

MITIGATIVE MEASURES PLAN

*For Protection of Forest Area, Located adjacent to the Proposed
Mining Lease for Black Granite*

Over an extent of 4.69 Ha, in Compartment No.389 of Mangunta West R.F, Allamadugu Beat,
Karvetinagar Range, Chittoor East Division, A.P.

Applicant

M/s Venkateswara Rocks,
Prop: Sri P. Sudhakar Reddy
D.No.4-1995/4B, Balamuragan Street,
Durganagar Colony,
CHITTOOT

PREPARED BY

Y.THIMMAIAH,

Cell:9440053509

Consultant Mining Geologist

61205, Indu Fortune Fields Gardenia,
13th Phase, K.P.H.B. Colony
HYDERABAD - 85.

Under Points 3 & 5 of CF

MITIGATIVE MEASURES PLAN

For Protection of Forest Area, Located adjacent to the Proposed Mining Lease Area of Black Granite

Over an extent of 4.69 Ha, in Compartment No.389 of Mangunta West R.F, Allamadugu Beat, Karvetinagar Range, Chittoor East Division, A.P.

Applicant: M/S Venkateswara Rocks, Chittoor.

1.0 INTRODUCTION:

Sri R. Sudhakar Reddy, proprietor of M/s Vekateswara Rocks has applied for grant of Mining Lease for Black Granite over an extent of 4.69 Ha i.e. 2.39 Ha for Mining, 1.50 Ha for Dumping, 0.13 Ha for Approach Road to the mining area and 0.67 Ha for Safety Zone in Compartment No. 389 Magunta West R.F, Allamadugu Beat, Karvetinagar Range, Chittoor East Division, A.P. After due inspection of the proposed mining site by the Officers of the Forest Department, the applicant is requested to submit the Mitigative Measures plan to protect the forest area, located adjacent to the proposed mining lease. Hence this report is prepared under 3 & 5 of CF.

2.0 GENERAL:

- 2.1 Name & Address of the Applicant: M/s Vekateswara Rocks,
Prop: Sri R. Sudhakar, Cell: 9440455384
4-1995/4B, Balamuragan Street,
Durganagar Colony,
CHITTOOT
- 2.2 Status of the Applicant: Proprietary Firm
- 2.3 Minerals: Black Granite (Dolerite)
- 2.4 Name & Address of RQP: Y. Thimmaiah (: RQP/HYD/087/92/A),
(R.Q.P: Recognized Qualified Person for mine plans)
61205, Indu Fortune Fields Gardenia,
13th Phase, K.P.H.B. Colony
HYDERABAD - 85, Cell: 9440053509
- 2.5 Details of the Area:
- | | |
|--------------------|---|
| 1) State | : Andhra Pradesh |
| 2) District | : Chittoor |
| 3) Division | : Chittoor East |
| 4) Range | : Karvetinagar, |
| 5) Beat | : Allamadugu, |
| 6) R. F. | : Mangunta West |
| 7) Comportment No. | : 389 |
| 8) Extent | : 4.69Ha |
| | (Mining: 2.39 + Dumping: 1.50 + S. Zone: 0.67 + Road: 0.13) |
| 9) Ownership | : Forest Department |

The applied M.L area is a fringe area of the forest, adjacent to the revenue land of Vedurakuppam Mandal, on Indian Topo Sheet No. 57 O/7. The applied area is located at a distance of 0.5 km from the village Buchireddi Kandriga, due South and the village Buchireddi Kandriga is located at a distance of 1.0 km from Allamadugu, due West. The village Allamadugu is located between Chittoor and Karvetinagar at a distance of 30 km from Chittoor. A cart track is connecting to the Forest Boundary from the village Buchireddi Kandriga and a B.T. Road is connecting to the village Buchireddi Kandriga from the Chittoor via Allamadugu. Chittoor is located on N.H-40 between Bangalore - Chennai. For formation of approach road to the Lease area, about 0.13 Ha has been surveyed and applied for grant. Allamadugu village is the nearest place to this area for primary facilities like primary school, post office and Bus services. Chittoor is the nearest place for other facilities like Market, Higher Education, Hospitals and Railway Station. The nearest airport is located at Tirupati and the nearest seaport is located at Chennai.

