

PRE FEASIBILITY REPORT OF BPA OC-II EXPANSION PROJECT



**Department of Project Planning
(ISO 9001:2015 Certified)
P.O. Kothagudem Collieries - 507 101.
Dist: Bhadradi
State: Telangana**

July, 2021

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OF
BPA OC-II EXPANSION PROJECT

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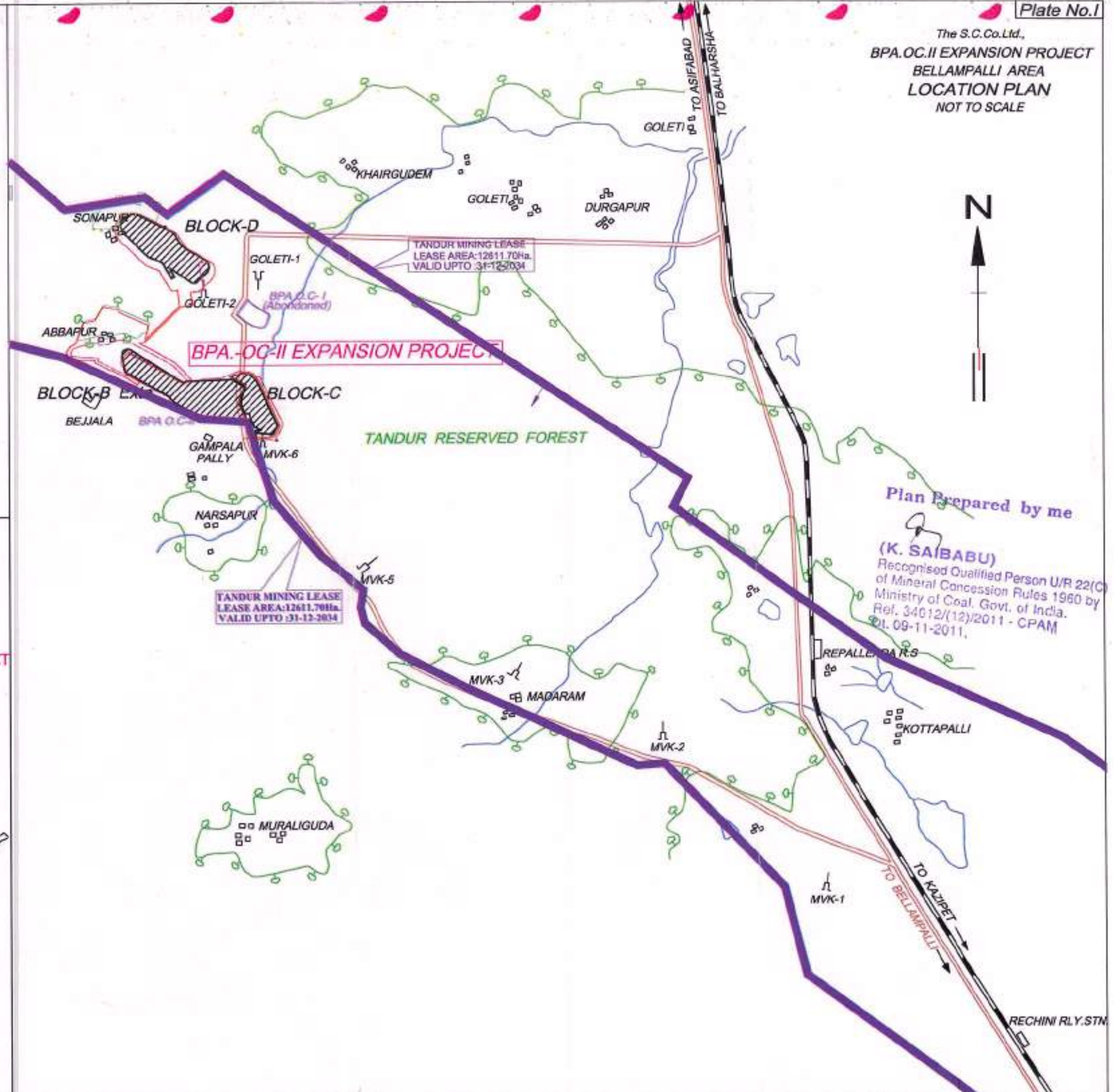
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The S.C.Co.Ltd.,
BPA.O.C.II EXPANSION PROJECT
BELLAMPALLI AREA
LOCATION PLAN
NOT TO SCALE



Plan Prepared by me

(K. SAIBABU)
Recognised Qualified Person U/R 22(C)
of Mineral Concession Rules 1960 by
Ministry of Coal, Govt. of India.
Ref. 34012/(12)/2011 - CPAM
Dt. 09-11-2011.

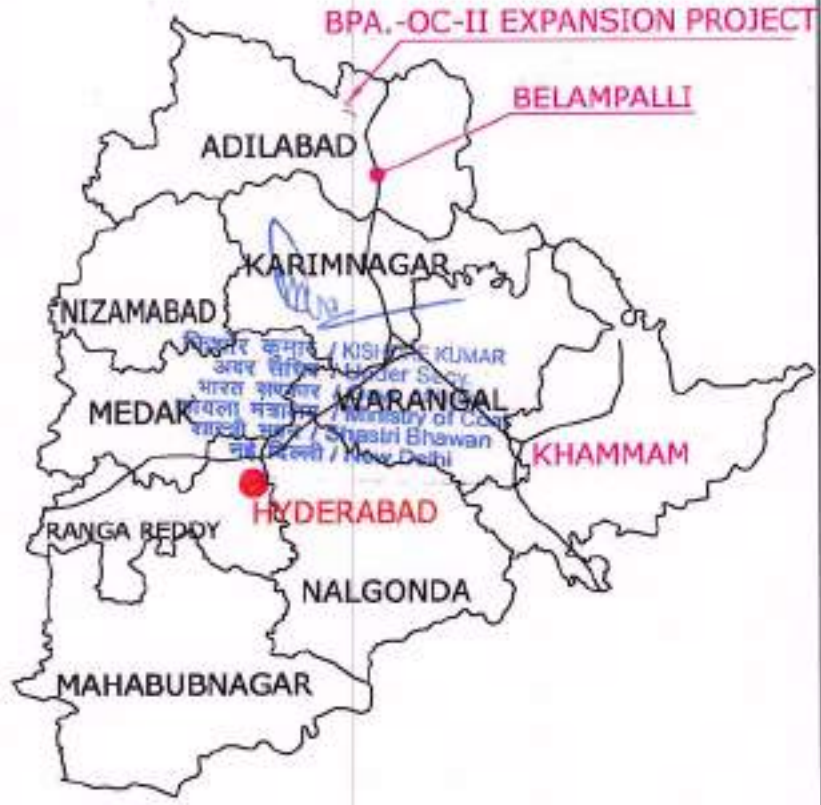


INDIA



TELANGANA STATE

TELANGANA STATE



BPA-OC-II EXPANSION PROJECT

BELLAMPALLI

1. EXECUTIVE SUMMARY

1.1 Brief summary on the details of the Project Proponent:

The Singareni Collieries Company Limited (SCCL) is a Government coal mining Company jointly owned by the Government of Telangana and Government of India on a 51:49 equity basis. The Company was initially incorporated as "Hyderabad (Deccan) Company Limited" in England and acquired mining rights in 1886 to exploit coal found in Yellandu area. The present Company was incorporated on 23rd December, 1920 under the Hyderabad Companies Act as a Public Limited Company with the name 'The Singareni Collieries Company Limited' (SCCL).

As per the Nizam's Tripartite Agreement, dated: 5th August' 1931 signed by the Govt of HEH the Nizam; the SCCL and the Hyderabad Deccan Company Limited, the coal Mining Leases in Godavari Valley Coal Field were granted in favour of SCCL only in the erstwhile State. As per the Tripartite Agreement signed by SCCL; State Govt & Gol in 1974 and renewed every 5 years after coming in to force of The Coal Mines (Nationalization) Act' 1973, 44 MLs in GVCF were granted to SCCL only.

SCCL currently operates 25 underground mines and 20 opencast mines located in 7 Districts of Telangana State viz. Kumuram Bheem, Mancherial, Peddapalli, Jayashanker-Bhupalpalli, Bhadradri, Mulugu and Khammam. For administrative convenience, coal mines in Kumram Bheem & Mancherial Districts are grouped under Bellampalli Region, mines in Peddapalli & Jayashanker-Bhupalpalli, Mulugu Districts are grouped under Ramagundam Region and mines in Bhadradri & Khammam District are grouped under Kothagudem Region.

1.2 Location of the Project:

BPA OC-II Expansion Project is located in the northern part of the Dorli-Bellampalli coal-belt besides Goleti-1 Incline in the Godavari Valley Coalfield. It is partly located in Komaram Bheem Asifabad district and partly in Mancherial district of Telangana. It lies between East longitude 79°20'53" to 79°21'41" and North Latitude 19°12'34" to 19°12'56" and falls in the Survey of India Toposheet No. 56M/8.

1.3 Brief history of the Project:

BPA OC-II Expansion Project was started in 2006-07 and EC was obtained vide Lr. No. J-11015/147/2005-IA.II (M), dated: 11.09.2006 for a capacity of 0.4 MTPA.

Mining Plan (II Revision) & Mine Closure Plan of Bellampalli Opencast-II (BPA OC-II) Expansion Project was approved by MoC, GoI vide Lr. No. 13016/10/2006-CA II, dated: 26.07.2016 and the salient features are as below:

1	Name of the Mining Plan	Mining Plan (II Revision) & Mine Closure Plan of Bellampalli Opencast-II (BPA OC-II) Expansion Project
2	Type of the Mine	Opencast
3	New/Expansion	Expansion
4	Location	
	State	Telangana
	Latitude	N 19 ⁰ 12'34" to 19 ⁰ 12'56"
	Longitude	E 79 ⁰ 20'53" to 79 ⁰ 21'41"
	Topo Sheet No.	56M/8
5	Name of the Organization	The Singareni Collieries Company Limited
6	Coalfield	Godavari Valley Coal Field
7	Coal belt	Dorli-Bellampalli Coal belt
8	Borehole density (no./sq.km)	36.46
9	No. of coal seams present	4
11	Coal Reserves (Mte)	
a	Net geological reserve	7.69
b	Mineable reserve	7.00
c	Reserve depleted (up to 31.03.2016)	2.40
d	Balance extractable reserves (as on 31.03.2016)	4.60
12	Average grade of Coal	G8 to G9
13	Average gradient of the seams	1 in 3.17 to 1 in 4.4
14	Total OB to be excavated (MM ³)	45.51
15	Average Stripping Ratio (m ³ /t)	6.50
16	Rated Capacity (MTPA)	1.00
17	Life of the Mine (From 2016-17) (Years)	5
18	Land requirement (Ha)	191.98
	Forest Land	137.40
	Non Forest Land	54.58
19	Technology	Opencast Mining with Shovel-Dumper Combination
20	Area of Excavation (Ha)	90.51

21	Maximum depth of the quarry (m)	130
22	Coal Linkage	The coal produced will be supplied to the Customers as per the Fuel Supply Agreement (FSA) of the Company

2. INTRODUCTION OF THE PROJECT/ BACKGROUND INFORMATION

2.1 Identification of the Project:

The proposed Project is identified to supply uninterrupted coal to the Customers and to minimize gap between Demand and Supply of coal. Copy of Mining Lease is annexed as Annexure-I.

2.2 Project Proponent

The Project Proponent is M/s The Singareni Collieries Company Limited (SCCL).

Address of the Project Proponent:

Director (Planning & Projects),
The Singareni Collieries Company Limited,
PO:Kothagudem Collieries - 507 101,
Dist: Bhadradi, Telangana State,
E-Mail id: dpp@scclmines.com,
Ph.No. 08744 – 242602,
Fax No. 08744 – 242724.

2.3 Brief description of nature of the Project:

The proposed BPA OC-II Expansion Project is an Opencast Project using Shovel-Dumper Technology with a capacity of 1.00 MTPA and life of 5 years from 2016-17. Total extractable reserves & overburden to be excavated throughout life of mine are 7.00 Mte & 45.51 MM³ respectively with stripping ratio of 6.50 m³/t. As on 31.03.2016, Coal: 2.40 Mte & OB: 9.61 MM³ were excavated.

From 2016-17, Coal: 4.60 Mte & OB: 35.90 MM³ are to be excavated with a stripping ratio of 7.80 m³/t.

2.4 Need for the project and its importance to the Country and or Region:

Coal is primary source of energy in India with 3/4th of electricity supply coming from coal fired power plants. The Country imported 247.1 Tonnes of non-coking coal in the year 2019-20 and is looking to reduce import of coal to zero in next 5 years as part of "Aatma Nirbhar Bharat" Mission.

SCCL, being the only coal producing Company in Southern India, has the onerous responsibility of meeting large portion of coal demand in this part of the Country. Further, there is need for enhancement in coal production to meet the requirement of Telangana State in particular and India in general in view of the power demand. The Ministry of Coal, GoI has mandated SCCL to achieve 100 Million Tonnes production in next 5 years.

Further, there is need of sustenance of coal supplies in Bellampalli Area due to closure of Dorli OC-1, Dorli OC-II and Goleti 1&1A Incline.

2.5 Demand-Supply Gap:

The Demand-Supply Gap for the 2 years is furnished hereunder:

(in Mte)				
Sl. No	Year	2021-22	2022-23	2023-24
1	Demand	69.55	74.40	78.50
2	Supply	68.00	72.00	75.00
3	Gap	1.55	2.40	3.50

2.6 Imports Vs Indigenous production:

Certain quantity of coal is being imported to mitigate Demand-Supply Gap in the Country & as part of National interest to achieve reduced imports, it is thought to sustain current level of production in the Company by opening new opencast mines and by converting existing/closed UG mines to opencast.

