M/S MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED

"Prakashgad" Plot No. G-9, Anant Kanekar Marg, Bandra (East); Mumbai, Maharashtra-400051
Ph: 022 – 26476231; 022-26474211; E-mail: md@mahagenco.in

MINING PLAN AND MINE CLOSURE PLAN

FOR

GARE PALMA SECTOR-II COAL MINE

(MAND RAIGARH COALFIELD)

AT

VILLAGES: TIHLI RAMPUR, KUNJEMURA, GARE, SARAITOLA, MUROGAON, RADOPALI, PATA, CHITWAHI, DHOLNARA, JHINKA BAHAL, DOLESARA, BHALUMURA, SARASMAL AND LIBRA

DISTRICT: RAIGARH, CHHATTISGARH

(Under Rule 22 (4) of Mineral Concessions (Amendment) Rules, 1994

BLOCK AREA/ PROJECT AREA/APPLIED ML AREA : 2583.486 HA.
{TOTAL CAPACITY = 23.6 MTPA (22.0 MTPA OC + 1.6 MTPA UG)}

[Re-submitted after Incorporation of Clarifications to Observations of Technical Members of the Standing Committee Constituted under MMDR Act, 1957 vide MOC Letter no. 34011/16/2016-CPAM dt. 03-05-2016]

(VOLUME I : TEXT & ANNEXURES)

JUNE 2016

आई.पी. नागपाल / I.P. NAGPAL
अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi

Prepared by:

B.D.SHARMA
(Recognised Qualified Person)
(No. 34012/03/2014-CPAM Dt 29th May 2015, valid upto May 2025)

MIN MEC CONSULTANCY PVT. LTD.
A-121, Paryavaran Complex, IGNOU Road, New Delhi – 110 030
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Estb. 1983
An ISO 9001:2008 approved company

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RQP No. 34012/03/2014-CPAM

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31.8.16

No.34011/16/2016-CPAM
Government of India
Ministry of Coal

Shastri Bhawan, New Delhi
the 12th August, 2016

To,

M/s Maharashtra State Power Generation Co. Ltd,
Prakashgad, Plot No. G-9, Prof. A.K. Marg, Bandra(E),
Mumbai-400051
Email :md@mahagenco.in/mdmspgcl@gmail.com

Subject :	Mine Plan And Mine Closure Plan of Gare Palma Sector-II Coal Mine, Distt Raigarh, Chhattisgarh State of M/s Maharashtra State Power Generation Company Limited.

Sir,

I am directed to refer to your letter No. Mahagenco/ED (Fuel/Coal) dated 26 02 2016 for approval of Mine Plan And Mine Closure Plan of Gare Palma Sector-II Coal Mine for approval of the Central Government and to state that the Mining Plan & Mine Closure Plan of Gare Palama Sector II Coal Mine (June 2016) of Mand-Raigarh Coalfield, Distt Raigarh, State- Chattisgarh of M/s. Maharastra State Power Generation Company Limited to be read alongwith company's letter No. Mahagenco/ED (Fuel/Coal)/34C/196 dated 07-07-2016 incorporating clarifications dated 07.07.2016 has been considered and the approval of the Central Government thereon is hereby conveyed under Section 5(2)(b) of the Mines & Minerals (Development & Regulation) Act, 1957 subject to the following conditions:-

I. The Mining company shall take all necessary precautions regarding safety of mine workings and persons deployed therein;

II. Mining lease of this block shall not encroach into any other adjacent block;

III. The cost of abandonment for carrying out the closure activities envisaged in the Mine closure plan is indicative; the actual cost for carrying out the activities at the time of final closure may be higher. The actual cost of abandonment will have to be borne by the project proponent for carrying out the closure activities;

IV. The approval of the mine plan and mine closure plan is without prejudice to the requirement of approvals from competent /prescribed authority under the relevant rules/ regulations etc;

Two copies of the approved mining plan duly signed by the competent authority are returned herewith with the request that a copy of the approved mining plan may be submitted to the concerned State Government for necessary action and also a photocopy of the approved mining plan may be sent to the Coal Controller for monitoring the block.

Yours Faithfully

(I P Nagpal)
Under Secretary to the Govt. of India.

Encl: As Above

Vikas Jaideo
Executive Director (Coal / Fuel)

MAHAGENCO
Maharashtra State Power Generation Co. Ltd.

Ref. No: Mahagenco/ED(Fuel/Coal)/ 34C/ 196 Date: 07.07.2016

To,

Under Secretary,
Ministry of coal,
Shastri Bhawan,
New Delhi-110 001

Sub:- Mining Plan and Mine Closure Plan of Gare Palma Sect- II Coal Mine , Distt Raigarh, Chhattisgarh State – Compliance to the observations of MOC.

Ref: 1) Mahagenco letter no. Mahagenco/ED(Fuel/Coal), Dtd. 26/29.02.2016.
2) MoC letter no. 34011/16/2016-CPAM, Dtd. 3/05/2016.

Dear Sir,

Gare Palma Sect- II Coal Mine has been allotted to Maharashtra State Power Generation Co. Ltd. vide allotment order no. 103/30/2015/NA, Dtd. 31.08.2015.

Vide letter under ref. (1) above, Mahagenco has submitted the Mining Plan and Mine Closure Plan of Gare Palma Sect- II Coal Mine and thereafter Mahagenco official along with Recognised Qualified Person (RQP) has delivered the Presentation on Mining Plan to MoC on date 29.04.2016.

MoC vide letter under ref.(2), conveyed the observations of Technical Members of the committee on Mining Plan and Mine Closure Plan of Gare Palma Sector II coal mine. Accordingly the point wise compliance in the tabular form (with proper reference) prepared by Mr B. D. Sharma (RQP No. 34012(03)/2014-CAPM Dt. 29.05.2015).

Mahagenco submitting four copies of Text and Plates (Hard and soft format) duly stamped and signed by the RQP. The point wise compliance in the tabular form (with proper reference) are also enclosed for your kind approval.

Thanking you.

Yours faithfully,

V.M. Jaideo
Executive Director (Fuel/Coal)

'Prakashgad', Plot No. G-9, Prof. A. K. Marg, Bandra (E), Mumbai - 400 051. Tel.: (O) : 2647 4211 Ext.: 2213, Fax : 2658 1466,
CIN : U40100MH2005SGC153648 E-mail : edfuel@mahagenco.in Website : www.mahagenco.in

COMPLIANCE TO OBSERVATIONS ON MINING PLAN & MINE CLOSURE PLAN OF GARE PALAMA SECTOR II COAL MINE (FEBRUARY 2016) OF MAND-RAIGARH COALFIELD, DISTT RAIGARH, STATE- CHATTISGARH OF M/S. MAHARASTRA STATE POWER GENERATION COMPANY LIMITED VIDE MOC LETTER NO. 34011/16/2016-CPAM DT 03-05-2016

<table>
<tr><th>Sl. No.</th><th>Refer Para</th><th>Observations</th><th>Compliance</th></tr>
<tr><td>1.</td><td>Cover Page</td><td>Project area and Block area should be indicated.</td><td>Project area/ Block area/ Applied ML area are the same (2583.486 Ha) which have been incorporated on cover page.

Both OC and UG operations are envisaged. Though OC mine coverers the entire block area of 2583.486 Ha., a part of the area on western side is not workable by UG and the same has not been considerd for UG mining and the UG project area is only 2208.18 Ha. (Ref. para 3.2 and also Fig. 3.1 of Chapter 3)</td></tr>
<tr><td>2</td><td>Para 1.9</td><td>The allotment order for the block indicates a coal requirement of 12.76 Mt/annum for the specified end-use plants. The Mining Plan proposes to mine at a capacity of 23.6 Mt/annum, utilize the coal from seams with less than 34% ash (in the specified plants without washing and is silent about the balance coal.

This aspect may kindly be addressed in detail.</td><td>The coal requirement of End Use Plants of MSPGCL vis-à-vis coal production from Gare Sector-II mine is given below (refer Table 1.3 of MP).

COAL REQUIREMENT OF EUPs AS PER VESTING ORDER
<table>
<tr><th>Particulars</th><th>Power Plant</th><th>Reject based Power plant</th><th>Blast Furnace</th></tr>
<tr><td>Coal availability from this project "MTPA"</td><td>23.6</td><td>0</td><td>0</td></tr>
<tr><td>Washed coal availability "MTPA"</td><td>NA</td><td>0</td><td>0</td></tr>
<tr><td>Rejects "MTPA"</td><td>NA</td><td>0</td><td>0</td></tr>
<tr><td>Thermal Power Plant "KW"/ Sponge Iron "MTPA"</td><td>3230X1000 KW</td><td>NA</td><td>NA</td></tr>
</table></td></tr>
</table>

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Sl. No.	Refer Para	Observations	Compliance
		Details have to be presented for the full production capacity.	

MOEF	Power Plant "MW"	Expected based Power plant "MW"	Blast Furnace "Mtse"
Coal availability from this project "MTPA"			
Washed coal availability "MTPA"			
Reject "MTPA"			
Thermal Power Plant / Sponge Iron			
Station Heat Rate "K Cal/Kwhr"			
Avg. Calorific Value of Coal "Kcal/Kg"			
Specific consumption "Kg/Kwhr"			
Plant Load Factor/ Capacity Utilisation			
Coal Requirement "MTPA"			

Station Heat Rate "K Cal/KWhr	2308 (Av)	0	0
Avg. Calorific Value of Coal "Kcal/Kg"	4350 (AV)	0	0
Specific consumption "Kg/ Kwhr"	0.5306 (Av)	0	0
Plant Load Factor/ Capacity Utilisation	85%	0	0
Coal Requirement "MTPA"	12.761	0	0
Coal Availability from this project "MTPA"	23.6	0	0
Linkages/ E-auction from CIL "MTPA" (for these specified EUPs)	Nil	0	0
Other block of the Company "MTPA"	Mahajanwari UG coal block recently allotted to MAHAGENCO for power plants other than in the VO. Production not yet decided but will be less than 2MTPA	0	0
Percentage of end use requirement to be met from this mine	100%		

The quantum of CIL likely to be surrendered needs to be envisaged. Further possibility of providing washing arrangement should also be looked into.

As may be seen from the above table, out of the 23.60 MTPA coal proposed to be produced from this mine, 12.761 MTPA will be used in the 3 nos of TPPs specified in the Vesting Order. However, now it has been decided that coal will be supplied after washing (to comply with MOEF

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notification of <34% Ash) and provision for space for washery has been made within the ML area. The balance 10.839 MTPA will be used in other existing and proposed thermal power stations of Mahagenco as given in Tables 1.4 and 1.5 of MP.

The total requirement of the company is summarised in Table 1.6 of the MP as reproduced below:

SUMMARY OF OVERALL COAL REQUIREMENT FOR MAHAGENCO

Sl. No.	Type of TPP of Mahagenco	Total Capacity, MW	Coal Requirement, MTPA	Existing Linkage, MTPA	Source of linkage
1 (ref. Table 1.3)	End use Plants (existing) linked to Gare Sector-II	3230	12.761	0	Gare Sector-II
2 (ref. Table 1.4)	Other existing TPPs	7560	42.41	46.328	CIL
3 (ref. Table 1.5)	Proposed TPPs	1980	7.626	0	Mahajan wadi
Total		12770	62.797	46.328	

A perusal of above Table shows that the total requirement of coal of the company is 62.797 MTPA, out of which existing linkage from CIL is 46.328 MTPA.

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			The existing linkages to the extent of any surplus (above the requirement of EUPs as per VO) coal will be surrendered when such surpluses are generated. Taking the above into consideration, the Mining Plan has been prepared for the full capacity of the mine, i.e. 23.6 Mtpa as given in Chapter 5. (The above matter has been incorporated under para 1.8.2 of Chapter 1)
3		Details of HEMM needs to be reconciled.	HEMM have been reconciled. Front End Loaders which are to be used in combination with dumpers for coal cut by Surface Miners have now been listed under "Coal Equipment" instead of under "Auxiliary Equipment" listed earlier. The size of Front end loaders has been increased to 10-16 cum and 6-8 cum, as against 8 cum and 5cum respectively proposed earlier for ease of loading into 150 T/100T dumpers. Number of RBH drills for OB has been increased to 31 to match with the number of shovels. (The above matter has been incorporated in Table 5.11 under para 5.3.11.2 of Chapter 5 of MP)
4	Para 5.3.7	Jjustification for having a production rate of 23.6 Mty (22 Mty – OC, 1.6 Mty – UG) may be brought out. Further, the reason for tapering the OC production, when the contribution from UG operations start, may also be justified.	Justification of rated production has been covered in Para 5.1 of Chapter 5 under the Heading "OPTIMISATION OF TARGETED CAPACITY". Considering the multiple seam working, high initial depth and other geo-mining parameters, the mine has been planned for maximum sustainable production, i.e. 22 Mtpa from opencast plus 1.6 Mtpa from UG. Thus the total targeted capacity becomes 23.6 Mtpa. Though both

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			OC and UG would be in production simultaneously from 12th year onwards, for safety reason, the sequence of development in UG would have a lag wrt OC operations. As the gestation period in UG is long and UG operation will reach its peak production level only in 15th year, it has been proposed to reach the total targeted production level of the mine earlier by OC only, i.e. from 7th year, which is feasible due to lower depth and stripping ratio in early years of OC operation. Thus only from 7th year to 14th year, OC operation would make up for UG production for achieving the overall mine target of 23.6 Mtpa. As UG operation builds up to the targeted level of 1.6 Mtpa, the OC production is brought down to its sustainable level, i.e. 22 MTPA. The OC mine can technically produce at a rated capacity of 20 to 25 MTPA but considering that the opencastable reserves are only 553.177 MT, the OC mine has been planned at 22 MTPA (as explained above) to give the project a nominal life of about 28 years including build up period. Target of 1.6 Mtpa for UG operation has been decided considering that a lag is to be maintained taking into account the advancement of operation in overlying seams through opencast. The 1.6 MTPA target for an UG mine is considered fairly high under Indian conditions. (The above matter has been incorporated under para 5.1 of Chapter 5 of MP).
5	Sum E (d) &	The Mining Plan proposes to work out the coal block upto Seam VI by opencast	There are 18 nos. of coal seams (including splits) occurring below seam VI (proposed quarry floor). Excepting seam-I Combined, all other seams

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	Para 5.1.2	method in two quarries separated by the Kelo river. Assessment may kindly be presented to show at what stripping ratios the incremental coal can be made available from the lower seam(s), if proposed to be worked by opencast method.	have more than 1 m thickness in localized area only. Even Seam-I Combined has split in major part. The total depth of quarry upto seam-I floor, if considered by opencast, will be more than 450m against the presently proposed depth of upto 190m (Seam VI floor). The incremental stripping ratio for the lower seams considering the batters will be around 20 -25 cum per tonne of coal. Further in case of Gare Sector-II, additional space is not available for OB disposal as the OB generated upto Seam VI has been adjusted within the ML area with great difficulty and meticulous planning of rehandling schedule. Considering the available area with constraints of dumping space, opencastability is ruled out for lower seams. (The above matter has been incorporated under para 5.1 of Chapter 5 of MP)
6	Sum E (d)	The OBR quantities for the Years 16-29 have not been shown in the Table showing the Combined Calendar Program on Page ES-12. The same may please be incorporated.	The quantity for years 16-29 have been filled as shown in the following table

Year	Opencast (MT)	OBR MCUM	OBR Including Rehandling MCUM	Stripping ratio Cum/ t	SR incl. rehandaling CUM/ T	Under Ground	Total (MT)
1	0.250	5.000	5.000	20.00	20.00	0	0.25
2	1.550	14.100	14.100	9.10	9.10	0	1.55
3	3.000	30.000	30.000	10.00	10.00	0	3.00
4	6.000	45.000	45.000	7.50	7.50	0	6.00
5	9.500	80.000	80.000	8.42	8.42	0	9.50

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Sl. No.	Refer Para	Observations	Compliance						
6			21.300	135.000	135.000	6.34	6.34	0	21.3
7			23.600	135.000	156.740	5.72	6.64	0	23.6
8			23.600	135.000	156.740	5.72	6.64	0	23.6
9			23.600	135.000	156.740	5.72	6.64	0	23.6
10			23.600	135.000	156.520	5.72	6.63	0	23.6
11			23.600	135.000	140.220	5.72	5.94	0	23.6
12			23.200	130.000	135.220	5.60	5.83	0.40	23.6
13			22.800	130.000	135.220	5.70	5.93	0.80	23.6
14			22.400	130.000	135.220	5.80	6.04	1.20	23.6
15			22.000	99.000	103.750	4.50	4.72	1.60	23.6
16			22.000	99.000	120.740	4.50	5.49	1.6	23.6
17			22.000	99.000	120.740	4.50	5.49	1.6	23.6
18			22.000	99.000	120.740	4.50	5.49	1.6	23.6
19			22.000	99.000	120.740	4.50	5.49	1.6	23.6
20			22.000	99.000	118.500	4.50	5.39	1.6	23.6
21			22.000	99.000	99.000	4.50	4.50	1.6	23.6
22			22.000	99.000	99.000	4.50	4.50	1.6	23.6
23			22.000	99.000	99.000	4.50	4.50	1.6	23.6
24			22.000	99.000	99.000	4.50	4.50	1.6	23.6
25			22.000	99.000	99.000	4.50	4.50	1.6	23.6
26			22.000	99.000	163.350	4.50	7.43	1.6	23.6
27			21.997	99.000	163.350	4.50	7.43	1.6	23.597
28			22.000	95.020	172.850	4.32	7.86	1.6	23.600
29			17.180	5.000	82.770	0.29	4.82	1.6	18.780
30					44.183			1.6	1.6
31					44.183			1.6	1.6
32-77					44.183			72.375	72.375
Total			553.177	2761.120	3396.800	4.99	6.14	101.975	655.152

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Sl. No.	Refer Para	Observations	Compliance
			The above values have been incorporated in Page ES-12, ES-13 and can also be seen in Table 5.7 at Page 5-21 of MP.
7	Para 5.3.12	The MP proposes to extract 553.177 Mt of coal and remove about 2761 Mcum of Overburden at a stripping ratio of 4.99 cum/t. It also proposes to rehandle around 636 Mcum of OB (218.83 Mcum for surface dump rehandling and 417 Mcum of crown dump rehandling), increasing the effective strip ratio to 6.14 cum/t from 4.99 cum/t, whereas, Table 5.12 shows the Stripping ratio as 5.75 cum/t.	The stripping ratio figure in Table 5.12 under para 5.3.12 of Chapter 5 has been reconciled as given below. Stripping Ratio without re-handling — Cum/ t — 4.99 Stripping Ratio with re-handling of surface dumps — Cum/ t — 5.39 Stripping Ratio with re-handling of surface dumps and crown dump — Cum/ t — 6.14
8	Para 5.3.11.2	The MP proposes to handle about 135 Mcum of solid OB per year during steady state operations excluding the quantity for rehandling of surface dumps. It also proposes to deploy 348 dumpers within the project in addition to the contractors trucks deployed for contractual rehandling. Safety issues related to a huge fleet of dumpers may kindly be addressed. Possibility of providing conveying arrangement through belt should be looked into.	1. Safety issues and safety Measures to be Adopted for the Large Fleet of Dumpers have been furnished under para 12.2.6 of this Mining Plan and Mine Closure Plan. 2. With multi seam operation, the excavation, loading, and hauling operation will be carried out at different places, minimum 4 main hauling routes will be available exclusively for dumpers through quarry floor and flanks at different horizons, for transport of coal to CHP and stockyard and OB to internal and external OB dump sites. The average distance between two dumpers with minimum 4 routes comes to about 120 m and a minimum distance (while hauling) would not be permitted less than 30m thus providing adequate safety for which relevant instructions will be issued to the dumper operators.

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			3. Because of production contribution from 12 no. of seams at different horizons, dumper transport would be ideally suited. Further, due to dumping constraints, virtually no space will be available at quarry floor. The working faces will be moving fast at 200-300 m per year and it will be difficult to maintain multiple loading points and undertake frequent shifting of loading points in case the conveyor arrangement is to be considered instead of presently proposed dumper system. (The above matter (2 and 3) has also been covered under Para 5.3.11.2 of Chapter 5 at Page 5-33 of MP.)
9	Chapter 5	The embankment against the Kelo river should be designed keeping in view the HFL levels and other protective measures against flooding may be addressed.	The matter of embankment against the Kelo river has been covered under para 12.2.1 of Chapter 12 of MP as given under. The mine working will be protected from the river inundation by providing embankments on either side of the Kelo river. The embankments will be designed with 3m height above HFL and 10m width. The slope of the sides will be 1 in 3 on river side and 1 in 2 on quarry side. Core of the embankment will be constructed from impervious clay. Both sides of embankment will be clad/ paved with stones. Adequate measures to protect the mine workings from surface water flow during the rains will be taken by way of providing garland drains around the mine excavations and also by providing suitable drainage gradients for mine benches. Sumps of adequate capacity will be provided on the quarry floor. The coal excavation and transport machinery are organised to be sited over the coal bench top during rainy season and will not be affected by water

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U.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

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			accumulation from rains or strata seepage on the quarry floor. No water accumulation in OC mine workings will be permitted to remain when the UG mining operations are in progress.
10	Para 5.3.10.1	RQP may reconfirm the dump space availability for internal and external dumps to meet the desired coal production as proposed in the Calendar Plan. Further optimization is desired in mine planning to improve the viability of the project.	As the surrounding area of the mine is coal bearing and belonging to other coal blocks, availability of external dumping space other than within the block is not foreseen. The entire block area is coal bearing and dump locations, schedule for dumping and rehandling have been envisaged accordingly, which will cater to the dump space requirement for the project. The proposed design layout has been arrived after also considering the simultaneous operation of OC and UG. (The above has been incorporated under para 9.3.i at page 9-2 of Chapter 9)
11	Chapter 5	The CHP design parameters are not in conformity with large capacity mines. The coal flow diagram is too sketchy. The coal flow diagram shows the coal to be truck loaded for sending it to the railway siding, which may not be the desired option from environmental point of view.	The CHP design parameters have been relooked and modified. The CHP has been elaborated in Plate XLI showing its plan view, elevation view and coal flow. As coal is to be produced through Surface Miners, additional crushing of coal in the CHP is not required. The alignment of railway corridor passing through the coalfield has yet to be frozen after addressing concerns of different stake holders by the Govt. The loading system will be decided in totality, once the parameters like alignment of the siding and its distance and its corridor from the mine etc. are available.

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			The truck transport system is proposed as an option till the alternative system takes a shape. The dispatch from the off take point is now modified in the CHP layout which will enable to evacuate coal by three means. i. Coal could be sent to washery from transfer points. Washed coal is brought back to transfer points for despatch through railways or trucks, ii. Coal could be directly sent to silos for railway despatch, bypassing the washery circuits, so that the despatch is not affected in case of any problem in washery. iii. Coal being loaded into trucks in case of need and also till the period of CHP and washery construction. (The above has been incorporated under para 10.1 at page 10-1 of Chapter 10)
12	Chapter 5	It has been proposed to extract coal seams by deployment of Continuous Miners having minimum cutting height of 1.8m. However, in the projection plans the minimum extraction height has been shown as 1.5m.	The compatibility of the CM has been relooked into w.r.t. the seam thickness and the specifications of the proposed CM have been modified. The equipment to be selected would have the specification to cover a seam height range in single lift varying from 1.50m to 3.5m (Continuous Miner model CAT: CM 340 (Mining Range 1.37 m to 4.00m, 70 tonnes, 697 KW or other similar CM.)

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I.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

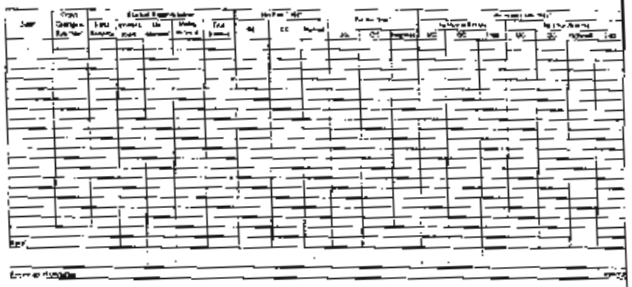
Sl. No.	Refer Para	Observations	Compliance
			(The above has been incorporated under para 5.4.6.I.a) at page 5-46 of Chapter 5 of MP)
13	Chapter 5	Transport system in underground for coal and material may be given	Transport system in underground for coal and material has been incorporated under para 5.4.6.II (j) and (k) respectively of Chapter 5 and explained below: ***i) Conveyor*** A 1200mm "fire resistant" conveyor at around 3m/s with a duty equivalent to average 500T per hour (TPH) would be installed in the centre roadway (as shown in all stage plans) to ensure equal distances and cable lengths on each side of the loading point. The system will absorb the peaks of 750 TPH. The conveyor will be equipped with a loop take-up of sufficient capacity to hold belt stretch for one week and preferably to hold one roll (usually 300m) of conveyor belting for extension and retreat of the conveyor. At the in-bye end of the conveyor, a sledge mounted and guarded return pulley frame, graduated loading section (at least 3m in length) equipped with impact rollers, and anchor chains will be provided. The "head" end of the conveyor will be equipped with a suitable loading section on to the trunk conveyor, dust suppression equipment, belt alignment, belt slack and belt slip detectors. The "gate" belt should be electrically interlocked with the "trunk" conveyor to automatically stop the gate belt.

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Sl. No.	Refer Para	Observations	Compliance
			Communication and continuous signaling and "stop pulls" will be provided along the length of the conveyor. The conveyor will also be provided with an effective bottom belt scrapper. One side of the conveyor will be designated as the "man walkway" into the district. To prevent "Tripping and Falling" accidents, this walkway will be kept clear of any supplies, materials, be clean, level and well illuminated. District materials will not, as far as possible, be transported along the conveyor belt route. The transport system within a Continuous Miner Panel has been shown vide fig. No.5.7 in Chapter 5 ***ii) Material Transport*** Materials such as timber, roof bolts, grouts/resins, spare parts, cables, lubricants, ventilation stopping materials etc. are to be transported by mine tubs to within one split of the gate belt "tail end". Familiar method such as an endless rope haulage system using 15 kg track with a 0.6m gauge may be used. The track and return wheel should lag no more than 2 pillars behind the conveyor tail end. The rail track will

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भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi

Sl. No.	Refer Para	Observations	Compliance
			be laid in the incline (other than the conveyor incline) extending to all the UG workings.
14	Para D (s) & Para 5.1.1	Seam–wise geological and corresponding extractable reserve should be indicated in the following table 	Seam- wise geological and corresponding extractable reserve, as per the specified formats has now been Furnished as Table 5.1A (for Opencast), 5.1B (for underground) and 5.1C (OC + UG combined Summary) under para 5.1.1 of Chapter 5. As these tables are large (wide), they could not be accommodated here.
15	Para 5.1.2	It appears that about 10 Mt of coal is getting blocked under Kelo river, is there any plan to divert Kelo river, if so then the action plan for the same should be envisaged.	Due to the prevailing topography, shape of the block and presence of other coal blocks all around, Kelo river cannot be diverted. In future if the possibility of diversion of the river is worked out, a revised mining plan will be submitted to MOC. (The above has been incorporated under para 5.1.2 in Chapter 5)
16	Para 5.1.2	Some reserve is likely to be locked below infrastructure and batter, is there any action plan to liquidate the same?	The reserves blocked under facilities viz. incline, CHP, office, Shaft Pillar etc. in northern corner of west part of block will be 21.301 Mt.

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			These facilities will be required for supporting the OC operations as well as UG operations. Though the OC operations will exhaust by the end of 29th year, the UG operations have long life and will continue till 77th year. The issue, whether some locked coal under the facilities could be mined, will be examined at the fag end of UG operation under prevailing conditions at that time. As far as the reserves under the batter are concerned, the matter has been studied in detail as follows. The fast advance of mining operations followed closely by the backfilling operations, especially due to dearth of space for disposal of OB on the surface, application of High Wall mining during the operating life of OC mine has been ruled out. It is only at the end of the OC mining operations that the HW mining can be considered. Then also, there will be restriction of application due to practicality of deployment of the equipment as it must operate from the same level as of the bench to be mined by HW mining. After exhausting the mine by the end of 29th year, it will be technically possible to deploy the system at the bottom of the quarry i.e. at the floor of Seam VI and VII combined. The upper seams mining by HW will not be possible because of non-availability of space adequate to install and operate this system. Thickness of seam VI is between 0.5m and 0.75m in the reference region. It will not be feasible to deploy the HW system. However, seam –VII combined has a thickness of around 5m in the reference region, application of HW mining could be feasible.

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			In this regard, it is important to note that HW mining has been operational in only two mines in India as follows: **1. Sharda Coal OC Mine, SECL, M.P.:** Cuprum Bagrodia Ltd, Kolkata has been operating coal extracting machine for High Wall Mining in this mine. The Seam thickness is 1.2-1.5 m and the production is 0.5 MTPA. The drivages are of 2.9m width with 1.2m ribs; and after every 8-10 cuts/drivages, a rib pillar of about 3m is left. The length of each hole (penetration) is 250m. **2. Medpalli OC Coal mine of SCCL, Telangana:** M/s Advanced Mining Technology Pvt Ltd., Hydrerabad is operating HW system in this mine which has exhausted its reserves after operating normal mine of 4MTPA production. Now coal is being extracted by HW mining. The operation has been on for last 3-4 years (since 2011-12). The thickness of seam is 5.5 m. The HW system which was operational, took one lift of 2.4m thickness while the rest thickness of seam was left unmined. The overall extraction was recorded at about 20% of the whole seam. However, the operating company has developed expertise over time and now it has brought a new machine which can take 2 lifts, each of 2.4m thickness. This operation is expected to start from August 2016. It is anticipated that the extraction percentage with respect to total seam thickness will be about 35%.

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			Accordingly, the calculations have been made for coal which can be extracted from Seam-VII combined assuming 2 lift operation giving 35% extraction. The coal reserves extractable by HW system come to 1.52 MT. Assuming a production rate of about 0.5 MTPA, the said reserves can be mined in 3 years. However, this HW proposal may not be feasible at that stage because the HW drivages will get filled up with water (as the specific location is towards dip side) and the underground operations of lower seams as proposed in the mining Plan will be endangered. It may be noted that it will not be possible to physically inspect the HW drivages for the presence of water irrespective of pumping provision. Eventually, the HW could be carried out only after the exhaustion of UG reserves (after 77th year). The decision regarding mining the coal locked in batter of OC mine may be taken at the end of the UG operations considering the technologies (High wall or otherwise) available at that time and if the application of Highwall mining at that time is found to be feasible, a revised mining plan will be submitted. (The above matter has been covered under para 5.1.3 of Chapter 5.)
17	Sum Para E	Distance of end use power plant to be envisaged required in line with the guidelines for formulation of mining plan at summary para " End use of Coal/ Lignite"	Distance of end use power plant was already mentioned in 2nd column of the table under the heading EUP/ Location/ Address. Now it is being shown under a separate column

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			EUPs as per Allotment Order dt. 31-08-2015

Sl. No.	EUP/ Location/ Address	Configuration	Distance of EUP KM
1.	Chandrapur Thermal Power Station Unit 8 & Unit 9 Nirman Bhavan, Urja Nagar, Chandrapur- 442404.	2x500 MW	800
2.	Koradi Thermal Power Station Unit 8, Unit 9 and Unit 10 Chindwara Road, Koradi-441111, Distt. Nagpur, Maharashtra.	3x660 MW	595
3.	Parli Thermal Power Station Unit 8 Vaijnath, Dist. Beed- 431520, Maharashtra	250 MW	1147
	Total	**3230 MW**	

18	Sum Para F (d)	What will be the ash % of the ROM Coal? Whether washery is being provisioned to comply with the MoEF restriction on transportation of coal with more than 34% ash for power stations located at 500 km and away from the pitheads from June 2016?	i) The average ash content of total extractable reserves comes to between 37 and 38% based on insitu parameters. However, the Ash % of ROM coal will fluctuate from year to year (34.05 % to 41.42%) as is evident from Table 5.9. ii) In the Mining Plan, provision for space for a washery has been made. The decision regarding capacity and layout of washery will be reached after thorough investigation. MSPGCL has approached CMPDIL (Copy enclosed as Annexure 1-3) for generation of data (washability tests, cleaning possibilities etc) and report preparation. (The above matter has now been covered under para 10.2 of Chapter 10.)

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<table>
<tr><th>Sl. No.</th><th>Refer Para</th><th>Observations</th><th>Compliance</th></tr>
<tr><td>19</td><td>Para 15.3.2</td><td>Table 15.10 & 15.11 needs to be reconciled and Post closure land management needs to be elaborated</td><td>The tables have been reconciled.

Post Closure Land Management has now been covered under Para 15.10 as given below.

After the closure of mine, the reclaimed leasehold area and any structure thereon, which is not to be utilized by the mine owner, shall be surrendered to the State Govt. concerned following a laid down procedure as in vogue at that point of time.</td></tr>
<tr><td>20</td><td>Water</td><td>Hydro-geological Study & Water Balance Chart should be provided.</td><td>Hydro-geological Study has not yet been done. It will be commissioned shortly and the study submitted to MOC.

Water Balance Chart has already been given in table 15.13 and reproduced below.

<table>
<tr><th>i. Potable water</th><th>Daily requirement, cum</th></tr>
<tr><td>Drinking at working place @ 45 lpd/head for 3400 workers etc. (Total 3400)</td><td>153.00</td></tr>
<tr><td>*Colony (for 50% employees)= 3400/2=1700*4 members in family @ 135 lpd</td><td>986</td></tr>
<tr><td>For peripheral villages</td><td>100.00</td></tr>
<tr><td>Total of (i)</td><td>1239</td></tr>
</table>
</td></tr>
</table>

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ii. Industrial water	
Sprinkling @ 30 m^3/km of road length (10km)	300.00
Plantation @ 20 cum/ ha {1509.12 ha/ 22.5 years = 5 9.18 ha (say 60 ha)	1200.00
Vehicles washing @ 2.0 m^3/ vehicle/ day (washable vehicles about (400X2 times a weak)/ 7 days = 115 veh/ day (Water required 115x2-80%*230 re-circulation=46)	46.0
Total (ii)	**1546**
Grand total (i + ii)	2785
Reclaimed water from STP of colony (80% of 986 cum) which can be used in watering the plantation	790
Net water requirement	1995

(The above matter has now been covered under para 15.4.1 of Chapter 15.)

21 Top soil — Year wise top soil utilization should be furnished

Year/stage wise top-soil generation, utilization and balance to be stacked is given in the following table.

YEAR WISE TOP-SOIL GENERATION AND UTILISATION (MCUM)

Year	Top soil Genration		Top soil Utilisation		Balance Stack
	Progressive	Cumulative	Progressive	Cumulative	Cumulative
const. (0)	0.00	0.00	0.00	0.00	0.00
1st year	0.16	0.16	0.00	0.00	0.16

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			2nd to 3rd year 0.62 0.78 0.00 0.00 0.78 4th to 5th year 1.50 2.28 0.00 0.00 2.28 6th to 10th year 4.31 6.60 2.05 2.05 4.54 11th to 15th year 3.89 10.48 2.41 4.46 6.02 16th to 20th year 1.22 11.70 2.25 6.72 4.98 21st to 25th year 1.94 13.63 2.19 8.90 4.73 26th year to of OC mine/ 29th year 1.01 14.64 3.83 12.74 1.91 closure plan 32th 0.00 14.64 1.90 14.64 0.00 Total 14.64 14.64 (The above matter has now been covered in Table 15.17 under para 15.4.4.iii of Chapter 15.)
22	Disposal	Disposal of Mining machineries should be provided as per Mine Closure Plan Guidelines issued by MOC, New Delhi dated 07.01.2013	Disposal of Mining machineries will be done as follows: Some machinery having, remaining life will be utilised in the other coal mines of the company if operative at that time. The other machineries will be e-auctioned after decommissioning (ref para 15.6.i). The tentative cost of dismantling has been given in table 15.21 under para 15.7 in Chapter 15 and also in Annexure 15-3. The relevant portion is reproduced below.

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Sl. No.	Refer Para	Observations	Compliance

Activities		Total amt., Rs. Lakh
01. Dismantling of Infrastructure, disposal/ rehabilitation of mining machinery		
a)	Dismantling of workshop	300.00
b)	Dismantling of CHP	500.00
c)	Dismantling of facilities	1000.00
d)	Dismantling of pumps and pipes	45.00
e)	Dismantling of UG facilities including main fan	100.00
f)	Dismantling of UG Conveyors	300.00
g)	Dismantling of UG Rail tracks	150.00
h)	Dismantling of UG equipment	200.00
i)	Re-arranging of water pipelines to dump top, park	15.00
j)	Dismantling of power line	30.00
k)	Rehabilitation over area of dismantled facilities	203.76

23		Manpower requirement for carrying out mine closure activities should be furnished in the para for Time scheduling for abandonment with bar chart & manpower requirement for implementation	The year wise abandonment activities details have been furnished in the Bar Chart given as Annexure 15-3 under the para 15.6 (Chapter 15) for time scheduling of Abandonment. Year wise Man days requirement for carrying out progressive and final mine closure activities have also been given in that Annexure.

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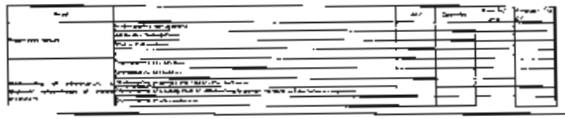
Sl. No.	Refer Para	Observations	Compliance
24		Infrastructure to be retained and to be demolished to be provided in a tabular form.	Infrastructure to be retained and to be demolished to be demolished/ dismantled has been given in a tabular form as Table 15.20 under para 15.6 of Chapter 15 and is reproduced below.

FACILITIES/ INFRASTRUCTURE TO BE RETAINED AND DISMANTLED

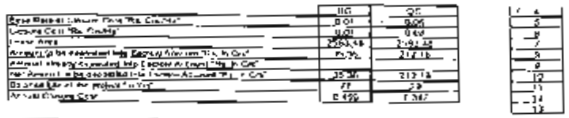
Sl. No.	Particulars	To be Retained (Area in Ha)	To be Dismantled (Area in Ha)
I	**Facilities to be retained**		
i	Office, VT Center, Canteen, dispensary, Parking, Essential quarters near the shaft and inclines	5.00	
ii	Diverted Road	30.30	
	Total-I (To be Retained)	**35.30**	
II	Facilities to be Dismantled		
III	C.H.P		5.00
IV	Facilities including inclines, shaft, Store, Security post, weigh bridge		1.50
V	Settling pond		5.0

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Sl. No.	Refer Para	Observations	Compliance
			VI Coal stack yard — 4.00 VII **Road** — 0.14 **Total-II (To Be Dismantalled)** — 15.64 **Total-I and II** — 35.30 — 15.64 **Grand Total** — 50.94
25	15.7	The Mine closure activities required to be taken should be in coherence with the guidelines of the Mine Closure plan. The basis of assessment of indicative cost should be envisaged.	The Mine closure activities have now been listed as per the specified format as given in Table No. 15.21 and also in Annexure 15-3. Indicative costs for Mine closure activities are based upon data collected from various sources including discussion with actual mine operators, internet, quotations from vendors.
			(The above matter has been covered under para 15.7 in Chapter 15)
26	15.6	Bar chart for the activities to the taken up for the period life of the mine plus 3 year should be provided indicating activity-wise breakup of the abandonment cost.	Bar chart for the activities has been provided vide Annexure 15-3 alongwith the abandonment cost.
27	15.7	i. WPI as on the base date should be considered for assessment of amount to be deposited in escrow account as a	i. Base date of the WPI has been considered as January 2016 for calculation of Escrow Amount as mentioned in para 15.7b of Chapter 15.

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		security against the mine activities to be carried out for the closure of the mine.	
			
		ii. From the plan it is not clear to what extent there is the superimposition of OC and UG.	ii. The superimposition of OC and UG has now been shown vide Fig. No. 3.1, as also explained in Para 15.7 b. A part of the area on western side is not workable by UG and the same has not been considerd for UG mine.
		iii Since the total project area of 2583.48 Ha has been taken into consideration for mine closure cost calculation of OC, the cost calculation for Escrow fund for UG i.e for 2208.18 Ha should be done from 30th year i.e after closure of the OC mine. Rs. 43.81 lakhs in Table 15.21 for the UG mine should be escalated to the value in the 30th year (i.e the first year for Escrow fund for UG mine). For UG, fund depositing should start from the 30th year.	iii. The cost calculation for Escrow fund for UG i.e. for 2208.18 Ha has been now done from 30th year i.e. after closure of the OC mine. The Table No. 15.23 showing Amount to be deposited into Escrow Account Annually has been accordingly modified. For derivation of escrow amount the suggested format has been adopted and given in Table 15.22. The same is reproduced below.

Monthly Wholesale Price Index "Aug. 2009"	129.600
WPI as on base date "January 2016"	175.400
Escalation rate of Closure cost	1.3534
Rate of compounding of Annual Closure Cost	5.00%
Amount to be deposited into Escrow Account after compounding @ of 5% "Rs. in Crs"	932.7141

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	OC	UG
Base Rate of Closure Cost "Rs. Crs./Ha"	0.0600	0.0100
Closure Cost "Rs. Crs/Ha" on Base dt.	0.08120	0.01353
Lease Area Ha.	2583.48	2208.18
Amount to be deposited into Escrow Account "Rs. in Crs"	209.788	29.89
Amount already deposited into Escrow Account "Rs. in Crs"	0.00	0.00
Net Amount to be deposited into Escrow Account "Rs. in Crs"	209.79	29.89
Starting Year	1	30
End Year	29	77
Balance Life of the project For Escro Account "in Yrs"	29	48
Annual Closure Cost on Base Date, Rs. Cr.	7.2341	0.6226
Annual Closure Cost escalated @ 5% as on first year of deposit, Rs. Cr	7.2341	2.5628

(Above Matter has been covered under Chapter 15)

28	Para 15.8	Financial Assurance para should be described as per Mine Closure Plan Guidelines issued by MOC, New Delhi dated 07.01.2013	Financial Assurance Para has now been described as suggested under para 15.8 as given below: **FINANCIAL ASSURANCE** i) For financial Assurance the mining company shall open an Escrow account, with any Scheduled Bank, with the Coal Controller Organisation (on behalf of the Central Govt.) as exclusive beneficiary. The mining company shall cause payments to be

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			deposited in such Escrow account at the rate computed as indicated in table given above. The owner of the company may select the Scheduled Bank where the Escrow account is to be opened and inform the same to Coal Controller, Kolkata. The Escrow amount has to be opened as per the Guidelines of the Mine Closure Plan. The amount being deposited will be reviewed with such periodicity as deemed fit by Coal Controller. ii) Up to 80% of the total deposited amount including interest accrued in the Escrow Account may be released after every 5 years in line with the periodic examination of the Closure Plan. Amount released shall be equal to the expenditure incurred on the progressive mine closure in the past 5 years or 80% which ever is less. The balance amount at the end of final mine closure shall be released to mine owner on compliance of all statutory Rules, Regulations, Orders made by Central or State Govt., Statutory Organisations, Courts, etc. and duly certified by the Coal controller. iii. An agreement, outlining the detailed terms and conditions of operating the Escrow account, shall be executed between the Mining company, Coal Controller and the concerned bank in order to give effect to this. The agreement will be executed before the grant of the permission by the Coal Controller to open the mine.
29		Para 15.9 and 15.10 should be as per Mine Closure Plan Guidelines issued by MOC, New Delhi dated 07.01.2013	Para 15.9 of MCP regarding Responsibility of the Mine Owner has been further elaborated by including text from Para 9 of the Guidelines as given below:

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			RESPONSIBILITY OF THE MINE OWNER It is the responsibility of the mine owner to ensure that the protective measures contained in the Mine Closure Plan including reclamation and rehabilitation works have been carried out in accordance with the approved mine Closure Plan and Final Mine Closure Plan. The owner shall submit yearly report to the Coal Controller before 1st July of every year setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved Mine Closure Plan (Progressive and Post mine Closure Plan). The prime responsibility of mine closure shall always lie with the mine owner, and incase the funds deposited are found to be insufficient to cover the cost of final mine closure, the mine owner undertakes to provide additional fund equivalent to gap in funding before five years of mine closure. The para 15.10 regarding Provision for Mine Closure has been further elaborated to include Text from Para 8.2 and 8.3 of the Guidelines as given below: **PROVISION FOR MINE CLOSURE** The mine owner will be required to obtain a mine closure certificate from Coal Controller to the effect that the protective, reclamation and

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			rehabilitation works in accordance with the approved mine closure plan/ Final mine Closure Plan have been carried out by the mine owner for surrendering the reclaimed land. After the closure of mine, the reclaimed leasehold area and any structure thereon, which is not to be utilized by the mine owner, shall be surrendered to the State Govt. concerned following a laid down procedure as in vogue at that point of time.
	Annexure (to be attached)		**Annexures have been attached as follows**
30		Certificate of acceptance of the RQP to formulate the mining plan on behalf of the project proponent.	The certification was covered in the Certificate attached on page No. C-5.
31		A certificate by the RQP that he has been duly authorized by the mining company to prepare Mining plan on their behalf and that he has a valid recognition from MOC under MCR, 1960 to prepare the Mining plan and that provisions of all relevant rules and regulations made there under have been observed in the preparation of mining plan. The Mining plan has been prepared considering the guidelines pertaining to mining plan issued by MoC, GOI & wherever specific permission will be	The certificate has been modified as specified and attached on page No. C-5.

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		required the applicant will approach the concerned authorities	
32		Certificate from empowered representative of / or Block allottee / applicant that the mine will be developed as per the approval of the mining plan from Ministry of coal and all other approvals, as required will be obtained from relevant authorities	Certification was already given vide Annexure 15-2 with extracts from Board Resolution (Para 1) certified by Company Secretary as reproduced below: That the Gare Palma Sector-II Coal Mine will be developed as per the approval of the mining plan from Ministry of coal and all other approvals, as required will be obtained from relevant authorities'
33		Certificate from empowered representative of / or Block allottee / applicant that the reclamation & rehabilitation work shall be carried out in accordance with the approved mine closure plan and any modification /amendments which may be made in the mine Closure Plan by Ministry of Coal, from time to time	Certification was already given vide Annexure 15-2 with extracts from Board Resolution (Para 2) certified by Company Secretary as reproduced below: 'That the Protective Measures and Mine Closure activities including reclamation & rehabilitation work shall be carried out in accordance with the approved Mining Plan and Mine Closure plan and any modification /amendments which may be made in the mine Closure Plan by Ministry of Coal, from time to time.'
34		Copy of the document to establish that the geological report has been duly purchased from CMPDI, GSI/ MECL as the case may be	GR was made available as part of the Auction Process., An amount of Rs. 43,48,16,953.00 was paid to MoC vide our letter dt 13.7.2015 inclusive of cost of GR (copy of fund transaction enclosed as Annexure 4-1) and thereafter original copy of GR was received from prior allottee i.e. M/s. Mahatamil on 24.11.2015.
		Plates (to be attached)	
35		Progressive mine closure plan/ stage plan indicating stages at 1st,3rd, 5th, 10th, and 20th interval (showing area, volume, dump	Stage plans indicating stages at 1st, 3rd, 5th, 10th, 20th etc intervals showing all the required details are given vide Plate No. XIV to Platte No XXI.

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		height etc for OC and seam-wise layout projects and ventilation system in UG)	Underground ventilation can be seen in Plate XIX and XXIV.
36		Post mining land use & Reclamation plan	Post mining land use & Reclamation plan is given at the end of 32nd year for OC and 80th Year for UG vide Plate No, XXXVI
37		The plan indicating the lease boundary and block boundary & Mine boundary superimposed over it in distinct colour.	Project boundary, Block boundary and ML boundary are the same (2583.486Ha), which are shown in all the plates. It may be noted that the boundaries are coinciding with each other and cannot be shown in different colours in a plan. (This matter has been covered under para 3.2 in Chapter 3 of MP)
38		Ventilation system may be provided in the seam-wise projection plans	The ventilation system is shown in Plate XIX and XXIV.
39		Support system & Transport system layout plan should be provided.	Support System for Junction and galleries has been shown in Figure no 5.6. The relevant write-up is given under para 5.4.6.I. (b) and (c), and 5.4.6.II.(f) and (h) Transport system has been incorporated under para 5.4.6.II (j) and (k) respectively of Chapter 5 and has been shown in all stage plans and also in Fig 5.7.

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M/S MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED

"Prakashgad" Plot No. G-9, Anant Kanekar Marg, Bandra (East); Mumbai, Maharashtra-400051
Ph: 022 – 26476231; 022-26474211; E-mail: md@mahagenco.in

MINING PLAN AND MINE CLOSURE PLAN

FOR

GARE PALMA SECTOR-II COAL MINE (MAND RAIGARH COALFIELD)

AT

VILLAGES: TIHLI RAMPUR, KUNJEMURA, GARE, SARAITOLA, MUROGAON, RADOPALI, PATA, CHITWAHI, DHOLNARA, JHINKA BAHAL, DOLESARA, BHALUMURA, SARASMAL AND LIBRA

DISTRICT: RAIGARH, CHHATTISGARH

(Under Rule 22 (4) of Mineral Concessions (Amendment) Rules, 1994

BLOCK AREA/ PROJECT AREA/APPLIED ML AREA : 2583.486 HA
{TOTAL CAPACITY = 23.6 MTPA (22.0 MTPA OC + 1.6 MTPA UG)}

[Re-submitted after Incorporation of Clarifications to Observations of Technical Members of the Standing Committee Constituted under MMDR Act, 1957 vide MOC Letter no. 34011/16/2016-CPAM dt. 03-05-2016]

(VOLUME I : TEXT & ANNEXURES)

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(Recognised Qualified Person)
(No. 34012/03/2014-CPAM Dt 29th May 2015, valid upto May 2025)

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XXXIX	Bar chart showing Development and Production	NTS
XL	Organisational chart	NTS
XLI	Line diagram of CHP	NTS
XLII	Mining System Section	1 : 2,000

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ABBREVIATIONS

AMSL	-	Above Mean Sea Level
bgl	-	Below ground level
CV	-	Calorific Value
CSM	-	Continuous Surface Miner
CMPDIL	-	Central Mine Planning and Design Institute Ltd.
cum	-	Cubic metre
DGMS	-	Directorate General of Mine Safety
DGM	-	Directorate of Geology and Mining
EIA	-	Environmental Impact Assessment
EMP	-	Environmental Management Plan
E&M	-	Electrical and Mechanical
FE Loader	-	Front End Loader
FC	-	Fixed Carbon
GT	-	Grand Trunk
GR	-	Geological Report
GSI	-	Geological Survey of India
HFL	-	High Flood Level
HEMM	-	Heavy Earth Moving Machinery
Ha	-	Hectare
IB	-	Interburden
IMD	-	India Meteorological Department
K.Cal/kg	-	Kilo Calorie per Kilogram
Ltd	-	Limited
LTPA	-	Lakh Tonne Per Annum
LHD	-	Load Haul Dump
MTPA	-	Million Tonne Per Annum
MCPA	-	Million Cubic Metre Per Annum
M cum	-	Million cubic metre
MBCM	-	Million Bank Cubic Metre
m	-	Metre
Mt	-	Million tonne
ML	-	Mining Lease
Mty	-	Million tonne per year
MOC	-	Ministry of Coal

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Mil. cum.	-	Million cubic metre
Mil. Te.	-	Million Tonne
MoEF&CC	-	Ministry of Environment, Forest and Climate Change
NTU	-	Units of measurement
NH	-	National Highway
OC	-	Opencast
OB	-	Overburden
PA	-	Per Annum
R&R	-	Rehabilitation & Resettlement Plan
RQP	-	Recognised Qualified Person
ROM	-	Run of Mine
RH	-	Relative Humidity
RPM	-	Respirable Particulate Matter
SDL	-	Side Discharge Loader
SPM	-	Suspended Particulate Matter
SC	-	Scheduled Cast
SH	-	State Highway
ST	-	Scheduled Tribe
TPD	-	Tonne Per Day
TS	-	Topsoil
UG	-	Under Ground
UHV	-	Useful Heat Value
VM	-	Volatile Matter

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CERTIFICATES AND CONSENT LETTERS

B.D. SHARMA
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कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi

BY SPEED POST

No. 34012/03)/2014-CPAM
Government of India
Ministry of Coal

New Delhi, the 29th May, 2015

To **Shri B. D. Sharma** (Renewal)
A-121, Paryavaran Complex,
IGNOU Road,
New Delhi-110030
(FAX : 29532568 (Ph.011-29532236 /Mob:9811030881
(E-mail:min_mec@vsnl.com, minmec@bol.net.in)

Subject Grant of recognition as competent person to prepare Mining Plan for Coal/Lignite block.

Sir,

I am directed to refer to your letter No. MM/BD/RQP/21534 dated 29.11.2013 on the above cited subject and to convey approval of the Central Government to the grant of recognition under Rule 22 (c) of Mineral Concession Rule, 1960 in your favour as competent person to prepare Mining Plan/Mine closure Plan for Coal/Lignite block(s) up to 10 years from the date of issue of this letter.

2. RQP is required to comply with the provisions of all the concerned statutes and guidelines / circulars of the Govt. issued from time to time in regard to preparation of Mining Plans.

Yours faithfully

(I.P. Nagpal)
Under Secretary to the Govt. of India

Copy to : TD, NIC, Ministry of Coal for including in the list of RQP in Ministry of Coal's Web Site.

आई.पी. नागपाल / I.P. NAGPAL
अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

Vikas Jaideo
Executive Director (Coal / Fuel)

MAHAGENCO
Maharashtra State Power Generation Co. Ltd.

Mahagenco/ED(Fuel/Coal)/ 46 Date 17-2-16

To,
Shri. B.D.Sharma,
A-121, Paryavaran Complex,
IGNOU Road,
New Delhi-110030

Sub:- Authorisation as Recognized Qualified Person for the Preparation of Mining Plan and Mine Closure Plan for Gare Palma Sector-II Coal Mine in District Raigarh of Chhattisgarh State-Reg.

Dear Sir,

We hereby authorize you as "Recognized Qualified Person" for the Preparation of Mining Plan and Mine Closure Plan w.r.t. Gare Palma Sector-II Coal Mine. You may participate in the discussion with the Ministry of Coal if any, required for the purpose of approval of Mining Plan and Mine Closure Plan for the above coal mine.

Executive Director (Fuel/Coal)
Mahagenco

Place:-Mumbai.
Date:- 16/02/16

आई.पी. नागपाल / I.P. NAGPAL
अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi

3rd Floor, 'Prakashgad', Plot No. G-9, Prof. A. K. Marg, Bandra (E), Mumbai - 400 051.
Tel.(P) : 2647 4758, (O) : 2647 4211 Ext.: 2215, Fax : 2658 1466, E-mail : edfuel@mahagenco.in, Website : www.mahagenco.in

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

Vikas Jaideo
Executive Director (Coal / Fuel)

MAHAGENCO
Maharashtra State Power Generation Co. Ltd.

CERTIFICATE

It is certified that, while preparing the Mining Plan and Mine Closure Plan of Gare Palma Sector- II Coal Mine, in District Raigarh of Chhattisgarh State, all the statutory provisions including Regulations, Rules and Orders passed by the Central and State Governments, Statutory Organisations, Courts etc. have been taken into considerations.

An undertaking is also given herewith that all measures proposed in the Mining Plan and Mine Closure Plan will be implemented in a time bound manner as proposed.

Executive Director (Fuel/Coal)
Mahagenco

Place:-Mumbai.
Date:- 16/02/16

I.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

3rd Floor, 'Prakashgad', Plot No. G-9, Prof. A. K. Marg, Bandra (E), Mumbai - 400 051.
Tel.(P) : 2647 4758, (O) : 2647 4211 Ext.: 2215, Fax : 2658 1466, E-mail : edfuel@mahagenco.in, Website : www.mahagenco.in

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

CERTIFICATE FROM RQP STATING THAT THE APPLIED MINE AREA LIES WITHIN THE BOUNDARY OF ALLOTTED COAL BLOCK AND THAT THE APPLIED AREA DOES NOT ENCROACH INTO AREA OF OTHER BLOCKS

This is to certify that I have verified the area of "Gare Pelma Sector-II Coal Mine" allotted to M/s Maharashtra State Power Generation Co Ltd. located in district Raigarh of Chhattisgarh state with the certified plan supplied by CMPDIL alongwith letter no. CMPDIL/B.D./C(886)/118 dt 26-02-2016 enclosed as Annexure 3-2 in Mining Plan) and the area covered by the Mining Plan (within applied ML) does not encroach on any other coal block and the area applied for Mining Lease is 2583.486 ha.

B.D. SHARMA
RECOGNISED QUALIFIED PERSON

RQP no. 34012/03/2014-CPAM dt 29-05-2015

I.P. NAGPAL / Under Secretary / Govt. of India / Ministry of Coal / Shastri Bhawan / New Delhi

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

CERTIFICATE FROM RQP STATING THAT THE APPLIED MINE AREA LIES WITHIN THE BOUNDARY OF ALLOTTED COAL BLOCK AND THAT THE APPLIED AREA DOES NOT ENCROACH INTO AREA OF OTHER BLOCKS

This is to certify that I have verified the area of "Gare Pelma Sector-II Coal Mine" allotted to M/s Maharashtra State Power Generation Co Ltd. located in district Raigarh of Chhattisgarh state with the certified plan supplied by CMPDIL alongwith letter no. CMPDIL/B.D./C(886)/118 dt 26-02-2016 enclosed as Annexure 3-2 in Mining Plan) and the area covered by the Mining Plan (within applied ML) does not encroach on any other coal block and the area applied for Mining Lease is 2583.486 ha.

B.D. SHARMA
RECOGNISED QUALIFIED PERSON

RQP no. 34012/03/2014-CPAM dt 29-05-2015

I.P. NAGPAL / Under Secretary / Govt. of India / Ministry of Coal / Shastri Bhawan / New Delhi

B.D. SHARMA
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Vikas Jaideo
Executive Director (Coal / Fuel)

MAHAGENCO
Maharashtra State Power Generation Co. Ltd.

UNDERTAKING

I Vikas Jaideo S/o Madhukar Jaideo, aged about 58 years R/o Bldg. No. 19 Flat No 34 MSEB Officers Quarters, K.C.Marg Bandra Reclamation, Bandra (West) -400 050 and Power of Attorney holder/ Authorized Signatory of M/s Maharashtra State Power Generation Company Limited (Mahagenco) having its registered office at Prakashgad, 2nd Floor, Plot No. G9, Prof. Anant Kanekar Marg Bandra (East) Mumbai- 400 051do solemnly affirm and state as that there is no any court case pending or any legal dispute against Gare Palma Sector- II Coal Mine after allocation to Mahagenco.

Authorized Signatory

Place: Mumbai
Date: 16/02/16

U.P. MAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

EXECUTIVE SUMMARY OF MINING PLAN AND MINE CLOSURE PLAN

A. SUMMARISED DATA

1.	GENERAL	
a)	Name and address of the Applicant Company	M/s Maharashtra State Power Generation Company Limited (MSPGCL, also known as Mahagenco) "Prakashgad" Plot No. G-9, Anant Kanekar Marg, Bandra (East), Mumbai, Maharashtra- 400051 Phone: 022 – 26476231; 022-26474211 Fax: 022 – 26581400 E-mail: md@mahagenco.in
b)	Name and address of the Block Allottee	MSPGCL (Same as 1(a))
c)	Relationship between the applicant and allottee company	The block was allotted to the Applicant
d)	Status of the Applicant Company : Central /Public Sector Undertaking/State Government Undertaking/JV Company/ Pvt. Company/Public Co/Others (Specify)	Maharashtra State Power Generation Company Limited (MSPGCL) is a State owned PSU of Govt. of Maharashtra engaged in power generation with total Installed capacity of 12077 MW as on 31.01.2016.
e)	Name of the Coal Block together with name of Coalfield & State where located	"Gare Palma Sector – II Coal Mine (Block) in Mand Raigarh Coalfield of Raigarh district in Chhattisgarh State.
f)	Date of allotment	Allotment Order by MOC no.103/30/2015/NA, dated 31-08-.2015
g)	End Use of Coal/Lignite as per approval by the Competent Authority	**EUPs as per Allotment Order dt. 31-08-2015**

Sl. No.	EUP/ Location/ Address	Configu-ration	Distance of EUP KM
1.	Chandrapur Thermal Power Station Unit 8 & Unit 9 Nirman Bhavan, Urja Nagar, Chandrapur- 442404.	2x500 MW	800
2.	Koradi Thermal Power Station Unit 8, Unit 9 and Unit 10 Chindwara Road, Koradi-441111, Distt. Nagpur, Maharashtra.	3x660 MW	595

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3.	Parli Thermal Power Station Unit 8 Vaijnath, Dist. Beed-431520, Maharashtra	250 MW	1147
	Total	**3230 MW**	

Subsequently, MSPGCL requested MOC/NA vide letter No. CMD/Mahagenco/ ED(Coal/Fuel)/34c dt. 17.2.2016 (**Annexure 1-2**) proposing to extract coal from Gare Palma Coal Mine up to its full capacity, i.e. 23.6 Mty, and utilise extra coal for other thermal plants of Mahagenco and surrender an equal amount of linkage coal from CIL to the extent the demand for other EUPs will be met from the coal mine.

MOC/NA vide letter no.103/32015/ NA dt. 19.02.2016 communicated that the issue of diversion arises after the commencement of production and that Mahagenco may submit the Mining Plan to Ministry of Coal for approval and tender intimation towards proposed diversion as per clause 8.4 of Allotment Agreement as and when required.

The total requirement of coal of the company is 62.797 MTPA, out of which existing linkage from CIL is 46.328 MTPA as mentioned below.

Sl. No.	Type of TPP of Mahagenco	Total Capacity, MW	Coal Requirement, MTPA	Existing Linkage, MTPA	Source of linkage
1	End use Plants (existing) linked to Gare Sector-II (ref. Table 1.7)	3230	12.761	0	Gare Sector-II
2	Other existing TPPs	7560	42.41	46.328	CIL
3	Proposed TPPs	1980	7.626	0	Mahjan wadi
	Total	12770	62.797	46.328	

The existing linkages to the extent of any surplus (above the requirement of EUPs as per VO) coal will be surrendered when such surpluses are generated.

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		Taking the above into consideration, the Mining Plan has been prepared for the full capacity of the mine, i.e. 23.6 Mtpa as given in Chapter 5.
h)	ROM Quantity proposed to be produced as per Mining Plan	23.6 Mtpa
i)	Norms adopted for calculating ROM quantity requirement in case it differs from the quantity indicated in the Allotment Order.	The ROM coal quantity was not indicated in the allotment order, however, the following norms have been considered for calculations of coal requirement i) GCV of Coal : 4350 Kcal/Kg (refer Chapter-5) iii) P.L.F of Plant : 85% iv) For Station heat rate on the basis of benchmarks uploaded on MSTC's website for auction has bee referred.

Sl. No.	Particulars	Name of power plant			Total
		Chandrapur	Koradi	Parli	
1.	Capacity, MW	2x500 =1000	3x660 =1980	1x250	3230
2	Station Heat Rate "KCal/KWhr"	2375	2250	2375	2308
3.	Avg Calorific value "KCal/kg)"*	4350	4350	4350	4350
4.	Specific consumption "Kg/kWhr"	0.5460	0.5172	0.5747	0.5306
5.	Plant Load Factor	85%	85%	85%	85%
6.	Total Coal Requirement "MTPA"	2x2.032 7 = 4.065	3x2.5419 = 7.626	1X1.12 = 1.070	12.761
7.	Coal availability from this project "MTPA"	4.061	7.629	1.070	12.761
8.	Linkage/e-Auction from CIL"MTPA"	Nil	Nil	Nil	Nil
9.	Other blocks of the company "MTPA"	Nil	Nil	Nil	Nil
10.	Percentage of end use requirement to be met from this mine	100%	100%	100%	100%

j)	Beneficiation required -- Yes/No	Yes
k)	Requirement of Beneficiated Coal & expected availability thereof.	MSPGCL has approached CMPDIL for generation of data (washability tests, cleaning possibilities etc) and report preparation. Requirement of Beneficiated Coal & expected availability can be

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		estimated after receipt of the report. Requirement in this Mining Plan has been assessed based on ROM coal.
l)	Period for which Mining Lease has been granted/is to be renewed/ is to be applied for.	30 years after the date of executing the Mining Lease
m)	Date of Expiry of earlier Mining Lease, if any	Not applicable
n)	RQP who has prepared the Mining Plan	
	Name	Mr. B. D. Sharma
	Address	A-121, Paryavaran Complex,
	Phone No.	IGNOU Road, New Delhi – 110030
	Fax	29534777, 29532236, 29535891
	Email ID	091-011-29532568
	Web site	min_mec@vsnl.com; minmec@bol.net.in; minmec@gmail.com http://www.minmec.co.in
	Registration No & date till valid	13016/18/2004-CA
	Date of grant/Renewal of RQP Status Validity	10 years from last recognition dated 29.05.2015

B.	INFORMATION REGARDING EARLIER APPROVED MINING PLANS, IF ANY. N/A (FIRST SUBMISSION)		
a)	Approval Letter no. and Date	Not applicable as no earlier mining plan has been approved by MOC for this mine/ block	
b)	Lease Area		
c)	Date of grant of Lease		
d)	Date of Expiry of Lease		
e)	Targeted Production	**Old Plan**	**New Plan**
f)	Proposed date of start of Production		
g)	Proposed date of achieving the targeted production level		
h)	Envisaged life of the mine (in years)		
i)	Date of actual commencement of Mining Operations, if operations already started		
j)	Likely date of Mining Operations, if operations not yet started & reasons for non-commencement of operations		
k)	Planned production and actual levels achieved in last 3 years		
l)	Coal :- U/G O/Cast OB		
m)	Reasons for difference between the planned and actual production levels		
n)	Reason for revision of the Mining Plan		

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o)	Details of changes in the new mining plan compared to earlier approval (i) Lease Area (ii) Block Boundary (iii) Production level (iv) Reserves (v) Mining Technology(Additional sheets to be used, if required)	

C. LOCATION

a)	Location of the Block Taluka/ Village/ Khasra/ Plot / Block Range / etc. District / State	The block is located in villages Tihli Rampur, Kunjemura, Gare, Saraitola, Murogaon, Radopali, Pata, Chitwahi, Dholnara, Jhinka Bahal, Dolesara, Bhalumura, Sarasmal and Libra in Raigarh district of Chhattisgarh state.
b)	Name of the Coalfield/ Coal belt	Mand Raigarh Coalfield
c)	Particulars of adjacent blocks: North, South, East, West	North - Bhalumura Coal Block of NTPC South - Gare Palma-I of GSECL East - Gare Palma-III of CMDC; Gare IV/7 of MIEL; Gare IV/6 of JSPL; IV/2&3, IV/1 of SCCL; West - Bhalumura Coal Block of NTPC
d)	Area of the Allotted Block (hectares) i Geological block area ii Mining Block Area	 i. 25.83 Sqkm ii. 2583.486 ha
e)	Reference no. of plan of block boundary issued by CMPDI/ SCCL/ NLC (A copy of the Plan also to be annexed)	The block boundary issued by CMPDI vide letter no. CMPDI/BD/C(886)/118 dt 26-02-2016. (Refer Annexure 3-2 of Mining Plan)
f)	Whether the lease boundary/ required boundary is same as demarcated by CMPDI/ SCCL/ NLC for delineating block/sub-block	Yes
g)	Existing mining Lease Area in case of existing mines, (hectares)	N/A
h)	Applied/ required Lease Area as per the Mining Plan under consideration (hectares)	2583.486 Ha

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i) Whether the applied lease area falls within the allotted block	Yes
j) Area (hectares) of lease which falls outside the block/sub-block delineated by CMPDI/SCCL/NLC.	Nil
k) Details of outside area: - Whether forms part of any other coal block - Whether it contains any coal/lignite reserves - Purpose for which it is required, e.g. roads/ OB dumps/ service buildings/ colony/ safety zone/ others (specify)	Not applicable
l) Whether some part(s) of the allotted block has not been applied for mining lease. - Total area in Ha. of such part(s). - Total reserves in such part(s). - Brief reasoning for leaving such part(s),	The whole allotted block area has been applied for mining lease.

m) Type of Land involved in Hectares

Sl. No.	Village	Private Land	Govt. Land	Total Area (Private + Govt. Land)
A. As per Revenue Departments Records				
1.	Tihli Rampur	160.587	67.149	227.736
2.	Dholnara	59.640	13.314	72.954
3.	Murogaon	302.393	37.353	339.746
4.	Libra	129.037	23.973	153.010
5.	Kunjemura	199.715	66.295	266.010
6.	Jhinkabahal	3.844	0.000	3.844
7.	Radopali	351.676	34.311	385.987
8.	Dolesara	20.748	1.242	21.990
9.	Bhalumura	16.297	1.326	17.623
10.	Sarasmal	66.027	20.131	86.158
11.	Pata	329.230	48.639	377.869

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12.	Chitwahi	142.461	9.272	151.733
13	Gare	157.224	28.276	185.500
14.	Saraitola	169.950	47.431	217.381
Total of A		2108.829	398.712	2507.541
B. As per Forest Departments Record				
Government Forest Land				75.945
Total A+B				2583.486

n) Broad Land Use Pattern (Forest, Township, Industrial, Agricultural, Grazing, Barren etc.)

PRESENT (PRE-MINING) LAND USE OF THE ML AREA
GARE PALMA SECTOR-II (HA.)

Sl. No.	Village	Private Land			Govt. Land					Total Area (Private + Govt. Land)
		Agriculture	Non Agriculture	Total Area	Populated	Water body	Other	CBJ**	Total Area	
1	Tihirampur	97.502	62.585	160.587	6.83	21.225	39.094	0	67.149	227.736
2	Chichara	59.64		59.64	6.833	0.376	3.317	2.788	13.314	72.954
3	Murogaon	302.393		302.393	8.256	1.303	4.29	23.504	37.353	339.746
4	Libra	121.416	7.621	129.037	2.897	0.436	4.094	16.943	23.973	153.01
5	Kunjemura	199.715		199.715	14.221	13.596	8.308	30.17	66.295	266.01
6	Jhinkapahai	3.844		3.844	0	0	0	0	0	3.844
7	Racopari	351.676		351.676	8.336	5.895	19.955	0.125	34.311	385.987
8	Dolesara	20.748		20.748	0	0	1.242	0	1.242	21.99
9	Bhelumura	16.297		16.297	0	0	0.704	0.622	1.326	17.623
10	Sarasmal	56.809	9.158	66.027	0	1.332	3.563	15.236	20.131	86.158
11	Pata	316.064	13.166	329.23	13.314	5.529	14.47	15.326	48.639	377.869
12	Chitwahi	142.461		142.461	0.252	0.867	8.153	0	9.272	151.733
13	Gare	157.224		157.224	10.482	4.241	11.506	1.957	28.276	185.5
14	Saraitola	156.228	13.722	169.95	8.395	1.364	7.969	29.703	47.431	217.381
	Total of A	2002.477	106.352	2108.829	79.816	56.167	127.355	135.374	398.712 *	2507.541
B. As per Forest Departments Record										
Government Forest Land										*75.945
Grand Total										2583.486

*Note: * 75.945 Ha of Protected Forest land and 135.374 Ha of Revenue Forest land is present within the mine lease area, which needs to be diverted for mining purpose after obtaining forestry clearance from the Ministry of Environment and Forest, Govt. of India under the Forest (Conservation) Act 1980.*

*** Chhote Bade Jhar / Jungle (Small/ big trees forest)*

o) Proximity of public road / railway line/major water body if any and approximate distance

Public Road: - Roads from Bajarmura to Ghargoda (approx 11.6 KMs) and Milupara to Tamnar (approx 3 Kms) is passing through the block.

Water body: Kelo River is flowing across the coal block.