3.0 GEOLOGY :

3.1 Topography: The proposed mining area, Safety zone and the approach road is a hilly terrain. Applied area has lowest level on NE side i.e. 295 MSL and it is gradually raising towards SW up to 400 MSL. There is a maximum relief of 105 mts from NE to SW direction within the applied area. Due to Dolerite dyke (Black Granite) intrusion, the mining area rises to a height of 100 mts (400 – 300 MSL) from SW to NE. Even though, the applied mining area Dumping area and the proposed approach road belong to R.F, it does not have much vegetation except scattered trees and bushes on the slopes. There are no prominent natural drainage channels within the applied area. But a seasonal watercourse is running adjacent to the area from SE to North direction. The surface rain water of the area will drain to this seasonal nala. The seasonal nala join Kundeti Vanka, located at 6km from the forest land on Eastern side.

3.2 Regional Geology: The Chittoor District forms with part of Indian Peninsular gneiss, which has remained stable since formation of the crust. The Peninsular gneiss is exposed in the most of the district.

3.3 Local Geology: The area represents a peninsular gneissic complex comprising gray granites with Dolerite dyke intrusion. The Dolerite dyke is intruded through the gneiss in E – W direction on Southern side of the applied area on top of the hill. No shear zone or faults are noticed in this area. The Dolerite (Black Granite) dyke is well exposed with intercalation of soil, over a length of 248m to an average width of 28m and to a height of 50m on top of the hill portion. Float material mixed with soil is covering on slopes of the applied area for dumping on Southern side.

Dolerite (Black Granite) is fine to medium grain size. It is hard and compact and Steel gray to black in colour.

4.0 MINING:

4.1 Method of Mining: Granite Mining will be carried out by open cast method with the help of Machinery like, an excavator, tippers, Jackhammer Drilling and wire saw cutting Machines. The Excavators will be used to remove the granite boulders and overburden from surface of the lease area and waste will be loaded in to trucks. The waste will be shifted to proposed dump yard located on northern side applied area, over an extent of 1.390 Ha. After removal the overburden from the surface, the sheet rock of black granite will be cut in to blocks with the help of wire saw cutting machine and these primary blocks will be cut into secondary blocks to perfect sizes with the help of drilling and wedge cutting. These dimensional blocks will be loaded in to the trucks with the help of excavator and the same is transported to the market or to the cutting and polishing units, located in A.P., Karnataka and Tamilnadu. It is proposed to excavate the dyke from single pit over an extent of 1.870 Ha by the end of the life of the mine.

5.0 IMPACT ASSESSMENT OF MINING:

5.1 Soil Erosion & Float: The proposed mining lease area is formed by the Granite & Dolerite out crops on top of the hill and the slopes of the area is covered by the soil and chances are very less for soil erosion because the mining will be carried out on top of hill, in granite exposed area. As the mining area is sloping towards North and East, there are chances for roll down of the waste from dumping area to beyond the lease boundaries. So, there are chances for damage of plants/ trees in the forest, located adjacent to the lease due to float material of Quarry workings.

5.2 Dust Generation: Due to haulage of Granite and Waste rock by heavy mining machinery through mine road, dust will be generated. There are chances for scattering of the dust to adjacent forest area. Due to dust generation, plant / tree growth of adjacent forest may be hampered.

5.3 Sound & Noise pollution: For Granite mining, heavy machinery like excavators, tippers/ dumpers, compressor and jackhammers will be used. There will be noise pollution from mining machinery. Due to noise pollution, if any fauna is present in the adjacent forest there may be some disturbance to them.

6.0 MITIGATIVE MEASURES TO BE TAKEN BY THE MANAGEMNT/ LEASSEE.


6.1 Arrest of Soil Erosion & Float Material from Mining Area: It is already stated that most of the proposed mining area is covered by granite outcrops soil pockets along the joints of rock formation. So, the soil erosion from this mining area is negligible. However, the watered rock mixed with top soil will be excavated from the surface of the mining area and same is stocked in waste dump yard. It is proposed to build a retaining wall around the sloped of the proposed dump yard on Northern sides for stabilization of dump and to arrest the float material. The retaining wall will be constructed over a length of 360 m, to a width of 2m and to a height of 1m with the waste generated from the mining activity.