2.7 Export possibility:

There is no possibility of export of coal from this Project, as the Project is intended to supply coal to the Customers as per the Fuel Supply Agreement (FSA) of the Company for sustenance of coal supplies.

2.8 Domestic / export markets:

The coal produced will be supplied to the Customers as per the Fuel Supply Agreement (FSA) of the Company.

2.9 Employment Generation (Direct and Indirect) due to the Project:

The manpower required for the proposed Mine is worked out as per the prevailing norms based on workload, HEMM fleet and working conditions. The Men on roll required to achieve the rated production of 1.00 MTPA is estimated to be 265. In addition to the above, Indirect Manpower for outsourcing operations is also required.

3. PROJECT DESCRIPTION

3.1 Type of Project including interlinked and interdependent Projects, if any:

The proposed BPA OC-II Expansion Project is an Opencast Project using Shovel-Dumper Technology. This project is independent and not interlinked or interdependent on any other Project for its production.

3.2 Location (map showing general location, specific location, and project boundary & project site layout) with coordinates:

BPA OC-II Expansion Project is located in the northern part of the Dorli-Bellampalli coal-belt besides Goleti-1 Incline in the Godavari Valley Coalfield. It is partly located in Komaram Bheem Asifabad district and partly in Mancherial district of Telangana. It lies between East longitude 79°20'53" to 79°21'41" and North Latitude 19°12'34" to 19°12'56" and falls in the Survey of India Toposheet No. 56M/8.

Plan showing the location of BPA OC-II Expansion Project is enclosed as Plate-I.

3.3 Details of alternative sites and the basis of selecting the proposed site, particularly the environmental considerations gone into should be highlighted.

Mining is site specific in nature. As such, alternative sites are not considered.

3.4 Size or magnitude of operation:

The proposed Project is planned to operate for a coal production capacity of 1.00 MTPA.

3.5 Project description with process details:

This project is a coal producing unit referred to as Coal Mine. The coal produced will be brought to surface and dispatched to the Customers.

It is proposed to excavate Coal and Overburden (OB) by Shovel-Dumper Combination through Outsourcing Agency.

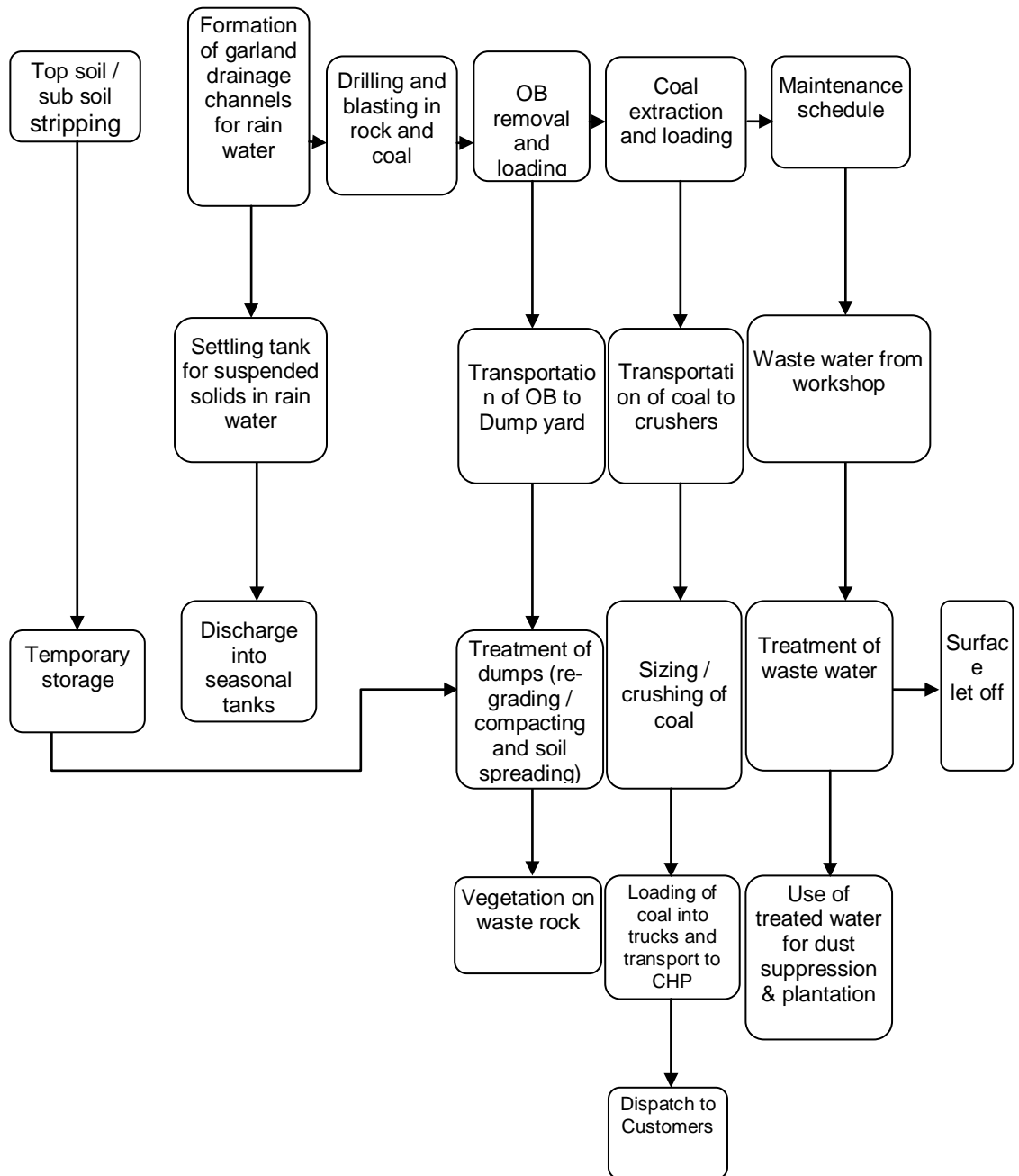
The excavation comprises the following:

- ❖ Removal of topsoil.
- ❖ Initial opening of Box Cut.
- ❖ Removal of overburden and inter-burden to expose the coal seams.
- ❖ Extraction of coal.

The activities involved are:

- ❖ Drilling and Blasting
- ❖ OB removal, transportation and dumping in ear marked Dump yards
- ❖ Transportation of coal to surface
- ❖ Dispatch of coal to Consumers.

MINE DEVELOPMENT AND COAL EXTRACTION PROCESS CHART:



3.6 Raw materials required along with estimated quantity, likely source, marketing area of final product, Mode of transport of raw Material and Finished Product:

- Raw material required along with estimated quantity, likely source is furnished hereunder:

Material	Quantity/Annum	Source
Explosives (T)	4092	Will be purchased from Explosive Companies
Diesel Oil (kl)	8184	Will be purchased from Oil Companies

- The final product i.e., coal will be supplied to the Customers as per the Fuel Supply Agreement (FSA) of the Company.
- Explosives will be transported in Explosive Vans and Diesel Oil in Diesel Browsers.
- Finished product i.e., Coal will be supplied from quarry to pit head CHP by dumpers, from pit head CHP to Area CHP by tippers and from Area CHP to Customers by Rail.

3.7 Resource optimization/recycling and re-use envisaged in the project, if any:

Resources like explosives, diesel oil, machinery, land, power and water will be fully optimized to minimize unnecessary loss during the process of extraction and supply of coal to the Customers.

As the coal mining process does not involve any chemical process, the pumped out water will be useful for supply for domestic purpose, drinking, watering plantations, parks, lawns, and gardens and spraying arrangement for dust control. The effluents from workshop will be treated in ETPs. Excess water that will be let out from the mine will be treated in settling tanks.

3.8 Availability of water source, Energy/power requirement and source:

The water seepage/rain water in the mine is collected at identified sumps and is pumped to surface by means of suitable capacity of pumps. The water required for industrial purpose such as washing, spraying, etc. is met from the pumped out water.

132/33kV, 79MVA sub-station of SCCL, Mandamarri is feeding power to Goleti.

3.9 Quantity of wastes to be generated (liquid and solid) and scheme for their Management/disposal:

Opencast coal mining involves extraction of coal from the earth's crust. During the process of extraction of coal, the superincumbent strata (Solid waste) known as overburden (OB) are required to be excavated and dumped in the earmarked sites (Dump yard). This Mine involves removal of 45.51 MM³ overburden during its life.

Out of 45.51 MM³ of total OB to be handled, 43.71 MM³ is hard OB and the balance 1.80 MM³ is topsoil. The gradient of all the blocks is more than 1 in 3.5 and the extents of all the blocks are too small to accommodate any back filling. Hence, it is envisaged to accommodate most of the OB in the de-coaled pits except for a quantity of 3.60 MM³ which is to be dumped in the external dump yard of Abbapur up to a height of +30m above ground level. The hard OB will be accommodated as shown in the following table:

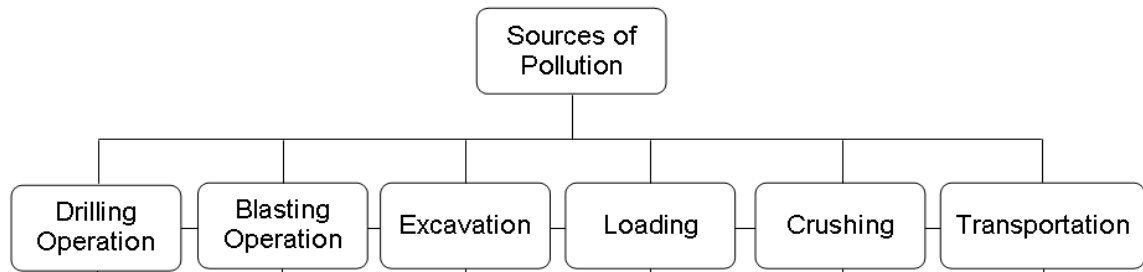
Stage at the end of	Coal Production		OB Removal (Bank M.Cum)			Total Excavation	Dumping (Including Top Soil) (Bank M.Cum)	
year	Mt	MCum	Top Soil	Hard OB	Total	(Mcum)	Internal	External
Till 2015-16	2.40	1.60	0.44	9.17	9.61	11.21	-	
1	0.76	0.51	0.43	7.90	8.33	8.84	-	8.15
2	1.00	0.66	0.57	7.43	8.00 +0.30*	8.66+0.30*	-	8.16+0.30*
3	1.00	0.66	0.28	7.38	7.66	8.33	-	7.68
4	1.00	0.66	0.08	7.54	7.62	8.28	-	7.62
5	0.84	0.56	-	3.99	3.99	4.55	-	3.99

*Note: 0.30 M.Cum of loose OB to re-handled from the Block-D quarry area.

Liquid waste like used engine oil, gear oil, brake oils and other lubricants generated in the mine will be stored in separate tins/drums/cans and sent to stores for disposal to SPCB authorized recyclers.

3.10 Schematic representation of the feasibility drawing which gives information for EIA purpose:

Schematic diagram showing the activities involved in the proposed Project which gives information for EIA purpose is furnished hereunder:



4. SITE ANALYSIS

4.1 Connectivity

- 4 km to Bellampalli to Asifabad PWD road.
- 7 km to Asifabad Road Railway Station on Kazipet-Ballarshah line of SCR.
- 335 km to RGI Airport, Hyderabad.

4.2 Land Form, Land use and Land ownership: (Pre-Mining Land Use pattern with land ownership)

S.No	Pre-mining Land use	Area (Ha)
01	Forest Land	137.40
02	Non-Forest Land (Tenancy)	
(a)	Agricultural land	13.57
	Non-Forest Land (Govt)	
(a)	Agricultural land	14.60
(b)	Surface water bodies	3.65
	Total Non Forest Land	31.82
	Land required for R&R	22.76
	Grand Total	191.98

4.3 Topography (along with map):

Block-C: This block forms a part of undulatory valley lying between Madaram gutta, Bejjal gutta and Madi gutta hill ranges. The Naspur nallah forms the main drainage, traversing right across the block from south to north and north east before joining Pulikuntala nallah. This Nallah was diverted and the coal extraction in this block is completed.

Block-B Extension: This is a gently rolling plain terrain sloping towards east with the topographic elevation varying from 293.45 m above Mean Sea Level (MSL) in the north central part to 301.66 m above MSL in the western part.

Block-D: This is a high ground on its southern side sloping to the three sides. Sonapur gutta (hillock) of about 55m above ground level is located in the northeastern part of the property. The general elevation of this block varies from 245m above MSL in the northeastern part to 360m above MSL in the southeastern part.

4.4 Existing land use pattern (Area in Ha):

S.No	Particulars	Total
1	Quarry, excavation area.	90.51
2	Safe barrier, drainage, protection bund etc	31.28
3	Dump yard including drains around the dump	23.81
4	Diversion of Nallah	13.52
5	diversion of public road	5.08
6	Road between Block-b ext & Block-D	1.92
7	CHP, ETP & Service buildings	3.10
8	Land for R&R	22.76
	Total land requirement	191.98

4.5 Existing Infrastructure:

- Office Buildings & pit head CHP.
- Well-established township
- Source of power and substation
- Connecting road and communication systems
- Guest houses, schools and hospitals.
- Area CHP

4.6 Social Infrastructure available:

The proposed project site is situated near Bellampalli town. The social infrastructure in terms of connectivity by road, communication, health, sanitation, community centers, education, financial institutions, income source etc. is well established.

Other facilities available are:

- Connectivity to District and State head quarters
- Power supply network and communication network
- Private & Government hospitals
- Bank facility and ATM counters
- Schools
- Parks for recreation
- Market facilities and shops
- Sports & Cultural activities
- Encouraging Horticulture

5. PLANNING BRIEF

5.1 Planning concept (type of industries, facilities, transportation, etc.) Town and Country:

➤ Choice of Mining:

Opencast Mining with Shovel-Dumper combination from reserves conservation point of view.