Railway: The Gare Palma area is situated around 35 km away from Raigarh Township, which is also the nearest railway station on Mumbai-Howrah main line of SE Railway.

p) Toposheet No. with latitude and longitude

The area is covered in the Survey of India Toposheet No. 64 N/8 & 12 (R.F. 1:50,000) and is bounded by*:

Latitude : 22° 06' 24.215" to 22° 30' 49.891" N

Longitude : 83° 26' 15.433" to 83° 31' 12.632" E

*WGS 84 System

Sujeeta Sahni, I.A.S. (Retd.) Special Secretary to Govt. of India Ministry of Coal

B.D. SHARMA.
RQP NO. 34012/03/2014-CPAM

D. GEOLOGY AND EXPLORATION

a)	Name of the Geological Block and area in hectares	i. Name of Block: Gare Palma Sector-II Coal Block. Area as per GR = 25.83 Sqkm
b)	Name of the Geological Report (GR) with year of preparation	Geological report on detailed exploration for coal Gare Palma Sector-II coal block Mand Raigarh Coalfield, District: Raigarh, Chhattisgarh; 2012
c)	Name of the agency which conducted exploration and prepared GR	Mineral Exploration Corporation
d)	Period of conducting exploration	27.04.2011 to 26.2.2012
e)	Details of drilling (by all agencies)	

Name of Agency	No. of boreholes	Meterage Drilled
MECL	188	73,997.80m

f)	No. of boreholes drilled within the block	188
g)	Overall borehole density within the block (no./ sq. km)	Overall borehole density within the bloc is 7.3 sq. km. Excluding 8 bh drilled by GSI. MECL carried out the exploration work for GP-II coal block based on which G.R has been prepared and MECL was completely satisfied with it. The Geology of the area being uniform, consistent and relatively with low level of disturbance, MECL was satisfied with the present bore hole densities and did not feel the necessity of additional boreholes. Due to the above reasons, MECL has successfully completed the GR. However, during actual mining operations if required, "fill-in" boreholes shall be undertaken. Some of the area approx. 160 acres, where MECL could not do the drilling, is presently occupied by JSPL colony.
h)	Area covered by 'detailed' exploration within the block (hectares)	25.83 sq.km
i)	Area covered by 'detailed' exploration outside the block	NIL

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(hectares) - No. of boreholes drilled outside the block - Bore hole density for outside area (no./sq. km)	
j) Whether entire lease area has been covered by 'detailed' exploration.	Yes
k) Whether any further exploration is required or suggested and timeframe in which it is to be completed	No
l) Number of coal/lignite seams/horizons - Thickness range of coal seams - Mean Thickness of total coal horizon - Standard Deviation of thickness - Minimum & maximum depth of coal seams	

Sl. No.	Coal Seam	Coal Thickness range, m	Av. Thickness of coal, m	St. Deviation of thickness, m	Depth from Surface, m
1	X-BOT	0.68-6.26	2	0.81	6.67 to 93.70
2	IX	2.66-7.34	4	0.56	28.10 to 141.93
3	VIII	0.31-6.50	2	1.58	45.05 to 153.50
4	VIII-L	0.10-2.25	1	0.64	59.10 to 165.40
5	VII-TOP	1.50-5.15	4	0.90	65.90 to 186.07
6	VII-BOT	0.16-3.84		0.46	70.90 to 190.10
7	VII-COMB	2.06-8.39		1.12	67.15 to 174.10
8	VI	0.25-7.74	4	1.87	76.80 to 198.83
9	VB-1	0.10-1.47	1	0.26	165.82 to 235.50
10	VC-1	0.12-2.40	1	0.31	115.30 to 241.50
11	VD-1	0.05-1.40	1	0.24	119.13 to 247.10
12	IV	0.10-3.70	2	0.82	161.15 to 281.05
13	III	0.10-3.50	2	0.65	234.80 to 348.35
14	II	0.05-7.05	3.5	2.45	288.40 to 451.90
15	I-L1	0.10-2.89	1.8	0.68	371.10 to 440.75
16	I TOP	0.11-3.80	1.8	0.78	335.65 to 466.80
17	I-BOT	0.19-4.49	2	0.90	346.50 to 463.52
18	I-COMB	2.15-7.87		1.64	361.66 to 449.13

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m) Gross Calorific Value (GCV in K Cal/kg) and Useful Heat Value (UHV in K.Cal / Kg), of coal as per GR :

Range
Mean

Seam	UHV (k.Cal/Kg		GCV (k.Cal/Kg	
	Min	Max	Min	Max
X-LA/un	1434	3877	3440	4690
X-TOP/un	1518	3229	3100	4600
X- BOT	1794	4222	2550	4970
IX-L2/un	1365	4829	4280	5050
IX-L1	2235	3891	3650	5240
IX	3063	4871	4280	5320
VIII	1366	2953	2990	4300
VIII-L	1614	4291	3180	4730
VII-Top	1407	3628	3100	4650
VII-Bot	1656	4071	2960	4980
VII-Com	1834	3587	3170	4670
VI	1407	4111	3100	5160
VI-L/un	1352	2097	3500	4410
VA-1	1380	4236	3170	5210
VA-2/un	1545	3201	4240	4980
VB-1	1545	5229	3990	5100
VB-2/un	2566	5947	4100	5490
VC-1	1752	4677	3400	5380
VC-2	2497	4788	3690	6620
VD-1/un	3256	3463	3950	4840
VD-2	1338	2539	3040	4760
IV	1710	5243	3550	5980
III-L2	1959	3753	3690	5320
III	2147	5326	3270	7000
II-L/un	2470	3284	4220	5370
II	2318	7217	5514	6820
I-L1	4719	7341	5560	7250
I-L/un	3352	7492	4610	4610
I-Top	2461	6872	4010	6940
I-Bot	1685	7457	3880	7070
I-Com	3532	6168	4580	6270

The values in above table are in line with Chapter VI "Quality Parameters" of GR. Also refer Table 4.10 of MP&MCP.

n) Quality (Grade) of coal as per GR :

Range
Mean

Seam	UHV Grade	GCV Grade
X-LA/un	G to E	G13- G9
X-TOP/un	G to F	G14- G10
X- BOT	G to D	G17 - G8
IX-L2/un	G to D	G11- G8
IX-L1	G to E	G13-G7

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IX	F to D	G11-G7
VIII	G to F	G15-G10
VIII-L	G to D	G14-G9
VII-Top	C to E	G14-G9
VII-Bot	G to E	G15-G8
VII-Com	G to E	G14-G9
VI	G to E	G14-G8
VI-L/un	G	G13-G10
VA-1	G to D	G14-G7
VA 2/un	G to F	G11-G8
VB-1	G to C	G12-G8
VB-2/un	F to B	G11-G7
VC-1	G to D	G13- G7
VC-2	F to D	G13-G2
VD-1/un	F to E	G12- G9
VD-2	G to F	G15-G9
IV	G-C	G13-G5
III-L2	G to E	G13-G7
III	G to C	G14-G1
II-L/un	F	G11-G7
II	G-A	G17-G2
I-L1	D to A	G6-G1
I-L/un	F to A	G9
I-Top	F to A	G11-G2
I-Bot	G to A	G12-G1
I-Com	E to B	G10 G4

o)	Total geological reserves in the block	Geological reserves: 1059.298 MT
p)	Depletion of reserves (in case of running mine)	N/A
q)	Additional reserves established (if any for running mine)	N/A
r)	Geological reserves considered for mining:	

by opencast

Opencast	Reserve, MT
>0.9m thickness	682.569
<0.9m thickness but >0.5m thickness	53.536
Sub-Total OC	**736.105**

by Underground

Underground	Reserve, MT
>1.5m thickness	235.954
<1.5m but >0.9m thickness	87.239
Sub-Total UG	**323.193**
Total	**1059.298**

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s)	Corresponding Extractable reserves:	
	by opencast	553.177 MT
	by Underground	101.975 MT
t)	Percentage of recovery w.r.t. geological reserves:	
	by opencast	75.15%
	by Underground	31.55 %

E.	**MINING**	
a)	Existing and proposed method of mining (Opencast for OB & coal separately with dragline/ shovel/ surface miners/ manual/ etc.) (underground by longwall/ bord & pillar/ continuous miners/LHD/ SDL/ manual/ etc.)	It is a new mine proposed to be worked by OC as well as UG method. i. In OC method drill machines, loaders, shovels and dumpers will be used for OB while Surface Miners in combination with Front End Loaders will be used in coal. ii. In UG method Continuous Miners, Shuttle cares, Feeder breakers and conveyors will be used.
b)	Targeted capacity in MTPA when the mine is fully developed and the year in which proposed to be achieved By Underground : By opencast : Total :	1) Target capacity of block to be achieved as 23.6 MT in 7th year as follows: OC = 22.00 MT UG = 1.60 MT **Total = 23.60 MT**
c)	Life of the mine Underground workings:	69 years including 3 years of development
	Opencast workings : Overall :	29 Years 77 Years
d)	Indicate quantum of production and expected grade* as in table below:-	

COMBINED CALENDAR PROGRAMME OF COAL MINING AND OBR FROM OPENCAST AND UNDERGROUND

Year	Opencast (MT)	OBR MCUM	OBR Including Rehandling	Stripping Ratio CUM/ T	SR incl. Rehandling of Surface dump and crown dump. Cum/ t	Under Ground (MT)	Total (MT)
0	0.00	0.00	0.00	-	-	0.00	0.00
1	0.250	5.000	5.000	20.00	20.00	0	0.25
2	1.550	14.100	14.100	9.10	9.10	0	1.55
3	3.000	30.000	30.000	10.00	10.00	0	3.00

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Year	Opencast (MT)	OBR MCUM	OBR Including Rehandling	Stripping Ratio CUM/ T	SR incl. Rehandling of Surface dump and crown dump. Cum/ t	Under Ground (MT)	Total (MT)
4	6.000	45.000	45.000	7.50	7.50	0	6.00
5	9.500	80.000	80.000	8.42	8.42	0	9.50
6	21.300	135.000	135.000	6.34	6.34	0	21.3
7	23.600	135.000	156.740	5.72	6.64	0	23.6
8	23.600	135.000	156.740	5.72	6.64	0	23.6
9	23.600	135.000	156.740	5.72	6.64	0	23.6
10	23.600	135.000	156.520	5.72	6.63	0	23.6
11	23.600	135.000	140.220	5.72	5.94	0	23.6
12	23.200	130.000	135.220	5.60	5.83	0.40	23.6
13	22.800	130.000	135.220	5.70	5.93	0.80	23.6
14	22.400	130.000	135.220	5.80	6.04	1.20	23.6
15	22.000	99.000	103.750	4.50	4.72	1.60	23.6
16	22.000	99.000	120.740	4.50	5.49	1.6	23.6
17	22.000	99.000	120.740	4.50	5.49	1.6	23.6
18	22.000	99.000	120.740	4.50	5.49	1.6	23.6
19	22.000	99.000	120.740	4.50	5.49	1.6	23.6
20	22.000	99.000	118.500	4.50	5.39	1.6	23.6
21	22.000	99.000	99.000	4.50	4.50	1.6	23.6
22	22.000	99.000	99.000	4.50	4.50	1.6	23.6
23	22.000	99.000	99.000	4.50	4.50	1.6	23.6
24	22.000	99.000	99.000	4.50	4.50	1.6	23.6
25	22.000	99.000	99.000	4.50	4.50	1.6	23.6
26	22.000	99.000	163.350	4.50	7.43	1.6	23.6
27	21.997	99.000	163.350	4.50	7.43	1.6	23.597
28	22.000	95.020	172.850	4.32	7.86	1.6	23.600
29	17.180	5.000	82.770	0.29	4.82	1.6	18.780
30			44.183			1.6	1.6
31			44.183			1.6	1.6
32-77			44.183			72.375	72.375
Total	553.177	2761.120	3396.800	4.99	6.14	101.975	655.152

* *Seam wise and year/stage wise Grade (in GCV) has been provided in Table 5.8A; Seam wise and year/stage wise coal produced is given under Table 5.8B and Seam wise and year/stage wise ash %ge is given under Table 5.9 of Chapter 5.*

Furnish the detailed calendar programme of coal production year wise and seam wise along with OB removal in the relevant chapter	Pl. refer Table 5.8B of Chapter 5.
e) Whether the proposed external OB dump site is coal/ lignite bearing: - If so, whether coal/lignite below waste disposal area is extractable.	Yes, the OB during the initial years will be dumped over the coal bearing area within ML but will be rehandled. backfilled and the entire coal will be extracted from underneath.

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f)	Whether negative proving for coal / lignite in the proposed site for OB dump/ infrastructure has been done.	Negative proving under surface dump is not required as the area has been proven as coal bearing. However, entire OB dump placed out side the quarry has been proposed to be rehandled and backfilled.
g)	Proposed configuration of HEMM for OC (Coal & OB) and Major Equipment for UG (Coal Production UG 1.6 MTPA + OC 22.0 MTPA)	**i. Proposed configuration of MEMM for OC (Coal & OB)**

Sl. No.	Particulars	Quantity
I.	**Heavy Earth Moving Machinery**	
A.	**Coal (22 Mtpa)**	
a)	100 T.R D.(CB) dumpers for 3800SM(W) CSM	5
b)	150 T.R.D.(CB) Dumpers for 4200SM(W) CSM	20
c)	0.9 m^3 hydraulic backhoe	2
d)	Dozer 275-320 HP	4
e)	Dozer 410 HP with ripper	2
f)	Surface miner 3800 SM (W)	1
g)	Surface miner 4200SM (W)	2
h)	10-16 m^3 Front End Loader (Coal)	5
i)	6-8 m^3 Front End Loader (Coal)	4
	Sub-Total for Coal	**45**
B.	**Overburden**	
a)	Hydraulic shovel 5/5.5cum	4
b)	Hydraulic Shovel 12 m^3	7
c)	Hydraulic Shovel 20 m^3	20
d)	50 Tonne Dump Truck for 5/5.5 m^3 shovels	20
e)	150 Tonne Dump Truck for 12 m^3 shovels	63
f)	150 Tonne Dump Truck for 20 m^3 shovels	240
g)	R.B.H drills 200/250 mm	31
h)	Dozer 410 HP	30
i)	Dozer 275-320 HP	10
	Sub-Total for OB	**425**
II.	**Common, Auxiliary & Service Equipment**	
a)	Graders 230 HP	4
b)	Diesel Bouser	6
c)	Construction backhoe -0.9 CUM	2
d)	Water sprinkler (26 KL)	12
e)	Tow truck on 50T truck chassis	2
f)	100 T tractors (Diesel Operated)	2
g)	Rough Terrain Crane - 40T	4
h)	Rough Terrain crane 70 T	2
i)	Service trucks:	
	- Fuel trucks	6
	- Wash trucks	6
	- Mobile maintenance trucks	6
	- Lube trucks	6
	- Fire trucks	2
	- Explosive van	4

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j)	Portable air compressor	4
k)	Tyre handler	4
	Sub-Total for Auxiliary & Service Equipment	72
	Reclamation	
a)	2.5 cum Front End Loader	4
b)	10 T Truck	10
c)	0.9-1.2 cum hydraulic Excavator	4
	Sub-Total for reclamation	**18**
	Total (Coal+OB+Aux+Reclamation)	**560**

ii. Major Equipment for UG (Coal Production UG

Sl. No.	Name of equipment	No.	Broad Specification
1.	Continuous Miner	4	Remote controlled machine similar to CAT: CM 340 (Mining Range 1.37 m to 4.00m, 70 tonnes, 697 KW
2.	Shuttle Cars	8	2.5 cum capacity
3.	Twin Mast Roof Bolter	4	Rotary wet flush drilling
4.	LHD with Electric cable reel	4	1.2-1.4 cum
5.	Feeder/Breaker	4	Crushing coal (-) 150mm
6.	Load centre and transformer	4	3.3kV/1130 V 1500kVA TX

h)	Mode of entry for underground mines (shaft, incline, adit,):	Shafts and Inclines
i)	Operations that are proposed to be outsourced	All operations, excluding statutory operations
j)	Proposed coal evacuation facilities Face to Surface Surface to end use plants	The ROM coal from SMs will be transported by dumpers/trucks to the coal receiving pit, from there to ground bunkers (GB) via Transfer Point-1 (TT-1). The coal will reach (TT-2) after being reclaimed from GB. TT-2 will be connected to washery as well as to railway siding by separate conveyors as a result, it will be capable of sending ROM coal or washed coal to the railway siding. The railway siding will be equipped with appropriate Rail Loading System. Coal can also be diverted to a 3rd conveyor line from TT-2 for loading coal into trucks

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in case of need and also till the period of CHP and washery construction (Refer Plate XLI).

From O/H bunkers for loading trucks for dispatch to nearest available railway siding for further transport to EUPs.

For Underground production, conveyor transport is envisaged for bringing coal to surface

FE loader will be used for loading coal from coal stack.

F. END USE OF COAL/ LIGNITE

a) Capacity of the approved end use plants

b) Coal/ lignite requirement for end use plant with grade/ quality

c) % age of end use requirement to be met from this mine

EUPs as per Allotment Order dt. 31-08-2015

Sl. No.	EUP/ Location/ Address	Configu-ration
1.	Chandrapur Thermal Power Station Unit 8 & Unit 9 Nirman Bhavan, Urja Nagar, Chandrapur-442404. Distance from mine 800 km	2x500 MW
2.	Koradi Thermal Power Station Unit 8, Unit 9 and Unit 10 Chindwara Road, Koradi-441111, Distt Nagpur, Maharashtra. Distance from mine 595 km	3x660 MW
3.	Parli Thermal Power Station Unit 8 Vaijnath, Dist. Beed- 431520, Maharashtra Distance from mine 1147 km	250 MW
	Total	**3230 MW**

100% requirement of above will be met from the mine.

Subsequently, MSPGCL requested MOC/NA vide letter No. CMD/Mahagenco/ ED(Coal/Fuel)/34c dt. 17.2.2016 (**Annexure 1-2**) proposing to extract coal from Gare Palma Coal Mine up to its full capacity, i.e. 23.6 Mty, and utilise extra coal for other thermal plants of Mahagenco and surrender an equal amount of linkage coal from CIL to the extent the demand for other EUPs will be met from the coal mine.

MOC/NA vide letter no.103/32015/ NA dt. 19.02.2016 communicated that the issue of diversion arises after the

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		commencement of production and that Mahagenco may submit the Mining Plan to Ministry of Coal for approval and tender intimation towards proposed diversion as per clause 8.4 of Allotment Agreement as and when required. Taking the above into consideration, the Mining Plan has been prepared for the full capacity of the mine, i.e. 23.6 Mtpa as given in Chapter 5.
d)	If washing / beneficiation of the coal/ lignite is planned to be conducted on site or adjacent to the extraction area, briefly describe the nature of the beneficiation and recovery rate.	Washery will be required for which provision of space has been made within ML but the extent of beneficiation will only be decided after CMPDI study on washability is concluded which is still under preparation.
e)	Proposed Use of Rejects/ Middlings	The washery rejects shall be within the normative limits and will be disposed off strictly as per rules and regulation framed by Ministry of Environment, Forests and Climate Change and change from time to time.

G. ENVIRONMENTAL MANAGEMENT

a) Existing land use pattern — Given in Table 13.1 of Chapter 13

b) Land area indicating the area likely to be degraded due to mining, dumping, roads, workshop, washery, township etc.

Landuse	At the end of 5TH Year	At the end of 25TH Year	At the end of OC mining (29TH Year)
Excavation	380.70	2272.42	2440.55
Backfill	0.00	1535.00	2248.77
Void	380.70	737.42	191.78
Surface dump#	380.00	0.00	0.00
Bund	5.20	5.20	5.20
Green Belt	36.07	36.07	36.07
Top Soil Dump*	60.00	00.00	0.00
Settling Pond##	10.00	5.00	5.00
Road diversion<	30.30	30.30	30.30
Facilities (West Part. CHP, Inclines, Shaft Pit, Office, Lamp room, Attendance Office, Rest Room, Parking, First aid room, Sub Station etc.)**	50.94	50.94	50.94
Facilities (East Part: Office, Workshop, magazine, washery	68.54	0.00	0.00

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	etc)			
	Under Kelo river	15.42	15.42	15.42
	Dismantling	0.00	0.00	0.00
	Disturbed area	**1017.17**	**2415.35**	**2583.48**
	Undisturbed	1566.31	168.13	0.00
	Total	**2583.48**	**2583.48**	**2583.48**

* *Top soil dump will be over the backfilled area towards the end of mine life.*

** *Main colony will be located away from the ML area.*

\# *The OB dump lying over the coal bearing area will be fully rehandled and backfilled by 20th year.*

\#\# *The settling ponds in 5th year will comprise of 5 ha for mine water and 5 ha for surface dump but the later will not remain after 20th year as surface dump will be rehandaled and become non-existent.*

< *Diverted road is for public use.*

c) Surface features over the block area

Fourteen villages are lying within the block as shown below in para D below.

Roads from Bajarmura to Ghargoda (approx 11.6KMs) and Milupara to Tamnar (approx 3 Kms) are passing through the block. Kelo River is flowing across the coal block.

75.945 Ha of Protected Forest land and 135.374 Ha of Revenue Forest land is present within the mine lease area.

d) No. of villages/Houses to be shifted

Sl	Villages	Population (%)
1	Libra	757 (7.89)
2	Bhalumuda	314 (3.27)
3	Dholnara	408 (4.25)
4	Chitwahi	747 (7.78)
5	Dolesara	1061 (11.05)
6	Radopali	688 (7.17)
7	Kunjemura	1054 (10.98)
8	Gare	741 (7.72)
9	Pata	1189 (12.39)
10	Murogaon	520 (5.42)
11	Saraitola	564 (5.88)
12	Sarasmal	508 (5.29)
13	Tihli Rampur	448 (4.67)
14	Jhinka Bahal	599 (6.24)
	Total	**9598* (100)**

e) Population to be affected by 9598

f) Year wise proposal for reclamation of land affected by mining activities, ha

Upto the End of Year	Area Mined	Backfilled Area	Remark
1st year	26.16	0.00	No backfilling
3rd year	129.97	0.00	No backfilling
5th year	380.70	0.00	No backfilling
10th year	1099.37	358.27	Part Direct Backfilling and part from rehandled

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15TH year	1747.06	673.05	Part Direct Backfilling and part from rehandled surface Dump
20th year	1949.85	1122.31	Part Direct Backfilling and part from rehandled surface Dump
25th year	2272.42	1536.00	Part direct backfilling and part from rehandled surface dump
End of mine 29th year	2440.55	2109.49	Part direct backfilling and part from rehandled crown dump
Post mine closure stage 32nd year	2440.55	2440.55	Backfilling from rehandled crown dump*

* *During the post mine closure period (30th to 32nd year), part of the crown dump will be fully rehandaled and backfilled into the residual void (below surface level) while part of the crown dump (with an extent of 138 ha) will be reduced in height from 100m to 80m and backfilled.*

g)	Monitoring schedules for different environmental components after the commencement of mining and other related activities.	Ambient air quality twice a week, water once a season, soil once a year, noise once a year

H. PROGRESSIVE AND FINAL MINE CLOSURE PLAN: Separate Chapter no. 15 given

a)	Estimated total capital expenditure for mine closure activities	Rs 1484.5376 Crore
b)	Major closure activities with proposed capital expenditure	

Major closure activities with proposed capital expenditure are given below:

Heads		Activities	Unit	Vol. of work	Rate, Rs./Unit	Total amt., Rs. Lakh
PROGRESSIVE CLOSURE						
02. Safety and Security	a)	Barbed wire fencing	M	39668	212	84.10
	f)	Toe wall around the dump	m	9010	1000	90.10
	g)	Garland drain around the dump	m	9028	500	45.14
	h)	Drainage channel from main OB dump and main sump to nala	m	6010	5000	300.50
	i)	Settling pond	Lakh Cum	4	2000000	80.00
	j)	Securing Air Shaft and installation of bore well pump		2	1000000	20.00
	k)	Securing of Incline 1 &2		2	500000	10.00
	l)	Fire stoppings	Lakh Cum	1898	70000	1328.60
04. Top soil management			Lakh Cum	112.56	5000000	5628.00
05. Technical and	a1)	Reclamation	Ha.	2221	400000	8884.00

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	and OB dump		West pit			
06.	Plantation over virgin area including Green Belt	a)	Plantation/ Green Belt over Virgin Area	Ha	35.86	400000	143.44
09.	Water quality management			LS	0		340.00
10.	Air quality management			LS	0		340.00
11.	Subsidence monitoring for			LS			19.09
12.	Manpower cost and supervision			LS	0		163.50
FINAL CLOSURE							
01.	Dismantling of Infrastructure, disposal/ rehabilitation of mining machinery	a)	Dismantling of workshop	LS	0		300.00
		b)	Dismantling of CHP	LS	0		500.00
		c)	Dismantling of facilities	LS	0		1000.00
		d)	Dismantling of pumps and pipes	LS	0		45.00
		f)	Dismantling of UG facilities including main fan		0		100.00
		g)	Dismantling of UG Conveyors		0		300.00
		h)	Dismantling of UG Rail tracks		0		150.00
		i)	Dismantling of UG equipment		0		200.00
		j)	Re-arranging of water pipelines to dump top, park	LS	0		15.00
		k)	Dismantling of power line	LS	0		30.00
		l)	Rehabilitation over area of dismentaled facilities	Ha.	50.94	400000	203.76
04.	Top soil management			Lakh Cum	19.10	5000000	955.00
05.	Technical and biological reclamation of mined out land and OB dump	a1)	Reclamation	Ha.	414.78	400000	1659.12
		a2)	Rehandling of crown dump to East Pit	Lakh Cum	1027.40	3000000	30822.00
		b2)	Rehandling of crown dump to West pit	Lakh Cum	298.10	3000000	8943.00
07.	Landscaping and plantation	a)	Peripheral road, gates, view point, cemented steps on bank		0		40.00
		b)	Beautification and landscaping over dump	LS	0		20.00
		c)	Plantation				35.00
08.	Power cost			LS	0		40.00
09.	Water quality management			LS	0		12.00
10.	Air quality management			LS	0		12.00
11.	Subsidence monitoring for			LS	0		0.91
12.	Manpower cost and supervision			LS	0		4.50
13.	Others	a)	Entrepreneurship development (vocational skill development, training for sustainable income of affected people	LS	0		100.00

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d)	One time financial grant to society/ institution/ organisation which is dependent upon the project	LS	0		50.00
f)	Continuation of other services like running of schools etc	LS	0		150.00
	Grand Total				148453.76

* *All persons are proposed to be absorbed in other units of the company, hence no provision for Golden handshake has been make.*

c. Escrow amount calculation	Escrow amount for OC operations has been calculated from 1st year to 29th year (last year of OC mine life). Though the UG mining operations start from 9th year and last upto 77th year including the initial 3 construction years but the calculation of Escrow amount has been done from 30th year (i.e. after the end of OC mine life) upto 77th year for a span of 77-29=48 years.
i. Concept of calculation	
ii. Basis of calculation	A security money will be yearly deposited in Escrow Account. The amount in the 1st year at WPI of January 2016 (base date) will be Rs. 7.2341 Crore updated for OC and Rs. 2.5628 Crore for UG payable during the 30th year as per calendar. In the every subsequent year, the amount will be deposited after escalation of 5% over the previous year. Total amount to be submitted in ESCROW account will be Rs 932.7123 Crores (450.8471 Crores for OC and Rs 481.8652 Crores. For UG mining). Details are given in Table 15.23 in Chapter 15.
iii. Annual Escrow deposit	As shown in following table

AMOUNT TO BE DEPOSITED IN ESCROW ACCOUNT ANNUALLY

Year	Amount, Rs. Crore		
	OC	UG	Total
1	7.2341	-	7.2341
2	7.5958	-	7.5958
3	7.9756	-	7.9756
4	8.3743	-	8.3743
5	8.7931	-	8.7931
6	9.2327	-	9.2327
7	9.6944	-	9.6944
8	10.1791	-	10.1791
9	10.6880	-	10.6880
10	11.2224	-	11.2224
11	11.7835	-	11.7835

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12	12.3727	-	12.3727
13	12.9914	-	12.9914
14	13.6409	-	13.6409
15	14.3230	-	14.3230
16	15.0391	-	15.0391
17	15.7911	-	15.7911
18	16.5806	-	16.5806
19	17.4097	-	17.4097
20	18.2801	-	18.2801
21	19.1942	-	19.1942
22	20.1539	-	20.1539
23	21.1616	-	21.1616
24	22.2196	-	22.2196
25	23.3306	-	23.3306
26	24.4971	-	24.4971
27	25.7220	-	25.7220
28	27.0081	-	27.0081
29	28.3585	-	28.3585
30	-	2.5628	2.5628
31	-	2.6909	2.6909
32	-	2.8255	2.8255
33	-	2.9667	2.9667
34	-	3.1151	3.1151
35	-	3.2708	3.2708
36	-	3.4344	3.4344
37	-	3.6061	3.6061
38	-	3.7864	3.7864
39	-	3.9757	3.9757
40	-	4.1745	4.1745
41	-	4.3832	4.3832
42	-	4.6024	4.6024
43	-	4.8325	4.8325
44	-	5.0741	5.0741
45	-	5.3278	5.3278
46	-	5.5942	5.5942
47	-	5.8739	5.8739
48	-	6.1676	6.1676
49	-	6.4760	6.4760
50	-	6.7998	6.7998
51	-	7.1398	7.1398
52	-	7.4968	7.4968
53	-	7.8716	7.8716

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54	-	8.2652	8.2652
55	-	8 6784	8.6784
56	-	9.1124	9.1124
57	-	9.5680	9.5680
58	-	10.0464	10.0464
59	-	10.5487	10.5487
60	-	11.0761	11.0761
61	-	11.6299	11.6299
62	-	12.2114	12.2114
63	-	12.8220	12.8220
64	-	13.4631	13.4631
65	-	14.1363	14.1363
66	-	14.8431	14.8431
67	-	15.5852	15.5852
68	-	16 3645	16.3645
69	-	17.1827	17.1827
70	-	18.0418	18.0418
71	-	18.9439	18.9439
72	-	19.8911	19.8911
73	-	20.8857	20.8857
74	-	21.9300	21.9300
75	-	23.0265	23.0265
76	-	24.1778	24.1778
77	-	25.3867	25.3867
Total*	450.8471	481.8652	932.7123

I. Others	
a) Base date of Mining Plan	April 2016 for reserve estimation and balance life January 2016 for WPI.
b) Calendar year from which the production will start	2018-19
c) Results of any investigation carried out for scientific mining, conservation of minerals and protection of environment; future proposals.	No
d) Signature of RQP Date Place	05/07/2016 N. Delhi.

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Director / Under Secretary
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Ministry of Coal
Shastri Bhawan
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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF THE BLOCK

Gare Palma Sector- II (also Known as Gare Pelma Sector- II) Coal Block, located in Mand Raigarh Coalfield, Chhattisagarh was earlier allotted to M/s MAHATAMIL in 2006. Later, this allotment of the block was cancelled by Honourable Supreme Court along with other blocks in September 2014.

Subsequently, M/s Maharashtra State Power Generation Company Limited (MSPGCL, also known as Mahagenco) has been allotted Gare Palma Sector-II Coal Mine (GP-II Coal Mine) vide Ministry of Coal (MOC) Allotment order no.103/30/2015/NA, dated 31-08-2015 under clause (c) of sub-rule (2) of Rule 13 (Copy enclosed as **Annexure 1-1**).

MSPGCL will develop the GP-II Coal mine and supply the coal to their thermal power plants.

1.2 NAME OF APPLICANT WITH COMPLETE ADDRESS

The name and address of the Company (the applicant seeking Mining Plan Approval) is given in Table 1.1 below:

TABLE 1.1
NAME AND ADDRESS OF THE COMPANY

Particulars	Information
Name of the Company	Maharashtra State Power Generation Company Limited
Address	"Prakashgad" Plot No. G-9, Anant Kanekar Marg, Bandra (East), Mumbai, Maharashtra-400051.
Phone	022 – 26476231; 022-26474211
Fax	022 – 26581400
E- mail	md@mahagenco.in
Official Website	http://www.mahagenco.in

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1.3 STATUS OF THE APPLICANT

Maharashtra State Power Generation Company Limited (MSPGCL) is a State owned PSU of Govt. of Maharashtra, incorporated under Company's Act 1956 with Corporate Identity no. U400100MH2005SGC153648.

1.4 BACKGROUND OF THE COMPANY

Maharashtra State Power Generation Company Limited (MSPGCL) is engaged in power generation with total Installed capacity of 12077 MW as on 31.01.2016, as below:

Thermal	:	8640 MW
Gas Turbine	:	672 MW
Hydro	:	2585 MW
Solar	:	180 MW
Total	:	**12077 MW**

The company has 2570 MW of ongoing projects and 7870 MW in planning stage, and is also planning to install 2500 MW of solar power projects in 5 years.

Ministry of Coal vide, letter no. 13016/ 26/2004-CA-I/CA-III(Pt.)(Vol.II) Dt. 24.02.2016 also allotted Mahajanwadi Coal Block to Mahagenco for captive use only under Rule 4 of the Auction by Competitive Bidding.

1.5 MINERALS WHICH ARE OCCURING IN THE AREA AND WHICH THE APPLICANT INTENDS TO MINE

Coal

1.6 PERIOD FOR WHICH MINING LEASE IS REQUIRED

30 years.

1.7 REFERENCE NO. AND DATE OF LETTER FROM THE MINISTRY OF COAL

Gare Palma Sector-II mine has been allotted by MOC vide Allotment order no.103/30/2015/NA, dated 31-08-2015 under clause (c) of sub-rule (2) of rule 13. (Copy enclosed as **Annexure 1-1**).

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1.8 LOCATION OF END USE PLANTS (EXISTING AND/OR PROPOSED), THEIR REQUIREMENT AND SOURCE TO FILL THE GAPS

1.8.1 Existing end use plants

As per the allotment letter, coal produced from this coal block shall be utilised in the power plants existing at three locations in Maharashtra with details given in Table 1.2 below.

TABLE 1.2
NAME WITH LOCATION AND REQUIREMENT OF COAL AS PER ALLOTMENT ORDER DT 31-08-2015

Sl. No.	Name of specified End Use Plant	Location/ Address	Configuration	Capacity
1.	Chandrapur Thermal Power Station Unit 8 & Unit 9	Chandrapur Thermal Power Station Unit 8 & 9 (2x500 MW), Expansion Project, Nirman Bhavan, Urja Nagar, Chandrapur-442404. Distance from mine 800 km	2x500 MW	1000 MW
2.	Koradi Thermal Power Station Unit 8, Unit 9 and Unit 10	Koradi Complex, Chindwara Road, Koradi-441111, Distt. Nagpur, Maharashtra. Distance from mine 595 km	3x660 MW	1980 MW
3.	Parli Thermal Power Station Unit 8	Taluka parli Vaijnath, Dist. Beed-431520, Maharashtra Distance from mine 1147 km	250 MW	250 MW
	Total			**3230 MW**

1.8.2 Proposed end use plants

Subsequently, MSPGCL requested MOC/NA vide letter No. CMD/Mahagenco/ED(Coal/Fuel)/34c dt. 17.2.2016 (**Annexure 1-2**) proposing to extract coal from Gare Palma Coal Mine up to its full capacity, i.e. 23.6 Mty, and utilise extra coal for other thermal plants of Mahagenco and surrender an equal amount of linkage coal from CIL to the extent the demand for other EUPs will be met from the coal mine.

MOC/NA vide letter no.103/32015/ NA dt. 19.02.2016 (**Annexure 1-4**) communicated that the issue of diversion arises after the commencement of production and that Mahagenco may submit the Mining Plan to Ministry of

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Coal for approval and tender intimation towards proposed diversion as per Clause 8.4 of Allotment Agreement as and when required.

The coal requirement of End Use Plants of MSPGCL vis-à-vis coal production from Gare Sector-II mine is given in Table 1.3 below:

TABLE 1.3
COAL REQUIREMENT OF EUPS OF MAHAGENCO VIS-À-VIS COAL PRODUCTION FROM GARE SECTOR-II MINE
(DETAILED TPP-WISE COAL REQUIREMENT CALCULATION BASED ON NORMS CAN BE SEEN IN TABLE 1.7)

Particulars	Power Plants	Reject based Power plant	Blast Furnace
Coal availability from this project "MTPA"	23.6	0	0
Washed coal availability "MTPA"	NA	0	0
Reject "MTPA"	NA	0	0
Thermal Power Plants "KW"/ Sponge Iron Plant "MTPA"/ Blast Furnace "MTPA"	3230X1000 KW (3 TPPs, ref. Table 1.7)	NA	NA
Station Heat Rate "K Cal/Kwhr	2308 (Av)	0	0
Avg Calorific Value of Coal "Kcal/Kg"	4350 (Av)	0	0
Specific consumption "Kg/Kwhr"	0.5306 (Av)	0	0
Plant Load Factor/ Capacity Utilisation	85%	0	0
Coal Requirement "MTPA"	12.761	0	0
Coal Availability from this project "MTPA"	**23.6**	**0**	**0**
Linkages/ E-auction from CIL "MTPA" (for these specified EUPs)	Nil	0	0
Other block of the Company "MTPA"	Mahajanwari UG coal block recently allotted to MAHAGENCO for power plants other than in the VO. Production not yet decided but will be less than 2 MTPA	0	0
Percentage of end use requirement to be met from this mine	100%		

As may be seen from the above table, out of the 23.6 MTPA coal proposed to be produced from this mine, 12.761 MTPA will be used in the 3 nos of TPPs specified in the Vesting Order. Coal will be supplied after washing (to comply with MOEF notification of <34% Ash) and provision for space for a washery has been made within the ML area. The balance 10.839 MTPA will be used in other existing and proposed thermal power stations of Mahagenco as given in following Table 1.4 and 1.5.

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TABLE 1.4
EXISTING THERMAL POWER PLANTS OF MAHAGENCO

TPS	Unit No.	MW	Target Generation in MU's	MERC Approved Heat Rate (Kcal/ KWh)	Coal factor	Coal requirement in Mt/ ann. (as Per CEA at 4100 Kcal/KG)	Coal Sources	Coal Linkage (MT)	Distance in kms. From coal siding to TPS		Distance from Gare Palma Coal Mine Sect. II (Km)
									Max.	Min.	
Nashik	3	210	1839.6	2764	0.67	1.24	WCL	3.689	783	658	1240
	4	210	1839.6	2764	0.67	1.24	SECL	1.011	1223	1053	
	5	210	1839.6	2764	0.67	1.24					
Total		630	5518.8			3.72		4.700			
Chandrapur	3	210	1839.6	2688	0.66	1.21	WCL	10.365	288	7	800
	4	210	1839.6	2688	0.66	1.21	MCL	1.525	750	744	
	5	500	4380.0	2688	0.66	2.87	SECL	0.910	666	654	
	6	500	4380.0	2688	0.66	2.87					
	7	500	4380.0	2688	0.66	2.87					
Total		1920	16819.2			11.03		12.800			
Khaparkheda	1	210	1839.6	2606	0.64	1.17	WCL	0.932	50	24	610
	2	210	1839.6	2606	0.64	1.17	MCL	3.067	620	613	
	3	210	1839.6	2606	0.64	1.17	SECL	1.001	538	513	
	4	210	1839.6	2606	0 64	1.17					
	5	500	4380.0	2375	0.58	2.54	MCL	0.812			
							WCL	0.500			
							SECL	1.000			
Total		1340	11738.4			7.22		7.312			
Parli	3	210	1839 6	2859	0.70	1.28	WCL	2.500	1093	420	1147
	4	210	1839 6	2859	0.70	1.28	SCCL	2.260	688	574	
	5	210	1839.6	2859	0.70	1.28					

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TPS	Unit No.	MW	Target Generation in MU's	MERC Approved Heat Rate (Kcal/ KWh)	Coal factor	Coal requirement in MU ann. (as Per CEA at 4100 Kcal/KG)	Coal Sources	Coal Linkage (MT)	Distance in kms. From coal siding to TPS		Distance from Gare Palma Coal Mine Sect. II (Km)
									Max.	Min.	
	6	250	2190.0	2450	0.60	1.31					
	7	250	2190.0	2450	0 60	1.31	WCL	1.028			
Total		**1130**	**9898.8**			**6.46**		**5.788**			
Bhusawal	2	210	1839.6	2761	0.67	1.24	WCL	2.800	531	407	985
	3	210	1839.6	2761	0.67	1.24					
	4	500	4380 0	2375	0.58	2.54	MCL	2.312			
	5	500	4380.0	2375	0.58	2.54	SECL	2.312	977	742	
Total		**1420**	**12439.2**			**7.56**		**7.424**			
Paras							WCL	1.800	322	288	865
	3	250	2190.0	2450	0.60	1.31	MCL		890	883	
	4	250	2190.0	2450	0.60	1.31	MCL	1.204			
Total		**500**	**4380.0**			**2.62**		**3.004**			
Koradi	5	200	1752.0	2864	0.70	1.22	WCL	0.615	244	37	595
	6	210	1839.6	2864	0.70	1.29	MCL	1.580	619	592	
	7	210	1839.6	2864	0.70	1.29	SECL	3.105	725	510	
Total		**620**	**5431.2**			**3.80**		**5.300**			
Grand total		**7560.0**	**66225.6**			**42.41**		**46.328**			

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TABLE 1.5
PROPOSED THERMAL POWER PLANTS

TPS	Unit No.	MW	Total capacity, MW	Coal requirement @85% PLF, MTPA	Coal Sources
Nashik	6	1 X 660 MW	660	2.542	Mahajanwadi Coal Block Nagpur
Bhusawal	6	1 X 660 MW	660	2.542	
Uran		1 X 660 MW	660	2.542	
Total			**1980**	**7.626**	

The total requirement of the company is as summarised in Table 1.6 below:

TABLE 1.6
SUMMARY OF COAL REQUIREMENT FOR MAHAGENCO

Sl. No.	Type of TPP of Mahagenco	Total Capacity, MW	Coal Requirement, MTPA	Existing Linkage, MTPA	Source of linkage
1	End use Plants (existing) linked to Gare Sector-II (ref Table 1.7)	3230	12.761	0	Gare Sector-II
2	Other existing TPPs	7560	42.41	46.328	CIL
3	Proposed TPPs	1980	7.626	0	Mahjanwadi
	Total	**12770**	**62.797**	**46.328**	

A perusal of above Tables shows that the total requirement of coal of the company is 62.797 MTPA, out of which existing linkage from CIL is 46.328 MTPA.

The existing linkages to the extent of any surplus (above the requirement of EUPs as per VO) coal will be surrendered when such surpluses are generated.

Taking the above into consideration, the Mining Plan has been prepared for the full capacity of the mine, i.e. 23.6 Mtpa as given in Chapter 5.

1.9 COAL REQUIREMENT CALCULATION WITH NORMS USED FOR COMPUTING CONSUMPTION

The norms of calculation are given in Table 1.7.

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TABLE 1.7
NORMS USED FOR COMPUTING CONSUMPTION

Sl. No.	Particulars	Name of power plant			Total
		Chandrapur	Koradi	Parli	
1.	Capacity, MW	2x500 =1000	3x660 =1980	1x250	**3230**
2.	Station Heat Rate "KCal/KWhr"	2375	2250	2375	**2308**
3.	Avg Calorific value "KCal/kg)"*	4350	4350	4350	**4350**
4.	Specific consumption "Kg/kWhr"	0.5460	0.5172	0.5747	**0.5306**
5.	Plant Load Factor	85%	85%	85%	**85%**
6.	Total Coal Requirement "MTPA"	2x2.0327 = 4.065	3x2.5419 = 7.626	1X1.12 = 1.070	**12.761**
7.	Coal availability from this project "MTPA"	4.061	7.626	1.070	**12.761**
8.	Linkage/e-Auction from CIL"MTPA"	Nil	Nil	Nil	**Nil**
9.	Other blocks of the company "MTPA"	Nil	Nil	Nil	**Nil**
10.	Percentage of end use requirement to be met from this mine	100%	**100%**	**100%**	**100%**

** Refer Chapter 5 for average GCV.*

The total coal requirement for already linked power plants as per allotment order and as per specific heat consumption norms comes to 12.761 MTPA. The balance coal out of the total production of 23.6 MTPA will be used for other thermal plants of MSPGCL / MAHAGENCO as explained in the paragraph 1.8.2.

1.10 COAL BENEFICIATION

A perusal of para 5.3.7 and Table 5.9 shows that the average ash content of total extractable reserves works out to 37 to 38 %. However, the Ash % of ROM coal will fluctuate from year to year (34.05% to 41.42%).

In the Mining Plan, the provision of space for locating a washery has been made. The decision regarding capacity and layout of washery will be reached after thorough investigation. MSPGCL has approached CMPDIL (Copy enclosed as **Annexure 1-3**) for generation of data (washability tests, cleaning possibilities etc) and report preparation.

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1.11 NAME OF RQP PREPARING MINING PLAN

Name	:	Mr. B. D. Sharma
Address		
(i) Office	:	A-121, Paryavaran Complex, IGNOU Road, New Delhi – 110030
Phone	:	29534777, 29532236, 29535891
Fax	:	+91-11-29532568
E-mail	:	min_mec@vsnl.com; minmec@bol.net.in
Web site	:	http://www.minmec.co.in
Registration Number	:	13016/18/2004-CA
Date of grant / renewal	:	01.06.2004
(ii) Residence	:	A-121, Paryavaran Complex, IGNOU Road, New Delhi – 110030
Phone	:	+91-11-29534777, 29535891

(Photo copy of certificate is attached as **Certificate I**)

1.12 STATUS OF THE PROJECT

The status of the project/ mine is as follows:

i. The coal block is virgin

ii. Allotment Order for the mine has been issued to MSPGCL

iii. Mining Lease application submitted on 09-12-2015

iv. Mining Plan and Mine Closure Plan has been prepared and submitted to MOC.

The Mining Plan and Mine Closure Plan (Version February 2016) was presented to the Technical Committee constituted under MMDR Act, 1957 on 29-04-2016, the observations issued vide MOC letter no. 34011/16/2016-CPAM dt 03-05-2016 are attached as **Annexure 1-5**. All observations of the letter have been duly addressed and incorporated in this Mining Plan and Mine Closure Plan (June 2016 version).

I.P. NAGPAL / Under Secretary / Govt. of India / Ministry of Coal / Shastri Bhawan / New Delhi

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CHAPTER 2

DETAILS OF EARLIER APPROVED MINING PLAN

2.1 APPROVAL LETTER/ REFERENCE OF MOC

No Mining Plan for this coal mine/ block has been approved in the past by MOC.

The Mining Plan in respect of Gare Palma Sector- II Coal Mine submitted by the prior allottee, did not receive the approval of Ministry of Coal. In view of this, MSPGCL needs to apply afresh as per the Guidelines laid for seeking approval of the Mining Plan. (Refer MOC letter no. 103/30/2015-NA dt. 11.1.2016 at **Annexure 2-1**).

आई०पी० नागपाल / I.P. NAGPAL
अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi

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CHAPTER 3

LOCATION, TOPOGRAPHY & COMMUNICATION

3.1 LOCATION

The "Gare Palma Sector – II Coal Block area lies in Mand Raigarh Coalfield in Raigarh district of Chhattisgarh state. The mine site is located in Tihli Rampur, Kunjemura, Gare, Saraitola, Murogaon, Radopali, Pata, Chitwahi, Dholnara, Jhinka Bahal, Dolesara, Bhalumura, Sarasmal and Libra villages. The area is covered in the Survey of India Toposheet No. 64 N/8 & 12 (R.F. 1:50,000) and is bounded by:

As per Allotment Order no. 103/30/2015/NA dt. 31.08.2015:

Latitude	:	22° 06' 23.55" N to 22° 10' 37.04" N
Longitude	:	83° 26' 22.18" E to 83° 31' 19" E

As per CMPDI data vide letter no. CMPDI/BD/C(810)/307 dt 04-06-2012 based on modified Everest datum (Copy at Annexure 3-2):

Latitude	:	22° 06' 22.33" to 22° 10' 48" N
Longitude	:	83° 26' 21.85" to 83° 31' 19.1" E

As per Nominated Authority letter F.No.104/28/2015/NA dt 13-10-2015 (Copy at Annexure 3-2A), the coordinates in WGS 84 system are given below. As mentioned in the letter, the earlier coordinates were using reference system based on modified Everest datum but presently CMPDI is following WGS 84 System which is the standard reference system followed globally. It is to be noted that the respective position of any point does not change physically on the ground.

Latitude	:	22° 06' 24.215" to 22° 30' 49.891" N
Longitude	:	83° 26' 15.433" to 83° 31' 12.632" E

(Refer Location plan and Key plan - Plate I & II)

3.2 MINING LEASE BOUNDARY

Project boundary, Block boundary and ML boundary are the same (2583.486Ha), The block boundary of Gare Sector-II area forms a zigzag line especially its southern limit, hence the geographical co-ordinates of different corners of the Gare Palma Sector-II coal block as per CMPDI letter

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no CMPDI/BD/C(810)/307 dt 04-06-2012 (Annexure 3-2) are given in Table 3.1A.

TABLE 3.1A
GEOGRAPHICAL CO-ORDINATES OF BOUNDARY POINTS OF GARE PALMA SECTOR-II COAL BLOCK BASED ON MODIFIED EVEREST DATUM

Sl. No.	Co-ordinates in Coal Grid		Geographical Coordinates					
	X-Easting	Y-Northing	Longitude – (E)			Latitude – (N)		
			D	M	S	D	M	S
1.	2944260.496	908797.963	83	27	33.06	22	10	48
2.	2944881.753	908010.918	83	27	54.86	22	10	22.48
3.	2946862.355	905714.486	83	29	4.32	22	9	8
4.	2946924.235	905611.798	83	29	6.49	22	9	4.67
5.	2946955.205	905560.391	83	29	7.57	22	9	3.00
6.	2947341.925	904918.329	83	29	21.16	22	8	42.16
7.	2948148.176	903579.825	83	29	49.47	22	7	58.71
8.	2948244.924	903639.409	83	29	52.84	22	8	0.65
9.	2948327.432	903676.878	83	29	55.72	22	8	1.89
10.	2949586.636	901875.524	83	30	39.90	22	7	3.43
11.	2950175.489	901391.242	83	31	0.52	22	6	47.74
12.	2950705.132	900608.351	83	31	19.1	22	6	22.33
13.	2950049.435	900913.669	83	30	56.17	22	6	32.19
14.	2949509.904	901062.823	83	30	37.31	22	6	36.98
15.	2949109.860	901220.191	83	30	23.33	22	6	42.06
16.	2947308.154	902275.283	83	29	20.30	22	7	16.18
17.	2947326.949	901851.692	83	29	21.01	22	7	2.40
18.	2947347.00	901414.186	83	29	21.76	22	6	48.17
19.	2946682.952	901799.851	83	28	58.53	22	7	0.64
20.	2942212.288	905166.093	83	26	22.00	22	8	49.61
21.	2942216.766	907431.158	83	26	21.85	22	10	3.29
22.	2944260.496	908797.963	83	27	33.06	22	10	48

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The WGS 84 coordinates vide letter of NA dt 13-10-2015 are attached as **Annexure 3-3** and are reproduced below in Table 3.1B.

TABLE 3.1B
GEOGRAPHICAL CO-ORDINATES OF BOUNDARY POINTS OF GARE PALMA SECTOR-II COAL BLOCK BASED ON WGS 84 SYSTEM

Cardinal points	Latitude, N	Longitude, E
A	22° 08' 51.495"	83° 26' 15.480"
B	22° 30' 05.178"	83° 26' 15.433"
A	22° 10' 49.891"	83° 27' 26.624"
D	22° 09' 09.892"	83° 28' 57.871"
E	22° 08' 03.774"	83° 29' 49.271"
F	22° 06' 24.215"	83° 31' 12.632"
G	22° 07' 18.066"	83° 29' 13.857"
H	22° 06' 50.059"	83° 29' 15.318"

The approved southern boundary of Gare Palma Sector-II depicts zigzag nature formed by Barren Measure / Barakar contact and also due to earlier interpreted fault lines protruding like cones. The limits of the block i.e. the extreme rectangle coordinates are as given under para 3.1 above.

Both OC and UG operations are envisaged. Though OC mine covers the entire block area of 2583.486 Ha., a part of the area on western side is not workable by UG and the same has not been considerd for UG mining and the UG project area is only 2208.18 Ha. (Refer Fig 3.1 at the end of this Chapter).

3.3 COMMUNICATION

The Gare Palma area is situated around 35 km towards north from Raigarh Township, which is also the nearest railway station on Mumbai-Howrah main line of SE Railway. The block is connected by road from Raigarh via Punjipathara by State Highway. Punjipathara village is situated on Raigarh-Ghargoda main road. The distance from Raigarh to Ghargoda is around 40 Km. The road distance between Raigarh to Punjipathara is about 20 Km and Punjipathara to Ghargoda is 20 Km towards north. From Punjipathara the road leads to the Gare Palma area via Tamnar TPP area situated at a distance of 10 Km on Punjipathara- Milupara road which passes through the block. Tamnar is situated in the south-western part of the Gare Palma Sector-I area in the sub block 'F'. A network of roads is present within the block.

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3.4 PHYSIOGRAPHY AND DRAINAGE

The coalfield is characterised by undulating and rolling topography, consisting of hills interspersed with broad valleys. The general elevation in the block area ranges from 242 m to 303 m above MSL and the surrounding area (upto10 km) varies from 240 m to 640 m above MSL. The slope is towards south. The hills are relict type and rise about 450m above MSL. The southerly flowing perennial Mand River with its tributaries constitute the main drainage of the area. The Kelo River, a tributary of Mahanadi, drains the eastern part of the coalfield.

The topography of Gare-Palma Area is mostly covered by softer horizon and in general represents an undulating terrain, more resistant sedimentary rocks stand out as ridges, rising as high as 580m above MSL (Silot Pahar) in the north west and 600m above MSL (Morga Pahar) in the north east.

The block exhibits undulating topography. Kelo Nadi flows from north to south through the south eastern part of the block. A few ponds are present within the block.

3.5 CLIMATE & RAINFALL

The climate of the study area is of subtropical type, and is characterised by an oppressive hot summer, a mild winter and well distributed rainfall during the south western monsoon season. The year may be divided into four seasons. The summer season lasts from March to the middle of June, and the period from June to September is the south west monsoon season. October and November constitute the post monsoon season and the cold season is from December to February. The nearest meteorological station of IMD is at Raigarh.

Temperature

As per the monthly average of daily maximum and minimum temperatures for the period 1996 to 2005, collected from IMD Station, Raigarh, the monthly mean of minimum temperatures ranges from 12.04°C in January to 27.57°C in May. The monthly mean of maximum temperature ranges from 27.56°C in January to 42.08°C in May.

Rainfall

The rainfall does not show any cyclic occurrences and shows wide and erratic variations, ranging from as low as 144.9 mm in 2004 to 1852.4 mm in 2003. The average annual rainfall for the period 1996 to 2005 was 1216.4 mm. The monsoon season is spread over the months from June to September.

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Wind speed and wind direction

The wind speed and direction for long term period from 1976-1991 have been studied through the Windrose diagrams supplied by IMD, Raigarh, for 8.30 hrs and 17.30 hrs respectively. An observation of the morning Windrose shows that the predominant wind direction is from NE during winter season (October to March) and SW during summer and monsoon seasons.

As per the evening Windrose, the predominant wind direction is from NE between October and January, NW between February and May and SW between June and September. The general wind speed ranges form 1 to 5 km/hr throughout the year. However winds in the speed ranging from 6-11 kmph and 12-19 kmph also occur.

Relative humidity

The relative humidity varies from 27% in (May) to 82% (August) during evening and 42% (May) to 86 % (August) during morning.

3.6 LAND USE AND OWNERSHIP / OCCUPANCY

The present land use of the area required for the project is given below in Table 3.2 (Refer Revenue Plan Plate III) and details is given in **Annexure 3-1.**

TABLE 3.2
PRESENT (PRE-MINING) LAND USE OF THE ML AREA
GARE PALMA SECTOR-II (HA.)

Sl. No.	Village	Private Land			Govt. Land					Total Area (Private + Govt. Land)
		Agriculture	Non Agriculture	Total Area	Populated	Water body	Other	CBJ**	Total Area	
1	Tihlirampur	97.902	62.685	160.587	6.83	21.225	39.094	0	67.149	227.736
2	Dholnara	59.64		59.64	6.833	0.376	3.317	2.788	13.314	72.954
3	Murogaon	302.393		302.393	8.256	1.303	4.29	23.504	37.353	339.746
4	Libra	121.416	7.621	129.037	2.897	0.439	4.694	15.943	23.973	153.01
5	Kunjemura	199.715		199.715	14.221	13.596	8.308	30.17	66.295	266.01
6	Jhinkabahal	3.844		3.844	0	0	0	0	0	3.844
7	Radopali	351.676		351.676	8.336	5.895	19.955	0.125	34.311	385.987
8	Dolesara	20.748		20.748	0	0	1.242	0	1.242	21.99
9	Bhalumura	16.297		16.297	0	0	0.704	0.622	1.326	17.623
10	Sarasmal	56.869	9.158	66.027	0	1.332	3.563	15.236	20.131	86.158
11	Pata	316.064	13.166	329.23	13.314	5.529	14.47	15.326	48.639	377.869

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Sl. No.	Village	Private Land			Govt. Land					Total Area (Private + Govt. Land)
		Agriculture	Non Agriculture	Total Area	Populated	Water body	Other	CBJ**	Total Area	
12	Chitwahi	142.461		142.461	0.252	0.867	8.153	0	9.272	151.733
13	Gare	157.224		157.224	10.482	4.241	11.596	1.957	28.276	185.5
14	Saraitola	156.228	13.722	169.95	8.395	1.364	7.969	29.703	47.431	217.381
	Total of A	2002.477	106.352	2108.829	79.816	56.167	127.355	135.374	398.712	2507.541
B. As per Forest Departments Record										
Government Forest Land										*75.945
Grand Total										2583.486

*Note: * 75.945 Ha of Protected Forest land and 135.374 Ha of Revenue Forest land is present within the mine lease area, which needs to be diverted for mining purpose after obtaining forestry clearance from the Ministry of Environment and Forest, Govt. of India under the Forest (Conservation) Act 1980.*

*** Chhote Bade Jhar / Jungle (Small/ big trees forest)*

3.7 IMPORTANT SURFACE FEATURES

3.7.1 Important surface features (Refer Plate-I and IV)

i. **Habitation of following villages is lying within the block (refer Table 3.3.**

TABLE 3.3
HABITATION OF FOLLOWING VILLAGES IS LYING WITHIN THE BLOCK

Villages	Population
Libra	757 (7.89%)
Bhalumuda	314 (3.27%)
Dholnara	408 (4.25%)
Chitwahi	747 (7.78%)
Dolesara	1061 (11.05%)
Radopali	688 (7.17%)
Kunjemura	1054 (10.98%)
Gare	741 (7.72%)
Pata	1189 (12.39%)
Murogaon	520 (5.42%)
Saraitola	564 (5.88%)
Sarasmal	508 (5.29%)
Tihli Rampur	448 (4.67%)
Jhinku Bahal	599 (6.24%)
Total	**9598 (100%)**

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A perusal of Plate IV shows the location of all the above village habitations within the block.

ii. The following road network is lying within the block:

Roads from Bajarmura to Ghargoda (approx 11.6 Km) and Milupara to Tamnar (approx 3 Km) is passing through the block.

iii. The following network of drainage and canals is lying within the block:

Kelo River is flowing across the coal block.

iv. Forest within Block:

75.945 Ha of Protected Forest land and 135.374 Ha of Revenue Forest land is present within the mine lease area.

3.7.2 Surface reorganization required (Refer Plate IV)

a. Roads from Bajarmura to Ghargoda (approx 11.6 KMs) and Milupara to Tamnar (approx 3 Kms) will be diverted. Diverted alignment is proposed along the northern periphery of the block and along the embankment of the river Kelo passing through the block. A safety barrier of 45m has been kept for the diverted road as per statutory norms.

b. Kelo River, flowing south, is passing through the eastern part of the block- Diversion is not proposed, will be protected by leaving statutory barriers.

c. 75.945 Ha of Protected Forest land and 135.374 Ha of Revenue Forest land is present within the mine lease area, which needs to be diverted for mining purpose after obtaining forestry clearance from the Ministry of Environment and Forest, Govt. of India under the Forest (Conservation) Act 1980.

d. Project affected families will be 1679 of fourteen villages which need rehabilitation. The relevant R&R study is being conducted separately.

e. **Proposed Railway Line:** A prosed alignment of railway line is passing though the block. The length of railway line passing through the block is 4.7 km. The width of the corridor for proposed railway line is 90 m (45 m on either side of tracks). During Public hearing held on 29.01.2016, MSPGCL has given the proposal for re-routing the alignment along periphery out side the block boundary citing the reason of blocking of 30 Mt of coal reserves. (Refer **Annexure 3-4**)

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N

W E

S

ML / BLOCK BOUNDARY
AREA= 2583.48 HA

NON WORKABLE AREA FOR UG MINING

AREA FOR UG=2208.18 HA
ESCROW CALCULATION

AREA FOR OC =2583.48HA
ESCROW CALCULATION

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MIN MEC CONSULTANCY PVT. LTD.
NEW DELHI, PH. 29534777, 29536891
An ISO 9001 : 2008 Approved Company

CLIENT: MAHARASHTRA STATE POWER GENERATION COMPANY LTD. (MSPGCL)

PROJECT: GARE PALMA SECTOR-II COAL MINE

TITLE: MINING PLAN & MINE CLOSURE PLAN
PLAN SHOWING AREAS APPLICABLE FOR OC AND UG ESCROW CALCULATION

DRAWN BY:	CHECKED BY:	FIG. NO.
G.R. MATLOTIA	B.D.SHARMA	3.1
SCALE: NTS	DATE: 08-06-2016	

CHAPTER 4

EXPLORATION, GEOLOGY, SEAM SEQUENCE, COAL QUALITY AND RESERVES

4.1 REGIONAL GEOLOGY

4.1.1 General

Mand-Raigarh coalfield forms the southern part of Mahanadi valley and it is situated mostly in Raigarh district and a smaller part lying in Korba district of Chattisgarh state. Exploration in this vast coalfield is continuing since long and may continue in future also mainly by MECL, G.S.I. and C.M.P.D.I.L.

4.1.2 Geology of Mand-Raigarh Coalfield

The extensive occurrences of Barakar and Supra-Barakar rocks amidst isolated Talchir outcrops spanned between latitudes N 21°45' to 22°42' and longitudes E 83°01' to 83°44', constitutes Mand-Raigarh Coalfield. It is situated between Ib-River Coalfield in the southeast and Korba Coalfield in the west with more or less similar stratigraphic and tectonic setting. The coal measures in the Mand-Raigarh basin are exposed in three well defined patches due to erosion of the overlying Kamthi rocks along the drainage of the prominent rivers. The Geological plan is given in Plate V.

The generalised stratigraphy of Mand-Raigarh Coalfield is enumerated below in Table 4.1.

TABLE 4.1
GENERALISED STRATIGRAPHIC SUCCESSION

Age	Formation	Thickness (m)	Lithology
Recent	Soil Alluvium	3 m	Alluvial soil pebbly to bouldery bed with silty clay band, laterite etc.
Cretaceous to Eocene	Deccan Traps	-	Basalt flows & dolerite dykes.
Lower to Middle Triassic	Kamthi	2851	Poorly sorted, frequently ferruginous, coarse to very coarse grained, locally graded to pebbly, mega cross bedded sandstone containing, brownish grey to buff coloured clay clasts. A fossiliferous red claystone to

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Age	Formation	Thickness (m)	Lithology
			siltstone bed occurs at the base.
Upper Permian to Lower Permian	Raniganj	180	Mostly fine to medium grained, grayish white, micaceous sandstone and siltstone with claystone, shale, minor coarse grained sandstone and two coal seams of inferior grade.
	Barren Measure	300	Dominantly grey claystone/grey shale with siltstone and iron stone bands; interbanded sequence of fine to medium grained sandstone and shale.
	Barakar	425 - 800	Medium to coarse and very coarse grained even gritty, sandstone at the lower part followed upward by fine to medium grained assemblage with grey claystone/shale which become predominant towards the upper part, number of coal seams and carbonaceous shale.
	Karharbari (?)	23	Mottled at places carbonaceous sandstone, frequently associated with pebbles of quartzite granite etc. of various shapes and sizes.
Upper Carboniferous to Lower Permian	Talchir	150+	Very fine to fine grained sandstone with siltstone and shale, occasionally greenish in nature, at places with matrix based variegated polymictic conglomerate.
Precambrian			Granitic gneisses, mica-schists quartzites, intruded by pegmatites and quartz veins.

The geological formations of Mand-Raigarh Coalfield are briefly described below: (Bull. GSI, Ser-A, No.45, Vol.-III, 1983).

Precambrian: The Precambrian rocks comprising Granite Gneiss, mica schist, Phyllites and Quartzites along with Quartz veins & Pegmatites occur along the northern, northeastern periphery. The strike of the foliation varies from E-W to N70°W – S70°E with 50° to 70° dip towards west.

Talchir formation: The Talchir sequence begins with tillite at the base and overlies the basement unconformably. It occurs as a continuous strip along the northern periphery of the basin. Along the southern boundary, Talchirs crop out as narrow, elongated discontinuous strips disrupted by faults. The

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Mand-Raigarh basin shows widespread development of basal tillite pointing to advancement of ice from the surrounding Precambrian uplands.

Karharbari Formation: Karharbari formation is developed in a limited area. It consists of mottled, at places carbonaceous sandstone, frequently associated with pebbles of quartzite, granite etc. of various shapes and sizes.

Barakar Formation: The Barakar formation conformably overlies the Talchir sediments over the major part of coalfield and covers a large tract within the coalfield. It is represented predominantly by multistoried cross-bedded feldspathic sandstones which are highly kaolinised and friable with subordinate shales, carbonaceous shales and coal seams. The sandstones are mostly medium to very coarse grained and milky white to greyish white in colour. The sandstones are arkosic in nature and often shows pronounced kaolinisation. Exposures of fine-grained sandstone and grey to greyish black shale are very limited.

Barren Measure Formation: Barren Measure formation overlies conformably over Barakar formation. Barren Measure formation can be traced in the south eastern part between Gharghoda and Gare, besides sporadic occurrence in vicinity of Chhal and Kuremkela. This formation comprises of predominantly grey claystone/grey shale with siltstone and iron stone bands and interbanded occurrence of fine to medium grained sandstone & shale.

Raniganj Formation: Raniganj formation has been demarcated in south-eastern and south-western part, besides patchy occurrence in north-western part. It is represented by mostly fine to medium grained sandstone, siltstone with clay stone, shale, fine to coarse grained sandstone and coal seams / bands of inferior grade.

Kamthi Formation: The rocks of Kamthi formation are well exposed at higher contours of the flat topped hills. They not only occur in the intervening area between Mand Valley and Hasdo-Arand on the one side and the Raigarh Coalfield on the other, but also occur as irregular patches along the axial region of the Mand Valley. It is represented dominantly by coarse, friable, porous, brownish to red cross bedded sandstone and argillaceous beds. The nature of the contact between Kamthis & Barakars is variable and is somewhat discordant and at places the Kamthi strata overlap the older units.

Intrusives / Deccan Trap: A number of basic dykes, sills and flows have been observed in the Uprora-Porea area in the northern part of the coalfield. The basic rock comprises fine-grained Basalts to coarse-grained Gabbroid type. The flows at places have been altered to laterite. A dyke exposed north of Amaldih has been traced over a distance of 26.5 Km. in an east-

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west direction and another dyke exposed 0.8 Km. south of Porea is over 6 km length.

4.1.3 Coal seams

The regional exploration so far conducted & continuing till date in Mand-Raigarh Coalfield especially in the western part along the eastern bank of Mand river and northern part of Dharamjaygarh-Khargaon, Ongana - Potia as well as Chhal area, has revealed the presence of a number of coal seams. Exploration in the north-western and western part of the coalfield reveals number of coal seams and these have been numbered as I to XXII and so on in ascending order.

Coal of this coalfield is generally banded in nature and it is not devolatilised. In general coal is low in rank, high in volatile matter and non-coking type.

4.1.4 Regional structure

The Mand-Raigarh Coalfield is an asymmetrical basin with an approximately NW-SE axis. It is a part of Ib-Mand-Korba master basin lying within the Mahanadi Graben. It displays a typical half-graben configuration, with the southern boundary marked by a major NW-SE zone of faulting coinciding with the trend of the Mahanadi Graben and the northern boundary not faulted over the major part. In the Mand Valley proper, the coal measures lying between Kharsia & Dharamjaygarh display a broad synclinal structure with its axis running just south of Sithra. The northern limb of the Mand river basin is exposed to the north of the Sithra-Dharamjaygarh area where the Barakar beds are found to strike broadly in NW-SE direction. The beds dip at low angle of 5° to 7° towards south-west. In the southern limb, the strike is approximately NW-SE with minor variations and the beds dip towards north-east.

The other structural element in this basin belt comprises normal Gravity faults. The available surface and sub-surface data indicate that the area lying on both sides of Mand river is traversed by number of sub-parallel faults of considerable linear extent, though the surface expressions of faults are very limited or entirely lacking. Two sets of faults trending WNW-ESE to NW-SE and N-S occur. The former generally has down throws against the dip i.e. towards north while the latter has easterly throw. The amount of throw varies from 10m to 150m.

4.2 GEOLOGY OF GARE-PALMA SECTOR- II BLOCK

Gare Palma Sector- II Coal Block is located in the south-eastern part of Mand-Raigarh Coalfield. The Geology of the block is in conformity with the regional set up. Major part of Gare Palma Sector-II Coal Block is covered by Barakar Formation.

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4.2.1 Geological succession in Gare Palma Sector-II coal block

The geological succession evolved on the basis of exploration data generated in the block is given in the Table 4.2 below. While calculating the thickness of different stratigraphic formations, all the data generated by the boreholes in the block are considered.

TABLE 4.2
GEOLOGICAL SUCCESSION IN GARE PALMA SECTOR-II COAL BLOCK

Age	Formation	Thickness (m)	Lithology
Recent	Recent	0.50 to 15.00	Soil, alluvium
Lower Permian	Barakar	203.00 to 477.20	Fine, medium and coarse grained felspathic, grey sandstone, micaceous and laminated at places. Grey shale, fire clay, intercalation of shale and sandstone and carbonaceous shales with Coal Seams
Upper carboniferous to Permian	Talchir	0.30 to 45.90	Boulder bed, rhythmite, fine grained greenish sandstone, greenish to purple shales, Khaker coloured siltstones
---------- Unconformity ----------			
Archaeans	Pre-cambrian	0.10 to 12.50	Mica-schists, gneisses and quartzite.

Note: Thickness as intersected in boreholes.

Soil & Alluvium: A major part of the block is covered by a thin layer of soil and alluvium horizon. The weathering has affected all the strata below soil to a varying extent. The thickness of soil ranges from 0.50m (MMT-20) to 15.00 m (MMT-166). The depth of weathered zone varies from 0.50 m (MMT-124 & MMT-176) to 30.32 m (MMT-33).

Intrusive: The block is free from any intrusive.

4.2.2 Structure of the block

1. The structural interpretation is mainly based on the sub-surface data obtained during the course of exploratory drilling.
2. The general strike of coal horizons is NW-SE in the major part of the block with minor swings. The dip of beds varies from 2° to 4° towards south-west.
3. The block does not show major tectonic disturbances.

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4.3 STATUS OF EXPLORATION

In the South-eastern part of Mand-Raigarh coalfield lies Gare Palma Sector-II Coal Block in which GSI had drilled very wide spaced 8 regional boreholes, during the field seasons 1984-85 to 1987-88 involving 3378m drilling in an area of 25.83 sq. km and assessed 789.17 million tonnes of coal reserves of indicated to inferred category upto a depth range of 400m. The coal grade in general varies from 'D' to 'F'.