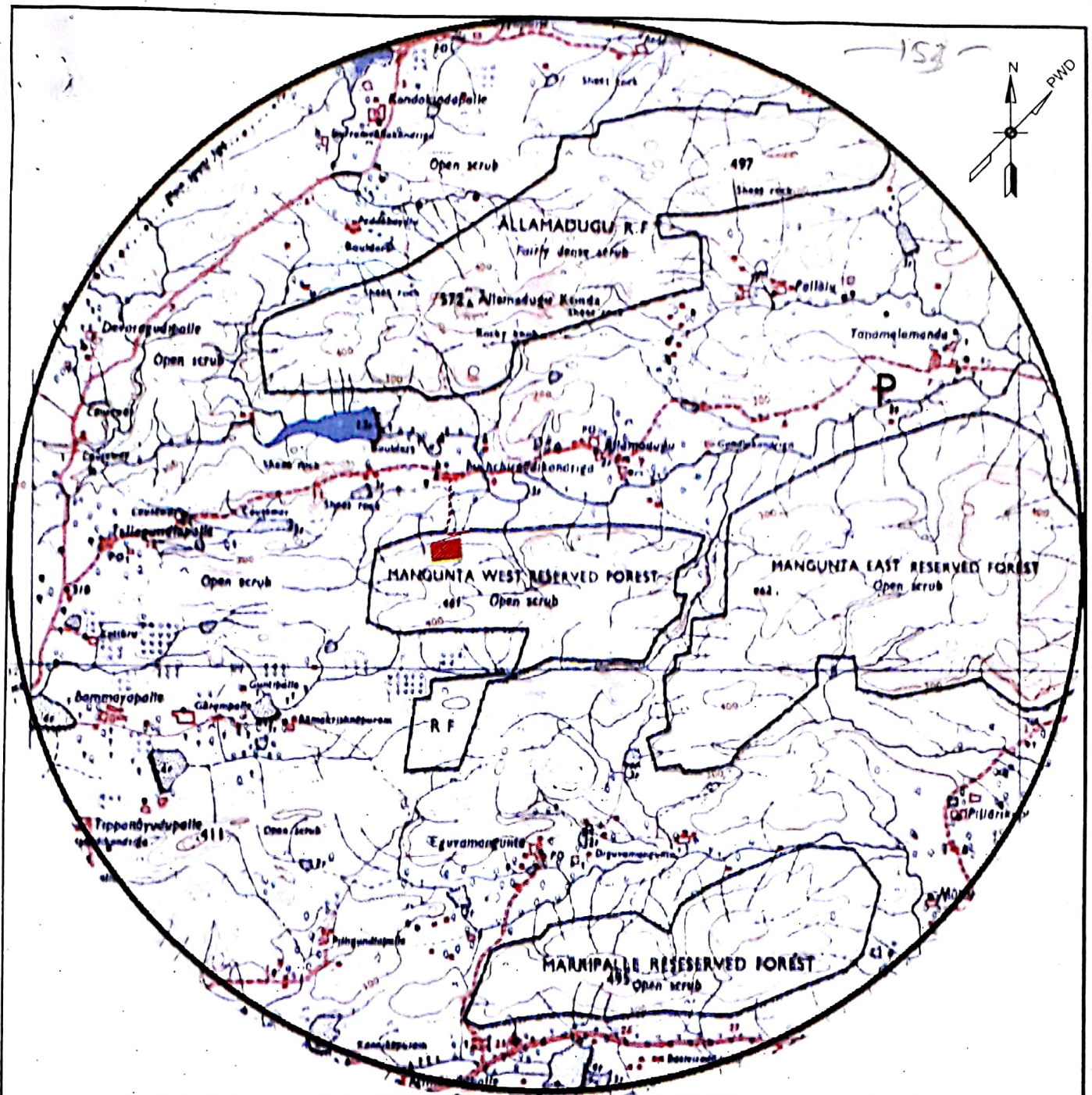
To stop the water pollution, from waste dump, it is proposed to cut a garland drain, on outside of the retaining wall, over a length of 360m, to a width of 1.0m and to a depth of 0.5 m and the excavated muck will be formed as a bund on outside of the trench over an area of 360m². A silt tank will be dug enroot the garland drainage on NE side of the dumping area. The silt tank must be cleaned at regular intervals. Due to retaining wall, trench cutting and silting tank, the float material coming from waste dump will be arrested within the lease area and adjacent forest will be protected from float material.

- 6.2 **Suppression of Dust:** The dust generation from mining activity must be suppressed by water spraying on mine roads at regular intervals before transportation of Granite blocks from quarry site. The dust generation will also be suppressed by plantation on either sides of mine approach road in the forest area. The plantation will be taken up on both sides of the approach road to a width of 1m on either side of the road and along the bund of the garland drain and it gives an area of around 0.112 ha of green belt. The safety zone around the mining area will be developed as green belt over an extent of 0.67 Ha according to MOEF guide lines.
- 6.3 **Control of Sound / Noise Pollution:** If all mining machinery works together at one place at same time, the noise generation from mining equipment will be more than the permissible limits. So, the applicant is advised to operate the equipment in different timings at different places of the mining area to control noise pollution and to maintain the sound pollution within the permissible limits.