➤ Brief description of all operations:

Winning:

- Winning operations will be done strictly adhering to DGMS and other statutory provisions/approvals.
- Hydraulic shovels will be deployed on horizontal plane and blasted OB will be excavated in one pass & where as coal will be lifted in slices of about 3m.
- Clean-up of coal face will be done by 410HP track dozers to avoid intermixing of Coal & OB.

For controlling fire, where UG workings proposed for conversion to OC, the workings are proposed for drowning & controlled dewatering with submersible pumps. The water level will be always maintained 10 m away from the exposed coal floor.

Coal & OB transportation:

- Coal from quarry to pit head CHP by dumpers and to Goleti Area CHP by tippers and to the customers by Rail.
- Total overburden will be handled by Shovels and Dumpers.

Men and Material Transportation:

- Men transportation planned by Mini Buses.
- Material handling planned with trucks/trailers/vans/bowsers; lifting and loading heavy material with cranes/lifters/EOT cranes etc.

Drilling and Blasting:

- Drilling and Blasting operations will be carried as per DGMS recommendations/approvals using wet drills.
- Drilling in OB benches will be done with 150mm X 6m drill hole in staggered pattern & blasting using Site Mixed Explosives initiating with cast boosters & Nonels with required accessories & relays.

- Drilling in coal benches will be done with 150mm X 6m drill hole in staggered pattern maximum 9 rows & blasting using Explosives/SME initiating with cast boosters & Nonels with required accessories & relays.
- In UG galleries where parting approaches 6m, drilling will be done up to the coal seam floor & blasted.

Overburden removal and disposal:

- Hydraulic shovels will be deployed on blasted OB benches with optimum number of dumpers (5-6 per each shovel) based on lead after dozing the area.
- The OB so excavated from the set of 3 benches will be disposed in the dump yard with maximum lift of 30m OB deck following minimum lead path.
- The ramps are so planned to facilitate HEMM with a gradient not more than 1 in 16. Curves area designed with super elevation and to have proper visibility in compliance of CMR 2017.
- Haul roads with berms are planned with minimum lead & lift by dozing/grading/compacting properly complying the provisions of CMR 2017.
- One corridor with 30m width at final high wall benches planned at 100m depth to enhance the slope stability & facilitate HEMM movement.
- Before start of internal dumping, quarry floor will be roughened at every 30m strip of width 10m to prevent sliding of dumped material.
- Adequate water sprinklers/tankers will be deployed to control airborne dust in the mine.

Coal production Plan:

Quantities	Financial Year	Year	Coal (Mt)	OB (M.Cum)	SR(Cum/T)
Excavated Quantities	Till 2015-16		2.40	9.61	4.00
Balance Quantities	2016-17	1	0.76	8.33	10.93
	2017-18	2	1.00	8.00+ (0.30 Rehandling over Block-D)	8.30
	2018-19	3	1.00	7.66	7.66
	2019-20	4	1.00	7.62	7.62
	2020-21	5	0.84	3.99	4.75
Subtotal (Expansion)			4.60	35.90	7.80
Total			7.00	45.51	6.50

5.2 Population Projection:

Equipment configuration is furnished in tabular form in Table below:

Sl. No.	Description	Equipment No.
A	Coal(Departmental)	
	3 Cum Diesel. Hyd. Backhoe	1
	35 T Dumpers	6
	160mm Diesel RBH drills	1
	320 HP Dozers	1
B	Reclamation(Departmental)	
	Water sprinkler (28KL)	1
	Motor Grader (145HP)	1
C	Common(Departmental)	
	1.0 Cum Diesel Hydraulic Excavator	1
	Loader (2.5 Cum)	1
D	Overburden(Off-loading)	
	By hiring of HEMM including for drilling	
	3 Cum Hyd. Backhoe	8
	18 T trucks	56
	Loader (2.6 cum)	1
	28 KL Water Tankers	3
	320 HP Dozers	6
	Motor Grader	2

5.3 Land use planning (break up along with green belt etc.) (in Ha):

Sl. No	Description	Land Use (Post Closure)				
		Plantation	Water body	Public Use	Other Uses	Total
1	Excavation Area					
	(a) Backfilled area (Block C & B Ext.)	49.87				49.87
	(b) Void area left of (Block-D)		40.64			40.64
2	External waste dump	19.16				19.16
3	Diversion of Nallah		13.52			13.58
4	Diversion of public road			5.08		5.08
5	CHP and Service buildings	3.10				3.10
6	Protective bund around quarry& dump yard, safety distance & drains	37.85				37.85
	TOTAL	109.98	54.16	5.08		169.22
7	Area utilized for rehabilitation and resettlement			22.76		22.70
	Grand Total		54.16	27.84		191.98

5.4 Assessment of infrastructure Demand (physical & social):

This mine is operated in the existing coal belt of the Company and well established infrastructure such as roads, communication, power supply arrangements, Schools, community halls etc. are available.

5.5 Amenities/Facilities:

The facilities that are provided to the persons connected with mining operation whether direct or indirect are:

Rest shelters, canteen facilities at subsidized rates, washing/bathing facilities, provision of motor cycle/cycle sheds, provision of drinking water points, sanitation facilities, first aid, medical facilities etc. Residential quarters are provided in the township for the persons employed in the mine.

6. PROPOSED INFRASTRUCTURE

6.1 Industrial Area (Processing Area):

It is an operating mine and Service buildings, Pit head CHP, etc. are existing.

6.2 Residential Area (Non-Processing Area):

Residential Quarters for the employees of Bellampalli Area with all basic amenities are provided.

6.3 Green Belt:

The green belt details are furnished hereunder:

S.No	Year	Plantation Area (Ha)
1	Up to 31.03.2014	9.30
2	1 st year	15.36
3	2 nd year	28.22
4	3 rd year	25.21
5	4 th year	27.33
6	5 th year	63.76
	Total	169.18

6.4 Social Infrastructure:

Social Infrastructure available in the area will cater to the needs of the employees working in the mine. Additional social infrastructure required for the employees will also be provided.

6.5 Connectivity (Traffic and Transport Road/Rail, metro, water ways, etc.):

- 4 km to Bellampalli to Asifabad PWD road.
- 7 km to Asifabad Road Railway Station on Kazipet-Ballarshah line of SCR.
- 335 km to RGI Airport, Hyderabad.

6.6 Drinking Water Management:

The water collected at identified sumps will be pumped to surface by means of suitable pumps. The, the water will be pumped to filter bed on surface and after suitable treatment; it will be used for drinking purpose.

6.7 Industrial Waste Management:

Mine water pumped out of the mine is the major effluent source. At present, the water is treated in settling ponds located at strategic locations for removal of suspended solids before letting out to natural streams. The other source of concern is the domestic and service building effluents. The domestic effluents are treated in septic tank followed by soak pits. The effluents from the workshops are being treated at Effluent Treatment Plant.

Coal-containing impurities such as shale etc. which may be excavated in the coal extraction process will be separated. This shale will be handled separately and will be dumped in the OB dump yards.

In the proposal also above mentioned treatment methods will be deployed to prevent pollution.

6.8 Solid Waste Management:

In the proposed Mine, solid waste is produced in the form of overburden (OB). The Management of solid waste (overburden) is furnished hereunder:

(Figures in MM³)

OB Dumping					
Name of the Dump yard	Quantity Dumping		Excavated From		Total
	H OB	Topsoil	H OB	Topsoil	
De-coaled area of Block-A of BPA OC-II	9.17	0.25	C	B Ext	9.42
Abbapur external dump	3.60	0.29	B Ext	B Ext	3.89
De-coaled area of Block-C	9.53	0.46	B Ext	D	9.99
De-coaled area of Block-B Ext	21.41	0.36	D	D	21.77
Dumps of Block-A & E of BPA OC-I		0.44		C	0.44
	43.71	1.80			45.51

6.9 Power Requirement and Supply/ source:

132/33kV, 79MVA sub-station of SCCL, Mandamarri is feeding power to Goleti.

7. REHABILITATION AND RESETTLEMENT (R&R) PLAN

R&R for the PDFs/PAFs to be done as per the prevailing Govt. Rules. Compensation to the land losers will be paid as per the directions of the Government.

8. PROJECT SCHEDULE AND COST ESTIMATES

8.1 Likely date of start of construction and likely date of completion:

BPA OC-II Expansion Project is already working Mine.

8.2 Estimated project cost along with analysis in terms of economic viability of the Project:

Estimated Project cost is tentatively works out to Rs. 79.03 Crores.

9. ANALYSIS OF PROPOSAL (FINAL RECOMMENDATIONS)

Financial and social benefits with special emphasis on the benefit to the local people in the area are as given below:

➤ Improvement in Physical Infrastructure:

This Project is located in Kumuram Bheem and Mancherial Districts of Telangana State, where communications and other facilities are well established. The following physical infrastructure facilities will be further improved due to the proposed Project.

- Road Transport facilities
- Communications
- Housing facilities
- Water supply and sanitation
- Power
- Medical, Educational and social benefits will be made available to the nearby civilian population in addition to the employees employed in the Project.

➤ Improvement in Social Infrastructure:

Coal mining and agriculture are the basic sectors of employment for the local people in this area. This Project will provide indirect employment opportunities to local community. Employment is expected in civil constructions, in trade, garbage lifting, sanitation and other ancillary services. Employment in these sectors is primarily temporary or contractual and involvement of unskilled labour is more. A major part of this labour force is mainly from local villagers who are expected to engage themselves both in agriculture and Project activities. This will enhance their income and lead to overall economic growth of the area.

The following changes in socio-economic status are expected to take place with this Project:

- The Project will have a strong positive employment and income effect, both direct and indirect. Migrant - non-migrant ratio will shift towards migrant side because a number of people will migrate towards the central region of study circle in the years to come. This will happen because of better indirect employment opportunities due to this Project.
- The Project is going to have positive impact on consumption behavior by way of raising average consumption and income through multiplier effect.
- The Project is going to bring about changes in the pattern of demand from food to non-food items and sufficient income will be generated.

- People perceive that the Project will help in the development of social infrastructures, such as:
 - ❖ Education facilities
 - ❖ Banking facilities
 - ❖ Post offices and Communication facilities
 - ❖ Medical facilities
 - ❖ Recreation facilities
 - ❖ Business establishments & Community facilities
 - ❖ Plantation and parks

➤ **Other Tangible Benefits:**

The proposed project is likely to have other tangible benefits as given below:

- ❖ Indirect employment opportunities to local people in contractual works like housing construction, transportation, sanitation, for supply of goods and services to the Project and other community services.
- ❖ Additional housing demand for rental accommodation will increase.
- ❖ Market and business establishment facilities will also increase.
- ❖ Cultural, recreation and aesthetic facilities will also improve.
- ❖ Improvement in communication, transport, education, community development and medical facilities.
- ❖ Overall change in employment and income opportunity.
- ❖ The State Government will also benefit directly from the proposed Project, through increased revenue from royalties, excise duty, etc.

10. JUSTIFICATION

- Opencast method of work provides better recovery of coal and reduces gestation period.
- The coal left in pillars and in barriers of the UG mine are proposed to be extracted by the opencast mine for better Conservation of coal.
- This Project will produce 1.00 Mty of coal.
- As on 31.03.2021, 5.61 Mte Coal & 35.05 MM³ OB were excavated.
- The Project will maintain the production capacity and productivity of the Bellampalli Area of SCCL.
- The Project will sustain coal supplies as per FSA linkage.
- Better safety, quality and economics will be achieved with the project.

11. RISK FACTORS ANALYSIS

- As spontaneous heating will be a continuous problem, for safe and immediate withdrawal, diesel- operated shovels are planned on coal benches.
- For controlling fire where UG workings are proposed for conversion to OC, the workings are proposed for drowning & controlled dewatering with submersible pumps.

GOVERNMENT OF TELANGANA
ABSTRACT

MINES AND MINERALS – 2nd Renewal of Mining Lease for extraction of Coal over an extent of 12611.70 Hectares involving 4902.00 Hectares of Forest Land in Tandur Coalfields of Adilabad District for a further period of 20 years from 01.01.2015 in favour of M/s. Singareni Collieries Company Limited - Sanction - Orders - Issued.

ENERGY (PR.I) DEPARTMENT

G.O.Ms.No.03

Dated: 12.01.2015.
Read the following:

1. G.O.Ms.No.150, Ind.&Com.(M-III) Dept., dated 12.02.1990.
2. M/s. Singareni Collieries Company Limited 2nd RML Application dated 27.06.2012.
3. DMG File No.2014/R3/2012, dated 11.12.2014.
4. State Govt.Lr.No.744/Pr.I/2014, Energy (PR.I) Department dated 15.12.2014.
5. Ministry of Coal, GoI Lr.No.13016/1/89-CA-II(Pt.I), dated 2.1.2015.
6. SCCL Lr.No.CRP/EST/M/659/22, dated 7.1.2015.

...

ORDER:

In the reference 1st read above, Government have granted 1st Renewal of Mining Lease for Coal over an extent of 62.88 Sq.Miles (16286.00 Hectares) in Tandur Coalfields of Adilabad District for a period of 30 years from 01.01.1985 in favour of M/s. Singareni Collieries Company Limited.

2. In the reference 2nd read above, M/s. Singareni Collieries Company Limited have filed application for 2nd renewal of Tandur Mining Lease for a reduced extent of 12611.70 Hectares involving 4902.00 Hectares of Forest Land for a further period of 20 years from 01.01.2015.