4.3.1 Previous work

W.T. Blanford examined a part of Mand-Raigarh coalfield in 1870. Shortly afterwards V. Ball (1882) surveyed the coalfield in some detail. This was followed by exploratory drilling carried out under the supervision of W. King assisted by Lala Hiralal (1886) and the result was unattractive for furtrher investigation. Later C.S. Fox (1934) worked out the limits of the coalfield. S.M. Mathur (1949), A.B. Dutt (1953), M.S. Venkatraman, J. Narayana Moorthy and B.N. Sinha (1959) examined part of the coalfield. The Mand Valley area of this belt was geologically mapped on 1:63,360 scale maps between 1961 and 1966 by V.D. Puri, G.P. Deshmukh, A. K. Dey etc. who located the various coal outcrops and worked out the structural frame work of the basin. A concise account of work carried out by different workers in this coalfield was presented by Raja Rao (1983) in his Bullitins. Systematic geological mapping with special attention on coal resources in parts of North Raigarh coalfield, specially around Gare Palma area, was carried by Bandyopadhyay (1984 & 85). In the area adjoining Gare Palma area, regional exploration for coal was carried out in Kurumkela (Ray, 1988), Chimtapani (Ray and Roy, 1991), Gare (Ray & Roy – 1992) and Palma (Ray et. al. 1994) areas during the field seasons 1981-82 to 1989-90.

In the field season 1984-85 to 1987-88, 37 boreholes (8 bh falling in GP-II Block) were drilled by GSI in Gare Area involving meterage of 12,488.50m and the report on the regional exploration for coal was submitted in 1992.

Subsequently, MECL carried out regional exploration in this coalfield in the Trans-Mand Sector located to the west of Mand river from December 1997 to May 2000, over an area of about 435 sq. km. Extending from Syang in the north to Batati-Kolga in the south. The geological report of Syang-Boro block was submitted in June 2000, Chirra-Jabga block in November 2000 covering about 120 sq. km. area. In south-eastern part of Mand-Raigarh Coalfield, MECL has also carried out / is carrying out priority regional exploration in Banai, Bhalumuda, Dolesara and Karichhapar. MECL has submitted Geological report of Tilaipali Coal Block for NTPC and that of Gare-Palma Sector-I for CMDCL. CMPDIL has submitted a number of geological reports and exploration is still in progress in different Coal Blocks.

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4.3.2 Recent Exploration

Ministry of Coal (MOC) had earlier allocated Gare-Palma Sector-II Coal Block to Mahatamil Collieries Ltd. (A joint venture between Tamil Nadu Electricity Board & Maharashtra State Mining Corporation Ltd.). The area required detailed exploration prior to any exploitation activities. M/s MTCL engaged MECL to carry out detailed exploration in the block by drilling boreholes at 400m x 400m grid interval, involving around 70000m, so as to convert the indicated / inferred category of coal reserves assessed in this sector to Proved category.

MECL commenced the task of detailed exploration for coal in Gare-Palma Sector- II Coal block on behalf of MTCL, on 27.04.2011 and the drilling operation was completed on 26.2.2012. Besides the 8 boreholes drilled earlier by GSI involving 3378 m of drilling, a total of 73,997.80m of drilling was done in 188 boreholes by MECL.

The scope of the recent exploration by MECL was to estimate the opencast and underground reserves from the regionally persistent and workable coal seams occurring in Gare Palma Sector-II Coal block. The opencast reserves have been estimated on I-100 thickness and quality while the underground reserves are assessed based on I-30 thickness and quality. The data processing, statistical analyses and graphics plotting have been carried out by using MINEXP software developed by MECL.

The structural interpretation like drawing of floor contour plan and its interpretation, folio plans, reserve estimation etc. have been carried out by sophisticated MINEX Software Programme at MECL, I.T. Centre. The drawing is based on 3 dimensional software packages, which is very accurate. The 2 dimensional manual divisions between 2 borehole points may not be exactly similar.

i. General

Mineral Exploration Corporation Ltd. has carried out detailed exploration in Gare Palma Sector-II Coal Block involving various activities like geological mapping, surveying, drilling, lithological logging, coal sampling, geophysical logging, data interpretation, data processing, its presentation, graphics, 3D ore modeling, reserves estimation, documentation of geological report etc. Geological Report has been purchased, the cost of which is included in the amount of Rs 43.4816953 Crore transferred to Nominated Authority, MOC vide our letter dt 13-07-15 (**Annexure 4-1**)

The quantum of work done under different activities by MECL is summarized in Table 4.3.

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TABLE 4.3
QUANTUM OF WORK DONE BY MECL IN GARE PALMA SECTOR-II COAL BLOCK

Sl. No.	Item of work	Work done
1.	Area of the block	25.83 Sq.km. (Approx)
2.	Geological Mapping	25.83 Sq.km. (Approx)
3.	Surveying	
	i) Triangulation	25.83 Sq.km. (Approx)
	ii) R.L. of MECL BHs	188 BHs (MMT series)
	iii) Co-ordinates of MECL BHs.	188 BHs (MMT series)
4.	Exploratory Drilling (MECL)	73,997.80m in 188 Bhs (MMT Series)
5.	Geological Core logging	73,998.20m in 188 Bhs (MMT Series)
6.	Geophysical Logging	19,971.60m in 51 Bhs (MMT Series)
7.	Preparation of Coal Samples	10,782 Nos. (186 BHs)
8.	House keeping of BH Samples	10,782 Nos. (186 BHs)
9	**Chemical Analysis (MECL Lab)**	
	i) Band by Band	6505.66m (10,782 Nos.), 186 BHs
	ii) Full Proximate analysis Moisture at 60% RH and 40°C	1792 Nos. (114 BHs)
	iii) Gross calorific value	1792 Nos. (114 BHs)
	iv) Total Sulphur	189 Nos.
	v) Ultimate Analysis.	189 Nos.
	vi) HGI	59 Nos.
	vii) Ash Fusion Temp.	53 Nos.
	viii) Ash Analysis	53 Nos.
10.	Geo-Technical Studies (Physico Mechanical) (Outside lab) : CMFRI Dhanbad	839.70m, 2 BHS (MMT-85 & 95)
11.	Dove Tailing of Old data, GSI	3378.00 (8 BHs)
12.	Computerisation processing, Digitization : IT Centre, MECL, Nagpur	Plates and complete geological report by using MINEXP and MINEX software

ii. Geological Mapping

The entire area of Gare Palma Sector-II Coal Block is mostly covered with soil and at a few places only, outcrops of sandstone & shale can be seen. The geology of the block is, therefore, interpreted based mainly on the subsurface data obtained from MECL boreholes. The geological information i.e. strike & dip of the strata and outcrops wherever available in the block have been mapped and a geological plan structural fractures viz. faults etc. and other surface geological features have been prepared.

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iii. Surveying

- The survey work at Gare Palma Sector-II Coal block has been carried out in the 25.83 sq. km area by closed traverse using "Electronic Total Station". Intermittent closed traverses were run for connecting the boreholes and for contouring by using E.D.M, Theodolite and Electronic Total Station.

- The location & coordinate of Survey of India / National Pillar from where the coordinates are carried out are (i) Kusmi Bhana Hills - N-919601.36 E-2936373.98 and RL 413.00 m. (ii) Gharghodi Hills - N-915293.59, E-2925757.94.

- The coordinate & R.L. of national grid pillar near Barodh Colliery, which is about 65 km. SW from the exploration block, from where the R.L. has been carried out is given below:

  1) N - 919530.91 E - 2932538.33, RL - 310.029 m
  2) N - 919474.71 E - 2932534.17, RL - 309.828 m
  3) N - 919449.61 E - 2932518.33, RL - 309.445 m

- The baseline has been laid at traverse stations T1 and T2. The distance between T1 and T2 was observed with Total Station and it is 474.2064 m. The bearing from T1 to T2 is 280° 28' 51"

- The co-ordinates of T1 is 906440.789 m: Northing (Latitude) and 2943745.0301 m: Easting (Departure).

- The co-ordinates and R.Ls of all the boreholes and traverse stations were determined with the above reference points by running the closed traverse method by using the Total Station/E.D.M./Theodolite and Auto Level.

- The surface contouring has been done at 1.0 m contour interval over the entire 25.83 sq. Km area and all surface features were picked.

- The R.L. of T-1 has been carried with reference to the Survey of India GTS pillar on the top of the Silot Pahar R.L. 580.00 m. and checked with National Grid Pillar near Barodh Colliery.

iv. Lithological logging

- The drill cores of both coal and non coal strata obtained from boreholes were systematically logged visually, with detailed description of litho-units like grain size, colour, mineral constituent etc. The structural details such as bedding, slicken sides, fractures, core dip etc. were also recorded wherever possible. Runwise lithologs of all the boreholes drilled by MECL are presented in Annexure-IIA of GR. Graphic logs on R.F 1:500 plotted with the help

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of computer are presented in Plates IV-A to IV-S of GR. Runwise lithologs of 8 boreholes drilled by GSI are presented in Annexure-IIB. Graphic logs of these boreholes on R.F 1:500 plotted with the help of computer are presented in Plates IV-T of GR.

- The visual roof and floor depth delineation of coal seams and their thickness suitably were corrected after the study of the coal quality data of band by band analysis in respect of 186 boreholes for which chemical analysis received.

v. Geophysical logging

Out of 188 boreholes drilled by MECL, geophysical logging was carried out in 51 boreholes involving 19971.60 m. geophysical logging using multi parameter probes. The details of Geophysical logging, probes used etc. are given separately in Chapter-VII.

vi. Sampling and analysis

- The carbonaceous horizons (coal, shaly coal and carbonaceous shale) of all correlatable coal seams with thickness (>0.50 m) from the boreholes drilled by MECL in this block were sent for band by band analysis to chemical laboratory, MECL, Nagpur. Before sending it to the laboratory, the samples were prepared after crushing at (-) 72 mesh sizes, coning and quartering, packing etc. at project level.

- A total of 10782 Nos. of coal samples from 186 boreholes were prepared and sent for band-by-band analysis. The band-by-band analytical results are presented in Annexure-IIIA and that of GSI boreholes are presented in Annexure-IIIB of GR.

- After obtaining band-by-band analysis, the seam overall analysis at 60% RH & 40 °C for all correlatable coal seams having thickness >0.50 m, were advised for BCS and I-100/I-30 thicknesses of seams. A few unworkable coal seams / bands were also, subjected to overall analysis at 60% RH and 40°C. In addition to the seam overall analysis, special tests such as Ultimate analysis, GCV, AFT, Ash analysis, HGI, and Total Sulphur have also been conducted as per the stipulated norms.

- The analytical results of band by band analysis are incorporated in Annexure-III & Annexure-IIIB of GR, whereas results of seam overall at 60% RH & 40°C are presented in Annexure-IV. The coal analyses of MECL boreholes for band by band for 186 boreholes and seam overall & G.C.V for 114 boreholes have been carried out. Ultimate analysis, Ash analysis, Ash fusion temperature, Total Sulphur and HGI were analysed as included in Annexures –VIIA, VIIB, VIIC & VII D of GR.

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vii. Exploratory drilling

- The year wise breakup of meterage drilled by MECL in the Gare-Palma Sector-II Coal Block is as follows.

Period	Drilling meterage
Year 2010 - 11	29841.30
Year 2011 - 12	44156.50
Total	**73997.80 in 188 boreholes**

- The entire drilling operation was conducted by conventional drilling method aided by wire lines equipments using Drill Max, Vol 300 drill machines. Controlled speed, adequate pressure, circulation of bentonite mud with other chemicals etc. were resorted to maximize the core recovery in both coal & non-coal horizons. The entire drilling has been carried out in NX/NQ Core size except in the top overburden zone where HX/HQ core size has been used. The recovery in the coal seam have been maintained at more than 90% and in the non coal portion at more than 80% except in areas of structurally weak and disturbed zones and weathered/ friable formations. The depth range of the boreholes drilled in this block by MECL varies from 206.00m (MMT-59) to 484.70 m. (MMT-112).

- The earlier drilled data of 8 boreholes of GSI involving 3378.00 m are also considered.

4.4 GEOLOGICAL SECTIONS

For the purpose of geological correlation and assessment of reserves, geological cross sections were prepared with the help of adjoining bore holes from north to south. Different number of boreholes considered for making cross section is given in Table 4.4. The Geological cross section is given in Plate VI.

TABLE 4.4
GEOLOGICAL CROSS-SECTION WISE NUMBERS OF THE BORE HOLES IN GARE-PALMA SECTOR-II BLOCK

Sections	Bore Hole Nos.
A-A'	MMT-10, 94, 2, 88, 4,11, 6, 39, 66, 90
B-B'	Mmt-145,17, 55, 63, 69, 53,177, RGP-9
C-C'	MMT-143,108,188

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The lithologs are given in Plate VIIA and VIIB.

4.5 FUTURE PROGRAMME OF EXPLORATION

The Block has been adequately explored. No more exploration is envisaged.

4.6 PATTERN OF FAULTING

The block does not show major tectonic disturbances. A total 10 numbers of faults have been deciphered. The deciphering of fault is mainly attributed to differences in FRL values in boreholes. The throw of faults varies from 0 – 20 m. All the faults dip towards north-east except fault F6, F9 & F10 which dip towards south-west. The dip of the fault is assumed 70°. Minor slips at places cannot be ruled out as evidenced by variation in gradient which has been reflected in floor contour plans. The faults details are furnished in Table 4.5.

TABLE 4.5
DESCRIPTION OF FAULTS INTERPRETED IN GARE PALMA SECTOR-II COAL BLOCK

Fault No.	Location	Nature	Strike & Dip	Fault Intersection		Throw (m)	Evidences
				BH. No.	Depth (m)		
F_1 F_1	Located near north western boundary of the block	Strike to oblique fault	Trending in NW-SE direction dipping due north-east	--	--	0 to 5	Extends from Bhalumuda, the adjacent block
F_2 F_2	Located in north western part. Fault extends for about 4 k.m.	Strike to oblique fault	NW-SE dipping due north-east	--	--	0 to 10	Interpreted based on FRL difference.
F_3 F_3	It extends for about 5 Km., northern-western to southern boundary.	Strike to oblique fault	NW-SE slightly dipping due north-east.	--	--	2 to 10	Interpreted based on FRL difference
F_4 F_4	Extends for 6 km. from south of borehole MMT-9 to south-eastern boundary	Strike to oblique fault	NW-SE slightly dipping due north-east.	--	--	0 to 10	Interpreted based on FRL difference
F_5 F_5	Located in south-eastern part of the block	Strike to oblique fault	NW-SE slightly dipping due north-east.	--	--	0 to 15	Interpreted based on FRL difference
F_6 F_6	Located in central to south-eastern part of the block	Strike to oblique fault	NW-SE dipping towards south-west.	--	--	0 to 10	Interpreted based on FRL difference

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Fault No.	Location	Nature	Strike & Dip	Fault Intersection		Throw (m)	Evidences
				BH. No.	Depth (m)		
F_7 F_7	Located in northern part of the block	Strike to oblique fault	W-NW-E-SE dipping towards north.	-	--	5 to 15	Interpreted based on FRL difference
F_8 F_8	Located in northern part of the block	Strike to oblique fault	W-NW-E-SE dipping towards north.	MMT-119 MMT-16	48.50 226.00	5 to 20	i. Seam IX and roof of seam-VIII faulted. ii. Parting reduction both III-L2 & III.
F_9 F_9	Located in northern part of the block	Strike to oblique fault	W-NW-E-SE dipping towards south.	MMT-164	122.00	10	Seam V B-1, V B-2 faulted
F_{10} F_{10}	Located in northern part of the block	Strike to oblique fault	W-NW-E-SE dipping towards south.	MMT-122	97.00	15	Seam VI faulted

4.7 COAL SEAMS

(a) Sequence of all coal seams and partings

The details of partings and coal seams in descending order are given in Table 4.6.

TABLE 4.6
SEQUENCE OF COAL SEAMS AND PARTINGS IN GARE PALMA SECTOR-II COAL BLOCK

Sequence of Seams/Parting	Range of Seam Thickness (m)		Range of Parting Thickness (m)		No. of Full Intersections
	Minimum	Maximum	Minimum	Maximum	
X-LA	0.10 (MMT-109)	0.89 (MMT-188)			119
Parting			1.60 (MMT-108)	16.95 (RGP-22	111
X-TOP	0.10 (MMT-186)	2.11 (MMT-57)			128
Parting			0.47 (MMT-141)	10.89 (MMT-14)	128
X-BOT	0.68 (MMT-77)	6.26 (MMT-90)			156
Parting			9.4 (MMT-163)	31.45 (MMT-160)	143
IX-L2	0.06 (MMT-128)	0.92 (MMT-59)			158

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Sequence of Seams/Parting	Range of Seam Thickness (m)		Range of Parting Thickness (m)		No. of Full Intersections
	Minimum	Maximum	Minimum	Maximum	
Parting			2.50 (MMT-77)	20.24 (MMT-167)	149
IX-L1	0.10 (MMT-187)	1.04 (MMT-160)			177
Parting			8.00 (MMT-51)	34.26 (MMT-122)	177
IX	2.66 (MMT-53)	7.34 (MMT-140)			195
Parting			3.37 (MMT-140)	15.63 (MMT-120)	192
VIII	0.31 (MMT-131)	6.50 (MMT-94)			192
Parting			1.09 (MMT-162)	21.90 (MMT-54)	77
VIII-L	0.10 (MMT-107)	2.25 (MMT-62)			78
Parting			7.61 (MMT-157)	23.55 (MMT-86)	54
VII-TOP	1.50 (MMT-108)	6.15 (MMT-174)			116
Parting			0.72 (MMT-167)	4.00 (MMT-105)	115
VII-BOT	0.16 (MMT-125)	3.84 (MMT-119)			115
VII-COMB	2.06 (RGP-9)	8.39 (MMT-140)			80
Parting			3.30 (MMT-88)	24.13 (MMT-154)	80
VI	0.25 (MMT-107)	7.74 (MMT-182)			194
Parting			0.80 (MMT-104)	6.50 (MMT-176)	156
VI-L	0.06 (MMT-42)	1.70 (MMT-51)			157
Parting			10.90 (MMT-105)	24.38 (MMT-114)	154
VA-1	0.10 (MMT-107)	1.43 (MMT-80)			191
Parting			1.12 (MMT-14)	10.71 (MMT-105)	118
VA-2	0.08 (MMT-105)	1.28 (MMT-186)			119

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Sequence of Seams/Parting	Range of Seam Thickness (m)		Range of Parting Thickness (m)		No. of Full Intersections
	Minimum	Maximum	Minimum	Maximum	
Parting			0.65 (MMT-98)	8.15 (MMT-29)	111
VB-1	0.10 (MMT-118)	1.47 (MMT-112)			120
Parting			0.98 (MMT-16)	15.15 (MMT-140)	118
VB-2	0.09 (MMT-150)	1.90 (MMT-162)			191
Parting			1.00 (MMT-140)	7.50 (MMT-179)	189
VC-1	0.12 (MMT-179)	2.40 (MMT-92)			193
			0.40 (MMT-166)	3.45 (MMT-158)	193
VC-2	0.09 (MMT-17)	1.30 (MMT-81)			194
			0.93 (MMT-60)	6.27 (MMT-148)	171
VD-1	0.05 (MMT-59)	1.40 (MMT-12)			172
			0.36 (MMT-3)	3.05 (MMT-108)	149
VD-2	0.06 (MMT-5)	1.34 (MMT-134)			164
			30.82 (MMT-69)	43.46 (MMT-127)	161
IV	0.10 (MMT-177)	3.70 (MMT-12)			191
			15.01 (MMT-156)	25.37 (MMT-112)	107
III-L2	0.07 (MMT-113)	1.55 (MMT-83)			107
			32.80 (MMT-16)	60.53 (MMT-14)	101
III	0.10 (MMT-6)	3.50 (MMT-102)			171
Parting			0.68 (MMT-79)	62.00 (MMT-73)	18
II-L	0.08 (MMT-6)	1.94 (MMT-102)			20
Parting			0.94 (MMT-171)	61.37 (MMT-79)	20

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Sequence of Seams/Parting	Range of Seam Thickness (m)		Range of Parting Thickness (m)		No. of Full Intersections
	Minimum	Maximum	Minimum	Maximum	
II	0.05 (MMT-109)	7.05 (MMT-93)			141
Parting			16.67 (MMT-178)	38.03 (MMT-110)	112
I-L1	0.10 (MMT-27)	2.89 (MMT-119)			123
Parting			13.57 (MMT-77)	28.60 (MMT-41)	9
I-L	0.07 (MMT-57)	1.16 (MMT-155)			13
Parting			1.43 (MMT-29)	7.19 (MMT-57)	8
I-TOP	0.11 (MMT-164)	3.80 (MMT-43)			98
Parting			0.42 (MMT-46)	17.43 (MMT-179)	71
I-BOT	0.19 (MMT-162)	4.49 (MMT-152)			71
I-COMB	2.15 (MMT-63)	7.87 (MMT-139)			30

It is mentioned in Final GR that Seam X Bottom, IX, VIII, VIII-L, VII-Top, VII-Bottom, VII Combined and VI together form the opencast proposition while Seam - VI-L, VA-1, VA-2, VB-1, VB-2, VC-1, VC-2, VD-1, VD-2, IV, III-L2, III, II, IL-1, I Top, I Bottom and I combined are proposed to be mined by underground method.

(b) Sequence of workable Coal Seams

The sequence of workable coal seams is furnished below in Table 4.7 along with their thickness.

TABLE 4.7
SEQUENCE OF WORKABLE COAL SEAMS OF GARE-PALMA SECTOR-II AS PER GR BLOCK

Sl. No.	Coal Seam	Coal Thickness range, m	Av. Depth from Surface, m	Workability of seam as per GR
1.	X-BOT	0.68-6.26	90.185	Workable
2.	IX	2.66-7.34	125.015	Workable
3.	VIII	0.31-6.50	139.275	Workable
4.	VIII-L	0.10-2.25	152.25	Workable
5.	VII-TOP	1.50-6.15	165.985	Workable

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Sl. No.	Coal Seam	Coal Thickness range, m	Av. Depth from Surface, m	Workability of seam as per GR
6.	VII-BOT	0.16-3.84	170.5	Workable
7.	VII-COMB	2.06-8.39	160.625	Workable
8.	VI	0.25-7.74	177.815	Workable
9.	VB-1	0.10-1.47	208.66	Workable*
10.	VC-1	0.12-2.40	218.4	Workable
11.	VD-1	0.05-1.40	223.115	Workable*
12.	IV	0.10-3.70	261.1	Workable
13.	III	0.10-3.50	331.575	Workable
14.	II	0.05-7.05	410.15	Workable
15.	I-L1	0.10-2.89	445.925	Workable
16.	I-TOP	0.11-3.80	441.225	Workable
17.	I-BOT	0.19-4.49	445.01	Workable
18.	I-COMB	2.15-7.87	445.395	Workable

* ***Though, in GR these seams are shown workable, their maximum thickness is less than 1.5 m and mean thickness less than 1m (Seam VB1=0.79m, Seam VD1=0.35 m; Reserves of >0.9m thickness of seam VB1= 3.119 Mt, the seam is converted to carbonaceous shale around borehole RGP-22, 19 & RP-11 ; Seam VD1=0. 0.236 Mt), hence for mining they have been considered "not workable".***

(c) Strike and dip

The general strike of coal horizons is NW-SE in the major part of the block which entire block with minor swings. The dip of beds varies from 2 to 4 degrees towards south-west.

4.8 COAL RESERVES & OVERBURDEN

4.8.1 Reserves

The extent of coal bearing area in the block is 2583.486 Ha and the whole block area can be considered as coal bearing area.

The procedure adopted for estimation of coal reserves in Gare Palma Sector-II Coal Block is fundamentally based on the specific geological factors which determine the extent to which correlation, interpolation of data can be projected for building up a stratigraphic and structural model of the lay and disposition of the coal seams and this concept applied to generate various plans to estimate coal reserves through Minex Software.

From the structural 3-D model, various plans viz. vertical cross sections and floor contour plans have been generated. Similarly from the model quality overall data are presented in the individual seam folio plan.

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The detailed exploration in Gare Palma Sector-II coal block, revealed the existence of 31 correlatable Barakar coal seams. These seam in descending order are XL-A, X Top, X Bottom, IX-L2, IX-L1, IX, VIII, VIII-L, VII Top, VII Bottom, VII Combined, VI, VI L, VA-1, VA-2, VB-1, VB-2, VC-1, VC-2, VD-1, VD-2, IV, III L2, III, II L, II, I-L1, I-L, I Top, I Bottom & I combined. Out of these 18 seams viz. X Bottom, IX, VIII, VIII L, VII Top, VII Bottom, VII combined, VI, VB-1, VC-1, VD-1, IV, III, II, IL1, I Top, I Bottom and I Combined are workable. Remaining seams are almost unworkable in major part of the block. Seam X Bottom, IX, VIII, VIII-L, VII-Top, VII-Bottom, VII Combined & VI together form the opencast proposition in major part of the block while in a small area located in the south eastern part of the block where seam –VI becomes unworkable, seam VII has been considered base seam for open cast. Seam- VI-L, VA-1, VA-2, VB-1, VB-2, VC-1, VC-2, VD-1, VD-2, IV,III-L2, III, II, IL-1, I Top, I Bottom & I combined can be mined by underground method. The floor and folio plan of all above seams are given in Fig 4.1 to 4.16 respectively at the end of Chapter.

The reserves of the coal seams have been estimated sector-wise. For this purpose, the block has been divided into sectors A, B, C, D, E, F, G, H & I based on disposition of faults and Kelo river.

4.8.2 Basic assumptions and norms followed

The following norms have been taken into account for reserves calculation:

i) The reserves have been estimated for opencast proposition on I-100 thickness for 8 seams i.e. X Bottom, IX, VIII, VIII L, VII Top, VII Bottom, VII Combined & VI in the major part of the block. However, in a small area located in the south-eastern part of the block that of for 7 seams up to VII Bottom/ VII Combined as the seam VI is unworkable in this part and on I-30 thickness for 17 seams viz. seam VI-L, VA-1, VA-2, VB-1, VB-2, VC-1, VC-2, VD-1, VD-2, IV,III-L2, III, II, IL-1, I Top, I Bottom & I combined.

ii) Isochores, Isograde are drawn for I100 / I-30 thickness of seams for open cast and underground proposition.

iii) The minimum workable thickness considered for the estimation of reserves of the individual seams/sections for OC/ underground proposition is 0.90m. However, reserves for thickness 0.50m to 0.90m have also been estimated and kept under resource.

iv) The isochores have been drawn on the basis of the principle of gradual and uniform change over the area. It is assumed that the variation between any two points of observations is uniform and gradual.

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v) The limits of non-development zones of seams have been marked by taking half of the influence of the borehole with positive seam intersection. These limits have also been considered to be the line of zero seam thickness.

vi) The limit of zone of basement high has been drawn half way of distance between two boreholes.

vii) Areas falling within the heave zones of faults have been excluded from the estimation of reserves.

viii) Coal reserves are estimated for superior & inferior grade coal available in the block and as per opencast and underground norms and hence for 0.90 m and above seam thickness & at 0.90-1.2m, 1.20-1.50m, 1.50-3.00m, 3.00-5.00, 5.00-10.00 and >10.00m thickness interval.

ix) The reserves of workable seams have been estimated based on I100/ I-30 thickness & quality and have been estimated seam-wise, sector-wise, coal to overburden ratio-wise, depth-wise (at 50m interval), barrier-wise, forest-wise, thickness-wise & grade-wise. The depth-wise reserves for underground property have also been given for depth <300m & >300m by drawing 300m depth line.

x) 60 m barrier has been drawn both side of metalled road and Kelo river.

xi) A barrier of 45m has been kept for the diverted road as per statutory norms.

xii) Reserves have also been estimated within village, infrastructure and forest.

xiii) Volume of coal is estimated by Minex Software Model and reserves are by empirical formula of

Gross Reserves	=	Area X	Thickness X	Sp. Gravity of coal
(Thousand Tonnes)	=	(Sq.m)	(m)	(Grade-wise)

xiv) A 10% reduction in Gross Geological Reserves for arriving at Net Geological Reserves has been kept as in the GR and as per the accepted practice.

4.8.3 Calculation of specific gravity

The specific gravity has been calculated seam-wise for each grade by the procedure outlined below:

1) The mean of ash percentage is assessed found for each grade and for each seam.

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2) From this mean ash percentage, average specific gravity was calculated by the

Formula:
Specific Gravity = 1.28 + 0.01 x Ash

The grade-wise specific gravity considered for all the coal seams are given in Table 4.8 below.

TABLE 4.8
GRADE-WISE AVERAGE SPECIFIC GRAVITY OF COAL SEAMS

Grade	Specific Gravity
A	1.42
B	1.45
C	1.50
D	1.55
E	1.60
F	1.68
G	1.76

4.8.4 Method of grade estimation

The proximate analysis on 60% R.H. & at 40°C of the seams form the basis for grade estimation. Wherever such analyses are not available, the same have been calculated on M-100 basis.

The non-coking coals have been classified into seven grades on the basis of the useful heat value (UHV) and seventeen grades on the basis of Gross Calorific Value. The grades of the coal are as given in Table 4.9 and 4.9A respectively.

TABLE 4.9
GRADES OF NON-COKING COAL BASED ON UHV
(GOI Notification no. 28012/80/CA dated 13.02.1981)

Grade	Ash% +Moisture % (on 60% RH & 40°C	Useful heat value (UHV) (In K.cal/Kg)
A	< 19.6	> 6200
B	19.6 - 23.9	>5600 - 6200
C	24.0 - 28.6	>4940 - 5600
D	28.7 - 34.0	>4200 - 4940
E	34.1 - 40.1	>3360 - 4200
F	40.2 - 47.1	>2400 - 3360
G	47.2 - 55.0	>1300 - 2400

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TABLE 4.9A
GRADES OF NON-COKING COAL BASED ON GCV IN INDIA
(GAZETTE NOTIFICATION NO.22021/1/2008-CRC-II, DT.30.12.2011)

GCV (Kcal/Kg)		Grade
From	To	
Above 7000		G1
6701	7000	G2
6401	6700	G3
6101	6400	G4
5801	6100	G5
5501	5800	G6
5201	5500	G7
4901	5200	G8
4601	4900	G9
4301	4600	G10
4001	4300	G11
3701	4000	G12
3401	3700	G13
3101	3400	G14
2801	3100	G15
2501	2800	G16
2201	2500	G17

4.8.5 Grades of coal in the Block

The grades of coal in the Block are given in Table 4.10.

TABLE 4.10
SEAMWISE GRADES AND GCV RANGE IN GARE SECTOR-II

Seam	UHV (k.Cal/Kg		GCV (k.Cal/Kg)		New Grade based on GCV	
	Min	Max	Min	Max	Min	Max
X-LA/un	1434	3877	3440	4690	G13	G9
X-TOP/un	1518	3229	3100	4600	G14	G10
X- BOT	1794	4222	2550	4970	G16	G8
IX-L2/un	1365	4829	4280	5050	G11	G8
IX-L1	2235	3891	3650	5240	G13	G7
IX	3063	4871	4280	5320	G11	G7
VIII	1366	2953	2990	4300	G15	G11
VIII-L	1614	4291	3180	4730	G14	G9
VII-Top	1407	3628	3100	4650	G14	G9
VII-Bot	1656	4071	2960	4980	G15	G8

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Seam	UHV (k.Cal/Kg		GCV (k.Cal/Kg)		New Grade based on GCV	
	Min	Max	Min	Max	Min	Max
VII-Com	1834	3587	3170	4670	G14	G9
VI	1407	4111	3100	5160	G14	G8
VI-L/un	1352	2097	3500	4410	G13	G10
VA-1	1380	4236	3170	5210	G14	G7
VA-2/un	1545	3201	4240	4980	G11	G8
VB-1	1545	5229	3990	5100	G12	G8
VB-2/un	2566	5947	4100	5490	G11	G7
VC-1	1752	4677	3400	5380	G13	G7
VC-2	2497	4788	3690	6620	G13	G3
VD-1/un	3256	3463	3950	4840	G12	G9
VD-2	1338	2539	3040	4760	G15	G9
IV	1710	5243	3550	5980	G13	G5
III-L2	1959	3753	3690	5320	G13	G7
III	2147	5326	3270	7000	G14	G2
II-L/un	2470	3284	4220	5370	G11	G7
II	2318	7217	5514	6820	G6	G2
I-L1	4719	7341	5560	7250	G6	G1
I-L/un	3352	7492	4610	4610	G9	G9
I-Top	2461	6872	4010	6940	G11	G1
I-Bot	1685	7452	3880	7070	G12	G1
I-Com	3532	6168	4580	6270	G10	G4

4.8.6 Opencast proposition

RQP has identified that seam X Bottom, IX, VIII, VIIIL, VII Top, VII Bottom, VII Combined and VI together form the open cast proposition in the major part of the block. However, in a small area located in the south-eastern part of the block, seam VII has been considered base seam for open cast, as the seam VI becomes unworkable in this part. The cumulative thickness of coal packet of above said seams in general varies from 12 m to 22 m. The coal to overburden ratio in general varies from 1:3 to 1:10 in the block. The depth of quarry varies from 80 m to 200 m.

4.8.7 Overburden

Nature of overburden: Overburden consists predominantly sandstone with minor amount of shale, carbonaceous shale, ungraded coal and thin coal bands (< 1m in thickness). Besides, the overburden also includes soil, weathered rocks, obvious bands of any thickness and dirt bands of >1m thickness. Sector-wise, depth-wise, ratio-wise volume of over burden and stripping ratio.

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4.8.8 Calculation of overburden

To arrive at total volume of overburden upto base of seam VI/VII following procedures has been adopted. The Iso-excavation plan and coal to overburden ratio plan have been prepared by using MINEX Software programme.

The volume of overburden has been calculated by applying the formula:

V = A x Th. where

V = Volume of overburden in cu.m.

A = Area in sq. m.

Th = Average thickness of iso-pachytes of overburden in m. / isopachytes of parting.

4.8.9 Stripping Ratio

Stripping ratio is obtained after dividing total volume of overburden by tonnage of coal available in the same area.

4.8.10 Categorisation of reserves

Borehole density is 7.3 boreholes/ sq km (excluding 8 bh drilled by GSI)., hence the entire reserves of all the coal seams from seam X-Bot to I Bottom / I Combined are grouped under Proved category which corresponds to digit 1 of geological axis of UNFC.

4.8.11 Area considered for reserves estimation

i. For the purpose of reserves calculation for the all seams northern, southern boundary eastern & western boundary of block is considered.

ii. In the block, total of 1006.225 million tonnes have been estimated for 25 workable coal seams in the block of effective thickness 0.90 to 10.00m, out of which 682.569 million tonnes of reserves occur in opencast and 323.656 million tonnes are found in underground area.

iii. A majority of 409.903 million tonnes (40.7% of total reserves) fall in F grade. In underground area 102.193 million tonnes (31.6% of total reserves) occur in superior grade.

iv. 299.419 million tonnes (43.8%) & 293.084 million tonnes (43.0%) of total reserves are estimated in depth range of 100m to 150m and 150m to 200m respectively in opencast area.

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A. For seam thickness more than 0.9m

A.i. For opencast:

The details of the opencastable reserves (as per GR) are reproduced below in Table 4.11 to Table 4.15 for coal thickness more than 0.9m:

TABLE 4.11
SEAM-WISE AND BARRIER-WISE RESERVES (THICKNESS >0.90 M)
OPENCAST (RESERVES IN '000 TONNES)

Seam	Outside	JSPL Colony*	River	Forest	Village	Road	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
X-TOP	2077	207	1	0	0	58	2343
X-BOT	64247	1523	1323	2663	2977	12929	85662
IX-L2	13	0	0	0	0	0	13
IX-L1	163	0	0	4	0	43	210
IX	115046	4498	2686	5837	4572	23545	156184
VIII	59094	1073	457	5766	2686	12064	81140
VIII-L	8647	0	281	358	404	2384	12074
VII-TOP	61514	1292	2094	3427	2649	17968	88944
VII-BOT	15190	430	602	936	858	4730	22746
VII-COMB	65055	4133	1035	2961	1928	7193	82305
VI	113779	139	986	6625	4637	24782	150948
Total	**504825**	**13295**	**9465**	**28577**	**20711**	**105696**	**682569**

** Existing colony of Jindal Steel and Power Ltd.*

TABLE 4.12
SEAM-WISE AND RATIO-WISE RESERVES (THICKNESS > 0.90 M)
OPENCAST (RESERVES IN '000 TONNES)

Seam	1:2-1:3	1:3-1:4	1:4-1:5	1:5-1:6	1:6-1:7	1:7-1:8	1:8-1:9	1:9-1:10	>1:10	Total
X-TOP	0	0	0	121	419	690	606	314	193	2343
X-BOT	63	6222	8626	10343	12573	17817	20831	5237	3950	85662
IX-L2	0	9	1	3	0	0	0	0	0	13
IX-L1	0	29	0	28	0	45	108	0	0	210
IX	169	13121	14045	16841	22203	30872	37296	11318	10319	156184
VIII	195	15866	14383	11021	11449	12314	10770	2877	2265	81140
VIII-L	0	42	100	0	248	3059	6658	1442	525	12074
VII-TOP	0	5587	6484	6005	8203	15579	30324	9636	7126	88944
VII-BOT	0	1911	1574	1211	1546	3386	8651	2695	1772	22746
VII-COMB	196	7598	6932	11789	17033	19168	12210	3084	4295	82305
VI	129	14242	15806	17272	21273	32575	39250	7814	2587	150948
Total	**752**	**64627**	**67951**	**74634**	**94947**	**135505**	**166704**	**44417**	**33032**	**682569**

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TABLE 4.13
SEAM-WISE AND DEPTH-WISE RESERVES (THICKNESS > 0.90M) OPENCAST (RESERVES IN '000 TONNES)

Depth	50-100	100-150	150-200	Total
X-TOP	11	633	1699	2343
X-BOT	9327	39642	36693	85662
IX-L2	10	3	0	13
IX-L1	29	28	153	210
IX	18810	71021	66353	156184
VIII	20595	39968	20577	81140
VIII-L	142	122	11810	12074
VII-TOP	7256	35496	46192	88944
VII-BOT	2254	8478	12014	22746
VII-COMB	12316	40258	29731	82305
VI	19316	63770	67862	150948
Total	**90066**	**299419**	**293084**	**682569**

TABLE 4.14
SEAM-WISE AND THICKNESS-WISE RESERVES (THICKNESS > 0.90M) OPENCAST (RESERVES IN '000 TONNES)

Thickness	0.9-1.2	1.2-1.5	1.5-3.0	3.0-5.0	5.0-10.0	Total
X-TOP	1253	352	738	0	0	2343
X-BOT	775	5454	69208	9735	490	85662
IX-L2	13	0	0	0	0	13
IX-L1	210	0	0	0	0	210
IX	0	0	62	147022	9100	156184
VIII	6366	10426	30152	19013	15183	81140
VIII-L	1815	3579	6680	0	0	12074
VII-TOP	0	3	4761	83711	469	88944
VII-BOT	9845	8234	4646	21	0	22746
VII-COMB	0	0	226	32305	49774	82305
VI	1873	1062	7215	66675	74123	150948
Total	**22150**	**29110**	**123688**	**358482**	**149139**	**682569**

TABLE 4.15
SEAM-WISE AND GRADE-WISE RESERVES (THICKNESS > 0.90M) OPENCAST (RESERVES IN '000 TONNES)

Seam	D	E	F	G	Total
X-TOP	0	32	2123	188	2343
X-BOT	3	10269	67771	7619	85662
IX-L2	0	3	10	0	13
IX-L1	0	65	76	69	210
IX	19338	135817	1029	0	156184
VIII	0	0	16647	64493	81140
VIII-L	52	3482	6859	1681	12074
VII-TOP	0	2202	65753	20989	88944
VII-BOT	0	1216	16517	5013	22746
VII-COMB	0	1224	67607	13474	82305
VI	0	42521	100257	8170	150948
Total	**19393**	**196831**	**344649**	**121696**	**682569**

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A.ii. For Underground:

The details of the reserves mineable by underground (as per GR) are given below in Table 4.16 to Table 4.19 for coal thickness more than 0.9m.

TABLE 4.16
SEAM-WISE AND BARRIER- (THICKNESS > 0. 90 M)
UNDERGROUND (RESERVES IN '000 TONNES)

Seam	Outside	JSPL	River	Forest	Village	Road	Total
VI-L	340	3	0	0	0	154	497
VA-1	2257	2	0	280	139	441	3119
VA-2	237	0	0	0	0	17	254
VB-1	7264	0	0	126	360	1226	8976
VB-2	269	0	0	0	0	0	269
VC-1	21851	307	418	1407	1005	4849	29837
VC-2	5588	0	0	1291	67	1410	8356
VD-1	160	0	0	0	2	74	236
VD-2	460	0	0	39	52	16	567
IV	46637	1472	768	2670	1898	8915	62360
III-L2	1146	0	0	11	3	67	1227
III	49117	2488	1318	3530	2051	10788	69292
II	38909	0	79	3549	2426	6787	51750
I-L1	18669	137	302	1525	633	3357	24623
I-TOP	16610	740	323	973	738	3766	23150
I-BOT	14247	460	647	1151	500	2855	19860
I-COMB	15777	0	85	0	1017	2404	19283
Total	**239538**	**5609**	**3940**	**16552**	**10891**	**47126**	**323656**

TABLE 4.17
SEAM-WISE AND DEPTH-WISE RESERVES
(THICKNESS > 0.90 M) UNDERGROUND (RESERVES IN '000 TONNES)

Depth	<50	50-100	Total
VI-L	497	0	497
VA-1	3119	0	3119
VA-2	254	0	254
VB-1	8976	0	8976
VB-2	269	0	269
VC-1	29837	0	29837
VC-2	8356	0	8356
VD-1	236	0	236
VD-2	567	0	567
IV	62360	0	62360

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Depth	<50	50-100	Total
III-L2	1227	0	1227
III	37814	31478	69292
II	5026	46724	51750
I-L1	0	24623	24623
I-TOP	0	23150	23150
I-BOT	0	19860	19860
I-COMB	0	19283	19283
Total	**158538**	**165118**	**323656**

TABLE 4.18
SEAM-WISE AND THICKNESS-WISE RESERVES
(THICKNESS > 0.90M) UNDERGROUND (RESERVES IN '000 TONNES)

Thickness	0.9-1.2	1.2-1.5	1.5-3.0	3.0-5.0	5.0-10.0	Total
VI-L	402	90	5	0	0	497
VA-1	3036	83	0	0	0	3119
VA-2	234	20	0	0	0	254
VB-1	8670	306	0	0	0	8976
VB-2	172	97	0	0	0	269
VC-1	23769	5685	383	0	0	29837
VC-2	8166	190	0	0	0	8356
VD-1	233	3	0	0	0	236
VD-2	564	3	0	0	0	567
IV	2997	6171	47537	5655	0	62360
III-L2	1101	119	7	0	0	1227
III	1291	2651	62473	2877	0	69292
II	1440	1762	5095	11618	31835	51750
I-L1	2682	3938	18003	0	0	24623
I-TOP	2849	4075	16209	17	0	23150
I-BOT	1510	2930	13322	2098	0	19860
I-COMB	0	0	1065	9355	8863	19283
Total	**59116**	**28123**	**164099**	**31620**	**40698**	**323656**

TABLE 4.19
SEAM-WISE AND GRADE-WISE RESERVES (THICKNESS > 0.90 M)
UNDERGROUND (RESERVES IN '000 TONNES)

Seam	A	B	C	D	E	F	G	Total
VI-L	0	0	0	0	57	226	214	497
VA-1	0	0	0	7	1361	1593	158	3119
VA-2	0	0	0	0	12	153	89	254
VB-1	0	0	20	128	6971	1748	109	8976
VB-2	0	0	0	80	189	0	0	269
VC-1	0	0	0	359	10692	18146	640	29837
VC-2	0	0	0	267	5246	2843	0	8356
VD-1	0	0	0	0	162	74	0	236

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Seam	A	B	C	D	E	F	G	Total
VD-2	0	0	0	0	0	42	525	567
IV	0	0	648	20332	36430	4782	168	62360
III-L2	0	0	0	0	170	814	243	1227
III	0	0	344	5573	28964	33012	1399	69292
II	952	2735	25504	19378	2591	573	17	51750
I-L1	22681	970	730	12[illegible]	73	48	0	24623
I-TOP	1094[illegible]	5384	2094	2487	1639	605	0	23150
I-BOT	1634	5757	5148	3850	2738	595	138	19860
I-COMB	0	4821	11830	2385	247	0	0	19283
Total	**36208**	**19667**	**46318**	**54967**	**97542**	**65254**	**3700**	**323656**

B. For seam thickness 0.50 m to 0.90 m:

B.i. For Opencast

The details of the opencastable reserves (as per GR) are given below in Table 4.20 to Table 4.24 for coal thickness between 0.50 m and 0.90 m.

TABLE 4.20
SEAM-WISE AND BARRIER-WISE RESERVES
(0.50 M TO 0.90 M) OPENCAST (RESERVES IN '000 TONNES)

Seam	Outside	JSPL	River	Forest	Village	Road	Total
X-LA	8233	215	346	271	46	1789	10900
X-TOP	5205	660	168	97	295	1004	7429
X-BOT	105	8	0	0	0	0	113
IX-L2	8893	260	211	350	381	2134	12229
IX-L1	10114	42	80	716	373	2426	13751
VIII	1698	136	252	0	85	320	2491
VIII-L	1302	5	48	79	76	219	1729
VII-BOT	2113	0	43	85	27	443	2711
VI	1382	629	53	0	47	72	2183
Total	**39045**	**1955**	**1201**	**1598**	**1330**	**8407**	**53536**

TABLE 4.21
SEAM-WISE AND RATIO RESERVES (0.50 M TO 0.90 M) OPENCAST
(RESERVES IN '000 TONNES)

Seam	1:2-1:3	1:3-1:4	1:4-1:5	1:5-1:6	1:6-1:7	1:7-1:8	1:8-1:9	1:9-1:10	>1:10	Total
X-LA	0	628	979	1515	2001	1824	2358	747	848	10900
X-TOP	0	0	16	518	1326	1073	2355	830	1311	7429
X-BOT	0	0	18	0	14	9	0	0	72	113
IX-L2	0	660	1194	1705	1854	1831	2872	1075	1038	12229
IX-L1	17	1042	388	921	1522	3109	5082	1228	442	13751
VIII	0	0	0	0	43	108	1243	525	572	2491
VIII-L	0	6	80	23	20	391	721	170	318	1729
VII-BOT	0	17	179	448	442	660	428	256	281	2711
VI	0	0	0	127	151	409	373	312	811	2183
Total	**17**	**2353**	**2854**	**5257**	**7373**	**9414**	**15432**	**5143**	**5693**	**53536**

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RQP NO. 34012/03/2014-CPAM

TABLE 4.22
SEAM-WISE AND DEPTH-WISE RESERVES (0.50 M TO 0.90 M)
OPENCAST (RESERVES IN '000 TONNES)

Depth	50-100	100-150	150-200	Total
X-LA	952	6470	3478	10900
X-TOP	71	2885	4473	7429
X-BOT	0	41	72	113
IX-L2	1059	6670	4500	12229
IX-L1	1160	3877	8714	13751
VIII	11	721	1759	2491
VIII-L	87	190	1452	1729
VII-BOT	96	1391	1224	2711
VI	0	717	1466	2183
Total	**3436**	**22962**	**27138**	**53536**

TABLE 4.23
SEAM-WISE AND THICKNESS-WISE RESERVES
(0.50 M TO 0.90 M) OPENCAST (RESERVES IN '000 TONNES)

Thickness	0.5-0.9	Total
X-LA	10900	10900
X-TOP	7429	7429
X-BOT	113	113
IX-L2	12229	12229
IX-L1	13751	13751
VIII	2491	2491
VIII-L	1729	1729
VII-BOT	2711	2711
VI	2183	2183
Total	**53536**	**53536**

TABLE 4.24
SEAM-WISE AND GRADE-WISE RESERVES
(0.50 M TO 0.90 M) OPENCAST (RESERVES IN '000 TONNES)

Seam	C	D	E	F	G	Total
X-LA	0	0	1612	5735	3553	10900
X-TOP	0	0	396	3950	3083	7429
X-BOT	0	0	0	104	9	113
IX-L2	0	1042	7812	2935	440	12229
IX-L1	139	3331	7460	1764	1057	13751
VIII	0	0	3	668	1820	2491
VIII-L	0	0	5	735	989	1729
VII-BOT	0	0	305	1594	812	2711
VI	0	0	50	511	1622	2183
Total	**139**	**4373**	**17643**	**17996**	**13385**	**53536**

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B.ii. For underground

The details of the reserves mineable by underground (as per GR) are given below in Table 4.25 to Table 4.28 for coal thickness between 0.50 m and 0.90m.

TABLE 4.25
SEAM-WISE AND BARRIER-WISE RESERVES
(0.50 M TO 0.90 M) UNDERGROUND (RESERVES IN '000 TONNES)

Seam	Outside	JSPL	River	Forest	Village	Road	Total
VI-L	5487	4	0	296	243	983	7050
VA-1	14124	204	406	630	515	3233	19112
VA-2	3003	0	0	114	96	523	3736
VB-1	4861	0	0	585	217	1111	6774
VB-2	7445	115	153	713	330	1794	10550
VC-1	5492	477	217	81	168	1041	7476
VC-2	35047	1569	638	1107	1475	7191	47027
VD-1	1409	76	0	54	100	218	1857
VD-2	4010	254	164	258	215	578	5479
IV	2097	10	170	188	143	617	3225
III-L2	3392	0	0	176	184	532	4284
III	361	0	0	0	12	102	475
II	2292	83	31	9	19	216	2650
I-L1	2088	28	116	5	54	393	2684
I-TOP	1121	191	35	324	54	139	1864
I-BOT	656	173	0	44	29	106	1008
Total	**92885**	**3221**	**1930**	**4584**	**3854**	**18777**	**125251**

TABLE 4.26
SEAM-WISE AND DEPTH-WISE RESERVES
(0.50 M TO 0.90 M) UNDERGROUND (RESERVES IN '000 TONNES)

Depth	<300	>300	Total
VI-L	7050	0	7050
VA-1	19112	0	19112
VA-2	3736	0	3736
VB-1	6774	0	6774
VB-2	10550	0	10550
VC-1	7476	0	7476
VC-2	47027	0	47027
VD-1	1857	0	1857
VD-2	5479	0	5479
IV	3225	0	3225
III-L2	4284	0	4284
III	173	302	475
II	0	2650	2650
I-L1	0	2684	2684
I-TOP	0	1864	1864
I-BOT	0	1008	1008
Total	**116743**	**8508**	**125251**

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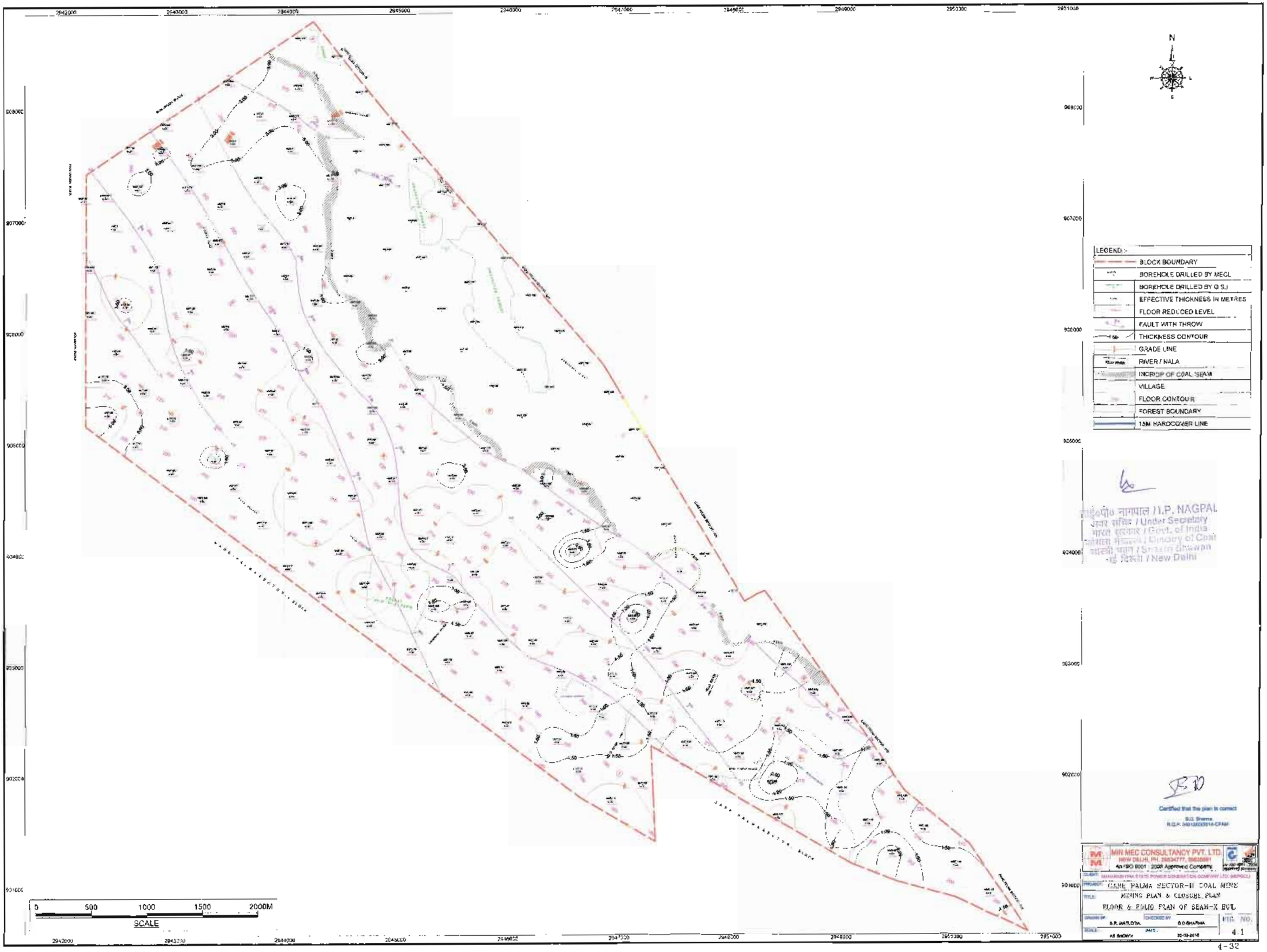
TABLE 4.27
SEAM-WISE AND THICKNESS-WISE RESERVES
(0.50 M TO 0.90 M) UNDERGROUND (RESERVES IN '000 TONNES)

Thickness	0.5-0.9	Total
VI-L	7050	7050
VA-1	19112	19112
VA-2	3736	3736
VB-1	6774	6774
VB-2	10550	10550
VC-1	7476	7476
VC-2	47027	47027
VD-1	1857	1857
VD-2	5479	5479
IV	3225	3225
III-L2	4284	4284
III	475	475
II	2650	2650
I-L1	2684	2684
I-TOP	1864	1864
I-BOT	1008	1008
Total	**125251**	**125251**

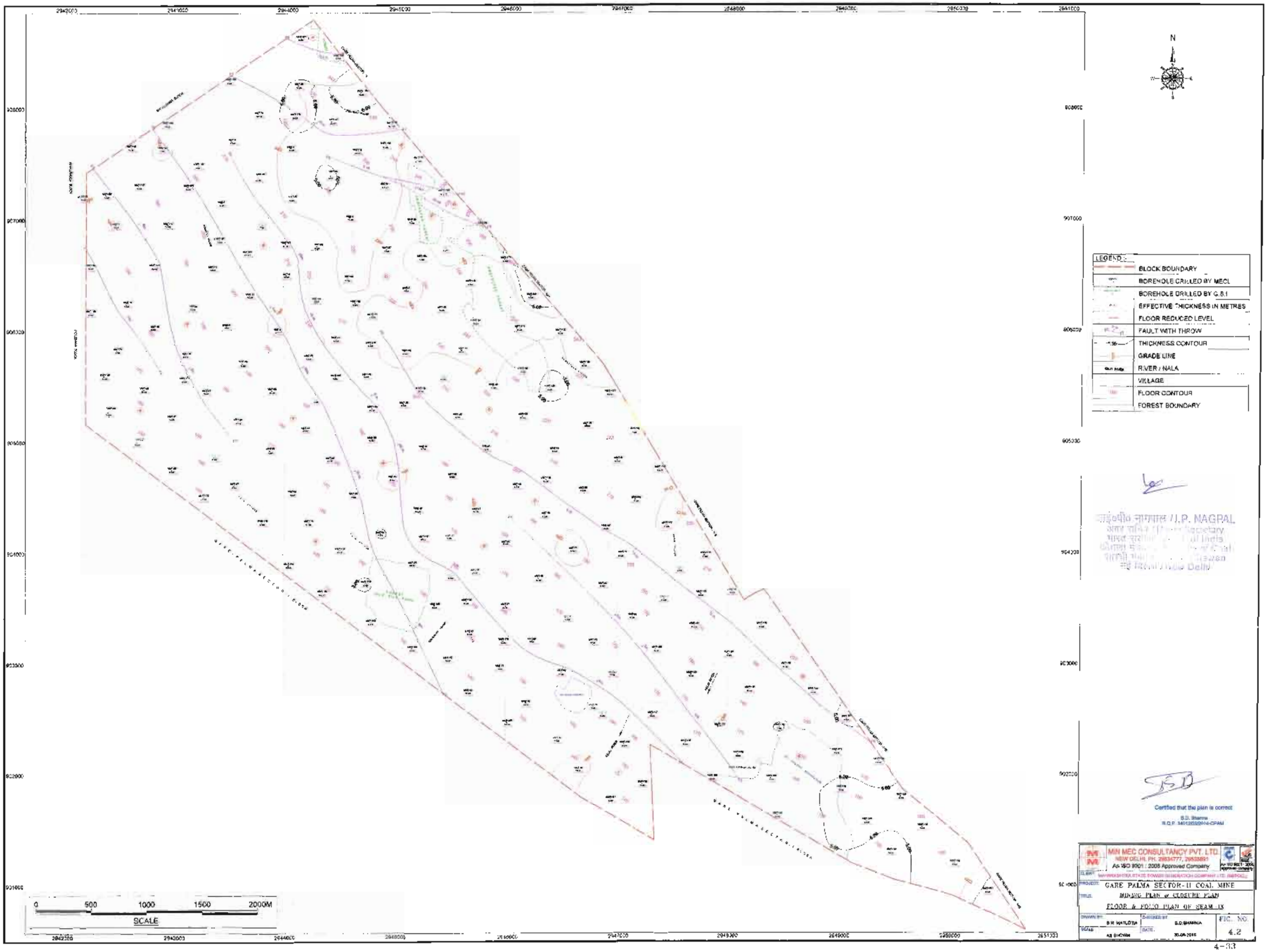
TABLE 4.28
SEAM-WISE AND GRADE-WISE RESERVES
(0.50 M TO 0.90 M) UNDERGROUND (RESERVES IN '000 TONNES)

Seam	A	B	C	D	E	F	G	Total
VI-L	0	0	0	3	219	3985	2843	7050
VA-1	0	0	0	836	10848	6344	1084	19112
VA-2	0	0	0	7	1829	1896	4	3736
VB-1	0	0	17	75	3394	3108	180	6774
VB-2	0	291	4896	4115	1139	109	0	10550
VC-1	0	0	0	63	3537	3688	188	7476
VC-2	0	0	0	747	29634	16300	346	47027
VD-1	0	0	0	38	979	619	221	1857
VD-2	0	0	0	0	77	907	4495	5479
IV	0	0	19	980	1401	776	49	3225
III-L2	46	24	23	107	1069	2811	204	4284
III	0	0	0	36	191	248	0	475
II	1556	408	288	214	112	61	11	2650
I-L1	2347	211	89	0	0	37	0	2684
I-TOP	813	242	366	266	117	60	0	1864
I-BOT	135	362	83	30	153	200	45	1008
Total	**4897**	**1538**	**5781**	**7517**	**54699**	**41149**	**9670**	**125251**

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM



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अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi



जे.पी. नागपाल / J.P. NAGPAL
अवर सचिव / Under Secretary
कोयला मंत्रालय / Ministry of Coal
भारत सरकार / Government of India
नई दिल्ली / New Delhi

Certified that the plan is correct
S.D. Sharma
R.Q.P. 3401265/2014-CPAM

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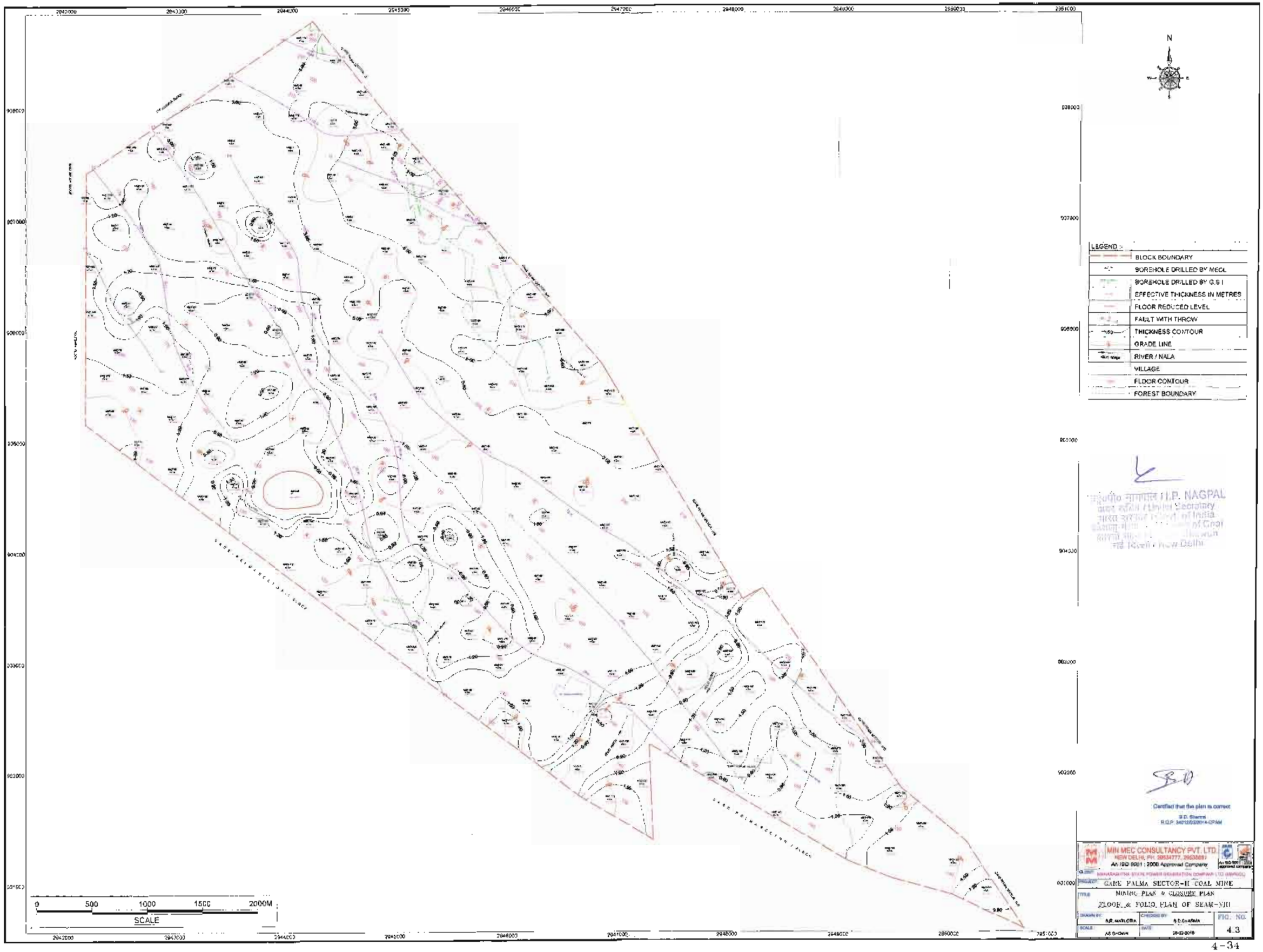
CLIENT : MAHARASHTRA STATE POWER GENERATION COMPANY LTD. (MAHAGENCO)

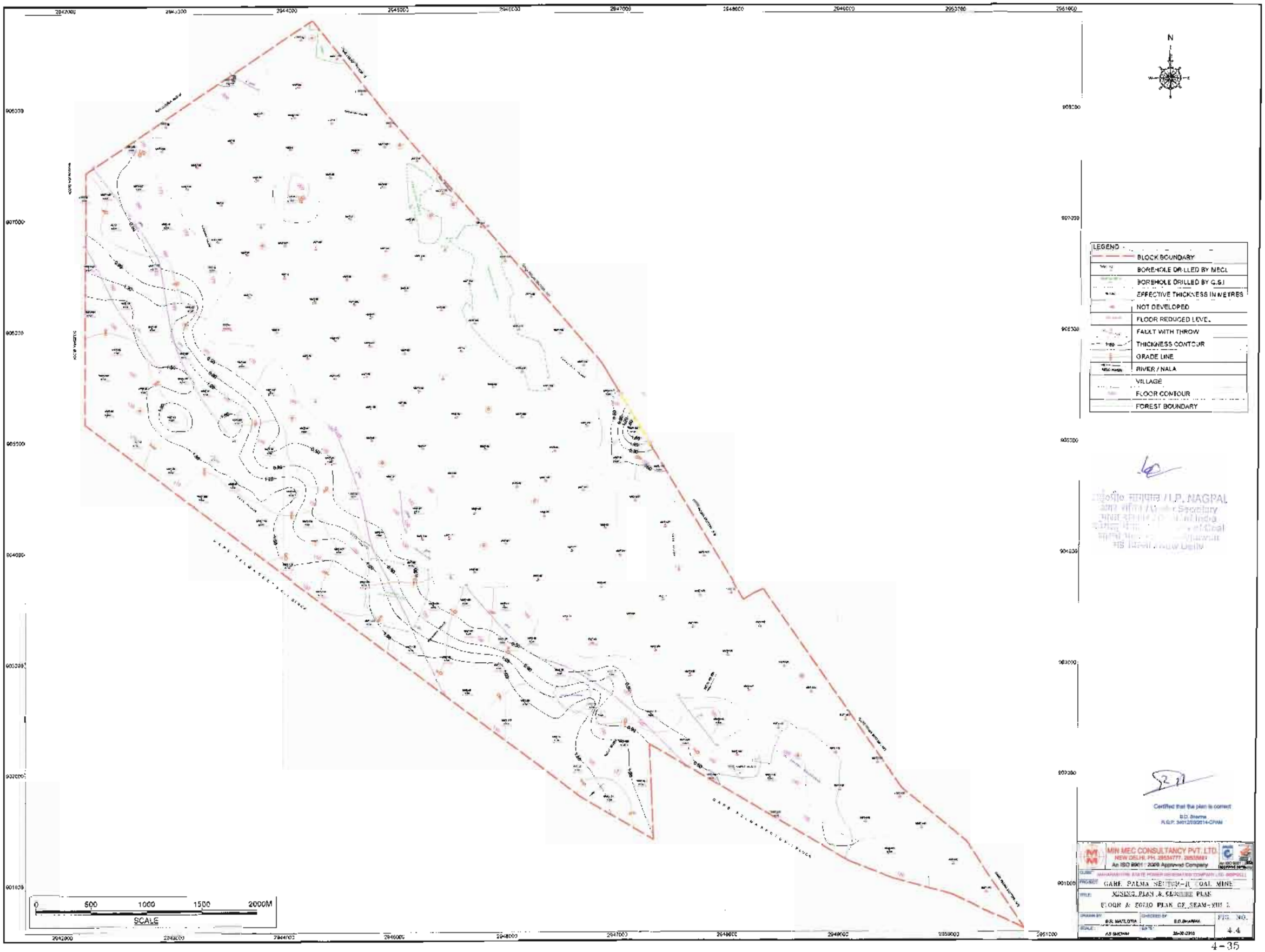
PROJECT : GARE PALMA SECTOR-II COAL MINE

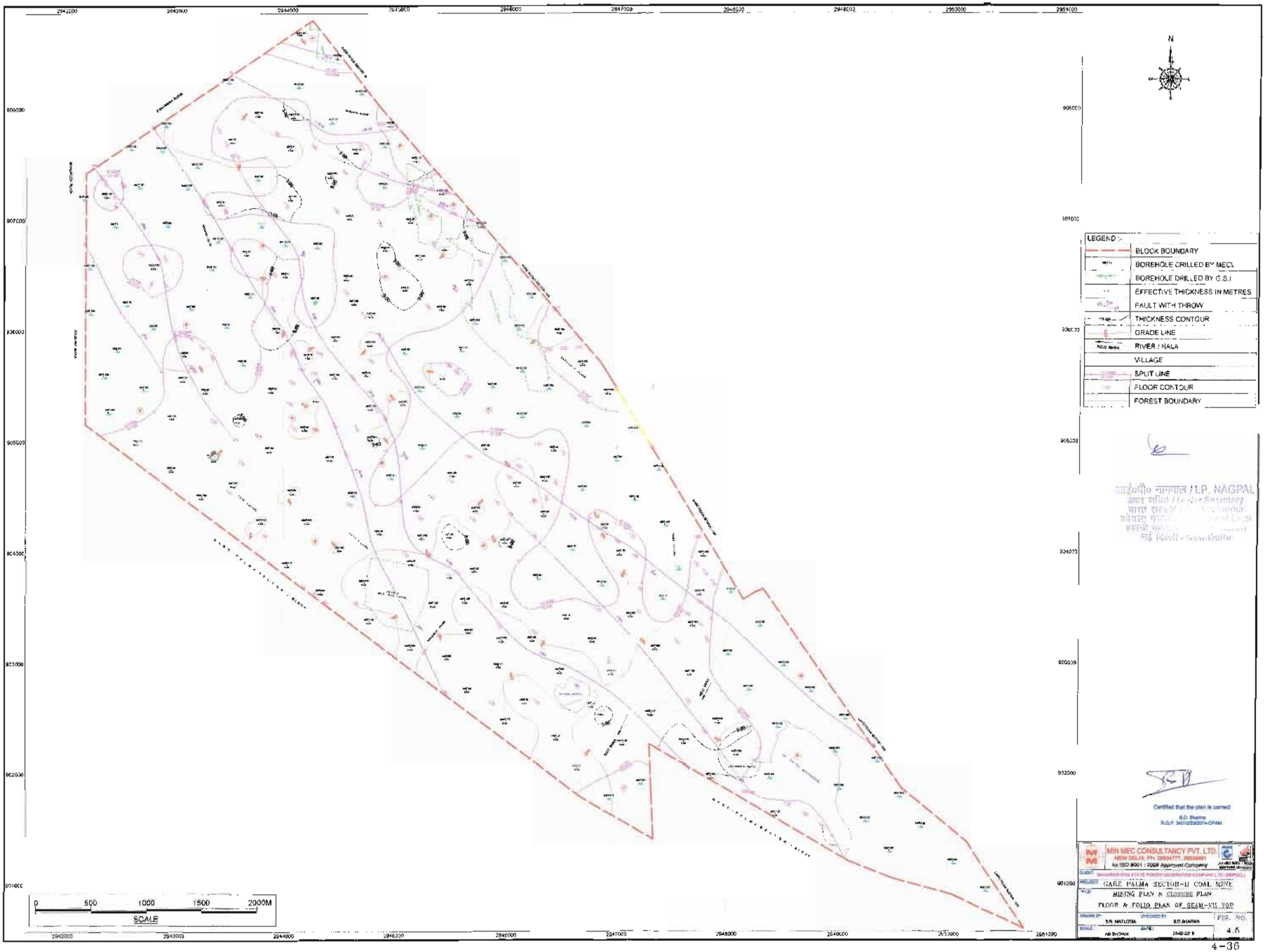
TITLE : MINING PLAN & CLOSURE PLAN
FLOOR & FOOT PLAN OF SEAM IX

DRAWN BY : D.R. HATLOTIA | DESIGNED BY : S.D.SHARMA | FIG. NO. 4.2

SCALE : AS SHOWN | DATE : 30.04.2015


N
LEGEND :
BLOCK BOUNDARY
BOREHOLE DRILLED BY MECL
BOREHOLE DRILLED BY G.S.I
EFFECTIVE THICKNESS IN METRES
FLOOR REDUCED LEVEL
FAULT WITH THROW
THICKNESS CONTOUR
GRADE LINE
RIVER / NALA
VILLAGE
FLOOR CONTOUR
FOREST BOUNDARY
0 500 1000 1500 2000M
SCALE
GARE PALMA SECTOR-II COAL MINE
MINING PLAN & CLOSURE PLAN
FLOOR & FOLIO PLAN OF SEAM-VIII
FIG. NO. 4.3
MIN MEC CONSULTANCY PVT. LTD.
Certified that the plan is correct


2942000
2943000
2944000
2945000
2946000
2947000
2948000
2949000
2950000
2951000
906000
907000
905000
904000
903000
902000
901000
N
LEGEND
BLOCK BOUNDARY
BOREHOLE DRILLED BY MECL
BOREHOLE DRILLED BY G.S.I
EFFECTIVE THICKNESS IN METRES
NOT DEVELOPED
FLOOR REDUCED LEVEL
FAULT WITH THROW
THICKNESS CONTOUR
GRADE LINE
RIVER / NALA
VILLAGE
FLOOR CONTOUR
FOREST BOUNDARY
0 500 1000 1500 2000M
SCALE
Certified that the plan is correct
B.D. Sharma
R.G.P. 540120/02/2014-CPAM
MIN MEC CONSULTANCY PVT. LTD.
NEW DELHI. PH. 26534777, 26534881
An ISO 9001 : 2008 Approved Company
GARE PALMA SECTOR-II COAL MINE
MINING PLAN & CLOSURE PLAN
FLOOR & SOLID PLAN OF SEAM-VIII T
DRAWN BY: B.R. MATLOTIA
CHECKED BY: B.D.SHARMA
SCALE: AS SHOWN
DATE: 26-10-2016
FIG. NO. 4.4



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अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Coal Deptt.
खनन योजना / Mining Wing
नई दिल्ली - 110001 / New Delhi - 110001

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R.G.P. 3401/2/2/2014-CPAM

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NEW DELHI, PH 26534777, 26534851
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CLIENT: MAHARASHTRA STATE POWER GENERATION COMPANY LTD. (MAHAGENCO)

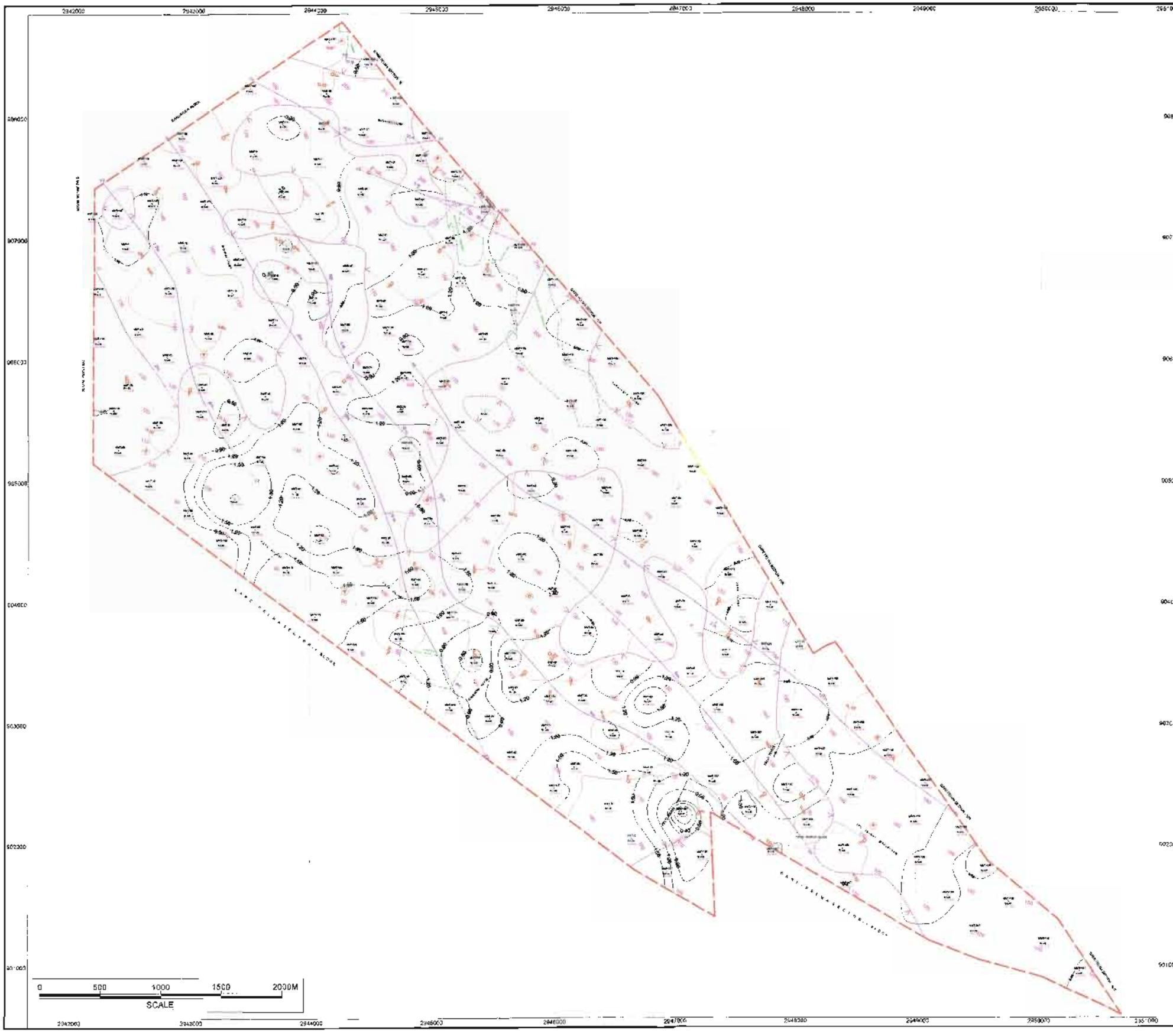
PROJECT: GARE PALMA SECTOR-II COAL MINE

TITLE: MINING PLAN & CLOSURE PLAN

FLOOR & FOLD PLAN OF SEAM-VII TOP

DRAWN BY: S.N. MATLOTIA | CHECKED BY: B.D.SHARMA | FIG. NO.

