttarakhand- environmental clearance regarding.

Sir,

This has referance to your letter No. U-2981/Environmental clearance dated 09.09.2010 and subsequent letters dated 11.01.2011 and 14.01.2011 on the subject mentioned above. The project was earlier prescribed Terms of Reference (TORs) by the Ministry of Environment and Forests on 15.02.2010 for undertaking detailed EIA study for the purpose of obtaining environmental clearance. The proposal is for extraction of 15.28Lakh Tonnes Per Annum (LTPA) of reta, bajri and boulder (minor mineral) from the river bed of Dabka River.

2 The total mine lease area of the project is 223ha, which is a forestland falling under the Tarai West Forest Division, Ramnagar in Nainital District. It was stated by the proponent that although the lease has been granted to them in perpetuity, however, since the forestry clearance is for a period of 10 years, the environmental clearance may also be granted for a maximum period of 10 years to make it co-terminus with the forestry clearance. The total length of Dabka River under Tarai West Forest Division being proposed under the project is approximately 14km. Out of the total allotted area of 223ha, the minor mineral collection will be carried out from 50% of the total area i.e. 111.5ha leaving 25% area on each side of the river bank. The area available for mining would [illegible] be 111.5ha along the centre of the river flow, which is [illegible]

3 The Jim Corbett National Park is reported to be located at a distance of 10.71km NW from the project boundary. The project area falls under [illegible] Elephant Reserve. The Chief Wildlife Warden, Government of Uttarakhand [illegible] letter No.1197/12-1 dated 08.12.2010 accorded NOC for collection of minor mineral from the Dabka River in an area of 223ha. It has [illegible] elephant corridor [illegible] and buffer [illegible]

Scanned with CamScanner

..ajarh. An authenticated map has also been submitted [illegible] the forest working plan, being implemented by State Forest Department include protection of wildlife and this would be duly taken care of while [illegible] of reta bajri and sand. Three Protected Forests namely the [illegible] PF, the [illegible] Dabka PF and the Gabua PF are reported to be located adjacent to the mine lease. In addition, five Reserve Forests namely the Dechauri RF, the West [illegible] RF, the Kota RF, the Papri RF and the Ampani RF are reported to be located in the buffer zone of the mine.

4. The mine working will be opencast by manual method without involving drilling and blasting. The mining is confined to extraction of sand, reta and bajri from the river bed. The reta and bajri will be collected by sieving of river bed material using hand tools like shovel, pan, sieve etc. Mining will be carried out only during the day time. Extraction of river bed material will be completely stopped during the monsoon season. The targetted production capacity of the mine is 15.28Lakh TPA(8.49Lakh m^3) of river bed material. The river bed material will be replenished during the monsoon season every year. The mined out material will be transported to their respective uses locations via private agencies using their own transport. Computerized weigh bridges have been installed in order to check and monitor moment of material. The proposed mining area is reported to lies between 29°21'31.36" to 29°17'47.09" N Latitude and 79° 12'26.95" to 79° 07'55.16" E Longitude in topo sheet No. 53 O/3 and O/7. The elevation from the sea level of the proposed area is reported as 356m. Mining will be carried out upto a depth of 1.5m.The quantity of mineral to be removed has been fixed based on replenishment rate.

5. The public hearing of the project was held on 12.06.2010 for lease area of 223ha for collection of river bed material from Dabka River. The Principal Secretary, Government of Uttarakhand vide letter No.2536/VII-I/163-MA/2009/10 dated 23.10.2010 informed that collection of minor mineral from the river bed does not require mine plan approval under Uttarakhand Minor Mineral Concession Rules 2001. The Ministry of Environment and Forests has accorded Stage-I approval under Forest (Conservation) Act, 1980 for diversion of [illegible] forestland on 08.04.2011 for collection of stone, boulders and other minor minerals from the river bed of Dabka River in the District Nainital. The proponent has stated that there is no court case to the project or related activity.

6. The Ministry of Environment and Forests has examined the application in accordance with the EIA Notification, 2006 and hereby accords environmental clearance under the provisions thereof to the above mentioned Minor Mineral (reta, bajri and boulder) Mining Project of M/s Uttaranchal Forest Development Corporation for an annual collection of 15.28Lakh tonnes of reta, bajri and boulder (minor mineral) from the river bed of the Dabka River by the opencast manual method involving total mining lease area of 223ha, for a period of 10 years or till the forestry clearance whichever is earlier subject to implementation of the following conditions and environmental safeguards.

..3/-

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A. Specific conditions

(i) The project proponent shall obtain Consent to Establish and Consent to Operate from the Uttarakhand Environment Protection & Pollution Control Board and effectively implement all the conditions stipulated therein.

(ii) The environmental clearance is subject to grant of forestry clearance.

(iii) The project proponent shall ensure that wherever deployment of labour attracts the Mines Act, the provision thereof shall be strictly followed.

(iv) Requisite prior clearance from the Standing Committee of the National Board for Wildlife shall be obtained due to location of the project area within Shivalik Elephant Reserve and also location of elephant corridor within in the core zone and buffer zone of the mine near Paulgarh, before starting any activity relating to the project at site. All the conditions stipulated by the Standing Committee shall be effectively implemented in the project. It shall be noted that this clearance does not necessarily implies that wildlife clearance shall be granted to the project and that your proposal for wildlife clearance shall be considered by the competent authorities on its merit and decision taken. The investment made in the project, if any based on environmental clearance granted to the project, in anticipation of the clearance from wildlife clearance shall be entirely at the cost and risk of the project proponent and Ministry of Environment and Forests shall not be responsible in this regard in any manner.

(v) Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004, as may be applicable to this project.

(vi) Environmental clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority, as may be applicable to this project.

(vii) The project proponent shall prepare the plan of mining in conformity with the mine lease conditions and the Rules prescribed in this regard clearly showing the no work zone in the mine lease i.e. the distance from the bank of river to be left unworked, distance from the bridges etc. It shall be ensured that no mining shall be carried out during the monsoon season.

(viii) The project proponent shall identify the degraded forest area within the mine lease in consultation with the State Forest Department and undertake plantation/afforestation work by planting the native species.

(ix) Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.

...4/-

(x) The project proponent shall undertake [illegible] safeguard measures during extraction of river bed material and ensure that due to this activity the hydro-geological regime of the surrounding area shall not be affected. [illegible] monitoring of ground water level and quality shall be carried out around the mine lease area by establishing a network of existing wells and installing new piezometers during the mining operation. The periodic monitoring [(at least four times in a year- pre monsoon (April-May), monsoon (August), post monsoon (November) and winter (January), once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office Lucknow, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out.

(xi) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and groundwater), if any, required for the project.

(xii) Appropriate mitigative measures shall be taken to prevent pollution of the river in consultation with the State Pollution Control Board. It shall be ensured that there is no leakage of oil and grease in the river from the vehicles used for transportation.

(xiii) Vehicular emissions shall be kept under control and regularly monitored. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.

(xiv) No drilling and blasting operation shall be carried out.

(xv) Mineral handling area shall be provided with the adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.

(xvi) Periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.

(xvii) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

(xviii) Digital processing of the entire lease area using remote sensing techniques to be done regularly once in three years for monitoring the change of river course, if any and report submitted to the Ministry of Environment and Forests and its Regional Office located at Lucknow.

6/-

(xix) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna namely elephant, leopard, tiger etc. Found in the area. Action plan for conservation of flora and fauna shall be prepared in consultation with the State Forest and Wildlife Department. All the safeguard measures brought out in the Wildlife Conservation Plan so prepared specific to this project site shall be effectively implemented. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. A copy of action plan shall be submitted to the Regional Office of the Ministry of Environment and Forests, Lucknow.

(xx) The critical parameters such as RSPM (Particulate matter with size less than 10micron i.e., PM_{10}) and NO_x in the ambient air within the impact zone shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH, Fecal Coliform and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The Circular No. J-20012/1/2006-IA.II(M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance

(xxi) The project proponent shall get a siltation study carried out within one year through some Expert Agency like Central Water Commission to determine the siltation load in the river bed so that there is no over exploitation of river bed material at any point of time. The mineral to be removed shall be determined based on siltation load. A copy of siltation study so carried out shall be submitted to the Ministry of Environment and Forests and its Regional Office Lucknow.

B. General conditions

(i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.

(ii) No change in the calendar plan including excavation, quantum of mineral reta, bajri and boulder (minor mineral) and waste should be made.

(iii) Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10micron i.e., PM_{10}) and NOx monitoring. Location of the stations should be decided based on the meteorological data, topographical features ,and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.

(iv) Data on ambient air quality RSPM (Particulate matter with size less than 10micron i.e., PM_{10}) & NOx should be regularly submitted to the Ministry of Environment and Forests including its Regional office located at Lucknow and the State Pollution Control Board / Central Pollution Control Board once in six months.

P.T.O.
/26/-

(v) Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.

(vi) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

(vii) A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.

(viii) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Office located at Lucknow.

(ix) The project authorities should inform to the Regional Office located at Lucknow regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

(x) The Regional Office of this Ministry located at Lucknow shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.

(xi) The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment and Forests, its Regional Office Lucknow, the respective Zonal Office of Central Pollution Control Board the State Pollution Control Board. The proponent shall upload the status of compliance of the environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry of Environment and Forests, Lucknow, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board.

(xii) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.

(xiii) The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and the Collector's office/ Tehsildar's Office for 30 days.

..7/-

(xiv) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted to the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Lucknow by e-mail.

(xv) The project authorities should advertise at least in two local newspapers of the District or State in which the project is located and widely circulated one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forests at http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located at Lucknow.

7. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

8. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

9. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made thereunder and also any other orders passed by the Hon'ble Supreme Court of India, High Court of Uttarakhand and any other Court of Law relating to the subject matter.

(SATISH.C.GARKOTI)
Scientist 'F'

Copy to:

(i) The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.

(ii) The Secretary, Department of Mines & Geology, Government of Uttarakhand, Secretariat, Dehradun

(iii) The Secretary, Department of Environment, Government of Uttarakhand, Secretariat, Dehradun.

(iv) Chief Wildlife Warden, Government of Uttarakhand, [illegible]

(v) The Chief Conservator of Forests, Central Region, Ministry of Environment and Forests, B-1772, Sector-A, Aliganj, Lucknow-226024

(vi) The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum Office complex, East Arjun Nagar, New Delhi-1100032.

(vii) The Member Secretary, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.

(viii) The Chairman, Uttarakhand Environment Protection & Pollution Control Board, E-115, Nehru Colony, Hardwar Road, Dehradun, Uttarakhand

(ix) The Controller General, Indian Bureau of Mines, Indira Bhavan, [illegible], Nagpur-440 001.

(x) The District Collector, Nainital District, Uttarakhand.

(xi) EI Division, Ministry of Environment and Forests, Paryavaran Bhavan, C. G. O. Complex, Lodi Road, New Delhi-110 003.

(xii) Monitoring File

(xiii) Guard File.

(xiv) Record File.

(SATISH.C.GARKOTI)
Scientist 'F'

No. J-11015/359/2009-IA.II(M)
Government of India
Ministry of Environment, Forest and Climate Change
Impact Assessment Division
***

Indira ParyavaranBhavan,
Prithvi Wing, 3rd Floor, Aliganj,
JorBagh Road, New Delhi-110 003

Dated 1st March, 2021

To,
M/S UTTARAKHAND FOREST DEVELOPMENT CORPORATION
Uttarakhand Van Vikas Nigam
KhananRamnagarAamdanda
Nainital-244715.
Uttarakhand.

Sub.: Collection of Minor Mineral (Reta, Bajri and Boulder) from the River Bed of Dabka River by M/s Uttarakhand Van Vikas Nigam KhananRamnagarDabka located in Tarai West Forest Division, Ramnagar, District Nainital, Uttarakhand (223.0 ha)- Extension of validity of EC regarding.

Sir,

This is with reference to proposal no. **IA/UK/MIN/8695/2011** of M/s Uttarakhand Van Vikas Nigam KhananRamnagarDabka is for Amendment w.r.t. the extension of validity of EC coterminous with the validity of Forest Clearance i.e. 15th February, 2023. The EC was granted vide Letter No. J-11015/359/2009- IA.II(M) dated 15.04.2011 for Collection of Reta, Bajri and Boulder (Minor Mineral) from the River Bed of Dabka River by M/s Uttaranchal Forest Development Corporation, located in Tarai West Forest Division, Ramnagar, District Nainital, Uttarakhand (223.0 ha).

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category B or Activity 1(a) as the mining lease area is more than 100 ha.

3. PP has submitted that Environmental Clearance was granted vide Letter No. J11015/359/2009-IA.II(M) dated 15.04.2011 wherein at Para 6 of EC letter it has specifically mentions that, "The Ministry of Environment and Forests has examined the application in accordance with the EIA Notification, 2006 and hereby accords environmental clearancefor a period of 10 years or till the forestry clearance whichever is earlier, subject to implementation of the following conditions and environmental safeguards." PP submitted that MoEF&CC vide its letter F. No. 8- 61/1999-FC (pt-II) dated 15.02.2013 granted Forest Clearance for a period of 10 years and is valid till 15.02.2023. Since, EC is also valid for a period of 10 years i.e. till 15.04.2021, therefore, PP has requested for extension of validity

Pankaj Verma
M/s Uttaranchal Forest DevelopmentCorporation

of EC coterminous with the validity of Forest Clearance i.e. 15th February, 2023 for hassle free operations and applied for extension of validity of EC vide its Proposal No. IA/UK/MIN/8695/2011 dated 18.11.2020 and the proposal was considered in the 24th EAC meeting held during 9th -11th December, 2020.

4. Based on the discussion held and documents submitted by PP Committee recommended the proposal by M/sUttarakhand Forest Development CorporationRamnagarDabka for amendment w.r.t. the extension of validity of EC coterminous with the validity of Forest Clearance i.e. 15th February, 2023.

5. The Ministry of Environment, Forest & Climate Change has examined the proposal in accordance with the Environmental Impact Assessment Notification, 2006 and further amendments thereto; and after accepting the recommendation of EAC meeting held during 9th to 11th December,2020hereby decided to accord the amendment of Environmental Clearance under the provisions there to the above mentioned proposal for grant of extension of validity of EC coterminous with the validity of Forest Clearance i.e. 15th February, 2023. All other terms & conditions of the Environmental Clearance granted vide J-11015/359/2009- IA.II(M) dated 15.04.2011 shall remain same and Environmental Clearance is valid up to 15.02.2023.