3. The Director of Mines & Geology in the reference 3rd read above, sent proposals for grant of 2nd Renewal of Tandur Mining Lease for a reduced extent of 12611.70 Hectares involving 4902.00 Hectares of Forest Land for a further period of 20 years from 01.01.2015 in favour of M/s. Singareni Collieries Company Limited subject to obtain prior approval of Govt. of India under Section 5(1) and relaxation under Section 6(1)(b) of MM(D&R)Act, 1957 and subject to satisfaction of terms and conditions of MM(D&R)Act, 1957 and M.C.Rules, 1960.

4. In the reference 4th read above, State Government have proposed for grant of 2nd Renewal of Mining Lease for extraction of Coal for a reduced extent of 12611.70 Hectares involving 4902.00 Hectares of Forest Land for a further period of 20 years from 01.01.2015 in favour of M/s. Singareni Collieries Company Limited subject to prior approval of Govt. of India under Section 5(1) and relaxation under Section 6(1)(b) of MM(D&R)Act, 1957 and subject to satisfaction of terms and conditions of MM(D&R)Act, 1957 and M.C.Rules, 1960.

5. In the reference 5th read above, the Ministry of Coal, Government of India, have conveyed their prior approval for grant of 2nd Renewal of Mining Lease for extraction of Coal over a reduced extent of 12611.70 Hectares involving 4902.00 Hectares of Forest Land for a further period of 20 years from 01.01.2015 in favour of M/s. Singareni Collieries Company Limited under Section 5(1) and relaxation under Section 6(1)(b) of MM(D&R)Act, 1957 since the total area of the Mining Lease granted to M/s. Singareni Collieries Company Limited so far exceeded 10 Sq.Kms. in the interest of development of the minerals with a condition to grant renewal only after submission of Mining Plan duly approved by Central Government and obtain the prior approval of the Forest Clearance from MoEF.

TTC

6. M/s. Singareni Collieries Company Limited in the reference 6th read above has informed that the application submitted for approval under F(C)Act for the forest land of 4902.00 Ha. has been forwarded by the State Government (EFS&T Dept.) vide letter No.3114/For.I(1)/2014-1, dated 13.11.2014. Orders of MoEF are awaited.

Further, SCCL in the reference 6th read above have submitted copies of the Mining Plans approved by the Ministry of Coal, Govt. of India and requested for grant of renewal of the Lease.

7. Government, after careful examination of the matter, hereby grant 2nd Renewal of Tandur Mining Lease for extraction of Coal over a reduced extent of 12611.70 Hectares involving 4902.00 Hectares of Forest Land for a further period of 20 years from 01.01.2015 in favour of M/s. Singareni Collieries Company Limited subject to submitting Forestry clearance granted by Ministry of Environment & Forests, Government of India for the forest land covered in the Lease and satisfaction of terms and conditions of MM(D&R)Act, 1957 and M.C.Rules, 1960 and also subject to the satisfying conditions in Form-K prescribed under the M.C.Rules, 1960 and subject to furnishing Forestry Clearance from MoEF before execution of the Lease Deed.

8. The rates of royalty, dead rent, surface rent & water charges and cess shall be collectable as follows or as revised by Government from time to time:

I. Rates of Royalty:

COAL:

The rates of royalty on coal shall be @ 14% (fourteen percent) ad-valorem on price of coal, as reflected in the invoice, excluding taxes, levies and other charges.

II. Dead Rent:

Rates of dead rent in rupees per hectare per annum or as revised by Government from time to time.

First year	2 nd year	3 rd & 4 th years	5 th year onwards
100/-	200/-	500/-	1000/-

III. Surface rent & water charges : As fixed by the Government from time to time and also Cess

9. ✓ The grantee should pay a deposit of Rs.10,000/- as prescribed under rule 32 of the Mineral Concession Rules, 1960 before the lease is actually executed.

10. The grantee should execute the lease deed within the time limit specified in Rule 31 of Mineral Concession Rules, 1960.

11. The terms and conditions referred to in para-6 of this order are subject to such further modifications, additions and alternations as may be ordered before the lease deed is executed.

The Director of Mines & Geology shall take necessary further action for execution of the lease deed after satisfying himself that the grantee fulfils all the required provisions of the amended Act and Rules. As soon as the deed is executed, the date of such execution should be reported to the Government.

NOTE: The grant is liable for cancellation, should it be found that it was grossly inequitable or was made under a mistake of fact or owing to misrepresentation or fraud or in excess of authority.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF TELANGANA)

Dr. SK JOSHI
PRL. SECRETARY TO GOVERNMENT

To
M/s. Singareni Collieries Company Limited,
Kothagudem Collieries-507 101,
Khammam District, Telangana State.
The Director of Mines and Geology, Hyderabad (w.e. File & MP).

Copy to:

The Asst. Director of Mines and Geology, Mancherial, Adilabad District.
The Collector, Adilabad District.
The Secretary to Govt. of India, Ministry of Coal, New Delhi.
The Controller General, Indian Bureau of Mines, Nagpur.
The Director General of Mines Safety, Dhanbad, Bihar.
The Regional Controller of Mines, Koti, Hyderabad.
The Divisional Forest Officer, Bellampalli, Adilabad District.

SF/SC

//FORWARDED BY ORDER//

J. Vachan
SECTION OFFICER.

12.1.2.15

F. No. 8-216/1985-FC (Pt.)

Government of India

Ministry of Environment, Forest and Climate Change
(Forest Conservation Division)

Indira Paryavaran Bhawan

Aliganj, Jorbagh Road

New Delhi - 110 003

Dated: 12th December, 2018

To,

The Special Secretary to Government,
Environment, Forests, Science & Technology Environment,
Government of Telangana,
Hyderabad.

Sub: Proposal for 2nd Renewal of Tandur mining lease for diversion of Reduced Area of 1427.22 ha (Originally proposed area 4902 ha) forest land for Open Cast / Underground Coal Mining in favour of M/s. Singareni Colliers Company Limited (SCCL) Bellampally Forest Division of Adilabad Circle, Adilabad district, Telangana-regarding.

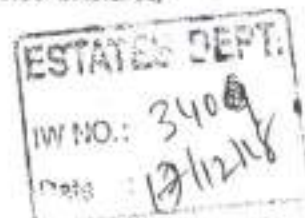
Sir,

I am directed to refer to the Special Chief Secretary to Govt. (FCA), Govt. of Telangana's letter No. 3114/For.I (1)/2014-1 dated 13.11.2014 on the above mentioned subject, seeking prior approval of 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.

2. After careful consideration of the proposal of the State Government of Telangana and on the basis of the recommendations of the Forest Advisory Committee, the Central Government hereby agrees to accord stage-I / In-principle approval under the Forest (Conservation) Act, 1980 for 2nd Renewal of Tandur mining lease for diversion of Reduced Area of 1427.22 ha (Originally proposed area 4902 ha) forest land for Open Cast / Underground Coal Mining in favour of M/s. Singareni Colliers Company Limited (SCCL) Bellampally Forest Division of Adilabad Circle, Adilabad district, Telangana, subject to the following conditions:-

- (i) Legal status of the diverted forest land shall remain unchanged;
- (ii) The State Government shall take possession of 5845.78 ha (7273-1427.22 = 5845.78 ha.) and revised the lease agreement/Lol for 1427.22 ha. before Stage-II approval;
- (iii) The approved revised mining plan for 1427.22 ha. shall be submitted before Stage-II approval;
- (iv) The user agency shall submit DGPS maps for 1427.22 ha of forest land and also demarcate the same;
- (v) The user agency shall demarcate of encroached area i.e. 688.44 ha. of forest land on the DGPS map;
- (vi) The user agency shall pay the NPV for 1427.22 ha and penal NPV for 37.25 ha @20% of NPV per year since 01.01.2015;
- (vii) The user agency shall take up plantations on double the degraded area for the encroachment;
- (viii) Compensatory afforestation over the degraded forest land of twice in extent to the area of forest land proposed to be diverted shall be raised within a period of three years with effect from the date of issue of Stage-II clearance and maintained thereafter as per approved plan by the State Forest Department at the cost of the user agency deposited in account of Ad-hoc CAMPA;

1 | Page

- (ix) The land identified for the purpose of CA shall be clearly depicted on a Survey of India topo-sheet of 1:50,000 scale;
- (x) The User Agency shall transfer the cost of raising and maintaining the compensatory afforestation at the current wage rate in consultation with State Forest Department. The scheme may include appropriate provision for anticipated cost increase for works scheduled for subsequent years;
- (xi) 25% of CA cost will be deposited extra by the user agency deposited in account of Ad-hoc CAMPA for soil and moisture conservation (SMC) activities on the CA land;
- (xii) The User Agency shall transfer the funds for the Net Present Value (NPV) of the forest land being diverted under this proposal from the User Agency as per the orders of the Hon'ble Supreme Court of India dated 28.03.2008, 24.04.2008 and 09.05.2008 in Writ Petition (Civil) No. 262/1995 and the guidelines issued by this Ministry vide its letter No. 5-3/2007-FC dated 05.02.2009 through online portal in the account of Ad-hoc CAMPA concerned;
- (xiii) At the time of payment of the Net Present Value (NPV) at the present rate, the user agency shall furnish an undertaking to pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India;
- (xiv) The user agency shall obtain the Environment Clearance as per the provisions of the Environment (Protection) Act, 1986, if required;
- (xv) Following activities shall be undertaken by the user agency under the supervision of the State Forest Department at the project cost and appropriate cost of the plan / scheme shall be deposited in account of Ad-hoc CAMPA concerned:
 - a) A plan containing appropriate mitigative measures to minimize soil erosion and choking of streams shall be prepared and implemented;
 - b) Planting of adequate drought hardy plant species and sowing of seeds in the appropriate area within the mining lease to arrest soil erosion;
 - c) Construction of check dams, retention / toe walls to arrest sliding down of the excavated material along the contour;
 - d) Stabilize the overburden dumps by appropriate grading/benching so as to ensure that that angles of repose at any given place is less than 28°; and
 - e) Strict adherence to the prescribed top soil management;
- (xvi) The user agency shall prepare a land surrender schedule for surrender of the mined out and biologically reclaimed forest land in accordance with the existing mine plan and progressive mine closure plan and submit an undertaking that mined out and biologically reclaimed forest land will be surrendered to the State Forest Department as per this schedule;
- (xvii) User agency in consultation with the State Forest Department shall create and maintain alternate habitat/ home for the avifauna, whose nesting trees are to be cleared in this project. Bird nests artificially made out of eco-friendly materials shall be used in the area, including forest area and human settlements, adjoining the forest area being diverted for the project;
- (xviii) User agency either himself or through the State Forest Department shall undertake fencing, protection and afforestation of the safety zone area (as per the Ministry's guidelines dated 27.05.2015), at the project cost;
- (xix) User agency either himself or through the State Forest Department shall undertake afforestation on degraded forest land, one and half time in extent to the area used for safety zone;
- (xx) Period of diversion of the said forest land under this approval shall be for a period co-terminus with the period of the mining lease proposed to be granted under the

Mines and Minerals (Development and Regulation) Act, 1957, and the Rules framed there-under as amended;

- (xxi) User agency either itself or through the State Forest Department shall undertake gap planting and soil & moisture conservation activities to restock and rejuvenate the degraded open forests (having crown density less than 0.4), if any, located in the area within 100 meters from outer perimeter of the mining lease;
- (xxii) The User Agency shall prepare a list of existing village tanks and other water bodies with GPS co-ordinates located within five km. from the mine lease boundary. This list is to be duly verified by the concerned Divisional Forest Officer. The User Agency shall regularly undertake desilting of these village tanks and other water bodies so as to mitigate the impact of siltation of such tanks/water bodies. A detailed plan for desilting of identified ponds and water bodies to be prepared in consultation with forest department and shall be submitted to MoEF & CC before Stage-II approval;
- (xxiii) The User Agency shall implement the R&R Plan as per the R&R Policy of State Government in consonance with National R&R Policy, Government of India before the commencement of the project work and implementation. The said R&R Plan will be monitored by the State Government/Regional Office of MoEF & CC along with indicators for monitoring and expected observable milestones;
- (xxiv) User agency shall undertake mining in a phased manner and take due care for reclamation of the mined over area. The concurrent reclamation plan shall be executed by the User Agency as per the approved mining plan/scheme and an annual report on implementation thereof shall be submitted to the Nodal Officer, Forest (Conservation) Act, 1980, Government of Telangana and the Addl. Principal Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office, Chennai. If it is found from the annual report that the activities indicated in the concurrent reclamation plan are not being executed by the user agency, the Nodal Officer or the Addl. Principal Chief Conservator of Forests (Central) may direct that the mining activities to be suspended till such time, such reclamation activities are satisfactorily executed;
- (xxv) No labour camps/residential buildings or huts shall be established on the forest land;
- (xxvi) User agency shall provide firewood preferably alternate fuel to the labourers and the staff working at the site so as to avoid any damage and pressure on the adjacent forest areas;
- (xxvii) Boundary of the mining lease and safety zone shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, forward and back bearing, distance from pillar to pillar and GPS co-ordinates;
- (xxviii) Forest land shall not be used for any purpose other than that specified in the proposal;
- (xxix) State Government shall complete settlement of rights, in term of the Scheduled Tribes and Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, if any, on the forest land to be diverted and submit the documentary evidence as prescribed by this Ministry in it's letter No. 11-9/1998-FC (pt.) dated 3rd August 2009 read with 05.07.2013, in support thereof;
- (xxx) The user agency shall submit the annual self-compliance report in respect of the above conditions to the State Government, concerned Regional Office and this Ministry by the end of March every year regularly;
- (xxxi) Any other condition that the Regional Office (Western Zone), Bhopal of this Ministry, may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife;



- (xxxii) The State Government and user agency shall comply the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court & NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project;
- (xxxiii) In compliance of the Rule 41 of the Mineral Conservation and Development Rules, 1988 the restoration of flora in the entire lease area will be done in such a manner so as:
- To cause least damage to the flora and fauna of the area held under prospecting license / mining lease and the nearby areas.
 - Take immediate measures for planting in the same area or any other area selected by the Comptroller General or the authorized officer not less than twice the number of trees destroyed by reason of any prospecting or mining operations.
 - Look after them during the subsistence of the licence/lease after which these trees shall be handed over to the State Forest Department or any other authority as may be nominated by the Comptroller General or the authorized officer; and
 - Restore, to the extent possible, other flora destroyed by prospecting or mining operations.
- (xxxiv) The details of such number of trees to be felled on forest as well as non-forest area in the lease and plantation of double the number of trees in the lease area or outside will be provided to the concerned Divisional Forest Office, and the Concerned Regional Office of the Ministry who will monitor such plantation efforts by the company;
- (xxxv) The user agency should ensure that the compensatory levies (CA cost, NPV, etc.) are deposited through challan generated online on web portal and deposited in consultation with the State Forest Department; and
- (xxxvi) The period of lease and valid lease documents shall be submitted to MoEF & CC prior to Stage-II approval;

3. After receipt of the report on compliance to the conditions stipulated in the paragraph-2 above, from the State Government of Telangana, final / stage-II approval for diversion of proposed forest land under Section-2 of the Forest (Conservation) Act, 1980 will be issued by this Ministry. Transfer of the said forest land to the user agency shall not be effected by the State Government of Telangana till final/stage-II approval for its diversion is issued by this Ministry.