ENCLOSURES:

- Plat-1 : Surveyed Sketch for Mining/ Quarry Lease
Plate-2 : Location plan (1:50,000)
Plate-3 : Plan showing the Mitigative Measures, to protect adjacent forest from proposed mining activity (1: 1000 Scale).


Y. THIMMAIAH
Res. RQP/Hyd/067/02/A



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	APPLIED M. L. AREA IN R.F.
	CONTOUR LINE
	PUBLIC ROAD
	WATER COURSE
	TANKS
	VILLAGES
	FOREST LAND
	CULTIVATION LANDS
	5Km RADIUS

CERTIFIED THAT THE PLAN IS CORRECT

SIGNATURE OF APPLICANT

SIGNATURE OF THE R. Q. P

MITIGATIVE MEASURE PLAN

Over an extent of 4.69 Ha, in Compat. No.389, Mangunta West R.F., Allamadugu Beat, Karvetinagar Range of Chittoor East Division, A.P.

LOCATION CUM KEY PLAN

APPLICANT : M/s VENKATESWARA ROCKS

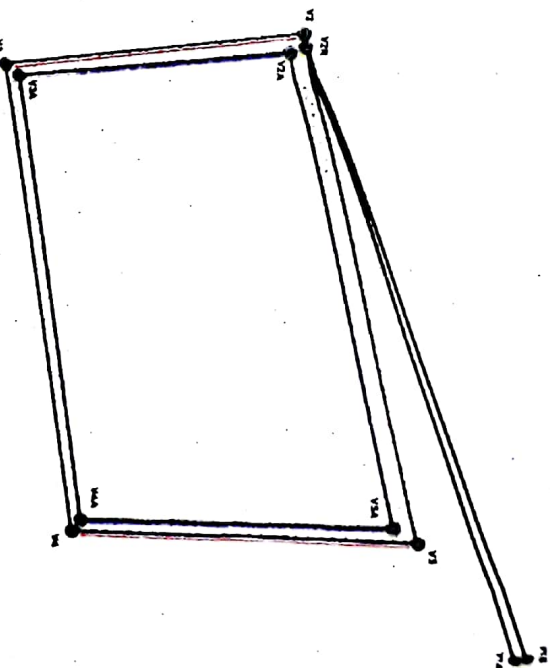
SCALE : 1 : 50,000

T.SHEET No. 57 /O/ 7

PLATE- 1

**Survey Sketch of Applied Mining area 4.69 Ha by M/s. Venkateswara Rocks-Chitor in Compt.No.383
Mangunta West RF, of Karvelinagaram range, Chitor East Division.**