6. The PP shall implement the conditions prescribed in Enforcement & Monitoring Guidelines for Sand Mining 2020, as applicable for PP. Implementation report with supporting documents & photographs before and after shall be submitted to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

7. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

8. Concealing factual data or submission of false/fabricated date and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection)Act, 1986.

9. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of law relating to the subject matter.

10. Any appeal against this environmental clearance shall lie with the national Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.

11. PP shall also obtain the NOC from the statutory bodies as required to be obtained.

12. These issues with the approval of the Competent Authority.

Yours faithfully,

(Pankaj Verma)
Scientist 'E'
Email- pankaj.verma@nic.in
Tel./Fax- 011-24695264

Copy to:

1). The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2). The Secretary, Department of Mines & Geology, Government of Uttarakhand, Secretariat, Dehradun.
3). The Secretary, Department of Environment, Government of Uttarakhand, Secretariat, Dehradun.
4). Chief Wildlife Warden, Government of Uttarakhand, Secretariat, Dehradun.
5). The Chief Conservator of Forests, Central Region, Ministry of Environment and Forests, B-1/72, SectorA, Aliganj, Lucknow-226020
6). The Member Secretary, Central Pollution Control Board, PariveshBhavan, CBD-cum-Office complex, East Arjun Nagar, New Delhi-1100032.
7). The Member Secretary, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
8). The Member Secretary, Uttarakhand Environment Protection & Pollution Control Board, E-115, Nehru Colony, Hardwar Road, Dehradun, Uttarakhand.
9). The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
10). The District Collector, Nainital District, Uttarakhand.
11). Guard File.
12). PARIVESH PORTAL.

(Pankaj Verma)
Scientist 'E'

To

The Principal Secretary (Forests)
Forest and Revenue Department
Government of Uttarakhand,
Dehradun

Sub: Proposal to obtain prior approval of the Central Government under the Forest (Conservation) Act, 1980, for collection of stone, boulders and other minor minerals from 223.08 hectares of forest land located in river bed of Dabka river in Nainital district of Uttarakhand by the Uttarakhand Forest Development Corporation Ltd.

Sir,

I am directed to refer to the Addl. Principal Chief Conservator of Forests & the Nodal Officer, Forest (Conservation) Act, 1980, Government of Uttarakhand's letter No. 1683/ IG-2756 (Nainital) dated 22.08.2013 and No. 873/ IG – 2756 (Naini), dated 09.05.2012 on the above-mentioned subject seeking prior approval of the Central Government under Section-2 of the Forest (Conservation) Act, 1980 and to say that the said proposal has been examined by the Forest Advisory Committee constituted by the Central Government under Section-3 of the aforesaid Act. After careful consideration of the proposal by the Forest Advisory Committee constituted by the Central Government under Section-3 of the said Act, in-principle approval for the said diversion was granted vide this Ministry's letter of even number dated 24.01.2013 subject to the fulfilment of certain conditions. The State Government has furnished compliance report in respect of conditions stipulated in the in-principle approval and has requested the Central Government to grant final approval.

2. In this connection, I am directed to say that on the basis of the compliance report furnished by the Addl. Principal Chief Conservator of Forests & the Nodal Officer, Forest (Conservation) Act, 1980, Government of Uttarakhand vide letters No. 1683/ IG-2756 (Nainital) dated 15.01.2013, No. 1721/ IG-2756 (Naini) dated 24.01.2013, No. 1741/ IG-2756 (Naini) dated 25.01.2013 and No. 1826/ IG – 2756 (Naini) dated 07.02.2013, approval of the Central Government is hereby granted under Section-2 of the Forest (Conservation) Act, 1980 for collection of stone, boulders and other minor minerals from 223.08 hectares of forest land located in river bed of Dabka river in Nainital district of Uttarakhand by the Uttarakhand Forest Development Corporation Ltd. for a period of ten years by the Uttarakhand Forest Development Corporation, subject to fulfilment of the following conditions:

[illegible]

[illegible] side of the Ramnagar-Haldwani [illegible]

(xiv) The collection of minor minerals after 31st day of January in a year shall be allowed only after receipt of certificate from the Monitoring Committee under the Chairmanship of the Principal Chief Conservator of Forests, Uttarakhand constituted vide Government of Uttarakhand's letter No. 14-1/X-3-13-08(14)/2006-FC dated 29.01.2013 to the effect that the conditions stipulated in the approval accorded under the Forest (Conservation) Act, 1980 and the instructions issued by the Monitoring Committee have satisfactorily been complied in collection of the minor minerals during the previous calendar year.

(xv) To restore the functionality and utility of the migratory corridor linking Corbett Tiger Reserve with the Pawalgarh Conservation Reserve, the State Government may explore feasibility to relocate the settlements from the Sundarkhal village by using State CAMPA funds.

(xvi) The State Government shall through the Central Soil and Water Conservation Research & Training Institute (CSWCRTI), Dehradun assess the quantity of the minor minerals that may sustainably be collected from the said portion of the Dabka river and intimate the same to the Ministry of Environment & Forests.

(xvii) The quantity of minor mineral collected during a working season shall not be more than the sustainable quantity as assessed by the CSWCRTI, Dehradun.

(xviii) To ensure extraction of minerals in a sustainable manner the user agency shall formulate a transparent and unbiased procedure to engage labourers for extraction of the minor minerals from the forest land proposed for diversion.

(xix) Fifty percent of the net profit earned by the user agency from the collection of minor minerals shall be deposited to a Special Purpose Vehicle (SPV) to be constituted by the State Government under the Chairmanship of the Chief Wildlife Warden, Government of Uttarakhand. The amount to be deposited in the SPV shall be used exclusively for river training activities and management & protection of forest & wildlife in vicinity of forest land diverted for collection of minor minerals.

(xx) Extraction of minor minerals shall be restricted to middle half of the of the width of river bed after leaving intact the one fourth of width of the river bed along its each bank.

(xxi) To ensure maintenance of river geometry, collection of minor minerals during a working season shall start from centre of the river width and shall gradually extend to the

[illegible] उद्योग निदेशालय ... देहरादून

[illegible] of the permissible area. The maximum permissible depth [illegible] of the [illegible] width of the river width [illegible] of the [illegible]

[illegible]

[illegible] shall be [illegible] subsequent year.

(xxvi) Minor minerals shall be collected by manually by using hand tools. Use of explosives and heavy machineries for breaking/ collection of minor minerals shall be strictly prohibited.

(xxvii) Collection time shall be from sun-rise to sun-set.

(xxviii) No labour camp shall be set up in the forest area for the labourers engaged in collection of the minor minerals.

(xxix) Breaking of boulders shall be undertaken outside the forest boundaries.

(xxx) The labourers engaged in collection work will be provided free fuelwood / alternate source of energy to avoid any pressure on adjoining forest land;

(xxxi) The boundary of the forest land being diverted shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, DGPS coordinates, forward and back bearing, and distance from adjoining pillars etc.

(xxxii) The forest land shall not be used for any purpose other than that specified in the proposal.

(xxxiii) The user agency shall submit annual self monitoring report containing status of compliance to conditions stipulated in the approval to the State Government and concerned Regional Office of this Ministry;

(xxxiv) Any other condition that the Central Regional Office of This Ministry, Lucknow and the State Government of Uttarakhand may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife; and

(xxxv) The User Agency and the State Government shall ensure compliance to provisions of the all Acts, Rules, Regulations and Guidelines, for the time being in force, as applicable to the project.

Yours faithfully

(H.C. Chaudhary)
Assistant Inspector General of Forests

Copy to

1. The Principal Chief Conservator of Forests, Government of Uttarakhand, Dehradun.

Annexure-7

Dabka

कार्यालय, प्रभागीय वनाधिकारी,
तराई पश्चिमी वन प्रभाग, रामनगर (नैनीताल)

Tel./Fax No- 05947-251475, e-mail: dfotw@rediffmail.com

पत्रांक/341/9-1(3) दिनांक, रामनगर 29/10/2020

दाबका नदी उपखनिज चुगान कार्यादेश
चुगान सत्र (2020-21)

भारत सरकार, पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय ,नई दिल्ली के पत्रांक F. No. 8-61/1999-FC (pt-11) दिनांक 15-02-2013 तथा उत्तराखण्ड शासन औद्योगिक विकास अनुभाग देहरादून के शासनादेश संख्या 349/VII-1/22 ख-/2013 दिनांक 19-02-2013 से दाबका नदी में उपखनिज चुगान की अनुमति प्राप्त है। जिलाधिकारी नैनीताल ने पत्रांक 1619/30-जी0सी0/2020 दिनांक 16-10-2020 से जनपद नैनीताल की दाबका नदी में उपखनिज चुगान की अनुमति प्रदान की है। उक्त के आलोक में वन संरक्षण अधिनियम 1980 की धारा-2 के अन्तर्गत दाबका नदी आरक्षित वन क्षेत्र से उप खनिज चुगान की अनुमति निम्न वर्णित शर्तों के अधीन कार्यदायी संस्था उत्तराखण्ड वन विकास निगम को प्रदान की जाती है। निम्नलिखित शर्तों का अनुपालन उत्तराखण्ड वन विकास निगम को दी जाती है:-

1- कार्यादेश की निर्धारित अवधि दिनांक 31.05.2021 तक अथवा भारत सरकार पर्यावरण वन मंत्रालय द्वारा निर्धारित मात्रा जो भी सर्वप्रथम पूर्ण होगा, रहेगी।

2- उत्तराखण्ड वन विकास निगम दाबका नदी के उप खनिज विदोहन क्षेत्र की सीमा पंजिकाओं में हस्ताक्षर करने के उपरान्त ही कार्य प्रारम्भ कर सकेगा।

3- उप खनिज विदोहन कार्य करने से पूर्व प्रत्येक प्रवेश एवं निकासी गेट पर आवश्यक जाँच चौकी/कॉटे स्थापित करने होगें एवं उप खनिज चुगान उपरान्त एकत्रित तथा निकासी किये गये उप खनिज का आवश्यक अभिलेख रखना होगा।

4- आरक्षित वन क्षेत्र की वैधानिक स्थिति में कोई परिवर्तन नहीं होगा।

5- उपखनिज का विदोहन सीमा पिलर द्वारा सीमांकित क्षेत्र में ही किया जायेगा, सीमांकित क्षेत्र से बाहर चुगान होने पर कार्यदायी संस्था उत्तराखण्ड, वन विकास निगम, उत्तरदायी होगी।

6- उपखनिज चुगान कार्य सूर्योदय एवं सूर्यास्त के मध्य ही किया जायेगा।

7- उप खनिज चुगान कार्य में लगाये गये श्रमिकों द्वारा आरक्षित वन क्षेत्र में कैम्प नहीं किया जायेगा। अगर श्रमिकों द्वारा आरक्षित वन क्षेत्र में अस्थाई कैम्प किया जाता है तथा उसके चलते कोई दुर्घटना होती है उसकी सम्पूर्ण जिम्मेदारी कार्यदायी संस्था उत्तराखण्ड वन विकास निगम की होगी।

8- उप खनिज चुगान कार्य में केवल हाथ से प्रयुक्त उपकरणों का प्रयोग किया जायेगा एवं इस कार्य हेतु किसी भी स्थिति में विस्फोटक पदार्थ तथा स्वचालित मशीनों यथा जे0सी0बी0/पोकलैण्ड का उपयोग प्रतिबन्धित होगा।

9- बोल्डर तोड़ने का कार्य आरक्षित वन की सीमा से बाहर करना होगा।

10- आरक्षित वन क्षेत्र के अन्तर्गत उपखनिज चुगान क्षेत्र का उपयोग कार्यदायी संस्था द्वारा किसी अन्य प्रयोजन हेतु नहीं किया जायेगा।

11- उपखनिज चुगान कार्य से पूर्व नदी में प्रवेश करने वाले वाहनों की सूची तथा वाहन स्वामियों के पते का विवरण अधोहस्ताक्षरी को उपलब्ध कराना होगा।

12- उत्तराखण्ड, वन विकास निगम द्वारा प्रत्येक धर्मकॉटे पर एवं निकासी चौकी के भीतर दो-दो सी0सी0टी0वी0 कैमरे स्थापित किये जाने होंगे।

13- निकासी गेटों पर 50 मीटर परिधि में उप खनिज निकासी करने वाले वाहन चालकों के अतिरिक्त बाहरी व्यक्तियों की उपस्थिति तथा वाहनों की उपस्थिति वर्जित होगी।

Dabka

14– वन विभाग द्वारा स्थापित उपकरणों की सुरक्षा का दायित्व कार्यदायी संस्था उत्तराखण्ड वन विकास निगम को होगा।

15– नदी एवं उसके सनीपवर्ती आरक्षित वनों का वन विभाग एवं वन निगम द्वारा प्रत्येक माह में 1 व 16 तारीख को संयुक्त निरीक्षण कर अवैध खनन के सम्बन्ध में रिपोर्ट तैयार की जायेगी। उत्तराखण्ड वन विकास निगम के संयुक्त निरीक्षण में उपस्थित न होने की स्थिति में एक तरफा पी०डी० जारी कर दी जायेगी।

16– प्रतिबन्धित क्षेत्र से उप खनिज विदोहन कार्य किसी भी स्थिति में नहीं किया जायेगा। उप खनिज विदोहन हेतु प्रतिबन्धित क्षेत्र निम्न प्रकार होगें–

1– नदी के दोनों किनारों से नदी की चौड़ाई का (1/4) चौथाई भाग।
2– टापुओं के चारों ओर 30 मीटर क्षेत्र।
3– मोटर मार्गो/रास्तों के दोनों ओर 50 मीटर तक का क्षेत्र ।
4– पुलों के दोनों ओर एक–एक कि०मी० तक का चिन्हित क्षेत्र।
5– नदी में गिरने वाले नाले का क्षेत्र।
6– प्राकृतिक पुनरोत्पादन वाले क्षेत्र।
7– दाबका पुल से उत्तर की ओर मनकंठपुर तक एवं पुल से एक कि०मी० दक्षिणी का क्षेत्र।

17– शासन एवं वन विभाग द्वारा निर्धारित क्षतिपूरक वनीकरण, रियर ट्रेनिंग, सीमाकंन, जलौनी तथा कार्पस फण्ड हेतु समस्त देयक वन विकास निगम द्वारा क्रेता से वसूल कर वन विभाग के पक्ष में जमा किया जायेगा तथा प्रत्येक माह इसका लेखा–जोखा अधोहस्ताक्षरी को प्रस्तुत किया जायेगा।