Yours faithfully,

(Shrawan Kumar Verma)

Dy. Inspector General of Forests

Copy to:-

1. The PCCF, Govt. of Telangana, Hyderabad.
2. The APCCF (Central), Regional Office (SEZ), Chennai.
3. The Nodal Officer, FC Act, 1980, O/o PCCF Forest Department, Government of Telangana, Hyderabad.
4. User Agency.
5. Monitoring Cell, FC Division, MoEF & CC, New Delhi, for uploading.
6. Guard File.

(Shrawan Kumar Verma)

Dy. Inspector General of Forests

F. No. 8-21/2009-FC
Government of India
Ministry of Environment, Forests and Climate Change
(Forest Conservation Division)

Indira Paryavaran Bhawan,
Aliganj, Jorbagh Road,
New Delhi - 110 003
Dated: 4th September, 2014

To

The Special Secretary to Government,
Environment, Forests, Science & Technology Deptt.,
Telangana Secretariat,
Hyderabad.

Sub: Diversion of 108.78 hectares of forest land in Rebbama and Tandur Reserved Forests under Bellampalli Range of Bellampalli Division, Adilabad District in favour of Singareni Collieries Company Ltd. for Bellampalli OC-II Extension Project 'B' and 'D' blocks.

Sir,

I am directed to refer to Government of Andhra Pradesh's Letter No. 1110/FOR.I (1)/2009-1 dated 27.02.2009 on the above mentioned subject, wherein prior approval of the Central Government for the diversion of 108.78 hectares of forest land in Rebbama and Tandur Reserved Forests under Bellampalli Range of Bellampalli Division, Adilabad District in favour of Singareni Collieries Company Ltd. for Bellampalli OC-II Extension Project 'B' and 'D' blocks, was sought, in accordance with Section 2 of the Forest (Conservation) Act, 1980. After careful consideration of the proposal by the Forest Advisory Committee constituted under Section-3 of the said Act, stage-I approval for diversion of the said forest land was accorded by the Ministry vide its letter of even number dated 18th January 2013 subject to fulfillment of certain conditions. The State Government has furnished compliance report in respect of the conditions stipulated in the stage-I 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 State Government of Andhra Pradesh vide letter No. 1110/ FOR.(I)/2009 dated 9th January 2014 and by the Government of Telangana vide letter No. 1110/ FOR.(I)/2009 dated 16th July 2014, approval of the Central Government is hereby granted under Section-2 of the Forest (Conservation) Act, 1980 for diversion of 108.78 hectares of forest land in Rebbama and Tandur Reserved Forests under Bellampalli Range of Bellampalli Division, Adilabad District in favour of Singareni Collieries Company Ltd. for Bellampalli OC-II Extension Project 'B' and 'D' blocks, subject to the following conditions:-

- (i) Legal status of the diverted forest land shall remain unchanged;
- (ii) State Government shall raise and maintain from funds realised from the user agency compensatory afforestation over the non-forest land equal in extent to the forest land transferred and mutated in favour of the State Forest Department;

- (iii) The non-forest land which has been transferred and mutated in favour of the State Forest Department for the purpose of compensatory afforestation shall be declared as Reserved Forest under Section-4 or Protected Forest under Section-29 of the Indian Forest Act, 1927 or under the relevant Section(s) of the local Forest Act. The Nodal Officer must report compliance within a period of six (6) months and send a original notification of RF/ PF as the case may be to the Central Government for confirmation and record;
- (iv) Following activities shall be undertaken by the User Agency as per plan and approved EMP submitted by them, at the project cost:
 - (a) Execution of appropriate mitigative measures to minimize soil erosion and choking of streams as per the plan prepared by the user agency;
 - (b) Planting of adequate drought hardy plant species and sowing of seeds in the appropriate area within the mining lease to arrest soil erosion;
 - (c) Construction of check dams, retention / toe walls to arrest sliding down of the excavated material along the contour as per the design approved in the Environmental management Plan (EMP);
 - (d) Stabilize the overburden dumps by appropriate grading/benching so as to ensure that that angles of repose at any given place is less than 28°; and
 - (e) Strict adherence to the prescribed top soil management as per the EMP.
- (v) The State Government shall realise from the user agency additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India and transfer the same to the Ad-hoc CAMA under intimation to this Ministry;
- (vi) The user agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required;
- (vii) State Forest Department shall undertake fencing, protection and afforestation of the safety zone area (7.5 meter strip all along the outer boundary of the area identified to undertake mining) from funds already realized from the user agency;
- (viii) State Forest Department shall undertake afforestation on degraded forest land, one and half time in extent to the area used for safety zone from funds already realized from the user agency;
- (ix) To prevent encroachment of forest land by the 82 families residing on the forest land proposed for diversion the user agency shall prepare an appropriate Rehabilitation and Resettlement (R & R) plan containing detailed provision, including acquisition of land for resettlement of these families;
- (x) The user agency shall track location of each displaced family and ensure that none of them encroach/occupy forest land. To demonstrate compliance with the said condition for at least from the date of taking possession of the forest land, the user agency shall submit an annual certificate to the Principal Chief Conservator of

[Handwritten signature]
04/01/2017

- Forests, Government of Andhra Pradesh that none of the persons displaced from the project land has encroached/settled on the forest land during the year; -
- (xi) The period of diversion of the said forest land under this approval shall be for a period co-terminus with the period of the mining lease proposed to be granted under the Mines and Minerals (Development & Regulation) Act, 1957, or Rules framed there under, subject to a maximum period of 30 years;
 - (xii) User agency shall undertake gap planting and soil & moisture conservation activities to restock and rejuvenate the degraded open forests (having crown density less than 0.4), if any, located in the area within 100 m. from outer perimeter of the mining lease;
 - (xiii) The user agency shall undertake de-silting of the village tanks and other water bodies located within five km from the mine lease boundary so as to mitigate the impact of siltation of such tanks/water bodies, whenever required;
 - (xiv) The user agency shall undertake mining in a phased manner after taking due care for reclamation of the mined over area. The concurrent reclamation plan shall be executed by the user agency from the very first year, and an annual report on implementation thereof shall be submitted to the Nodal Officer, Forest (Conservation) Act, 1980, Government of Telangana and the Addl. Principal Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office (South Eastern Zone), Chennai. If it is found from the annual report that the activities indicated in the concurrent reclamation plan are not being executed by the User Agency, the Nodal Officer or the Addl. Principal Chief Conservator of Forests (Central) may direct that the mining activities shall remain suspended till such time, such reclamation activities are satisfactorily executed;
 - (xv) No labour camp shall be established on the forest land;
 - (xvi) The user agency shall provide firewood preferably alternate fuel to the labourers and the staff working at the site so as to avoid any damage and pressure on the adjacent forest areas;
 - (xvii) The boundary of the mining lease and safety zone shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, forward and back bearing and distance from pillar to pillar;
 - (xviii) The forest land shall not be used for any purpose other than that specified in the proposal;
 - (xix) The State Government of Telangana and the user agency shall ensure that the Rehabilitation and Resettlement (R & R) of the project affected families is undertaken strictly as per the approved R & R Package in a time bound and transparent manner;
 - (xx) Any other condition that the concerned Regional Office of this Ministry may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife;

- (xxi) User agency shall submit an annual report on compliance to conditions stipulated in this approval to State Government and concerned Regional Office of this Ministry; and
- (xxii) The user agency and the State Government shall ensure compliance to provisions of all Acts, Rules, Regulations and Guidelines, for the time being in force, as applicable to the project.

Yours faithfully,

H.C. Chaudhary
(H.C. Chaudhary)
Director

Copy to:

1. Principal Chief Conservator of Forests, Government of Telangana, Hyderabad.
2. Nodal Officer, the Forest (Conservation) Act, 1980, Government of Telangana, Hyderabad.
3. Addl. Principal Chief Conservator of Forests (Central), Regional Office (South Eastern Zone), Chennai.
4. User Agency.
5. Monitoring Cell, FC Division, MoEF, New Delhi.
6. Guard File.

H.C. Chaudhary
(H.C. Chaudhary)
Director

F.No. F(C)A/16.1/74/AP/MIN
Government of India
Ministry of Environment and Forests

Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi - 110003
Date : 06.07.2006

To

The Principal Secretary (Forests)
Government of Andhra Pradesh,
A.P. Secretariat, Hyderabad

Sub: Diversion of 28.62 ha of forest land in Rebbana range of Bellampally division, Andhra Pradesh in favour of M/s Singareni Collieries Ltd.

Sir,

I am directed to refer to your letter no. 6868/FOR.I(1)/2003/2 dated 22.06.2004 on the above mentioned subject whereunder the above proposal was submitted seeking prior approval of the Central Government in accordance with Section-2 of the Forest (Conservation) Act, 1980 and to say that the proposal has been examined by Forest Advisory Committee constituted under Section-3 of the Act.

2. After careful consideration of the proposal of the State Government and on the basis of the recommendations of the above mentioned Advisory Committee, the Central Government granted in-principle approval vide letter of even no. dated 21.02.2006 subject to certain conditions. The compliance of these conditions was submitted vide Nodal Officer's letter No. 6868/FOR.I(1)/2003/2 dated 23.06.2006. After consideration of the proposal and compliance of various conditions by the State Government, the Central Government hereby conveys its approval under Section-2 of the Forest (Conservation) Act, 1980 for Diversion of 28.62 ha of forest land in Rebbana range of Bellampally division, Andhra Pradesh in favour of M/s Singareni Collieries Ltd. subject to the fulfilment of following conditions :-

1. Legal status of the forest area shall remain unchanged.
2. Compensatory Afforestation will be raised and maintained over equivalent non-forest land at the cost of the User Agency.
3. The State Government shall deposit all the funds received from the User Agency with the Ad-hoc Body of Compensatory Afforestation Fund Management and Planning Authority (CAMPA) in Account No. CA 1578 of Corporation Bank (A Government of India Enterprises), Block-11, Ground Floor, C.G.O. Complex, Phase-1, Lodhi Road, New Delhi-110003, as per the instructions communicated vide letter No. 5-2/2006-FC dated 20.05.2006.

ESTATES VERFI.

NO. @ 1714

DATE. 12/7/06



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G. n. (Estates)

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12/7/06

- 103
4. The non-forest land identified for raising Compensatory Afforestation shall be notified by the State Government as R.F. under Section-4 or P.F. under Section-29 of the Indian Forest Act, 1927 or under the relevant Section(s) of the Local Forest Act, as the case may be, within a period of six months. The Nodal Officer (F.C.) shall report compliance.
 5. The User Agency shall demarcate the area by erecting 4ft. high RCC Pillars at the project cost indicating forward and backward bearings and distance between adjacent pillars on them.
 6. Felling of trees shall be done only when necessary and that too under strict supervision of and with the prior permission of the State Forest Department.
 7. No labour camps shall be set up in the forest area nor any habitation shall be allowed to come up in the area.
 8. The forest land shall not be used for any purpose other than that specified in the proposal.
 9. The forest land thus diverted shall be non-transferable. Whenever and whatever extent of forest land is not required by the User Agency, it shall be surrendered to the State Forest Department after proper rehabilitation under intimation to this Ministry.
 10. Any, other condition that the C.C.F. (Central), Regional Office, Bangalore, may impose from time to time for protection and improvement of flora and fauna in the forest area, shall also be applicable.

(S.K.Chadha)

Assistant Inspector General of Forests

Copy to:

1. The Principal Chief Conservator of Forests, Government of Andhra Pradesh, Tuljaguda Complex, M.J.Market, Hyderabad.
2. Nodal Officer, O/o the P.C.C.F., Government of Andhra Pradesh, Hyderabad.
3. The CCF (Central), Regional Office, Bangalore
4. General Manager, M/s Singareni Collieries Co. Ltd., Belampalli-504 251, Andhra Pradesh.
5. RO (HQ)/Monitoring Cell, MoEF, New Delhi
6. Guard File
7. PS to IGF(FC)

(S.K.Chadha)

Assistant Inspector General of Forests

No.J-11015/147/2005-IA.II(M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
C.G.O.Complex, Lodi Road,
New Delhi -110003.

Dated: 11th September 2006

To
Shri J.V. Dattatreya
M/s Singareni Collieries Company Ltd.,
Kothagudem Collieries - 507 101,
Bhadrachalam Road Railway Station,
Khammam District, A.P.