1:2500

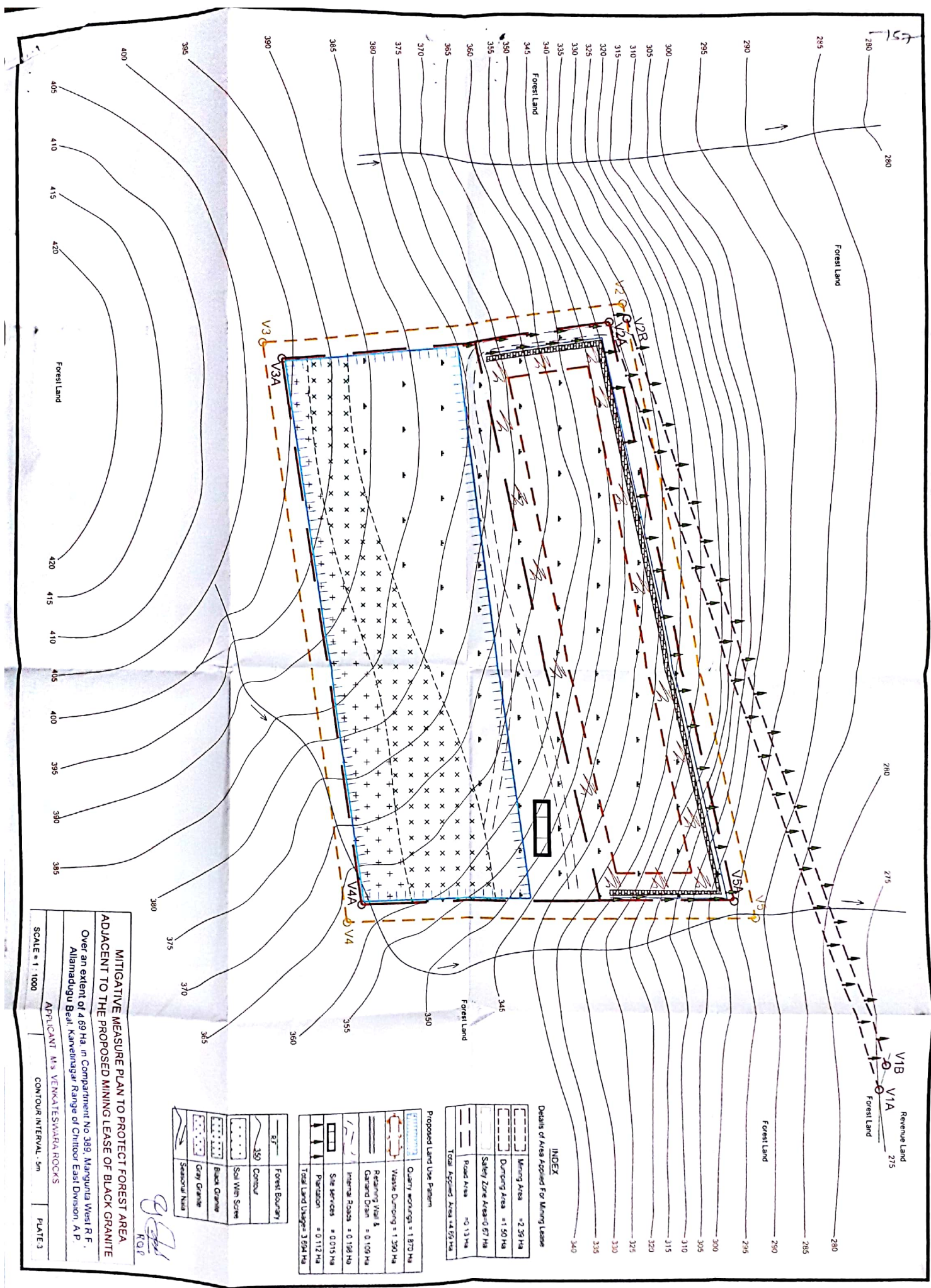


Name	Area(Ha)
Mining Area	3.89
Safety Zone Area	0.67
Road Area	0.13
Total	4.69

S no	Name	Eastng	Northng	Elevation	Latitude	Longitude
Mining Ponits						
1	V2	313909.866276	1475879.436930	330.044	13.34451893	79.28178655
2	V3	313928.958864	1475720.928480	405.658	13.34308747	79.28197291
3	V4	314186.018556	1475756.114960	363.704	13.34342157	79.28434339
4	V5	314185.437228	1475936.352500	294.356	13.34505059	79.28432652
Safety Zone Area						
5	V2A	313920.217409	1475872.290750	329.743	13.34445499	79.28188255
6	V3A	313935.458035	1475728.366220	400.184	13.34315510	79.28203242
7	V4A	314179.691675	1475760.815560	357.759	13.34346366	79.28428469
8	V5A	314177.828291	1475923.861650	294.725	13.34493722	79.28425718
Road Area						
9	V2R	313917.004637	1475880.357900	325.191	13.34452771	79.28185238
10	V1A	314253.511417	1475987.842630	277.213	13.34552023	79.28495159
11	V1B	314251.998727	1475993.707410	277.168	13.34557315	79.28493725

Legend	
●	DGPS Points
□	Mining Area
□	Safety Zone Area
□	Road Area

The DGPS/GNSS/RTS data is only verified, the absolute location of Points shall be verified by the concerned field officer.



**MITIGATIVE MEASURE PLAN TO PROTECT FOREST AREA
ADJACENT TO THE PROPOSED MINING LEASE OF BLACK GRANITE**
Over an extent of 4.69 Ha in Compartment No 389, Mangurta West R.F.,
Allamadu Bet, Kanneinagar Range of Chittoor East Division, A.P.

APPLICANT: M/s VENKATESWARA ROCKS

SCALE = 1 : 1000

CONTOUR INTERVAL: 5m

Q. S. S. R. G. P.

—	Forest Boundary
—	Contour
—	Soil With Screen
—	Black Granite
—	Grey Granite
—	Seasonal Noise

Proposed Land Use Pattern	
Quarry workings = 1.870 Ha	
Waste Dumping = 1.350 Ha	
Retaining Wall & Quarry Drain = 0.105 Ha	
Internal Roads = 0.198 Ha	
Site Services = 0.015 Ha	
Perimeter = 0.112 Ha	
Total Land Usage = 3.664 Ha	

Details of Area Proposed For Mining Lease	
Mining Area = 2.36 Ha	
Dumping Area = 1.50 Ha	
Safety Zone Area = 0.67 Ha	
Road Area = 0.13 Ha	
Total Proposed Area = 4.66 Ha	

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