18– भारत सरकार पर्यावरण एवं वन मंत्रालय द्वारा इन्चायरमेन्ट क्लियरेन्स में जो भी शर्त लगायी गयी है उसका पालन कार्यदायी संस्था उत्तराखण्ड वन विकास निगम को करना होगा। यदि इन्चायरमेन्ट क्लियरेन्स 31–05–2021 से पूर्व समाप्त हो जायेगा तो ऐसी स्थिति में चुगान/निकासी कार्य उक्त तिथि (जिस तिथि में इन्चायरमेन्ट क्लियरेन्स समाप्त हो जायेगा) तक ही की जाने की अनुमति प्रदान की जा रही है।

19– उप खनिज का चुगान नदी के मध्य भाग से शुरू करते हुए दोनों किनारों की ओर सीमांकित क्षेत्र में किया जायेगा एवं चुगान कार्य नदी के मध्य में 3.00 मी० से अधिक गहराई में नहीं किया जायेगा। अगर नदी के मध्य या किसी अन्य स्थान पर मानकों से अधिक गहराई में चुगान किया जाता है तो ऐसी स्थिति में कार्यदायी संस्था उत्तराखण्ड वन विकास निगम उत्तरदायी होगी।

20– उप खनिज विदोहन का समस्त लेखा–जोखा वन विकास निगम द्वारा संकलित कर रख–रखाव किया जायेगा, आवश्यकतानुसार वन विभाग को अभिलेख उपलब्ध कराया जायेगा।

21– उप खनिज चुगान से सम्बन्धित मा० उच्च न्यायालय द्वारा जारी विभिन्न आदेश, प्रमुख सचिव औद्योगिक विकास विभाग द्वारा जारी आदेश, वन विभाग, भारत सरकार पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय तथा भारत सरकार पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय के क्षेत्रीय कार्यालयों द्वारा समय समय पर जारी समस्त आदेश एवं निर्देशों का कड़ाई से पालन किया जायेगा।

22– यदि खनन सत्र में, उपरोक्त क्षेत्र जिसमें भारत सरकार द्वारा उपखनिज चुगान की अनुमति प्रदान की गयी है उसमें अवैध चुगान होता है यथा प्रतिबन्धित क्षेत्र में चुगान होता है अथवा मानको से अधिक गहराई में चुगान होता है या नियमानुसार चुगान नहीं होता है तो ऐसी स्थिति में प्रभाग द्वारा वन विकास निगम के विरूद्ध अवैध चुगान के सापेक्ष नियमानुसार पी०डी० जारी की जायेगी। यदि देय पी०डी० के सम्बन्ध में कोई विवाद उत्पन्न होता है तो ऐसी स्थिति में वन संरक्षक, पश्चिमी वृत्त उसके अपीलीय अधिकारी होंगे तथा उनके द्वारा लिया गया निर्णय दोनो पक्षों को सर्वथा मान्य होगा तथा बाध्यकारी होगा।

23– जिला खनन समिति द्वारा दिये गये समस्त निर्देशों का अनुपालन सुनिश्चित किया जाये।

24– कार्यदायी संस्था उत्तराखण्ड वन विकास निगम प्रत्येक दिन सायंकाल ई–मेल के माध्यम से यह सूचना इस कार्यालय को प्रेषित करेगा कि उक्त दिवस में कितनी मात्रा में उपखनिज का चुगान किया गया है तथा कितने वाहनों ने नदी में प्रवेश किया है।

Dabka

25– नदी में चुगान हेतु जाने वाले वाहनों पर आर0एफ0आई0डी0 चिप लगी होनी चाहिए तथा उत्तराखण्ड वन विकास निगम द्वारा प्रत्येक 15 दिन में आर0एफ0आई0डी0 के डाटा के अनुसार नदी में प्रवेश किये हुऐ वाहनों तथा वाहनों की ई–एवन्ना के माध्यम से हुई निकासी की सूची से मिलान किया जायेगा तथा उक्त सूची को इस कार्यालय को प्रेषत किया जायेगा एवं उसमें अगर कोई विसंगति हो तो उसे अधोहस्ताक्षरी के संज्ञान में लाया जायेगा।

26– यदि कार्यदायी संस्था उत्तराखण्ड वन विकास निगम द्वारा गौला कार्पस, क्षतिपूरक वनिकरण तथा रिवर ट्रेनिंग, सुरक्षा एवं सीमांकन मदो में एकत्रित की गयी धनराशि को वन विभाग को जमा किये जाने में विलम्ब किया जाता है तथा जिसके चलते उक्त धनराशि को कैम्पा मद में तथा गौला कार्पस मद में अथवा वन जना में जमा करने में विलम्ब होता है तो ऐसी स्थिति में कार्यदायी संस्था से नियमानुसार ब्याज की वसूली भी की जा सकती है।

27– उत्तराखण्ड वन विकास निगम द्वारा चुगान निकासी गेट पर लगे कैमरों को ऑनलाईन करना होगा।

28– उत्तराखण्ड वन विकास निगम द्वारा चुगान निकासी गेट पर लगे वन विभाग कम्प्यूटर को निःशुल्क इन्टरनेट की सुविधा उपलब्ध करायी जायेगी।

29– कोविड–19 के दृष्टिगत उपखनिज चुगान कार्य को कोविड–19 की सभी गाईड लाईन्स के अनुरूप तथा सोशल डिस्टेन्सिंग एवं मास्क को अनिवार्य करते हुए चुगान कार्य सम्पन्न कराने की जिम्मेदारी कार्यदायी संस्था, उत्तराखण्ड वन विकास निगम की होगी।

30– अधोहस्ताक्षरी को यह अधिकार होगा कि वह समय–समय पर चुगान सत्र के दौरान कुछ अन्य आवश्यक निर्देश भी कार्यदायी संस्था को जारी कर सकते है, जिन्हें इस कार्यादेश का भाग माना जायेगा।

उत्तराखण्ड वन विकास निगम द्वारा उपखनिज से सम्बन्धित विभिन्न नियम/अधिनियम एवं दिशा–निर्देशों का कड़ाई से पालन सुनिश्चित किया जाय।

(हिमांशु बागरी)
प्रभागीय वनाधिकारी
तराई पश्चिमी वन प्रभाग, रामनगर

पत्रांक 1341 / दिनांकित
प्रतिलिपि निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित:–

1. वन संरक्षक, पश्चिमी वृत्त, उत्तराखण्ड, हल्द्वानी।
2. जिलाधिकारी, नैनीताल।
3. क्षेत्रीय प्रबन्धक (पश्चिमी क्षेत्र) उत्तराखण्ड वन विकास निगम, रामनगर।
4. प्रभागीय प्रबन्धक, खनन, उत्तराखण्ड वन विकास निगम, रामनगर।
5. उप निदेशक, भूतत्व एवं खनिकर्म इकाई, हल्द्वानी।
6. उप प्रभागीय वनाधिकारी रामनगर ।
7. वन क्षेत्राधिकारी, बैलपडाव।

भूतत्व एवं खनिकर्म इकाई उद्योग निदेशालय उत्तराखण्ड सरकार देहरादून

(हिमांशु बागरी)
प्रभागीय वनाधिकारी
तराई पश्चिमी वन प्रभाग, रामनगर

पत्रांक 1079 02-11-2020

श्री तिवारी

कार्यालय
प्रभागीय प्रबन्धक खनन
उत्तराखण्ड वन विकास निगम,
रामनगर

पत्र संख्या 1612 /खनन-2020-21/दिनांक. 07-11-2020

प्रतिलिपि:- अनुभाग अधिकारी - दाबका को उपरोक्तानुसार सूचनार्थ व इस अनुरोध से कि कार्यादेश में वर्णित शर्तों का अनुपालन सुनिश्चित करायें, अवैध खनन पाये जाने पर जिम्मेदारी निश्चित की जायेगी।

प्रभागीय प्रबन्धक खनन
उत्तराखण्ड वन विकास निगम,
रामनगर

Annexure- 8

कार्यालय क्षेत्रीय प्रबन्धक (प0क्षे0) उत्तराखण्ड वन विकास निगम रामनगर।

AUTHORISATION LETTER

Date: 11/11/2020

M/s Uttarakhand Forest Development Corporation (UKFDC), Aamdanda Ramnagar, Distt. Nainital (Uttarakhand) has execute work order no. 3493/Mining Plan/Kosi & Dabka River dated 10/11/2020 with M/s KainGeotech, 3/1 Ekta Enclave, Near Hotel Sun Park Inn, GMS Road, Dehardun to preparation of mining plan in respect of Dabka River, over an area of 223 ha as per work order for minor mineral, falls under forest land at Dabka River, Tehsil-Ramnagar, Distt. – Nainital (Uttarakhand). UKFDC authorizes M/s KainGeotech representative Shri Harish Kainthola, RQP registration No. भू0सा0/05/खनन/RQP/2015-16 & Kailash Chandra RQP registration No.RQP/UKGMU/NO012/Year 2019 to prepare the mining plan of Dabka River.

UKFDC request the Director, Geology and Mining Unit, Directorate of Industry, Govt. of Uttarakhand, Dehradun to make further correspondence regarding modification and collection of the aforesaid Mining Plan with the said recognized person on his following address:

Correspondence address:
3/1 Ekta Enclave,
(Way to Seemadwar –ITBP)
Opp. Hotel Sun Park Inn,
GMS Road, Dehradun
Telephone: 08755182584,
E- mail: ksati84@gmail.com

(B.D HARBOLA)
Regional Manager (Western) Ramnagar
Uttarakhand Forest Development Corporation
(UKFDC),
Aamdanda Ramnagar, Distt. Nainital
(Uttarakhand)

Annexure - 9

KAINGEOTECH

(Engineering Geological - Geotechnical Solutions & Consultancy in Underground & Surface Excavation, Dams, Slope Stability, Remote Sensing-GIS, Site Identification, Feasibility Investigation, DPR, Mining Plan, Environment Clearance, Rock & Soil Testing, Hydrology Surveying)

Ref: KG (MP)UKFDC-L/0228-D.Dun20-21Dabka River **Date:** 12/11/2020

ACCEPTANCE

On the basis of MoU dated 10/12/2020 by M/s Uttarakhand Forest Development Corporation (UKFDC), Aamdanda Ramnagar, Distt. Nainital (Uttarakhand) has authorized me to prepare Mining Plan of minor mineral (Sand, *Bajri* and Boulder) in Dabka River, over an area of 112 ha., falls under forest land in Tehsil- Ramnagar, Distt. – Nainital (Uttarakhand).

The provisions of Uttarakhand Minor Mineral Concession Rules, 2001 and Uttarakhand minor mineral policy 2015 have been observed in the Mining Plan for Dabka River, Sand, B*ajri* and Boulder Mine, over an area of 112 ha. and wherever specific permission are required the applicant will approach the concerned authorities of Director, Geology and Mining Department, Dehradun.

Place: Dehradun

(Harish Kainthola)
Geologist, RQP (GMU-UK)
RQP/DDN/141/2002-A

Legend

- Lease Boundary
- Aproch Road

Road Coordinates

Pillar	Latitude	Longitude
ARP1	N 29°20'48.2[illegible]	E 79°08'[illegible]9.97"
ARP2	N 29°20'[illegible]48"	E 79°08'[illegible]8"

DGPS Coordinates

Pillar	Latitude	longitude
W1	N 29°20'18.70"	E 79°08'50.80"
W10	N 29°19'57.40"	E 79°08'43.20"
W20	N 29°19'21.30"	E 79°08'40.60"
W30	N 29°18'57.20"	E 79°08'22.40"
W45	N 29°18'12.10"	E 79°08'3.50"
W58	N 29°17'31.90"	E 79°07'57.10"
E1	N 29°20'16.80"	E 79°08'55.10"
E10	N 29°19'50.38"	E 79°08'45.79"
E20	N 29°19'17.40"	E 79°08'44.39"
E30	N 29°18'49.47"	E 79°08'19.88"
E45	N 29°18'03.30"	E 79°08'03.40"
E58	N 29°17'23.19"	E 79°08'06.66"

Scale

0 0.35 0.7 1.4 2.1 2.8

Kilometers

Georeferenced Map of the Lease Area

In Dabka River,Area-112 ha. out of 223 ha.
Tarai Western Forest Division,
Tehsil-Ramnagar, Distt.- Nainital

M/s Uttarakhand Forest Development Corporation (UKFDC)

Prepared BY- HIMGEO
Consultancy Services

Annexure – II

कोषागार प्रपत्र सं0–209(A) (संशोधित)

वित्तीय नियम संग्रह खण्ड–5 भाग–2

प्रपत्र संख्या–43 ए (1)

(प्रस्तर 417 एवं 478 देखिए)

धनराशि जमा करने का चालान फार्म

उपकोषागार (नॉन बैंकिंग) बैंक का नाम व शाखा – भारतीय स्टेट बैंक ,रामनगर (नैनीताल)।

1. जिस व्यक्ति (पदनाम यदि आवश्यक हो) या संस्था के नाम से धनराशि जमा की जा रही है उसका नाम– प्रभागीय प्रबन्धक (खनन) उत्तराखण्ड वन विकास निगम,खनन प्रभाग–रामनगर।

2. पता– उत्तराखण्ड वन विकास निगम,खनन प्रभाग– रामनगर (नैनीताल) उत्तराखण्ड।

3. पंजीकरण संख्या/पक्ष का नाम याद संख्या (यदि आवश्यक हो)

4. जमा की जा रही धनराशि का पूर्ण विवरण (धनराशि किस हेतु जमा की जा रही है। तथा किस विभाग के पक्ष में जमा की जा रही है) तराई पश्चिमी वन प्रभाग–रामनगर (नैनीताल) के आरक्षित वन क्षेत्र जनपद नैनीताल की दाबका नदी में उत्तराखण्ड वन विकास निगम द्वारा प्रस्तावित खनन कार्य के लिये खनन योजना आवेदन शुल्क का भुगतान।

5. चालान की सकल (Gross)राशि – रु 50,000/–

6– चालान की निवल (Net) राशि – रु 50,000/–

0853-अन्वेषण खनन एवं धातु कर्मचयोग उत्तराचल।

102-अन्य रियायती शुल्क किराया और स्वत्व शुल्क उत्तराचल

7. लेखा शीर्षक का पूर्ण विवरण/लेखा शीर्षक की मुहर 01-अन्य रियायती शुल्क किराया और स्वत्व शुल्क उत्तराचल