Sub: Bellampalli Opencast Coal Mine Extension Project-II (0.40 MTPA) of M/s Singareni Collieries Company Ltd., located in village Abbapur, Mandal Tandur, District Adilabad, Andhra Pradesh- environmental clearance - reg.

Sir,

This has reference to letter No. 43011/(12/2005-CPAM dated 29.03.2005 forwarding your application dated 28.03.2005 and your letters dated 11.10.2005, 21.10.2005, 26.12.2005, 27.05.2006, 29.06.2006, 30.06.2006, 03.07.2006 and 29.08.2006 on the above-mentioned subject. The Ministry of Environment & Forests has considered your application. It has been noted that the Bellampalli OCP-II was not operational since 2003, and the present project is for expansion in lease area of the existing Bellampalli Opencast (OCP)-II Coal Mine Project from 66.15ha to 191.98ha and for change of mining method from underground to Opencast operations. The total lease area of 191.98 ha comprises of 36.33 ha of agricultural land, 117.63 ha of forestland, 7.83 ha of wasteland, 5.93 ha of grazing land and 3.65 ha of surface water bodies. However, the manpower, infrastructure and machinery of the Bellampalli OCP will be utilised for the Bellampalli OCP extension project comprising of 3 Blocks- Block B extension of 28.06 ha, Block C covering an area of 21.81 ha, working involves change of mining method from UG to OC and Block D covering an area of 40.64 ha also involves change of mining method from UG to OC working. Of the total lease area, 90.51 ha is area for excavation, 23.81 ha is area for OB dumps, 22.21 ha is for roads, 3.10 ha is for ETP, and 52.35 ha is for R&R, safety zone, drains, diversion of nala and bund (embankment). Forestry clearance has been obtained for 28.62 ha forest land on 21.02.2006. There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 10 km buffer zone. The core zone is drained by a number of nallahs and streams - Block B Extn. is drained by Narsapur nallah flowing towards north, Block D is drained by Sonapur nallah on western side and the Narsapur Nallah flows across Block C from south to north and joins Pulikuntanala. The project involves modification of the natural drainage by diversion of the Narsapur nallah in Block C. A bund is also proposed to be constructed for 1186m length alongside the diverted nallah. It is also proposed to divert the nallah passing through Block-C for a length of 1200m and construct a bund along the diverted nallah. Mining will be opencast by mechanised method and involves controlled blasting. **The rated capacity of the project is 0.40 million tonnes per annum (MTPA) of coal production.** Mineral transportation of 1333 TPD of coal is by road from the ML to the CHP at Senthikhani UG Project of the company located at a distance of 26 km. A pithead CHP is presently located near Block C and after exhaustion of Block C, it will be relocated at Block-D to meet the requirements of Block B and Block D. A road of 940m length is proposed for connecting Block-B Extn. and Block-D for transport of coal from Block-B Extn. to pithead CHP relocated at Block-D. Ultimate working depth of the mine at Block-C is 115m below ground level (bgl), at Block-B Extn. is 70m bgl and at Block-D is 130m bgl. Water table is in the range of 4.32m - 15.95m bgl during pre-monsoon and 2.50m - 15.95m bgl during post-monsoon in the core zone and buffer zone. Mining will intersect water table. Clearance from the State Ground Water Department has been obtained on 24.03.2005. Peak water requirement is 730 m³/d and will be met from mine pit water. An estimated

45.51 Mm³ of OB including 1.79 Mm³ of topsoil will be generated in the life of the extension project; of which about 58% of the OB will be backfilled and the balance will be dumped in the external dump of a max. height of 30m. Backfilling will begin from 7th year onwards – first in Block C. Life of the mine at the rated capacity is 20 years. Project involve R&R of 3 villages- Abbapur, Sonapur and Beijala comprising of 24 land losers, 52 losers of homestead and 14 losers of both land and homestead. Public Hearing was held on 15.12.2004. NOC has been obtained on 17.02.2005. Mining Plan has been approved by Ministry of Coal on 03.07.2006. Capital cost of the project is **Rs. 3551 lakhs.**

2. The Ministry of Environment & Forests hereby accords environmental clearance for the above-mentioned **Bellampalli Opencast Coal Mine Extension Project-II of M/s Singareni Collieries Company Ltd. for production of coal of 0.40 MTPA rated capacity over a lease area of 191.98 ha** under the provisions of the Environmental Impact Assessment Notification, 1994 and subsequent amendments thereto subject to the compliance of the terms and conditions mentioned below:

A. Specific Conditions

- (i) No mining/developmental activity shall be undertaken in forestland without forestry clearance as per provisions of the FC Act, 1980.
- (ii) All the conditions stipulated by the SPCB in their NOC shall be effectively implemented.
- (iii) It shall be ensured that the mining operations within the lease area which is drained by a number of streams and nallahs and outfall into the River Godavari which flows within 600m distance from the lease boundary are safe and mine area is not inundated by peak flow of water from the natural drainage. It shall also be ensured that no OB from the mine operations outfall into these natural courses.
- (iv) The proposed bund of 1186m length along the diverted Narsapur nallah, the 3286m bund to be constructed along the diverted Sonapur Nallah and a bund to be constructed for a length of 1200m along the nallah to be diverted in the Block-B Extn. shall be of adequate height and width and strength shall be constructed considering the peak water flow to prevent mine inundation and to prevent wastes from outfalling into the drainage of the Nallah and shall be at least 6m higher than the HFL. The embankment shall be properly stabilised and developed with plantation for further stabilisation.
- (v) Topsoil should be stacked properly with proper slope at earmarked site(s) and should not be kept active and shall be used for reclamation and development of green belt.
- (vi) OB should be stacked at earmarked external OB dumpsite within ML area and shall be a maximum height of 30m only consisting of 10m benches. The ultimate slope of the dump shall not exceed 28°. Backfilling shall begin at the end of 7th year in the decoaled area. Monitoring and management of existing reclaimed dumpsites should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional office located at Bangalore on an yearly basis.
- (vii) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected should be utilised for watering the mine area, roads, green belt development, etc. The drains should be regularly desilted and maintained properly.
Garland drains (size, gradient and length) and sump capacity should be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity should also provided adequate retention period to allow proper settling of silt material.

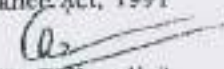
- (viii) Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.
- (ix) Crushers at the CHP should be operated with high efficiency bag filters, water sprinkling system should be provided to check fugitive emissions at loading points, conveyor system, haulage roads, and transfer points.
- (x) Drills should be wet operated only.
- (xi) Controlled blasting shall be practiced only during daytime with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.
- (xii) The road from mine to CHP at Santhikhani UG Project and road to be laid connecting Block-B Extn. to Block-D shall be metal topped. Trucks used for transporting the mineral shall be covered with tarpaulin and optimally loaded. The vehicles shall be regularly got serviced and vehicular emissions shall be maintained within prescribed norms.
- (xiii) Afforestation shall cover an area of 102.64 ha which includes reclaimed external OB dump (19.16 ha), reclaimed topsoil dump, backfilled area (49.87 ha), along ML boundary, along drains (13.38 ha), along roads (15.21 ha + 1.92 ha) along service buildings, CHP (3.10 ha) within the lease and avenue plantation and green belt and avenue plantation in the township outside the lease and an area of 64.12 ha in the old abandoned mine by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.
- (xiv) A Progressive Mine Closure Plan shall be implemented by reclamation of quarry area of 49.87 ha with afforestation by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha. The balance 40.64 ha of decoaled area shall be converted into a water reservoir, the upper benches of which shall be gently sloped and stabilised and reclaimed with plantation and the reservoir peripherally fenced.
- (xv) The conditions stipulated by the State Ground Water Department shall be effectively implemented. The company shall obtain prior approval of CGWA/CGWB Regional Office for use of groundwater if any, for mining operations.
- (xvi) Regular monitoring of groundwater level and quality should be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity should be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected should be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.
- (xvii) The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource. The project authorities should meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- (xviii) Besides carrying out regular periodic health check up of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check up for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmedabad within a period of one year and the results reported to this Ministry and to DGMS.

- (xix) Digital processing of the entire lease area using remote sensing technique should be done regularly once in 3 years for monitoring land use pattern and report submitted to MOEF and its Regional office at Bhopal.
- (xx) ETP should also be provided for workshop and CHP wastewater.
- (xxi) A sewage treatment plant shall be installed in the combined township.
- (xxii) R&R shall be not less than the norms stipulated in the National R&R Policy and shall be completed before the commissioning of the Project.
- (xxiii) A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.
- (xxiv) Consent to Operate shall be obtained for the rated capacity before expansion in mining operations.

B. General Conditions

- (i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.
- (ii) No change in the calendar plan including excavation, quantum of mineral coal 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 SPM, RPM, SO₂ and NO_x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.
- (iv) Fugitive dust emissions (SPM and RPM) from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading and unloading) points should be provided and properly maintained.
- (v) Data on ambient air quality (SPM, RPM, SO₂ and NO_x) should be regularly submitted to the Ministry including its Regional Office at Bangalore and to the State Pollution Control Board and the Central Pollution Control Board once in six months.
- (vi) Adequate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc should be provided with ear plugs/muffs.
- (vii) Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap should be installed before discharge of workshop effluents.
- (viii) Vehicular emissions should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.
- (ix) Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.

- (x) 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 programme of the workers should be undertaken periodically to observe any contraindications due to exposure to dust and to take corrective measures if needed.
- (xi) 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 company.
- (xii) The funds earmarked for environmental protection measures should be kept in a separate account and should not be diverted for other purpose. Year-wise expenditure should be reported to this Ministry and its Regional Office at Bangalore.
- (xiii) The Regional Office of this Ministry located at Bangalore shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the Regional Office by furnishing the requisite data/information/monitoring reports.
- (xiv) A copy of the environmental clearance letter shall be marked to concerned Panchayat/ local NC if any, from whom any suggestion/representation has been received while processing the proposal.
- (xv) State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.
- (xvi) The Project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned, within seven days of the clearance letter informing that the project has been cleared environmental clearance and a copy of the clearance letter is available on the website of the ministry. The State Pollution control Board and may also be seen at the office of Environment & Forests at <http://envfor.nic.in>.
3. The Ministry or any other competent authority may stipulate any further condition for environmental protection.
4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environment (Protection) Act, 1986.
5. 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, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules.


(Dr. T. Chandini)
Additional Director

Copy to:

1. Secretary, Ministry of Environment & Forests, Shastri Bhawan, New Delhi.
2. Secretary, Department of Environment & Forests, Government of Andhra Pradesh, Secretariat, Hyderabad.
3. Chief Conservator of Forests, Regional office (SZ), Ministry of Environment & Forests, 4th Floor, P-Wing, Kormangala, Bangalore - 560034.
4. Chairman, Andhra Pradesh State Pollution Control Board, 2nd Floor, HUDA Complex, Maitrivanam, S.R.Nagar, Ameerpet, Opp. Sarathi Studio, Hyderabad - 500038.

5. Chairman, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032.
6. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
7. District Collector, Adilabad, Government of Andhra Pradesh.
8. Monitoring File 9. Guard File 10. Record File

GOVERNMENT OF ANDHRA PRADESH
GROUND WATER DEPARTMENT

Annexure-IV

From:-
Dr.B.N.Prasad, Ph.D.,
Director,
Ground Water Department,
8th floor, B Block,
BRKR Govt. Offices Complex,
Hyderabad-500 063.
Fax: 040-3225602.
E-Mail: apsowd@ap.nic.in
apsowd@sify.com

To
The Director (Planning and Projects)
The Singareni Collieries Company Ltd.
Kothagudem Collieries-507 101,
Bhadrachalam Road Railway Station,
KHAMMAM DISTRICT.

Lr.No.3634/Hg.III/11/2004, dated. 24.3.2005

Sir,

- Sub:- Ground Water Department – Clearance to tap groundwater for proposed Bellampally OC.II Coal Mining Project, Singareni Collieries Company Ltd., near Bellampally area near Abbapur village, Tiryan Mandal, Adilabad district-Regarding.
- Ref:- [1] The General Manager (Planning and Projects), The SCCL., Kothagudem Collieries, Khammam district Lr.No. CRP/PP/A/488/136, dt.15.3.2004.
[2] This office Lr.No.3634/Hg.2/2004, dt.27.3.2004.
[3] Deputy Director, GWD., Nirmal Lr.No.313/T/2004, dt.30.9.2004.
[4] This office Lr.No.3634/Hg.II/2004, dt.23.12.2004.

@@@

With reference to subject and letters cited, I am to inform that groundwater investigations were taken up to study the possible effects of coal mining on the groundwater in the regime in the area.

Based on the integrated groundwater surveys conducted in and around the proposed project area. It is concluded that the project is cleared from the groundwater point of view with the following precautionary measures, so as to maintain the groundwater regime in the area and also to protect the rights and interests of the local existing habitations.

1. Periodical monitoring of groundwater levels and quality [every month] should be under taken by constructing piezometers and from observation wells and report to the Deputy Director, Ground Water Department, Nirmal.
2. Rainwater Harvesting Structures should be taken up in all the villages within a radius of 10 kms. of the project area.
3. The groundwater exploitation [pumping] in the project area should be regulated upto 60-70% otherwise the area falls in the semi-critical stage.
4. Regular monitoring of the groundwater levels are to be taken up by constructing piezometers and from observation wells.
5. Provisions should be made to maintain the present use/supply of groundwater in and around the project area and also its restoration due to any adverse effects as a result of mining in future.
6. Afforestation in surrounding areas should be taken up.

Yours faithfully,

Director.



[Signature]

G.M. (P)

[Signature]

CRP PP	
LW.No.	852
Date	02/04/05

[Signature]

[Signature]
Sri. Y. S. Rao
For M. A. make sufficient
copying for report.