SCALE: NS SHOWN | DATE: 25-02-2015 | 4.5



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अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
नई दिल्ली-110001 / New Delhi

Certified that the plan is correct

B.D. Sharma
R.G.P. 3401203/2014-CPAM

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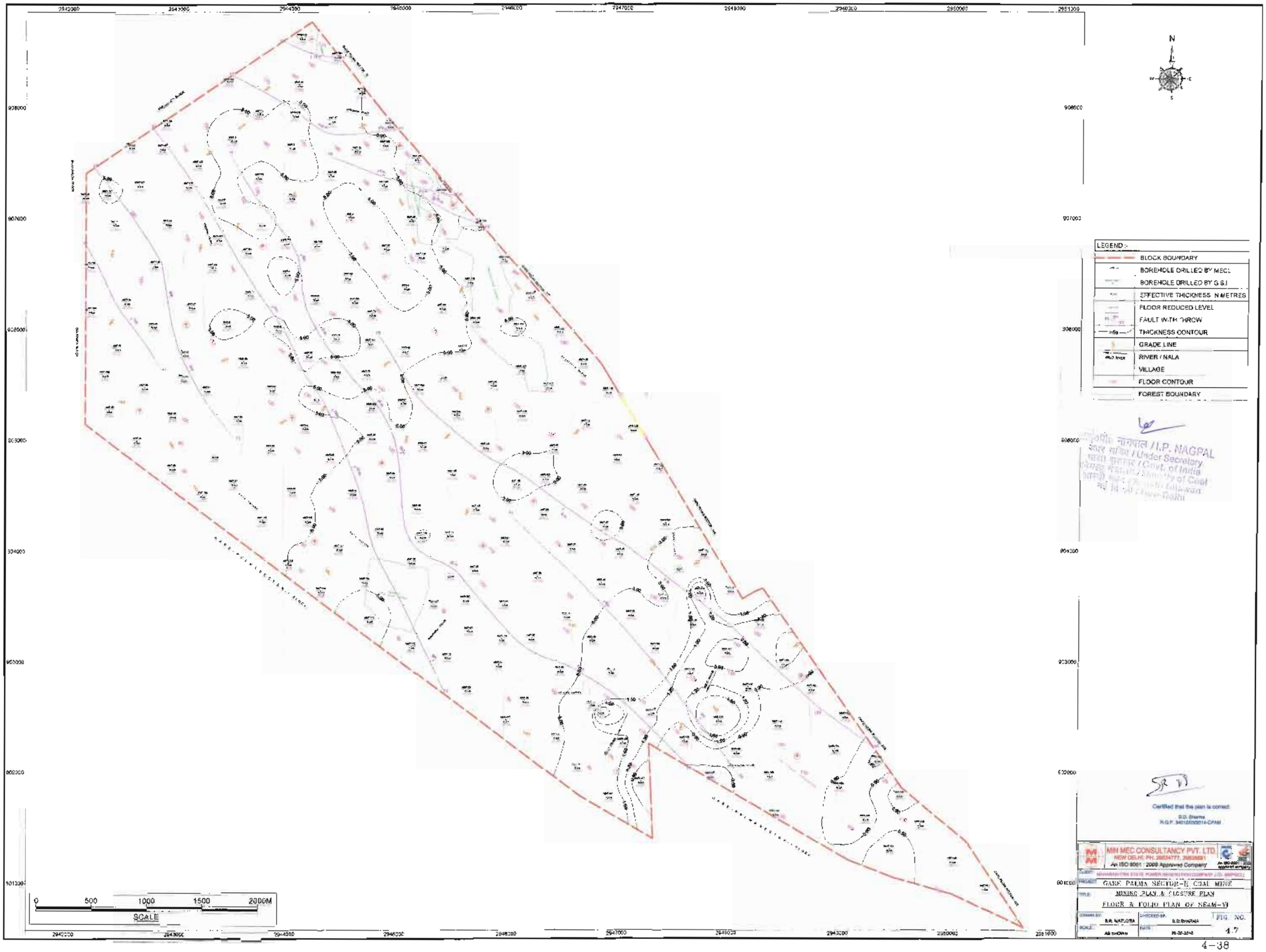
CLIENT : MAHARASHTRA STATE POWER GENERATION COMPANY LTD. (MAHAGENCO)

PROJECT : GARE PALMA SECTOR-II COAL MINE

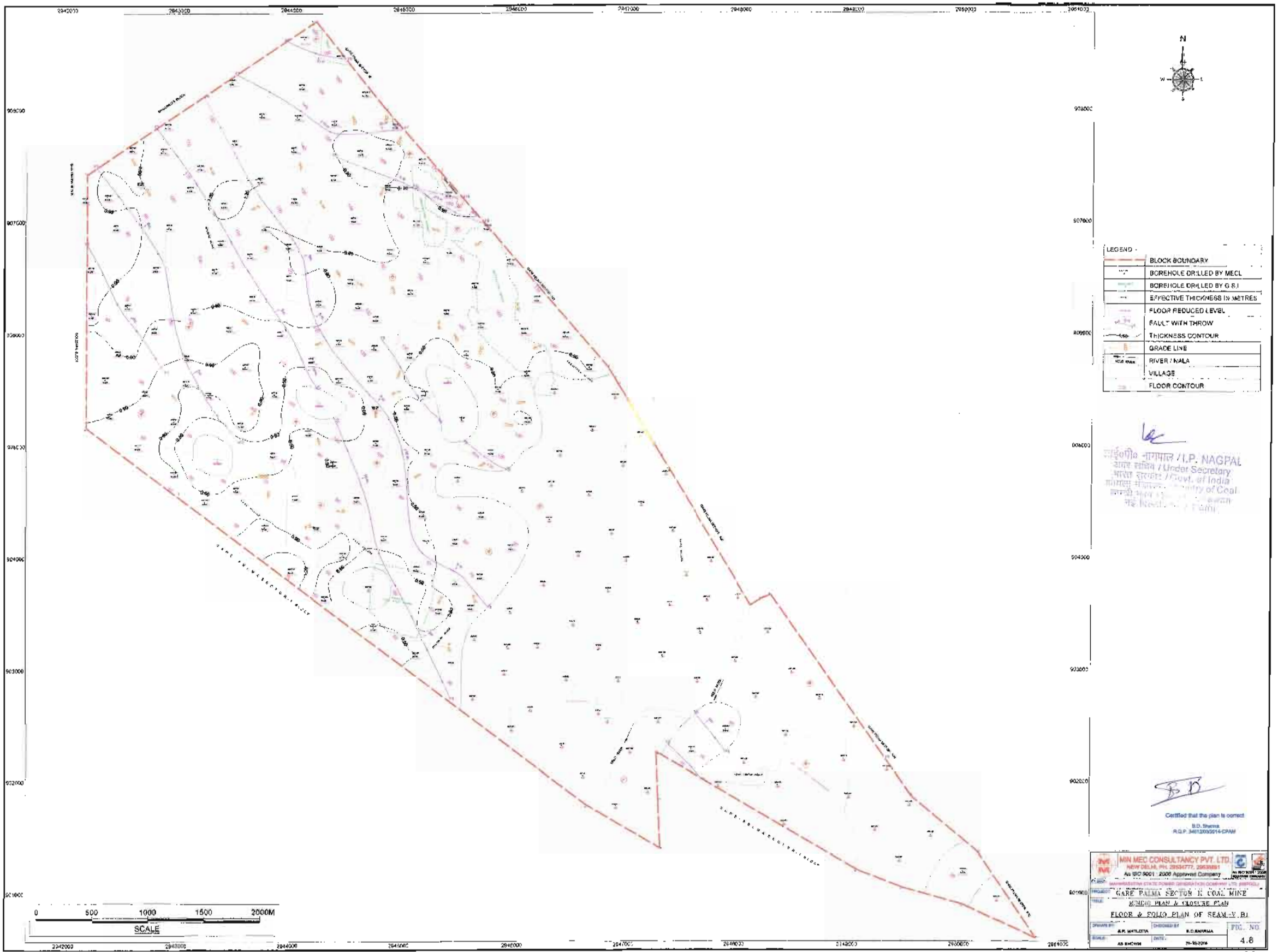
TITLE : MINING PLAN & CLOSURE PLAN

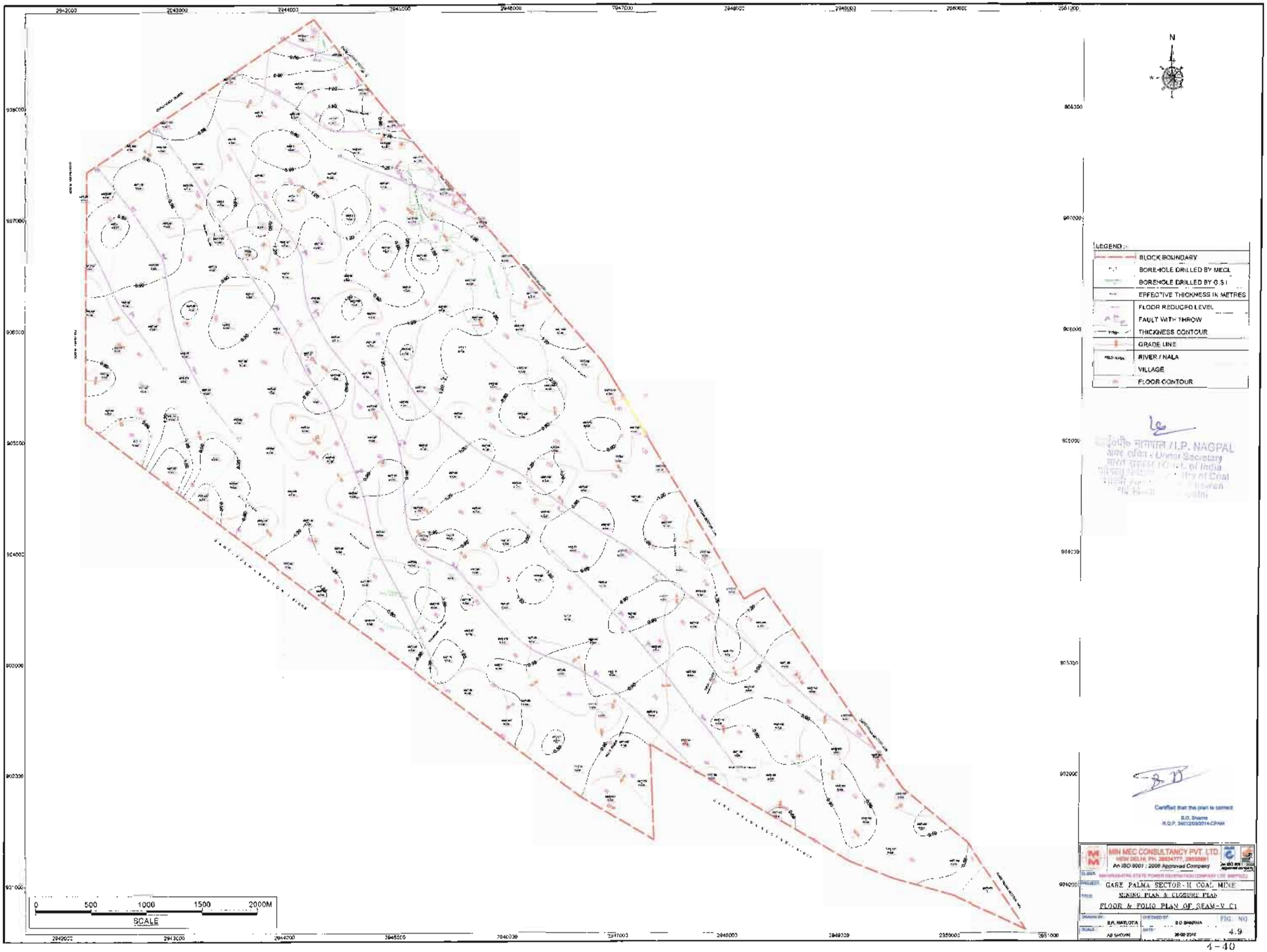
PLOT & FOLD PLAN OF SEAM-VII (BOT.) & (COMB.)

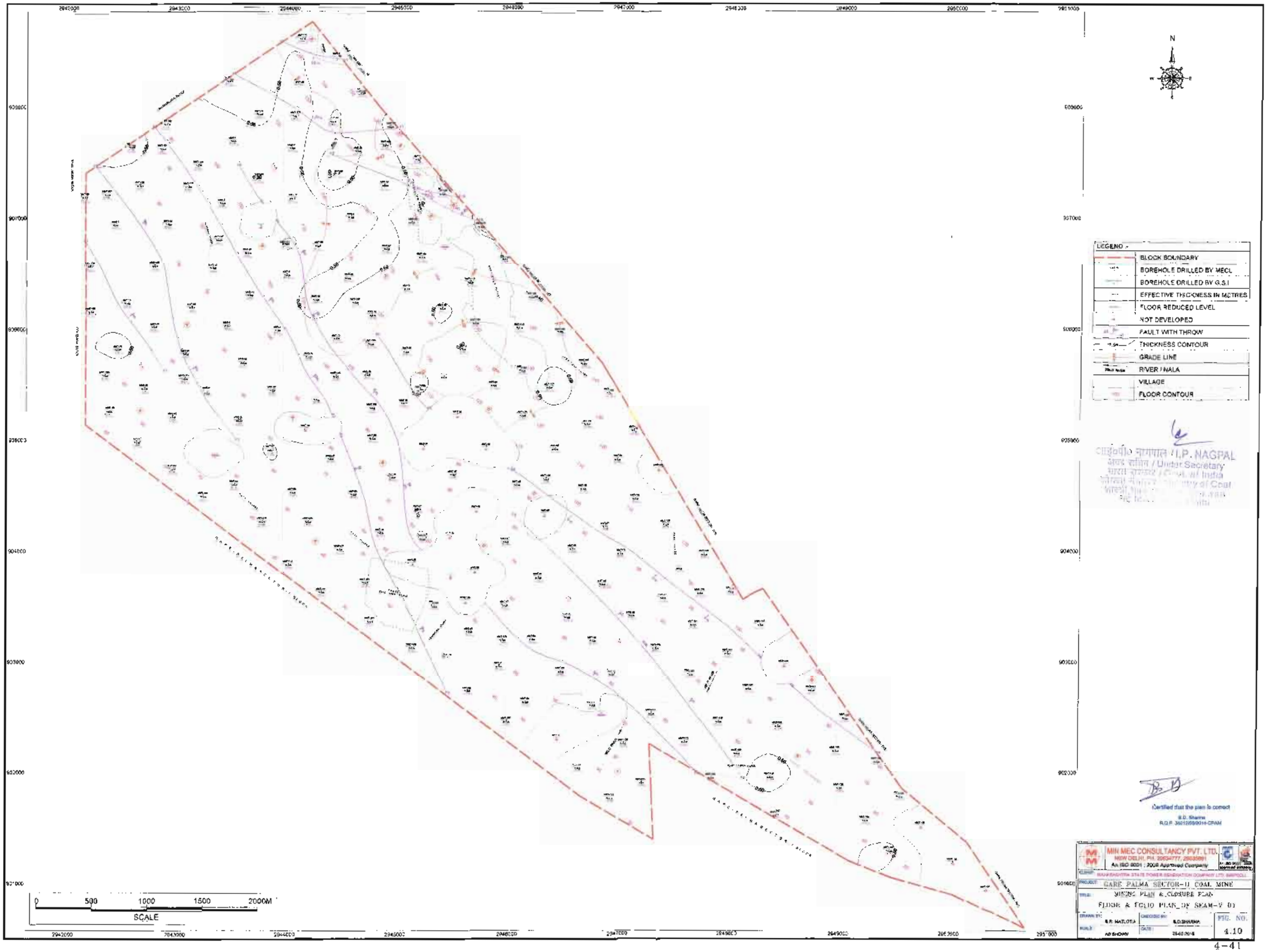
DRAWN BY : S.R. MAITLOTIA | CHECKED BY : B.D.SHARMA | SCALE : AS SHOWN | DATE : 23-02-2015 | FIG. NO. 4.6



I.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal


N
LEGEND :
BLOCK BOUNDARY
BOREHOLE DRILLED BY MECL
BOREHOLE DRILLED BY G.S.I
EFFECTIVE THICKNESS IN METRES
FLOOR REDUCED LEVEL
FAULT WITH THROW
THICKNESS CONTOUR
GRADE LINE
RIVER / NALA
VILLAGE
FLOOR CONTOUR
0 500 1000 1500 2000M
SCALE
Certified that the plan is correct
B.D. Sharma
R.Q.P. 340/2003/2014-CPAM
MIN MEC CONSULTANCY PVT. LTD.
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GARE PALMA SECTOR II COAL MINE
MINING PLAN & CLOSURE PLAN
FLOOR & FOLIO PLAN OF SEAM-V, BJ
FIG. NO. 4.8


N
LEGEND :
BLOCK BOUNDARY
BOREHOLE DRILLED BY MECL
BOREHOLE DRILLED BY G.S.I
EFFECTIVE THICKNESS IN METRES
FLOOR REDUCED LEVEL
FAULT WITH THROW
THICKNESS CONTOUR
GRADE LINE
RIVER / NALA
VILLAGE
FLOOR CONTOUR
0 500 1000 1500 2000M
SCALE
GARE PALMA SECTOR-II COAL MINE
MINING PLAN & CLOSURE PLAN
FLOOR & FOLIO PLAN OF SEAM-V C1
FIG. NO
4.9
B.K. MATLOTIA
B.D. SHARMA
AS SHOWN
MIN MEC CONSULTANCY PVT. LTD.
NEW DELHI, PH. 26834777, 26838811
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R.Q.P. 340123/93/2014-CPAM



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अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal

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R.Q.P. 3601999/0016-CRAM

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NEW DELHI, PH. 26524777, 26535891
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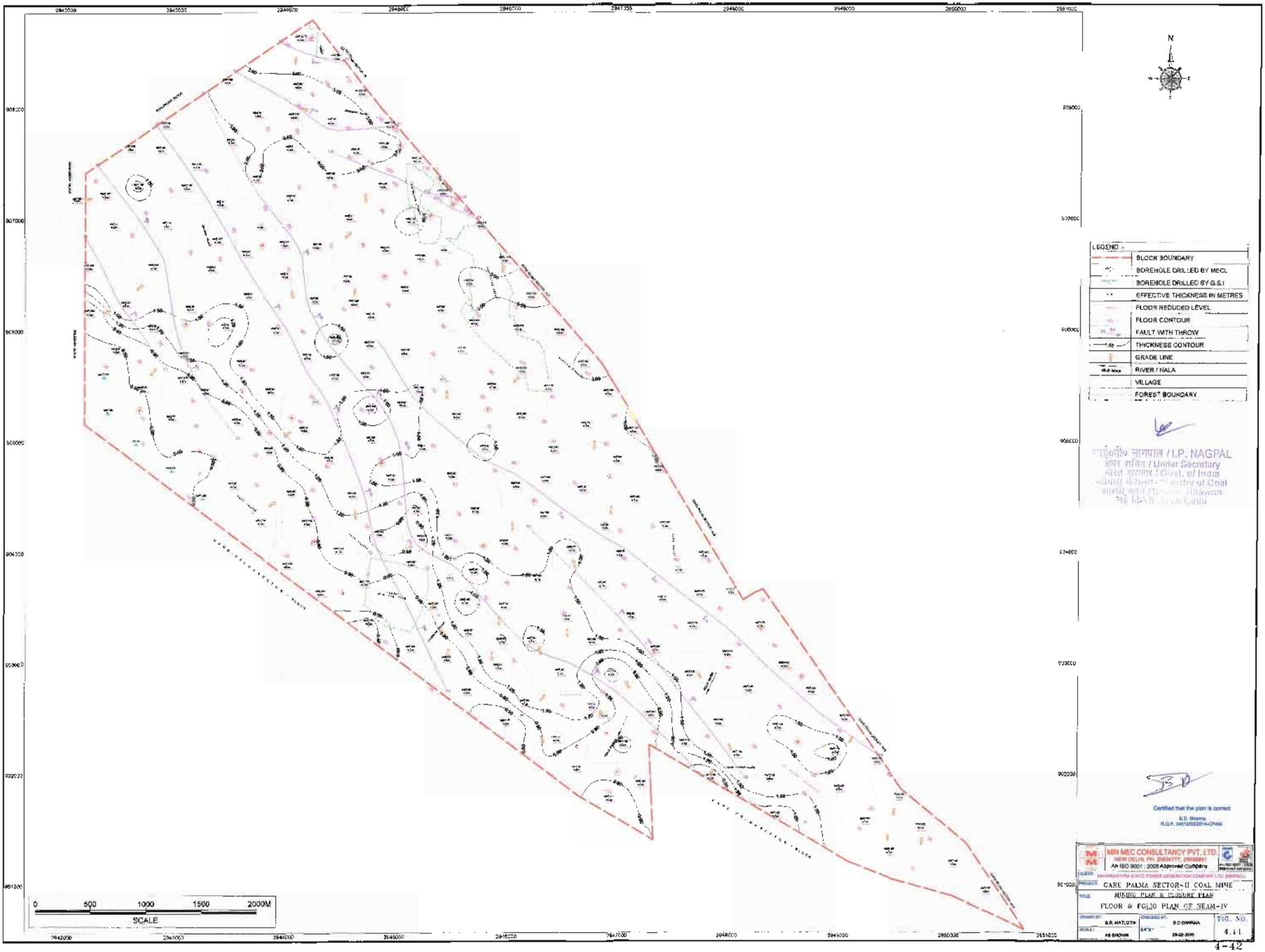
CLIENT: MAHARASHTRA STATE POWER GENERATION COMPANY LTD. (MAHAGENCO)

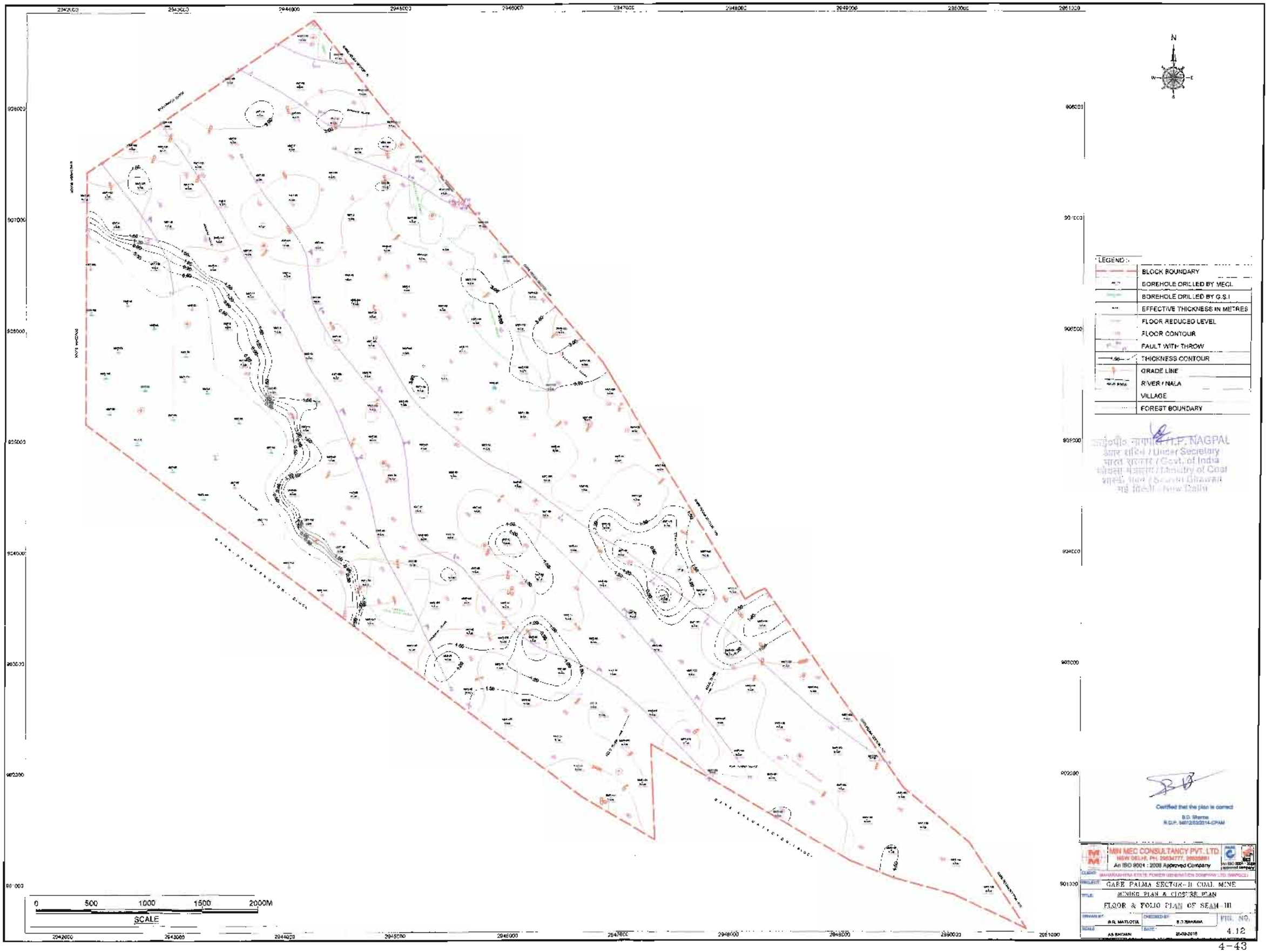
PROJECT: GARE PALMA SECTOR-II COAL MINE

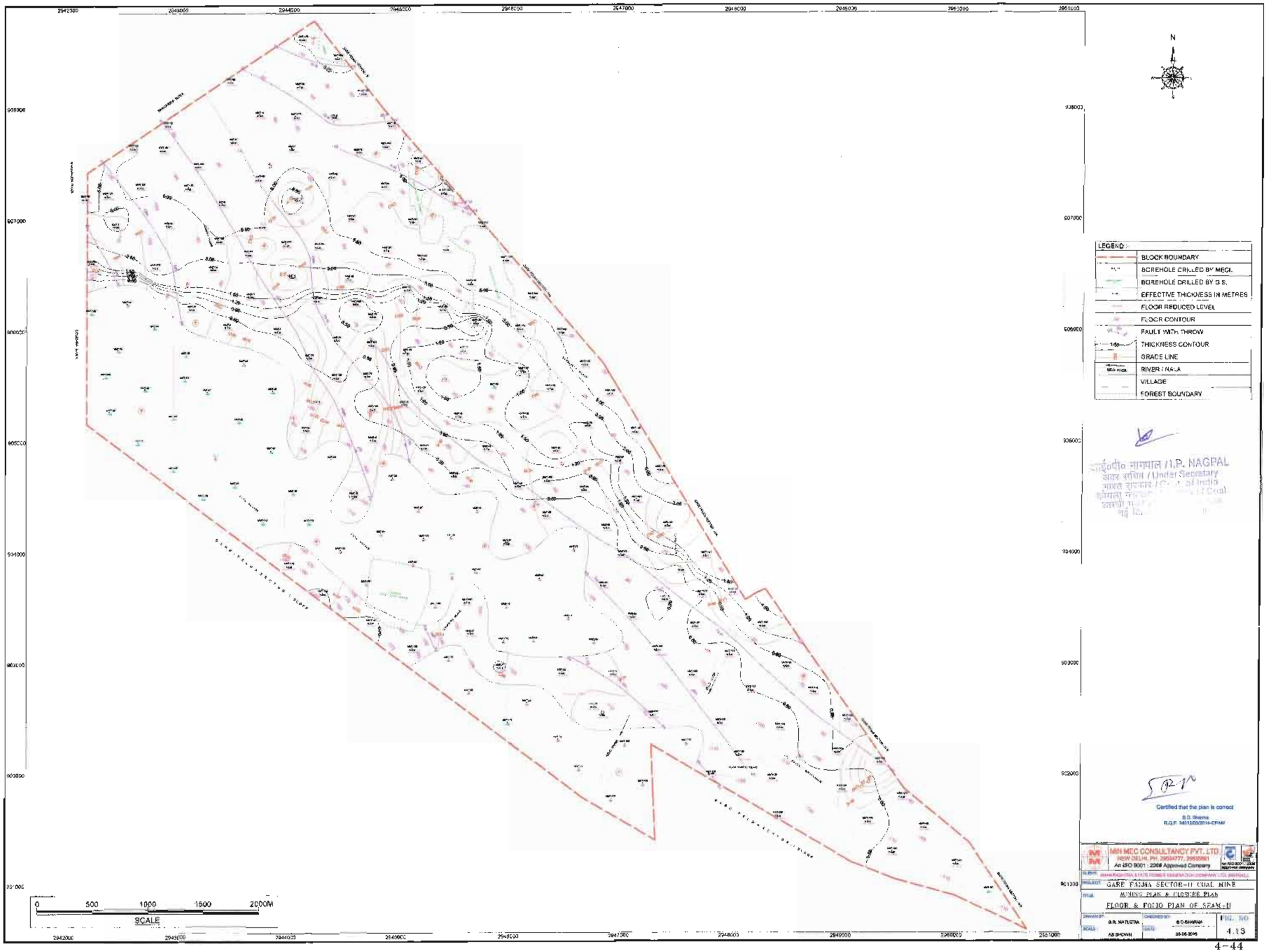
TITLE: MINING PLAN & CLOSURE PLAN
FLOOR & CONTOUR PLAN OF SEAM-V D1

DRAWN BY: S.R. HATOTA | CHECKED BY: S.D.SHARMA | FIG. NO. 4.10

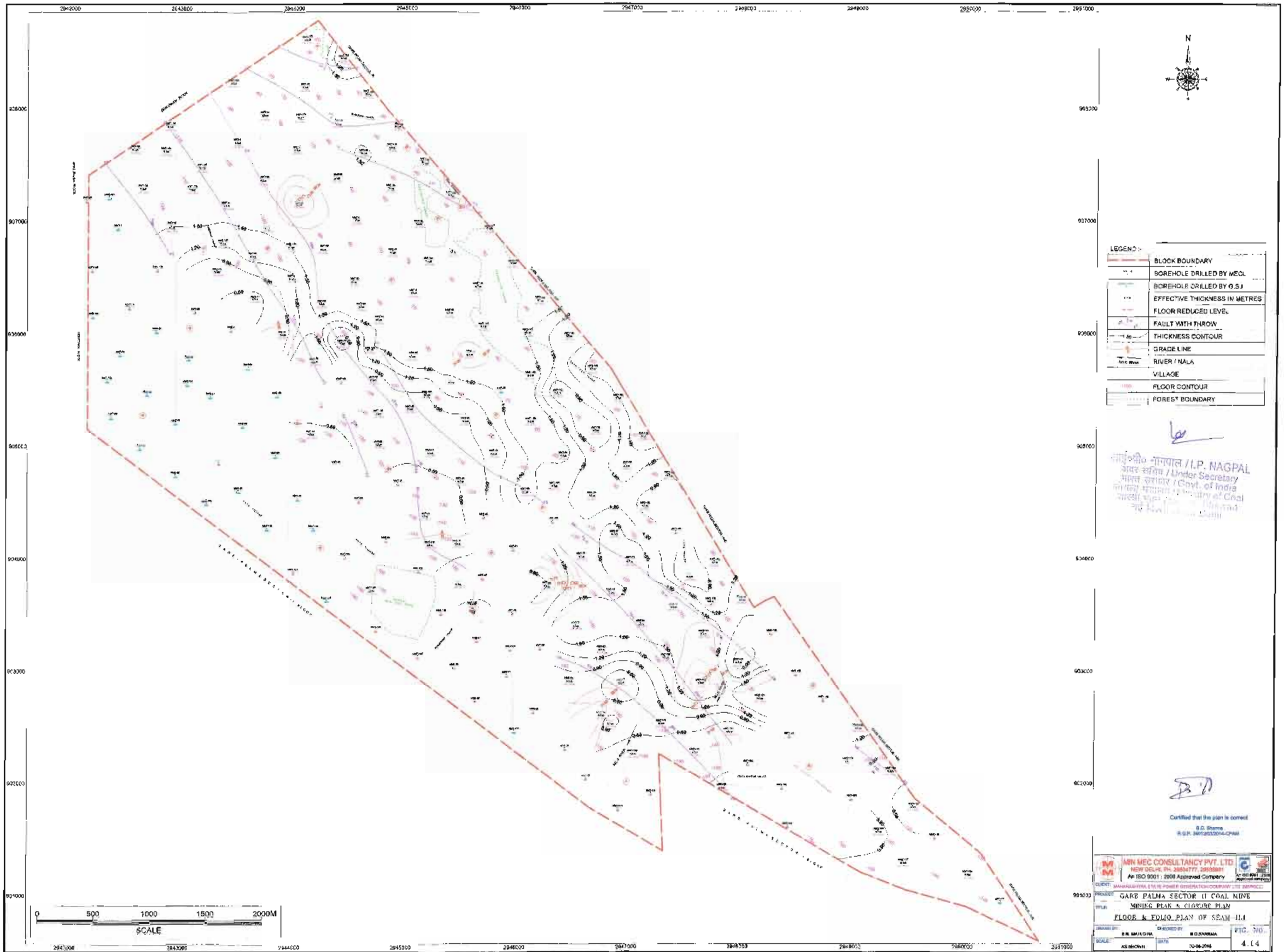
SCALE: AS SHOWN | DATE: 28.02.2015

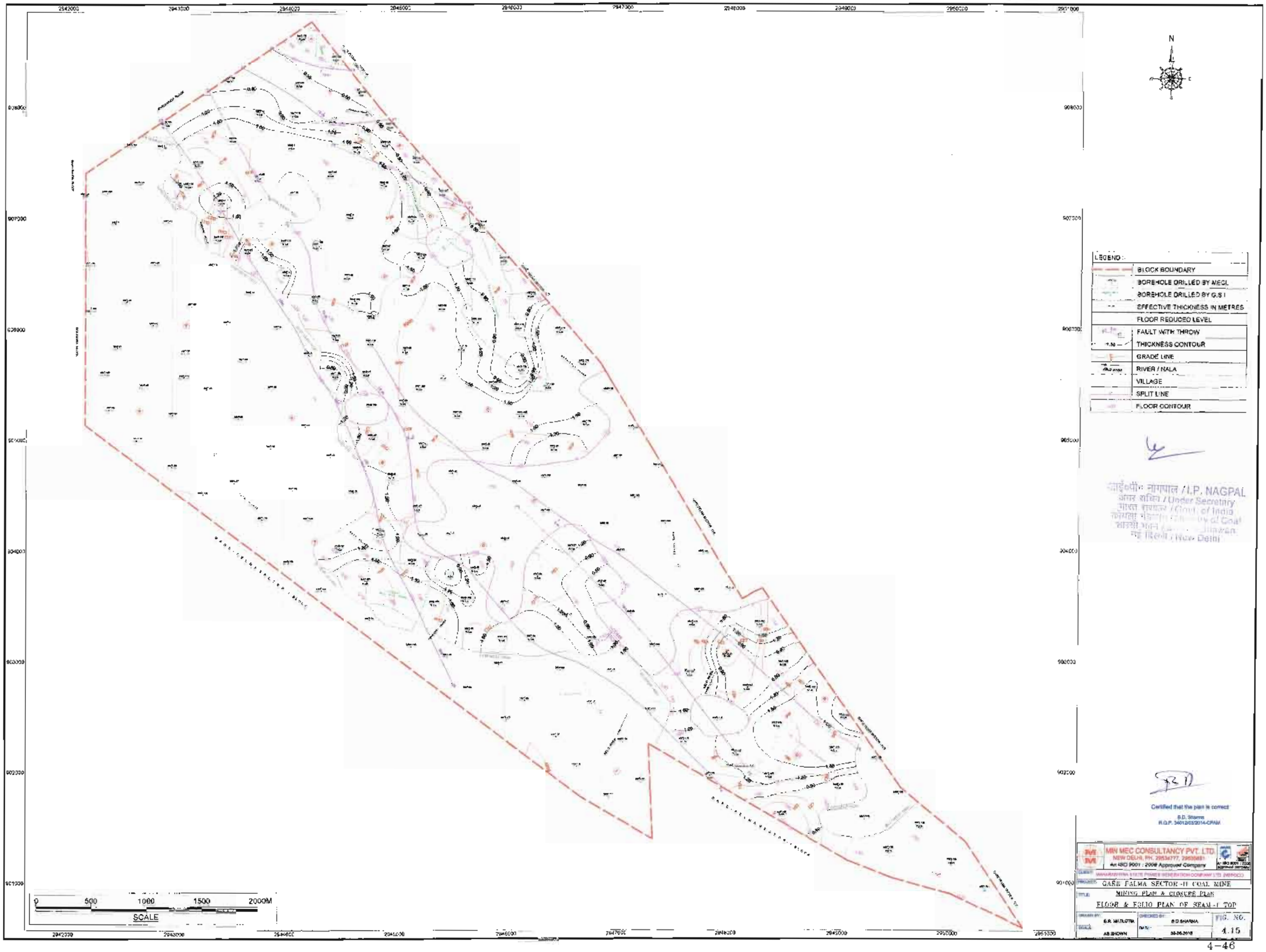

N
LEGEND :
BLOCK BOUNDARY
BOREHOLE DRILLED BY MECL
BOREHOLE DRILLED BY G.S.I
EFFECTIVE THICKNESS IN METRES
FLOOR REDUCED LEVEL
FLOOR CONTOUR
FAULT WITH THROW
THICKNESS CONTOUR
GRADE LINE
RIVER / NALA
VILLAGE
FOREST BOUNDARY
0 500 1000 1500 2000M
SCALE
Certified that the plan is correct
MIN MEC CONSULTANCY PVT. LTD.
NEW DELHI. PH. 25834777, 25835891
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CLIENT: MAHARASHTRA STATE POWER GENERATION COMPANY LTD. (MAHAGENCO)
PROJECT: GARE PALMA SECTOR-II COAL MINE
TITLE: MINING PLAN & CLOSURE PLAN
FLOOR & FOLIO PLAN OF SEAM-IV
DRAWN BY: B.R. MATLOTIA
CHECKED BY: B.D.SHARMA
SCALE: AS SHOWN
DATE: 28-02-2018
FIG. NO. 4.11


2942000
2943000
2944000
2945000
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2947000
2948000
2949000
2950000
2951000
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W
E
S
LEGEND :
BLOCK BOUNDARY
BOREHOLE DRILLED BY MECL
BOREHOLE DRILLED BY G.S.I
EFFECTIVE THICKNESS IN METRES
FLOOR REDUCED LEVEL
FLOOR CONTOUR
FAULT WITH THROW
THICKNESS CONTOUR
GRADE LINE
RIVER / NALA
VILLAGE
FOREST BOUNDARY
0 500 1000 1500 2000M
SCALE
Certified that the plan is correct
B.D. Sharma
MIN MEC CONSULTANCY PVT. LTD.
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GARE PALMA SECTOR-II COAL MINE
MINING PLAN & CLOSURE PLAN
FLOOR & FOLIO PLAN OF SEAM III
PLN. NO.
4.12
AS SHOWN
25-02-2016



आई.पी. नागपाल / I.P. NAGPAL
अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
नई दिल्ली


2942000
2943000
2944000
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2947000
2948000
2949000
2950000
2951000
928000
907000
906000
905000
904000
903000
902000
901000
N
LEGEND :-
BLOCK BOUNDARY
BOREHOLE DRILLED BY MECL
BOREHOLE DRILLED BY G.S.I
EFFECTIVE THICKNESS IN METRES
FLOOR REDUCED LEVEL
FAULT WITH THROW
THICKNESS CONTOUR
GRADE LINE
RIVER / NALA
VILLAGE
FLOOR CONTOUR
FOREST BOUNDARY
0 500 1000 1500 2000M
SCALE
Certified that the plan is correct
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R.G.P. 3401203/2014-CPAM
MIN MEC CONSULTANCY PVT. LTD.
NEW DELHI, Ph. 26534777, 26535801
An ISO 9001 : 2008 Approved Company
CLIENT: MAHARASHTRA STATE POWER GENERATION COMPANY LTD (MSPGCL)
PROJECT: GARE PALMA SECTOR II COAL MINE
TITLE: MINING PLAN & CLOSURE PLAN
FLOOR & FOLIO PLAN OF SEAM II.I
DRAWN BY: B.R. MAHESHA
CHECKED BY: B.D.SHARMA
SCALE: AS SHOWN
DATE: 30-06-2015
FIG. NO.: 4.14



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भारत सरकार / Govt. of India
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शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi

Certified that the plan is correct

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R.Q.P. 3401/2003/2014-CPAM

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MAHARASHTRA STATE POWER GENERATION COMPANY LTD. (MAHAGENCO)

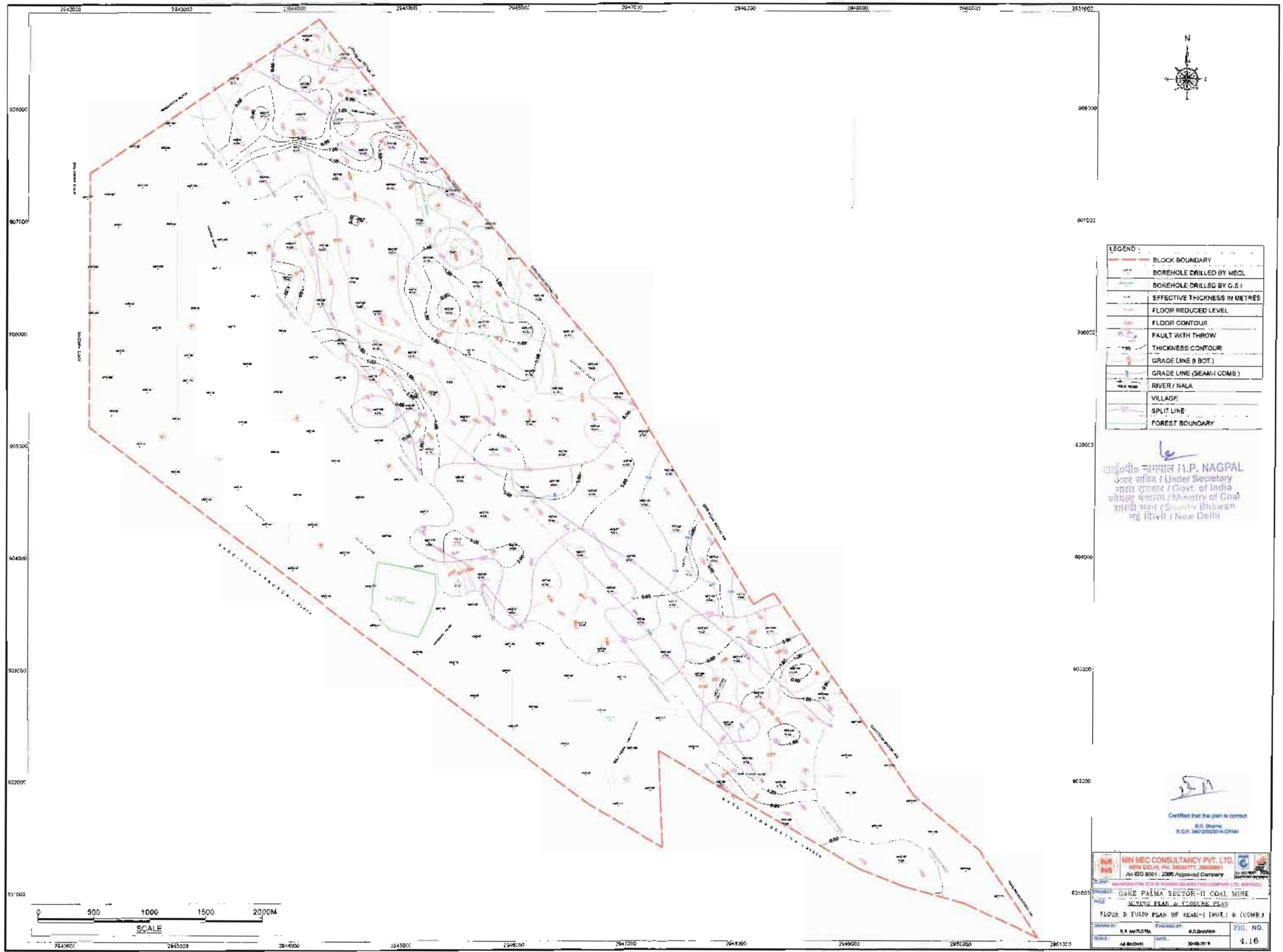
PROJECT: GARE PALMA SECTOR-II COAL MINE

TITLE: MINING PLAN & CLOSURE PLAN
FLOOR & FOLIO PLAN OF SEAM-I TOP

DRAWN BY: B.R. MATLOTIA | CHECKED BY: B.D.SHARMA | DATE: 30-06-2018

SCALE: AS SHOWN

FIG. NO. 4.15



आई०पी० नागपाल / I.P. NAGPAL
अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi

Certified that the plan is correct
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MIN MEC CONSULTANCY PVT. LTD.
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MAHAGENCO STATE POWER GENERATION COMPANY LTD. MUMBAI

PROJECT: GARE PALMA SECTOR-II COAL MINE

TITLE: MINING PLAN & CLOSURE PLAN

FLOOR & FULID PLAN OF SEAM-I (BOT.) & (COMB.)

DRAWN BY: R.N. MATLOTIA | CHECKED BY: B.D.SHARMA | FIG. NO. 4.16

SCALE: AS SHOWN | DATE: 30-08-2019

CHAPTER 5

MINING

5.1 OPTIMISATION OF TARGETED CAPACITY

Considering, the available reserves, seam disposition, depth, available strike length for opencast mining and feasibility to deploy large size equipment in opencast operation, feasibility of simultaneous underground operation, the optimum capacity of the mine has been estimated at 23.6 MTPA.

The mine has been planned for maximum sustainable production, i.e. 22 Mtpa from opencast and 1.6 Mtpa from UG. Thus the total targeted capacity becomes 23.6 Mtpa. Though both OC and UG would be in production simultaneously from 12th year onwards, for safety reason, the sequence of development in UG would have a lag wrt OC operations. As the gestation period in UG is long and UG operation will reach its peak production level only in 15th year, it has been proposed to reach the total targeted production level of the mine earlier by OC only, i.e. from 7th year, which is feasible due to lower depth and stripping ratio in early years of OC operation.

Thus only from 7th year to 14th year, OC operation would make up for UG production for achieving the overall mine target of 23.6 Mtpa. As UG operation builds up to the targeted level of 1.6 Mtpa, the OC production is brought down to its sustainable level, i.e. 22 Mtpa.

The OC mine can technically produce at a rated capacity of 20 to 25 MTPA but considering that the opencastable reserves are only 553.177 MT, the OC mine has been planned at 22 MTPA (as explained above) to give the project a nominal life of about 28 years including built up period.

There are 18 nos. of coal seams (including splits) occurring below seam VI (proposed quarry floor). Excepting seam-I Combined, all other seams have more than 1 m thickness in localized area only. Even Seam-I Combined has split in major part. The total depth of quarry upto seam-I floor, if considered by opencast, will be more than 450m against the presently proposed depth of upto 190m (Seam VI floor).

The incremental stripping ratio for the lower seams considering the batters will be around 20 -25 cum per tonne of coal.

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Further, in case of Gare Sector-II, additional space is not available for OB disposal as the OB generated upto Seam VI has been adjusted within the ML area with great difficulty and meticulous planning of rehandling schedule. Considering the available area with constraints of dumping space, opencatability is ruled out for lower seams.

Target of 1.6 Mtpa for UG operation has been decided considering that a lag is to be maintained taking into account the advancement of operation in overlying seams through opencast. The 1.6 Mtpa target for an UG mine is considered fairly high under Indian conditions.

It may be worthwhile to mention here that the earlier allotee of the coal block had also submitted a mining plan to MOC in which the RQP had assessed the capacity as 23.6 Mtpa as above.

5.1.1 Derivation of extractable reserves from geological reserves

As per the practice in vogue for OC mine planning, the minimum coal seam thickness for mining is adopted as 1m. However, in this specific case a huge quantity of reserve (53.536 Mt) falls in a thickness range between 0.5m-0.9m. Giving due consideration to conservation of resource,

The RQP has calculated the Opencastable reserves by assuming minimum mining seam thickness of upto 0.5m irrespective of the fact that mining of such thickness will require extra efforts as well as lower efficiency of equipment. However the reserves mineable by underground method have been assumed as upto a minimum thickness of 1.5m, though the reserves of lower thicknesses have been mentioned alongside.

The overall reconciliation of reserves in the block is as given in following tables

Table 5.1A: Derivation of extractable reserves by OC from net geological reserves.

Table 5.1B: Derivation of extractable reserves by UG from net geological reserves.

Table 5.1C: Summary of derivation of total extractable reserves (OC+UG) from net geological reserves.

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Reason: Govt. of India

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TABLE 5.1A
DERIVATION OF EXTRACTABLE RESERVES BY OC FROM NET GEOLOGICAL RESERVES (MT)

Seam	Vertical Seamwise Geological Reserves (>0.5m Thickness) upto Seam-VI for OC within ml/block	West: blocked under facilities including inclines at north corner, shaft near Kelo river and 75m (30m road & 45m safety) barrier along Kelo river	West: blocked in 7.5m barrier along SW boundary	West: blocked in Bajarmura-Ghargoda road diversion along Northern boundary and Milupara-Tamnar road Diversion along north-east boundary	East: blocked under 15m barrier along Kelo river and 7.5m barrier along quarry boundary	Blocked under Kelo river	Total coal blocked in Barriers & Facilities	Coal blocked in Batter	Total coal blocked in Barriers, Facilities and batter	Mineable reserves	Mining Losses 5%	Extractable reserves
	Reserve	Reserve	Reserve	Reserve	Reserve	Reserve	Reserve	Reserve	Reserve	Reserve	Reserve	Reserve
X-LA	10.900	0.136	0.016	0.055	0.061	0.346	0.614	0.232	0.846	10.054	0.503	9.551
X-TOP	9.772	0.151	0.017	0.131	0.172	0.169	0.640	0.698	1.338	8.434	0.422	8.012
X-BOT	85.775	0.852	0.131	0.631	0.220	1.323	3.157	15.112	18.269	67.506	3.375	64.131
IX-L2	12.242	0.105	0.016	0.115	0.068	0.211	0.515	0.509	1.024	11.218	0.561	10.657
IX-L1	13.961	0.441	0.042	0.257	0.063	0.080	0.883	0.513	1.396	12.565	0.628	11.937
IX	156.184	4.559	0.202	1.954	0 889	2.686	10.290	28.206	38.496	117.688	5.884	111.804
VIII	83.631	2.903	0.075	1.595	0.292	0.709	5.575	13 506	19.081	64.550	3.228	61.323
VIII-L	13.803	0.098	0.116	0.207	0.035	0.329	0.785	0.457	1.242	12.561	0.628	11.933
VII-TOP	88.944	1.857	0.241	0.546	0.186	2.094	4.924	13.222	18.146	70.798	3.540	67.258
VII-BOT	25.457	0.279	0.073	0.168	0.075	0.645	1.240	5.215	6.455	19.002	0.950	18.052
VII-COMB	82.305	3.145	0.003	1.389	0.657	1.035	6.229	14.248	20.477	61.828	3 091	58.737
VI	153.131	5.375	0.238	1.437	0.174	1.039	8.263	18.780	27.043	126.088	6.304	119.783
Total	**736.105**	**19.901**	**1.171**	**8.485**	**2.892**	**10.666**	**43.115**	**110.698**	**153.813**	**582.292**	**29.115**	**553.178**

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TABLE 5.1B
DERIVATION OF EXTRACTABLE RESERVES BY UG FROM NET GEOLOGICAL RESERVES (MT)

Seam	Vertical Total UG Geological Reserve Within ML/Block	UG Reserve >0.50M to <0.90M	Total UG Reserve >0.9M Thickness	>0.9M TO <1.5M Thickness Reserve	Net Geo Reserve >1.5M Thickness	Blocked Under Facilities and Incline & Shaft Area	Blocked Under Along 75m (30m Road+45m Safety Barrier) in Kelo River	Blocked In Safety Barriers 25m on Either Side Of Fault	Blocked Under Half Pillar Along ML Boundary	Blocked Under Kelo River	Reserve Not Economically Viable Reserve	Total Blocked Coal	Net Reserve Ex. Blocked	Ex. Panel pillars 80%	In Panel Extraction, mt	Workability of seam
VI-L	7.547	7.050	0.497	0.492	0.005	0.000	0.000	0.000	0.000	0.000	0.005	0.005	0.000	0.000	0.000	Not Workable
IVA-1	22.231	19.112	3.119	3.119	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Not Workable
IVA-2	3.990	3.736	0.254	0.254	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Not Workable
VB-1	15.750	6.774	8.976	8.976	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Not Workable
VB-2	10.819	10.550	0.269	0.269	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Not Workable
VC-1	37.313	7.476	29.837	29.454	0.383	0.000	0.000	0.068	0.000	0.000	0.315	0.383	0.000	0.000	0.000	Workable
VC-2	55.383	47.027	8.356	8.356	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Not Workable
VD-1	2.093	1.857	0.236	0.236	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Not Workable
VD-2	6.046	5.479	0.567	0.567	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Not Workable
IV	65.585	3.225	62.360	9.161	53.199	1.475	0.323	5.073	1.167	0.638	0.000	8.677	44.522	35.618	23.625	Workable
III-L2	5.511	4.284	1.227	1.227	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Not Workable
III	69.767	0.475	69.292	3.942	65.350	1.419	0.555	6.378	1.556	1.152	0.000	11.060	54.290	43.432	27.797	Workable
II	54.400	2.650	51.750	3.202	48.548	1.884	0.000	4.091	0.952	0.002	0.023	6.952	41.596	33.277	21.297	Workable
I-L1	27.307	2.684	24.623	6.620	18.003	1.010	0.058	1.047	0.421	0.097	0.157	2.790	15.213	12.170	7.546	Workable
I-TOP	25.014	1.864	23.150	6.924	16.226	0.038	0.128	1.297	0.073	0.193	0.904	2.634	13.593	10.874	6.742	Workable
I-BOT	20.868	1.008	19.860	4.440	15.420	0.067	0.372	0.974	0.206	0.647	0.670	2.936	12.485	9.988	6.192	Workable
I-COMB	19.283	0.000	19.283	0.000	19.283	0.270	0.037	0.884	0.310	0.043	0.046	1.590	17.694	14.155	8.776	Workable
Total	448.907	125.251	323.656	87.239	236.417	6.163	1.473	19.812	4.685	2.771	2.120	37.025	199.392	159.514	101.975	

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TABLE 5.1C
SUMMARY OF DERIVATION OF TOTAL EXTRACTABLE RESERVES (OC+UG) FROM NET GEOLOGICAL RESERVES FIGURES IN MILLION TONNES

Seam	Vertical Total UG Geological Reserve within ML/Block	UG Reserve >0.50M to <0.90M	Total UG Reserve >0.9M Thickness	>0.9M to <1.5M Thickness Reserve	Net Geo. Reserve >1.5M Thickness	Total Blocked Uneconomical and Low Thickness Blocked and Uneconomical Reserves	Net Reserves Excluding Blocked, Un Economical, Low Thickness etc.	Mining Losses including Panel Barriers	Extractable Reserves
OPENCAST:									
X-LA	10.900					0.846	10.054	0.503	9.551
X-TOP	9.772					1.338	8.434	0.422	8.012
X-BOT	85.775					18.269	67.506	3.375	64.131
IX-L2	12.242					1.024	11.218	0.561	10.657
IX-L1	13.961					1.396	12.565	0.628	11.937
IX	156.184					38.496	117.688	5.884	111.804
VIII	83.631					19 081	64.550	3.228	61.323
VIII-L	13.803					1.242	12.561	0.628	11.933
VII-TOP	88.944					18 146	70.798	3.540	67.258
VII-BOT	25.457					6.455	19.002	0.950	18.052
VII-COMB	82.305					20.477	61.828	3 091	58.737
VI	153.131					27.043	126.088	6.304	119.783
Sub Total OC	736.105					153.813	582.292	29.115	553.178
UNDERGROUND:									
VI-L	7.547	7.050	0.497	0.492	0.005	7.547	0.000	0.000	0.000
VA-1	22.231	19.112	3.119	3.119	0.000	22.231	0.000	0.000	0.000
VA-2	3.990	3.736	0.254	0.254	0.000	3.990	0.000	0.000	0.000
VB-1	15.750	6.774	8.976	8.976	0.000	15.750	0.000	0.000	0.000

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Seam	Vertical Total UG Geological Reserve within ML/Block	UG Reserve >0.50M to <0.90M	Total UG Reserve >0.9M Thickness	>0.9M to <1.5M Thickness Reserve	Net Geo. Reserve >1.5M Thickness	Total Blocked Uneconomical and Low Thickness Blocked and Uneconomical Reserves	Net Reserves Excluding Blocked, Un Economical, Low Thickness etc.	Mining Losses including Panel Barriers	Extractable Reserves
VB-2	10.819	10.550	0.269	0.269	0.000	10.819	0.000	0.000	0.000
VC-1	37.313	7.476	29.837	29.454	0.383	37.313	0.000	0.000	0.000
VC-2	55.383	47.027	8.356	8.356	0.000	55.383	0.000	0.000	0.000
VD-1	2.093	1.857	0.236	0.236	0.000	2.093	0.000	0.000	0.000
VD-2	6.046	5.479	0.567	0.567	0.000	6.046	0.000	0.000	0.000
IV	65.585	3.225	62.360	9.161	53.199	21.063	44.522	20.897	23.625
III-L2	5.511	4.284	1.227	1.227	0.000	5.511	0.000	0.000	0.000
III	69.767	0.475	69.292	3.942	65.350	15.477	54.290	26.494	27.797
II	54.400	2.650	51.750	3.202	48.548	12.804	41.596	20.299	21.297
I-L1	27.307	2.684	24.623	6.620	18.003	12.094	15.213	7.667	7.546
I-TOP	25.014	1.864	23.150	6.924	16.226	11.422	13.593	6.851	6.742
I-BOT	20.868	1.008	19.860	4.440	15.420	8.384	12.485	6.292	6.192
I-COMB	19.283	0.000	19.283	0.000	19.283	1.590	17.694	8.918	8.776
Sub Total UG	**448.907**	**125.251**	**323.656**	**87.239**	**236.417**	**249.515**	**199.392**	**97.417**	**101.975**
Grand Total	**1185.012**	**125.251**	**323.656**	**87.239**	**236.417**	**403.328**	**781.684**	**126.532**	**655.153**

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The derivation of the extractable reserves by OC as well as UG has been explained in the following paragraphs.

5.1.2 Reserves extractable by OC method

The total reserves of the block have been divided into two parts (east of Kelo river and west of Kelo river) due to the reason that Kelo river passes through the coal block. Due to the prevailing topography, shape of the block and presence of other coal blocks all around, Kelo river cannot be diverted. In future if the possibility of diversion of the river is worked out, a revised mining plan will be submitted to MOC.

Therefore, the reserves will be mined by two pits, one pit on either side of Kelo river - East pit and West Pit. The reserves extractable by OC method from both the Pits are given in Table 5.2.

TABLE 5.2
DERIVATION OF EXTRACTABLE OPENCAST RESERVES (PIT WISE) FROM NET GEOLOGICAL RESERVES (MT) UP TO SEAM VI AS QUARRY BOTTOM OF COAL THICKNESS > 0.5M

Sl. No.	Particulars	East Pit (Mt)	West Pit (Mt)	Total Coal (Mt)
1	Net Geological reserves within vertical block boundaries	82.911	653.194	736.105
2	OB/IB within vertical block boundaries (Mcum)	415.526	2706.348	3121.874
3	OB:Coal ratio (vertical) for above (cum:t)	5.012	4.143	4.241
4	Blocked under incline, CHP, facility, etc. in north corner of west part of block		12.605	12.605
5	Blocked in shaft pillar area near Kelo river		2.533	2.533
6	(i) **West of Kelo river**: Blocked in 75m barrier along Kelo river (30m road and 45m statutory barrier from quarry edge)		4.763	5.695
	(ii) **East of Kelo river**: 15m barrier along eastern bank of Kelo river and quarry boundary	0.932		
7	**West of Kelo river**: Blocked under Bajarmura- Ghargoda road diversion along northern boundary and Milupara- Tamnar road diversion along north east boundary	0.000	8.485	8.485
8	**West of Kelo river**: Blocked in 7.5m barrier along SW boundary.		1.171	3.131
	East of Kelo river: Blocked in 7.5m barrier along south boundary of quarry	1.960		

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Sl. No.	Particulars	East Pit (Mt)	West Pit (Mt)	Total Coal (Mt)
9	Blocked under kelo river (9.465MT >0.9m + 1.201 MT < 0.90m to >0.5m)	5.333	5.333	10.666
10	Total blocked Reserves in barriers (sl no 4 to 9)	8.225	34.890	43.115
11	Reserves blocked in batters	25.011	85.687	110.698
12	Mineable reserves (sl no 1- sl no 10-sl no 11)	49.675	532.617	582.292
13	Mining losses (5%)	2.484	26.631	29.115
14	Extractable reserves (sl no. 12 - sl no 13)	47.191	505.986	553.177
15	OB/IB for by Carlson s/w	375.270	2385.850	2761.120
16	OB:Coal ratio for above (cum:t)	7.952	4.715	4.991

Extraction of coal blocked in barriers with adjacent coal blocks and dip side batters will be examined in consultation with the allottees of adjoining blocks for its possible extraction.

5.1.3 Reserves extractable by UG method

The reserves extractable by UG method for both the parts (one on either side of Kelo river) are given below in Table 5.3.

TABLE 5.3
DERIVATION OF EXTRACTABLE UNDERGROUND RESERVES (MT) (ON EITHER SIDE OF KELO RIVER) FROM NET GEOLOGICAL RESERVES BELOW SEAM VI OF COAL THICKNESS > 0.9M

Sl. No.	Particular	West	East	Total Coal Mt
1	Total Net UG reserves >0.9m thick	295.053	28.603	323.656
2	Reserves of thickness from 0.9m to 1.5m	76.807	10.432	87.239
3	Balance Net geological reserves of >1.5m thickness	218.246	18.171	236.417
4	**West of Kelo river**: Blocked under half pillar along ML boundary	---	1.214	4.685
	East of Kelo river: Blocked in half pillar in UG mineable area below pit	3.471	---	
5	Blocked in 25m barrier on either side of fault	18.673	1.139	19.812
6	Blocked under incline, CHP, facility, etc. in north corner of west part of block	5.248	0	5.248
7	Blocked in shaft pillar area near Kelo river	0.915	0	0.915

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Sl. No.	Particular	West	East	Total Coal Mt
8	Blocked under Kelo river coal of thickness > 1.5m	1.386	1.385	2.771
9	**West of Kelo river**: blocked in 75m barrier along Kelo (30m road and 45m statutory barrier from quarry edge)		0.368	1.473
	East of Kelo river: 25m barrier along eastern bank of Kelo river and quarry boundary	1.105		
10	Reserve not economically viable for UG mining	0.320	1.800	**2.120**
11	Total blocked (sl no. 4 to sl no.10)	**31.118**	**5.907**	**37.025**
12	Net reserve excluding all blocked reserve (sl no. 3- sl no. 11)	187.128	12.264	**199.392**
13	Excluding panel pillars 80% (sl no. 12 X 80%)	149.702	9.812	**159.514**
14	In panel extraction (depending upon pillar size based on regulation	**95.605**	**6.370**	**101.975**

Note: ***The third digit after decimal may not exactly match in totaling due to rounding of components.***

The reserves blocked under facilities viz. incline, CHP, office, Shaft Pillar etc. in northern corner of west part of block will be 21.301 Mt. These facilities will be required for supporting the OC operations as well as UG operations. Though the OC operations will exhaust by the end of 29th year, the UG operations have long life and will continue till 77th year. The issue, whether some locked coal under the facilities could be mined, will be examined at the fag end of UG operation under prevailing conditions at that time.

As far as the reserves under the batter are concerned, the matter has been studied in detail as follows.

The fast advance of mining operations followed closely by the backfilling operations, especially due to dearth of space for disposal of OB on the surface, application of High Wall mining during the operating life of OC mine has been ruled out. It is only at the end of the OC mining operations that the HW mining can be considered. Then also, there will be restriction of application due to practicality of deployment of the equipment as it must operate from the same level as of the bench to be mined by HW mining. After exhausting the OC mine by the end of 29th year, it will be technically possible to deploy the system at the bottom of the quarry i.e. at the floor of Seam VI and VII combined.

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The upper seams mining by HW will not be possible because of non-availability of space adequate to install and operate this system. Thickness of seam VI is between 0.5m and 0.75m in the reference region. It will not be feasible to deploy the HW system. However, seam –VII combined has a thickness of around 5m in the reference region, application of HW mining could be feasible.

In this regard, it is important to note that HW mining has been operational in only two mines in India as follows:

Sharda Coal OC Mine, SECL, M.P.:

Cuprum Bagrodia Ltd, Kolkata has been operating coal extracting machine for High Wall Mining in this mine. The Seam thickness is 1.2-1.5 m and the production is 0.5 MTPA. The drivages are of 2.9m width with 1.2m ribs; and after every 8-10 cuts/drivages, a rib pillar of about 3m is left. The length of each hole (penetration) is 250m.