8. लेखा शीर्षक का 13 डिजिट कोड

मुख्य लेखा शीर्षक	उप मुख्य–शीर्षक	लघु शीर्षक	उप–शीर्षक	ब्यौरेवार– शीर्षक	धनराशि (अंकों में)
0853	00	102	01	00	50000.00

96

26 FEB 2021

50000.00

धन राशि (शब्दों में) – पचास हजार मात्र।

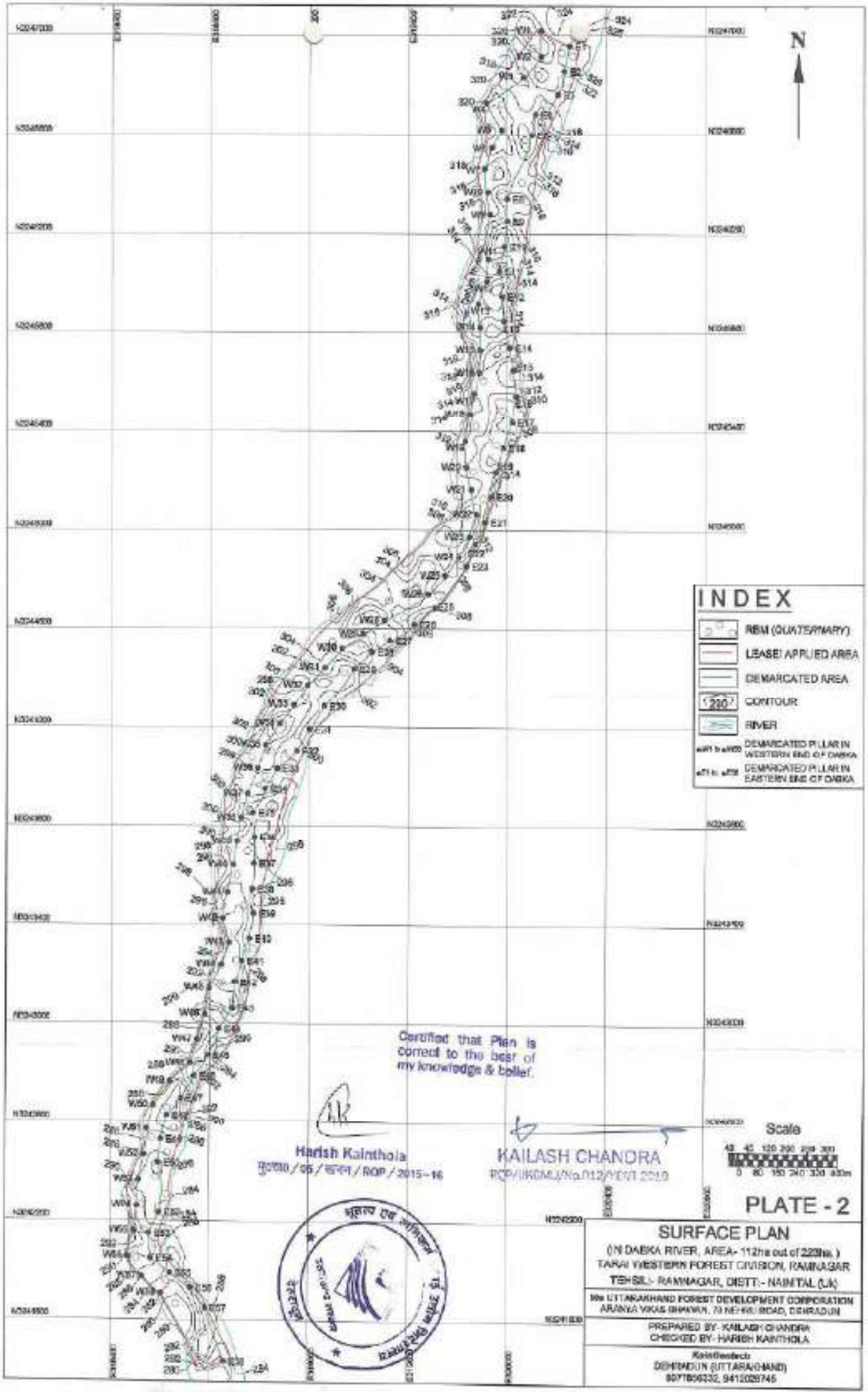
चालान में लेखा शीर्षक की पुष्टि करने वाले विभागीय अधिकारी के हस्ताक्षर मुहर सहित

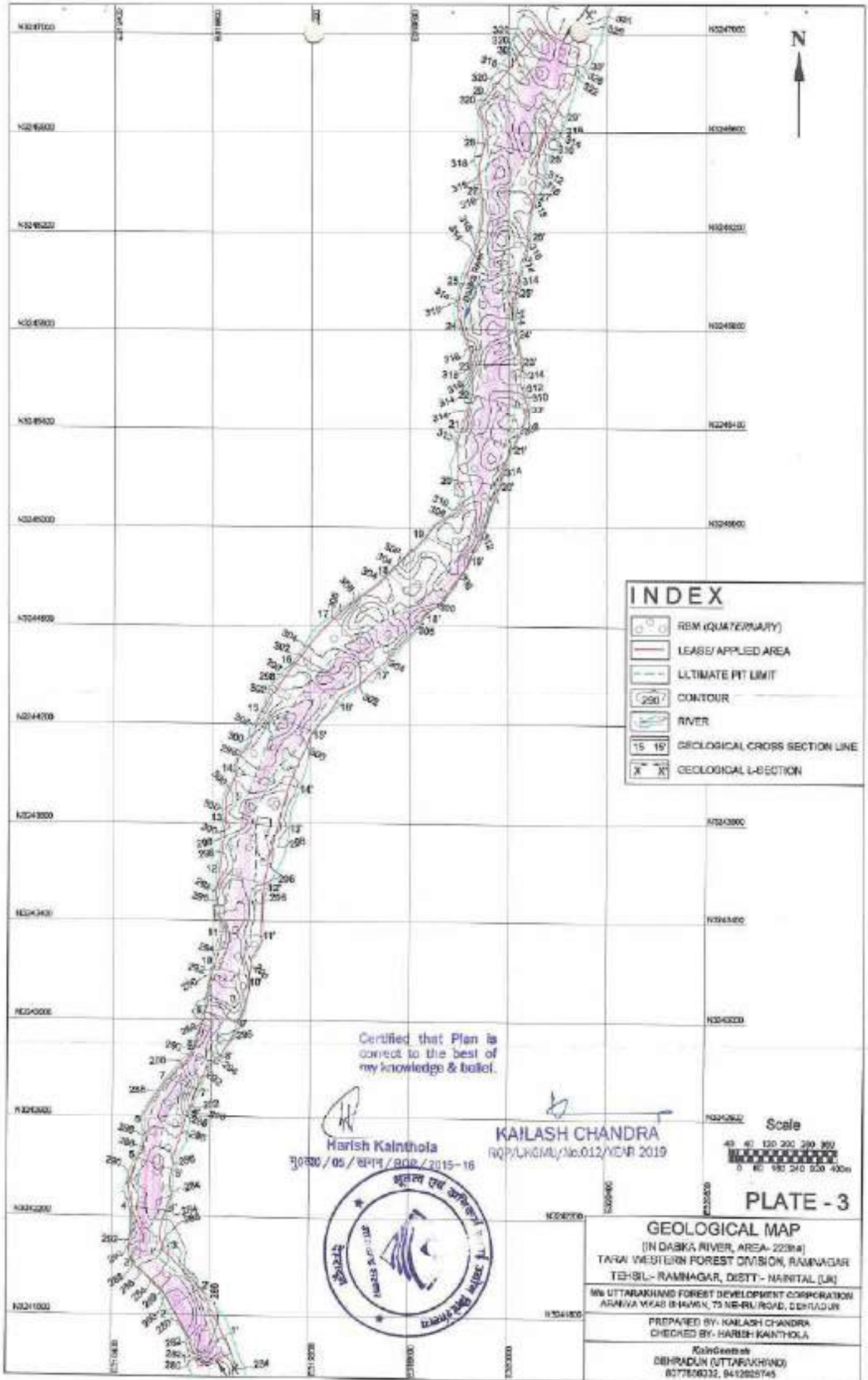
26 FEB 2021

Divisional Manager
U. K. F. D. Corp.

Harish Kainthola
मु0स्था0 / 05 / खनन / RQP / 2015–16

KAILASH CHANDRA
RQP/UKGMU/No.012/YEAR 2019


N
INDEX
RBM (QUATERNARY)
LEASE/ APPLIED AREA
DEMARCATED AREA
CONTOUR
RIVER
DEMARCATED PILLAR IN WESTERN BNK OF DABKA
DEMARCATED PILLAR IN EASTERN BNK OF DABKA
Certified that Plan is correct to the best of my knowledge & belief.
Harish Kainthola
कैलाश चन्द्र / KAILASH CHANDRA
Scale
PLATE - 2
SURFACE PLAN
(IN DABKA RIVER, AREA- 112ha out of 223ha.)
TARAI WESTERN FOREST DIVISION, RAMNAGAR
TEHSIL:- RAMNAGAR, DISTT:- NAINITAL (UK)
We UTTARAKHAND FOREST DEVELOPMENT CORPORATION
ARANYA VIKAS BHAWAN, 73 NEHRU ROAD, DEHRADUN
PREPARED BY- KAILASH CHANDRA
CHECKED BY- HARISH KAINTHOLA
DEHRADUN (UTTARAKHAND)
9897856332, 9412026745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INDEX
RBM (QUATERNARY)
LEASE/ APPLIED AREA
ULTIMATE PIT LIMIT
CONTOUR
RIVER
GEOLOGICAL CROSS SECTION LINE
GEOLOGICAL L-SECTION
Certified that Plan is correct to the best of my knowledge & belief.
Harish Kainthola
KAILASH CHANDRA
RQP/UKGML/No.012/YEAR 2019
Scale
PLATE - 3
GEOLOGICAL MAP
[IN DABKA RIVER, AREA- 223ha]
TARAI WESTERN FOREST DIVISION, RAMNAGAR
TEHSIL- RAMNAGAR, DISTT.- NAINITAL [UK]
M/s UTTARAKHAND FOREST DEVELOPMENT CORPORATION
ARANYA VIKAS BHAWAN, 73 NEHRU ROAD, DEHRADUN
PREPARED BY- KAILASH CHANDRA
CHECKED BY- HARISH KAINTHOLA
KaiGeotech
DEHRADUN (UTTARAKHAND)
8077808032, 9412825745

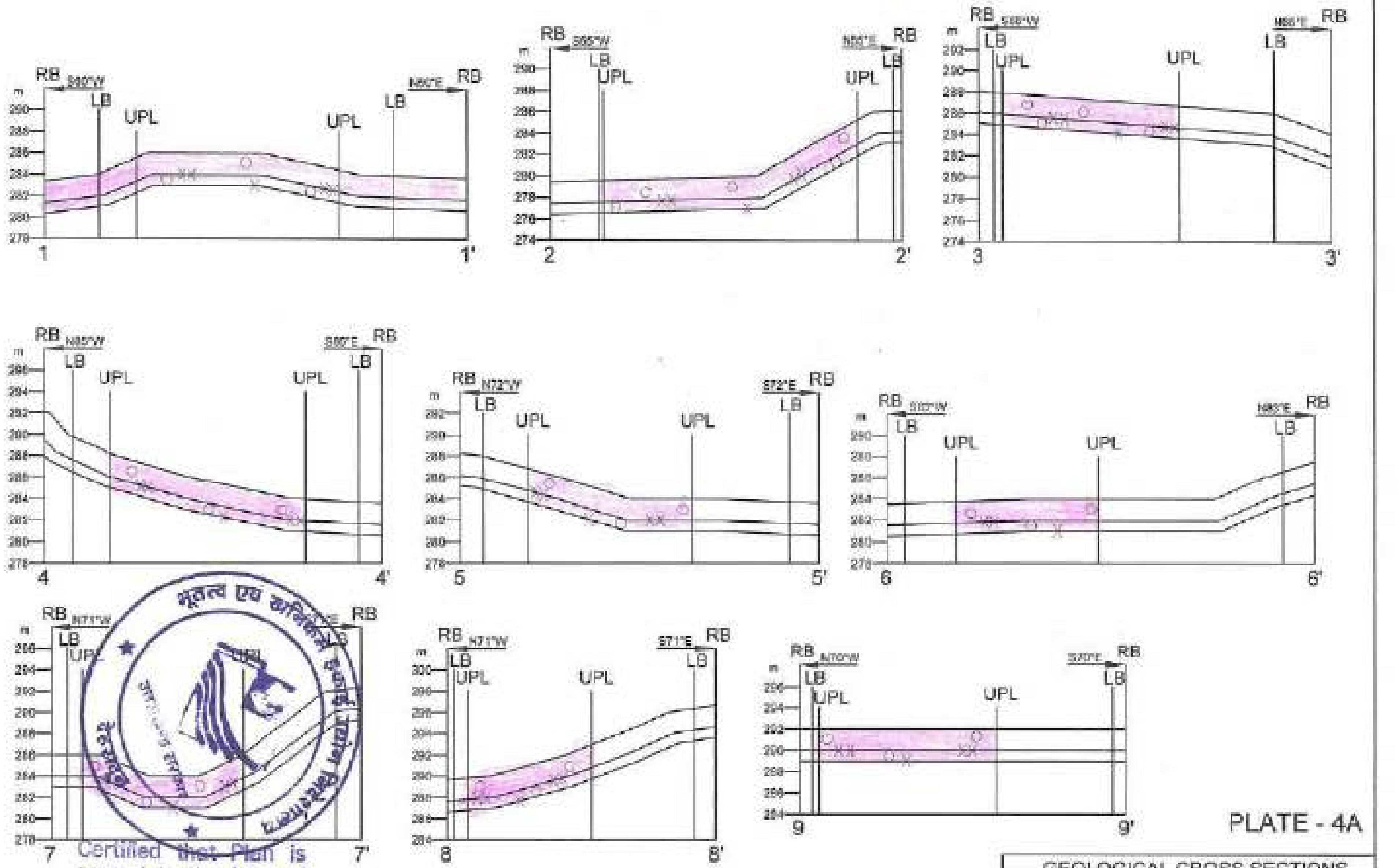


PLATE - 4A

GEOLOGICAL CROSS SECTIONS

(IN DABKA RIVER, AREA- 112ha out of 223ha.)
TARAI WESTERN FOREST DIVISION, RAMNAGAR
TEHSIL- RAMNAGAR, DISTT.- NAINITAL (UK)