PLAN SHOWING THE SURFACE FEATURES WITHIN 10 K.M. RADIUS OF BPA OC-II EXTENSION

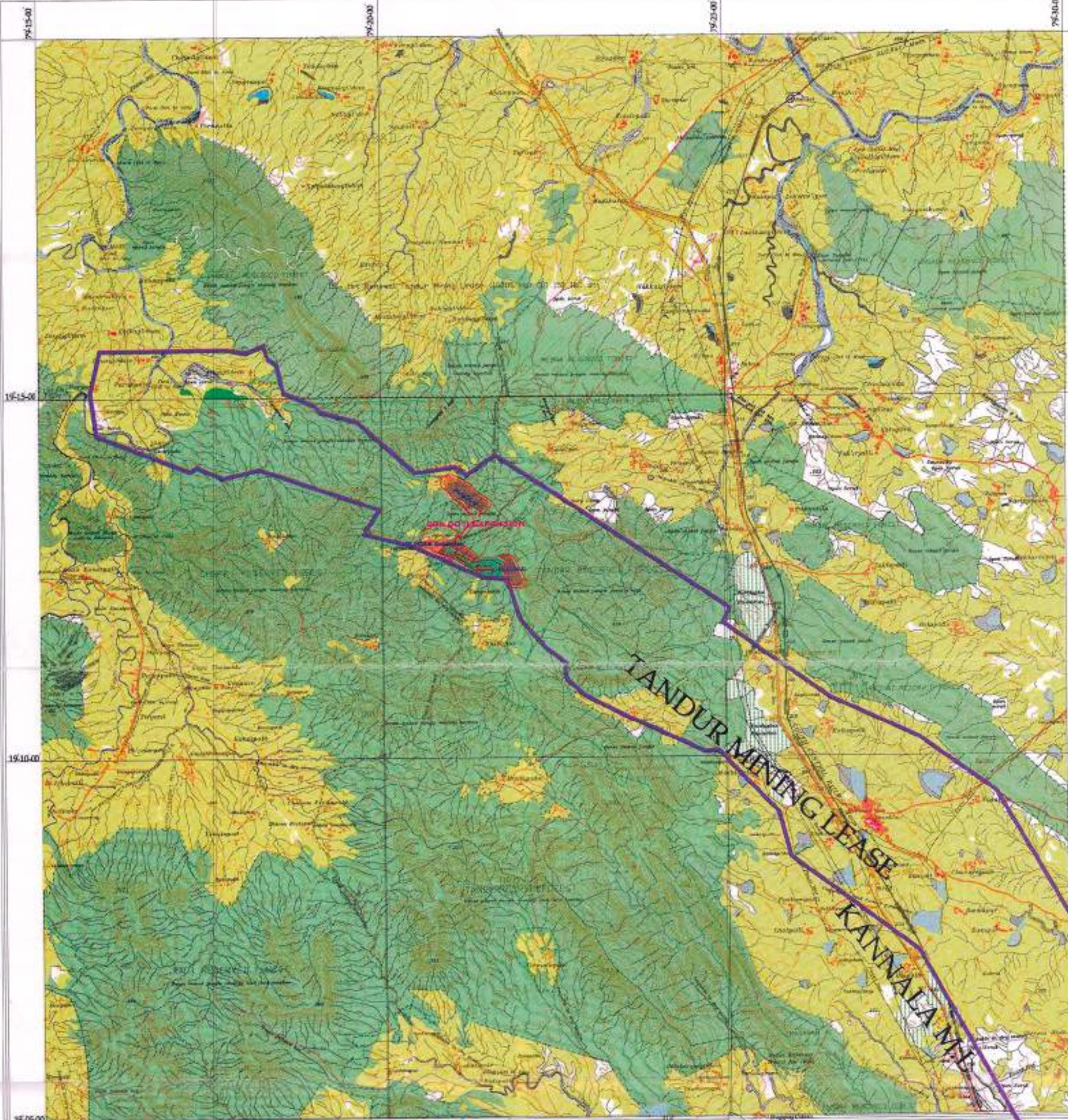
ANDHRA PRADESH

SHEET 56M/7(part)
SHEET 56M/8(part)

ADILABAD DISTRICT,
CHANDRAPUR DISTRICT.

Surveyed: 1975-76
Class: A (first edition)

Magnetic Variation: From True North about 1 1/2° West in 1975
Isoclinic by about 11° (approx.)



Scale: 1:50,000
Horizontal scale: 1 cm = 500 m
Vertical scale: 1 cm = 50 m
Projection: UTM
Datum: Everest
Elevation: 1975-76
Class: A (first edition)

Published under the direction of
Survey of India
1:50,000
HEIGHTS & CONTOURS IN METRES
CONTOUR INTERVAL: 20 METRES
Water features are shown in blue where they generally conform to the contour lines. Coloured areas are shown in yellow, green, or brown, depending on the nature of the vegetation. The area shown is generally a mix of forest and open land. The map is a topographical map showing the surface features within a 10 km radius of the BPA OC-II extension. The map is oriented with North at the top and includes a grid system with coordinates 79°15'00\"/>

THE SINGARENI COLLIERIES COMPANY LTD.
DEPARTMENT OF PROJECT PLANNING
1980-1981
BPA OC-II EXTENSION
1:50,000

REFER TO THIS MAP AS 1:50,000
SHEET 56 M/8 FIRST EDITION
INDIA

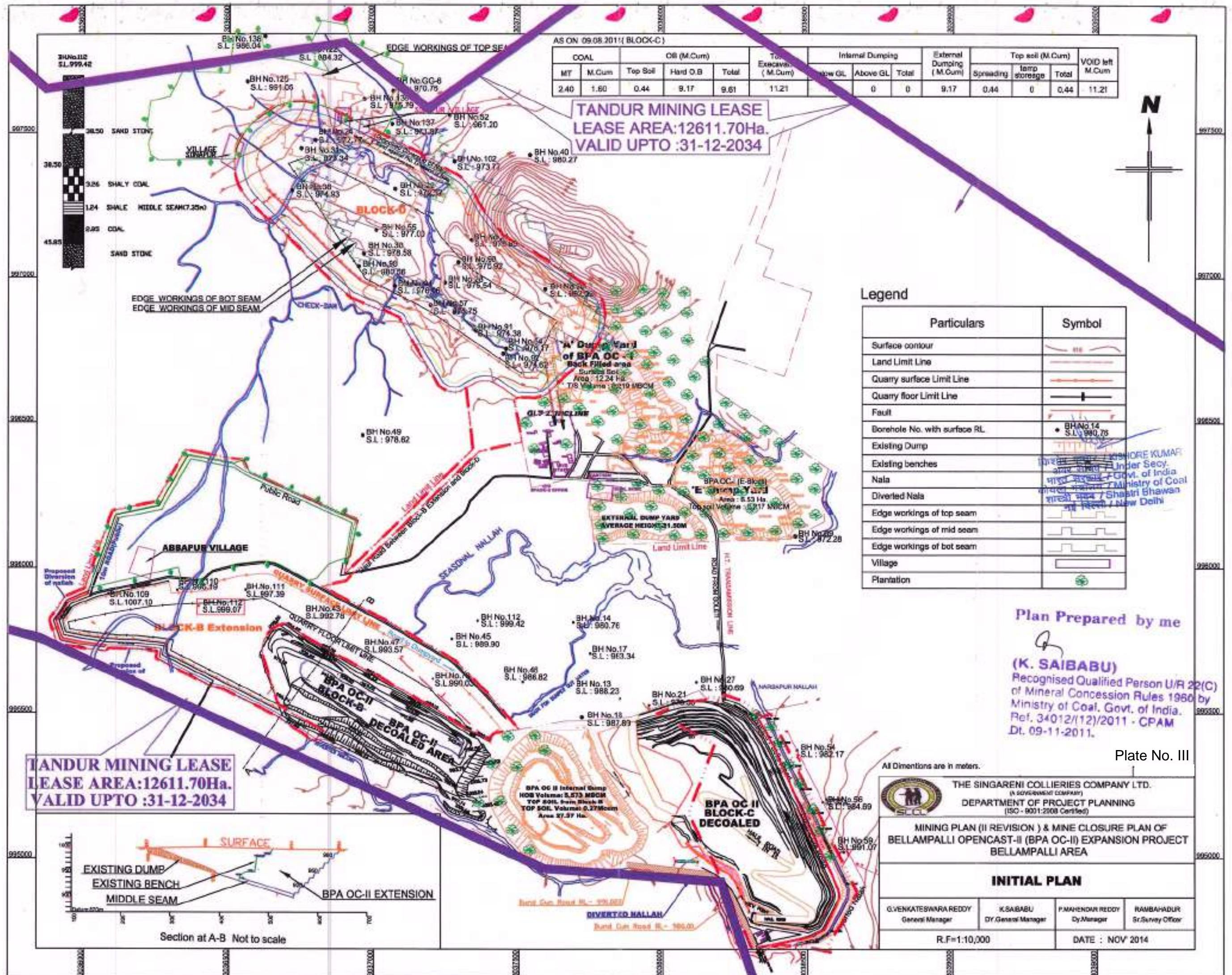
THIS PART OF THIS SHEET IS PRINTED FROM THE DIGITAL DATA SUPPLIED BY SURVEY OF INDIA ON CLEARANCE FROM MINISTRY OF DEFENCE VIDE OFFICE MEMORANDUM No. 17(14) 2005/D (S-III) Dt. 09-08-2005.

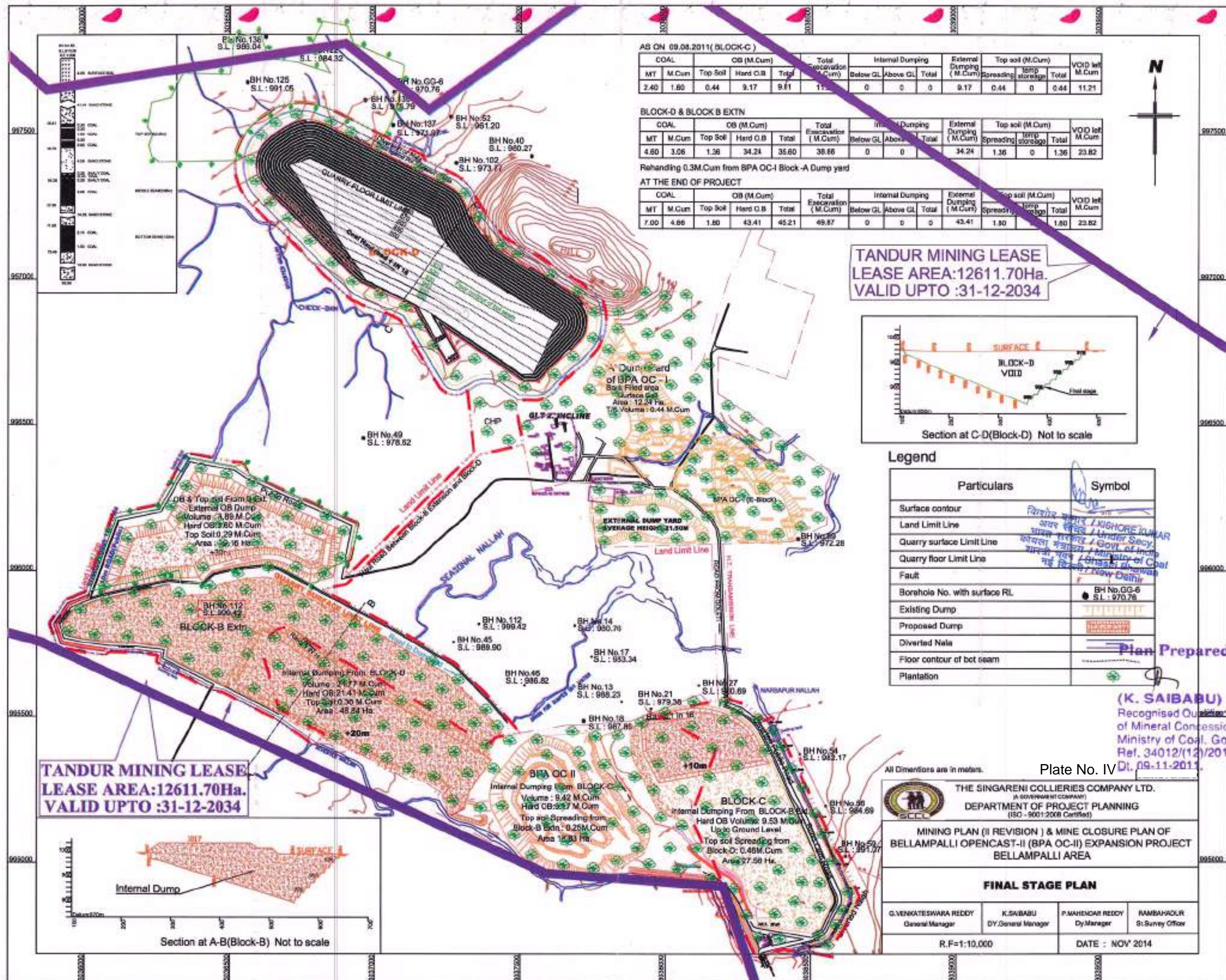
GENERAL MANAGER (PROJECT PLANNING)
THE S.C. Co. Ltd.

(K. SAIBABU)
Recognised Qualified Person U/R 22(C)
of Mineral Concession Rules 1950 by
Ministry of Coal, Govt. of India.
Ref. 34012/(12/2011) - CPAM
Dt. 09-11-2011.