Medpalli OC Coal mine of SCCL, Telangana:

M/s Advanced Mining Technology Pvt Ltd, Hydrerabad is operating HW system in this mine which has exhausted its reserves after operating normal mine of 4MTPA production. Now coal is being extracted by HW mining. The operation has been on for last 3-4 years (since 2011-12). The thickness of seam is 5.5 m. The HW system which was operational, took one lift of 2.4m thickness while the rest thickness of seam was left unmined. The overall extraction was recorded at about 20% of the whole seam.

However, the operating company has developed expertise over time and now it has brought a new machine which can take 2 lifts, each of 2.4m thickness. This operation is expected to start from August 2016. It is anticipated that the extraction percentage with respect to total seam thickness will be about 35%.

Accordingly, the calculations have been made for coal which can be extracted from Seam-VII combined assuming 2 lift operation giving 35% extraction. The coal reserves extractable by HW system come to 1.52 MT. Assuming a production rate of about 0.5 MTPA, the said reserves can be mined in 3 years.

However, this HW proposal may not be feasible at that stage because the HW drivages will get filled up with water (as the specific location is towards dip side) and the underground operations of lower seams as proposed in the mining Plan will be endangered. It may be noted that it will not be possible to physically inspect the HW drivages for the presence of water irrespective of pumping provision.

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Eventually, the HW could be carried out only after the exhaustion of UG reserves (after 77th year). The decision regarding mining the coal locked in batter of OC mine may be taken at the end of the UG operations considering the technologies (High wall or otherwise) available at that time and if the application of Highwall mining at that time is found to be feasible, a revised mining plan will be submitted.

5.2 CHOICE OF METHOD OF MINING

There are basically two mining methods viz. Opencast (OC) and Underground (UG). Techno-economically, Underground method is adopted only if the OB: Coal ratio in OC becomes so high that the cost of production by OC method becomes higher than the prevailing price of coal in local market in area surrounding the project site.

In this specific case OC method has been adopted for the upper seams down upto seam-VI and UG method has been adopted for the lower seams.

Opencast mining method has been adopted for the upper seams down upto seam-VI (Seam XL1, XT, XB, IX, VIII, VII and VI) due to following reasons:

- The coal seams are incropping,
- The OB : Coal ratio is favourable (4.991 : 1) for opencast mining
- The mining by opencast method will be economical against underground method
- The opencast mining operations are comparatively safer and ensure higher recovery of coal resource.
- The extraction percentage by OC is fore more than the UG.
- The uppermost seam will also have disadvantage of restriction of mining due to weathered mantle at surface below which at least 15 m hard cover is required for UG mining. The weathered mantle varies from 5.8 m (BH No. MMT-13) to 30.32 m (BH No. MMT-23)

5.3 OPENCAST METHOD

5.3.1. Recoverable reserves, waste quantity and stripping ratio

Net geological reserves of coal as per Geological Report (GR) are 1056.298 MT comprising of 736.105 MT (having thickness more than 0.5m proposed for OC mining down upto seam-VI) and 323.193 MT (having thickness more than 0.9m proposed for UG mining below seam-VI). These reserves have been cross checked by Min Mec (RQP) and have been found in order.

The extractable reserves come to 553.177 MT by OC method after considering coal blocked in barrier, batters and mining losses and the

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corresponding waste quantity will be 2761.120 million cum resulting into an OB coal ratio of 4.991 : 1 (cum : t).

The extractable reserves by UG method come to 101.975 MT after deducting the coal blocked under peripheral pillars, around faults, safety barriers from rivers, roads etc.

Thus, the total extractable reserves by OC and UG come to 655.152 MT.

5.3.2 Selection of OC mining technology

There are following types of equipment systems available for opencast mining:

a) Bucket wheel mining
b) Dragline mining
c) Shovel dumper combination
d) Surface Miners (SM)

Each of them has been explained below:

(a) The bucket wheel alternative has not been considered due to following reasons:

- There are faults in the property
- The stratum below the upper most weathered mantle is hard and strong requiring blasting.
- Presence of large number of seams and interburden layers of mostly of small thickness which will be uneconomic in this alternative.
- Requirement of precision selective mining which will not be possible by bucket wheels especially for thin seams, partings and dirt bands.

(b) The dragline (DL) has not been recommended mainly due to following reasons:

1. Multiplicity of seams
2. Lower most opencastable seam (VI) is highly variable in thickness (0.25m to 24.13m) which should be ideally uniform for DL mining
3. The OB parting above the lowermost seam is also highly variable (3.30m to 17.43m) which should be ideally uniform for DL mining
4. The faulted property will further add to the non viability.
5. Dragline being a high capacity machine will become under utilised.

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(c) Shovel-Dumper Combination:

Keeping in mind that there are 8 workable seams including splits (from Seam XB to Seam VI in ascending order) and equal nos. of inter burden layers to be tackled, an equipment system which is capable of dealing many layers at a time (flexibility of operations) has been recommended as shovel dumper combination. The quality problem can be handaled with the help of hydraulic excavators which have three dimensional movement of bucket. They are capable of carrying out selective mining. Further more, to tackle about 130-135 Mcum OB (upto 1st 14 years) and 99 Mcum in later years and 22 mil tonne of coal at many locations in the OC mine, comparatively large size shovels with 10-20 m3 bucket capacity for OB have been envisaged along with 150 tonne rear dumpers.

Flexibility in operation will be available due to such equipment system.

(d) Surface Miners:

Surface Miners (SM) are capable of cutting the coal precisely and selectively. Mining of thin coal by surface miners and ripping has also been now investigated by the RQP besides the drilling/ blasting considered earlier and it has been concluded that the coal mining will be carried out totally by Surface Miners however, 2 nos. rippers will be provided which could be utilized in those corners/ locations which are difficult to approach by CSMs.

In the light of investigations by RQP, the models as well as capacities of CSMs have been recalculated and now 3 nos. CSMs have been proposed as follow:

- 2 nos CSM 4200 with 10 Mtpa capacity each = 20 Mtpa
- 1 no. CSM 3800 with 4 Mtpa capacity = 4 Mtpa

Totaling to 24 Mtpa capacity against the production requirement of 23.6 Mtpa when the UG is not operational and 22 Mtpa when the UG mine is operation at its full capacity of 1.6 Mtpa.

Main parameters for few typical surface miners are noted below in Table 5.4.

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TABLE 5.4
TYPICAL PARAMETERS OF SOME SURFACE MINERS

Particulars	3800SM (W), Windrow	4200 SM (W), Conveyor loading
Cutting width in meter	3.8m	4.2m
Cutting Depth in meter av.	0.250m	Up to 0.800

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Particulars	3800SM (W), Windrow	4200 SM (W), Conveyor loading
Coal production t/hr	700	2000
Daily Coal production (t) 18 hrs.	12600	36000
Annual Capacity (330 days), Mt	4158000	11880000
Say	**4.00 Mtpa**	**10.00 Mtpa**

The above types of machines are continuous cutting and loading machines, therefore the material produced by the machines needs to be continuously evacuated. One way of making it possible is by designing conveying system through shifting conveyor systems. Such mix of surface miner and shovel-dumper combination for working the block in different time frame make very complicated and difficult to use conveyor system for evacuation of coal.

Therefore, a more flexible approach for material evacuation is considered, and this is possible through application of off the highway Dumpers of suitable size and numbers, along with the SM. Experience indicates that effective hours of SM on the average with dumpers combination can be taken as 18 hours of SM per day and 330 working days per year.

The main objectives of mine development have been

i. to design an economical production of required coal quality for the life of mine
ii. to minimise transportation distance for coal and waste
iii. to minimise adverse effects on environment and
iv. non-sterilization of the remaining potential reserves for future mining

As already mentioned in Chapter- 4, there are 18 workable seams including their splits (from up downwards seam XB to I-Combined).

The equipment selection and operating methods have been designed considering the volume and nature of overburden and disposition of coal seams.

Mining of thin coal by ripping has also been now investigated by the RQP besides the drilling/ blasting considered earlier. It has been envisaged that the coal mining will be carried out totally by Surface Miners which are capable of easily taking coal seam/bands of 0.5m. Further, 2 nos. rippers have been provided which could be utilized in those corners/ locations which are difficult to be approached by CSMs.

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5.3.3 Standardisation of equipment for Overburden removal and coal production

The equipment for OB removal has been standardized. Only two types of hydraulic shovels are proposed to be used in the larger size range viz. 12 cum and 20 cum bucket capacity in combination with 150T capacity dumpers. In the smaller capacity range, the 5/5.5 cum shovel will be used for relatively thinner partings between seams themselves in combination with 50T dumpers.

5.3.4 Coal production

It is necessary to conceive the contribution of each seam in the total reserves so as to visualize the proportional %age of production contribution so that the relevant equipment can be designated and marched to the pre-determined seams /locations for mining.

The seam wise coal reserves in tonne and their % contribution is given in the following Table 5.5.

TABLE 5.5
SEAM WISE COAL, PERCENTAGE CONTRIBUTION BY SEAMS IN RESERVES

Seam	Total Extractable Reserve, MT	% contribution of seams in total reserves	% Production by 2 nos. 4200SMs	% Production by 1 nos. 3800SMs
X-LA	9.551	1.73	0	1.73
X-TOP	8.012	1.44	0	1.45
X-BOT	64.131	11.59	11.59	0.0
IX-L2	10.657	1.93	0	1.93
IX-L1	11.937	2.16	0	2.16
IX	111.804	20.21	20.21	0.0
VIII	61.323	11.09	11.09	0.0
VIII-L	11.933	2.16	0	2.16
VII-TOP	67.257	12.16	12.16	0.0
VII-BOT	18.052	3.26	0	3.26
VII-COMB	58.737	10.62	10.62	0.0
VI	119.783	21.65	21.66	0.0
Total	**553.177**	**100.00**	**87.33**	**12.67**

As can be seen from the above table, the coal of thicker 6 seams, viz. XB, IX, VIII, VIIT, VII Combined and VI together accounts for 87.33% while that of other thinner seams accounts for only 12.67%.

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The tentative location of deployment of larger and smaller size surface miners and their contribution to the annual production is given in Table 5.6.

TABLE 5.6
TENTATIVE LOCATION OF DEPLOYMENT OF LARGER AND SMALLER SIZE SURFACE MINERS AND THEIR CONTRIBUTION TO THE ANNUAL PRODUCTION

Seam	% Production by 2 nos. 4200SMs	% Production by 1 nos. 3800SMs	Production by 2 nos. 4200SMs @20 Mtpa	Production by 1 nos. 3800SMs@4 Mtpa	Total production Mtpa
X-LA	0	1.7	0	0.4	0.4
X-TOP	0	1.5	0	0.3	0.3
X-BOT	7.6	4.0	1.8	1.0	2.8
IX-L2	0.0	1.9	0.0	0.5	0.5
IX-L1	0.0	2.2	0.0	0.5	0.5
IX	20.2	0.0	4.9	0.0	4.9
VIII	11.1	0.0	2.7	0.0	2.7
VIII-L	0.0	2.2	0.0	0.5	0.5
VII-TOP	12.2	0.0	2.9	0.0	2.9
VII-BOT	0.0	3.3	0.0	0.8	0.8
VII-COMB	10.6	0.0	2.5	0.0	2.5
VI	21.7	0.0	5.2	0.0	5.2
Total	**83.3**	**16.7**	**20.0**	**4.0**	**24.0**

The 2 nos. 4200SM machines will be mostly busy in the above mentioned thicker 6 seams. The rest 6 nos. thinner seams will be dealt with by the smaller size 3800SM machine. Two ripper machines will also be available for use at isolated locations, small patches etc. The total annual output projected being 23.6 MT upto 11th year, the provision of SM's (2nos. 4200SMs and 1 nos. 3800SMs) has been made for capacity of 24 MT with some cushion.

It is proposed to deploy 100T and 150T dumpers for coal with surface miners 3800SMs (1 no.) and 4200SMs (2 nos.) respectively. Bench design for the application of SM in coal has been considered. The benches will generally be kept 40 and 100m wide for coal in case of 3800SMs and 4200SMs respectively. As 4200SM gives better results with still wider benches, the width has been kept more than 100m wherever possible. For the operation of large size equipment of 12/20 cum bucket capacity shovels in OB in combination with 150T, operational benches of 30-40m will be kept.

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5.3.5 Sequence of OC mining

It has been assumed that the mining operations in the block will be started after rehabilitating the villages to the extent required with time as well as getting the forestry clearance. Therefore, the mining operations have been planned to be started from rise side (NW side) and to advance towards dip side (south side) and towards eastern side.

The block is surrounded by coal bearing areas on east and south direction. The strategy is to divide the block into two parts along Kelo river. The two parts are planned to be mined in sequence by dovetailing. The western part which contains larger reserve will be mined 1st by opening it at the north-western portion and advancing the operations towards dip side (south side) and towards eastern side.

The eastern part containing far less reserves within a small triangular portion will be mines towards the end of the operations. As there is no non-coal bearing area available for accommodating the initial cut OB till the back filling can start, the OB will be accommodated over the coal bearing area within the ML area upto 6th year, after which backfilling will be possible concurrent with mining. Ultimately, the whole OB accommodated over the dip side area will be rehandled and backfilled in the void created in the West Pit. After the West Pit nears exhaustion, the mining operations will be smoothly changed over to the East Pit and OB generated from East Pit will be concurrently backfilled in the West Pit. When the East Pit exhausts, high crown dumps will be formed over the West Pit by accommodating the OB generated from the East Pit due to the reason that backfilling of East Pit concurrent with mining virtually will not be possible due to limited dimensions of the created void.

However, after the last year of operation of the mine, the operations of the Post Mine Closure will start which have been planned in such a way that the remainder crown dump of the West Pit will be rehandaled and backfilled into the East Pit. Thus, all the OB will be accommodated within the excavated area and there will be no requirement of land for OB dumping outside the block. The ultimate landscape of the backfilled area over both the pits will be brought almost to the pre-mining scenario except the crown dump of 138 ha, the height of which will be reduced to 80m from earlier 100m.

5.3.6 Year/ stage wise development

The development works during the first year include making access road to sites of activities, removing and rehabilitating the villages lying over the parts of the block, obtaining 1st set of mining equipment, diversion of local roads, top-soil removal, driving box-cut and taking up other construction activities. The mode of transporting the coal to TPP will be through rail from the nearest available siding.

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The mining will begin with an aim of producing 11.80 Mtpa from 5th year and peak capacity of 23.6 Mtpa by 7th year onwards from OC. The total coal production in the first five years will be 20.30 MT. However, the production from OC will be reduced from 12th year with the start of UG mining operations such that the total production from the mine is maintained at 23.6 Mtpa. A higher production of 23.6 Mtpa from opencast operation is feasible in some early years when the depth of mine and the lead is lesser as compared to the sustained production of 22.0 Mtpa envisaged from opencast operation. The UG mine is proposed to achieve a peak capacity of 1.6 MT of coal from the 15th year onwards. Accordingly the production from the OC will be kept steady at 22 Mtpa from 15th year onwards. The year wise development of the mine upto 29th years is shown in Plate XIV, XV, XVI, XVII, XVIII, XX, XXII and XXVI.

Year 1

The initial mine entry will be made in Seam X(B) during which its upper seam XT will also be encountered. The entry mouth will be at 297m RL located in SE direction, about 612m from the northern corner of block boundary and at about 576m perpendicular distance from NW boundary line and 258 m perpendicular distance from NE boundary line. The initial mine entry (haul road) will be aligned along SE direction for a distance of about 250m along the Inclines safety barrier after which it will reach 280m RL at a gradient of 1:16. The lowest bench to be worked in the 1st year is 270m RL which will be approached by a ramp from 280m RL bench.

The depth of pit will be 10m to 30m which will be worked in 1 to 3 benches. Coal production during this year will be 0.25 MT with following quality:

The corresponding OB (5 Mcum) will be disposed off in Surface Dump over the coal bearing area (to be rehandaled later) in the dip side of the West Pit. There will be no backfilling activities in this year and no activity related to UG mining.

2nd to 3rd Year

The working benches will be advanced parallel to the already existing benches. The length of the haul road will become 1072m along the safety barrier of the incline landing at 230 m RL. The lowermost levels will go down to about 215 m RL which will be approached by ramps on the benches. The mining operations will reach the seam IX floor during the 3rd year. Coal produced in two years will be 4.55 MT @ 1.55 MT and 3.00 MT respectively during 2nd and 3rd year. The related OB amounting to 44.10 Mcum (14.10 Mcum during 2nd and 30.00 Mcum during 3rd year will be disposed of in Surface Dump in the dip side over the coal bearing area of West Pit as during previous year. A maximum depth of about 82m will be achieved by the end of the 3rd year. There will be no activity related to UG mining or coal production in this year.

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4th to Year 5

The working benches will be advanced parallel to the already existing benches in the previous year. The length of the haul road will become 1558m which will approach the floor of the Seam VIII having exposed floor from 205m RL to 230m RL. Coal produced in two years will be 15.50 MT @ 6.00 MT in 4th year and 9.50 MT in 5th year respectively. The related OB (45 Mcum and 80.00 Mcum) will be disposed of in Surface Dump proposed to be located over the coal bearing area (to be rehandaled later) at a distance of over 500m from the uppermost bench. The area required for stacking top soil will be 60 ha for restricting the height to 6 m and the provision of 60 ha has accordingly been made beyond the surface dump. There will be no activity related to UG mining or coal production in this year.

6th to 15th year

The working benches will be advanced parallel to the already existing benches in the previous years. The SW corner of the advancing working benches will just abut against the batter of Kelo river.

Coal produced in ten years (6th to 15th) will be 229.7 MT. The related OB will be disposed of in Surface Dump during a part of the 6th year (47.07 McumB) after which total OB will be accommodated within the backfill of the West Pit. As the decoaled area on the northern side of the West Pit will be required for backfilling the haul road will be shifted and aligned just along the NE batter with its entry mouth located just at the SE end of the incline safety barrier. The mouth will be located at 288m RL. By the end of the 15th year, the length of the haul road will be 3.45 km and it will reach the lowermost seam VI, mineable by OC method. The floor of the seam exposed will vary from 120m to 160m and the depth of the exposed floor will lie between 100m and 170m. The uppermost 5 benches from 220m RL upwards will be advanced by 580m to 870m in order to match with the OB removal requirement as per calendar programme of excavation and in order to accommodate the benches of 100m or more for the operation of CSMs as required for their successful operation. This will also give possibility of operating at well spaced locations within the pit reducing congestion of operation and plying HEMM.

The whole surface dump constructed during the 1st 6 years will be reharidaled and backfilled into the void during the period from 7th year and 20th year (both years including).

16th to 25th year

The above benches of West Pit will be further advanced towards south direction till they abut against the boundary of the West Pit of the block along the Kelo river. The East Pit will also be opened from 20th year.

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Therefore the coal production and OB generation will take place from West Pit as well as from East pit from 20th year onwards. All the OB generated from West as well as East Pit will be backfilled into the West Pit decoaled area concurrent with mining. The backfill area will advance upto and abut against the NW end batter of the West Pit by the end of 25th year. A 100m high crown dump will have to be created above the backfill area of West Pit to accommodate the OB generated in the past as will become surplus from the backfill. The coal extracted upto the end of 25th year will be 470 MT and OB generated as 2463.1 Mcum from both the pits with following bifurcation.

Particulars	West Pit	East Pit	Total from both pits
Coal, MT	466.40	3.60	470.00
OB, Mcum	2315.13	147.97	2463.10

26th year to End of OC Mining

The total OB waste to be dealt with (generation and disposal) during 26th to 29th year is explained in the following table.

OB generated from E & W Pits, Mcum (B)	Direct back filling, Mcum(B)			Backfilling from crown rehandling			Total backfilling from direct and cown rehandling into W&E pit voids
	Into West pit void	Into East pit void	Total direct backfilling into W&E pit voids	Into West pit void	Into East pit void	Total backfilling from cown into W&E pit voids	
296.99	148.50	148.49	296.99	241.43	42.86	284.30	581.29

West Pit will finish in 26.5 years (refer Plate XXII and XXVI) keeping intact the shaft pillar near the Kelo river as well as the area under safety pillars of inclines and facilities located in the northern portion of the West block. These areas will be mined after the mining of eastern part of the block during the following years and will be retained till the coal from UG mining in the western part is exhausted.

The total OB produced from both the Pits will be 2761.1 Mcum(B) including Top Soil (14.64 Mcum Bank or 16.84 Mcum Loose). The TS will be accommodated over the dip side coal bearing area of West Pit upto 15th year end after which whatever TS will be required to be preserves, it will be stacked over the backfilled area. The height of the TS stack will be restricted to 6m.

Most of the area 2280.17 ha (see Chapter 13 and 15) in the post mine closure stage will be converted into an agriculture area.

There will not remain any void within the block after the post mine closure.

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5.3.7 Calendar program of excavation

Year wise production for the life of the mine is tabulated in Table 5.7.

TABLE 5.7
COMBINED (OC AND UG) CALENDAR PROGRAMME WITH OBR FROM OPENCAST INCLUDING REHANDLING

Year	Opencast (Mt)	OBR MCUM	OBR Incl. Rehandling of Surface & Crown Dump M Cum	Stripping Ratio Cum/ t	SR incl. Rehandling of Surface & Crown Dump Cum/ t	Under Ground	Total (MT)
0	0.00	0.00	0.00	-	-	0.00	0.00
1	0.250	5.000	5.000	20.00	20.00	0	0.25
2	1.550	14.100	14.100	9.10	9.10	0	1.55
3	3.000	30.000	30.000	10.00	10.00	0	3.00
4	6.000	45.000	45.000	7.50	7.50	0	6.00
5	9.500	80.000	80.000	8.42	8.42	0	9.50
6	21.300	135.000	135.000	6.34	6.34	0	21.3
7	23.600	135.000	156.740	5.72	6.64	0	23.6
8	23.600	135.000	156.740	5.72	6.64	0	23.6
9	23.600	135.000	156.740	5.72	6.64	0	23.6
10	23.600	135.000	156.520	5.72	6.63	0	23.6
11	23.600	135.000	140.220	5.72	5.94	0	23.6
12	23.200	130.000	135.220	5.60	5.83	0.4	23.6
13	22.800	130.000	135.220	5.70	5.93	0.8	23.6
14	22.400	130.000	135.220	5.80	6.04	1.2	23.6
15	22.000	99.000	103.750	4.50	4.72	1.6	23.6
16	22.000	99.000	120.740	4.50	5.49	1.6	23.6
17	22.000	99.000	120.740	4.50	5.49	1.6	23.6
18	22.000	99.000	120.740	4.50	5.49	1.6	23.6
19	22.000	99.000	120.740	4.50	5.49	1.6	23.6
20	22.000	99.000	118.500	4.50	5.39	1.6	23.6
21	22.000	99.000	99.000	4.50	4.50	1.6	23.6
22	22.000	99.000	99.000	4.50	4.50	1.6	23.6
23	22.000	99.000	99.000	4.50	4.50	1.6	23.6
24	22.000	99.000	99.000	4.50	4.50	1.6	23.6
25	22.000	99.000	99.000	4.50	4.50	1.6	23.6
26	22.000	99.000	163.350	4.50	7.43	1.6	23.6
27	21.997	99.000	163.350	4.50	7.43	1.6	23.597
28	22.000	95.020	172.850	4.32	7.86	1.6	23.600
29	17.180	5.000	82.770	0.29	4.82	1.6	18.780
30			44.183			1.6	1.6
31			44.183			1.6	1.6
32-77			44.183			72.375	72.375
Total	553.177	2761.120	3396.800	4.99	6.14	101.975	655.152

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Pit/ Quarry wise Calendar programme of OC mine excluding rehandling is given in Table 5.7A.

TABLE 5.7A
PIT/QUARRY WISE CALENDAR PROGRAMME OF OC COAL MINING AND OB REMOVAL EXCLUDING REHANDLING
(COAL IN MT, OB IN MBCUM)

CALENDAR PROGRAMME OF COAL MINING AND OB (INCLUDING TS) EXCAVATION FROM EAST AND WEST PIT (COAL IN MT, OB IN MBCUM)

Year	WEST PIT						EAST PIT						TOTAL EAST + WEST PIT					
	Coal Prgr.	Coal Cumul.	OB Progr.	OB Cumul.	SR Progr.	SR Cumul.	Coal Prgr.	Coal Cumul.	OB Progr.	OB Cumul.	SR Progr.	SR Cumul.	Coal Prgr.	Coal Cumul.	OB Progr.	OB Cumul.	SR Progr.	SR Cumul.
1	0.25	0.250	5.00	5.00	20.000	20.000							0.250	0.250	5.000	5.000	20.000	20.000
2	1.55	1.800	14.10	19.10	9.097	10.611							1.550	1.800	14.100	19.100	9.097	10.611
3	3.00	4.800	30.00	49.10	10.000	10.229							3.000	4.800	30.000	49.100	10.000	10.229
4	6.00	10.800	45.00	94.10	7.500	8.713							6.000	10.800	45.000	94.100	7.500	8.713
5	9.50	20.300	80.00	174.10	8.421	8.576							9.500	20.300	80.000	174.100	8.421	8.576
6	21.300	41.600	135.000	309.100	6.338	7.430							21.300	41.600	135.000	309.100	6.338	7.430
7	23.600	65.200	135.000	444.100	5.720	6.811							23.600	65.200	135.000	444.100	5.720	6.811
8	23.600	88.800	135.000	579.100	5.720	6.521							23.600	88.800	135.000	579.100	5.720	6.521
9	23.600	112.400	135.000	714.100	5.720	6.353							23.600	112.400	135.000	714.100	5.720	6.353
10	23.600	136.000	135.000	849.100	5.720	6.243							23.600	136.000	135.000	849.100	5.720	6.243
11	23.600	159.600	135.000	984.100	5.720	6.166							23.600	159.600	135.000	984.100	5.720	6.166
12	23.200	182.800	130.000	1114.100	5.603	6.095							23.200	182.800	130.000	1114.100	5.603	6.095
13	22.800	205.600	130.000	1244.100	5.702	6.051							22.800	205.600	130.000	1244.100	5.702	6.051
14	22.400	228.000	130.000	1374.100	5.804	6.027							22.400	228.000	130.000	1374.100	5.804	6.027
15	22.000	250.000	99.000	1473.100	4.500	5.892							22.000	250.000	99.000	1473.100	4.500	5.892
16	22.000	272.000	99.000	1572.100	4.500	5.780							22.000	272.000	99.000	1572.100	4.500	5.780

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CALENDAR PROGRAMME OF COAL MINING AND OB (INCLUDING TS) EXCAVATION FROM EAST AND WEST PIT (COAL IN MT, OB IN MBCUM)

Year	WEST PIT						EAST PIT						TOTAL EAST + WEST PIT					
	Coal Prgr.	Coal Cumul.	OB Progr.	OB Cumul.	SR Progr.	SR Cumul.	Coal Prgr.	Coal Cumul.	OB Progr.	OB Cumul.	SR Progr.	SR Cumul.	Coal Prgr.	Coal Cumul.	OB Progr.	OB Cumul.	SR Progr.	SR Cumul.
17	22.000	294.000	99.000	1671.100	4.500	5.684							22.000	294.000	99.000	1671.100	4.500	5.684
18	22.000	316.000	99.000	1770.100	4.500	5.602							22.000	316.000	99.000	1770.100	4.500	5.602
19	22.000	338.000	99.000	1869.100	4.500	5.530							22.000	338.000	99.000	1869.100	4.500	5.530
20	22.000	360.000	58.500	1927.600	2.659	5.354	0.000	0.000	40.500	40.500			22.000	360.000	99.000	1968.100	4.500	5.467
21	21.280	381.280	77.500	2005.100	3.642	5.259	0.720	0.720	21.500	62.000	29.861	86.111	22.000	382.000	99.000	2067.100	4.500	5.411
22	21.280	402.560	77.500	2082.600	3.642	5.173	0.720	1.440	21.500	83.500	29.861	57.986	22.000	404.000	99.000	2166.100	4.500	5.362
23	21.280	423.840	77.500	2160.100	3.642	5.096	0.720	2.160	21.500	105.000	29.861	48.611	22.000	426.000	99.000	2265.100	4.500	5.317
24	21.280	445.120	77.500	2237.600	3.642	5.027	0.720	2.880	21.500	126.500	29.861	43.924	22.000	448.000	99.000	2364.100	4.500	5.277
25	21.280	466.400	77.530	2315.130	3.643	4.964	0.720	3.600	21.470	147.970	29.819	41.103	22.000	470.000	99.000	2463.100	4.500	5.241
26	21.280	487.680	35.360	2350.490	1.662	4.820	0.720	4.320	63.640	211.610	88.389	48.984	22.000	492.000	99.000	2562.100	4.500	5.208
27	18.306	505.986	35.360	2385.850	1.932	4.715	3.691	8.011	63.640	275.250	17.242	34.359	21.997	513.997	99.000	2661.100	4.501	5.177
28							22.000	30.011	95.020	370.270	4.319	12.338	22.000	535.997	95.020	2756.120	4.319	5.142
29							17.180	47.191	5.000	375.270	0.291	7.952	17.180	553.177	5.000	2761.120	0.291	4.991
30																		
31																		
32																		
Total	505.986		2385.850				47.191		375.270				553.177		2761.120			

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Calendar Programme for opencast mine with details of Waste Disposal (OBR) including rehandling is given in Table 5.7B.

TABLE 5.7B
CALENDAR PROGRAMME OF OC COAL MINING WITH DETAILS OF OB REMOVAL INCLUDING REHANDLING
(COAL MT, OB IN MCUM)

Year	Total (East + West Pit)						Surface dump rehandling from west to west		Crown dump rehandling west to west		Crown dump rehandling west to east		Total OB disposal (direct + rehandaled)		SR Progr. Incl. rehandl.		Rehandeled contractually	
	Coal Prgr.	Coal Cumul.	OB Progr.	OB Cumul.	SR Progr.	SR Cumul.	Progr.	Cumul.	Progr.	Cumul.	Progr.	Cumul.	Progr.	Cumul.	Progr.	Cumul.	Progr.	Cumul.
1	0.250	0.250	5.000	5.000	20.000	20.000	0.000	0.000	0.000	0.000	0.000	0.000	5.000	5.000	20.000	20.000		0.000
2	1.550	1.800	14.100	19.100	9.097	10.611	0.000	0.000	0.000	0.000	0.000	0.000	14.100	19.100	9.097	10.611		0.000
3	3.000	4.800	30.000	49.100	10.000	10.229	0.000	0.000	0.000	0.000	0.000	0.000	30.000	49.100	10.000	10.229		0.000
4	6.000	10.800	45.000	94.100	7.500	8.713	0.000	0.000	0.000	0.000	0.000	0.000	45.000	94.100	7.500	8.713		0.000
5	9.500	20.300	80.000	174.100	8.421	8.576	0.000	0.000	0.000	0.000	0.000	0.000	80.000	174.100	8.421	8.576		0.000
6	21.300	41.600	135.000	309.100	6.338	7.430	0.000	0.000	0.000	0.000	0.000	0.000	135.000	309.100	6.338	7.430		0.000
7	23.600	65.200	135.000	444.100	5.720	6.811	21.740	21.740	0.000	0.000	0.000	0.000	156.740	465.840	6.642	7.145	21.740	21.740
8	23.600	88.800	135.000	579.100	5.720	6.521	21.740	43.480	0.000	0.000	0.000	0.000	156.740	622.580	6.642	7.011	21.740	43.480
9	23.600	112.400	135.000	714.100	5.720	6.353	21.740	65.220	0.000	0.000	0.000	0.000	156.740	779.320	6.642	6.933	21.740	65.220
10	23.600	136.000	135.000	849.100	5.720	6.243	21.520	86.740	0.000	0.000	0.000	0.000	156.520	936.840	6.632	6.881	21.520	86.740
11	23.600	159.600	135.000	984.100	5.720	6.166	5.220	91.960	0.000	0.000	0.000	0.000	140.220	1076.060	5.942	6.742	5.220	91.960
12	23.200	182.800	130.000	1114.100	5.603	6.095	5.220	97.180	0.000	0.000	0.000	0.000	135.220	1211.280	5.828	6.626		91.960
13	22.800	205.600	130.000	1244.100	5.702	6.051	5.220	102.400	0.000	0.000	0.000	0.000	135.220	1346.500	5.931	6.549		91.960
14	22.400	228.000	130.000	1374.100	5.804	6.027	5.220	107.620	0.000	0.000	0.000	0.000	135.220	1481.720	6.037	6.499		91.960
15	22.000	250.000	99.000	1473.100	4.500	5.892	4.750	112.370	0.000	0.000	0.000	0.000	103.750	1585.470	4.716	6.342		91.960
16	22.000	272.000	99.000	1572.100	4.500	5.780	21.740	134.110	0.000	0.000	0.000	0.000	120.740	1706.210	5.488	6.273		91.960

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Year	Total (East + West Pit)						Surface dump rehandling from west to west		Crown dump rehandling west to west		Crown dump rehandling west to east		Total OB disposal (direct + rehandaled)		SR Progr. Incl. rehandl.		Rehandeled contractually	
	Coal Prgr.	Coal Cumul.	OB Progr.	OB Cumul.	SR Progr.	SR Cumul.	Progr.	Cumul.	Progr.	Cumul.	Progr.	Cumul.	Progr.	Cumul.	Progr.	Cumul.	Progr.	Cumul.
17	22.000	294.000	99.000	1671.100	4.500	5.684	21.740	155.850	0.000	0.000	0.000	0.000	120.740	1826 950	5.488	6.214		91.960
18	22.000	316.000	99.000	1770.100	4.500	5.602	21.740	177.590	0.000	0.000	0.000	0.000	120.740	1947.690	5.488	6.164		91.960
19	22.000	338.000	99.000	1869.100	4.500	5.530	21.740	199.330	0.000	0.000	0.000	0.000	120.740	2068.430	5.488	6.120		91.960
20	22.000	360.000	99.000	1968.100	4.500	5.467	19.500	218.830	0.000	0.000	0 000	0.000	118.500	2186.930	5.386	6.075		91.960
21	22.000	382.000	99.000	2067.100	4.500	5.411	0.000	218.830	0.000	0.000	0.000	0.000	99.000	2285.930	4.500	5.984		91.960
22	22.000	404.000	99.000	2166.100	4.500	5.362	0.000	218.830	0.000	0.000	0.000	0.000	99.000	2384.930	4.500	5.903		91.960
23	22.000	426.000	99.000	2265.100	4.500	5.317	0.000	218.830	0.000	0.000	0.000	0.000	99.000	2483.930	4.500	5.831		91.960
24	22.000	448.000	99.000	2364.100	4.500	5.277	0.000	218.830	0.000	0.000	0.000	0.000	99.000	2582.930	4.500	5.765		91.960
25	22.000	470.000	99.000	2463.100	4.500	5.241	0.000	218.830	0.000	0.000	0.000	0.000	99.000	2681.930	4.500	5.706		91.960
26	22.000	492.000	99.000	2562.100	4.500	5.208	0 000	218.830	64.350	64.350	0.000	0.000	163.350	2845.280	7.425	5.783	28.350	120.310
27	21.997	513.997	99.000	2661.100	4.501	5.177	0.000	218.830	64.350	128.700	0.000	0.000	163.350	3008.630	7.426	5.853	28.350	148.660
28	22.000	535.997	95.020	2756 120	4.319	5.142	0.000	218.830	77.830	206.530	0.000	0.000	172.850	3181.480	7.857	5.936	37.850	186.510
29	17.180	553.177	5.000	2761.120	0.291	4.991	0.000	218.830	34.910	241.440	42.860	42.860	82.770	3264.250	4.618	5.901		186.510
30	0.000	553.177	0.000	2761.120	0.000	4.991	0.000	218.830	0.000	241.440	44.183	87.043	44.183	3308.433		5.981		186.510
31	0.000	553 177	0.000	2761.120	0.000	4.991	0.000	218.830	0.000	241.440	44.183	131 227	44.183	3352.617		6.061		186.510
32	0.000	553.177	0.000	2761.120	0.000	4.991	0 000	218.830	0.000	241.440	44.183	175 410	44.183	3396.800		6.141		186.510
Total	**553.177**		**2761.120**		**4.991**		**218.830**		**241.440**		**175.410**		**3396.800**		**6.141**		**186.510***	

** This quantity will be handled contractually and no provision of equipment has been made for it.*

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Year/Stage wise progressive insitu GCV of coal seams as calculated though MINEX software and the corresponding coal extraction are given below in Table 5.8A and 5.8B respectively.

TABLE 5.8A
YEAR/ STAGE WISE PROGRESSIVE GCV OF COAL SEAMS

I. OC	YEARS								
SEAM	1st	2nd-3rd	4th-5th	6th-10th	11th-15th	16th-20th	21st-25th	26th-29th	1st to 29th
X_LA	0	0	3698	3926	4413	4261	3854	3964	4056
X_TOP	2662	0	3948	3488	3848	3518	4152	5003	3902
X_BOT	4308	4337	4347	4387	4362	4360	4268	3959	4328
IX_L2	0	5041	5011	0	0	4854	4404	4562	4674
IX_L1	0	0	4740	4951	4921	5145	3825	4866	4892
IX	0	5352	5102	4987	4992	4976	4824	5215	4987
VIII	0	0	3869	3824	3784	3699	3461	3755	3766
VIII_L	0	0	0	4201	4323	4988	2765	4236	4293
VII_TOP	0	0	0	4174	4266	4236	4038	4073	4110
VII_BOT	0	0	0	4041	4138	4378	4143	4073	4134
VII_COM	0	0	0	4257	4142	3823	4155	4326	4198
VI	0	0	0	4528	4532	4446	4336	4319	4454
WEIGHTED AVG. OC	**4065**	**4744**	**4509**	**4413**	**4431**	**4476**	**4231**	**4353**	**4387**
II. UG									
IV					4978	4929	4795	4745	4864
III					0	5015	4762	4742	4832
WEIGHTED AVG. UG					**4978**	**4967**	**4778**	**4743**	**4851**
OC+UG	**4065**	**4744**	**4509**	**4413**	**4449**	**4509**	**4268**	**4387**	**4409**

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TABLE 5.8B

YEAR/STAGE WISE PROGRESSIVE MINABLE COAL PRODUCTION GARE PALMA SECTOR-II

Seam	Years								
OC	1st	2nd-3rd	4th-5th	6th-10th	11th-15th	16th-20th	21st-25th	26th-29th	Total
X_LA	0.000	0.000	0.040	0.850	0.060	3.620	1.590	3.391	**9.551**
X_TOP	0.040	0.000	1.260	0.390	0.530	3.800	0.670	1.322	**8.012**
X_BOT	0.230	2.710	4.120	18.460	10.830	9.720	16.040	2.021	**64.131**
IX_L2	0.000	0.010	0.180	0.000	0.000	4.960	1.980	3.527	**10.657**
IX_L1	0.000	0.000	0.180	0.340	0.340	5.150	1.100	4.827	**11.937**
IX	0.000	1.810	5.300	24.800	26.980	29.200	15.560	8.154	**111.804**
VIII	0.000	0.000	4.240	19.740	16.990	14.600	2.940	2.813	**61.323**
VIII_L	0.000	0.000	0.000	0.310	1.470	3.490	1.410	5.253	**11.933**
VII_TOP	0.000	0.000	0.000	8.830	7.000	7.260	27.720	16.447	**67.257**
VII_BOT	0.000	0.000	0.000	3.090	1.450	3.360	7.800	2.352	**18.052**
VII_COM	0.000	0.000	0.000	10.570	15.880	3.360	12.790	16.137	**58.737**
VI	0.000	0.000	0.000	28.680	32.990	20.540	21.290	16.283	**119.783**
Total OC	**0.270**	**4.530**	**15.320**	**116.060**	**114.520**	**109.060**	**110.890**	**82.527**	**553.177**
UG Mine									
IV					4.000	4.500	4.000	4.000	**16.500**
III					0.000	3.500	4.000	4.000	**11.500**
Total UG					**4.000**	**8.000**	**8.000**	**8.000**	**28.000**
Total OC+UG	**0.270**	**4.530**	**15.320**	**116.060**	**118.520**	**117.060**	**118.890**	**90.527**	**581.177**

Note : Due to 2nd place rounding, the individual seam contribution and total may show a slight mismatch.

A perusal of above tables shows that average insitu GCV of coal from all workable seams from Opencast is 4387 KCal/Kg and that of Underground mine 4851 KCal/Kg during the period when opencast mine remains in operation (upto 29 years). The weighted average GCV of insitu coal based on the production contribution from OC and UG combined is 4409 KCal/Kg (refer Table 5.8A). The GCV of ROM coal has been considered as 4350 KCal/Kg for calculating coal requirements for EUPs.

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The year/stage wise progressive ash% of coal seams is given in Table 5.9 below.

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TABLE 5.9
YEAR/STAGE WISE PROGRESSIVE ASH % OF SEAMS

SEAM	YEARS								
	1st	2nd-3rd	4th-5th	6th-10th	11th-15th	16th-20th	21st-25th	26th-29th	1st to 29th
OPENCAST MINE									
X_LA	0.00	0.00	45.46	41.76	49.54	38.15	42.79	40.75	40.27
X_TOP	56.43	0.00	42.51	35.60	43.53	48.13	25.17	34.18	42.15
X_BOT	38.81	37.85	37.24	35.81	37.50	38.13	36.87	40.03	37.03
IX_L2	0.00	29.62	29.51	0.00	0.00	30.77	36.77	34.46	33.08
IX_L1	0.00	0.00	33.05	28.25	30.68	29.04	35.92	31.22	30.64
IX	0.00	28.39	28.98	29.58	29.90	31.75	29.46	32.54	30.38
VIII	0.00	0.00	43.71	43.93	44.20	46.28	43.17	47.98	44.70
VIII_L	0.00	0.00	0.00	39.54	38.72	33.10	52.38	39.57	39.09
VII_TOP	0.00	0.00	0.00	39.84	39.69	42.04	41.73	41.67	41.29
VII_BOT	0.00	0.00	0.00	41.68	41.96	40.08	40.88	41.67	41.06
VII_COM	0.00	0.00	0.00	39.64	40.61	43 70	40.23	41.10	40.66
VI	0.00	0.00	0.00	36.54	36.70	38.25	38.16	39.30	37.54
WEIGHTED AVG. OC	**41.42**	**34.05**	**35.82**	**36.87**	**37.12**	**37.42**	**38.33**	**37.33**	**37.64**
UG MINE									
IV	0.00	0.00	0.00	0.00	30.93	30.96	33.00	32.55	31.83
III	0.00	0.00	0.00	0.00	0.00	31.05	33.69	31.13	32.00
WEIGHTED AVG. UG	**0.00**	**0.00**	**0.00**	**0.00**	**30.93**	**31.00**	**33.45**	**31.84**	**31.93**
OC+UG	**41.42**	**34.05**	**35.82**	**36.87**	**36.91**	**36.98**	**38.00**	**36.84**	**37.37**

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It is evident from Table 5.9 that the average ash content of total insitu extractable reserves is between 37 and 38 %. However, the Ash % fluctuates from year to year between 34.05 % and 41.42%. There will be some further deterioration in ROM coal quality due to dilution during mining operations.

5.3.8 Proposed rate of production when the mine is fully developed

Coal production peak for OC when UG mine not operational (upto 11th year)	23.6 Mtpa
Coal production peak for OC when UG mine is operational at targeted capacity (from 15th year)	22.00
Overburden excavation without rehandling (cum;t)	135.00 mm^3 peak
Stripping ratio without rehandling (cum;t)	4.99 : 1
Stripping ratio with rehandling of Surface Dumps 218.81 Mcum during 7th to 20th year (cum:t)	5.39 : 1
Stripping ratio with rehandling of S. Dumps during 7th to 20th year and Crown dumps 284.30 Mcum during 27th to 29th year (cum:t)	6.14 : 1

Note: During the period between 7th and 20th year and 27th to 29th year whole surface dump and part of crown dump will be rehandled and backfilled into the void and no separate provision for the same has been done for the equipment in this Mining Plan as this has been assumed to be tackled by hiring additional equipment over and above the equipment planned for normal direct excavation of OB.

5.3.9 Mineable reserves and anticipated life of the mine

The recoverable (extractable) reserves are already given in Table 5.2 and Table 5.3 above as 653.47 Mt.

Sl. No.	Particulars	East	West	Total
1.	Extractable reserves by OC (in East and West Pits), Mt	47.191	505.986	553.177
2.	Extractable reserve by UG (on East and West side of Kelo river), Mt	95.605	6.370	101.975
	Total, Mt	**142.796**	**512.356**	**655.152**

The life of the OC mine will be about 29 years at annual production rate of 22 Mt as per the calendar programme of production.

The underground production is envisaged to start from 12th year and end in 77th year. Thus, including 3 years of construction (incline drivage and shaft sinking etc.) the life of underground mine will be 69 year at production rate of 1.6 Mtpa.

5.3.10 Proposed method of working

Opencast method of mining has been adopted alongwith shovel/ dumper combination as well as Continuous Surface Miners as detailed under para 5.3.2 above.

अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi

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5.3.10.1 Opencast working

(i) Overburden removal: Trucks and shovels

The overburden comprises of soil cover underlain by weathered mantle which is, in turn, underlain by comparatively stronger OB strata.

8 m to 10 m high benches will be developed to excavate the OB. To start with, the topsoil material (0.6m thick) will be excavated by 0.9/1.2 cum hydraulic shovel and transported to a designated area by dumpers. Two types of topsoil storages will be made-one permanent type near the external OB dump and another temporary stack on the backfilled area for immediate use within the same year before the onset of monsoon.

This topsoil will be eventually re-used for reclamation. It is estimated that a total of 14.64 Mcum(B) of top soil will be generated during the entire period of mining operations i.e. 29 years.

The 8 m to 10 m bench in soil and weathered mantle will not require any drilling/blasting where as the underlying stronger strata of OB will be drilled by rotary blast hole drill using a bit size of 200-250mm. The blast hole will be loaded with explosive and blasted. Hydraulic excavators equipped with 12 cum and 20 cum bucket will be used for OB while hydraulic excavator of 5/5.5 m^3 will be used for thin interburden/ parting. The dumpers will haul the material either to the surface waste dump or to previously mined pit section for backfilling. At the dump site, dozer will be useo for the purpose of grading the dumps. Transport will be affected by 150/100T rear dumpers for larger shovels and 50T for smaller shovel of 5/5.5 cum bucket.

(ii) Coal mining

All the coal production will be done by Surface Miners while two rippers will be provided for use in isolated locations or thinner seams where deployment of CSMs may not be advisable due to time factors and economic factors.

Three Surface Miners will also be used for selective mining of coal. Coal from surface miner will be loaded into the dumpers of 100T (windrow from 3800SM) and 150T.

All haul roads and roads on dumps will be maintained at a gradient of 1 in 16. (Refer Plate XIV, XV, XVI, XVII, XVIII, XX, XXII and XXVI).

5.3.11 Extent of mechanisation

Mining and transport of coal and OB will be fully mechanised.

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5.3.11.1 Lead for coal and OB transportation

As the population of transportation equipment will depend upon the lead, the same was calculated and found to be about 4.50 km on an average for coal as well as for OB. Therefore a lead of 4.50 km has been assumed for calculations of transportation equipment requirement.

Average one way lead adopted as 4.5 km for both OB and coal.

5.3.11.2 Extent of manual/ machine mining

Fully mechanized system of mining has been proposed, as elaborated in this chapter.

The annual productivity of various shovel/ dumper combinations is as follows:

TABLE 5.10
ANNUAL PRODUCTIVITY OF VARIOUS SHOVEL/ DUMPER COMBINATIONS AND THEIR POPULATION

Equipment	Capacity of the machine based on 330 days/year	Population	Total Output,
I. Over burden			
20 cum Hydraulic Elect. Shovel with 12 nos.150T dumpers for 4.5 km lead	5.35 Mcum; OB	20 shovels + 240 dumpers	107 Mcum
12 cum Hydraulic Elect. Shovel with 9 nos.150T dumpers for 4.5 km lead	3.42 Mcum; OB	7 shovels + 63 dumpers	23.94 Mcum
5/5.50 cum Hydraulic Elect. Shovel with 10 nos. 50T dumpers for 4.5 km lead	1.45 Mcum; OB	4 shovels + 40 dumpers	5.8 Mcum
Total (I) OB			**136.74 Mcum**
II. Coal			
Surface miner (3800SM)	4.00 Mt	1 SM + 5 nos. 100T dumpers (CB)	4.00 Mt
Surface miner (4200SM)	10.00	2 SM + 20 nos. 150T dumpers (CB)	20.00 Mt
Total (II) Coal			**24.00 Mt**

The equipment calculation has been done assuming 330 days/year operation and 4.5 km average lead.

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The list of production and auxiliary equipment is given in Table 5.11.

TABLE 5.11
LIST OF PRODUCTION AND AUXILIARY EQUIPMENT

Sl. No.	Particulars	Quantity
I.	**Heavy Earth Moving Machinery**	
A.	**Coal (22 Mtpa)**	
a)	100 T.R.D.(CB) dumpers for 3800SM(W) CSM	5
b)	150 T.R.D.(CB) Dumpers for 4200SM(W) CSM	20
c)	0.9 m^3 hydraulic backhoe	2
d)	Dozer 275-320 HP	4
e)	Dozer 410 HP with ripper	2
f)	Surface miner 3800 SM (W)	1
g)	Surface miner 4200SM (W)	2
h)	10-16 m^3 Front End Loader (Coal)	5
i)	6-8 m^3 Front End Loader (Coal)	4
	Sub-Total for Coal	**36**
B.	**Overburden**	
a)	Hydraulic shovel 5/5.5cum	4
b)	Hydraulic Shovel 12 m^3	7
c)	Hydraulic Shovel 20 m^3	20
d)	50 Tonne Dump Truck for 5/5.5 m^3 shovels	20
e)	150 Tonne Dump Truck for 12 m^3 shovels	63
f)	150 Tonne Dump Truck for 20 m^3 shovels	240
g)	R.B.H drills 200/250 mm	31
h)	Dozer 410 HP	30
i)	Dozer 275-320 HP	10
	Sub-Total for OB	**425**
II.	**Common, Auxiliary & Service Equipment**	
a)	Graders 230 HP	4
b)	Diesel Bouser	6
c)	Construction backhoe -0.9 CUM	2
d)	Water sprinkler (26 KL)	12
e)	Tow truck on 50T truck chassis	2
f)	100 T tractors (Diesel Operated)	2
g)	Rough Terrain Crane - 40T	4
h)	Rough Terrain crane 70 T	2
i)	Service trucks:	
	- Fuel trucks	6

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Sl. No.	Particulars	Quantity
	- Wash trucks	6
	- Mobile maintenance trucks	6
	- Lube trucks	6
	- Fire trucks	2
	- Explosive van	4
j)	Portable air compressor	4
k)	Tyre handler	4
	Sub-Total for Auxiliary & Service Equipment	**79**
	Reclamation	
a)	2.5 cum Front End Loader	4
b)	10 T Truck	10
c)	0.9-1.2 cum hydraulic Excavator	4
	Sub-Total for reclamation	**18**
	Total (Coal+OB+Aux+Reclamation)	**558**

However the quantity of 218.81 Mcum(B) or 251.63 Mcum(L) of rehandling from surface dumps and 186.51 Mcum from crown dump will be got done contractually between 7th and 11th year and 26th and 28th year respectively for which no provision of HEMM has been made in the above table. It is assumed that as this is relatively a smaller period job, it can therefore better be contracted out. It is estimated that deployment of 4/8 nos. 20/10cum bucket capacity hydraulic shovels in combination with 48 nos. 150/100T dumpers will be adequate to do the job for the 1st part and double of these equipment for 2nd part. Rehandling of overburden will be outsourced. Contractor will be permitted to use standard equipments of high capacity which will be available at that time. Indian contractors already have 100T dumpers and 10 cum bucket shovels. Progressively the size of equipments (HEMM) with the contractors may also increase.

Because of production contribution from 12 no. of seams at different horizons, dumper transport would be ideally suited.

Further, due to dumping constraints, virtually no space is available at quarry floor. The working faces will be moving at 200-300 m per year and it will be difficult to maintain multiple loading points and undertake frequent shifting of loading points in case the conveyor arrangement is to be considered instead of presently proposed dumper system.

5.3.11.3 Drilling

Crawler-mounted pneumatically operated down the hole drilling rigs with hole diameter of 200-250 mm and those rigs are capable to meet the future requirement of 8 m/hr will be deployed for OB.

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5.3.11.4 Loading

The FELs of 6-8 cum and 10-16 cum bucket will be used for loading coal cut by 3800SM and 4200SM (operating in windrow mode) respectively and will be loaded into the 100T and 150T dumper., The OB will be dealt with the help of hydraulic shovel in combination with dumpers after drilling and blasting.

5.3.11.5 Haulage/Transport

The OB will be transported by 150 T and 50 T R.D. trucks to surface dumps and later on, as soon as decoaled area is available suitable for backfilling, to the site of back-filling. The coal from SM will be transported by 100T/150T coal body trucks and will not require any crushing. A coal stack facility has also been provided for accommodating about 3 days production. FE loading machines with 8 m^3 coal bucket will load the coal into trucks from coal heaps created by the Surface Miners to transport upto the hoppers within the mine while 5cum bucket capacity FELs will be used for handling coal from the coal stack on the surface. This system will offer mobility or flexibility.

The production from each seam will be mined in the ratio's to ensure near consistency of quality over the life of the mine.

The main haul roads will be 30m wide and laid at a gradient of 1 in 16. The haul roads, other than the main haul road, will also be laid at 1 in 16 gradient but local ramps can be negotiated at 1 in 10 gradient. The drainage of the road will be affected by a specially built drain, usually along the high wall, towards which the road level will be slightly tilted (1 in 100) for easy water collection.

5.3.12 Geo-mining Characteristics for OC

The geo-mining characteristics are given in Table 5.12.

TABLE 5.12
GEO-MINING CHARACTERISTICS OF OC MINING

Particulars	Unit	West of Kelo River	East of Kelo River
Extractable Reserve	Mt	655.152	
i) By opencast mining	Mt	505.986	47.191
		553.177	
ii) By underground mining	Mt	95.605	6.370
		101.975	
Overburden	MCum	**2385.850**	**375.270**
		2761.120	
Stripping Ratio without	Cum/t	7.952	4.715

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Particulars	Unit	West of Kelo River	East of Kelo River
rehandling		4.99	
Overburden Including Rehandling of surface dumps		2979.95	
Stripping Ratio with rehandling of surface dumps	Cum/t	5.39	
OB including rehandling of surface dumps & Rehandling of Crown Dump		3396.80	
Stripping Ratio with rehandling of surface dumps & crown dump		6.14	
Total number of seams	Nos.	31 nos. (including splits) from XL to IL in descending order	
Workable Seams	-	18 nos. including splits (Seam – XL1 to Seam- VI by OC and Seam IV to I- Comb. by UG)	
Seam and partings thickness range, m		Refer Table 4.6 in Chapter 4	
Area of Excavation	Ha	2081.76	358.79
		2440.55	
Perimeter	m	18838	1192
Angle of dip	degrees	2-4 SW (1 in 14 to 1 in 28)	
Dip-rise length along floor			
i) Minimum	m	2163	178
ii) Maximum	m	3429	1332
iii) Average	m	2796	755
Dip-rise length along surface:			
i) Minimum	m	2485	467
ii) Maximum	m	3809	1584
iii) Average	m	3147	1025.5
Quarry depth:			
i) Minimum	m	92	105
ii) Maximum	m	190	165
iii) Average	m	141	135
Strike length along floor:			
i) Minimum	m	5257	616
ii) Maximum	m	6776	2752
iii) Average	m	6016.5	1684
Strike length along surface:			
i) Minimum	m	5714	854
ii) Maximum	m	7162	3384
iii) Average	m	6438	2119

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5.4 UNDERGROUND MINING

5.4.1 General

i. Underground mining method has been adopted for mining coal of lower seams viz. Seam IV, III, II, IL1 and I.

Though the reserve of thickness lying between 0.9m and 1.5m has been separately indicated but for the purpose of present Mining Plan, only thickness of more than 1.5m has been considered.

ii. The extractable reserves by underground have been derived in Table 5.1B and are 101.975 MT. The distribution of reserves on west and east of Kelo river, seam wise are given below in Table 5.13 to 5.17.

TABLE 5.13
ECONOMICALLY EXTRACTABLE RESERVE BY UNDERGROUND (MT)

Seam	Economically Extractable Reserve		
	West of Kelo River	East of Kelo River	Total West and East of Kelo River
VI-L	0.000	0.000	0.000
VA-1	0.000	0.000	0.000
VA-2	0.000	0.000	0.000
VB-1	0.000	0.000	0.000
VB-2	0.000	0.000	0.000
VC-1	0.000	0.000	0.000
VC-2	0.000	0.000	0.000
VD-1	0.000	0.000	0.000
VD-2	0.000	0.000	0.000
IV	21.049	2.576	23.625
III-L2	0.000	0.000	0.000
III	24.004	3.793	27.797
II	21.297	0.000	21.297
I-L1	7.546	0.000	7.546
I-TOP	6.742	0.000	6.742
I-BOT	6.192	0.000	6.192
I-COMB	8.776	0.000	8.776
Total	**95.605**	**6.370**	**101.975**

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TABLE 5.14
UNDERGROUND WEST SIDE NET AND EXTRACTABLE COAL (MT)

Seam	Total UG Reserve >0.9M Thickness	< 1.5M Thickness Reserve	Net Geo. Reserve >1.5M Thickness	Total Blocked Coal	Net Reserve excluding Blocked	Extraction Panel Pillars 80%	In Panel Extraction, MT
VI-L	0.494	0.489	0.005	0.005	0.000	0.000	0.000
VA-1	3.111	3.111	0.000	0.000	0.000	0.000	0.000
VA-2	0.254	0.254	0.000	0.000	0.000	0.000	0.000
VB-1	8.976	8.976	0.000	0.000	0.000	0.000	0.000
VB-2	0.269	0.269	0.000	0.000	0.000	0.000	0.000
VC-1	28.166	27.783	0.383	0.383	0.000	0.000	0 000
VC-2	7.937	7.937	0.000	0.000	0.000	0.000	0.000
VD-1	0.236	0.236	0.000	0.000	0.000	0.000	0.000
VD-2	0.388	0.388	0.000	0.000	0.000	0.000	0.000
IV	53.593	6.526	47.067	7.400	39.667	31.734	21.049
III-L2	1.227	1.227	0.000	0.000	0.000	0.000	0.000
III	58.470	2.491	55.979	9 097	46.882	37.506	24.004
II	51.273	2.778	48.495	6.899	41.596	33.277	21.297
I-L1	23.842	6.083	17.759	2.546	15.213	12.170	7.546
I-TOP	YEKLL	5.383	15.077	1.485	13.593	10.874	6.742
I-BOT	17.120	2.876	14.244	1.760	12.485	9.988	6 192
I-COMB	19.237	0.000	19.237	1.544	17.694	14.155	8.776
Total	**274.593**	**76.807**	**218.246**	**31.118**	**187.129**	**149.703**	**95.605**

TABLE 5.15
UNDERGROUND EAST SIDE NET AND EXTRACTABLE COAL (MT)

Seam	Total UG Reserve >0.9m Thick.	< 1.5M Thick. Reserve	Net Geo. Res >1.5m Thickness	Total Blocked and Not Minable Reserve	Net Reserve Ex. Blocked Reserve	Ex. Panel Pillars 80%	In Panel Extraction
VI-L	0.0030	0.003	0.000	0.000	0.000	0.000	0.000
VA-1	0.0080	0.008	0.000	0.000	0.000	0.000	0.000
VA-2	0.0000	0.000	0.000	0.000	0.000	0.000	0.000
VB-1	0.0000	0.000	0.000	0.000	0.000	0.000	0.000
VB-2	0.0000	0.000	0.000	0.000	0.000	0.000	0.000
VC-1	1.6710	1.671	0.000	0.000	0.000	0.000	0.000
VC-2	0.4190	0.419	0.000	0.000	0.000	0.000	0.000
VD-1	0.0000	0.000	0.000	0.000	0.000	0.000	0.000

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Seam	Total UG Reserve >0.9m Thick.	< 1.5M Thick. Reserve	Net Geo. Res >1.5m Thickness	Total Blocked and Not Minable Reserve	Net Reserve Ex. Blocked Reserve	Ex. Panel Pillars 80%	In Panel Extraction
VD-2	0.1790	0.179	0.000	0.000	0.000	0.000	0.000
IV	8.767	2.635	6.132	1.277	4.855	3.884	2.576
III-L2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
III	10.822	1.451	9.371	1.963	7.408	5.927	3.793
II	0.477	0.424	0.053	0.053	0.000	0.000	0.000
I-L1	0.781	0.537	0.244	0.244	0.000	0.000	0.000
I-TOP	2.690	1.541	1.149	1.149	0.000	0.000	0.000
I-BOT	2.740	1.564	1.176	1.176	0.000	0.000	0.000
I-COMB	0.046	0.000	0.046	0.046	0.000	0.000	0.000
Total	**28.603**	**10.432**	**18.171**	**5.907**	**12.264**	**9.811**	**6.370**

TABLE 5.16
UNDERGROUND EAST SIDE SEAM WISE BLOCKED COAL RESERVES OF >0.5M THICKNESS (MT)

Seam	Blocked in Facility and Incline Area	Blocked in Shaft Side Area	Blocked 75m Barrier in Kelo River	Blocked 25m Fault Barrier	Blocked Under Half Pillar Along ML Boundary	Blocked under Kelo River	Reserve Not Economically Viable Reserve*	Total Blocked Coal
VI-L	0.000	0.000	0.0	0.0	0.0	0.0	0.005	0.005
VA-1	0.000	0.000	0.0	0.0	0.0	0.0	0.000	0.000
VA-2	0.000	0.000	0.0	0.0	0.0	0.0	0.000	0.000
VB-1	0.000	0.000	0.0	0.0	0.0	0.0	0.000	0.000
VB-2	0.000	0.000	0.0	0.0	0.0	0.0	0.000	0.000
VC-1	0.000	0.000	0.0	0.1	0.0	0.0	0.315	0.383
VC-2	0.000	0.000	0.0	0.0	0.0	0.0	0.000	0.000
VD-1	0.000	0.000	0.0	0.0	0.0	0.0	0.000	0.000
VD-2	0.000	0.000	0.0	0.0	0.0	0.0	0.000	0.000
IV	1.228	0.247	0.213	4.672	0.721	0.319	0.000	7.400
III-L2	0.000	0.000		0.000			0.000	0.000
III	1.175	0.244	0.394	5.822	0.886	0.576	0.000	9.097
II	1.835	0.049	0	4.091	0.923	0.001	0.000	6.899
I-L1	1.010	0.000	0.058	1.030	0.421	0.027	0.000	2.546
I-TOP	0.000	0.038	0.108	1.190	0.052	0.0965	0.000	1.485
I-BOT	0.000	0.067	0.295	0.916	0.158	0.3235	0.000	1.760
I-COMB	0.000	0.270	0.037	0.884	0.31	0.0425	0.000	1.544
Total	5.248	0.915	1.105	18.673	3.471	1.386	0.320	31.118

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TABLE 5.17
UNDERGROUND WEST SIDE SEAM WISE BLOCKED COAL RESERVES OF >0.5M THICKNESS (MT)

Seam	Blocked in 25 m fault on Either Side	Blocked under half pillar along ML boundary barrier	Blocked in 25m River Barrier	Blocked Under Kelo River	Reserve Not Economically Viable Reserve*	Total Blocked and Not Minable Reserve
VI-L	0.000	0.000	0.000	0.000	0.000	0.000
VA-1	0.000	0.000	0.000	0.000	0.000	0.000
VA-2	0.000	0.000	0.000	0.000	0.000	0.000
VB-1	0.000	0.000	0.000	0.000	0.000	0 000
VB-2	0.000	0.000	0.000	0.000	0.000	0.000
VC-1	0.000	0.000	0.000	0.000	0.000	0.000
VC-2	0.000	0.000	0.000	0.000	0.000	0.000
VD-1	0.000	0.000	0.000	0.000	0.000	0.000
VD-2	0.000	0.000	0.000	0.000	0.000	0.000
IV	0 401	0.446	0.110	0.319	0.000	1.277
III-L2	0.000	0.000	0.000		0.000	0.000
III	0.556	0.670	0.161	0.576	0.000	1.963
II	0.000	0.029	0.000	0.001	0.023	0 053
I-L1	0.017	0.000	0.000	0.070	0.157	0.244
I-TOP	0.107	0.021	0.020	0.097	0.904	1.149
I-BOT	0.058	0.048	0.077	0.324	0.670	1.176
I-COMB	0.000	0.000	0.000	0.000	0.046	0.046
Total	**1.139**	**1.214**	**0.368**	**1.386**	**1.800**	**5.907**

* *The reserves as are not economically viable due to various reasons are shown vide Fig. 5.1, 5.2, 5.3, 5.4 and 5.5 in respect of Seam VC1, II, IL1, I Top and I Bot. & Combined respectively. It is enclosed at the end of Chapter.*

iii. The mineable seams have following thicknesses.

IV	0.10-3.70
III	0.10-3.50
II	0.05-7.05
I-L1	0.10-2.89
I-TOP	0.11-3.80
I-BOT	0.19-4.49
I-COMB	2.15-7.87

iv. A designed production capacity of around 1.6 Mty will provide life of about 69 years (including 3 years of construction: incline drivage and shaft sinking) of the below ground workings.

v. For working belowground seams, the various technology choices available are.

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5.4.2 Underground methods of mining

The methods for underground mining are described below.

a) Longwall mining with caving

The advance of the UG mining faces in this specific case is dictated by the location of the operational faces of OC mining as both the method are used during the 1st 30 years simultaneously. A clear distance of over 500m between the faces of two methods will be required to be kept which will put a restriction on the layout of the longwall faces. Hence for the 1st 30 years, longwall system has not been considered. More deliberations on the matter are given under para 5.4.5 and 5.4.6 of this chapter.

b) Bord & Pillar mining with caving

Mechanised Bord and Pillar mining with low height continuous miner and shuttle cars could be one of the suitable systems for an annual coal production of 1.60 Mtpa by underground method inspite of disadvantage of high capital cost. In underground, development and depillaring will be done with the help of Continuous Miners only, requiring no blasting. So explosives will be required only for drifting and drivages of access inclines in stone or drivages in seams with less than 1.8m thickness for heightening. The average daily requirement will be about 0.50 T and that also during the initial years of UG drivages and shaft sinking. It may be noted that only permitted explosives will be used in underground coal mines.

Four nos. of CM will be deployed each producing @ 0.4 Mtpa. They will be appropriately engaged in development and depillaring depending upon the situation. Continuous miner, shuttle car combination along with one LHD and support attachment is proposed.

As the parting between seam VI and seam IV is 79.10m (min) and 98.37m (max). It will be prudent to have min 500m lag between the opencast face and the underground face to avoid impact of heavy blasting of opencast working onto the parting between seam IV and seam VI. Accordingly the planning has been done. However, the suggested lag distance of UG mining operations will be subject to DGMS approval. Continuous miner, shuttle car combination along with one LHD and support attachment is proposed.

The following precautions will be adopted to facilitate simultaneous operation of OC and UG mining:

i) The OB will be layer-wise compacted with rollers to prevent absorption of excessive water.

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ii) The backfill dumps will be kept well drained.

The quarry sump will always be kept dewatered.

5.4.3 Entries for Underground Mining and their Development schedule

a) Entries for underground mining:

Two inclines (one pair) having cross-section 4.8m x 3m and 2 shafts (Exhaust shaft-1 with 6m dia and Intake shaft-2 with 5m dia), all from surface to the lowermost seam-I Combined are planned to be located in the NW portion of the western part of block. As the two inclines are not adequate to supply the intake air to sustain the proposed 1.60 Mtpa production, an additional Shaft-2 (dia 5m) as mentioned above, is proposed near the inclines which can also be equipped with men/materials winding facilities if required (accordingly ventilation calculations have been carried out in Chapter 8). (Refer Plate XIX for UG development of Seam-IV). The bar chart showing development and production is given in Plate XXXIX.

Both the inclines are started from a point located at 100m distance from the NW boundary line of the block. The surface RL at the mouth of inclines will be 299m AMSL and the inclines will be driven at a gradient of 1:4.5 parallel to the NE block boundary at a distance of 100m and 150m respectively. That means that the inclines will be 50m apart. The details related to intersection of various seams with shafts and inclines is given below in Table 5.18.

TABLE 5.18
INTERSECTIONS OF SHAFTS AND INCLINES WITH DIFFERENT SEAMS

Seam	Return Shaft No-1 (6m dia)		Intake Shaft No-2 (5m dia)		Inclines		
	FRL, m	Depth, m	FRL, m	Depth, m	FRL, m	Depth, m	Length of incline upto seam, m
Surface RL	288.5		292		299		
IV	111	177.5	103	189	98	201	904.5
III	40	248 5	29	263	45.28	253.72	1141.74
II	(-) 17	305.5	(-) 27	319	(-) 15	314	1413
IL1	(-) 39	327.5	(-) 48	340	(-) 36	335	1507 5
I (Top)	(-) 67	355.5	(-) 65	357	(-) 62	361	1624.5
I (Bot. & Comb.)	(-) 76	364.5	(-) 87	379	(-) 81	380	1710

A perusal of the Table shows that the length of each of the 2 inclines is 1710m in section (1668m length on plan). A safety barrier of 100m is further

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kept between the southern incline and the NE quarry boundary. The RLs at which the 2 inclines will intersect floors of seams-IV, III, II, IL1, I and finally the lower most seam-I Bot & Comb are given in the last column of the above Table. It may be particularly noted that the location and alignment of the inclines has been selected in such a way that they intersect all the seams.

b) Development schedule of the entries to UG:

The development schedule of the entries to UG mine workings is given in Table 5.19 below:

TABLE 5.19
ASSESSMENT OF TIME SCHEDULE FOR SINKING OF SHAFTS AND INCLINES AND COAL PRODUCTION

Sl. No.	Particulars	Drivage/ sinking Length/ depth (m)	Progress m/month	Time required in months	Remark
1	Drivage of Incline No.1 from surface SRL 299M to Seam-IV at floor FRL 98m at Gradient 1 in 4.5 (4.8mX3.0m).	904.5	45	20.1	During 9th and part of 10th year
2	Drivage of Incline No.2 from surface SRL 299M to Seam-IV at floor FRL 98m at Gradient 1 in 4.5 (4.8mX3.0m).	904.5	45	20.1	do
3	Return Ventilation Shaft-1 sinking from a point having 288.8m RL near incline to Seam-IV at FRL (+) 111m	177.5	12	14.8	do
4	Intake Ventilation Shaft-2 sinking from a point having 292m SRL near incline to seam-IV at FRL (+) 103m	189	12	15.8	do
5	Drivage of Incline No. 1 from Seam-IV FRL 98M to Seam-III at FRL 45.28m at Gradient 1 in 4.5 (4.8mX3.0m).	237.24	45	5.3	During 10th and part of 11th year
6	Drivage of Incline No. 2 from Seam-IV FRL 98M to Seam–III at FRL 45.28m at Gradient 1 in 4.5 (4.8mX3.0m).	237.24	45	5.3	do

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Sl. No.	Particulars	Drivage/ sinking Length/ depth (m)	Progress m/month	Time required in months	Remark
7	Return Ventilation Shaft-1 sinking from Seam IV at FRL 111m to Seam-III at FRL (+) 40m	71	12	5.9	During 10th year
8	Intake Ventilation Shaft-2 sinking from Seam IV at FRL 103m to seam-III at FRL (+) 29m	74	12	6.2	do
9	Developing the bottoms of shafts and inclines including armouring, equipping to make ready for production			13	During part of 10th year and full 11th year
10	Production from development and depillaring from seam-IV				From 12th to 40th year
11	Production from development and depillaring from seam-III				16th to 47th year
12	Drivage of Incline No. 1 from Seam-III FRL 45.28m to Seam-I Bot & Comb at FRL (-) 81m at Gradient 1 in 4.5 (4.8mX3.0m).	568.26	45	12.6	During part of 42nd and full 43rd year
13	Drivage of Incline No. 2 from Seam-III FRL45.28m to Seam–I Bot & Comb at FRL (-) 81m at Gradient 1 in 4.5 (4.8mX3.0m).	568.26	45	12.6	During part of 42nd and full 43rd year
14	Return Ventilation Shaft-1 sinking from Seam III at FRL (+) 40m to seam-I Bot & Comb at FRL (-) 76m	116	12	9.7	During part of 43rd year
15	Intake Ventilation Shaft-2 sinking from Seam III at FRL (+) 29m to seam-I Bot & Comb at FRL (-) 87m	116	12	9.7	During part of 43rd year
16	Production from development and depillaring from seam-II and IL1, I Top, I Bot & Comb				From 44th to 70th year

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5.4.4 Working sequence

1. Seams will be depillared from top to bottom.

2. Boreholes from lower to upper seam for dewatering water from goaved out area should be done, as per DGMS permission.

5.4.5 Production from underground mines

a) Computation of production from UG

The production from one continuous miner will be 0.4 Mtpa. There will be four continuous miners operational at any time with following capacity.