M/s UTTARAKHAND FOREST DEVELOPMENT CORPORATION
ARANYA VIKAS BHAWAN, 73 NEHRU ROAD, DEHRADUN

PREPARED BY- KAILASH CHANDRA
CHECKED BY- HARISH KAINTHOLA

Kainthola
DEHRADUN (UTTARAKHAND)

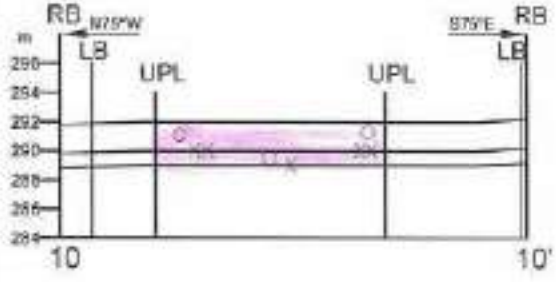
INDEX

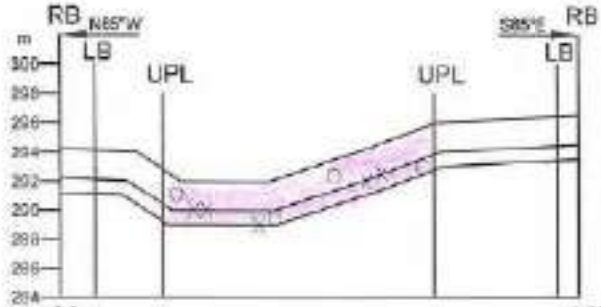
RBM (SAND, BAJRI, BOULDER) QUATERNARY	UPL — ULTIMATE PIT LIMITE
LB — LEASE BOUNDARY	XX — MEASURED MINERAL CONTACT
RB — RIVER BANK	X — INDICATED MINERAL CONTACT

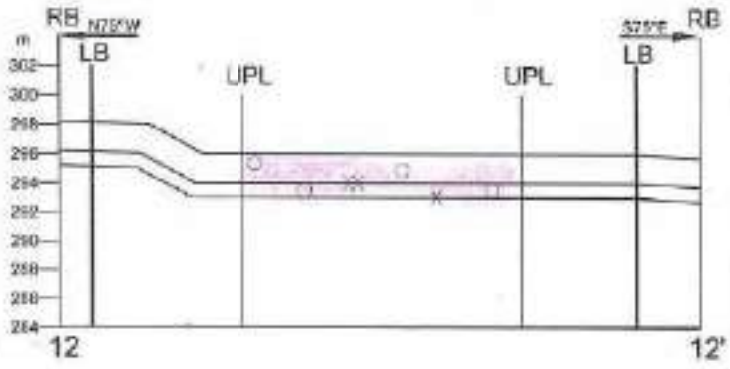
Certified that Plan is correct to the best of my knowledge & belief.

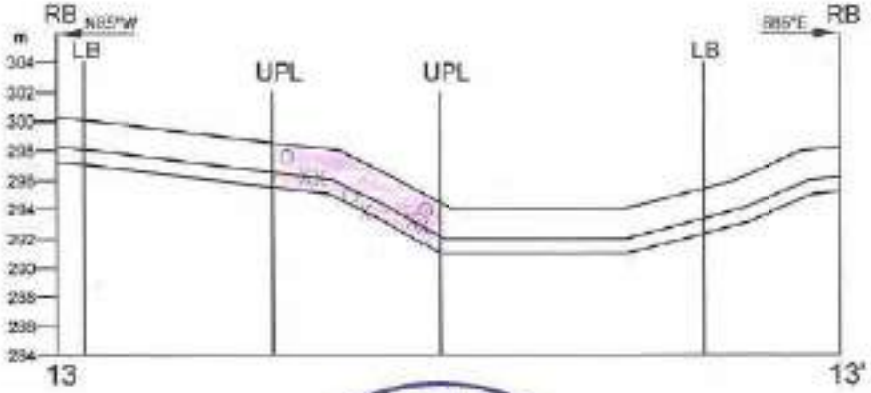
Harish Kainthola
भूतत्व एवं खनिकर्म इकाई उद्योग निदेशालय देहरादून
मुख्य0/05/खनन/RQP/2015-16

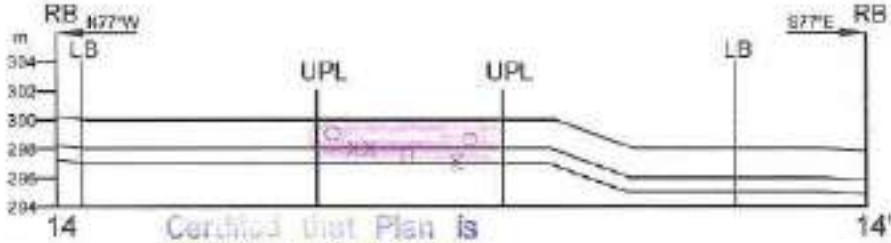
KAILASH CHANDRA
RQP/UKGMU/No.012/YEAR 2019

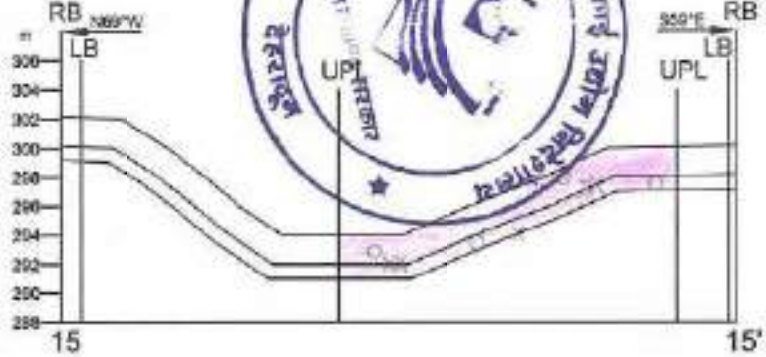












Certified that Plan is correct to the best of my knowledge & belief.

Harish Kainthola
मु0ख0/05/खनन/RQP/2015-16

KAILASH CHANDRA
RQP/UKGMU/No.012/YEAR 2019

PLATE - 4B

INDEX

	RBM (SAND, BAJRI, BOULDER) QUATERNARY
LB	LEASE BOUNDARY
RB	RIVER BANK
UPL	ULTIMATE PIT LIMITE
XX	MEASURED MINERAL CONTACT
X	INDICATED MINERAL CONTACT

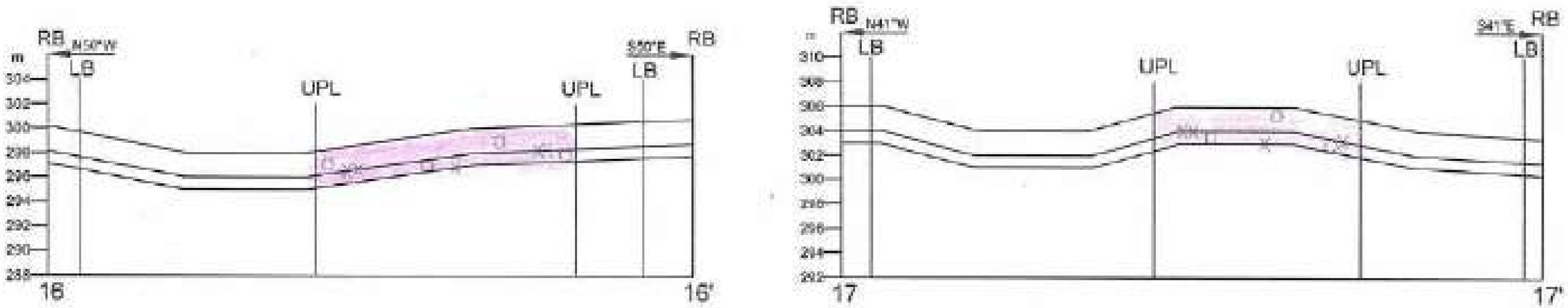
GEOLOGICAL CROSS SECTIONS

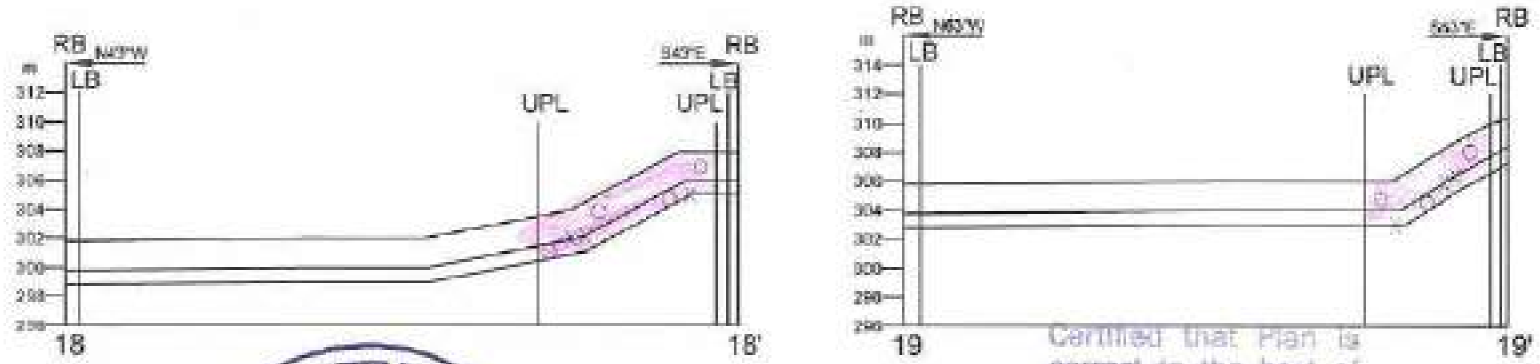
(IN DABKA RIVER, AREA- 112ha out of 223ha.)
TARAI WESTERN FOREST DIVISION, RAMNAGAR
TEHSIL- RAMNAGAR, DISTT.- NAINITAL (UK)

M/s UTTARAKHAND FOREST DEVELOPMENT CORPORATION
ARANYA VIKAS BHAWAN, 73 NEHRU ROAD, DEHRADUN

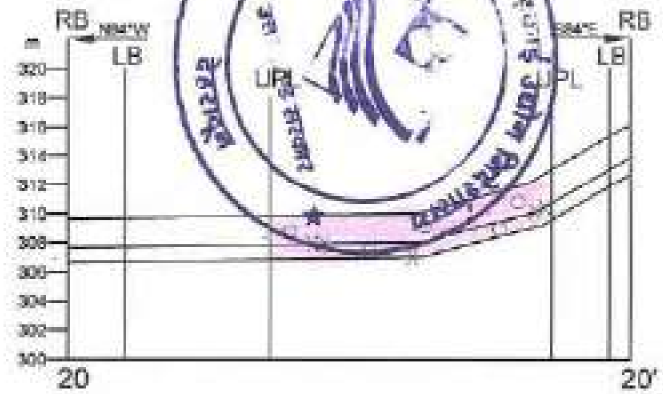
PREPARED BY:- KAILASH CHANDRA
CHECKED BY:- HARISH KAINTHOLA

Kehr Geotech
DEHRADUN (UTTARAKHAND)
8077866333, 9412008945





Certified that Plan is correct to the best of my knowledge & belief.



Harish Kainthola
मु०खा० / 05 / खनन / RQP / 2015–16

KAILASH CHANDRA
RQP/UKGMU/No.012/YEAR 2019

PLATE - 4C

INDEX

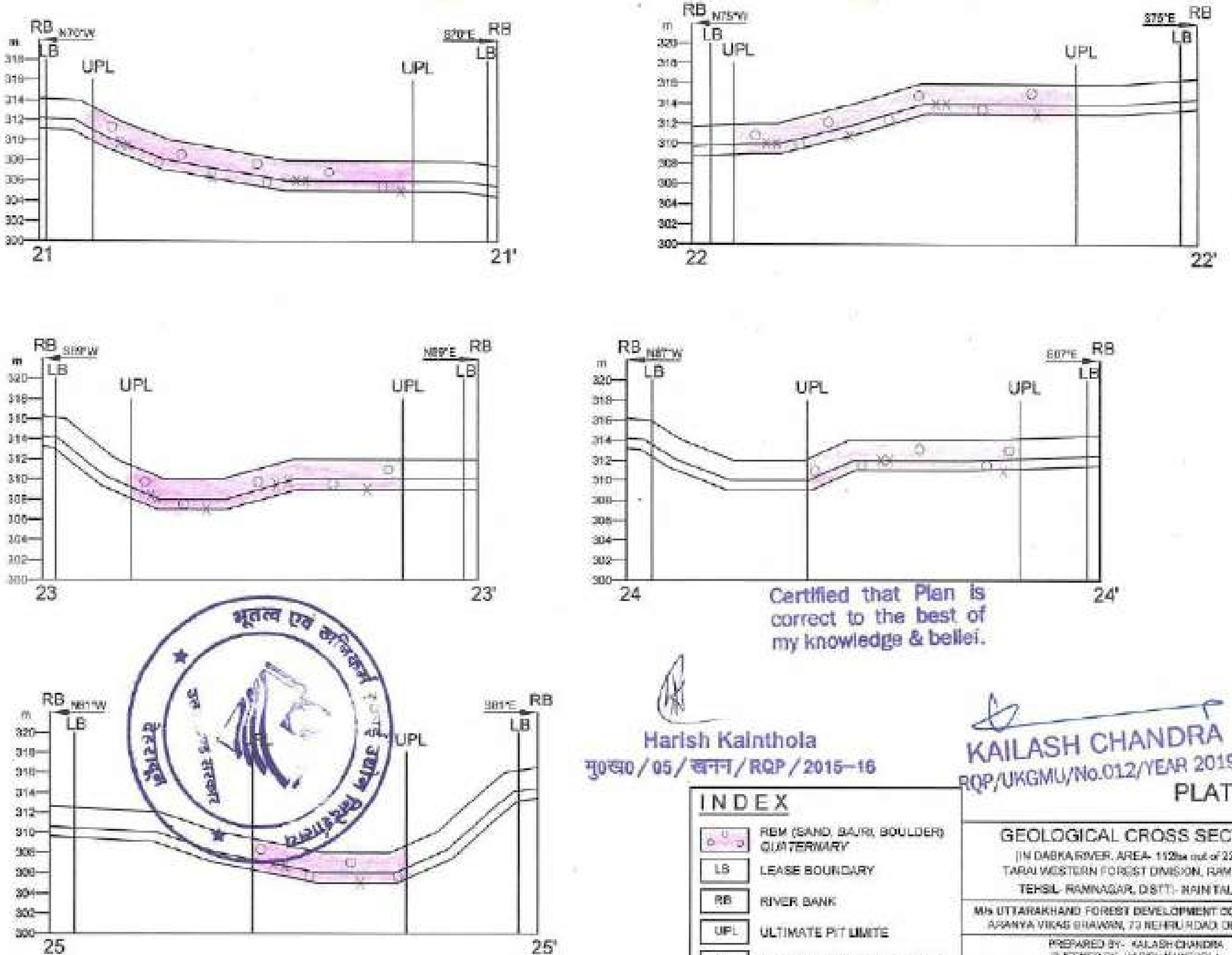
	RBM (SAND, BAJRI, BOULDER) QUATERNARY
LB	LEASE BOUNDARY
RB	RIVER BANK
UPL	ULTIMATE PIT LIMITE
XX	MEASURED MINERAL CONTACT
X	INDICATED MINERAL CONTACT

GEOLOGICAL CROSS SECTIONS
(IN DABKA RIVER, AREA- 11.2ha out of 223ha.)
TARAI WESTERN FOREST DIVISION, RAMNAGAR
TEHSIL- RAMNAGAR, DISTT.- NAINITAL (UK)

M/s UTTARAKHAND FOREST DEVELOPMENT CORPORATION
ARANYA VIKAS BHAWAN, 73 NEHRU ROAD, DEHRADUN

PREPARED BY:- KAILASH CHANDRA
CHECKED BY:- HARISH KAINTHOLA

KaleGeotech
DEHRADUN (UTTARAKHAND)
9977858332, 9412023716



Certified that Plan is correct to the best of my knowledge & belief.