TOPOGRAPHICAL PLAN
Scale: 1:50,000
DATE: NOV 2011

INDEX
PROPOSED
BPA OC-II EXPANSION
PROJECT





AS ON 09.05.2011 (BLOCK-C)

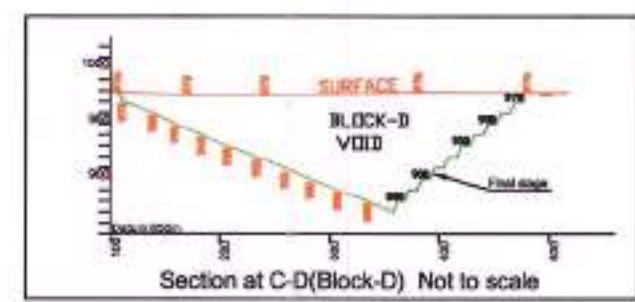
COAL		OB (M.Cum)			Total Excavation (M.Cum)	Internal Dumping			External Dumping (M.Cum)	Top soil (M.Cum)			VOID left M.Cum
MT	M.Cum	Top Soil	Hard O.B	Total		Below GL	Above GL	Total		Spreading	Temp storage	Total	
2.40	1.80	0.44	9.17	9.61	11.21	0	0	0	9.17	0.44	0	0.44	11.21

BLOCK-D & BLOCK-B EXTN													
COAL		OB (M.Cum)			Total Excavation (M.Cum)	Internal Dumping			External Dumping (M.Cum)	Top soil (M.Cum)			VOID left M.Cum
MT	M.Cum	Top Soil	Hard O.B	Total		Below GL	Above GL	Total		Spreading	Temp storage	Total	
4.60	3.06	1.36	34.24	35.60	38.66	0	0	0	34.24	1.36	0	1.36	23.82

Rehandling 0.3M.Cum from BPA OC-I Block-A Dump yard
AT THE END OF PROJECT

COAL		OB (M.Cum)			Total Excavation (M.Cum)	Internal Dumping			External Dumping (M.Cum)	Top soil (M.Cum)			VOID left M.Cum
MT	M.Cum	Top Soil	Hard O.B	Total		Below GL	Above GL	Total		Spreading	Temp storage	Total	
7.00	4.86	1.80	43.41	45.21	49.87	0	0	0	43.41	1.80	0	1.80	23.82

TANDUR MINING LEASE
LEASE AREA:12611.70Ha.
VALID UPTO :31-12-2034



Section at C-D(Block-D) Not to scale

Legend

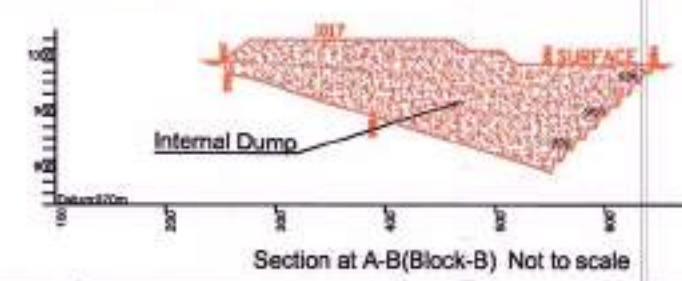
Particulars	Symbol
Surface contour	
Land Limit Line	
Quarry surface Limit Line	
Quarry floor Limit Line	
Fault	
Borehole No. with surface RL	
Existing Dump	
Proposed Dump	
Diverted Nala	
Floor contour of bot seam	
Plantation	

Plan Prepared by me

(K. SAIBABU)
 Recognised Qualified Person U/R 22(C)
 of Mineral Concession Rules 1960 by
 Ministry of Coal, Govt. of India.
 Ref. 34012/(12)/2011 - CPAM
 Dt. 09-11-2011.

Plate No. IV

TANDUR MINING LEASE
LEASE AREA:12611.70Ha.
VALID UPTO :31-12-2034



Section at A-B(Block-B) Not to scale

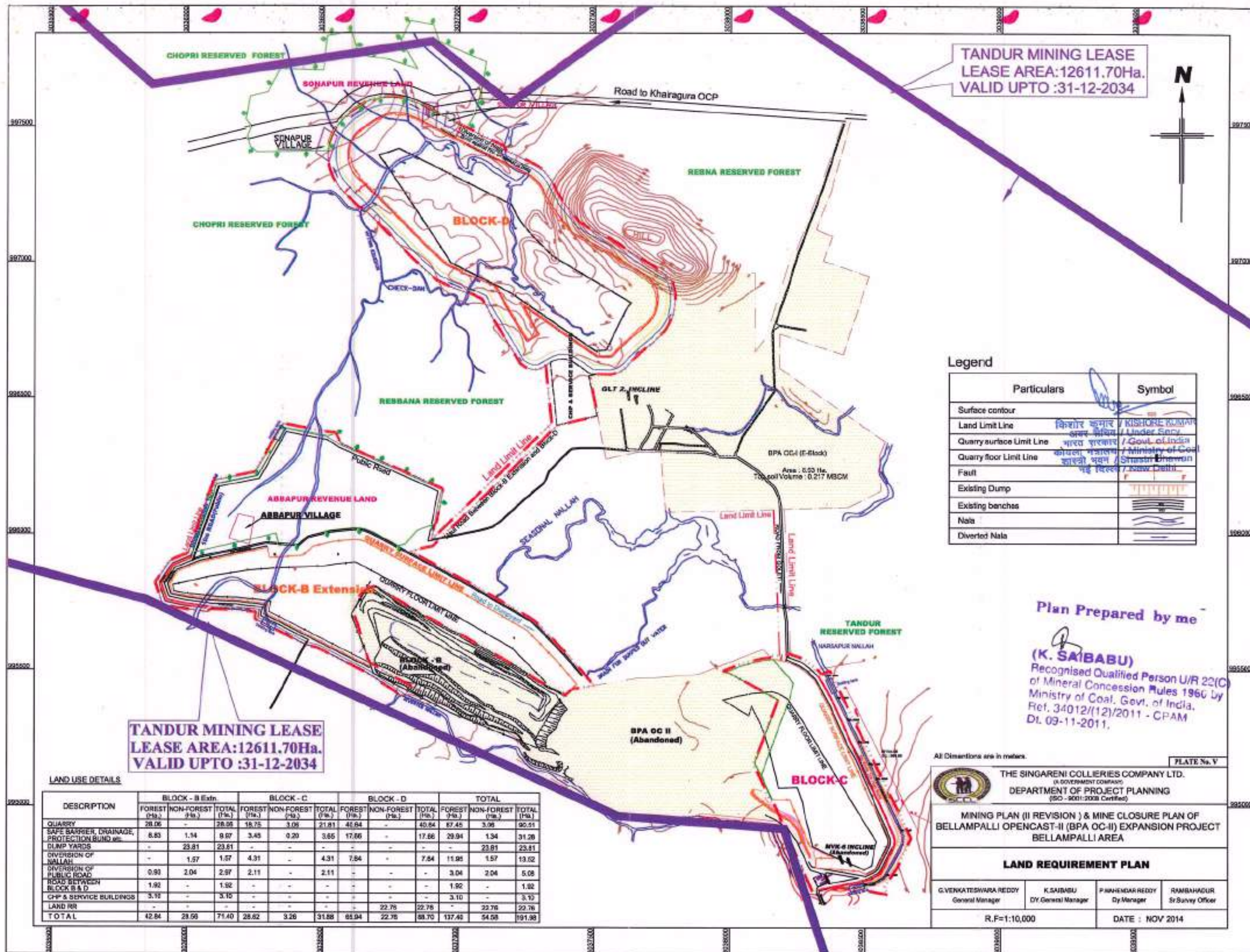
THE SINGARENI COLLIERIES COMPANY LTD.
 (A GOVERNMENT COMPANY)
 DEPARTMENT OF PROJECT PLANNING
 (ISO - 9001:2008 Certified)

**MINING PLAN (II REVISION) & MINE CLOSURE PLAN OF
 BELLAMPALLI OPENCAST-II (BPA OC-II) EXPANSION PROJECT
 BELLAMPALLI AREA**

FINAL STAGE PLAN

G.VENKATESWARA REDDY General Manager	K.SAIBABU DY.General Manager	P.MAHENDAR REDDY Dy.Manager	RAMBHADUR Sr.Survey Officer
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R.F=1:10,000 DATE : NOV 2014



TANDUR MINING LEASE
LEASE AREA:12611.70Ha.
VALID UPTO :31-12-2034

Legend

Particulars	Symbol
Surface contour	
Land Limit Line	
Quarry surface Limit Line	
Quarry floor Limit Line	
Fault	
Existing Dump	
Existing benches	
Nala	
Diverted Nala	

Plan Prepared by me

(K. SAIBABU)
 Recognised Qualified Person U/R 22(C)
 of Mineral Concession Rules 1960 by
 Ministry of Coal, Govt. of India,
 Ref. 34012/(12)/2011 - CPAM
 Dt. 09-11-2011.

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LAND USE DETAILS

DESCRIPTION	BLOCK - B Extn			BLOCK - C			BLOCK - D			TOTAL		
	FOREST (Ha.)	NON-FOREST (Ha.)	TOTAL (Ha.)	FOREST (Ha.)	NON-FOREST (Ha.)	TOTAL (Ha.)	FOREST (Ha.)	NON-FOREST (Ha.)	TOTAL (Ha.)	FOREST (Ha.)	NON-FOREST (Ha.)	TOTAL (Ha.)
QUARRY	28.06	-	28.06	18.75	3.08	21.83	46.84	-	46.84	87.45	3.08	90.53
SAFE BARRIER, DRAINAGE, PROTECTION BUND etc.	8.83	1.34	9.87	3.45	0.20	3.65	17.66	-	17.66	29.94	1.34	31.28
DUMP YARDS	-	23.81	23.81	-	-	-	-	-	-	-	23.81	23.81
DIVERSION OF NALLAH	-	1.57	1.57	4.31	-	4.31	7.84	-	7.84	11.95	1.57	13.52
DIVERSION OF PUBLIC ROAD	0.93	2.04	2.97	2.11	-	2.11	-	-	-	3.04	2.04	5.08
ROAD BETWEEN BLOCK B & D	1.92	-	1.92	-	-	-	-	-	-	1.92	-	1.92
CHP & SERVICE BUILDINGS	3.15	-	3.15	-	-	-	-	-	-	3.10	-	3.10
LAND RFR	-	-	-	-	-	-	22.76	-	22.76	-	22.76	22.76
TOTAL	42.84	28.68	71.40	28.82	3.28	31.88	85.94	22.76	88.70	137.40	54.58	191.98

All Dimensions are in meters.

PLATE No. V



THE SINGARENI COLLIERIES COMPANY LTD.
 (A GOVERNMENT COMPANY)
DEPARTMENT OF PROJECT PLANNING
 (ISO - 9001:2008 Certified)

MINING PLAN (II REVISION) & MINE CLOSURE PLAN OF
BELLAMPALLI OPENCAST-II (BPA OC-II) EXPANSION PROJECT
BELLAMPALLI AREA

LAND REQUIREMENT PLAN

G.VENKATESWARA REDDY General Manager	K.SAIBABU DY General Manager	P.RAMCHANDR REDDY DY Manager	RAMBAHAGUR Sr Survey Officer
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COAL		OB (M.Cum)			Total Excavation (M.Cum)	Internal Dumping			External Dumping (M.Cum)	Top soil (M.Cum)			VOID left M.Cum
MT	M.Cum	Top Soil	Hard O.B	Total		Below GL	At or Above GL	Total		Spreading	Temp storage	Total	
7.00	4.66	1.80	43.41	45.21	49.87	0	0	0	43.41	1.80	0	1.80	23.82

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Legend

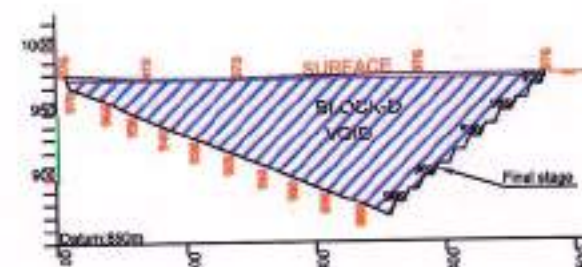
Particulars	Symbol
Existing Plantation (48.40Ha)	
Plantation for end of 1st Year (7.96Ha)	
Quarry surface Limit Line	
Quarry floor Limit Line	
Fault	
Borehole No. with surface RL	
Existing Dump	
Proposed Dump	
Diverted Nala	
Floor contour of bat seam	
Plantation	

Sl.No.	Description	END LAND USE DETAILS (Ha)				
		Plantation	Water body	Public use	Other use	Total
1	Excavation Area					
	(a) Backfilled area (Block-C & B Ext.)	49.87	-	-	-	49.87
	(b) Void area left of Block-D	-	40.64	-	-	40.64
2	External waste dump	19.16	-	-	-	19.16
3	Diversion of Nala	-	13.08	-	-	13.08
4	Diversion of public Road	-	-	5.08	-	5.08
5	Area utilized for rehabilitation & resettlement	-	-	22.70	-	22.70
6	CHP	3.10	-	-	-	3.10
7	Protective bund around quarry & dump yard, safety distance & drain	37.85	-	-	-	37.85
Total		109.98	54.22	27.78	-	192.00
Other area		59.20				

All Dimensions are in meters.

Plate No. VI

THE SINGARENI COLLIERIES COMPANY LTD. (A GOVERNMENT COMPANY) DEPARTMENT OF PROJECT PLANNING (ISO - 9001:2008 Certified)			
MINING PLAN (II REVISION) & MINE CLOSURE PLAN OF BELLAMPALLI OPENCAST-II (BPA OC-II) EXPANSION PROJECT BELLAMPALLI AREA			
MINE CLOSURE PLAN WITH FINAL VOID			
G.VENKATESWARA REDDY General Manager	K.SABABU Dy.General Manager	P.MAHENDAR REDDY Dy.Manager	RAMBAHADUR Sr.Survey Officer
R.F=1:10,000		DATE : NOV' 2014	



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