Production from four set of standard = 4 x 0.40 MT	=	1.60 Mtpa

The main drives in coal connecting to inclines, shafts as well as all dip drives will be also driven with continuous miners. All the workable seams will be developed and depillared with continuous miners along with two shuttle cars in each set of continuous miner.

Accordingly, this mining plan has proposed 1.60 Mtpa production from underground mining which could be easily achieved.

b) Detailing of Bord & Pillar / Room & Pillar Technology

Accordingly Bord & Pilar (B&P) or Room & Pillar (R&P) Methods are proposed for this block.

Because of the prevailing mining parameters, need for economic exploitation of the multiple seams with maximum percentage of extraction possible, optimum production and productivity two proven B&P technology methods are considered suitable for application.

1. Mechanized R&P method with application of continuous miner without blasting.

2. Semi mechanized B&P method with application of blasting with explosives and LHD.

c) Advantages and disadvantages of R&P method with application of continuous miner without blasting

Advantages of R&P method with application of continuous miner without blasting are given below:

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- Very successful and economical to date in Indian applications
- Universal acceptance of the technology
- Higher percentage of extraction both in first extraction and final extraction is achievable
- Pillar extraction achieved successfully
- Production levels being maintained till the life of the machine by involving manufacturers in maintenance of the equipment
- Huge potential to improve performance
- Does not require blasting and as such better roof control
- Since no blasting is required, this method is preferable in working underneath populated surface features like villages, highways etc.
- Dispensation from DGMS have been available in India for developing coal seams with gallery widths up to 6.5m and heights up to 4.5m where mining conditions permit, thus allowing much higher percentage of extraction in first extraction which is particularly advantageous in developing coal seams below surface features like villages provided adequate long term factor of safety in maintained.

The disadvantages are

- Productivity decreases rapidly with increases in gradient above 1 in 5.5 and the limiting gradient is 1 in 4.
- The continuous miner equipment approved for use in India by DGMS has a working height range of 2m to 4.5m. For a different working height range, fresh approval will be required which may require some time.
- This method requires an adequately trained and competent term to operate and maintain the equipment and high level of management skill for effective utilization and optimum productivity.
- A globally recognized mining method with very high potential production rates up to 1 million tones per month (in China – with Western equipment).
- Some Seams can only be extracted by longwall method which is most suitable for depths exceeding 450 m.
- High capital cost.

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5.4.6 Proposed U/G mining method

I. Mechanized Continuous Miner Technology–Development & Depillaring

a) Application of Room and Pillar Mining in India

Indian coal mines have a long history of successfully applying Room & Pillar mining methods. Until recently labour intensive "hand got" methods were universally applied. Mechanization to improve productivity by the application of "Side Dump Loaders" (SDL), Load Haul Dump (LHD) and now continuous miner (CM) has been successful and is being widely practiced in the CIL mines.

A mechanized room and pillar mining culture therefore already exists. The Indian coal mining industry has also introduced with limited success fully mechanised longwall mining.

The mechanization program is now aimed to increase the tonnage produced from each district with minimum capital expenditure with the obvious resultant saving in new mine development cost, utilization of developed coal standing in pillars and a further improvement in productivity.

The district layout to introduce one fully mechanized room and pillar mining district may use a combination of 5 heading pillar development and pillar extraction using continuous miners and ancillary equipment.

It is proposed to employ mechanized R&P technology for extraction of all seams in this coal block on contract mining basis to ensure highest economy and productivity throughout the life of the equipment. The production equipment package will comprise of one continuous miner, two shuttle cars, one twin boom roof bolter equipment, one LHD, one feeder breaker and associated electrical accessories. The equipment to be selected would have the specification to cover a seam height range in single lift varying from 1.50m to 3.5m (Continuous Miner model CAT: CM 340 (Mining Range 1.37 m to 4.00m, 70 tonnes, 697 KW or other similar CM).

The development will be carried out in a height range of seam thickness to maximum up to 3.00m. The DGMS has already approved the application of Continuous Miner in a thickness range of 2m to 4.50m for use in India. During depillaring it should be possible to extract up to a height of at least 5.0m with these equipment.

The development may be carried with gallery height of up to 4.5 m and widths up to 6.5 m which may be permitted by DGMS under special dispensation allowed for mechanized extraction by CM in India. We are

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proposing the galiery size of 3.00m height and 4.8m width. The centre to centre pillar dimensions shall be as per Regulation no. 99 of CMR, 1957.

The five heading dip drives will be also developed with continuous miner. The method of development and depillaring with Continuous Miner technology is discussed in detail later. The general specification of the equipment is given in para 5.6.

In this coal block, the winning of coal is proposed to be carried out with continuous miner technology. For the seam height above 5.5m winning is not feasible by this equipment and hence will be left intact.

One set of continuous miner equipment package can achieve an annual production capacity of about 0.40 Mtpa on an average.

The calculations are given in Table 5.20 below.

TABLE 5.20
CAPACITY CALCULATION OF CONTINUOUS MINERS USED IN DIFFERENT THICKNESS RANGES OF COAL SEAMS

Seam thickness, m	Crossection area @4.8m width, sqm	Advancing Speed of CMs while cutting, m/hr*	Hourly Coal Volume, cum/hr	Daily Coal Volume, cum/ day assuming only 8 effective hrs/day, cum	Coal production, TPD	Annual Coal production, MT	Annual production assuming a factor of 0.75, MT
2.5-5 (Av 3.75)	18	8.5	153	1224	1958	0.587	0.44
1.8-3.5 (Av 2.65)	12.72	10	127	1017	1627	0.488	0.37
						Average assumed	0.40

* *Speed assumed based on actual operating CMs*

** *8 effective hrs adopted based on actual pert net of time distribution activities through 24 hours (working hrs of CM and Shuttle car 8+ Maintenance 4 hrs + Marching time for CM, FB and RB 8 hrs + Break down 2 hrs+ others electrical faults etc 2 hrs)*

*** *@ 1.6t/cum sp density*

There will be four continuous miners operational at any time with following capacity.

Production from four sets of CMs= 4 x 0.40 MT	=	**1.60 Mtpa**

Accordingly, this mining plan has proposed 1.60 Mtpa production from underground mining which will be easily achieved.

b) Support

In the mechanized R&P technology area, all the supports will be carried out with full column resin grouted roof bolts installed by mechanized roof bolter

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which is supplied as a part of the continuous miner package. Depillaring support is also carried with resin roof bolts.

Scientific studies will need to be carried out to assess the support requirement and design by measurement for the pattern of roof bolting and their specifications. During both development and depillaring monitoring of effectiveness of supports will have to be carried out by actual measurements.

c) Typical face equipment

Typically the face will be equipped with the following:

- One of suitable "Continuous Miner" equipped with radio/umbilical core remote control, dust scrubber and methane monitor approved by the Director General of Mine Safety (DGMS) for use in Indian Coal Mines. The continuous miner cuts and loads the coal in a single operation.

- Two approved "Shuttle Cars", one left and one right hand including service jacks and side boards. The shuttle cars transport the cut coal from the continuous miner loading conveyor to the feeder breaker.

- One "Twin Roof bolter" track mounted mobile roofbolting machine with two roof drilling rigs, equipped with a "Temporary-Roof-Support" (TRS) system and set up for wet drilling operations.

- One Load-Haul-Dump (LHD) with electric cable reel to be dedicated to the face operation is a multi-purpose vehicle and is essential for the efficient of the district by maintaining the panel floor to the high standard required to sustain high performance. Other uses include but are not restricted to cleaning up spillages in the district from the shuttle cars, to assist with transport for materials to site (from the end of the haulage), to spread stone dust, to lift items and assist with the repair of equipment during break downs and to carry spare parts from the haulage to the equipment. This vehicle is also used to carry out electrical move ups of the load centre/transformer complex.

- One "Feeder/Breaker" mounted on tracks to size and feed the tipped coal from the shuttle car on to the conveyor at a consistent controlled rate. The feeder/breaker has a hopper sufficient to hold a complete shuttle car load. The shuttle car is capable of tipping at two speeds. With a feeder/breaker in the system the shuttle car can tip at high speed into the hopper, the feeder/breaker (or with just a breaker plate) then sizes the coal (possibly to 150mm) and feeds the conveyor at a controlled even rate thus preventing belt damage, maximizing conveyor capacity and allowing the shuttle car to travel back to the continuous miner for loading in the shortest time possible.

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- Complete set of special maintenance tools with secure storage box.
- Hand tools, shovels, picks, brushes, pinch bars for scaling roof and an assortment of pulling, jacks and lifting tools.

II. Typical Development Mining Method

a) Strike Development

It is proposed that the "strike" or "near strike" development and bulk tonnage producing areas be mined by continuous miners and ancillary equipment where the face equipment is installed, maintained and operated. The standard layout consists of a five road development, with the main conveyor and feeder breaker positioned in the Central roadway.

b) Place Changing

Place changing is where the continuous miner cuts for a specific distance beyond the last row of support (up to a maximum 15m called a "Place') using radio remote control of the continuous miner. The workforce at all times operates under supported roof. A lesser distance may be advanced depending on DGMS approvals. The time to cut a place is largely dependant upon the efficiency or shuttle car operation (wheeling"). Once a "Place" is cut the continuous miner is trammed to an adjacent heading to commence the cutting cycle over again. A roof bolting machine then supports the area mined by the continuous miner as a separate operation then the roadway is cleaned by LHD and ventilation extended in preparation for the continuous miner returning. The machines therefore operate independently and hence with greater flexibility for both cutting and roof bolting operations.

The work of the LHD cannot be understated. The quality of floor is one of the keys to success in place changing. A clean and well maintained floor provides a safer working environment, enables shuttle cars to operate at fast speeds, lessens the potential for cable damage and allows for unhindered continuous miner and bolter relocations.

c) Mining Geometry

The continuous miner typically has a cutting head 3.3m to 3.5m wide. The machine is usually "sumped in" between 0.5m and 0.75m at roof level, the rear stab jack on the machine lowered and the head sheared down to floor level. This cycle is repeated 3 to 4 times, the roof and floor trimmed and the operation repeated.

"**Bord Width**"- Indian Coal Mines Regulations restrict "bord", "room" or "roadway" width to a maximum of 4.8m. The continuous miner and all

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ancillary equipment is able to operate at this dimension however productivity and safety around moving equipment is greatly enhanced with wider roads.

Since the coal is cut and not blasted, the pillar sides are far stronger. It is estimated that blasting effectively increases the bord width by at least 0.5m on each side of the drive due to the shattering effect of the explosives on the pillar sides. Blasting would therefore effectively create a bord width of 5.8m in a nominal 4.8m wide bord driven using drill and blast methods. It is proposed to work generally with a 6.0m bord width and to optimize the system based on the technical study by a scientific consultant and envisages that DGMS will be approached for an exemption to regulations to permit a bord width up to 6.5m wide. The effect of increasing bord width would be to.

- Increase production and productivity of the mining system (Plate XLII)
- Improve safety of men and machines since there would be greater clearances for equipment to operate and for people to travel in the district.

d) Mining height

Indian Coal Mines Regulations restrict the mining height during development to 3m. This is understandable for traditional systems of drill, blast and support where access to the roof for support and manual drilling holes etc. in thick seams is onerous and extremely difficult. With the equipment and systems proposed coal winning and support and achieved mechanically and can be undertaken safely and efficiently within the operating range of the equipment. The mining height should therefore be restricted by the operating range of the equipment which in most cases exceeds 3m. It is good practice to mine and support as one phase. Removal of support, particularly cement or resin grouted roof bolts is not possible without blasting. This then further weakens the roof and exposes the work force to unnecessary exposure to unsupported roof.

The impact on strata control of working at increased height will be assessed by the scientific consultant and it is envisaged that the DGMS will be approached for exemption to permit the mining height during the development phases be restricted by the operating range of the equipment or seam height which ever the greater.

e) Pillar Dimensions

Indian Coal Mines Regulations define pillar dimensions in terms of depth of workings and bord width. In the case where the bord width is 4.8m the distance between the centres of any two adjacent pillars shall not be less than:

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Depth	Centres
Not exceeding 60m	19.5m
Exceeding 60m but not exceeding 90m	21.0m
Exceeding 90m but not exceeding 150m	24.5m
Exceeding 150m but not exceeding 240m	34.5m
Exceeding 240m but not exceeding 360m	45.0m
Exceeding 360m	48.0m

It is likely that the continuous miner will be operating at depths around 165 to 465m. The pillar sizes, under current Indian regulations should therefore be 34.5m to 48m (centre to centre) with 4.8m bord width to comply with the Indian Coal Mines Regulations. Scientific studies and practices to date in India indicate that the legislated design criteria are very conservative. These pillar dimensions are considered excessive for the desired Factor of Safety and it is envisaged that application will be made to DGMS to reduce the pillar dimensions in order to increase the productivity of the purposed system. Optimization of the bord width, mining height and pillar sizing may be carried out by calculating and using safety factors from established formulae.

f) Typical method of support

A typical support system consists of 4 X 1.8m full column resin grouted roof bolts, the roof bolts being installed and tensioned by the roof bolter. It is anticipated that with bord widths exceeding 4.8m an additional bolt would be required.

Design for Resin Bolt System for junction and gallery support is given in Fig. 5.6.

During Development Spacing and distance between rows and bolts will be 1.2 m.

Pillar extraction generates additional roof stresses and the additional support applied before bed separation can take place, during the development phases, would be beneficial in the long term.

g) Typical Pillar Extraction Methods

Pillar removal plans are an important part of the continuous miner operations and must be fully considered prior to the mining of the advancing panel. There are many different methods of pillar removal and these must be assessed to determine the most appropriate to suit the conditions at the mine. This requires full assessment of the mining height, depth, roof strata,

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floor strata, immediate roof and floor properties, rib stability, pillar size and roadway width.

The size of pillar and the roadway width depends on the depth and geological conditions, as well as the proposed method of de-pillaring. The safety factors, method of operation and layout of de-pillaring have a marked effect on the choice of roadway width and pillar size on development.

Knowledge of the composition of the overburden is important in deciding whether to carry out retreat mining. This affects pillar dimensions, roof control plans and selection of the technique. The overburden should be strong enough, given the pillar sizes and temporary support, to allow the development work to be carried out safely, yet weak enough to fall at the proper time during retreat. If this is not the case, then variations to the pillaring plan, such as increasing or decreasing pillar dimensions or utilizing a different sequence of cuts must be employed.

The composition of the floor under the coal is another important consideration. The floor is often weaker than the roof and if mixed with water can create mud and poor mining conditions. Plastic flow of the floor can cause instability in the pillars. A full geological survey and interpretation of the conditions is necessary to establish the pillar sizing, roadway width and retreat mining sequence of extraction.

The seam gradient is another factor that requires careful consideration, with slight grades affecting haulage effort and time for operations, which in turn affects the productivity. Also the gradient may have an effect on the shape of the pillars and layout and direction of the panel with main working along the line of strike and cross cuts angled to reduce the angle of apparent dip.

There are many different methods of pillar removal and these must be assessed to determine the most appropriate to suit the conditions at the mine.

h) Operating Methods for De-pillaring

The standard operating method in India is to fully develop the panel, with typically 5 entries on advance, to the panel boundary. At the boundary, the panel may be connected to other 'bleeder' ventilation roadways depending on the mine layout. Height of development and extraction is usually the full seam section or 4.6m (the maximum extraction height of the only approved continuous miner operating in India).

During retreat from the panel, the pillars are split, depending on panel size and caving conditions) and extracted on their side or at angles to take the ribs in an arranged and safe extraction method. Extra roof bolting is used at the edges of the pillars to provide an effective 'breaker line' and ensure that

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after the extraction sequence is complete the roof collapses in a controlled manner up to the roof bolt breaker line. It is suggested that 3 additional rows of bolts will be put to support goaf edge, with distance and spacing of 0.4 m.

During retreat mining/pillar removal the aim is to keep active working places (where the continuous miner is operating) away from the caved areas. Also the length of time that openings are maintained must be kept to a minimum and workplaces should be concentrated in a limited area.

The infrastructure, conveyors, material transport system, power, water, pumping and ventilation are in place from the development phase.

The same equipment is required for pillar extraction as for development.

Pillar extraction techniques may follow the traditional 45° "stooping" line, or the preferred straight line method employed with continuous miners.

Two pillars are mined simultaneously using either system.

The disadvantage of the traditional "45° System" with FULLY mechanized equipment is the creation of excessive tramming distances which effectively restricts production.

The protection afforded by the 45° line was originally developed for a hand loading scenario due to the long time period the pillar had to stand whilst being extracted and the number of working places required by the cyclic, drill, blast and hand load method.

The straight line method reduces both tramming distances and cable lengths to a minimum whilst optimizing tramming routes.

i) Percentage extraction

The "IN PANEL" extraction is estimated with both the 45° and straight line methods as shown above to typically be 80% by area, this may increase by "robbing snooks" (pillar remnants) whilst retreating from the pillar.

j) Conveyor

A 1200mm "fire resistant" conveyor at around 3m/s with a duty equivalent to average 500T per hour (TPH) would be installed in the centre roadway (as shown in all stage plans) to ensure equal tramming distances and cable lengths on each side of the loading point. Peaks of 750 TPH are expected.

The conveyor will be equipped with a loop take-up at least of sufficient capacity to hold belt stretch for one week and preferably to hold one roll (usually 300m) of conveyor belting for extension and retreat of the

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conveyor. At the in bye end of the conveyor, a sledge mounted and guarded return pulley frame, graduated loading section (at least 3m in length) equipped with impact rollers, and anchor chains will be provided.

The "head" end of the conveyor should be equipped with a suitable loading section on to the trunk conveyor, dust suppression equipment, belt alignment, belt slack and belt slip detectors. The "gate" belt should be electrically interlocked with the "trunk" conveyor to automatically stop the gate belt.

Communication and continuous signaling and "stop pulls" will be provided along the length of the conveyor. The conveyor will also be provided with an effective bottom belt scrapper.

One side of the conveyor will be designated as the "man walkway" into the district. To prevent "Tripping and Falling" accidents, this walkway will be kept clear of any supplies, materials, be clean, level and well illuminated.

District materials should not as far as possible be transported along the conveyor belt route.

5 Heading Development by Continuous Miner showing Bord & Pillar Layout with Transport has been shown vide Fig 5.7.

k) Material Transport

Materials such as timber, roof bolts, grouts/resins, spare parts, cables, lubricants, ventilation stopping materials etc. are to be transported by mine tubs to within one split of the gate belt "tail end".

Familiar method such as an endless rope haulage system using 15 kg track with a 0.6m gauge may be used. The track and return wheel should lag no more than 2 pillars behind the conveyor tail end. The rail track will be laid in the incline (other than the conveyor incline) extending to all the UG workings.

l) Pumping

Water made in the district shall be pumped out via at least a 100 mm pump range running along side of the conveyor. This district range shall be connected to intermediated sumps in the district and ultimately in the mine main sump.

The pump range, intermediate sumps and pumps shall be provided, installed and maintained by the mine. The pump range shall at all times be advanced or retreated to the gate belt tail end and provided with a 100 mm valve at each end. The CM district will require two mobile face pumps,

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cables, switchgear, flexible hoses and manifold to connect to the 100 mm valve provided by the mine.

Should more "permanent" or intermediate pump installations be required within the district as a result of "hitting" water, "permanent / intermediate pumps" shall always be kept supplied, installed, maintained and operated by the mine (including all electrical and pipe connections) to appropriate standards.

m) Clean water

In the case of CM districts clean water at neutral pH and minimum suspended solids is required to be provided at the rate of 250 l/min at 2000 kpa for cooling motors, drilling and dust suppression of the CM system. In all cases drinking water need to be provide in the district inbye.

The clean water shall be supplied by means of a 100 mm pipe range installed in the conveyor road. A 100 mm valve shall be provided at each end of the district clean water range. Fire hydrants shall be installed along the clean water range at intervals not exceeding 200m. At each hydrant in box containing fire hoses (sufficient for 200 m), nozzles etc. shall be provided.

The clean water range to the gate belt "tail end", valves, fire hydrants hoses etc. shall be supplied, installed and maintained by the mine.

n) Power supply

Power is to be supplied to the districts at a tension of 3.3 KV. The main feed cable to the district transformers (HT) shall be supplied and installed along the No 4 roadway. This would be required whichever technology is employed. It is required to have an installed capacity of 1500 KVA to supply the face equipment in the mechanized R&P district from the conveyor tail end inbye.

The face equipment will operate at 1100V. The CM package will include all electrical equipment, transformer (3.3 to 1.1 KV), switchgear, cables sockets etc. for the face equipment. It is necessary to provide separate HT cable and section isolator to the face transformer and between the district transformer and the face switchgear.

o) Communications

A suitable communication system shall be provided between the district gate belt tail end, mid-point of the conveyor run, gate belt head end and the office on the surface of the mine (or control centre if available) by the mine.

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p) Safety management

Safe is paramount to all operations. A project management plan will be developed specific to the continuous miner operations. The plan will include standards and procedures for the safe and efficient undertaking of all activities and tasks within the project scope. Standards will, as an absolute minimum, comply with the Coal Mines Regulations 1957.

q) Development of panels

The pattern of panel formation and likely number of faces as available during initial stage is shown in Plate XIX, XXI, XXIII and XXIV. Underground working plans for Seam-IV, Seam-III, Seam-II, Seam IL-1, Seam-I (Top) and Seam I (Bot.& Comb.) are given in Plate VIII to XIII). The Conveyor and haulage are kept in inclines which also serves the purpose of intake for the panels. The same extends in the seam with four headings dip drives. The idea is to keep two panels operating. The panels shall be laid out on apparent gradient, thus reducing the gradient of the headings and to be self draining.

III. List of equipments for UG mining

The following are the main equipments required for fully mechanised bord and pillar method deployed with Continuous Miner in Table 5.21.

TABLE 5.21
EQUIPMENT CONFIGURATION FOR FULLY MECHANISED PANELS

Sl. No.	Name of equipment	No.	Broad Specification
1.	Continuous Miner	4	Remote controlled machine similar to CAT: CM 340 (Mining Range 1.37 m to 4.00m, 70 tonnes, 697 KW
2.	Shuttle Cars	8	2.5 cum capacity
3.	Twin Mast Roof Bolter	4	Rotary wet flush drilling
4.	LHD with Electric cable reel	4	1.2-1.4 cum
5.	Feeder/Breaker	4	Crushing coal (-) 150mm
6.	Load centre and transformer	4	3.3kV/1130 V 1500kVA TX
7.	Special Maintenance tools along with Hand tools, shovels, picks, brushes, pinch bars & jacks etc.	Complete Set with secure storage box for each miner	-

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The general strategy will be to drive five main heading to the dip most points about (1.5 m to 2.0 km) and then make 5 heading panels (150 m wide) on both wings along strike. Fortunately gradient is not a constraint in orientation of panels. Considering all the pros and cons, it is considered that B & P mining will be more prudent choice here. To start with level of mechanization could be semi mechanized one (side discharge loader / load haul dumper) but with some mining experience fully mechanized B & P (Continuous miner) could be best option, to reduce human drudgery and for improved ventilation and faster production.

The coal from underground will come up the incline mouth by conveyors which will unload the same to hopper of the coal handling plant and then to the dispatch bunker of the cross country conveyor.

5.5 PRECAUTIONS FOR SIMULTANEOUS OPERATION BY OC AS WELL AS UG METHOD WITHIN THE BLOCK

Normally the UG development and depillaring operations will lag by at least 500m, hence no problem is expected to arise during simultaneous operation by OC and UG method. However, the safe distance will require approval of DGMS.

5.6 PROPOSAL FOR WORKING UNDERGROUND MINE AFTER COMPLETION OF OPERATIONS OF OPENCAST MINE

Underground mining operations have been designed keeping in view the top seams extraction through OC method which will entail heavy blasting at the rate of about 120 TPD. The UG operations are maintained at a distance of over 500m away from the actual operations of the OC mine, thus the planning and the equipment design for UG mine have been adopted completely in view of the above fact.

The continuous miner has been found to be the best option to maintain a reasonable level of high production and productivity without resorting to blasting. This system is quite flexible. It is planned to continue with such process of operation at least for 1st 30 years till the OC operations conclude (Refer Plate XXVII and XXVIII). Final pit floor can be seen in Plate XXV.

It may be noted that mine area is very long extending to over 9km from one end to the other. It is, therefore, desirable that around 25th year of mine operation, the mine planning should be relooked into for the following (Refer Plate XXIII and XXIV).

a) Additional shaft entry for production as well as for movement of men and material with a view to cut down the long haulage and travelling from the existing entry point and also for lowering mine resistance to improve the ventilation in the lower seams. Indicative location of the shaft for

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consideration is shown on the western bank of Kelo river (Refer Plate IV).

b) Almost all the lower seams (to be worked by UG) have coal grade varying between A to F as compared to top seams which are of grade between E to G as being worked by OC. It is, therefore, desirable to maximize the extraction percentage by further realistic planning and better technology input. Examination at this stage may be necessary to consider the application of LWPS system wherever feasible. Though use of LWPS may not be completely ruled out, its applicability will be restricted in view of the fact that there are 10 faults and varying seam thickness in two seams (II and I Comb.) upto 7 m. The initial 15 to 18 years of the UG mining operations will provide realistic input for further detailed planning of the remaining working area of UG after the OC mining operation comes to complete closure. At that stage it is suggested that a re-examination of the Mining Plan may be carried out.

The underground mining stage plans from 40th to 77th year are given in Plate XXIX to XXXIV respectively.

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SEAM-VC1
EXTRACTABLE RESERVE=0.167 MT
NOT VIABLE



N

LEGEND :-

- BLOCK BOUNDARY
- BOREHOLE DRILLED BY MECL
- BOREHOLE DRILLED BY G.S.I
- EFFECTIVE THICKNESS IN METRES
- THICKNESS CONTOUR
- FAULT WITH THROW
- RIVER / NALA
- BARRIER

0 500 1000 1500 2000M

SCALE

Certified that the plan is correct

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R.Q.P. 84012/03/2014-CRAW

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NEW DELHI, PH. 26534777, 26535981
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CLIENT: MAHARASHTRA STATE POWER GENERATION COMPANY LTD. (MSPGCL)

PROJECT: GARE PALMA SECTOR II COAL MINE

TITLE: MINES PLAN & CONSEPT PLAN
RESERVE NOT ECONOMICALLY NOT VIABLE
(SEAM-V, S1)

DRAWN BY	CHECKED BY	FIG. NO.
S.R. MATLOTRA	B.D.SHARMA	5.1
SCALE: AS SHOWN	DATE: 10-06-2016	

SEAM-II
EXTRACTABLE RESERVE=0.482 MT
NOT VIABLE

N

LEGEND :-

- BLOCK BOUNDARY
- BOREHOLE DRILLED BY MECL
- BOREHOLE DRILLED BY G.S.I
- EFFECTIVE THICKNESS IN METRES
- THICKNESS CONTOUR
- FAULT WITH THROW
- RIVER / NALA
- BARRIER

0 500 1000 1500 2000M
SCALE

Certified that the plan is correct

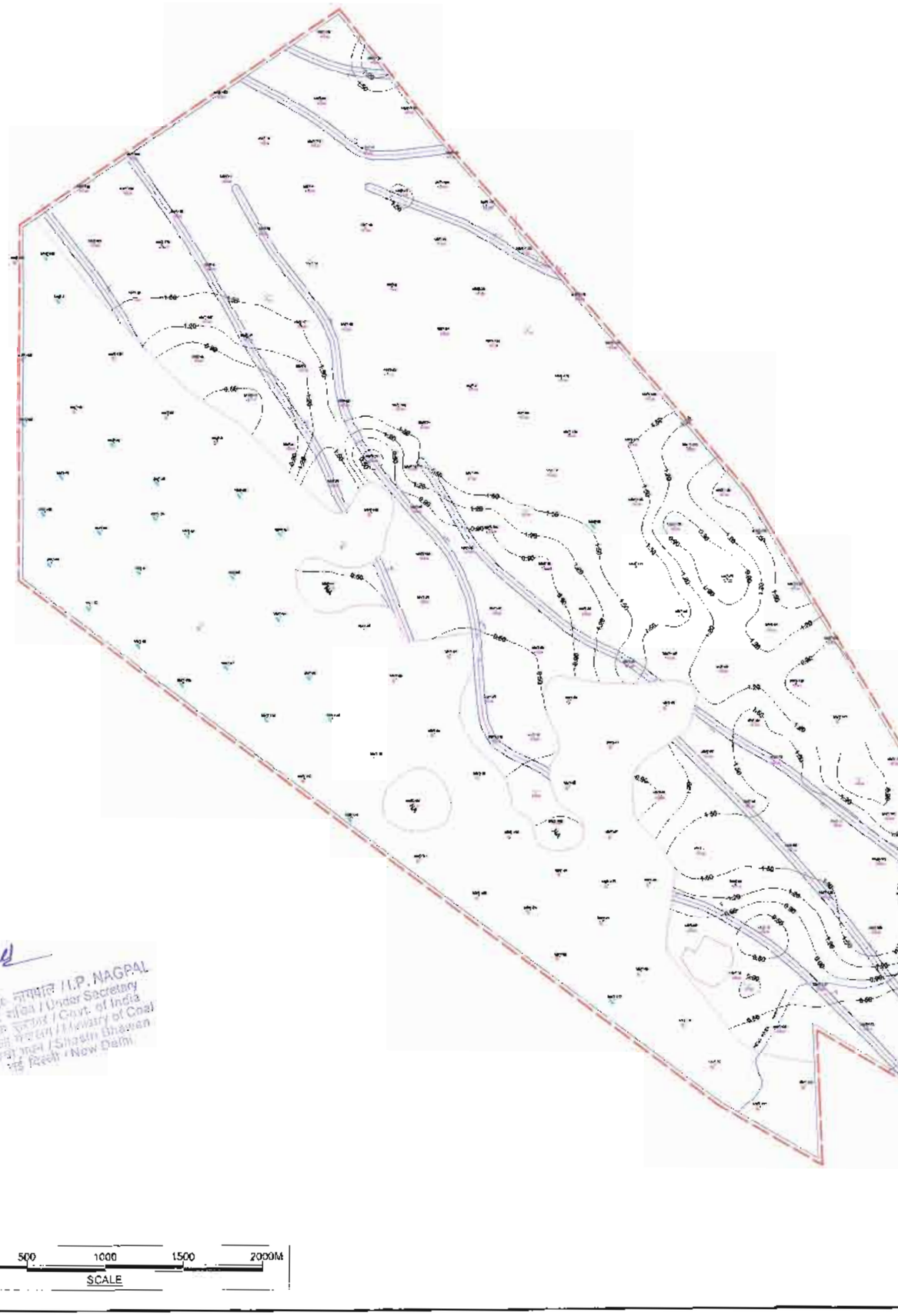
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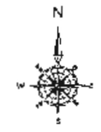
CLIENT: MAHARASHTRA STATE POWER GENERATION COMPANY LTD. (MAHAGENCO)

PROJECT: GARE PALMA SECTOR-II COAL MINE

TITLE: MINING PLAN & CLOSURE PLAN
RESERVE NOT ECONOMICALLY NOT VIABLE
(SEAM-II)

DRAWN BY:	CHECKED BY:	FIG NO.
S.R. MATLOTIA	B.D SHARMA	5.2
SCALE: AS SHOWN	DATE: 30-06-2018	





LEGEND :-	
	BLOCK BOUNDARY
	BOREHOLE DRILLED BY MECL
	BOREHOLE DRILLED BY G.S.I
	EFFECTIVE THICKNESS IN METRES
	THICKNESS CONTOUR
	FAULT WITH THROW
	RIVER / NALA
	BARRIER

SEAM-IL1
EXTRACTABLE RESERVE=0.769 MT
NOT VIABLE

0 500 1000 1500 2000M
SCALE

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Ministry of Coal / कोयला मंत्रालय
Shastri Bhawan / शास्त्री भवन
New Delhi / नई दिल्ली

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CLIENT: MAHARASHTRA STATE POWER GENERATION COMPANY LTD. (MAHAGENCO)
PROJECT: GARE PALMA SECTOR- II COAL MINE
TITLE: SURFACE PLAN & SUBSURFACE PLAN
RESERVE NOT ECONOMICALLY NOT VIABLE
(SEAM- IL1)

DRAWN BY:	CHECKED BY:	FIG. NO.
B.P. MATLOTIA	B.D.SHARMA	5.3
SCALE: AS SHOWN	DATE: 30-05-2016	

N

LEGEND

	BLOCK BOUNDARY
	BOREHOLE DRILLED BY MECL
	BOREHOLE DRILLED BY G.S.I
	EFFECTIVE THICKNESS IN METRES
	THICKNESS CONTOUR
	FAULT WITH THROW
	RIVER / NALA
	BARRIER

SEAM-I (TOP)
EXTRACTABLE RESERVE=0.22 MT
NOT VIABLE

SEAM-I (TOP)
EXTRACTABLE RESERVE=0.118 MT
NOT VIABLE

SEAM-I (TOP)
EXTRACTABLE RESERVE=0.88 MT
NOT VIABLE

0 500 1000 1500 2000M
SCALE

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Govt. of India / Ministry of Coal
Shastri Bhawan / New Delhi

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R.G.P. 340120520014-CHAM

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CLIENT: MAHARASHTRA STATE POWER GENERATION COMPANY LTD. (MSPGCL)
PROJECT: GARE PALMA SECTOR II COAL MINE
TITLE: MINING PLAN & CLOSURE PLAN
RESERVE NOT ECONOMICALLY NOT VIABLE (SEAM-I TOP)

DRAWN BY:	CHECKED BY:	FIG. NO.
B.R. MATLOTIA	B.D.SHARMA	5.4
SCALE: AS SHOWN	DATE: 30-08-2016	

N

LEGEND :	
	BLOCK BOUNDARY
AMT-118	BOREHOLE DRILLED BY MECL
	BOREHOLE DRILLED BY G.S.I
	EFFECTIVE THICKNESS IN METRES
	THICKNESS CONTOUR
	FAULT WITH THROW
	RIVER / NALA
	BARRIER

SEAM-I (BOT.)
EXTRACTABLE RESERVE=0.089 MT
NOT VIABLE

0 500 1000 1500 2000M
SCALE

I.P. NAGPAL / Under Secretary / Govt. of India / Ministry of Coal / Shastri Bhawan / New Delhi

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CLIENT: MAHARASHTRA STATE POWER GENERATION COMPANY LTD. (MAHAGENCO)

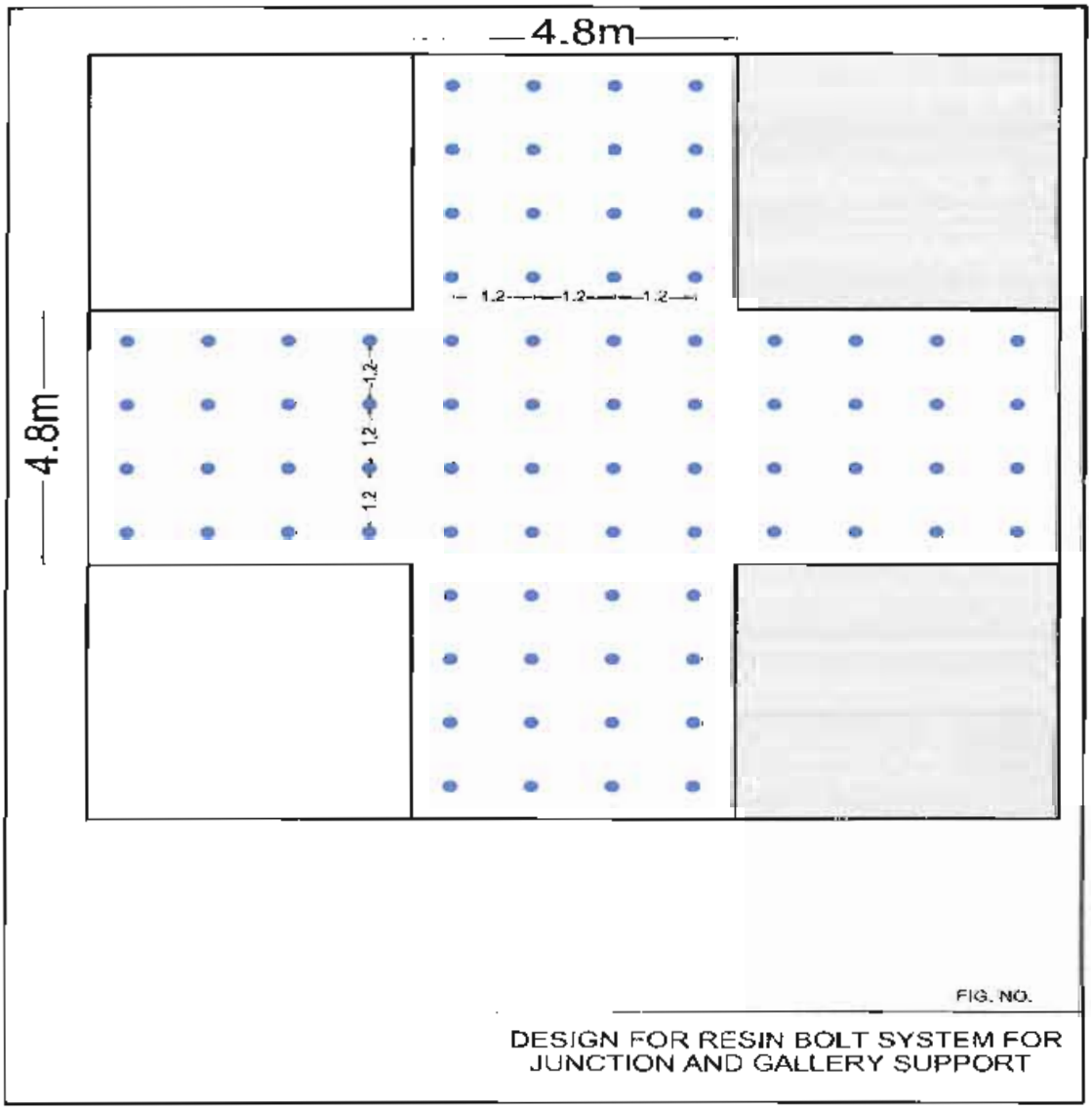
PROJECT: GARE PALMA SECTOR-II COAL MINE

TITLE: MINING PLAN & CONCEPT PLAN
RESERVE NOT ECONOMICALLY NOT VIABLE
(SEAM-I BOT. & COMB.)

DRAWN BY: S.R. MATLOTIA | CHECKED BY: B.D SHARMA | FIG. NO: 5.5

SCALE: AS SHOWN | DATE: 30-09-2016

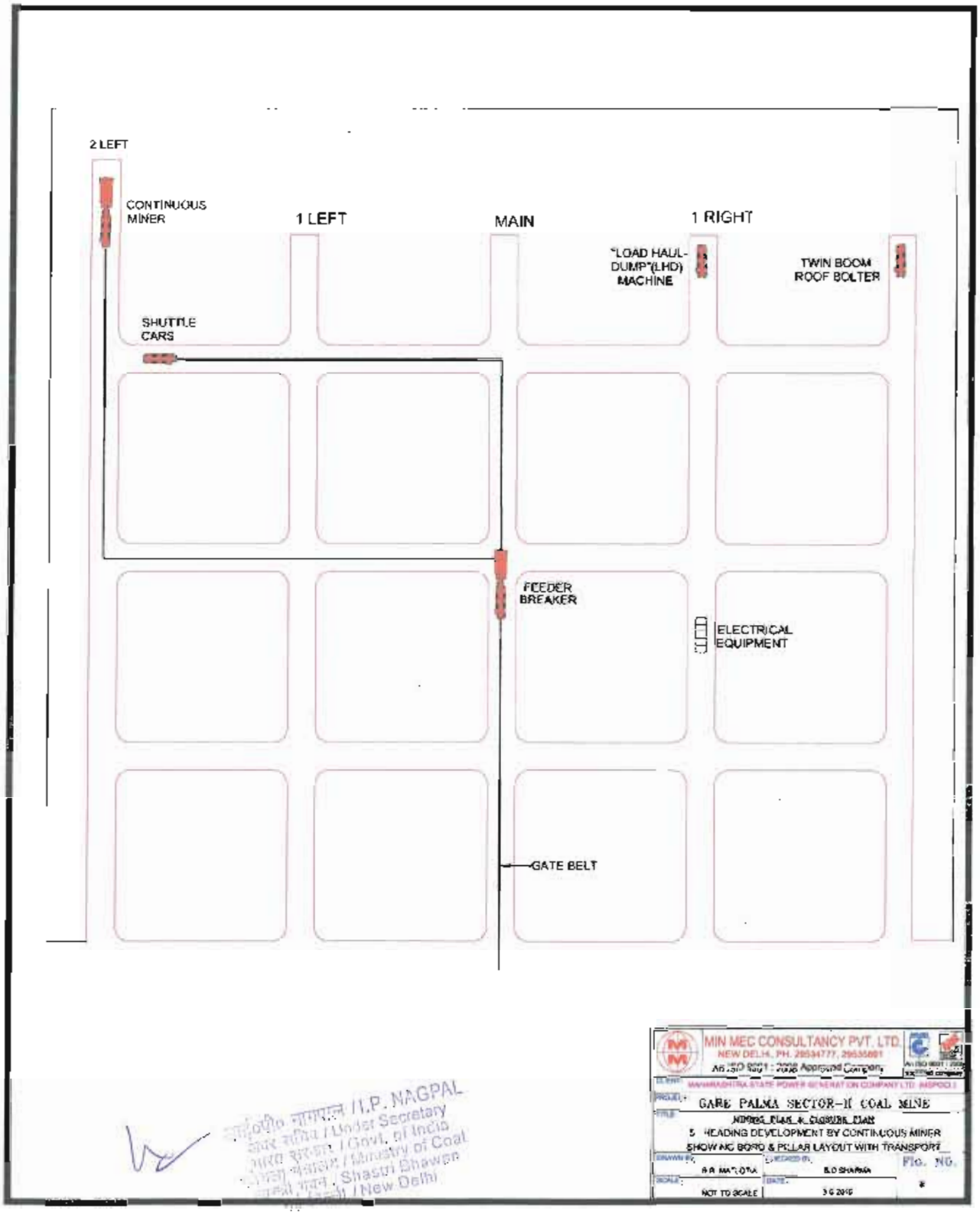
FIG 5.6: DESIGN FOR RESIN BOLT SYSTEM FOR JUNCTION AND GALLERY SUPPORT



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FIG 5.7: 5 HEADING DEVELOPMENT BY CONTINUOUS MINER SHOWING BORD & PILLAR LAYOUT WITH TRANSPORT



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CHAPTER 6

DRILLING AND BLASTING

6.1 INTRODUCTION

This mine will be operated both by OC as well as by UG method. The method of blasting and requirement of the explosives has, therefore been separately described below.

The total coal production planned is 23.6 MT. The equipment configuration for winning coal envisages deployment of 3 nos. surface miners which does not require drilling/ blasting. However, the total OB is proposed to be mined deploying shovel dumper combination requiring drilling/ blasting. After shot holes are drilled into the horizontal bench of OB cut by the shovel, the faces are blasted using explosives and detonators.

6.2 OPENCAST MINING

All of the coal 23.6 MT will be produced by OC mining during the initial years as the UG mining operations will start contributing to the coal production only from 12th year (including) onwards.

After shot holes are drilled into the horizontal bench cut by the shovel, the OB benches are blasted using ANFO/SME/SMS with booster explosives and detonators or TLD and DTH combination. In this mine, main waste is overburden in the form of top soil, alluvium and weathered mantle. Only 0.60 m average thickness of top soil has been considered for separate removal and stacking for use in mine reclamation later.

6.2.1 Broad blasting parameters

The drill is deployed on the horizontal bench cut by the shovel. From this level, blast holes are drilled down to the floor of the seam or bench, the length of holes will be 10% longer than the height of the bench. Easy access to the drill is provided via the waste bench.

In the blasting operations, shaking blast practices are proposed using low powder factor. This method will generate a set of cracks in the blasted strata with material movement reduced to minimum.

It has been assumed that 10% of the OB may not require blasting due to weathered mantle.

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Medium dia. holes of 200/250mm will be drilled in order to excavate on an average of 135 million BCM (Bank Cubic Meter of OB) per year upto 11th year and later reducing to 130 mcum(B) per year. A powder factor of 0.30 to 0.35 kg per BCM has been adopted for overburden. The highest production of coal is 23.6 MTPA from OC mine by CSMs (when UG is not under operation).

Short delay detonators shall be used. The control blasting techniques will be adopted whereever required to reduce noise, ground vibrations and fly rocks.

6.2.2 Type of explosives to be used

The open cast mine production is envisaged as 23.6 MTPA. ANFO/SME/SMS explosive is proposed to be used for heavy blasting and the daily requirement will be as follows for 23.6 MTPA coal production with maximum 135 mcum annual OB removal.

TABLE 6.1
REQUIREMENT OF EXPLOSIVES

		Te/day
For peak OB 135 Mill.cum. x 10^6 x 0.32 powder factor in kg/Te x 90%* ÷ 330 days ÷ 1000	=	117.82
For coal	=	0.00
Total	=	117.82

* *Assumed that 10% of Overburden does not require the blasting.*

6.3 UNDERGROUND MINING

The mine is also envisaged to be worked with underground system. The mine is targeted for an annual coal production of 1.6 MTPA by underground method. In underground, development and depillaring will be done with the help of Continuous Miners only, requiring no blasting. So explosives will be required for drifting and drivage of access inclines in stone or drivage in seams with less than 1.8 m thickness for heightening and for odd connections between galleries. The average daily requirement will be about 0.50 T and that also during the initial years of UG drivages and shaft sinking. It may be noted that only permitted explosives will be used in underground coal mines.

Four nos. of CM will be deployed each producing @ 0.4 MTPA on an average. One will be deployed in driving the dip drivages, two in developing the western flank panel and one in the eastern side panels. One set of CM will be deployed in each separate panel. Later, two CMs will be engaged in depillaring and two remain in development operations.

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6.3.1 Broad blasting parameters

Mine is planned to be worked by board & pillar underground mining method. The width of the development galleries will be 4.8 m and height of such gallery will be maximum 3 m. It will be not less than 1.8 m where the seam thickness is less than 1.8 m. All these galleries are driven with the help of continuous miner. Hence no blasting is required for winning coal except drifting in stone.

The drilling pattern has to be evolved for best results on the basis of hardness and other parameters. However, wedge cut is generally practiced and in section of 4.8X2.0 by putting around 18 holes, a pull of 1.5 m could be obtained getting muck around 32 tonnes in one round of blast, charging the holes between 0.5 to 0.6 kg each with permitted explosive like Soligex etc. Blasting efficiency could be achieved to over 3 tonnes/ kg.

6.3.2 Storage of explosives to be used

Manufacturers and suppliers of permitted explosives are few and a large numbers of holes are to be blasted frequently in OC, which required considerable quantity of booster explosives and considering that there could be delays in supplies for several reasons, a 2X20 tonnes magazine capacity for 2 to 3 weeks of storage of permitted explosive, detonators primers and fuse etc has been provided.

SMS will be prepared at site immediately before blasting is required to be carried out for which an SMS plant of suitable capacity will be installed.

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CHAPTER 7

DRAINAGE, PUMPING, POWER SUPPLY & ILLUMINATION

7.1 DRAINAGE & PUMPING

7.1.1 General

The coalfield is characterised by undulatory and rolling topography, consisting of hills interspersed with broad valleys. The general elevation of the ground ranges from 270m to 340m above MSL. The slope is either towards southwest or southeast. The hills are relict type and rise about 450m above MSL. The southerly flowing perennial Mand River with its tributaries constitute the main drainage of the area. The Kelo River, a tributary of Mahanadi, drains the eastern part of the coalfield.

The topography of Gare-Palma Area is mostly covered by softer horizon and in general represents an undulating terrain, more resistant sedimentary rocks stand out as ridges, rising as high as 580m above MSL (Silot Pahar) in the north west and 600m above MSL (Morga Pahar) in the north east. The general ground elevation of the Sector-II area under investigation varies between 242 m and 303m above MSL. The block exhibits undulating topography. Kelo Nadi flows from north to south through the south eastern part of the block. A few ponds are present within the block.

The summer season lasts from March to the middle of June, and the period from June to September is the south west monsoon season. The rainfall does not show any cyclic occurrences and shows wide and erratic variations, ranging from as low as 144.9 mm in 2004 to 1852.4 mm in 2003. The average annual rainfall for the period 1996 to 2005 was 1216.4 mm. The monsoon season is spread over the months from June to September.

No water accumulation in OC mine workings will be allowed to remain when the UG mining operations are in progress. There are two sources of water accumulation in the mine pit during open cast mining operation. The first source is direct rainfall and second source is mine seepage. As far as surface water sources are concerned, Kelo is flowing through the eastern portion of ML.

The mine working will be protected from the river inundation by providing embankments on either side of the river. The embankments will have 3m height and 10m width. Adequate measures to protect the mine workings from surface water flow during the rains will be taken by way of providing garland drains around the mine excavations and also by providing suitable

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drainage gradients for mine benches. Sumps of adequate capacity will be provided on the quarry floor. The coal excavation and transport machinery are organised to be sited over the coal bench top and will not be affected by water accumulation from rains or strata seepage.

The Hydrogeological study is under preparation.

The matter regarding the water make .and its evacuation has been separately discussed in the following paragraphs.

7.1.2 Opencast mine

a. Planning of Mine Drainage

The ultimate depths of the West OC Pit will reach around 200m. It will be planned to intercept the rain water as well as the seepage water at upper benches to the extent possible so that the water can be accumulated in sumps at 2-3 different elevations and the pumping can be accordingly planned with pumps of appropriate capacity and head.

Pontoons mounted pumps will usually be installed in main sumps to prevent their submergence in the unexpectedly heavy rainfall.

b. Make of Water

There are two sources of water accumulation in the mine pit during open cast mining operation. The first source is direct rainfall and second source is mine seepage. The rainwater accumulation is estimated for two options.

i. For normal pumping
ii. For emergency pumping

Each case has been described below separately.

i. For normal pumping

The normal pumping has been calculated based on the average rainfall of monsoon season for which data of Raigarh meteorological station has bee utilized as given in Table 7.1 below.

TABLE 7.1
METEOROLOGICAL DATA OF RAIGARH (1996-2005)

Month	Average monthly rainfall, mm
January	14.2
February	9.3
March	9.1
April	37.9

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Month	Average monthly rainfall, mm
May	23.5
June	202.5
July	324.3
August	371.6
September	220.0
October	35.6
November	7.4
December	13.7
Total (annual)	**1216.4**

The total rainfall in four monsoon months (June, July, August and September) is 1118.4 and dividing this by 120 days, the daily average rainfall comes to 9.32 mm.

The make of water is calculated in the following Table 7.2.

TABLE 7.2
CALCULATION OF PUMPING REQUIREMENT IN NORMAL CIRCUMSTANCES

Stage	Excavated Area (Ha)	Void left after backfilling (ha)	Rainwater volume within void @9.32mm (Ham)	Balance Rainwater accumulated after 50% losses for evacuation (cum/ day)	Seepage assumed, cum/day	Hourly pumping requirement @18 hrs /day in 1 days (cum/hr)
1st year	26.16	26.16	0.24	1219.1	500	95.50
3rd year	129.97	129.97	1.21	6056	1000	392
5th year	380.7	380.7	3.55	17741	2000	1096.70
15th year	1747.06	1066.26	9.94	49688	5000	3038.21
25th year	2272.42	702.39	6.55	32731	5000	2096.19
End of mine (29th year)	2440.55	191.78	1.79	8936.9	2000	607.61

ii. For emergency pumping

Using peak 24 hours rainfall observed at Raigarh (Source IMD data) as 315.2 mm on 25th of August 1970, the water accumulation is as follows in Table 7.3.

TABLE 7.3
RAINWATER ACCUMULATION

Stage	Excavated Area (Ha)	Void left after backfilling (Ha)	Rainwater falling over the void @315.2mm (Ham)	Balance Rainwater accumulated after 50% losses for evacuation (cum/ day)	Seepage assumed, cum/day	Hourly pumping requirement @18 hrs /day in 3 days (cum/hr)
1st year	26.16	26.16	8.25	41228.16	500	791.26
3rd year	129.97	129.97	40.97	204833	1000	3848.75
5th year	380.7	380.70	120.00	599983.2	2000	11221.91

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Stage	Excavated Area (Ha)	Void left after backfilling (Ha)	Rainwater falling over the void @315.2mm (Ham)	Balance Rainwater accumulated after 50% losses for evacuation (cum/ day)	Seepage assumed, cum/day	Hourly pumping requirement @18 hrs /day in 3 days (cum/hr)
15th year	1747.06	1066.26	336.09	1680425.76	5000	31396.77
25th year	2272.42	702.39	221.39	1106966.64	5000	20777.16
End of mine (29th year)	2440.55	191 78	60.45	302245.28	2000	5708.25

* *30% operation losses and 20% infiltration*

c. Pumping requirements criteria

To calculate the pumping requirements and for selecting the pumps, following points should be considered:-

1. Climatic conditions of the area.
2. Account must be taken of maximum rainfall as 315.2 mm in 24 hours.
3. Inflow from seepage water is assumed as 5000 cum/day (max) 4.
4. Pumping requirements are assessed on the basis that the make of water on the day of maximum rainfall will be pumped out in next three days.

For smooth working during monsoon:

1. Coal and OB working faces and the haul roads will be maintained free of water as far as possible.
2. Within the quarry, the faces will be so laid that water from the working areas shall flow into sump by gravity. From the sump, water would be pumped out to the surface, stagnated in a settling pond, utilised for the mine activities and then discharged to the nearest streamlet.
3. Water garland drains will be developed in advance for each stage of mine working so that water is collected by the garland drains collected in a settling tank, utilised for the mine activities and then discharged to the nearest streamlet.

Main Sump: Main Sump will have adequate capacity to store enough water as the entire rain water of the excavated mine area / catchment area will be flowing into the sump.

For the sake of calculation, effective pumping hours per day are taken as 18 during peak period. Adequate number of standby pumps will be provided for unforeseen hazards.

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d. Requirement of pumps

i. For normal pumping

Based on the data of Table 7.2, the requirement of pumps has been worked out as follows to deal at any stage of mining.

1	Pump capacity	75LPS (1000GPM)	38 LPS (500GPM)	15 LPS (200GPM)
2	No. of units	4	9	15

However, any convenient combination of pump capacities can be deployed to deal with the total water volume indicated. At least 30% of the main sump pumps will be Pontoons mounted to prevent their submergence in the unexpectedly heavy rainfall.

ii. For emergency pumping

The data of Table 7.3 shows that under heaviest rainfall conditions, the water volume to be tackled can be as high as 10 times the normal situation. Hence, adequate nos. of relevant capacity should be kept in the store or kept identified with any source around the area which can be made use of in case of emergency.

Requirement of pumps has been calculated on the basis of the following assumptions:

i. Total accumulation of rain water in the sump has been calculated on the assumption of 315.2 mm rain in 24 hours for emergency situation and based on 9.32 mm per day average rainfall for normal conditions. The catchment area of the mine will be determined between the garland drains constructed over the surface of the opencast mine to protect inrush of water from outside.

ii. The pumps should be able to de-water the sump, with this rainfall, in three days.

iii. At least 30% of the main sump pumps will be Pontoons mounted to prevent their submergence in the unexpectedly heavy rainfall.

iv. In addition to above, spare pumps will also be kept in the workshop/stores to meet the emergency.

Pumps of 15/ 38 / 75 lps or other convenient capacity having sufficient head will be procured in the required numbers.

Water stagnated on the haul roads, near the working faces and from undesirable water pockets will be handled by separate pumps, to discharge into the main sump.

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शास्त्री भवन / Shastri Bhawan
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The installed pumps will discharge water to the surface for the entire life of the mine.

Other Pumps

During rainfall, the water inflow into the sump contains clay & silt as well. To handle slurry, one number pump of slurry has been provided. In addition to above-mentioned pumps, adequate number of diesel pumps have also been envisaged.

Delivery Range

The delivery ranges will be laid along the batter of the mine as per the site of the main sump.

Also, additional pipe lines from surface to the sumps of adequate throughput should be always kept laid so that they can be made use of in emergency and can be directly connected to the pumps arranged in that situation without any loss of time.

7.1.3 Underground mine

The probable source of water to be taken care as mine drainage in any mine could be either accumulation of rain/surface water in working area or contribution of groundwater as mine seepage. The proposed mine will be worked out through underground as well as open cast mining techniques. Hence accumulation of rain / surface water is primarily considered for open cast mines. Only the groundwater seepage will form the source of water for underground mine drainage. The make of water in the underground mine will be from following sources.

a) Normal seepage / leakage from overlying sandstone of Barakar formation.

b) Inflow of water from Barakar sandstone roof during underground mining.

c) Part of water percolated from the OC excavated and backfilled area.

The water will be automatically drained to the sump in underground working at the lower most part of the mine. Adequate provision for draining out the seepage water from the sump will be provided and the working face will be kept dry. The face pumps will pump the water to the intermediate stage sumps from where the pumps will be finally pumping the water to the surface reservoir. Though the quantity of water make will be available from the project specific hydro-geological study based on which the capacity and number of pumps will be decided, the present estimates are based on the nearby operational mine at Milupara described below.

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Hydrogeological data collected from neighboring underground mine block IV/5 of M/s Monnet Ispat Ltd. idicated that total make of water from the underground working inseam-II is of the order of 1 m^3/min in dry season and 3 m^3/min in monsoon season with extension of workings over an area of 4 sq km. As the area of Gare Sector-II UG workings is likely to be about double the above area and 2 seams can be operational at a time, volumes of water to be tackled could be 4 time higher than these.

The daily water for evacuation, therefore could be assumed as follows:

Units	Dry summer	Monsoon
cum/min	4	12
GPM	881.06	2643.17
cum/hr	240	720
GPH	52863.44	158590.31
cum/day	5760	17280
GPD	1268722.47	3806167.40

It has been assumed that on an average about 2000 GPM evacuation will be adequate, pending the establishing exact availability of volume of water after the hydrogeological Study is completed.

The delivery ranges can initially be laid along the inclines while drifting but later on a proper delivery pipes will be laid through the shafts once the development is started in the coal seams. Normally 2 ranges of 8" pipe lines will be laid through the intake shaft which can evacuate about 2000 GPM. These can be accordingly modified later once the hydrogeological study indicates the actual make of water.

7.2 REQUIREMENT OF WATER FOR SERVICE BUILDINGS & DUST SUPPRESSION

The total water requirement will be 1995 cum/day (Refer Table 10.1 in Chapter 10). The requirement of water for dust suppression, plantation, dump trucks washing workshop etc. is estimated to be about 1546 cum/day. The requirement of potable water for other site services i.e. Canteen, Rest shelter, Offices is estimated at about 1239 cum/day out of which 790 cum/day will be reclaimed from the STP of colony.

The total water requirement will be met by bore-wells at site during the initial 2-3 years after which the mine water will be used after appropriate treatment as required.

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7.3 POWER SUPPLY & ILLUMINATION

7.3.1 Source of supply

The power will be fed to the project by an 11 KV overhead line from the existing grid sub-station at Tamnar.

7.3.2 Electric load

Most of the HEMM Equipment will be diesel operated except the high capacity shovels. Electrical power supply will be needed for Coal Handling Plant, illumination, Pumping, Workshop and residential colony.

The estimated connected load comes to the tune of 70000 KW as broadly calculated below.

TABLE 7.4
TENTATIVE POWER REQUIREMENT

Sl. No.	Particulars	Quantity	Unit power KW	Total power KW
I.	**Opencast**			
A.	**Coal**		nil	0
B	**Overburden**			
a)	Hydraulic shovel 5/5.5cum	4	350	1400
b)	Hydraulic Shovel 12 m^3 (electric)	7	600	4200
c)	Hydraulic Shovel 20 m^3 (electric)	20	1300	26000
g)	R.B.H drills 200/250 mm	24	100	2400
II.	**Others**			
i)	CHP etc			2000
ii)	Workshop			5000
iii)	Pumping combined OC+UG (2*350KW+2*200KW+4*160KW+ 13*40KW+20*11KW+4*50)			2680
iv)	Colony			2000
v)	Quarry and dump lighting			2000
vi)	Miscellaneous			1000
	Total (I+II)			**48680**
III.	**Underground**			
a)	Continuous miner 12CM27D	4	750	3000
b)	Shuttle car	8	219	1752
c)	Roof bolter	4	112	448

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Sl. No.	Particulars	Quantity	Unit power KW	Total power KW
d)	Feeder breaker	4	110	440
e)	Main fan	1	2250	2250
f)	LHD	4	160	640
g)	Conveyors(3*250 KW + 3*200 KW +9*50 KW +6*150 KW +9*60 KW +6*120 KW)			4000
h)	Rope haulage (2*100KW+2*80KW+2*60KW+1*20KW,) winder 400KW and manriding 100 KW			1000
	Total (III)			**13530**
IV.	**Misc. like overland conveyor to TPP**			**6000**
	Total (III+IV)			**19530**
	Grand Total OC, UG and others			**68210**
	Say			**70 MW**

7.3.3 Voltages & system earthing

The various voltages proposed to be used at the project are:

Incoming Supply	-	33 KV
Pumping	-	6.6/3.3 KVA & 415 Volts
Workshop	-	415 Volts
CHP	-	6.6/3.3 KV & 415 Volts
Lighting inside the quarry	-	220 Volts
Lighting outside the quarry	-	220 Volts

It has been proposed to adopt restricted earth neutral system for all equipment. An effective earthing system is planned to ensure safety to personnel as well as to prevent shock hazards. There will be an earthing grid surrounding the main substation. Its combined resistance shall be preferably kept below 2 ohms.

7.3.4 Illumination

Quarry illumination has been planned as under:

Power to the light shall be fed through transformers of 10 KVA 3.3/0.415 kV capacity. The working areas of the quarry shall be illuminated by a system of 4 x 400 W HPSV Lamps mounted on 15 m high mobile masts.

Transformers will be backed by DG Sets of suitable capacities arranged on hire basis.

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Entire haul roads will be illuminated by 250 W HPSV Lamps mounted on steel poles erected along the haul roads. Power to these lamps would be supplied at 240 Volts from 100 KVA, 3.3/0.415 kV transformers.

OB dump and soil dumps will be illuminated by 1000 W metal halide lamps mounted on steel tubular poles with 10 KVA, 3.3/0.415 kV transformers.

7.3.5 Emergency lighting

Provision has been made for portable emergency lights during power failures for illumination of important locations such as project office, sub-station, store, hospital, time office etc.

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CHAPTER 8

VENTILATION

8.1 VENTILATION INCLINES AND SHAFTS DETAILS

Two Inclines (one pair) having crossection 4.8m X 3m and 2 shafts (Exhaust shaft-1 with 6m dia and Intake shaft-2 with 5m dia), all from surface to the lowermost "Seam-I Bot & Combined" are planned to be located in the NW portion of the western part of block. As the two inclines are not adequate to supply the intake air to sustain the proposed 1.60 MTPA production, an additional Shaft-2 (dia 5m) as mentioned above, is proposed near the inclines to augment the Intake Air which will be provided with proper Winding arrangements for regular use as man winding and material supplies and the same has been considered in the calculation. (Refer Plate VIII for UG development of Seam-IV).

Both the inclines are started from a point located at 100m distance from the NW boundary line of the block. The surface RL at the mouth of inclines will be 299m AMSL and the inclines will be driven at a gradient of 4.5:1 parallel to the NE block boundary at a distance of 100m and 150m respectively. That means that the inclines will be 50m apart and will have a length of 1709m in section (1668m length on plan). A safety barrier of 100m is further kept between the southern incline and the NE quarry boundary. The inclines and shafts will intersect floors of seams-IV, III, II, IL1, I and finally the lowermost seam-I Bot. & Comb. at RLs as given in Chapter 5 (Table 5.18).

It may be particularly noted that the location and alignment of the inclines has been selected in such a way that it intersects all the seams.

The exhaust fan will be installed at the shaft through a properly constructed evacuee. The sinking of the shaft is so scheduled that the drivage from incline and shafts reaches at the same time in seam-IV. The assessment of time required for drivages of inclines and sinking of shafts can be seen in Chapter 5 (Table 5.19).

8.2 REQUIREMENT OF QUANTITY OF AIR

The requirement of air is calculated and given in Table 8.1 below:

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TABLE 8.1

REQUIREMENT OF AIR FOR VENTILATION OF MINE AND FACES AND COMPLIANCE WITH SPEED LIMITS (GARE SECTOR-II)

Particulars	Annual Production MTPA	Daily tonnage	Manpower in general shift	Daily Gas emission for Deg-II mine @10 cum/T (cum)	Air required cum/min	Air incl. elect. SS, pump house, drifting work etc assumed 10% (cum/min)	Total Intake Air with 30% leakage assumed, cum/min	Total Quantity with 10% extra assumed/ Velocity	Remark
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A. Requirement of Air on Production Basis									
i) Requirement of air for the **Mine** @2.5 cum/T	1.6	4848.48			12121.21	13333.33	15757.58	17333.33	
ii) Requirement of air for the **District** in the Mine @2.5 cum/T	0.4	1212.12			3030.30	NA	3939.39	NA	
B. Requirement of Air on Manpower Basis (Largest Shift) @6cum/ person			600		3600	3960.00	4680.00	5148.00	
C. Requirement of Air on Gas Basis						0.00			
i) Requirement of air for the total Mine (inflammable gas basis) to dilute down to 0.75%		4848.48		48484.85	4489.34	4938.27	5836.14	6419.75	Degree of gassiness assumed Deg-II, liberates max gas @10cum/T of coal produced
ii) Requirement of air for the District in the Mine (gas basis)		1212.1		12121.21	1122.33		1459.03		Same as above
D. Compliance to speed Limits. Minimum air required in CM district as per A.ii above (@2.5 cum/min) for 4.8m wide and 3.0m high face.		1212.1			3030.303	NA	3939.39	NA	Max. 4.0 m/s & min 0.5m/s vide DGMS circular No. 8674-94 dated 29.5.74 for CM working district
Thus, the velocity of air current in CM face (3030.303/(4.8*3*60)								3.51	Complies with <4m/s

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Hence, considering all the options from "A" to "D", the option "A" is selected i.e. 12121.21cum/min. After considering 30% leakage during circulation and requirement of panels individually, total air requirement works out to 15757.58 m^3/min. After considering 10% extra air for ventilating other locations (electrical sub-station, pump house, drifting work etc), total air requirement works out to 17333cum/min.

The UG mine operation extends over 9 km length and the working life of the UG mine is 77 years, as such another indicative shaft location has been suggested (to be firmed only after fresh study after about 25 years of the mine operation) to reduce mine resistance and cut down transportation distance of men materials etc. With this in view, it is proposed to install 1 nos. mechanical Ventilator of total capacity of 17350 m^3/min. One fan (exhaust) will be installed at ventilation shaft-1 (Return) having 6m dia on surface through evacuee. The exhaust fan will have the provision of variable pitch of blades to improve the quantity of air required in future.

Accordingly intake air is planned to be sent through 2 nos. inclines each having crossection of 4.8mX3m along with a 5m dia ventilation shaft-2 (with facilities for men and materials winding), all to be located in the NW portion of the block. It is to be specifically noted that the Intake inclines and shafts have been provided with such dimensions as will permit expansion in production in future.

The calculations for cross checking the speed in shafts and inclines for ascertaining the adequacy of air (being supplied or exhausted) are as follows:

TABLE 8.2
CALCULATIONS FOR CROSS CHECKING THE SPEED IN SHAFTS AND INCLINES FOR ASCERTAINING THE ADEQUACY OF AIR (BEING SUPPLIED OR EXHAUSTED)

Particulars	Annual Prodn. MTPA	Daily tonnage	Air required in cum/min @ 2.5 cum/t	Air required in cum/ min considering 30% leakage	Total Intake air required (cum/sec)	Vol through particular working, cum/sec	Incline/ Shaft dimensions, m	Area of Incline/ shaft crossection, sqm	Actual Speed kept m/s	Max permitted speed m/s	Remark
Overall air volume required	1.6	4848.48	12121.21	17333.33	288.89						
INTAKES											
Incl No.1 with conveyor						57.6	4.8*3	14.4	4	4	
Incl No. 2 without conveyor						115.2	4.8*3	14.4	8	8	
Vent shaft-2 intake with manwinding/ material system						116.09	5	19.63	5.92	8	OK, it has extra cap of over 35% and will serve future expn plans of 2MT
Total in Intakes (inclines + Shaft)	1.6	4848.48	12121.21	17333.33	288.89	288.89					
RETURNS											
Vent Shaft-1 (Exhaust) without man winding							6	28.26	10.22	12	OK, has 17% extra to keep future in mind for 2MT

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The above table shows that the Intake and Return air ways are adequate to fulfill the ventilation requirement.

8.3 SIZE AND CAPACITY OF MAIN FAN

Air pressure (p) required for the mine works out on the basis of the following formula:

$$P = RQ^2$$

Where

- P is pressure (gauge) in pascal,
- R is resistance in Gaul and
- Q is volume of air in m^3/sec

The value of R has been calculated as 0.117 Gauls

Therefore pressure has been calculated as follows:

P = 0.085x 288.89 x 288.89 =7094 pascals = 723mm of wg
(as 1 Pascal=0.1019 mm of water gauge or 1 mm of wg = 9.81 pascals).

Fan HP=(Q in cum/sec*100)/(75*0.8)

HP=288.89*850)/(75*0.8)	3014
KW @0.746HP/KW	2248

Say 2250 KW

The main mechanical ventilator of following specification will be installed at the Exhaust (Return) ventilation shaft-1 through evacuee.

TABLE 8.3
SPECIFICATIONS OF MAIN VENTILATOR

Type	Axial flow fan at Shaft (serving for 1.60 MTPA coal production)
KW	3000
RPM	600
Air flow (cum/sec)	290
W.G.	1002 mm

Evacuee of suitable design will be constructed for improving the efficiency of the mechanical ventilators.

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8.4 DESCRIPTION OF VENTILATION ROUTE

The main mechanical ventilator will be installed at surface for exhaust ventilation system for all the seams. Both the inclines will be kept as air intakes besides the Shaft-2 with 5m dia will help in augmenting the volume to adequacy. The inclines and the shaft will be connected by 3 drives in each coal seam. The five heading dip drives will serve the purpose of ventilation for each of the seams. The three inner dip drives connected to panels will be kept as air intakes and outer side dip drives will work as return from the panels. The air route will be maintained by erecting proper air crossings in the panels (Refer Plate XXXVIII). Underground ventilation can be seen in Plate XIX and XXIV.