Harish Kainthola
मु०भू०/05/खनन/RQP/2015–16

KAILASH CHANDRA
RQP/UKGMU/No.012/YEAR 2019

PLATE - 4D

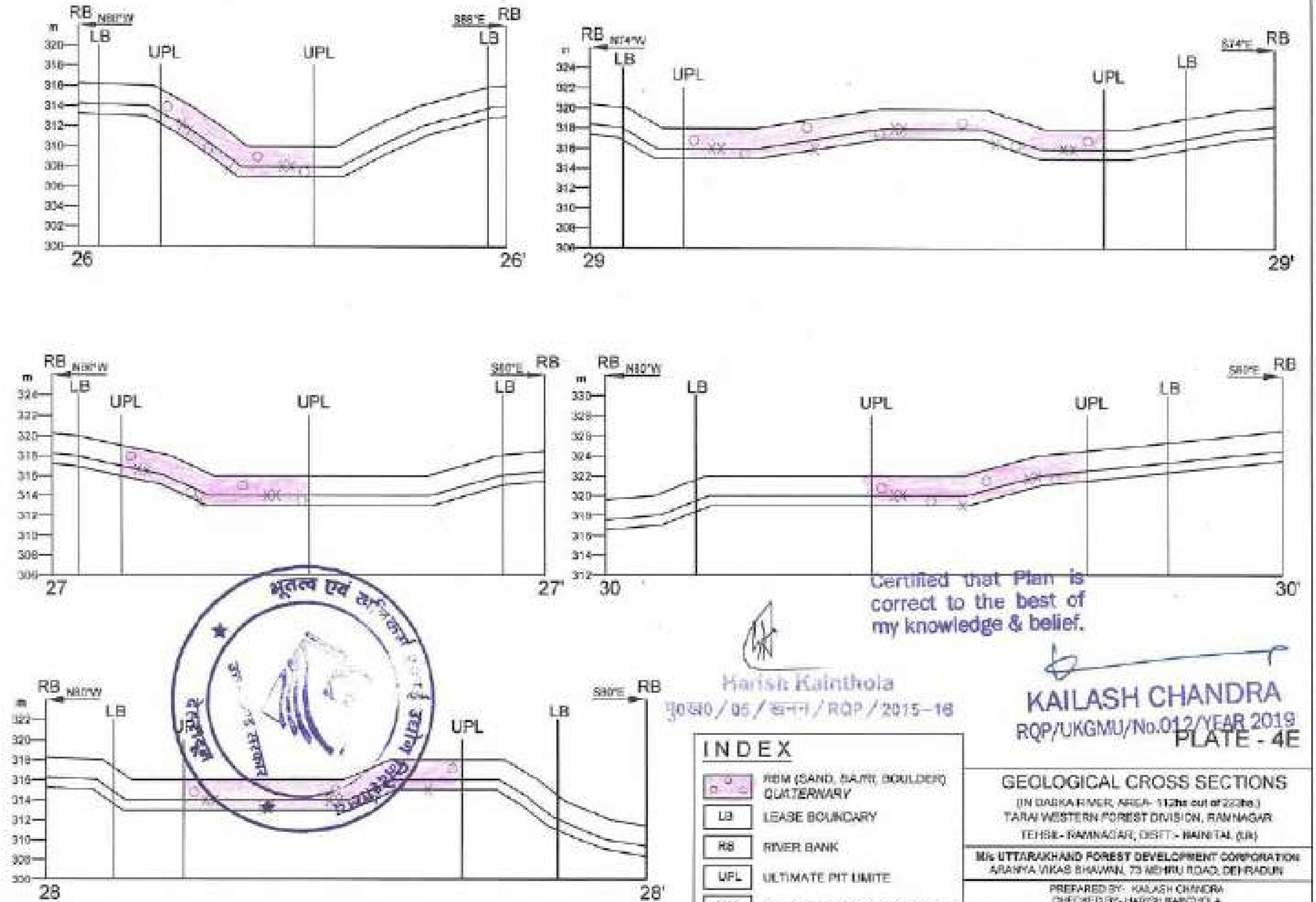
INDEX	
	RBM (SAND, BAJRI, BOULDER) QUATERNARY
LB	LEASE BOUNDARY
RB	RIVER BANK
UPL	ULTIMATE PIT LIMITE
X X	MEASURED MINERAL CONTACT
X	INDICATED MINERAL CONTACT

GEOLOGICAL CROSS SECTIONS
(IN DABKA RIVER, AREA- 112ha out of 223ha.)
TARAI WESTERN FOREST DIVISION, RAMNAGAR
TEHSIL- RAMNAGAR, DISTT.- NAINITAL (UK)

M/s UTTARAKHAND FOREST DEVELOPMENT CORPORATION
ARANYA VIKAS BHAWAN, 73 NEHRU ROAD DEHRADUN

PREPARED BY:- KAILASH CHANDRA
CHECKED BY:- HARISH KAINTHOLA

KaiaGeotech
DEHRADUN (UTTARAKHAND)



Certified that Plan is correct to the best of my knowledge & belief.

Harish Kainthola
पु०सं० / 05 / खनन / RQP / 2015–16

KAILASH CHANDRA
RQP/UKGMU/No.012/YEAR 2019

PLATE - 4E

INDEX

	RBM (SAND, BAJRI, BOULDER) QUATERNARY
LB	LEASE BOUNDARY
RB	RIVER BANK
UPL	ULTIMATE PIT LIMITE
XX	MEASURED MINERAL CONTACT
X	INDICATED MINERAL CONTACT

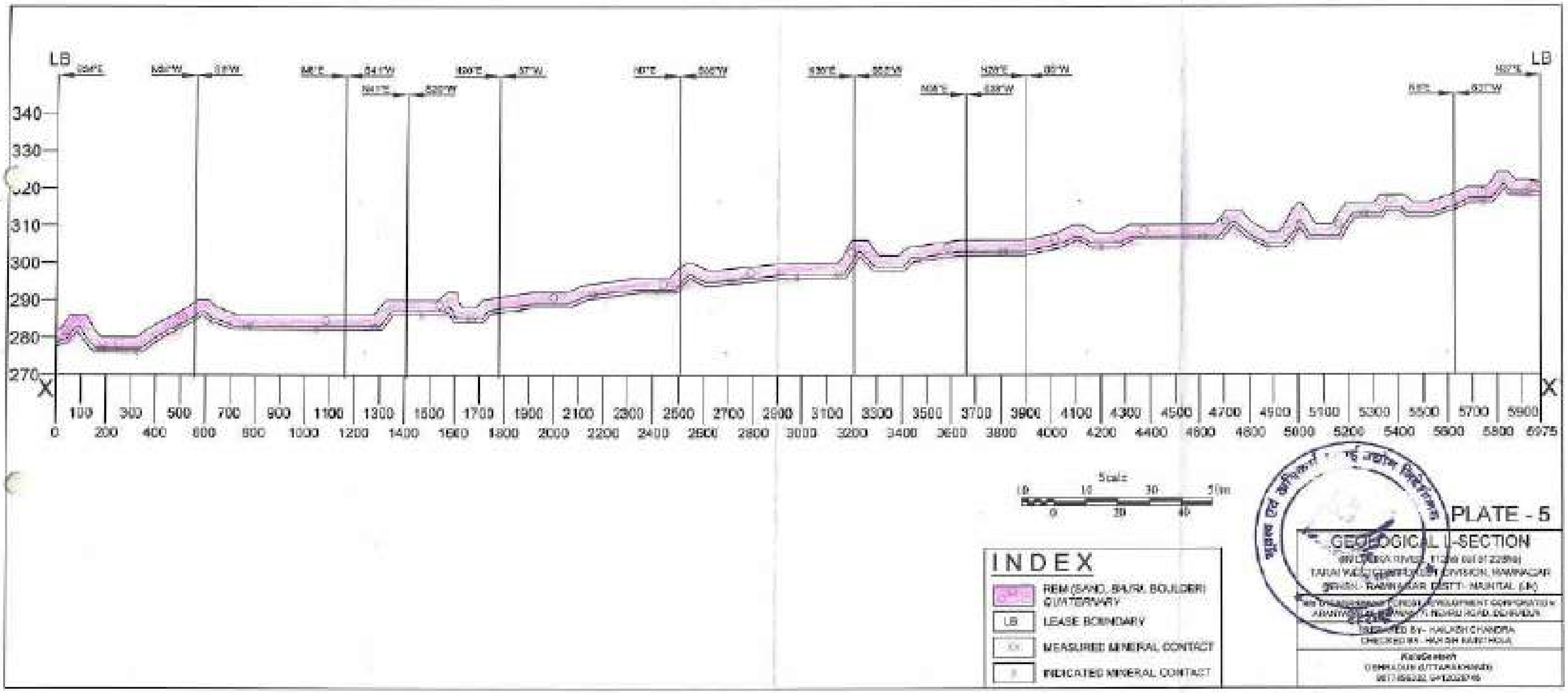
GEOLOGICAL CROSS SECTIONS

(IN DABKA RIVER, AREA- 112ha out of 223ha.)
TARAI WESTERN FOREST DIVISION, RAMNAGAR
TEHSIL- RAMNAGAR; DISTT.- NAINITAL (UK)

M/s UTTARAKHAND FOREST DEVELOPMENT CORPORATION
ARANYA VIKAS BHAWAN, 73 NEHRU ROAD, DEHRADUN

PREPARED BY:- KAILASH CHANDRA
CHECKED BY:- HARISH KAINTHOLA

DEHRADUN (UTTARAKHAND)


LB
LB
340
330
310
300
290
280
270
X
X
0
100
200
300
400
500
600
700
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1000
1100
1200
1300
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4800
5000
5100
5200
5300
5400
5500
5600
5700
5800
5900
6975
Scale
PLATE - 5
GEOLOGICAL L-SECTION
INDEX
REM (SAND, BAJRI, BOULDER) QUATERNARY
LB
LEASE BOUNDARY
MEASURED MINERAL CONTACT
INDICATED MINERAL CONTACT

Certified that Plan is correct to the best of my knowledge & belief.

Harish Kainthola
पु0स0/05/खनन/RQP/2015-16

KAILASH CHANDRA
RQP/UKGMU/No.012/YEAR 2019

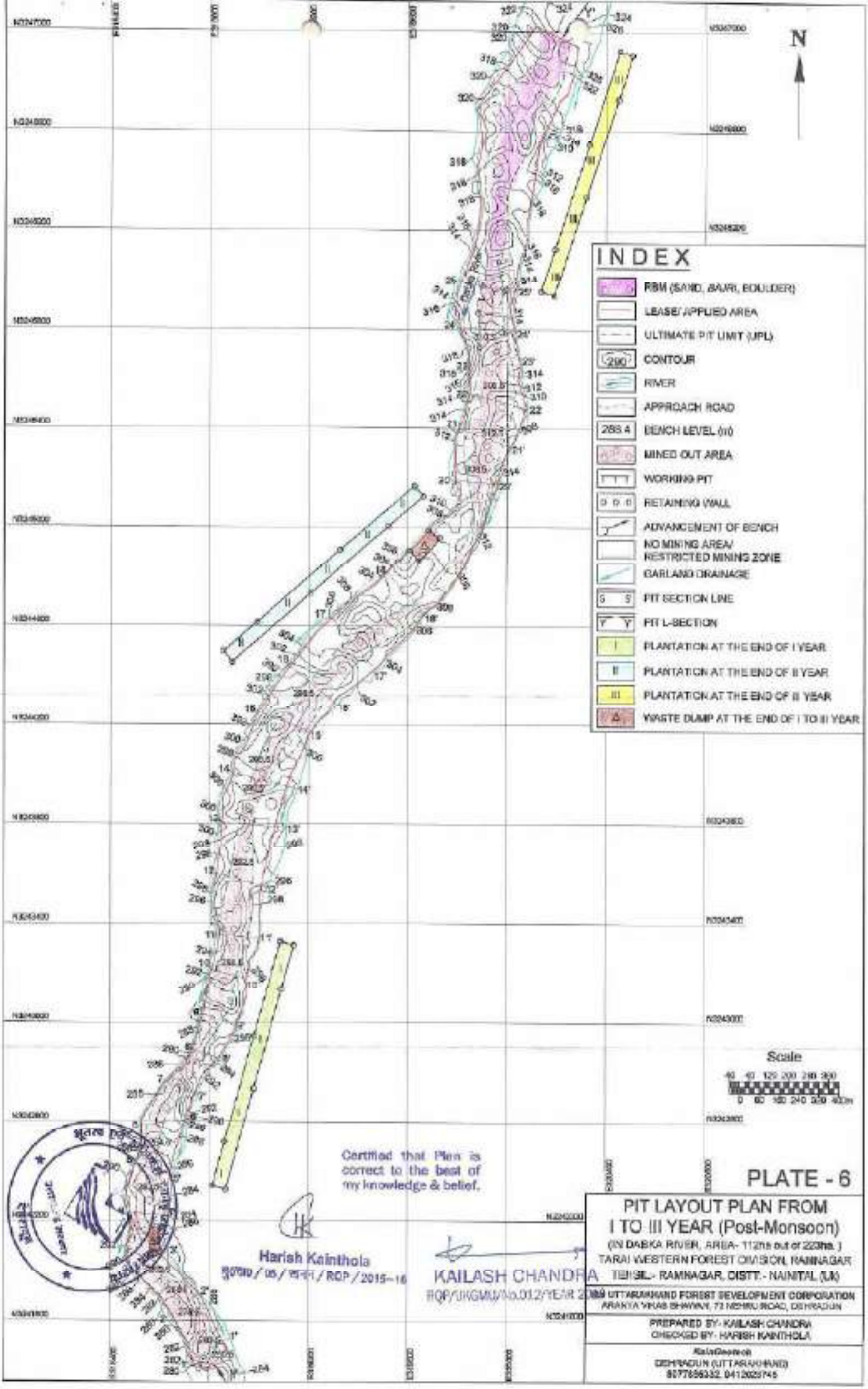


PLATE - 6

PIT LAYOUT PLAN FROM I TO III YEAR (Post-Monsoon)

(IN DABKA RIVER, AREA- 112ha out of 223ha.)

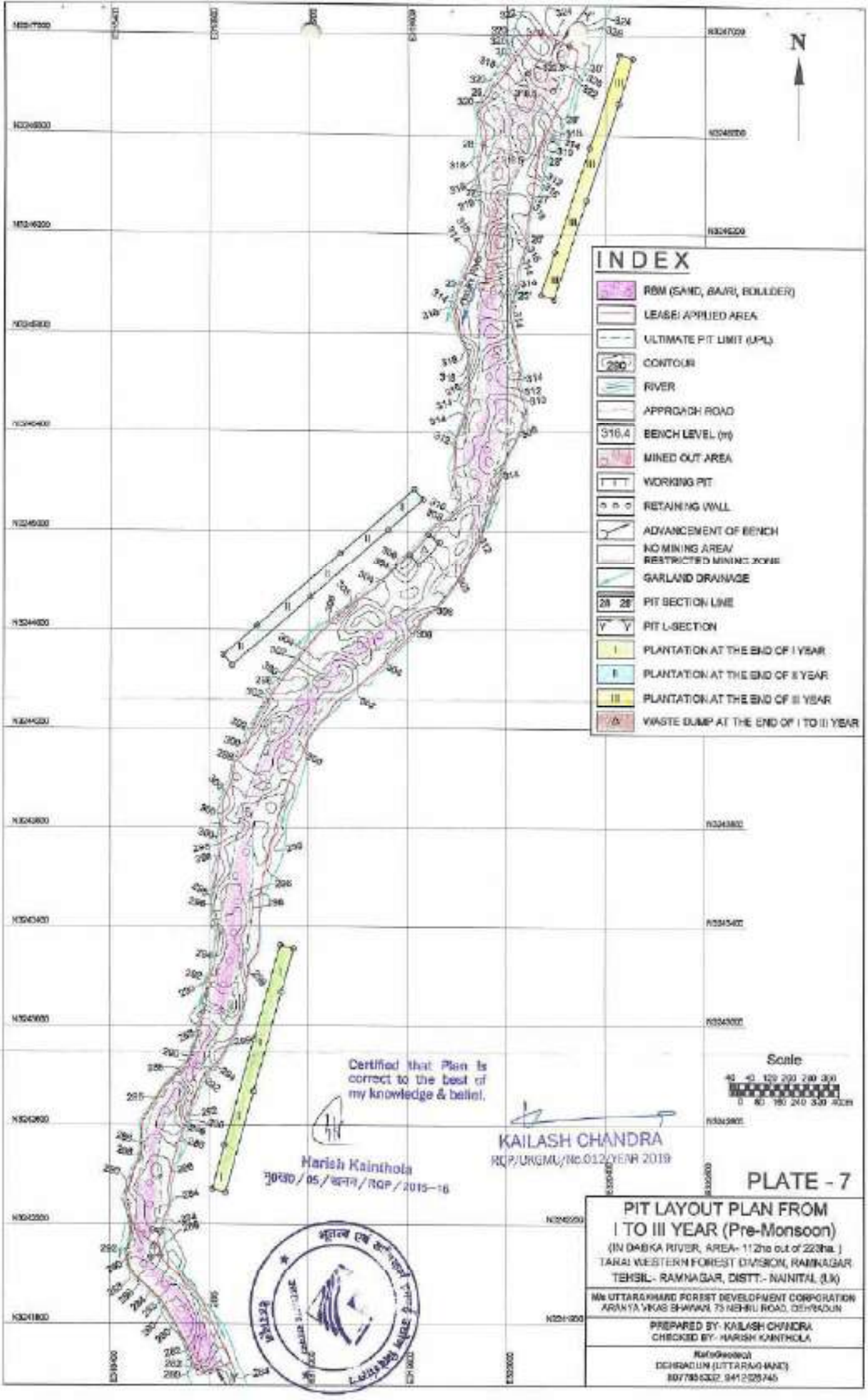
TARAI WESTERN FOREST DIVISION, RAMNAGAR

TEHSIL- RAMNAGAR, DISTT.- NAINITAL (UK)

UTTARAKHAND FOREST DEVELOPMENT CORPORATION
ARAKSHA VIKAS BHAWAN, 73 NEHRU ROAD, DEHRADUN

PREPARED BY- KAILASH CHANDRA
CHECKED BY- HARISH KAINTHOLA

KailaGeotech
DEHRADUN (UTTARAKHAND)
9077656332, 0413025745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INDEX
RBM (SAND, BAJRI, BOULDER)
LEASE/ APPLIED AREA
ULTIMATE PIT LIMIT (UPL)
CONTOUR
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APPROACH ROAD
BENCH LEVEL (m)
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WORKING PIT
RETAINING WALL
ADVANCEMENT OF BENCH
NO MINING AREA/ RESTRICTED MINING ZONE
GARLAND DRAINAGE
PIT SECTION LINE
PIT L-SECTION
PLANTATION AT THE END OF I YEAR
PLANTATION AT THE END OF II YEAR
PLANTATION AT THE END OF III YEAR
WASTE DUMP AT THE END OF I TO III YEAR
Scale
Certified that Plan is correct to the best of my knowledge & belief.
KAILASH CHANDRA
RQP/URGMU/No.012/YEAR 2019
Harish Kainthola
PLATE - 7
PIT LAYOUT PLAN FROM I TO III YEAR (Pre-Monsoon)
(IN DABKA RIVER, AREA- 112ha out of 223ha.)
TARAI WESTERN FOREST DIVISION, RAMNAGAR
TEHSIL:- RAMNAGAR, DISTT.:- NAINITAL (Uk)
M/s UTTARAKHAND FOREST DEVELOPMENT CORPORATION
ARANYA VIKAS BHAWAN, 75 NEHRU ROAD, DEHRADUN
PREPARED BY:- KAILASH CHANDRA
CHECKED BY:- HARISH KAINTHOLA

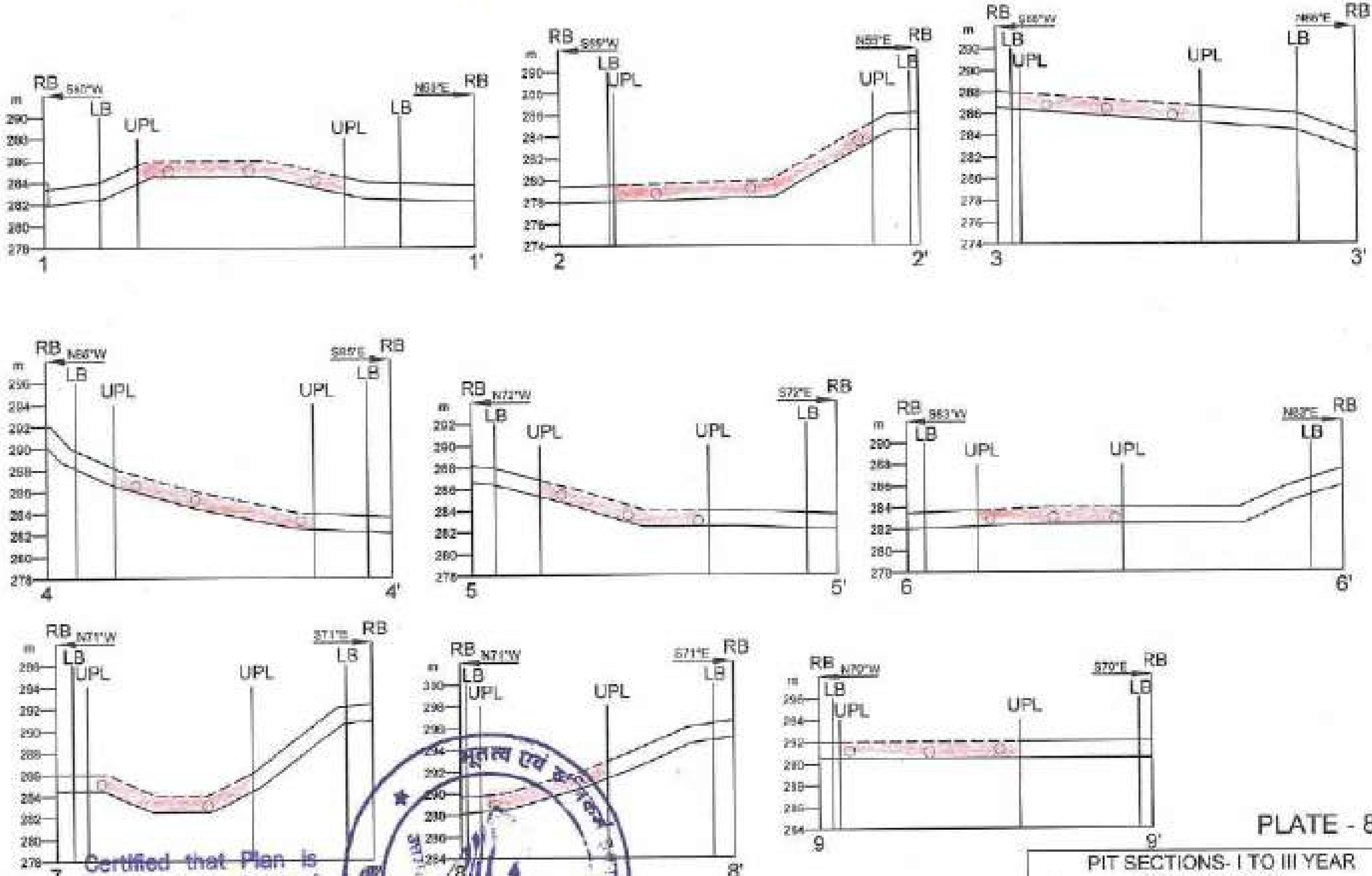

PLATE - 8A

PIT SECTIONS- I TO III YEAR

(Post-Monsoon)

(IN DABKA RIVER, 113ha out of 223ha)
TARAI WESTERN FOREST DIVISION, RAMNAGAR
TEHSIL- RAMNAGAR, DISTT.- NAINITAL (UK)

M/s UTTARAKHAND FOREST DEVELOPMENT CORPORATION
ARANYA VIKAS BHAWAN, 73 NEHRU ROAD, DEHRADUN

PREPARED BY- KAILASH CHANDRA
CHECKED BY- HARISH KAINTHOLA

INDEX

	RBM (SAND, BAJRI, BOULDER) QUATERNARY	UPL	ULTIMATE PIT LIMITE
LB	LEASE BOUNDARY		GROUND PROFILE
RB	RIVER BANK		ULTIMATE PIT DEPTH

Certified that Plan is correct to the best of my knowledge & belief.

Harish Kainthola
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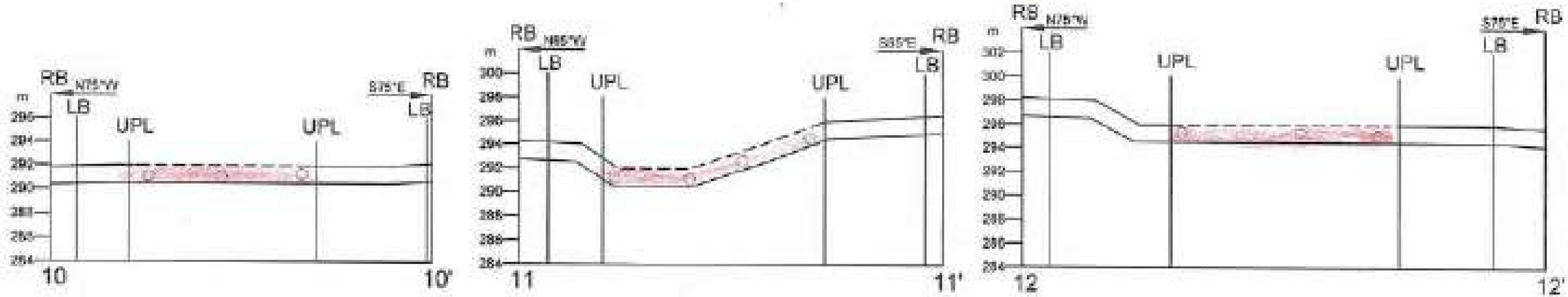
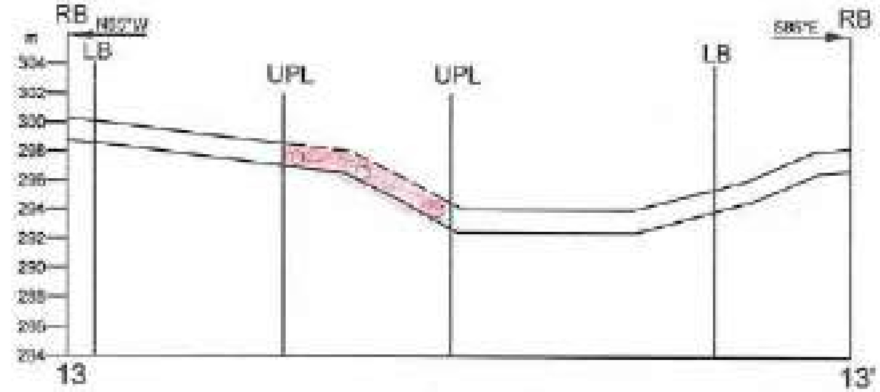
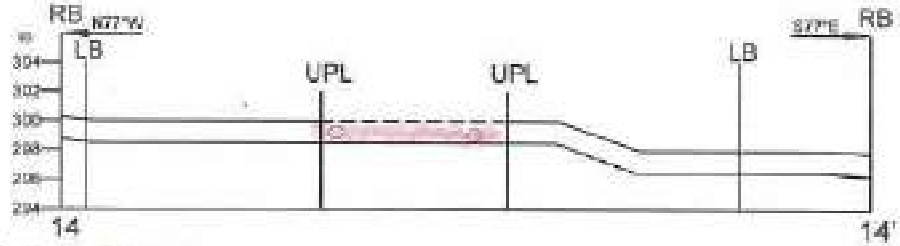
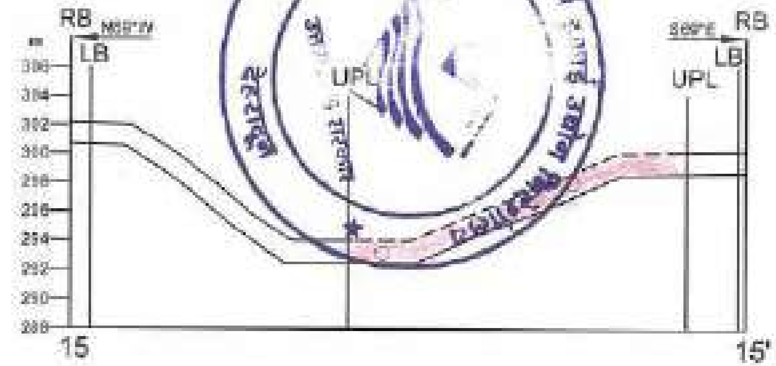
KAILASH CHANDRA
RQP/UKGMU/No.012/YEAR 2013