From the very beginning all the 2 inclines with one shaft-2 (5m dia) will be used for intake and shaft-1 with 6m dia will be used for return air ways.

Auxiliary fans with suitable ducts will be used for blind headings of more than 30 meters length for a sufficient supply of air.

Following objectives are to be attained by adequate ventilation:-

a) The inflammable gas does not exceed 0.75% in return air of any ventilating district and 1.25% in any place in the mine.

b) The velocity of air at immediate out bye connection from the face should not be less than 30m/minute.

For other places it should be as follows:

TABLE 8.4
VELOCITY OF AIR CURRENT REQUIRED AT VARIOUS PLACES IN UG MINE WORKINGS

Degree of Gassiness	Places where velocity of air is to be measured	Velocity of Air
1st, 2nd, 3rd degree	Immediate out bye ventilation connection from the face.	30 m/min.
1st & 2nd degree	i) 4.5m from any face in intake side of brattice or partition ii) 7.5m outbye of the discharge end of air pipe	30 m/min
3rd degree	i) 4.5 m from any face on intake side of brattice or partition	45 m/min
	ii) 7.5m outbye of the discharge end of an air pipe	25 m/min.

c) In case of solid blasting, a minimum of 284 m^3/min of air should be circulated to every face.

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d) If wet bulb temp at any working place exceeds 30.5^{0}C, the air current should be less than 60m/min and more.

e) Provision and transport of the ventilation stopping materials (including access doors), building of the walls, air crossings etc. shall be the responsibility of the mine. Nowadays a range of pre-fabricated pressure rated ventilation structures may also be used which can offer significant savings in installation time and cost and also in materials transport.

f) Ventilation monitoring, measurements, updating of plans etc. and all legal responsibilities as required by the Indian Coal Mines Regulations shall be the responsibility of the mine. Exemption from existing quantity requirements as specified in the Indian Coal Mines Regulations would be required.

The Block coal seams are considered as degree 2nd gassiness for all purposes of calculation of ventilation.

8.4.1 Ventilation in mine panels

Mechanized Bord and Pillar mining generally results in a high quantity/low pressure ventilation system due to the large cross section and the number of driven roadways.

The ventilation system will be finalized in conjunction with the mining design work. It may utilize flanking returns whereby intake ventilation reaches the face along the centre drives of the district, coursed by brick (Breeze Block, IBR sheeting etc.) ventilation stopping with the other central roadways used as return airways. The number of intakes and returns will take into account not only the quantity of air at the face but also the air velocity within the roadways to prevent "dead ends/ blind headings".

Stoppings shall be maintained within a maximum 2 splits of the conveyor "tail end". Leakage through the last split is controlled by temporary ventilation stoppings usually made from hanging strips of old conveyor belting bolted to the roof.

Two auxiliary fans with a minimum duty of 10 cum/sec discharging into the return airways are to be installed with reinforced flexible ventilation ducting between the face and fans or should be used and hung from the roof bolts on straining wires.

8.4.2 Section ventilation requires

- One operating auxiliary exhaust fans with a capacity each to deliver 10m^3/sec. at the working face.

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- Standby auxiliary fans to maintain efficient ventilation management during panel advance and relocations.
- Cables and switchgear.
- Sufficient staining wire reinforced flexible ventilation tubing etc. as necessary (at least 200 m) and 'T" pieces etc. to ventilate all blind ends.

8.4.3 Precautions against coal dust explosions

Precautions against coal dust explosions such as the application of stone dust, stone dust/water barriers in districts, haulage & conveyor should be installed as per CMR, regular sampling and analysis of dust shall be according to the requirements of the Indian Coal Mines Regulations. These precautions shall be the responsibility of the mine.

Stone dust etc. shall be applied by the mine during periods outside of district production shift times. Stone dusting of the district shall at all times be at least to the last split.

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CHAPTER 9

STACKING OF MINERAL REJECTS AND DISPOSAL OF WASTE

9.0 WASTE GENERATED DURING OPENCAST AND UNDERGROUND MINING

A. WASTE GENERATED DURING OPENCAST MINING

9.1 NATURE OF TOP SOIL AND OVERBURDEN/ WASTE

Overburden consists predominantly sandstone with minor amount of shale, carbonaceous shale, ungraded coal and thin coal bands. Besides, the overburden also includes soil, weathered rocks, obvious bands of any thickness and dirt bands of >1m thickness. 0.60 meter average thickness of top soil has been considered for separate removal and stacking for use in mine reclamation later.

9.2 YEAR/STAGE WISE WASTE GENERATION

The waste generation year/stage wise is given in Table 9.1.

TABLE 9.1
WASTE GENERATION (TOPSOIL & OVERBURDEN) IN M.CUM (BANK) PROGRESSIVE

Year	Excavation Area	OB+TS Removal	Topsoil Generated From Excavation	Pure OB From Excavation, Mcum
	Progressive	Progressive	Progressive	Progressive
Const. (0)	0.00	0.00	0.00	0.00
1st year	26.16	5.00	0.16	4.84
2nd-3rd year	103.81	129.97	0.62	43.48
4th - 5th year	250.73	152.60	1.50	123.50
6th - 10th year	718.67	675.00	4.31	670.69

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Year	Excavation Area	OB+TS Removal	Topsoil Generated From Excavation	Pure OB From Excavation, Mcum
	Progressive	Progressive	Progressive	Progressive
11th - 15th year	647.69	624.00	3.88	620.11
16th - 20th year	202.79	495.00	1.22	493.78
21st - 25th year	322.57	495.00	1.94	493.06
26th - 29th End of mine	168.13	298.00	1.01	296.99
Closure plan 30th - 32nd	0.00	0.00	0.00	0.00
Total	**2440.55**	**2761.10**	**14.64**	**2746.46**

9.3 WASTE DISPOSAL SITES

There are different waste disposal sites located within the ML as follows:

i. The surface dumps

There is only one surface dump proposed which will be located over the coal bearing area in the southern portion of the West pit area. This dump will be spread over a maximum area of 380 ha (5th year) and will accommodate 218.81 Mcum (B) OB waste. The Dumping will start from 1st year and continue upto 6th year, however the exclusive dumping into this surface dump will be upto 5th year after which part (47.07) of the OB will be backfilled in 6th year.

The full height of the dump will be 90m in 6th year. No OB will be required to be disposed over the surface dump after 6th year.

As the surrounding area of the mine is coal bearing and belonging to other coal blocks, availability of external dumping space other than within the block is not foreseen. The entire block area is coal bearing and dumping location, schedule and rehandling have been envisaged accordingly which will cater to the dump space requirement for the project.

The proposed design layout has been arrived after also considering the simultaneous operation of OC and UG.

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ii. Backfill dump

Backfilling will start from 6th year of the project operation with a quantity of 87.068 mcum(B). During 6th year partial backfilling will be done and then upto final year full backfilling will take place concurrent with mining.

In the Mining Plan, provision for space for a washery has been made. The decision regarding capacity and layout of washery will be reached after thorough investigation. The rejects generated from the washery could also be backfilled into the quarry voids after taking permission from the relevant authorities. However, quantification of rejects is not possible at this stage as the washability study is still under preparation.

iii. Top soil dump

The total topsoil generated will be 14.64 mcum (B) during the life of the mine. Unutilised part of the same will be stacked separately in a soil stack pile located beyond the surface dump over the coal bearing area within West Pit area of 60.00 Ha (max). It will be used for growing plants along the fringes of the site roads and reclamation of surface dump and backfilled area.

The top soil stockpile will be low height not exceeding 6 m and will be grassed to retain fertility. Besides this, there would be temporary stacks near the excavation area and area to be reclaimed which will be made use of for concurrent filling without bringing the topsoil to the soil stack near the OB dump.

9.4 THE VOID

The remaining void area of 331.06 ha (195.15 ha in east pit with 170m depth upto pit floor + 135.91 ha in west pit with reduced depth of 60m as a result of partial backfilling) of the excavated pits will be at the end of mine life 29th year. The voids will be completely backfilled during post mine closure period 30th to 32nd both in East as well as West pit.

Plate XXVI shows the final stage at the end of mine operations with external dump rehandled and final void. The generation and disposal of total waste quantities for the life of the mine are shown in Table 9.1 and Table 9.2 respectively.

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TABLE 9.2
WASTE DISPOSAL (TOP SOIL & OB) IN MCUM (BANK)
CALENDAR PROGRAMME OF WASTE DISPOSAL (DIRECT AND REHANDELED) IN EAST AND WEST PIT (COAL MT, OB IN MBCUM)

Year	Total East + West Pit		Surface Dump Rehandling from West to West		Crown Dump Rehandling West to West		Crown Dump Rehandling West To East		Total OB Disposal (Direct + Rehandeled)	
	OB Progr.	OB Cumul.	Progr.	Cumul.	Progr.	Cumul.	Progr.	Cumul.	Progr.	Cumul.
1	5.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	5.00
2	14.10	19.10	0.00	0.00	0.00	0.00	0.00	0.00	14.10	19.10
3	30.00	49.10	0.00	0.00	0.00	0.00	0.00	0.00	30.00	49.10
4	45.00	94.10	0.00	0.00	0.00	0.00	0.00	0.00	45.00	94.10
5	80.00	174.10	0.00	0.00	0.00	0.00	0.00	0.00	80.00	174.10
6	135.00	309.10	0.00	0.00	0.00	0.00	0.00	0.00	135.00	309.10
7	135.00	444.10	21.74	21.74	0.00	0.00	0.00	0.00	156.74	465.84
8	135.00	579.10	21.74	43.48	0.00	0.00	0.00	0.00	156.74	622.58
9	135.00	714.10	21.74	65.22	0.00	0.00	0.00	0.00	156.74	779.32
10	135.00	849.10	21.52	86.74	0.00	0.00	0.00	0.00	156.52	935.84
11	135.00	984.10	5.22	91.96	0.00	0.00	0.00	0.00	140.22	1076.06
12	130.00	1114.10	5.22	97.18	0.00	0.00	0.00	0.00	135.22	1211.28
13	130.00	1244.10	5.22	102.40	0.00	0.00	0.00	0.00	135.22	1346.50
14	130.00	1374.10	5.22	107.62	0.00	0.00	0.00	0.00	135.22	1481.72
15	99.00	1473.10	4.75	112.37	0.00	0.00	0.00	0.00	103.75	1585.47
16	99.00	1572.10	21.74	134.11	0.00	0.00	0.00	0.00	120.74	1706.21
17	99.00	1671.10	21.74	155.85	0.00	0.00	0.00	0.00	120.74	1826.95
18	99.00	1770.10	21.74	177.59	0.00	0.00	0.00	0.00	120.74	1947.69

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Year	Total East + West Pit		Surface Dump Rehandling from West to West		Crown Dump Rehandling West to West		Crown Dump Rehandling West To East		Total OB Disposal (Direct + Rehandeled)	
	OB Progr.	OB Cumul.	Progr.	Cumul.	Progr.	Cumul.	Progr.	Cumul.	Progr.	Cumul.
19	99.00	1869.10	21.74	199.33	0.00	0.00	0.00	0.00	120.74	2068.43
20	99.00	1968.10	19 50	218.83	0.00	0.00	0.00	0.00	118.50	2186.93
21	99.00	2067 10	0.00	218.83	0.00	0.00	0.00	0.00	99.00	2285.93
22	99.00	2166.10	0.00	218.83	0.00	0.00	0.00	0.00	99.00	2384.93
23	99.00	2265.10	0.00	218.83	0.00	0.00	0.00	0.00	99.00	2483.93
24	99.00	2364.10	0.00	218.83	0.00	0.00	0.00	0.00	99.00	2582.93
25	99.00	2463.10	0.00	218.83	0.00	0.00	0.00	0.00	99.00	2681.93
26	99.00	2562.10	0.00	218.83	64.35	64 35	0.00	0.00	163.35	2845.28
27	99.00	2661.10	0.00	218.83	64.35	128.70	0.00	0.00	163.35	3008.63
28	95.00	2756.10	0.00	218.83	77.83	206.53	0.00	0.00	172.83	3181.46
29	5.00	2761.10	0.00	218.83	34.91	241.44	42.86	42 86	82.77	3264.23
30	0.00		0.00	218.83	0.00	241.44	44.18	87.04	44.18	3308.41
31	0.00		0.00	218.83	0.00	241.44	44.18	131.23	44.18	3352.60
32	0.00		0.00	218.83	0.00	241.44	44.18	175.41	44.18	3396.78
Total	**2761.10**		**218.83**		**241.44**		**175.41**		**3396.78**	

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The year/stage wise surface dump area and backfill area are given below in Table 9.3 and 9.4 respectively.

TABLE 9.3
PROGRAMME OF EXCAVATED AND BACKFILLED AREA, CUMULATIVE (HA)

Upto the end of year	Area mined	Backfilled area	Remark
1st year	26.16	0.00	No backfilling
3rd year	129.97	0.00	No backfilling
5th year	380.70	0.00	No backfilling
10th year	1099.37	358.27	Part Direct Backfilling and Part from rehandled surface Dump
15th year	1747.06	673.05	Part Direct Backfilling and Part from rehandled surface Dump
20th year	1949.85	1122.31	Part Direct Backfilling and Part from rehandled surface Dump
25th year	2272.42	1536.00	Part direct backfilling and part from rehandled surface dump
End of mine 29th	2440.55	2109.49	Part direct backfilling and part from rehandled crown dump
Post mine closure stage 32ND	2440.55	2440.55	Backfilling from rehandled crown dump*

* *During the post mine closure period (30th to 32nd year), part of the crown dump will be fully rehandaled and backfilled into the residual void (below surface level) while part of the crown dump (with an extent of 138 ha with 72.37 mcum B) will be reduced in height from 100m to 80m and backfilled.*

TABLE 9.4
YEAR / STAGE WISE DUMPED CUMULATIVE AREA AND HEIGHT

Year	Surface Dump	
	Area, Ha	Height, m
1st	36.19	20.00
3rd	173.33	60.00
5th	380.00	90.00
10th	292.72	90.00
15th	190.59	90.00
20th	0.00	0.00
25th	0.00	0.00
At the end of final year (29th)	0.00	0.00
Closure stage (32nd)	0.00	0.00

* *The surface dump constructed during the initial 6 years over the coal bearing area will be rehandled between 7th and 20th year and backfilled.*

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B. WASTE GENERATED DURING UNDERGROUND DEVELOPMENT AND MINING

B.1 Waste generated from shaft sinking and drivage of inclines

The waste generated from shaft sinking and drivage of inclines is given below in Table 9.5.

TABLE 9.5
WASTE GENERATED FROM SHAFT SINKING AND DRIVAGE OF INCLINES

Particulars	Surface level, m RL	Deepest level reached at floor of seam- I Bot & Comb, m RL	Total depth, m	Actual Length along section @4.5:1, m	Length in plan, m	Cross-section area, sq. m	Volume of rock generated, cum
INTAKES							
INCL NO.1 with conveyor (4.8m*3m)	299	-81	380.00	1710.00	1626.70	14.40	24624.00
INCL N.2 without conveyor (4.8m*3m)	299	-81	380.00	1710.00	1626.7	14.40	24624.00
Vent shaft-2 intake with man winding/ material system (dia 5m)	292	-87	379.00	379.00	0.00	19.625	7437.875
Total in Intakes (inclines + Shaft)							56685.88
RETURNS							
VENT Shaft-1 (Exhaust) without man winding (dia 6m)	288.5	-76	364.50	364.50	0.00	28.26	10300.77
Total (inclines + Shaft)							**66986.65**

B.2 Waste generated from drift drivage (for crossing the faults)

The detailed calculations drift-wise have been given in Annexure 9-1 and the same is summarized below:

Volume of waste material from drifts in seam IV	= 32860.8 cum
Volume of waste material from drifts in seam III	= 41659.2 cum
Volume of waste material from drifts in other seams	= 75480.0 cum
Total Volume of waste material from drifts in all seams	= 150000 cum

This material will be hauled through the inclines (using mine tubs or conveyor as applicable) or shaft (using mine tubs) to the pit top from where loaded into dumpers through appropriate arrangement and disposed of on to the surface dumps (constructed for OC operations) or backfilled into the de-coaled area if available.

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CHAPTER 10

COAL HANDLING, WASHING & MODE OF DISPATCH

10.1 COAL HANDLING PLANT

A Coal Handling Plant with design capacity of 23.6 million tonnes per annum will be established.

As coal is to be produced through surface miners from OC, additional crushing of coal in the CHP is not required. OC Coal will be transported by 100/150T dumpers directly to the ground Bunker of 70000 tonne capacity via unloading platform, reclaim conveyor and Transfer Point (TP1). UG coal produced by Continuous miners will also not require additional crushing. This coal will be directly fed to the ground bunker through the conveyor emanating from the incline.

The alignment of railway corridor passing through the coalfield has yet to be frozen after addressing concerns of different stake holders by the Govt. The loading system will be decided in totality, once the parameters like alignment of the siding and its distance and its corridor from the mine etc. are available.

The truck transport system is proposed as an option till the alternative system takes a shape.

The coal from ground bunker can be sent to three directions through Transfer Point (TP2) as follows.

i. To and from washery,
ii. To silos for railway despatch of washed coal or unwashed coal bypassing the washery circuits, so that the despatch is not affected in case of any problem in washery.
iii. To bins/hoppers for truck despatch of washed coal or unwashed coal.

Plate No. XLI shows plan view, elevation view and coal flow of the Coal Handling Arrangement.

The salient features of the CHP are as under:

a. A 1800/2000 mm wide Belt Conveyors System designed to run at upto 3500 TPH to meet the 23.6 MTPA design output.

b. A Belt Weigher and an on-line Coal Ash Analyser will be located on the conveyor to get the tonnage and on line indication of ash and moisture prior to feeding into bunker or the stockpile.

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c. A suspended magnet will be provided to remove tramp iron at appropriate location.

The truck transport system is proposed as an option till the alternative system takes a shape.

10.1.1 Ground Stock and Bunkerage

Ground stock yard to accommodate about 0.2 Mt of coal production of the mine will be located near the coal handling plant and coal from this ground stock will be loaded into trucks with the help of pay loaders. The stock pile will be created by trucks bringing coal from surface miners in emergencies as normally surface miner coal will be discharged into the ground bunker of 70000 t capacity through the dumper unloading platform equipped with 8 nos. grizzlies.

10.1.2 Weighment

One electronic weigh bridge, of 100 tonne capacity, has been proposed to be installed near to the stock pile. Tare and Gross Weight of the trucks shall be recorded for dispatch of coal leaving the premises.

10.2 COAL WASHERY

The average ash content of total insitu extractable reserves works out to 37 to 38 % (refer Table 5.9 of Chapter 5). However, the Ash % fluctuates from year to year between 34.05 % and 41.42%. There will be some further deterioration in ROM coal quality due to dilution during mining operations.

In the Mining Plan, provision for space for a washery has been made. The decision regarding capacity and layout of washery will be reached after thorough investigation. MSPGCL has approached CMPDIL (Copy enclosed as Annexure 1-3) for generation of data (washability tests, cleaning possibilities etc) and report preparation.

The washery rejects shall be within the normative limits and will be disposed off strictly as per rules and regulation framed by Ministry of Environment, Forests and Climate Change and change from time to time.

10.2.1 Transportation of coal to the EUPs

Coal will be transported to the TPPs through rail from the nearest available railway siding. A coal stack facility has been provided for accommodating three days production.

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CHAPTER 11

MINE INFRASTRUCTURE

11.1 GENERAL

The following Infrastructure will be developed for smooth operations of the mine to ensure un-interrupted supply of coal to the End Use Plants:

1. Coal handling plant and Washery (Covered in previous Chapter 10).
2. Mine site infrastructure.
3. Residential colony outside the ML area.

The details about the Coal handling Plant have been provided in Chapter 9. This Chapter deals with the balance two packages of the Mine Infrastructure.

A Master Plan indicating the Coal Block, CHP Area, Mine Site Infrastructure Area etc. is given as Plate IV.

The infrastructure facilities have been proposed to be located over the coal bearing area as there is no non-coal bearing area available for this purpose.

11.2 MINE SITE INFRASTRUCTURE

The Mine Site Infrastructure will consist of the following facilities:

(i) Light Vehicle Workshop
(ii) Lubricants & Oil Storage
(iii) Main Office
(iv) Training Centre
(v) Workers Canteen
(vi) Fuel Tank Farm
(vii) Explosives Magazine for storage of Detonators & Safety Fuses.
(viii) Coal Quality Monitoring Laboratory
(ix) Infrastructure Roads
(x) Hard Standing Areas for HEMM
(xi) Miscellaneous Storage Areas

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(xii) First Aid Room

(xiii) Pithead bath

11.2.1 Light vehicle workshop

A Light Vehicle Workshop will be provided to maintain light trucks and vehicles. The workshop will be equipped with standard equipments like overhead crane, lathe machines etc along with other facilities.

11.2.2 Lubricants & oil storage

A Lubricants & Oil Storage facility will be provided for Heavy Earthmoving Machinery complete with rapid fill devices.

It will be constructed adjacent to the filling pad with adequate storage capacities. Stock equivalent to one months' consumption shall be normally maintained.

11.2.3 Main office complex

The Office complex comprising of Mine Managers Office, other offices and meeting rooms of varying sizes, partitioned offices and cubicles, store rooms, a kitchen and toilets will be constructed. It will house the Survey Room, First Aid Room, Medical check up room and safety and Personnel Departments.

11.2.4 Vocational training centre

The Training Centre complex with sufficient floor space comprising offices of varying sizes, theory training class rooms, practical training rooms, Pantry and toilet. The Vocational Training Centre is required for imparting training for workers / engineers on various operational safety issues.

11.2.5 Worker canteen

The canteen & recreational area, toilets & shower facilities will be constructed as per statutory requirement.

11.2.6 Fuel tank farm

A diesel filling station with rapid fill arrangement will be provided for Heavy Earthmoving Machinery. A piping and pump injection system from the tanks will facilitate rapid filling of machinery from the filling Pad. The filling Pad will have dimensions 10 m x 20 m. The top surface will be sloped to ensure any loose hydrocarbons drain into the slab edge drains which will direct the hydrocarbons flow to a fuel-oil interceptor.

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11.2.7 Explosive magazine

It is proposed to use Site Mix Slurry (SMS) Explosives for blasting in the Mine. This will obviate the need for a regular explosive Magazine for conventional explosives.

However, for storage of required amount of detonator fuses, safety cords etc a 2X20 Tonne Capacity Explosive Magazine will be constructed in the block area falling in east of the Kelo river which is proposed to be mined after about 2 decades in sequence to the West portion of the block. The magazine will, however, be shifted over to the backfilled area of the West Pit later.

11.2.8 Coal quality monitoring laboratory

For quality assurance and control, it is proposed to establish a Coal Laboratory with all the necessary equipment for daily analysis of the coal quality at Mine end.

11.2.9 Internal infrastructure roads

Internal roads leading to Coal Handling Plant and other service facilities will be developed during development of the Mine Site Infrastructure.

11.2.10 Hard standing areas

Hard Standing Areas are required to be provided to facilitate parking as well as for undertaking minor repairs / inspections of the heavy mining equipment. The Areas are required to be constructed by laying Reinforced Cement Concrete. It is proposed to establish two separate Hard Standing Areas suitably located on the pit top.

11.2.11 Miscellaneous storage areas

Open miscellaneous storage areas will be constructed at suitable locations by laying RCC to facilitate storage of materials like tyres, construction steel, pipes etc. It is proposed to construct two separate storage areas suitably fenced for this purpose.

11.3 RESIDENTIAL COLONY

The Gare Palma area is situated around 35 km away from Raigarh Township. The block is connected by road from Raigarh via Punjipathara by State Highway. Punjipathara village is situated on Raigarh-Ghargoda main road. The distance from Raigarh to Ghargoda is around 40 km. The road distance between Raigarh to Punjipathara is about 20 Km and Punjipathara to Ghargoda is 20 Km towards north. From Punjipathara the road leads to

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the Gare Palma area via Tamnar TPP area situated at a distance of 10 Km on Punjipathara- Milupara road, which passes through the block.

Considering the above, it is proposed to establish only some essential quarters within the ML for the Mine Personnel to cater to essential services. Remaining persons will be accommodated at a suitable site outside the ML area. The Residential Colony will be equipped with fully serviced accommodation units for different class of employees. All the units will be provided with power, communication, potable water supply, and sewerage and garbage collection facilities.

The Residential Colony will also contain the Bachelor's Hostel as well as Recreation Facility for all employees. The layout of the Residential Colony will have provision of garden and green belt along the periphery.

The Mine Infrastructure will be established in synchronization with each other for timely implementation of the Coal Mining Project.

The manpower required is 3400 and it is planned to provide accommodation to 50% of the employees, the rest are expected to be local.

11.4 WATER SUPPLY

Industrial water required for washing, sprinkling on mine roads for dust suppression and for watering the mine site plantations, will be supplied from pumping installation at mine sump and its surface reservoir after adequate water is available in the mine. However, in the initial stage, the requirement will have to be met from the ground water through bore wells.

The drinking water will be supplied from bore well and stored in overhead tank near the facilities area and distributed through pipe lines to different facilities area for drinking and domestic purposes.

Total net requirement of water for mining and allied activities are estimated as 1995 m^3/day. Out of this 1239 m^3/day will be potable water and the rest 756 KLD will be required for industrial use in addition to the 790 cum/day reclaimed water from colony STP which will be reused.

The break up of the required water for different activities is as follows:

TABLE 11.1
WATER REQUIREMENT

i. Potable water	Daily requirement, cum
Drinking at working place @ 45 lpd/head for 3400 workers etc. (Total 3400)	153.00
*Colony (for 50% employees)= 3400/2=1700*4	986

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members in family @ 135 lpd	
For peripheral villages	100.00
Total of (i)	**1239**
ii. Industrial water*	
Sprinkling @ 30 m^3/km of road length (10km)	300.00
Plantation @ 20 cum/hac {1509.12 ha/22.5 years=59.18 ha (say 60 ha)	1200.00
Vehicles washing @ 2.0 m^3/vehicle/day {washable vehicles about (400X2 times a weak)/7 days=115 veh/day(Water required 115x2-80%*230 re-circulation=46)	46.0
Total (ii)	**1546**
Grand total (i + ii)	**2785**
Reclaimed water from STP of colony (80% of 986 cum) which can be used in watering the plantation	**790**
Net water requirement	**1995**

* *It does not include requirement of water for washery as the size of washery and washery circuit have not been decided yet pending the study in progress by CMPDIL.*

As the make of water into the OC mine workings is expected to be more than the requirement from 5th year onwards (Refer table 7.2 in Chapter 7), the water requirement projected above can be easily met from the mine water after 5th year.

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CHAPTER 12

MANPOWER, SAFETY AND SUPERVISION

12.1 MANPOWER AND SUPERVISION REQUIREMENT

A number of local personnel including land losers would be recruited in unskilled and semi skilled categories. These personnel need training and orientation before project starts. Besides, some I.T.I. qualified young people from the region can be recruited for operation and maintenance job of plant and machinery after proper training. The employment of local people in primary and secondary sectors of project shall upgrade the prosperity of the region. But, many skilled and highly skilled personnel have to be brought from outside as there is no industrial culture in the locality.

It is proposed to outsource the major equipment required for OB & Coal removal. Also some of the services like Security, Canteen etc are recommended to be out sourced for better management and improved results. The company will engage only the statutory manpower required for mining including for blasting. The manpower for operating the hired equipment will be arranged by the contractor.

It is estimated that manpower of 60 will be required for operating and maintaining Coal Handling Plant.

However, the details of the total employment potential of Project including Departmental Manpower, Contractor Manpower and Manpower required for other allied works are provided in Table 12.1.

TABLE 12.1
TOTAL TENTATIVE EMPLOYMENT POTENTIAL

Sl. No.	Particulars	No. of workers
I.	**Heavy Earth Moving Machinery**	
A.	**Coal**	
a)	100 T.R.D.(CB) dumpers (Diesel Operated) for 3800SM(W)	15
b)	150 T.R.D.(CB) Dumpers (Diesel Operated) for 4200S(W) CSM	60
c)	0.9 m3 hydraulic backhoe (diesel operated)	6
d)	Dozer 275-320 HP	12
	Dozer 410 HP (Diesel Operated) with ripper	6
e)	Surface miner 3800 SM(W)	6
f)	Surface miner 4200S (W)	12
	Sub-Total for Coal	117

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Sl. No.	Particulars	No. of workers
B.	**Overburden**	
a)	Hydraulic shovel 5/5.5cum	12
b)	Hydraulic Shovel 12 m3 (electric)	21
c)	Hydraulic Shovel 20 m3 (Electrical)	60
d)	50 Tonne Dump Truck for 5/5.5 m3 shovels	60
e)	150 Tonne Dump Truck for 12 m3 shovels	189
f)	150 Tonne Dump Truck for 20 m3 shovels	720
g)	R.B.H drills 200/250 mm (Diesel Operated)	144
h)	Dozer 410 HP (Diesel Operated)	90
i)	Dozer 275-320 HP (Diesel Operated)	30
	Sub-total for OB	**1326**
II.	**Auxiliary & Service Equipment**	
a)	8 m3 Front End Loader (Coal) (Diesel Operated)	15
b)	5 m3 Front End Loader (Coal) (Diesel Operated)	12
c)	Graders 230 HP (Diesel Operated)	8
d)	Diesel Bouser	18
e)	Construction backhoe -0.9 CUM (Diesel Operated)	4
f)	Water sprinkler (26 KL) (Diesel Operated)	36
g)	Tow truck on 50T truck chassis (Diesel Operated)	4
h)	100 T tractors (Diesel Operated)	4
i)	Rough Terrain Crane - 40T mobile (Diesel Operated)	4
j)	Lattice crane 70 T	2
k)	**Service trucks**	0
	Fuel trucks (Diesel Operated)	18
	Wash trucks (Diesel Operated)	18
	Mobile maintenance trucks (Diesel Operated)	18
	Lube trucks (Diesel Operated)	12
	Fire trucks (Diesel Operated)	6
	Explosive van (Diesel Operated)	4
l)	Portable air compressor	12
m)	Tyre handler	12
	Sub Total for Auxiliary & Service Equipment	**207**
	Reclamation	
a)	2.5 cum Front End Loader	8
b)	10 T Truck	20
c)	0.9-1.2 cum hydraulic Excavator	8
	Sub Total for reclamation	36
	Total (coal+OB+Aux+Reclamation)	1674
a)	Excavation	74
b)	CHP etc	60
c)	Mining, safety, Quality, Despatch	100
d)	Store, Purchase	16
e)	Water supply	12
f)	Environment	10

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Sl. No.	Particulars	No. of workers
g)	Personnel	5
h)	Finance	2
i)	Workshop	60
j)	Pumping	14
k)	Communication	7
l)	Mine pumping	14
m)	Survey	11
n)	training	5
o)	Miscellaneous	13
p)	Others (Drivers for fire tender, Cash van and Ambulance	7
	Grand Total	2096
	Provision for Sick and leave (16%)	334
	Grand Total including sick and leave	**2430**
III.	**Underground @ 5 OMS**	**970**
	Grand Total (OC+UG)	**3400**

12.2 SAFETY ASPECTS AND DISASTER MANAGEMENT

All types of industries face certain types of hazards which can disrupt normal activities abruptly and lead to disaster like fires, inundation, failure of machinery, explosion to name a few. Similarly coal mines also have impending dangers or risk which need be investigated addressed, disaster management plan formulated with an aim of taking precautionary steps to avert disaster and also to take such action after the disaster which limits the damage to the minimum.

12.2.1 Inundation

There is only one prominent water course passing through the eastern part of the block i.e. Kelo river.

An action plan is needed to be drawn as a contingency measure to guard against danger from inundation.

A stand by diesel generator will be provided for un-interrupted supply of power to the pumps in the event of failure of power.

The mine working will be protected from the river inundation by providing embankments on either side of the river. The embankments will be designed with 3m height above HFL and 10m width. The slope of the sides will be 1 in 3 on river side and 1 in 2 on quarry side. Core of the embankment will be constructed from impervious clay. Both sides of embankment will be clad/paved with stones. Adequate measures to protect the mine workings from surface water flow during the rains will be taken by way of providing garland drains around the mine excavations and also by

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providing suitable drainage gradients for mine benches. Sumps of adequate capacity will be provided on the quarry floor. The coal excavation and transport machinery are organised to be sited over the coal bench top during rainy season and will not be affected by water accumulation from rains or strata seepage on the quarry floor.

No water accumulation in OC mine workings will be permitted to remain when the UG mining operations are in progress.

12.2.2 Disaster due to failure of pit slope

The proposed OC mine is planned for future 29 years period operation. The ultimate depth at the end of mining operation will be upto about 205m, the general surface level varies between 190 and 200 m RL.

Slopes of pits (opencast mine) with such depth can cause pit slope failures thus endangering the safety of the mine. This problem has been overcome by changing over to inside dumping (backfilling) at the early stage from 6th year of mine operation. All of the OB waste has been planned to be backfilled combined with rehandling which will act as support to the pit slope.

Strict vigil will be kept by reconnaissance surveys specially in rainy season to detect any impending danger so that the men and equipment can be accordingly moved out of danger area in time.

12.2.3 Disaster due to failure of waste dump

There are two types of waste dumps which are discussed below:

i. Surface dump

Sliding of surface waste dump is an equally severe risk compared with quarry slope failure. Hence, it is imperative that the degree of hazard against potential failure of waste dump slope should be identified and that precautionary measures are to be adopted, if required.

The surface waste dump will be located within the ML area over the dip part of the block. The temporary dumping is proposed to be carried out upto 100 m height. The waste dump will be rehandled between 7th and 20th year however a part of it will be stabilised by tree plantations and other arrangements as detailed below:-

1. Drains will be made on the top of waste dump to arrest uncontrolled descent of water to drain away during rainy season through specially made chutes. Besides gullies (chutes) will be cut for flow of water from the waste dump slowly to channelise it to garland drain. This

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precaution is necessary to prevent erosion of waste dump here and there due to erratic flow of rainwater.

2. On the slope of the dump, small pits of 0.3 x 0.3 x 0.3 m will be cut and seedlings will be planted and also over the 1.5 m width of top from edge of the bench similar plantation shall be done so that the top of the waste dump slope will get stabilized.

3. A stone toe wall will be made all around the waste dump to prevent waste dump material being carried out of the dump area and mixing with the general drainage system of the area.

4. A garland drain will be constructed all around the waste dump area for smooth flow of water.

5. The overall slope of dump sides will be kept below 28°, each their being at 37°.

6. Though the height of the surface dumps will be 100 m, with the help of additional precautions being taken as mentioned above, there is no dangers of the slope failure of the surface dumps.

ii Backfill dump

The height of the backfill dump will be maximum upto about 180 m which will, though, be supported at the sides by quarry batters but the main advancing front of the backfill dump towards dip side will be amenable to slope failure. No danger is anticipated for the equipment or manpower because the backfilling will start only after total coal evacuation from the Quarry. The dump will be planted as soon as ultimate height (surface level) is achieved. It is planned not to have overall gradient of the dump more than 28°.

A systematic study will be commissioned to study the various slope stability parameters to reach at the optimum slope angle during the mine operation period. Appropriate factor of safety will be adopted supported by sensitivity analysis of critical parameters. It is also proposed to monitor the backfill dump with latest geo-technical/surface/equipment e.g. Bore hole extensometer, tape extensometer, EDM, Piezometers, Theodolites etc. The monitoring will commence as a part of safety measures.

12.2.4 Disaster due to surface fire/coal stack fires

Sufficient fire extinguishers will be installed at selected locations on surface like Electrical Sub-stations, work-shop, Garage, Diesel Depot, Stores etc. Besides, sufficient number of water hydrants with sufficient hose pipes will be made available in the surface for fire protection.

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In order to prevent fire hazards in coal stock piles, following types of precaution shall be taken.

(i) Prevent the happening or presence of any external source of fire in the vicinity of coal stockpiles i.e.
- naked fire
- electric fire
- fuel oil fire

In case of electric equipment operating in the vicinity of fuel oil being used or stored in the vicinity of the coal stock piles, appropriate types of fire extinguishers will be provided on or near such equipment in order to extinguish the fire at the very start.

(ii) Restrict the stacking height of the coal to below two meters. Higher height may only be attempted for shorter interval of stacking.

The time and height shall be established with respect to spontaneous combustion which will help in restricting to safe parameters.

(iii) Appropriate arrangement will be made by inserting pipes in the stack to monitor the internal temperature of coal. In case, temperature is found to shoot above safe limits, the coal from the part of stack shall be immediately dug out and disposed safely.

(iv) In certain mines, the insitu coal exposed in coal bench catches fire due to spontaneous heating which has to be kept under vigil. Under such circumstances the affected area of coal shall be separately dug up and disposed off safely.

12.2.5 Possible dangers due to storage of explosives in the magazine

Since site mixed slurry will be used, there will be no requirement of large storage facilities. However a 2 X 20 T capacity magazine is to be provided for the storage of primers. detonators, fuse etc.

The explosive magazine is designed in such a manner that normal chances of fire inside the magazine ruled out. Still following precaution are taken:

- Clearance of dried vegetation within 15 m of Magazine House.
- Installation of lightening arresters on the Magazine to prevent damages in the event of an explosion.
- Provision of fire extinguishers, water and sand filled buckets.
- Arrangement of mounds around the magazine to mitigate damage in the event of an explosion.

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- Keeping a safety zone margin around the Magazine as per the guidelines given in Schedule VIII of The Explosives Rules, 1983. The safety distance of 605m will be maintained from the public establishments.

12.2.6 Safety Measures to be adopted Considering Large Fleet of Dumpers

The high production and the large dumper fleet would require proper management, maintenance and operation of dumper fleet and observation of safety measures as dumpers and trucks have been the cause of most of the accidents in opencast mines. To deal with the issue following measures are suggested.

i) Managers shall ensure that all Dumpers are properly maintained and safe to operate.

ii) Only people with appropriate skills, knowledge and training are allowed to drive dumpers.

iii) Drivers should also be trained in the safe operation of the specific dumpers that they are required to drive.

iv) Dumper operator shall not drive too fast, shall avoid distractions, and drive defensively, not attempt to overtake another vehicle unless he can see clearly far enough distance ahead to be sure that he can overtake it safely and sound the audible warning signal before overtaking.

v) When approaching a stripping or loading equipment, Dumper Operator shall sound the audible warning signal and not attempt to pass the stripping equipment until he has received proper audible signal in reply;

vi) No unauthorised person(s) shall be allowed to ride on the Dumper.

vii) All roads for trucks, dumpers or other mobile machinery shall be designed, constructed and maintained in such condition as to be fit for their use.

viii) Where practicable, all roads from the opencast working shall be arranged to provide for one-way traffic and where not practicable, no road shall be of a width less than three times the width of the largest vehicle plying on that road unless definite turnouts and waiting points are designated.

ix) All corners and bends in road shall be made in such a way that the operators and drivers of vehicles have a clear view upto a distance not

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less than 30 metres along the road. Provided that where it is not possible to ensure visibility upto a distance of not less than 30 metres, there shall be provided two roads for the incoming and outgoing traffic or an alternative system.

x) Standard traffic signs shall be displayed at conspicuous places along the haul road.

xi) All roads shall be provided with side drains to prevent water logging and damage to the road.

xii) The portion of roads where there is heavy traffic of men and machine shall have separate lane properly fenced off from haul road for use by pedestrians and two wheelers.

xiii) Loaded trucks, dumpers or other vehicles shall not be reversed on gradient.

xiv) A berm of height at least half the diameter of the wheel of the largest dumper plying or one meter whichever is greater and of adequate width shall constantly be provided and maintained at the edge of the spoil or coal dump.

xv) Sufficient number of stop-blocks shall be provided at every discharge point and it shall be used every time material is dumped from the truck, dumper or other such vehicle.

xvi) The manager shall formulate traffic rules for movement of trucks, dumpers or other vehicles which shall be prominently displayed at the relevant places in the opencast working and truck/dumper roads.

xvii) Separate roads shall be provided for small vehicles.

xviii) Only authorised small vehicles shall be allowed in opencast working which have a raised red flag in day time and a red light in the night which shall be visible to a dumper operator from a distance of at least 30 metres.

xix) All heavy earth moving machinery including light motor vehicle permitted to ply on the haul road shall be provided with flasher lights on top, indicator lights in front and rear sides of the vehicle as approved by the Chief Inspector.

xx) Anti-Collision and Proximity Detection Device shall be installed on every Heavy Earth Moving Machinery.

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With multi seam operation, the excavation, loading, and hauling operation will be carried out at different places. Minimum 4 main hauling routes will be available exclusively for dumpers through quarry floor and flanks at different horizons, for transport to internal and external OB dump sites, CHP, stockyards etc. The average distance between two dumpers comes to about 120 m and the minimum distance while hauling would not be less than 30m providing adequate safety for which relevant instructions will be issued to the dumper operators.

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CHAPTER 13

LAND REQUIREMENT

13.1 LAND REQUIREMENT & LEASEHOLD AREA BREAK-UP

The present land use of the area required for the project is given below in Table 13.1. It may be noted that all facilities will be located within the ML area except the colony.

TABLE 13.1
PRESENT/PRE-MINING LAND USE OF THE ML AREA GARE PALMA SECTOR-II (HA.)

Sl. No.	Village	Private Land			Govt. Land					Total Area (Private + Govt. Land)
		Agricul-ture	Non Agricult ure	Total Area	Populated	Water body	Other	CBJ**	Total Area	
1	Tihlirampur	97.902	62.685	160.587	6.83	21.225	39.094	0	67.149	227.736
2	Dholnara	59.64		59.64	6.833	0.376	3.317	2.788	13.314	72.954
3	Murogaon	302.393		302.393	8.256	1.303	4.29	23.504	37.353	339.746
4	Libra	121.416	7.621	129.037	2.897	0.439	4.694	15.943	23.973	153.01
5	Kunjemura	199.715		199.715	14.221	13.596	8.308	30.17	66.295	266.01
6	Jhinkabahal	3.844		3.844	0	0	0	0	0	3.844
7	Radopali	351.676		351.676	8.336	5.895	19.955	0.125	34.311	385.987
8	Dolesara	20.748		20.748	0	0	1.242	0	1.242	21.99
9	Bhalumura	16.297		16.297	0	0	0.704	0.622	1.326	17.623
10	Sarasmal	56.869	9.158	66.027	0	1.332	3.563	15.236	20.131	86.158
11	Pata	316.064	13.166	329.23	13.314	5.529	14.47	15.326	48.639	377.869
12	Chitwahi	142.461		142.461	0.252	0.867	8.153	0	9.272	151.733
13	Gare	157.224		157.224	10.482	4.241	11.596	1.957	28.276	185.5
14	Saraitola	156.228	13.722	169.95	8.395	1.364	7.969	29.703	47.431	217.381
Total of A		**2002.477**	**106.352**	**2108.829**	**79.816**	**56.167**	**127.355**	**135.374**	**398.712**	**2507.541**
B. As per Forest Departments Record										
Government Forest Land										*75.945
Grand Total										2583.486

*Note: * 75.945 Ha of Protected Forest land and 135.374 Ha of Revenue Forest land is present within the minc lease area, which needs to be diverted for mining purpose after obtaining forestry clearance from the Ministry of Environment and Forest, Govt. of India under the Forest (Conservation) Act 1980.*

*** Chhote Bade Jhar ka Jungle (Small/ big trees forest)*

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13.2 PROPOSED 'DURING- MINING' LAND USE IN HA

The total land area of the block is required for Mining Lease. The requirement for additional land required for mining purpose for approach road to the block and approach to railway siding etc. will be assessed after finalisation of railway alignment passing through Gare Palma Coalfield and considering limited availability of land, as the block is surrounded by other coal blocks. The colony will be located away from the block non coal bearing area to be identified in consultation with local authorities.

The 'during-mining' stage land use is given in Table 13.2.

TABLE 13.2
DURING MINING LAND USE (HA) WITHIN ML AREA

Landuse	At the end of 5TH Year	At the end of 25TH Year	At the end of OC mining (29TH Year)	OC Post mine closure 30th to 32nd year	End of OC and UG mining (77th year)
Excavation	380.70	2272.42	2440.55	2440.55	2440.55
Backfill	0.00	1535.00	2248.77	2440.55	2440.55
Void	380.70	737.42	191.78	0.00	0.00
Surface dump#	380.00	0.00	0.00	0.00	0.00
Bund	5.20	5.20	5.20	5.20	5.20
Green Belt	36.07	36.07	36.07	36.07	36.07
Top Soil Dump*	60.00	00.00	0.00	0.00	0.00
Settling Pond##	10.00	5.00	5.00	5.00	5.00
Road diversion<	30.30	30.30	30.30	30.30	30.30
Facilities (West Part: CHP, Inclines, Shaft Pit, Office, Lamp room, Attendance Office, Rest Room, Parking, First aid room, Sub Station etc.)**	50.94	50.94	50.94	50.94	5.00
Facilities (East Part: Office, Workshop, magazine, washery etc)	68.54	0.00	0.00	0.00	0.00

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Landuse	At the end of 5TH Year	At the end of 25TH Year	At the end of OC mining (29TH Year)	OC Post mine closure 30th to 32nd year	End of OC and UG mining (77th year)
Under Kelo river	15.42	15.42	15.42	15.42	15.42
Dismantling	0.00	0.00	0.00	0.00	45.94
Disturbed area	**1017.17**	**2415.35**	**2583.48**	**2583.48**	**2583.48**
Undisturbed	1566.31	168.13	0.00	0.00	0.00
Total	**2583.48**	**2583.48**	**2583.48**	**2583.48**	**2583.48**

* *Top soil dump will be over the backfilled area towards the end of mine life.*

** *Main colony will be located away from the ML area.*

\# *The OB dump lying over the coal bearing area will be fully rehandled and backfilled by 20th year.*

\#\# *The settling ponds in 5th year will comprise of 5 ha for mine water and 5 ha for surface dump but the later will not remain after 20th year as surface dump will be rehandaled and become non-existent.*

< *Diverted road is for public use.*

13.3 FOREST LAND

Approval of Govt. of India, MoEF will be obtained for diversion of 211.319 Ha (*75.945 Ha of Protected Forest land and 135.374 Ha of Revenue Forest land*) of Forest Land for mining under the Forest (Conservation) Act 1980.

13.4 REHABILITATION POLICY

Policy of Govt. of Chhattisgarh for resettlement & rehabilitation of displaced persons/families, in case of mining projects, shall be followed. R&R Colony will be accordingly planned and established.

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CHAPTER 14

ENVIRONMENTAL MANAGEMENT PLAN

14.1 INTRODUCTION

The environmental management plan has been prepared for the proposed "Gare Palma Sector – II coal block of M/s Maharashtra State Power Generation Company Limited (MSPGCL) located in villages Tihli Rampur, Kunjemura, Gare, Saraitola, Murogaon, Radopali, Pata, Chitwahi, Dholnara, Jhinka Bahal, Dolesara, Bhalumura, Sarasmal and Libara of District Raigarh in Chhattisgarh as per the requirement of Ministry of Environment & Forest, Government of India. The coal block is proposed to produce coal at the rate of 23.60 MTPA (22.00 MT from OC + 1.6 MT from UG) though the peak capacity of OC will be 23.6 MTPA before the UG becomes operational. Opencast mining and to some extent under ground mining in the block is related to land, air, water and its inter-relationship with inhabitants and organic life in the immediate surroundings. The operations have also a direct bearing on the socio-economic environment of the area. Therefore, as an essential part of the mining plan, an environmental management plan has been incorporated which includes a study covering the following major aspects:

- Collection of baseline information related to relevant environmental aspects for establishment of prevailing environmental status.
- Assessment of environmental impacts due to mining activities.
- Management plan stipulating control measures to mitigate possible environmental hazards resulting from mining.

The environmental management plan includes the evaluation of total impacts after superimposing the predicted impacts over baseline data. This helps in incorporating proper mitigation measures wherever necessary for preventing deterioration in environmental quality. The mining lease area constitutes the 'core zone' and the area falling within 10 km radius of the leasehold area has been considered as the 'buffer zone' for general information. Both are together referred to as the 'study area'. The key map (Plate II) and location map (Plate I) depicts the situation of the core area and location of the mine site with respect to the surrounding region. The salient features of the mine that have been taken into consideration while planning the study are described below briefly:

a)	ML Area	2583.486 Ha
b)	Nature of land	Agricultural & forest land
c)	Mineral to be mined	Coal
d)	Scale of operation	23.60 million tonnes per annum (MTPA)

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		(22.00 MT by OC + 1.6 MT by UG).
e)	Anticipated life of mine	Total 75 years (Life of OC mine - 29 years and UG mine - 64 years starting from 12th year onwards).
f)	Method of mining	Opencast and underground
g)	Surface transport	By trucks/ dumpers to the appropriately located hopper/CHP within the ML area.

14.2 BASELINE STATUS OF ENVIRONMENT

The base line status of environment was prepared by Min Mec R&D laboratory, New Delhi. The schedules adopted for sampling/monitoring the area are indicated in Table 14.1 below. The summary of Soil Sample Analysis is given in Table 14.4, ambient air quality monitoring results in Table 14.5, Noise sampling in Table 14.7 and Water Sample Analysis in Table 14.8.

The different elements of environment namely land, water, ecology, air, climate and socio-economic status of the area was studied for the post monsoon season of 2012. The schedules adopted for sampling/monitoring the area are indicated in Table 14.1 and the location of sampling/monitoring stations is enclosed (Plate II) along with 10 km buffer zone (study area).

TABLE 14.1
MONITORING SCHEDULE AND PARAMETERS

Sl. No.	Description of parameters	Schedule and duration of monitoring
1.	Air quality in the vicinity of the mine – PM 10, PM 2.5, SO_2, and NO_X	6 stations. Twice a week for three months
2.	Water quality (all parameters as per drinking water standards IS:10500)	4 samples once a year
3.	Ambient noise levels	5 stations once a season
4.	Study of Flora and Fauna	Within the study area
5.	Soil quality	One sample from core zone and one from study area

Secondary data sources were utilized for collection of information about hydro-geological conditions, socio-economics, seismicity and important places and industries in surrounding areas.

14.2.1 Existing/Pre-Mining land use pattern

a) Core zone

The total area of 2583.486 Ha, covering part of the 14 villages is mostly in the form of private, government and forest land. Summary of the existing

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land details as per revenue and forest department records are given in Table 14.2 and the details khasra wise are given in **Annexure 3-1**.

TABLE 14.2
EXISTING LAND USE DETAILS OF TOTAL AND APPLIED MINING LEASE AREA (HA)

Sl. No.	Village	Private Land			Govt. Land					Total Area (Private + Govt. Land)
		Agriculture	Non Agriculture	Total Area	Populated	Water body	Other	CBJ**	Total Area	
A. As per Revenue Departments Records										
1	Tihlirampur	97.902	62.685	160.587	6.83	21.225	39.094	0	67 149	227.736
2	Dholnara	59.64		59.64	6.833	0.376	3.317	2.788	13.314	72.954
3	Murogaon	302.393		302.393	8.256	1.303	4.29	23.504	37.353	339.746
4	Libra	121.416	7.621	129.037	2.897	0.439	4.694	15.943	23.973	153.01
5	Kunjemura	199.715		199.715	14.221	13.596	8.308	30.17	66.295	266.01
6	Jhinkabahal	3.844		3.844	0	0	0	0	0	3.844
7	Radopali	351.676		351.676	8.336	5.895	19.955	0.125	34.311	385.987
8	Dolesara	20.748		20.748	0	0	1.242	0	1.242	21.99
9	Bhalumura	16.297		16.297	0	0	0.704	0.622	1.326	17.623
10	Sarasmal	56.869	9.158	66.027	0	1.332	3.563	15.236	20.131	86.158
11	Pata	316.064	13.166	329 23	13.314	5.529	14.47	15.326	48.639	377.869
12	Chitwahi	142.461		142.461	0.252	0.867	8.153	0	9.272	151.733
13	Gare	157.224		157.224	10.482	4.241	11.596	1.957	28.276	185.5
14	Saraitola	156.228	13.722	169.95	8.395	1.364	7.969	29.703	47.431	217.381
Total of A		2002.477	106.352	2108.829	79.816	56.167	127.355	135.374	398.712	2507.541
B. As per Forest Departments Record										
Government Forest Land										*75.945
Grand Total										2583.486

Note: * *75.945 Ha of Protected Forest land and 135.374 Ha of Revenue Forest land is present within the mine lease area, which needs to be diverted for mining purpose after obtaining forestry clearance from the Ministry of Environment and Forest, Govt. of India under the Forest (Conservation) Act 1980.*

** *Small/ big trees forest*

b) Buffer zone

The land use pattern in the buffer zone as per Census 2011 is summarised in Table 14.3.

TABLE 14.3
LAND USE PATTERN OF BUFFER ZONE (AS PER CENSUS 2011)

Land use	Area (Ha)	Percent
Irrigated agricultural land	1052.93	1.66%
Unirrigated agricultural land	28577.71	45.16%
Culturable waste land	1368.24	2.16%

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Land use	Area (Ha)	Percent
Area not available for cultivation	15654.31	24.74%
Forest land	16624.81	26.27%
Total	**63278**	**100%**

14.2.2 Soil quality

Top soil samples were collected from core zone and buffer zone. The results of analysis are given in Table 14.4.

TABLE 14.4
SOIL TEST RESULTS

Parameter	Units	Pata (core zone)	Tamnar (buffer zone)
pH	-	7.80	8.10
E.C	µmho/cm	203	202
$CaCO_3$	% by mass	17.8	17.2
Bulk Density	g/cm^3	1.7	1.5
Moisture	% by mass	13.97	20.86
Organic Carbon	% by mass	0.46	0.28
Organic Matter	% by mass	0.79	0.48
Chloride	% by mass	1.5	2.5
Sulphate	% by mass	1.06	0.24
Phosphorous	mg/kg	1.25	1.44
Nitrate	mg/kg	10.3	8.55
Iron	mg/kg	24.04	13.28
Sodium	% by mass	0.0162	0.0331
Potassium	% by mass	0.0032	0.0041

The soil is silty clay in texture and red to pale brown in colour. pH of 7.80 and 8.10 show that the soil is nearly neutral. The conductivity is normal. The soil has sufficient organic carbon. Available Nitrogen in soil was found very less. Available Phosphorous (P) is low and was found 1.25 mg/kg and 1.44 mg/kg in core and buffer zone respectively.

14.2.3 Water regime

a) Surface water regime

The block exhibits undulating topography. The ground elevation in the block ranges from 242 m to 303 m. General slope of the ground is towards South.

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The easterly flowing Kelo River constitutes the main drainage system of the block. Kelo River is flowing across the coal block towards East and its diversion is not proposed. It will be protected by leaving statutory barriers. A number of small streamlets drain the terrain in various directions giving a sub dendritic drainage pattern. Elevation in the study area varies from 240 m to 640 m. Other than nalas and rivers, there exist a number of surface water bodies like rainfall fed ponds/dug wells etc. within the buffer zone.

b) Ground water

The district is mainly underlain by crystalline rocks of Proterozoic age belonging to Chota Nagpur gneissic complex. Presence of sandstone of Lameta Formation (infratrappeans) and Deccan trap basalt though insignificant, have also been reported. Extensive Lateritisation with occasional bauxite deposits are also found.

Ground water occurs under water table condition in, laterite and weathered mantle. It occurs under semi-confined to confined conditions in the deeper fractured basalts. The depth of water level varies from 4.67 to 12.34 m bgl during pre-monsoon period and from 1.43 to 9.35 m bgl during post-monsoon period in the shallow aquifers. The long term (decadal) trend analysis of water level indicates that about 13% of the wells in pre monsoon and none of the wells in post monsoon period show a significant (20 cm/year) falling trend. The exploration by Central Ground Water Board had indicated presence of potential fractures upto 90 m bgl. The optimum depth of bore wells in the district is found to be between 50 to 90 m bgl. (http://cgwb.gov.in/nccr/Raigarh1.htm)

14.2.4 Ecology

The leasehold area can be demarcated under two major groups of vegetation structure i.e. Forest land and non forest land. The non forest land under Government ownership is barren land while under private ownership it is agriculture and non agricultural land. The area of protected forest is 75.945 Ha and that of revenue Forest is 135.374 Ha. The forest area will be diverted after obtaining Forest Clearance from MoEF, Govt. of India.

a) Flora

The forest of the study area as per revised classification of Indian Forest types belongs to sub group 5B/C1 (Northern Tropical dry deciduous Sal Bearing Forest) and sub group 5B/C2 (Northern Tropical dry Mixed deciduous Forest). Common plant species found in the forest are Sal (*Shorea robusta*), Mahua (*Madhuca latipolia*), Tendu (*Diospyros melanozylon*), Palas (*Butea monosperma*), Neem (*Azadiracta indica*) etc. and the crops grown in the area are gram, maize and paddy.

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b) Fauna

Due to biotic pressure, forest fire and overgrazing, the number of fauna seen in the study area is limited. During survey of the study area and interview from local old age persons at site, it is observed that most of the species which were common in the area in the past are seen rarely nowadays. Animals found in the core zone include rabbit, mongoose, house rat etc. The animals found in study area are rabbit, Jackal, Fox, Monkey, Langur, Jungle myna, Grey heron, Owl, House crow, Common quail etc.

14.2.5 Quality of air, ambient noise and water

i. Air quality

Ambient air quality monitoring results of 6 different stations including 1 station within the core area is given in Table 14.5. The monitoring results indicated that the air quality is good and conforms to the standards stipulated for rural areas.

TABLE 14.5
AIR QUALITY OF THE STUDY AREA

	PM 10	PM 2.5	SO_2	NO_x	PM 10	PM 2.5	SO_2	NO_x	PM 10	PM 2.5	SO_2	NO_x
	Kunjemura (CA1)				Tamnar (BA1)				Khamharia (BA2)			
Max.	47.3	27.8	11.9	17.2	64.2	37.8	17.6	22.9	52.0	30.3	12.5	17.5
Min.	39.0	22.0	7.5	8.9	50.7	28.3	11.3	12.9	36.0	20.3	8.2	10.2
Avg.	42.5	24.5	9.8	13.3	57.3	32.9	14.6	18.8	44.8	25.9	10.1	14.7
98%tile	47.1	27.6	11.9	17.1	63.7	37.1	17.5	22.7	51.9	30.2	12.4	17.4
	Kerakhol (BA3)				Ukraipalli(BA4)				Dhaurabhata (BA5)			
Max.	42.8	25.0	5.9	11.9	44.2	26.3	11.0	12.3	65.3	38.7	21.7	30.0
Min.	31.9	17.7	7.7	9.0	32.9	19.1	7.6	9.3	35.9	21.2	11.3	16.1
Avg.	37.5	21.6	8.8	10.5	37.4	21.5	9.2	11.2	52.0	30.0	16.6	24.3
98%tile	42.7	24.4	9.9	11.8	44.1	25.5	11.0	12.3	65.0	38.5	21.7	29.4

The Indian Ambient Air Quality Standards permitting the maximum concentration of contaminants for ambient air quality, set for different categories of areas are given in Table 14.6 for the sake of comparison.

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TABLE 14.6
AMBIENT AIR QUALITY STANDARDS

Area	Category	24 hours average concentrations, µg/m^3				
		PM10	PM2.5	SO_2	NO_X	CO (8 hourly)
A	Industrial, Residential, Rural and Other Area	100	60	80	80	02 mg/m^3
B	Ecologically Sensitive Area (notified by Central Government)	100	60	80	80	02 mg/m^3

Source: National Ambient Air Quality Standards vide CPCB Notification B-29016/20/90/PCI-L dated 18th November 2009

As is apparent from the analytical data, the ambient air quality in the region is well within the standards specified as per the Air (Prevention & Control of Pollution) Act, 1981.

ii. Ambient noise quality

Noise level survey has been conducted and results at 5 locations including 1 at core zone and 4 in the buffer zone is given in Table 14.7. The noise level monitoring data was recorded round the clock for 24 hours. The ambient noise levels were found within the permissible limits as per the statutory norms.

TABLE 14.7
AMBIENT NOISE LEVELS IN THE STUDY AREA, Leq dB(A)

Hours	Gare	Kerakhol	Kondkel	Tamnar	Ukraipali
	(N1)	(N2)	(N3)	(N4)	(N5)
Day time Leq.	61.20	49.50	46.70	54.20	47.20
Night time Leq.	47.90	41.60	41.30	45.00	42.30
Average Leq.	56.22	46.60	44.70	50.80	45.30
Permissible (Day)	55	55	55	55	55
Permissible (Night)	45	45	45	45	45

iii. Water quality

Water quality survey to assess the quality of both surface & ground water has been conducted during the post monsoon season (October – December 2012. The results of 2 surface water samples and 2 ground water samples are given for assessing the water quality in core and study area. The samples were tested as per the drinking water standards (IS : 10500) and the test results show that all the elements concentration is below permissible limits. The details of water test analysis are given in Table 14.8.

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TABLE 14.8
WATER QUALITY TEST RESULTS

Parameters	Specifications as per IS : 10500:2012		Pata Core zone (GW-1)	Mudagaon (GW-2)	Budia (Kelo River Downstream) (SW 1)	Jorekela Pajhar nadi down stream (SW-2)
	Acceptable limit	Permissible limit				
Colour, Hazen units	5	15	<5	<5	<5	<5
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Odour	Agreeable	Agreeable	Agreeable			
Turbidity, NTU	1	5	38.6	17.6	82.7	220.9
pH value	6.5-8.5	No relaxation	5.3	5.15	6.54	6.66
Total Dissolved solids, mg/l	500	2000	106	85	195	173
Total hardness (as $CaCO_3$) mg/l	200	600	52	48	120	104
Alkalinity, mg/l	200	600	56	48	56	48
Chlorides (as Cl) mg/l	250	1000	20	20	28	12
Iron (as Fe) mg/l	0.3	No relaxation	2.1	0.5	0.6	2.6
Fluoride (as F) mg/l	1.0	1.5	0.3	0.04	0.03	0.04
Sulphate (as SO_4) mg/l	200	400	7	2	62	4
Nitrate (as NO_3) mg/l	45	No relaxation	3.9	1.7	0.8	84.6
Calcium (as Ca), mg/l	75	200	13	11	45	13
Magnesium (as Mg)	30	100	5	5	2	17
Copper (as Cu) mg/l	0.05	1.5	BDL	BDL	BDL	BDL
Manganese (as Mn) mg/l	0.1	0.3	0.1158	0.75	BDL	0.0058
Mercury (as Hg) mg/l	0.001	No relaxation	BDL	BDL	BDL	BDL
Cadmium (as Cd) mg/l	0.003	No relaxation	BDL	BDL	BDL	BDL
Selenium (as Se), mg/l	0.01	No relaxation	BDL	BDL	BDL	BDL
Arsenic (as As), mg/l	0.1	0.05	BDL	BDL	BDL	BDL
Lead (as Pb), mg/l	0.01	No relaxation	BDL	BDL	BDL	BDL
Zinc (as Zn), mg/l	5	15	0.1011	0.6532	BDL	BDL
Total Chromium as Cr, mg/l	0.05	No relaxation	BDL	BDL	BDL	BDL
Aluminum (as Al)	0.03	0.2	BDL	BDL	0.27	1.08
Boron, mg/l	0.5	1.0	0.040	0.0076	0.0854	0.1736

Note: BDL of Cu is 0.0032; Mn is 0.0026; Hg is 0.0008; Cd is 0.0027; Al is 0.0046; Se is 0.0031; As is 0.0029; Pb is 0.0037; Cr is 0.0009; Zn is 0.0048 mg/l

14.2.6 Climatic conditions

The area experiences tropical climate. The meteorological data recorded at IMD station Raigarh from 1999 to 2008 are given in Table 14.9.

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TABLE 14.9
METEOROLOGICAL DATA OF RAIGARH (1999-2008)

Month	Relative humidity (%)		Temperature (°C)		Wind velocity* km/hr		Rainfall in mm
	8.30 hrs	17.30 hrs	Min.	Max.	8.30 hrs	17.30 hrs	
January	68	44	29.01	12.22	3.4	2.6	7.94
February	63	44	31.14	15.98	3.5	3.1	17.52
March	53	37	35.87	20.04	4.3	2.4	9.97
April	43	30	40.55	24.56	4.8	3.2	12.55
May	46	31	41.36	27.41	3.9	3.1	32.10
June	66	54	37.47	26.18	3.4	2.6	197.99
July	83	76	32.34	25.21	5.1	4.5	283.31
August	87	82	31.45	24.26	5.0	4.8	368.97
September	82	79	32.23	23.94	3.7	3.8	204.63
October	73	65	32.27	21.31	4.3	3.7	44.97
November	72	54	31.26	15.40	3.7	3.7	9.22
December	72	53	28.82	12.75	3.3	3.3	0.00
Average	**67**	**54**	**33.67**	**20.41**	**4.0**	**3.5**	**1189.17**

** Data for wind velocity at 8.30 hrs and 17.30 hrs is from 2001 to 2005*

Micro-meteorological survey

On-site monitoring was undertaken for various meteorological variables in order to generate the site-specific data. The central micro-meteorological station was installed at a height of about 5 meters from ground level free from any obstruction. The data generated is then compared with the meteorological data generated by nearest India Meteorological Department (IMD) station located at Raigarh. Hourly micro-meteorological data has been recorded at the site. Minimum and maximum temperature recorded was 7.50°C and 34.90°C with mean of 21.66°C, minimum and maximum relative humidity recorded was 33.20% and 97.20% with mean of 70.12%. The wind speed varied between 1.50 km/hr to 25.50 km/hr with mean of 4.93 km/hr and the predominant wind direction was observed from NE with 28.32% of occurrences including calm.

14.2.7 Human settlements

A socio-economic study has been carried for the study area. The data are based on 2011 Census report. The break-up of population for male, female is summarized in Table 14.10.

TABLE 14.10
DISTRICT AND BLOCK WISE POPULATION IN THE STUDY AREA

District	Tehsil	No. of villages	Total population	Male	Female
Sundergarh	Hemgir	10	6591	3340	3251

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District	Tehsil	No. of villages	Total population	Male	Female
Raigarh	Lailunga	3	1004	487	517
	Gharghoda	22	23898	4829	4626
	Tamnar	92	82690	41390	41300
	Total	**35**	**114183**	**50046**	**49694**

The employment pattern, break-up of main workers and SC/ST and amenities are summarised in Table 14.11.

TABLE 14.11
EMPLOYMENT PATTERN IN STUDY AREA

Occupation	Population	%
Main workers	36522	31.98
Marginal workers	16171	14.16
Non workers	61490	53.86
Total	**114183**	
Break-up of main workers		
Cultivators	**14246**	**39.01**
Agriculture labour	**10971**	**30.04**
Household industry	**600**	1.64
Others	10705	29.31
Total	**36522**	**100.00**
Other Details		
Literate	72301	63.32
SC	11535	10.10
ST	56651	26.58

From the above table, it can be observed that about 50% of the population is non workers. Out of the total main workers, about 50% are involved as cultivators, about 31% as agriculture labour and about 3% in household industries. The literacy in the study area is about 60% as compared to the national rate of 65.28 % as per Census 2011 records.

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14.2.8 Places of historical, tourist and religious importance

There is no such place within core or study area.

14.2.9 Mines and industries within study area

The block is free from any mining activity and there are 12 mines and industries present within the buffer zone.

14.2.10 Does area (Partly or fully) fall under notified area under water (Prevention & control of Pollution) Act 1974.

No.

14.3 ENVIRONMENTAL IMPACT ASSESSMENT

Baseline information on various relevant environmental aspects generated and compiled for the project area, covering both core and buffer zones has been incorporated in para 14.1 and paragraphs there under. This information provides an outline of the prevailing environmental scenario at the mining site and its surroundings. Mining, like any other development activity, is bound to have some impact on the existing environment; both adverse and beneficial. The impacts on the physical, ecological and socio-economic environment of the area due to the proposed project are given in the following paragraphs:

14.3.1 Land environment

a) Land degradation and aesthetic environment

The total mine lease area is 2583.486 Ha. At the end of 5th year 1621.40 Ha i.e. 62.76 % of land will remain undisturbed. The disturbed area within ML will comprise excavated land, external dumps, area occupied by infrastructure, diverted road, inclines, green belt etc. The anticipated land use at the end of 5th year and at the end of mining operations is tabulated in Table 14.12.

TABLE 14.12
PROPOSED LAND USE AT THE END OF FIFTH YEAR & END OF MINE LIFE

Sl. No.	Particulars	At the end of 5th Year of Mine Operation	At the end of Last Year of Mine Operation
1	Excavation	380.70	2440.55
2	Backfilling	0.00	2109.49
3	Void	380.70	331.06*

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Sl. No.	Particulars	At the end of 5th Year of Mine Operation	At the end of Last Year of Mine Operation
4	Surface Dump	380.00	0.00
5	Bund/ Embankment	5.20	5.2
6	Top Soil Dump	60.00	0.00
7	Settling pond*	10.00	5.00
8	Diverted Road	30.30	30.30
9	In West Part: CHP. Inclines and shaft pit, Head office, Lamp room, Attendance office, Driver rest room, parking & sub station	50.94	50.94
10	In East Part: Office, workshop, washery etc	68.54	0.00
11	7.5 m green belt around ML boundary	12.44	12.44
12	Green belt along Kelo river 45 m west side and 15 m east side	23.63	23.63
13	Under Kelo River	15.42	15.42
14	Undisturbed area / Indirectly affected area/ area for exploration	1566.31	0.00
	Total	**2583.48**	**2583.48**

* *331.06=195.15 ha in East Pit with 170m depth +135.91 ha in West Pit with 60m depth*

** *Settling pond 10 ha in 5th year (5 ha for mine water+5ha for dump runoff)*

Surface dump: There will be only one surface dump proposed which will be located over the coal bearing area in the southern portion of the West pit area. This dump will be spread over an area 380 ha and will accommodate 218.81 Mcum (B) OB waste. The dumping will start from 1st year and continue upto 6th year. However the exclusive dumping into this surface dump will be upto 5th year after which part of the OB will be backfilled in 6th year.

Top soil dump: The total topsoil generated will be 14.64 mcum (B) during the life of the mine. Unutilised part of the same will be stacked separately in a soil stack pile located beyond the surface dump over the coal bearing area within West Pit area of 60.00 Ha before 15th year after which it will be over the backfilled area.

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b) Land profile

Presently, the core zone is virgin and plain terrain sloping towards south-west. The mining operations are not anticipated to cause any adverse impact on topography outside the core zone. It is proposed to establish only some essential quarters within the ML for the Mine Personnel to cater to essential services manpower. Remaining persons will be accommodated at a suitable site outside the ML area. Within core zone, the void area of the excavated pit at the end of mine life 29th year will be 331.06 ha=195.15 ha in East Pit with 170m depth +135.91 ha in West Pit with 60m depth.

c) Visual intrusion

Due care has to be taken (from the conception stage of the project) for reducing the visual intrusion to a minimum. However, the movement of vehicles for transportation of coal to the coal receiving pit/crusher may cause some intrusion. Appropriate measures such as green belt cover will be needed to reduce visual intrusion from dumps, roads and facilities.

14.3.2 Impact on air quality

The opencast mining operations are prone to generation of higher levels of SPM and to a limited extent of SO_2, NO_x and CO due to blasting, fuel, oil combustion, burning of coal etc. However, there are no point source emissions. The OB will be transported by 150 T and 100 T R.D. trucks to surface dumps and later on, as soon as decoaled area is available suitable for backfilling, to the site of back-filling.

The coal will be transported by 85T/100 T R.D.(CB) trucks to the coal receiving pit/crusher and further transported to the plant by conveyors. This may cause increased air pollution along the roads, if adequate control measure like regular maintenance of road, tree plantation along road and maintenance of leak proof truck bodies are not taken.