Certified that Plan is correct to the best of my knowledge & belief.

Harish Kainthola
मु०ख० / 05 / खनन / RQP / 2015–16

KAILASH CHANDRA
RQP/UKGMU/No.012/YEAR 2019

PLATE - 8B

INDEX

	RBM (SAND, BAJRI, BOULDER) QUATERNARY
LB	LEASE BOUNDARY
RB	RIVER BANK
UPL	ULTIMATE PIT LIMITE
	GROUND PROFILE
	ULTIMATE PIT DEPTH

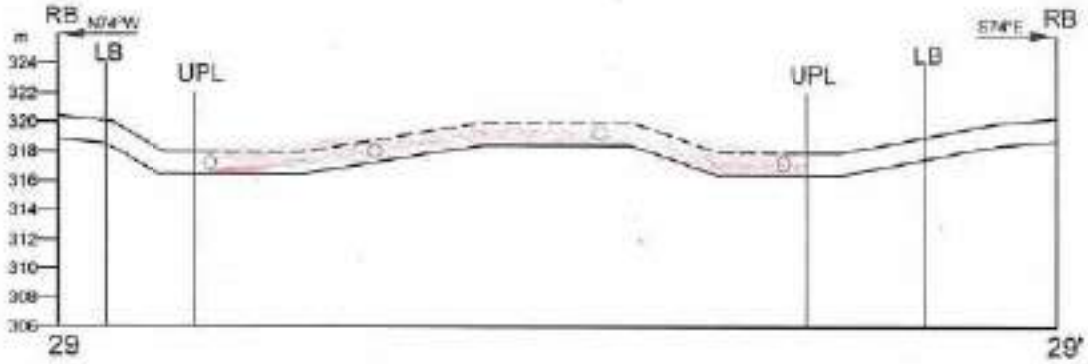
PIT SECTIONS- I TO III YEAR
(Post-Monsoon)

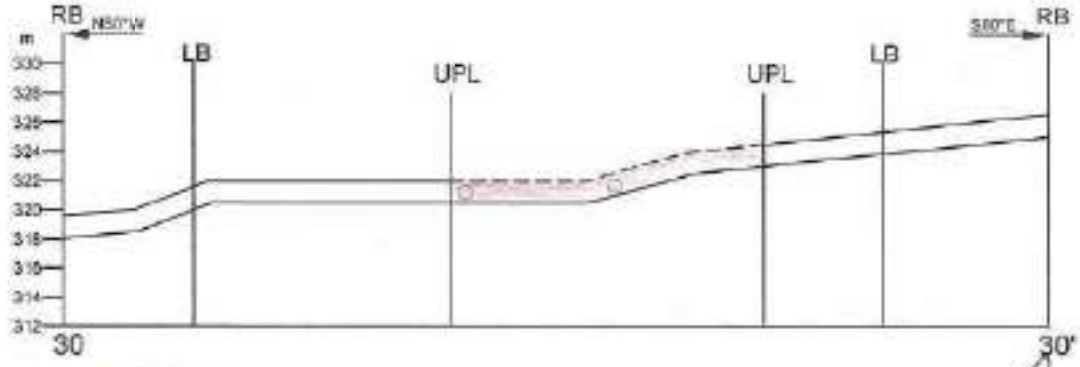
(IN DABKA RIVER, 112ha out of 223ha)
TARAI WESTERN FOREST DIVISION, RAMNAGAR
TEHSIL- RAMNAGAR, DISTT.- NAINITAL (U.K)

M/s UTTARAKHAND FOREST DEVELOPMENT CORPORATION
ARANYA VIKAS BHAWAN, 73 NEHRU ROAD, DEHRADUN

PREPARED BY- KAILASH CHANDRA
CHECKED BY- HARISH KAINTHOLA

Kailash Chandra
DEHRADUN (UTTARAKHAND)





Certified that Plan is correct to the best of my knowledge & belief.

Harish Kainthola
भू0स0 / 05 / खनन / RQP / 2015-16

KAILASH CHANDRA
RQP/UKGMU/No.012/YEAR 2019

PLATE - 9B

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	RBM (SAND, BAJRI, BOULDER) QUATERNARY
LB	LEASE BOUNDARY
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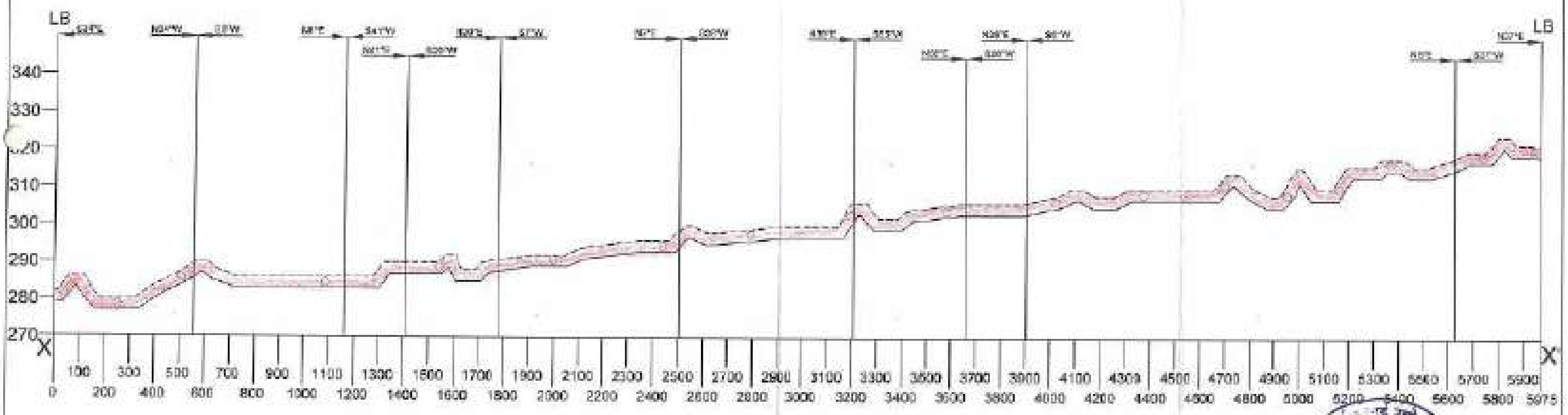
UPL	ULTIMATE PIT LIMITE
	GROUND PROFILE
	ULTIMATE PIT DEPTH

PIT SECTIONS- I TO III YEAR
(Post-Monsoon)
(IN DABKA RIVER, 1.12ha out of 228ha)
TARAI WESTERN FOREST DIVISION, RAMNAGAR
TEHSIL- RAMNAGAR, DISTT.- NAINITAL (Uk)

M/s UTTARAKHAND FOREST DEVELOPMENT CORPORATION
ARANYA VIKAS BHAWAN, 73 NEHRU ROAD, DEHRADUN

PREPARED BY:- KAILASH CHANDRA
CHECKED BY:- HARISH KAINTHOLA

KailGeotech
DEHRADUN (UTTARAKHAND)
09778598332, 9412028745



Scale

0 10 20 30 40 50m

INDEX

	RBM (SAND, BAJRI, BOULDER) QUATERNARY
LB	LEASE BOUNDARY
	GROUND PROFILE
	ULTIMATE PIT DEPTH

PLATE - 10

PIT-SECTION

NAINITAL (Uk)

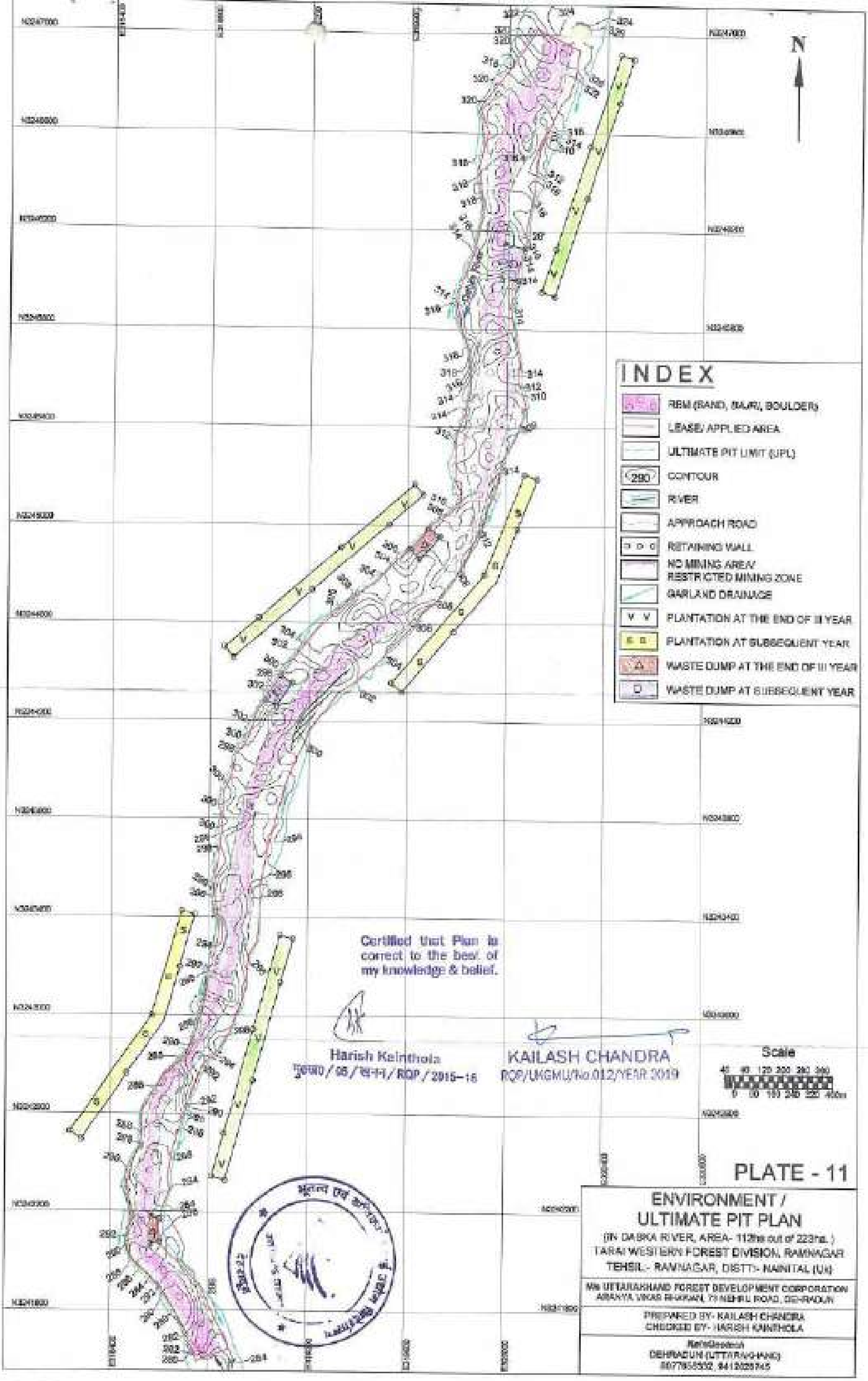
PREPARED BY - KAILASH CHANDRA

CHECKED BY - HARISH KAINTHOLA

Certified that Plan is correct to the best of my knowledge & belief.

KAILASH CHANDRA
RQP/UKGMU/No.012/YEAR 2019

Harish Kainthola
उ०ख०/ख०/भ०/RQP/2015-16



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RETAINING WALL
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RESTRICTED MINING ZONE
GARLAND DRAINAGE
PLANTATION AT THE END OF III YEAR
PLANTATION AT SUBSEQUENT YEAR
WASTE DUMP AT THE END OF III YEAR
WASTE DUMP AT SUBSEQUENT YEAR
Certified that Plan is correct to the best of my knowledge & belief.
Harish Kainthola
KAILASH CHANDRA
RQP/UKGMU/No.012/YEAR 2019
Scale
PLATE - 11
ENVIRONMENT /
ULTIMATE PIT PLAN
TARAI WESTERN FOREST DIVISION, RAMNAGAR
TEHSIL.- RAMNAGAR, DISTT.- NAINITAL (U.K)
M/s UTTARAKHAND FOREST DEVELOPMENT CORPORATION
PREPARED BY- KAILASH CHANDRA
CHECKED BY- HARISH KAINTHOLA
DEHRADUN (UTTARAKHAND)