14.3.3 Impact on water quality

The surface water quality is likely to be affected with higher load of suspended solids by the following:

- Wash off from dumps
- Soil erosion from mine and roads
- Pumping out mine water to surface water channels

The outside dump may contribute to the pollution of surface water in terms of suspended solids. Since dumping location proposed to be carried out is at a safe distance (2 km) from existing surface water channels i.e. Kelo River, it will have limited impact on water quality. The pumped out water

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during dewatering may carry higher levels of suspended solids. Other sources of pollution are by oil spillage at the pit head and at the mine site infrastructure viz. light vehicle workshop, lubricant and oil storage area resulting in oil and grease contamination of surface water if appropriate control measures are not adopted. Control measures like check dams will be adopted to counter any solids being carried away by precipitation.

Ground water pollution can take place only if dumps and stock piles contain harmful chemical substances, which may get leached by precipitation of water and percolate to the ground water table, thus causing water pollution. However, this is not the case with this mine, as neither the coal nor the OB, contains any harmful ingredients which may leach down to the water table and pollute it. Therefore, no adverse impact on ground water quality is anticipated considering this aspect. The leaching down of pollutants (oil, grease etc.) to the ground water may render the water un-potable and hence cannot be used by the local people. The percolation of sewage waste from the pit head as well as mine area can also pollute the ground water if control measures are not adopted as envisaged in the management plan.

Meager amount of sanitary waste, expected to be generated from various facilities will be treated properly through septic tanks and soak pits and is not anticipated to cause any water pollution.

14.3.4 Impact on noise level

Noise is unwanted and unpleasant sound which causes distraction, disturbance and annoyance. Continuous exposure to high level of noise can impair human hearing power.

The mining activities generate noise mainly on account of:

- Operating mining machinery
- Use of explosives
- Moving road vehicles

The impact of this airborne noise will be more on the operating personnel and on the persons working nearby and not so much on the surroundings. The noise of activities may also disturb animals/birds living in the surroundings forcing them to change their habitat. In the present case, the noise caused will be mainly restricted to the core zone. The noise level data recorded at various places in the study area is well within the desired limit. But, the future establishment of noise due the proposed project activity may pose some problem if project management does not adopt appropriate control measures.

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14.3.5 Effect on vibration level (due to blasting)

No ground vibration study has been conducted hence the impact of the proposed activity on ground vibration cannot be exactly anticipated. But, based on experience of similar mines appropriate control measures have been spelt out in management plan.

14.3.6 Impact on water regime

Water required during initial 3 years for construction and mine development is proposed to be sourced form Kelo river or Bore wells. From 3rd year onwards, Industrial water from mine sump and settling pond would be used till the end of the life of the mine. Kelo River is flowing across the coal block.

Thus impact on the surface water resources is envisaged during initial years only. However, in view of availability of ground water at shallow levels, most of water requirement is planned to be drawn from ground water (mine sump), which will have some impact on the ground water resources.

14.3.7 Impact on socio-economic environment

Human settlement

1679 project affected families of all fourteen villages within the mine lease area will have to be rehabilitated. The land owners will be deprived of their land and the non land owners will be deprived of their earnings. Care will be taken for rehabilitation and employment of the displaced people.

On the other hand, the mining and allied activities will provide job opportunities for eligible persons and many will find employment in service sector and marketing of day-to-day needs viz. poultry and other agricultural products. The facilities and amenities like first aid room, training centre etc. to be set up for the project will improve the basic infrastructure and these amenities can also be used by the people of the nearby villagers.

The proposed long term activity will open up market and opportunities growth for self employed and cultivators. To this extent, the impact will be significantly beneficial since un-employment and under employment is the main socio-economic problem faced by the people in this area.

14.3.8 Impact on historical monument/ religious place/ tourist places

There is no such place within and outside the ML boundary upto 10 km radius. Hence, impact on historical monument religious place/ tourist places will not take place.

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14.4 ENVIRONMENTAL MANAGEMENT PLAN

The environmental impact assessment made in the preceding section has identified the areas where certain control measures are called for to minimise the negative impacts. Subsequent paragraphs deals with effective measures proposed to be taken up with regard to the following aspects so that the proposed mining and allied activities can be continued in an environment-friendly manner:

- Land use planning – Afforestation and landscape development
- Air pollution control
- Blasting and noise control
- Water pollution control
- Socio-economic aspects

14.4.1 Land use planning

i. Land degradation control measures

Land degradation is one of the major adverse outcomes of opencast mining activities and any effort to control adverse impacts is considered incomplete when appropriate land reclamation strategy is not adopted. Since the land degradation in this mine is partly in the form of excavated void and partly in the form of external and internal dumps, the reclamation strategy must include a programme for the reclamation of the disturbed land.

a) Mined area reclamation

The lessee will have to take necessary steps to keep the area under disturbance at any stage of mining operation to a minimum. This can be achieved by carrying out the reclamation programme simultaneously with excavation.

The gap can be reduced between degradation and the reclamation by this programme. The post mining land use of core zone shows that all the disturbed areas will be reclaimed before abandoning the mine.

b) Reclamation procedure

Reclamation procedure has been described stage wise in the following paragraphs. Year wise reclamation programme is as shown in Table 14.13.

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TABLE 14.13
PROGRAMME OF EXCAVATED AND BACKFILLED AREA, CUMULATIVE (HA)

Upto the end of year	Area mined	Backfilled area	Remark
1st year	26.16	0.00	No backfilling
3rd year	129.97	0.00	No backfilling
5th year	380.70	0.00	No backfilling
10th	1099.37	358.27	Part Direct Backfilling and Part from rehandled surface Dump
15th year	1747.06	673.05	Part Direct Backfilling and Part from rehandled surface Dump
20th	1949.85	1122.31	Part Direct Backfilling and Part from rehandled surface Dump
25th year	2272.42	1536.00	Part direct backfilling and part from rehandled surface dump
End of mine 29th	2440.55	2109.49	Part direct backfilling and part from rehandled crown dump
Post Mine Closure Stage 32nd	2440.55	2440.55	Backfilling from rehandled crown dump*

* *During the post mine closure period (30th to 32nd year), part of the crown dump will be fully rehandaled and backfilled into the residual void (below surface level) while part of the crown dump (with an extent of 138 ha with 72.37 mcum B) will be reduced in height from 100m to 80m and backfilled*

ii. Top soil management

The total topsoil generated will be 14.64 mcum (B) during the life of the mine. Unutilised part of the same will be stacked separately in a soil stack pile located beyond the surface dump over the coal bearing area within West Pit area of 60.00 Ha before 15th year after which it will be over backfilled area. It will be used for growing plants along the fringes of the site roads and reclamation of surface dump and backfilled area.

The top soil stockpile will be low height not exceeding 6 m and will be grassed to retain fertility. Besides this, there would be temporary stacks near the excavation area and area to be reclaimed which will be made use of for concurrent filling without bringing the topsoil to the soil stack near the OB dump. The generation and disposal of total waste quantities for the life of the mine are shown in Table 14.14.

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TABLE 14.14
WASTE DISPOSAL (TOP SOIL & OB) IN MCUM (BANK) PROGRESSIVE

Year/ Stage	Bund	Backfilling upto surface level OB,		Crown OB dumping		Rehandaled crown OB		Resultant of crown dumping & rehandling OB dump	OB Dumping		Surface Dump Rehandling		Resultant of surface dumping & S. Dump rehandling	Top soil Utilised		Total OB & T soil		Resultant total backfilling including rehandling of crown and s. dump
	Prog	Prog	Cumul	Prog	Cumul	Prog	Cumul	Cumul	Prog	Cumul	Prog	Cumul	Cumul	Progr	Cumul	Prog	Cumul	Cumul
Const. (0)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
1st year	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.77	4.77	0.00	0.00	0	0.00	0.00	4.84	4.84	0.00
2nd-3rd year	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.48	48.25	0.00	0.00	0	0.00	0.00	43.48	48.25	0.00
4th - 5th year	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	123.5	171.74	0.00	0.00	0	0.00	0.00	123.5	171.74	0.00
6th - 10th year	0.00	381.64	381.64	242.05	242.05	0.00	0.00	0.00	47.07	218.81	86.74	86.74	132.07	2.05	2.05	759.56	931.37	468.38
11th - 15th year	0.00	372.95	754.59	247.17	489.22	0.00	0.00	0.00	0.00	218.81	25.62	112.36	106.45	2.41	4.46	648.14	1579.52	866.95
16th - 20th year	0.00	493.78	1248.38	0.00	489.22	0.00	0.00	0.00	0.00	218.81	106.45	218.81	0	2.25	6.72	602.49	2182.00	1467.18
21st - 25th year	0.00	493.06	1741.44	0.00	489.22	0.00	0.00	0.00	0.00	218.81	0.00	218.81	0	2.19	8.90	495.25	2677.25	1960.25
26th - 29th End of mine	0.00	296.99	2038.43	0.00	489.22	284.30	284.30	204.92	0.00	218.81	0.00	218.81	0	3.83	12.74	585.12	3262.37	2541.54
Closure plan 30th - 32nd	0.00	0.00	2038.43	0.00	489.22	132.55	416.85	72.37	0.00	218.81	0.00	218.81	0	1.91	14.65	134.46	3396.84	2674.09
Total	0.07	2038.43		489.22		416.85			218.81		218.81			14.65		3396.84		

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iii. Post reclamation land use

The first step in a successful reclamation programme is to decide the post reclamation land use. The post mine closure land use at the end of Opencast and underground stage (78th to 80th year) is given in Table 14.15.

TABLE 14.15
MINE CLOSURE LAND USE (OC AND UG) IN HA (END OF 80TH YEAR)

Sl. No.	Description of ML Area	Land use (Ha.)						
		Bund	Void	Public use	Company use	Un-disturbed	Plantation (Forest)/ agriculture including GB	Total
1.	Backfill	0.00	0.00	0.00	0.00	0.00	2440.55	2440.55
2.	Void/water body	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.	Surface dump	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.	Bund	5.20	0.00	0.00	0.00	0.00	0.00	5.20
5.	Green belt #	0.00	0.00	0.00	0.00	0.00	36.07	36.07
6.	Top soil dump*	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7.	Settling pond**	0.00	0.00	0.00	0.00	0.00	5.00	5.00
8.	Road diversion	0.00	0.00	30.30	0.00	0.00	0.00	30.30
9. a	Facilities Retained part (West part: CHP Incline, Shaft, Pit, office, lamp room, attendance office, rest room, parking, first aid room, substation etc.)	0.00	0.00	5.0	0.00	0.00	0.00	5.00
9.b	Dismantled Part (West part: CHP Incline, Shaft, Pit, office, lamp room, attendance office, rest room, parking, first aid room, substation etc.)	0.00	0.00	0.00	0.00	0.00	45.94	45.94
10.	Under Kelo River	0.00	0.00	0.00	0.00	15.42	0.00	15.42
11.	Undisturbed	0.00		0.00	0.00	0.00	0.00	0.00
	Total	**5.20**	**0.00**	**35.30**	**0.00**	**15.42**	**2527.56**	**2583.48**

Notes : ** Top soil dump of 60 Ha. was over the coal bearing area before 10th year after which it reduced to zero by 15th year as area under it was excavated, the topsoil in subsequent years was stacked over the backfilled area*

*** Surface water reservoir in facilities area measuring 5.0 Ha will be backfilled in the post mine closure stage (OC+UG combined)*

**** Surface dump will be rehandled from 7th year to 20th year and area below it excavated*

#. Green Belt of 36.07 ha = 23.63 ha along Kelo river 45 m westside and 15 m eastside + 12.44 ha over 7.5 m along ML boundary.

During post mine closure plan period, agriculture is proposed instead of plantation over the rehandled crown dump area as well as over the backfilled area obtained as a result of reducing the void except over 211.319 ha including the crown dump of 138 ha which will be left for forest use as in pre-mining scenario.

It would be appropriate to restore the lands to the original land use to the extent possible. The crown dump will be reduced from +100 m height to 0 m (general ground level) during 30th to 32nd year and the material will be backfilled into the void upto surface fully except the crown dump of 138 ha which will be left with a 80m height. The level area may be converted into agriculture land in the post mine closure scenario so that some of the people could go back to agriculture profession. The stage plan at the end

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29th year & section showing the mine at the conceptual stage is given in Plate XXVI & XXXVI respectively.

iv. Soil conservation measures

The following control measures to prevent soil erosion and wash off of fines from freshly excavated benches and dumps will be adopted:

- Garland drains will be provided around the mine whenever required to arrest any soil from the mine area being carried away by the rain water.
- The bench levels will be provided with water gradient against the general pit slope to decrease the speed of storm water and prevent its uncontrolled descent.
- Special local stone paved chutes and channels will be provided wherever required, to allow controlled descent of water, especially from external dumps.
- Gullies formed, if any, on side of the benches shall be provided with check dams of local stone or sand filled bags.
- The inactive dump slopes will be planted with bushes, grass, shrubs and trees to prevent soil erosion after applying top soil.
- Retaining walls (with gabion, concrete or local stone) will be provided, wherever required, to support the benches or any loose material and also to arrest sliding of loose debris.

v. Afforestation

a) Compensatory afforestation

Compensatory plantation will be provided in line with the prevailing rules of forest department.

b) Plantation during mining

A plantation program over life of the mine has been planned in a phase wise manner. The plantation will be started from first year of mining along the boundary of ML area from south to north. A 7.5 m width of green belt development around the ML area will be carried out and more width of green belt will be taken up wherever space is available. Plantation over surface dump area will be not be done as it will be backfilled. A thick plantation is proposed to be provided and maintained around the mining area and along the roads. Plantation over the backfilled area will be begin from 16th year. The yearly requirement of plants during the various years and stages of the mining project is as shown in the Table 14.16.

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TABLE 14.16
YEAR/STAGE WISE AND LOCATION WISE REQUIREMENT OF PLANTS ALONG WITH BIFURCATION INTO FOREST AND AGRICULTURE LANDUSE

Year	Backfilled reclm. area	Dump reclm. area	Green belt area	Total plantation area in ha	Total tree @ 2500 no per ha	Backfilled area for agriculture without plantation	Made Fit for Agriculture in Post Mine Closure after cutting trees	Dismantled area for agriculture without plantation	Settling pond area filled for agriculture without plantation	Total fit for agriculture	Fit for Forest in Post Mine Closure
1	2	3	4	5	6	7	8	9	10	11	12
1st year	0.00	-	7.21	7.21	18,025					0.00	
2nd-3rd year	0.00	-	14.43	14.43	36,075					0.00	
4th - 5th year	0.00	-	14.43	14.43	36,075					0.00	
6th - 10th year	198.97	194.76		393.73	984,325					0.00	
11th - 15th year	281.30			281.30	703,250					0.00	
16th - 20th year	514.51			514.51	1,286,275					0.00	
21st - 25th year	418.95			418.95	1,047,375					0.00	
End of OC mine 29th	612.04			612.04	1,530,100					0.00	
Closure plan 78th -80th year		-		0.00	-	414.78	1850.52	45.94	5.00	**2316.24**	211.32
Total*	**2025.77**	**194.76**	**36.07**	**2256.60**	**5641500**	**414.78**	**1850.52**	**45.94**	**5.00**	2316.24	211.32

* *Total backfilled area of 2440.55 comprises of 2025.77 ha planted (out of which 175. 249 ha will be returned as forest land and 1850.52 ha will be for agriculture use) +414.78 ha area made fit for agriculture. Thus, total agriculture land in backfilled area of 2265.30 ha comprises 1850.52 ha made fit for agriculture after cutting trees + 414.78 ha directly converted to agriculture after backfilling.*

Out of 2583.48 ha ML area, 2440.55ha will be backfilled. Out of backfilled area of 2440.55ha, 211.319 ha (during pre-mining *75.945 Ha of Protected Forest land and 135.374 Ha of Revenue Forest land)* will be converted into forest use while the rest 2265.30 ha will be useable as agriculture land where as in facilities area 45.94 ha and in backfilled settling pond 5 ha will also be useable as agriculture land. Hence the total land useable as agriculture land will be 2265.30 + 45.94 + 5.0 = 2316.24 ha. The plan showing mine closure at the abandoned stage is given Plate XXXVI.

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The common species used for plantation in the region are Sal, Mahua, Gulmohar, Neem, Siris, Acacia, Casuarina, Pongamia, Mango, China-rose, Kaner, etc.

14.4.2 Air and dust pollution control measures

The SPM, CO, SO_2 and NO_x concentrations are within limits as already discussed earlier. The mining operations and related activities are anticipated to increase the levels of SPM and gaseous pollutants to a limited extent. The control measures to be adopted are mentioned in the following paragraphs:

i. Controlling fugitive dust

Dust particles, which are normally generated during mining operation and transportation, deteriorate the ambient air quality. Adequate control measures are, therefore, proposed to be taken during mining operations, transportation and loading operations. These control measures are discussed as follows:

a) Mines

a) Dust suppression systems (like water spraying) will be adopted at:
   - Faces before and after blasting
   - Faces while loading

b) Dust extraction systems will be used in drill machines and coal handling systems.

c) Dust generation will also be reduced by using sharp drill bits for drilling holes and drills with flushing system.

b) Haul roads and stock-piles

- Dust suppression system (like water spraying) would be adopted at roads, which are used for transportation. Fixed sprinklers (Whirling) have been proposed with timers to be installed along the haul roads and coal transportation roads to suppress the dust.

- Transport vehicles shall be maintained leak proof.

- Suitable dust suppression systems such as mist sprays with or without chemical will be provided at appropriate places for preventing dust pollution during handling and stockpiling of coal.

- Transfer points of coal will be provided with appropriate hoods/chutes to prevent fugitive dust emission.

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ii. Preventing dispersal of air borne dust

In addition to the control measures proposed during mining and transportation operations, following steps will be taken to prevent air pollution due to airborne dust:

- Dense tree belts will be planted around the mine and sites housing handling/ loading facilities.
- Plantation over already mined out area will be done after backfilling as per schedule (with minimum gap between excavation and afforestation)
- Dust masks will be provided as safety measure to the workers, engaged at dust generation points like drills, loading/unloading points, etc.

iii. Measures to mitigate CO levels

It has already been discussed that the concentration of CO in the ambient air is negligible and is far below the prescribed limit of CPCB and is not anticipated to exceed it in future.

Still all heavy and light vehicles shall be tested for pollutants concentration in their exhausts regularly and well maintained. Strict vigil will be kept in and around the operational area for any fire which shall be immediately controlled.

iv. Measures to mitigate NO_x levels

The main reasons of production of NO_x gases are:

a. Poor quality of explosive having large oxygen imbalance which can be due to following reasons:
   - Manufacturing defect
   - The use of expired explosives in which disintegration of ingredients has taken place.

b. Incomplete detonation is caused mainly due to low primer: column ratio.

To ensure that NO_x levels do not increase during the proposed mining operations, the following control measures will be adopted:

a. Good quality explosives will be used for which the oxygen balance will be checked from time to time. The expired explosives will not be used for which a strict vigil will be kept on the date of manufacture. Even as

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a normal procedure, all explosives will be subjected to a visual inspection and if disintegrated ingredient are spotted, the explosives will not be used even if it is within expiry date.

b. Primer: Column ratio will be rationalised. The ratio thus established, for producing minimum NO_x, will be adhered to.

The mine ambient air quality will be regularly tested to detect the presence of any pollutants above prescribed limits and appropriate measures will be adopted.

14.4.3 Noise and blasting

a) Measures to control noise pollution

The following control measures will be adopted to keep the ambient noise levels below permissible limits of 75 dB (A).

i. Provision and maintenance of thick tree belts to screen noise.

ii. Avenue plantation within the project area to dampen the noise.

iii. Proper maintenance of noise generating machinery including the transport vehicles will be ensured.

iv. Provision of the air silencer to modulate the noise generated by the machines will be made wherever required.

To protect the workers from exposures to higher noise levels, the following measures will be adopted:

i. Provision of protective devices like ear muffs/ear plugs to those workers who cannot be isolated from the source of noise.

ii. Confining the noise by isolating the source of noise.

iii. Reducing the exposure time of workers to the higher noise levels.

b) Measures to reduce ground vibrations due to blasting and prevent fly rocks

The vibrations due to blasting will be studied during stages of mining operations and the recommendations/ suggestions given as per the result of the said study will be strictly adhered to especially the charge per delay.

c) General recommendations and suggestion

i. The peak particle velocity (PPV) of ground vibration will be kept below permissible limits by controlled blasting techniques.

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ii. Suitable powder factor will be adopted for overburden and coal.

iii. Drilling and charging pattern will be modified, if required, based on the vibration study to be carried out.

iv. Short delay detonators will preferably be used in blasting rounds rather than detonating fuse as trunk line.

v. To contain fly rocks, stemming column will not be less than burden of the hole and the blasting area will be muffed.

vi. Each blast will be carefully planned, checked, executed and observed. Blasting data will be recorded. During blasting, a responsible officer will be supervising the whole operation.

vii. Covering the detonating fuse, in case it is used, at least with 150 mm thick cover of sand or drill cuttings.

viii. Blasting will be carried out at mid-day and never at night.

ix. Blasting will not be carried out when strong winds are blowing towards the inhabited areas.

Apart from the above, in order to ensure slope stabilisation, controlled production blasting will be adopted to avoid tension cracks and back breaks. Such cracks filled with water reduce stability of excavated slopes and angle of slopes. Good drainage system will be provided in and around the mine.

14.4.4 Water pollution control measures

a) Effluent from mine

i. To prevent surface and ground water contamination by oil/grease and sewage waste, following control measures are proposed to be implemented:

- Leak proof containers will be used for storage and transportation of oil/grease. In the store also, the container containing oil/grease will be kept in empty, safe and open containers of higher volume than the containers to avoid oil/grease spillage. The area over which oil/grease is handled will be kept effectively impervious. Any wash off from the oil/grease handling area or workshop will be drained through impervious drains, collected in specially constructed pit and treated appropriately to remove any oil/grease and the water will be recycled. The oil grease will be sold to authorized vendors and sludge disposed off in specially constructed pit.

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- The sewage waste generated will be drained by underground impervious drains, lead to appropriately designed septic tanks and soak pits to prevent any pollution of surface or ground water.

ii. The surface and ground water in and around the mine, loading plant and infrastructure will be regularly tested and appropriate control measures adopted in case of any pollutant is detected above the prescribed limit.

iii. All stacking and loading areas will be provided with proper garland drains equipped with baffles to prevent wash offs from reaching the downstream natural channels.

iv. A domestic waste water treatment plant will be provided in mine office area so that the water after treatment can be reused.

b) Storm water

Control measures to be adopted are briefly discussed below:

- Check dams will be provided to prevent solids from wash off and screen if any from the mine related activities.
- Peripheral bunds will be erected on the outer edge of the abandoned benches before reclamation so that the soil is not carried away by storm water.
- A water gradient of about 1 in 100 will be kept at every bench towards inside of the bench to prevent formation of gullies in the bench slopes causing serious erosion.
- Chutes will be constructed by using local stone or masonry to guide the water in areas with loose soil to prevent erosion and uncontrolled descent of water wherever necessary.
- Construction of garland drains around freshly excavated and dumped areas so that flow of water with loose material is prevented. The mine water will be passed through specially constructed settling ponds to arrest any loose material being carried away with water.
- Any areas with loose debris within the lease hold will be planted.

c) Measures to minimise adverse effects on water regime

During the process of mine rehabilitation and with the completion of backfilling, a water body will be created in the mined out pit which will act as water reservoir improving the ground water recharge, source of attraction for fauna and will help in the maintenance of afforested areas. To enhance aesthetic appearance, parks and lawns will be made around the water body.

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14.4.5 Socio-economic aspects including resettlement and benefits

As there will be displacement of 1679 families in all fourteen villages, a rehabilitation programme is required. However, the land and home or both oustees will be given rehabilitation and resettlement benefits according to the Govt. of Chhattisgarh Policies and prevailing practice in industries in the vicinity. The detailed R&R plan is under preparation. In addition to the provisions of the CG R&R Policy 2007, as the proportion of tribal families among the land losers is significant and in view of project area falling under scheduled V, a separate Tribal Development Plan (TDP) is essential for vulnerable group. The company is in the process of making a Tribal Development Plan containing the profile of community, livelihood pattern, a need assessment for community development and a specific communication program to engage with the community. The survey is being done by Asian Institute of Sustainable Development Ranchi (Jharkhand).

The employment will be provided as per the provisions of the Policy of Govt. of Chhattisgarh. Advisory Committee will be formed by Collector/ Revenue Divisional Commissioner. The development in the area which is predominantly backward, will largely benefit the local population. Preference will be given to the local people for gainful employment in the unskilled and semi-skilled categories as and when the need arises.

Due to development activity in the rural and backward area, traders and private enterprises will grow in the region, which will provide indirect employment to the local people. The company will arrange medical camps, sports competitions and awareness programmes for the benefit of the local people.

14.5 MONITORING SCHEDULE OF EMP

i. In order to keep a watch on the environmental control measures discussed about air quality, water quality and noise level monitoring shall be done regularly every year by taking measurements near the mine and residential areas preferably close to some of the earlier stations so as to keep a comparative check with respect to the base line data. For air quality monitoring, continuous monitoring on 24 hours sampling basis should be done for two days per week and analytical checks made for SPM, SO_2, NO_x and CO.

ii. For effective management of the environment, it is envisaged to have an organisational set-up under the administrative supervision of the Mines Management where responsibilities can be delegated to technical personnel like Mining Engineer, Geologist/Chemist and Horticulturist with regard to specific aspects of environment management plan. The organisation for the purpose is as indicated in the chart given in Plate XL.

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iii. The Master Surface Plan (Plate IV) on 1: 10,000 scale and the Key Map (Plate II) portray the general environmental picture of the area and the region surrounding it.

Conclusion

1. Project affected families will be 1679 of fourteen villages.
2. Compensatory plantation is to be planned in line with Forest Department Rules.
3. Agricultural land shall be converted to industrial or mining site during mining tenure.
4. After the change in land use, the mining will provide the opportunity to create a water storage reservoir and comparatively higher tree plantation and greenery will improve the general quality of the environment. In the process, sustained production of energy vital for the power industry and economy of the area will be ensured.
5. Meteorology and general air quality of the area will not suffer and the planned operations will not have any significant adverse impact on the hydrograph and water quality in the area.
6. Only minor nature of air pollution is visualized for which more than adequate preventive measures have been contemplated.

एल.पी. नागपाल / L.P. NAGPAL
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भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
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CHAPTER 15

MINE CLOSURE PLAN

15.1 INTRODUCTION

The overall area which will ultimately come under mine planning is termed as Gare Palma Sector – II coal mine has been allotted to M/s Maharashtra State Power Generation Company Limited (MSPGCL) by Ministry of Coal vide allotment order no.103/30/2015/NA, dated 31-08-2015.

The Coal mine lies in Mand Raigarh Coalfield of Raigarh district in Chhattisgarh state. This coal block (Extent of area 2583.486 Ha) is proposed to produce coal at the rate of 23.60 MTPA (22.00 MT from OC +1.6 MT from UG) though the peak capacity of OC will be 23.6 MTPA before the UG becomes operational.

The coal produced from this block shall be utilized in the existing and proposed thermal power plants.

I). Name of applicant with complete address

The name of the applicant and address is given in Table 15.1.

TABLE 15.1
NAME AND ADDRESS OF THE COMPANY

Particulars	Information
Name of the Company	Maharashtra State Power Generation Company Limited
Address	"Prakashgad" Plot No. G-9, Anant Kanekar Marg, Bandra (East), Mumbai, Maharashtra-400051.
Phone	022 – 26476231; 022-26474211
Fax	022 – 26581400
E- mail	md@mahagenco.in
Official Website	http://www.mahagenco.in

II). Status of the applicant

MSPGCL is a State owned PSU of Govt. of Maharashtra. It was incorporated in India under Company's Act1956 with Corporate Identity no. **U400100MH2005SGC153648**

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Maharashtra State Power Generation Company Limited (MSPGCL) is engaged in power generation with total Installed capacity of 12077 MW as on 31.01.2016, as below:

Thermal	:	8640 MW
Gas Turbine	:	672 MW
Hydro	:	2585 MW
Solar	:	180 MW
Total	:	**12077 MW**

The company has 2570 MW of ongoing projects and 7870 MW in planning stage, and is also planning to install 2500 MW of solar power projects in 5 years.

Ministry of Coal vide, letter no. 13016/ 26/2004-CA-I/CA-III(Pt.)(Vol.II) Dt. 24.02.2016 also allotted Mahajanwadi Coal Block to Mahagenco for captive use only under Rule 4 of the Auction by Competitive Bidding.

III). Minerals which are occurring in the area and which the applicant intends to mine

Coal

IV). Information about Enduse Plants

a. As Per Allotment order

TABLE 15.2
NAME WITH LOCATION AND REQUIREMENT OF COAL AS PER ALLOTMENT ORDER DT 31-08-2015

Sl. No.	Name of specified End Use Plant	Location/ Address	Configuration	Capacity
1.	Chandrapur Thermal Power Station Unit 8 & Unit 9	Chandrapur Thermal Power Station Unit 8 & 9(2x500MW), Expansion Project, Nirman Bhavan, Urja Nagar, Chandrapur-442404. Distance from mine 800 km	2x500 MW	1000 MW
2.	Koradi Thermal Power Station Unit 8, Unit 9 and Unit 10	Koradi Complex, Chindwara Road, Koradi-441111, Distt. Nagpur, Maharashtra. Distance from mine 595 km	3x660 MW	1980 MW

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Sl. No.	Name of specified End Use Plant	Location/ Address	Configuration	Capacity
3.	Parli Thermal Power Station Unit 8	Taluka parli Vaijnath, Dist. Beed-431520, Maharashtra Distance from mine 1147 km	250 MW	250 MW
	Total			**3230 MW**

b. Additionally Proposed

MSPGCL have requested MOC/NA vide letter No. CMD Mahagenco/ED(Coal/Fuel)/34C (a copy of the letter enclosed at **Annexure-1-2**) proposing to extract coal from Gare Palma Coal Mine up to its full capacity, i.e. 23.6 Mty, and utilise extra coal for other thermal plants of Mahagenco and surrender an equal amount of linkage coal from CIL to the extent the demand for other EUPs will be met from the coal mine.

MOC/NA vide letter no.103/32015/ NA dt. 19.02.2016 (**Annexure 1-3**) clarified that the issue of diversion arises after the commencement of production and advised that Mahagenco may submit the Mining Plan to Ministry of coal for approval and tender intimation towards proposed diversion as per clause 8.4 of Allotment Agreement (**Annexure 15-1**) as and when required.

Taking the above into consideration, the Mining Plan has been prepared for the full capacity of the mine, i.e. 23.6 Mtpa.

V). Annual coal requirement

The coal requirement calculation with norms used for computing consumption is given in Table 15.3.

TABLE 15.3
NORMS USED FOR COMPUTING CONSUMPTION

Sl. No.	Particulars	Name of power plant			Total
		Chandrapur	Koradi	Parli	
1	Capacity, MW	2x500=1000	3x660=1980	1x250	**2330**
2	Station Heat Rate "KCal/KWhr"	2375	2250	2375	**2308**
3	Avg Calorific value "KCal/kg)"	4350	4350	4350	**4350**
4	Specific consumption "Kg/kWhr"	0.5460	0.5172	0.5747	**0.5306**
5	Plant Load Factor	85%	85%	85%	**85%**

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Sl. No.	Particulars	Name of power plant			Total
		Chandrapur	Koradi	Parli	
6	Total Coal Requirement "MTPA"	2x2.0327 = 4.065	3x2.5419 = 7.626	1X1.12 = 1.070	**12.761**
7	Coal availability from this project "MTPA"	4.061	7.626	1.070	**12.761**
8	Linkage/e-Auction from CIL"MTPA"	Nil	Nil	Nil	**Nil**
9	Other blocks of the company "MTPA"	Nil	Nil	Nil	**Nil**
10	Percentage of end use requirement to be met from this mine	100%	100%	100%	**100%**

The total coal requirement for already linked power plants as per allotment order and as per specific heat consumption norms comes to 12.761 MTPA. The balance coal out of the total production of 23.6 MTPA will be used for other thermal plants of Mahagenco as explained in the paragraph 1.8.2.

VI). Annual target coal production

Based on the above explanation this block is proposed to produce Opencast Normative- 22MTPA & Peak-23.6 MTPA and Underground- 1.6 MTPA.

VII). Name of RQP preparing mining plan

The particulars of RQP are given in Table 15.4.

TABLE 15.4
PARTICULARS OF RQP

Name	:	Mr.B.D.Sharma
Address (i) Office	:	A-121, Paryavaran Complex, IGNOU Road New Delhi – 110030
Phone	:	011-29534777, 29532236, 29535891
Fax	:	+91-11-29532568
E-mail	:	min_mec@vsnl.com; minmec@bol.net.in
Web site	:	http://www.minmec.co.in
Registration Number	:	13016/18/2004-CA
Date of grant / renewal	:	01.06.2004
(ii) Residence	:	A-121, Paryavaran Complex, IGNOU Road New Delhi – 110030
Phone	:	011-29534777, 29535891

Copy of RQP certificate are attached as **Certificate** I).

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VIII). Location

The "Gare Palma Sector – II Coal Block area lies in Mand Raigarh Coalfield in Raigarh district of Chhattisgarh state. The mine site is located in Tihli Rampur, Kunjemura, Gare, Saraitola, Mudagaon, Rodopali, Pata, Chitwahi, Dholnara, Jhinka Bahal, Dolesara, Bhalumura, Sarasmal and Libara of District Raigarh in Chhattisgarh. The area is covered in the Survey of India Toposheet No. 64 N/8 & 12 (R.F. 1:50,000) and is bounded by:

As per Allotment Letter:

Latitude : 22° 06' 23.55" N to 22° 10' 37.04" N
Longitude : 83° 26' 22.18" E to 83 ° 31' 19" E

As per Nominated Authority letter F.No.104/28/2015/NA dt. 13-10-2015 (Copy at **Annexure 3-2A**), the coordinates in WGS 84 system are given below. As mentioned in the letter, the earlier coordinates were using reference system based on modified Everest datum but presently CMPDI is following WGS 84 System which is the standard reference system followed globally. It is to be need that the respective position of any point does not change physically on the ground.

Latitude : 22° 06' 24.215" to 22° 30' 49.891" N
Longitude : 83° 26' 15.433" to 83° 31' 12.632" E

(Refer location plan and key plan - Plate I & II)

IX). Communication & accessibility

The Gare Palma area is situated around 35 km away from Raigarh Township, which is also the nearest railway station on Mumbai-Howrah main line of SE Railway. The block is connected by road from Raigarh via Punjipathara by State Highway. Punjipathara village is situated on Raigarh-Ghargoda main road. The distance from Raigarh to Ghargoda is around 40 km. The road distance between Raigarh to Punjipathara is about 20 Km. and Punjipathara to Ghargoda is 20 Km towards north. From Punjipathara the road leads to the Gare Palma area via Tamnar TPP Area situated at a distance of 10 Km. on Punjipathara- Milupara road, which passes through the block. Tamnar is situated in the south-western part of the Gare Palma Sector-I area in the sub block 'F'. A network of road is present within the block.

X). Summary details of the coal block area

Land Use and Ownership / Occupancy

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कोयला मंत्रालय / Ministry of Coal

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The present land use of the area required for the project is given below in Table 15.5.

TABLE 15.5
PRESENT LAND USE OF THE AREA REQUIRED FOR THE PROJECT

Sl. No.	Village	Private Land			Govt. Land				Total Area	Total Area (Private + Govt. Land)
		Agriculture	Non Agriculture	Total Area	Populated	Water body	Other	CBJ**		
A. As per Revenue Departments Records										
1	Tihlirampur	97.902	62.685	160.587	6.83	21.225	39.094	0	67.149	227.736
2	Dholnara	59.64		59.64	6.833	0.376	3.317	2.788	13.314	72.954
3	Murogaon	302.393		302.393	8.256	1.303	4.29	23.504	37.353	339.746
4	Libra	121.416	7.621	129.037	2.897	0.439	4.694	15.943	23.973	153.01
5	Kunjemura	199.715		199.715	14.221	13.596	8.308	30.17	66.295	266.01
6	Jhinkabahal	3.844		3.844	0	0	0	0	0	3.844
7	Radopali	351.676		351.676	8.336	5.895	19.955	0.125	34.311	385.987
8	Dolesara	20.748		20.748	0	0	1.242	0	1.242	21.99
9	Bhalumura	16.297		16.297	0	0	0.704	0.622	1.326	17.623
10	Sarasmal	56.869	9.158	66.027	0	1.332	3.563	15.236	20.131	86.158
11	Pata	316.064	13.166	329.23	13.314	5.529	14.47	15.326	48.639	377.869
12	Chitwahi	142.461		142.461	0.252	0.867	8.153	0	9.272	151.733
13	Gare	157.224		157.224	10.482	4.241	11.596	1.957	28.276	185.5
14	Saraitola	156.228	13.722	169.95	8.395	1.364	7.969	29.703	47.431	217.381
Total of A		**2002.477**	**106.352**	**2108.829**	**79.816**	**56.167**	**127.355**	**135.374**	**398.712**	**2507.541**
B. As per Forest Departments Record										
Government Forest Land										*75.945
Grand Total										**2583.486**

Note: * *75.945 Ha of Protected Forest land and 135.374 Ha of Revenue Forest land is present within the mine lease area, which needs to be diverted for mining purpose after obtaining forestry clearance from the Ministry of Environment and Forest, Govt. of India under the Forest (Conservation) Act 1980.*

** *Small/ big trees forest*

15.1.1 Reasons for closure

It is a new allotted block. Therefore Progressive Mine Closure Plan is described along with the coverage of activities to be taken care of at the closure stage. Reasons for Mine Closure can be exhaustion of mineral, lack of demand, uneconomic operations, natural calamity or directives from a statutory organization.

15.1.2 Statutory obligations

I. Statutory Obligations already received

The following letters/ permissions/approvals have been received:

1. Allotment Order vide Ministry of Coal letter No.103/30/2015/NA, dated 31-08-2015 (**Annexure 1-1**)

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2. The Agreement signed with the Nominated Authority on 30th March 2015 (**Annexure 15-1**)

15.1.2.1 Compliance to various conditions mentioned in the letters/ permissions issued so for is tabulated below:

1. Allotment Order vide Ministry of Coal letter No.103/30/2015/NA, dated 31-08-2015 (Annexure 1-1)

Sl. No.	Obligations	Compliance
1	To depute an Authorised Representative to execute the Allottee Agreement (the "Agreement") on its behalf as per the following schedule. Date : 30th March 2015	The Agreement Signed on 30th March 2015 The First Amendment Agreement signed on 30th March 2015

2. The Agreement signed with the Nominated Authority on 30th March 2015 (Annexure 15-1)

Sl. No.	Conditions and Obligations Related to Mining/ Safety Closure and Conservation	Compliance
1.	Within 30 days allotee shall submit detailed plan towards commencement of mining operation (Commencement Plan) including mining lease and required and revision of mining plan, if any.	Complied
2.	Make an application to state Govt. for grant of mining lease in the name of Allottee.	Shall be complied
3.	Coal extracted from the coal mine shall be utilized strictly in the specified end use plant.	Out of the 23.6 Mtpa planned production, 12.761 Mtpa coal will be utilized in existing 3 plants as per the allotment order. For the balance production, the procedures of tendering intimation towards proposed diversion as per clause 8.4 of Allotment Agreement will be followed as and when required, when such capacity of mine is reached (refer MOC letter **Annexure 1-4**).
4.	Reduce Generation of Middlings and washery rejects, which in any case shall not exceed	In the Mining Plan, provision for space for a washery has been

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Sl. No.	Conditions and Obligations Related to Mining/ Safety Closure and Conservation	Compliance
	normative limit, and utilize them in any captive power plant of the allottee. Any Middllings and washery rejects, may be sold by the allottee.	made. The decision regarding capacity and layout of washery will be reached after thorough investigation. MSPGCL has approached CMPDIL for generation of data (washability tests, cleaning possibilities etc) and report preparation. Being thermal coal, no middlings are anticipated to be generated. The washery rejects shall be within the normative limits and will be disposed off strictly as per rules and regulation framed by Ministry of Environment & Forest and change from time to time
5.	In the event that the allottee is desirous of utilizing the coal in his other plant or subsidiary company then he shall provide written intimation (Diversion Notice) to Central Govt, at least thirty days prior to the such intended utilization., with mechanism for transportation of coal.	The procedures of tendering intimation towards proposed diversion as per clause 8.4 of Allotment Agreement will be followed as and when required, when such capacity of mine is reached.
6.	The allotee shall comply with all applicable laws and observe Good Industry Practice for the protection of the general health, safety, welfare, social security and minimum wages of employees engaged including contractor or sub contractor.	Shall be complied with
7.	The Allottee shall install and utilize such recognized modern safety devices and observe such recognized modern safety precautions as are provided and observed under Good Industry Practice. The allotee shall maintain in a safe and sound condition all infrastructure and equipment constructed or acquired in connection with mining operations and required for ongoing operations.	Shall be complied with

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Sl. No.	Conditions and Obligations Related to Mining/ Safety Closure and Conservation	Compliance
	The allottee shall train employees engaged at the Coal Mine including employees of any contractor or sub-contractor and of all other person having legal access to the area covered by this Agreement in accordance with the Good Industry Practice. The allottee shall construct maintain, and operate health programs and facilities to serve the employees engaged at the Coal Mine including employees of any contractor or sub-contractor and of all other person having legal access to the area covered by this Agreement which programs and facilities shall install, maintain and use modern health devices and equipment and shall practice modern health procedures and precautions in accordance with Good Industry Practice.	
8.	In the event allottee provides housing, the same shall be built to a standard that provides suitable living environments adequate for health and well being and which meets applicable sanitation standards in term of good industry practice.	Shall be complied with.
9.	The Mine Plan approved in relation to the prior allottee, if any shall also be applicable to the allottee. Upon allocation of coal mine, the allottee may revise the Mine Plan for extraction of more coal as compared to mine plan subject to revision. Allottee may increase the production to the maximum possible extent and utilize the coal as per clause 8 (i.e. in specified end use plants)	MOC vide letter no. 103/30/ 2015- NA, dt. 11.01.2016, intimated that the Mining Plan submitted by the earlier allottee did not receive MOC approval and MSPGCL need to apply afresh seeking approval of Mining Plan. Fresh Mining Plan has been prepared. The capacity of the mine has been optimised to the maximum.
10.	Upon exhaustion of the extractable reserves, coal mine shall be closed in the manner provided in the mine closure plan and the applicable laws.	Mine Closure Plan and the applicable Laws shall be adhered to

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II. Statutory obligations still to be received

Other obligations will be there as a result of the following approvals:

a. Mining Plan approval letter from MOC

b. Environmental clearance letter from MOEF

c. Forestry clearance letter from Forest Dept. MOEF

d. No objection certificate from State Pollution Control Board

e. Permission from CGWB for withdrawal of ground water

f. Permission for mine opening from coal controller

g. Permission letter from Controller of Explosives

h. Letter from DGMS for use of HEMM and drilling /blasting

All the obligations spelt out in the above letters/ clearances and also in other letters which may be issued in future will be complied by the Company.

15.1.3 Closure plan preparation

The Progressive Mine Closure Plan and Mine Closure Plan have the approval of the Board of Directors of the Company and the relevant document is attached as **Annexure 15-2**.

15.2 MINE DESCRIPTION

Mine description comprises Geology, Reserves, Mining Method and Coal Beneficiation. Geology and reserves are already covered under Chapter 4 and Mining method under Chapter 5.

15.3 MINE CLOSURE PLAN

15.3.1 Mined out land

i Land degradation and aesthetic environment

The year wise position of mining is given below in Table 15.6.

TABLE 15.6
YEAR WISE POSITION OF MINING AREA

Year	Excavation Area Ha.	
	Progressive	Cumulative
1st Year	26.16	26.16
2nd-3rd year	103.81	129.97
4th - 5th year	250.73	380.70

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Year	Excavation Area Ha.	
	Progressive	Cumulative
6th - 10th year	718.67	1099.37
11th - 15th year	647.69	1747.06
16th - 20th year	202.79	1949.85
21st - 25th year	322.57	2272.42
End of mine 26th - 29th	168.13	2440.55
OC Closure plan 30th -32nd	0.00	2440.55
Total	**2440.550**	

ii. Land degradation control measures

Land degradation is one of the major adverse outcomes of opencast mining activities and any effort to control adverse impacts is considered incomplete when appropriate land reclamation strategy is not adopted. Since the land degradation in this mine is partly in the form of excavated void and partly in the form of external and internal dumps, the reclamation strategy must include a programme for the reclamation of the disturbed land.

iii. Mined area reclamation

The lessee will take necessary steps to keep the area under disturbance at any stage of mining operation to a minimum. This can be achieved by carrying out the reclamation programme simultaneously with excavation. The gap can be reduced between degradation and the reclamation by this programme. The post mining land use of core zone shows that all the disturbed areas will be reclaimed before abandoning the mine excluding the small void.

iv. Reclamation procedure

Reclamation procedure has been described stage wise in the following paragraphs.

Transportation and unloading of top soil at reclamation dump site/spoil bank and levelling of top soil heaps

After the levelling of OB heaps is completed by the dozers, laying of topsoil will be undertaken. The topsoil will preferably be directly brought from the freshly excavated area for the purpose of maximum benefit. In case it is not adequate, the top soil deficiency will be made up from the top soil stack, for which provision has been made. The top soil brought to the reclamation dump site and unloaded will also be in the form of heaps.

Dozers will be deployed for levelling the top soil. It is proposed to lay about 0.5m-1m thick layer of top soil during levelling.

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Biological reclamation

After levelling of top soil, the technical reclamation is complete. The next step will be biological reclamation comprising plantation of grasses, legumes, herbs and trees. All these species will preferably be local. Before planting the trees, dug pits will be made and filled with top soil mixed with manure. Thus the area will be prepared for plantation before the onset of monsoon. The plantation will then be done during June/July after the 1st rain showers.

All the above steps have been explained by a section presented in Fig 15.1 below:

DEPICTION OF METHOD OF PHYSICAL AND BIOLOGICAL RESTORATION/ RECLAMATION/ REHABILITATION

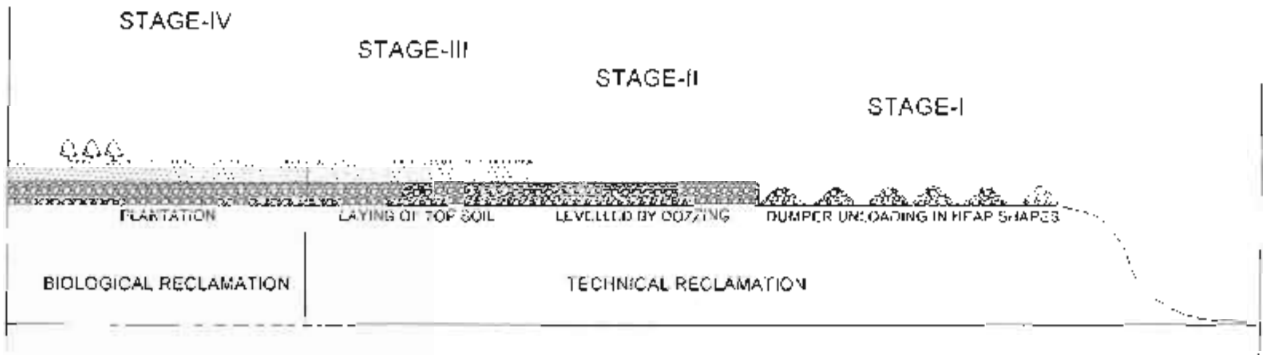


FIG 15.1: SECTION SHOWING VARIOUS STAGES OF RECLAMATION

Arrangement of Plants/ saplings

To fulfil the requirements of nursery plants, a nursery will be established at the site. During peak requirements, additional plants will be transported from Govt./Forest nurseries located around the area. Local species will be opted for plantation.

Protection of Reclaimed Area

The reclaimed and afforested area has to be protected from cattle menace, soil erosion, plant diseases, etc. Plants will be protected from diseases by the application of proper pesticides. Soil working, manuring, etc. will be done whenever necessary. Plants will be protected from cattle menace by proper watch and ward or fencing. Watering will be done periodically as per requirement to support the normal growth of the plants.

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Year wise reclamation programme is as shown in Table 15.7.

TABLE 15.7
PROGRAMME OF EXCAVATED AND BACKFILLED AREA, CUMULATIVE (HA)

Upto the end of year	Area mined	Backfilled area	Remark
1st	26.16	0.00	No backfilling
3rd	129.97	0.00	No backfilling
5th	380.70	0.00	No backfilling
10th	1099.37	358.27	Part Direct Backfilling and Part from rehandled surface Dump
15th	1747.06	673.05	Part Direct Backfilling and Part from rehandled surface Dump
20th	1949.85	1122.31	Part Direct Backfilling and Part from rehandled surface Dump
25th	2272.42	1536.00	Part direct backfilling and part from rehandled surface dump
End of Mine 29th	2440.55	2109.49	Part direct backfilling and part from rehandled crown dump
Post Mine Closure Stage 30-32nd	2440.55	2440.55	Backfilling from rehandled crown dump*

* *During the post mine closure period (30th to 32nd year), part of the crown dump will be fully rehandaled and backfilled into the residual void (below surface level) while part of the crown dump (with an extent of 138 ha) will be reduced in height from 100m to 80m and backfilled.*

In the Mining Plan, provision for space for a washery has been made. The decision regarding capacity and layout of washery will be reached after thorough investigation.

The rejects generated from the washery could also be backfilled into the quarry voids after taking permission from the relevant authorities.

v. Surface OB Dump Reclamation

The surface dump being of temporary nature is proposed to be planted with cash crop type trees (eucalyptus, semal, bamboo and fruit trees (banana, orange, etc).

TABLE 15.8
YEAR / STAGE WISE DUMPED AND RECLAIMED AREA (HA)

Year	Dump Area (ha)	Dump Reclamation Area (ha.)
	Cumulative	Cumulative
1st year	36.19	0.00
3rd year	129.97	0.00
5th year	380.00	0.00
10th year	292.72	194.76
15th year	190.59	190.59
20th year	0.00	0.00

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Year	Dump Area (ha)	Dump Reclamation Area (ha.)
	Cumulative	Cumulative
25th year	0.00	0.00
End of mine 29th	0.00	0.00
Closure Plan 32nd (OC)	0.00	0.00
Total		

The surface dump constructed during the initial years (1st to 6th year) over the coal bearing area will be rehandled between 7th and 20th year and backfilled.
It is advisable to plant cash crops/ trees on it for such a short period of existence like bamboo, Semal, Eucalyptus etc.

15.3.2 Post reclamation land use

The first step in a successful reclamation programme is to decide the post reclamation land use. The post mining land use with environment management is given in **Table 15.9**.

TABLE 15.9
POST OPENCAST MINING (30TH YEAR TO 32ND YEAR) LAND USE WITH ENVIRONMENT MANAGEMENT

Sl. No.	Description of ML Area	Land use (Ha.)						
		Bund	Void	Public use	Company use	Un-disturbed	Plantation/ agriculture including GB	Total
1.	Backfill	0	0	0	0	0	2440.55	**2440.55**
2.	Void/water body	0	0	0	0	0	0	**0**
3.	Surface dump	0	0	0	0	0	0	**0**
4.	Bund	5.2	0	0	0	0	0	**5.2**
5.	Green belt #	0	0	0	0	0	36.07	**36.07**
6.	Top soil dump*	0	0	0	0	0	0	**0**
7.	Settling pond**	0	5	0	0	0	0	**5**
8.	Road diversion	0	0	30.3	0	0	0	**30.3**
9.	Facilities Retained part (West part: CHP Incline, Shaft, Pit, office, lamp room, attendance office, rest room, parking, first aid room, substation etc.)	0	0		0	50.94	0	**50.94**
10.	Under Kelo River	0	0	0	0	15.42	0	**15.42**
11.	Undisturbed (others)	0		0	0	0	0	**0**
	Total	**5.2**	**5**	**30.3**	**0**	**66.36**	**2476.62**	**2583.48**

The post mine closure plan stage land use is given in Table 15.10 as applicable at the overall post mine closure (OC+UG) stage (78th to 80th year) (Refer Plate XXXVI).

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TABLE 15.10
TOTAL (OC+UG) MINE CLOSURE LAND USE (HA) (END OF 80TH YEAR)
(THE PRE MINING, DURING MINING AND POST CLOSURE (OC AND UG) LAND USE AND POST CLOSURE MANAGEMENT)

Pre Mining Land use " Ha"				Land use "Ha"										land use "Ha"						
				Type	During Mining 15th year stage	End of Life (OC 29th year)	Post Closure OC mine 32nd year							Post Closure UG mine 80th year						
							Agricul-tural land	Planta tion	Water Body	Public Use / Company use	Forest Land (Returned)	Undist-urbed	Total	Agricultural land	Planta tion	Water Body	Public Use	Forest Land (Returned)	Undistur-bed	Total
Tenancy	i	Agricultural & Non-agriculture including sl no. ii to vi)	2108.829	Excavation Area	1747.06	2440.55														
	ii	Township/ Populated	0	Backfilled Area	673.05	2109.49	2265.301				175.249		2440.55	2265.301				175.249		2440.55
	iii	Grazing	0	Excavated Void	1074.01	331.06							0							0
	iv	Barren	0	Top Soil Dump									0							0
	v	Water body	0	Bund	5.2	5.2				5.2			5.2				5.2			5.2
	vi	Road	0										0							0
		Sub Total	2108.829	External Dump	190.5								0							0
Govt Non Forest		Agricultural	0	Safety Zone 7.5m (Green belt)									0							0
		Township/ populated	79.816	Haul Road between quarries									0							0
		Others (Grass/ road/	127.355	Road diversion									0							0

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Pre Mining Land use " Ha"			Land use "Ha"										land use "Ha"						
			Type	During Mining 15th year stage	End of Life (OC 29th year)	Post Closure OC mine 32nd year							Post Closure UG mine 80th year						
						Agricul-tural land	Planta tion	Water Body	Public Use / Company use	Forest Land (Returned)	Undist-urbed	Total	Agricultural land	Planta tion	Water Body	Public Use	Forest Land (Returned)	Undistur-bed	Total
	community land/ barren)																		
	Barren (included in others)		Kelo River	15.42	15.42			15.42				15.42			15.42				15.42
	Water body	56.167	Approach Road and diversion	30.3	30.3				30.3			30.3				30.3			30.3
	Road		Setting pond	10	5	5						5	5						5
	Community land		Infrastructure area	50.94	50.94	0			50 94			50.94	45.94			5			50.94
	Sub Total	263.338	Office and Workshop	68.54								0							0
Forest	Protected Forest	75.945										0							0
	Revenue Forest (Chhote Bade Jhad ka Jungle)	135.374										0							0
	Sub Total	211.319	Rationalisation area									0							0
Free hold			Garland drains									0							0
			Embankment									0							0
			Green Belt	36.07	36.07					36.07		36.07					36.07		36.07

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Pre Mining Land use " Ha"		Land use "Ha"											land use "Ha"						
		Type	During Mining 15th year stage	End of Life (OC 29th year)	Post Closure OC mine 32nd year								Post Closure UG mine 80th year						
					Agricul-tural land	Plantation	Water Body	Public Use / Company use	Forest Land (Returned)	Undist-urbed	Total		Agricultural land	Plantation	Water Body	Public Use	Forest Land (Returned)	Undistur-bed	Total
		Water Reservoir near pit									0								0
		UG entry									0								0
		Undisturbed/Mining right for UG	429.45	0							0								0
Grand Total	2583.486		2583.48	2583.48	2270.301		15.42	86.44	211.319	0	2583.48		2316.241		15.42	40.5	211.319	0	2583.48

*Notes : * Top soil dump of 60 Ha. was over the coal bearing area before 10th year after which it reduced to zero by 15th year as area under it was excavated, the topsoil in subsequent years was stacked over the backfilled area*

*** Surface water reservoir in facilities area measuring 5.0 Ha will be backfilled in the post mine closure stage (OC+UG combined)*

**** Surface dump will be rehandled from 7th year to 20th year and area below it excavated*

#. Green Belt of 36.07 ha = 23.63 ha along Kelo river 45 m west side and 15 m east side + 12.44 ha over 7.5 m along ML boundary.

During post mine closure plan period, agriculture is proposed instead of plantation over the rehandled crown dump area as well as over the backfilled area obtained as a result of reducing the void except over 211.319 ha including the crown dump of 138 ha which will be left for forest use as in pre-mining scenario.

- The surface dump will be planted with short life cash crops (bamboo, Semal, Eucalyptus) as it is to be rehandaled and backfilled between 7th and 20th year.
- The infrastructure area of 55.94 ha includes 5 ha settling tank, 5 ha left for public use and the remaining 45 94 ha dismantled facilities and reclaimed.
- During the period of OC post mine closure (30th to 32nd year), the East Pit void will be reduced from 191.78 ha to zero ha by rehandling part of the West Pit crown dump of 100m height will be reduced to 0 m (general ground level) from over the backfilled area to backfill the remaining void except over 138 ha area where the crown height will reduce to 80m to contain a residual OB volume of 72.37 mcum(B).Similarly remaining 135.91 ha (60m depth) void in West Pit area will be completely backfilled.

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15.4 AFFORESTATION

a) Plantation during mining

A plantation program over life of the mine has been planned in a phase wise manner. The plantation will be started from first year of mining along the boundary of ML area. A 7.5 m width of green belt development around the ML area will be carried out and more width of green belt will be taken up wherever space is available. Plantation over backfilled area will be commenced from 8th year of mining. A thick plantation is proposed to be provided and maintained around the mining area and along the roads. The yearly requirement of plants during the various years and stages of the mining project is as shown in the Table 15.11.

TABLE 15.11
YEAR/STAGE WISE AND LOCATION WISE RECLAMATION, PROPOSED AGRICULTURE AND FOREST AFTER POST MINE CLOSURE STAGE (HA.)

Year	Backfilled reclm. Area	Dump reclm. area	Green belt area	Total plantation area in ha	Backfilled area for agriculture without plantation	Made Fit for Agriculture in Post Mine Closure after cutting trees	Dismantled area for agriculture without plantation	Settling pond area filled for agriculture without plantation	Total fit for agriculture	Fit for Forest in Post Mine Closure
1	2	3	4	5	6	7	8	9	10	11
1st year	0.00	-	7.21	7.21					0.00	
2nd-3rd year	0.00	-	14.43	14.43					0.00	
4th - 5th year	0.00	-	14.43	14.43					0.00	
6th - 10th year	198.97	194.76		393.73					0.00	
11th - 15th year	281.30			281.30					0.00	
16th - 20th year	514.51			514.51					0.00	
21st - 25th year	418.95			418.95					0.00	
End of mine 29th	612.04			612.04					0.00	
Closure plan 80th year		-		0.00	414.78	1850.52	45.94	5.00	**2316.24**	211.32
Total*	2025.77	194.76	36.07	2256.60	**414.78**	1850.52	**45.94**	**5.00**	2316.24	**211.32**

* ***Total backfilled area of 2440.55 comprises of 2025.77 ha planted (out of which 175. 249 ha will be returned as forest land and 1850.52 ha will be for agriculture use) +414.78 ha area made fit for agriculture. Thus, total agriculture land in backfilled area of 2265.30 ha comprises 1850.52 ha made fit for agriculture after cutting trees + 414.78 ha directly converted to agriculture after backfilling.***

Out of 2583.48 ha ML area, 2440.55ha will be backfilled. Out of backfilled area of 2440.55ha, 211.319 ha (during pre-mining *75.945 Ha of Protected Forest land and 135.374 Ha of Revenue Forest land)* will be converted into forest use while the rest 2265.30 ha will be useable as agriculture land where as in facilities area 45.94 ha and in backfilled settling pond 5 ha will also be useable as agriculture land. Hence the total land useable as

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agriculture land will be 2265.30 + 45.94 + 5.0 = 2316.24 ha. The plan showing mine closure at the abandoned stage is given Plate XXXVI.

Green Belt details

The year/stagewise green belt details are given in column no. 4 of Table 15.11 above. The total area under green belt will be 36.07 ha. To fulfill the requirements of nursery plants, a nursery will be established at the site. During peak requirements, additional plants will be transported from Govt. / Forest nurseries, located around the area.

15.4.1 Water quality management

Hydro-geological Study has not yet been done. It will be commissioned shortly and the study submitted to MOC.

a) Surface water regime

The area has flat to undulating topography. The ground elevation ranges from 242 m to 303 m. General slope of the ground is towards South. The easterly flowing Kelo River constitutes the main drainage system of the block. Kelo River is flowing across the coal block towards East and its diversion is not proposed. It will be protected by leaving statutory barriers. A number of small streamlets drain the terrain in various directions giving a sub dendritic drainage pattern. Other than nalas and rivers, there exist a number of surface water bodies like rainfall fed ponds/dug wells etc. within the buffer zone.

b) Ground water

The district is mainly underlain by crystalline rocks of Proterozoic age belonging to Chota Nagpur gneissic complex. Presence of sandstone of Lameta Formation (infratrappeans) and Deccan trap basalt though insignificant, have also been reported. Extensive Lateritisation with occasional bauxite deposits are also found.

Ground water occurs under water table condition in, laterite and weathered mantle. It occurs under semi-confined to confined conditions in the deeper fractured basalts. The depth of water level varies from 4.67 to 12.34 m bgl during pre-monsoon period and from 1.43 to 9.35 m bgl during post-monsoon period in the shallow aquifers. The long term (decadal) trend analysis of water level indicates that about 13% of the wells in pre monsoon and none of the wells in post monsoon period show a significant (20 cm/year) falling trend. The exploration by Central Ground Water Board had indicated presence of potential fractures upto 90 m bgl. The optimum depth of bore wells in the district is found to be between 50 to 90 m bgl. (http://cgwb.gov.in/nccr/Raigarh1.htm)

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c) *Water quality*

Water quality survey to assess the quality of both surface & ground water has been conducted during the summer season. The results of 2 surface water samples and 2 ground water samples are given for assessing the water quality in core and study area. The samples were tested as per the drinking water standards (IS:10500) and the test results show that all the elements concentration is below permissible limits. The details of water test analysis are given in Table 15.12.

TABLE 15.12
WATER QUALITY TEST RESULTS

Parameters	Specifications as per IS : 10500:1991		Gare Core zone (GW-1)	Dhaurabhanta (GW-2)	Tehlirampura Kelo River (SW 1)	Kelo nadi U/S near Khamaharia (SW-2)
	Desirable limit	Permissible limit				
Colour, Hazen units	5	25	<5	<5	<5	<5
Taste	Agreeable	---	Agreeable	Agreeable	Agreeable	Agreeable
Odour	Unobjectionable	---	Unobjectionable			
Turbidity, NTU	5	10	38.6	17.6	82.7	220.9
pH value	6.5-8.5	No relaxation	5.3	5.15	6.54	6.66
Total Dissolved solids, mg/l	500	2000	106	85	195	173
Total hardness (as $CaCO_3$) mg/l	300	600	52	48	120	104
Alkalinity, mg/l	200	600	56	48	56	48
Chlorides (as Cl) mg/l	250	1000	20	20	28	12
Iron (as Fe) mg/l	0.3	1.0	2.1	0.5	0.6	2.6
Fluoride (as F) mg/l	1.0	1.5	0.3	0.04	0.03	0.04
Sulphate (as SO_4) mg/l	200	400	7	2	62	4
Nitrate (as NO_3) mg/l	45	100	3.9	1.7	0.8	84.6
Calcium (as Ca), mg/l	75	200	13	11	45	13
Magnesium (as Mg)	30	100	5	5	2	17
Copper (as Cu) mg/l	0.05	1.5	BDL	BDL	BDL	BDL
Manganese (as Mn) mg/l	0.1	0.3	0.1158	0.75	BDL	0.0058
Mercury (as Hg) mg/l	0.001	No relaxation	BDL	BDL	BDL	BDL
Cadmium (as Cd) mg/l	0.01	No relaxation	BDL	BDL	BDL	BDL
Selenium (as Se), mg/l	0.01	No relaxation	BDL	BDL	BDL	BDL

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Parameters	Specifications as per IS : 10500:1991		Gare Core zone (GW-1)	Dhaurabhanta (GW-2)	Tehlirampura Kelo River (SW 1)	Kelo nadi U/S near Khamaharia (SW-2)
	Desirable limit	Permissible limit				
Arsenic (as As), mg/l	0.05	No relaxation	BDL	BDL	BDL	BDL
Lead (as Pb), mg/l	0.05	No relaxation	BDL	BDL	BDL	BDL
Zinc (as Zn), mg/l	5	15	0.1011	0.6532	BDL	BDL
Chromium (as Cr^{6+}), mg/l	0.05	0.05	BDL	BDL	BDL	BDL
Aluminum (as Al)	0.03	0.2	BDL	BDL	0.27	1.08
Boron, mg/l	1	5	0.040	0.0076	0.0854	0.1736

Note: ***BDL of Cu is 0.0032; Mn is 0.0026; Hg is 0.0008; Cd is 0.0027; Al is 0.0046; Se is 0.0031; As is 0.0029; Pb is 0.0037; Cr is 0.0009; Zn is 0.0048 mg/l***

i) Water balance

Industrial water required for washing, sprinkling on mine roads for dust suppression and for watering the mine site plantations, will be supplied from pumping installation at mine sump and its surface reservoir after adequate water is available in the mine. However, in the initial stage, the requirement will have to be met from the ground water through bore wells/ Kelo river.

The drinking water will be supplied from bore well and stored in overhead tank near the facilities area and distributed through pipe lines to different facilities area for drinking and domestic purposes.

Total net requirement of water for mining and allied activities are estimated as 1995 m^3/day. Out of this 1239 m^3/day will be potable water and the rest 756 KLD will be required for industrial use in addition to the 790 cum/day reclaimed water from colony STP which will be reused.

The break up of the required water for different activities is as follows:

TABLE 15.13
WATER REQUIREMENT

i. **Potable water**	**Daily requirement, cum**
Drinking at working place @ 45 lpd/head for 3400 workers etc. (Total 3400)	153.00
*Colony (for 50% employees)= 3400/2=1700*4 members in family @ 135 lpd	986
For peripheral villages	100.00
Total of (i)	**1239**

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ii. **Industrial water**	
Sprinkling @ 30 m^3/km of road length (10km)	300.00
Plantation @ 20 cum/hac {1509.12 ha/22.5 years=59.18 ha (say 60 ha)	1200.00
Vehicles washing @ 2.0 m^3/vehicle/day {washable vehicles about (400X2 times a weak)/7 days=115 veh/day(Water required 115x2-80%*230 re-circulation=46)	46.0
Total (ii)	**1546**
Grand total (i + ii)	**2785**
Reclaimed water from STP of colony (80% of 986 cum) which can be used in watering the plantation	**790**
Net water requirement	**1995**

** Colony site will be outside the ML area.*

As the water seepage into the OC mine workings is expected to be more than the requirement from 5th year onwards (refer table 7.2 in Chapter 7), the water requirement projected above can be easily met from the mine water after 5th year.

ii) Effluent from mine

i. To prevent surface and ground water contamination by oil/grease and sewage waste, following control measures are proposed to be implemented.

- Leak proof containers will be used for storage and transportation of oil/grease. In the store also, the container containing oil/grease will be kept in empty safe open containers of higher volume than the containers to avoid oil/grease spillage. The area over which oil/grease is handled will be kept effectively impervious. Any wash off from the oil/grease handling area or workshop will be drained through impervious drains, collected in specially constructed pit and treated appropriately to remove any oil/grease and the water will be recycled. The oil grease will be sold to authorized vendors and sludge disposed off in specially constructed pit.

- The sewage waste generated will be drained by underground impervious drains, lead to appropriately designed septic tanks and soak pits to prevent any pollution of surface or ground water.

ii. The surface and ground water in and around the mine, loading plant and infrastructure will be regularly tested and appropriate control

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measures adopted in case of any pollutant is detected above the prescribed limit.

iii. All stacking and loading areas will be provided with proper garland drains equipped with baffles to prevent wash offs from reaching the downstream natural channels.

iv. A domestic waste water treatment plant will be provided in colony so that the water after treatment can be reused.

iii) Storm water

Control measures to be adopted are briefly discussed below:

- Check dams will be provided to prevent solids from wash off and screen if any from the mine related activities.
- Peripheral bunds will be erected on the outer edge of the abandoned benches before reclamation so that the soil is not carried away by storm water.
- A water gradient of about 1 in 100 will be kept at every bench towards inside of the bench to prevent formation of gullies in the bench slopes causing serious erosion.
- Chutes will be constructed by using local stone or masonry to guide the water in areas with loose soil to prevent erosion and uncontrolled descent of water wherever necessary.
- Construction of garland drains around freshly excavated and dumped areas so that flow of water with loose material is prevented. The mine water will be passed through specially constructed settling ponds to arrest any loose material being carried away with water.
- Any areas with loose debris within the lease hold will be planted.

iv) Impact on water quality

The surface water quality is likely to be affected with higher load of suspended solids by the following:

- Wash off from dumps
- Soil erosion from mine and roads
- Pumping out mine water to surface water channels

The outside dump may contribute to the pollution of surface water in terms of suspended solids. Since dumping location proposed to be carried out is at a safe distance (2 km) from existing surface water channels i.e. Kelo River, it will have limited impact on water quality. The pumped out water during dewatering may carry higher levels of suspended solids. Other sources of pollution are by oil spillage at the pit head and at the mine site

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infrastructure viz. light vehicle workshop, lubricant and oil storage area resulting in oil and grease contamination of surface water if appropriate control measures are not adopted. Control measures like check dams will be adopted to counter any solids being carried away by precipitation.

Ground water pollution can take place only if dumps and stock piles contain harmful chemical substances, which may get leached by precipitation of water and percolate to the ground water table, thus causing water pollution. However, this is not the case with this mine, as neither the coal nor the OB, contains any harmful ingredients which may leach down to the water table and pollute it. Therefore, no adverse impact on ground water quality is anticipated considering this aspect. The leaching down of pollutants (oil, grease etc.) to the ground water may render the water un-potable and hence cannot be used by the local people.

The percolation of sewage waste from the pit head as well as mine area can also pollute the ground water if control measures are not adopted as envisaged in the management plan. Meager amount of sanitary waste, expected to be generated from various facilities will be treated properly through septic tanks and soak pits and is not anticipated to cause any water pollution.

v) Measures to minimise adverse effects on water regime

a) Effluent from mine

i. To prevent surface and ground water contamination by oil/grease and sewage waste, following control measures are proposed to be implemented:

- Leak proof containers will be used for storage and transportation of oil/grease. In the store also, the container containing oil/grease will be kept in empty, safe and open containers of higher volume than the containers to avoid oil/grease spillage. The area over which oil/grease is handled will be kept effectively impervious. Any wash off from the oil/grease handling area or workshop will be drained through impervious drains, collected in specially constructed pit and treated appropriately to remove any oil/grease and the water will be recycled. The oil grease will be sold to authorized vendors and sludge disposed off in specially constructed pit.

- The sewage waste generated will be drained by underground impervious drains, lead to appropriately designed septic tanks and soak pits to prevent any pollution of surface or ground water.

ii. The surface and ground water in and around the mine, loading plant and infrastructure will be regularly tested and appropriate control

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measures adopted in case of any pollutant is detected above the prescribed limit.

iii. All stacking and loading areas will be provided with proper garland drains equipped with baffles to prevent wash offs from reaching the downstream natural channels.

iv. A domestic waste water treatment plant will be provided in mine office area so that the water after treatment can be reused.

b) Storm water

Control measures to be adopted are briefly discussed below:

- Check dams will be provided to prevent solids from wash off and screen if any from the mine related activities.
- Peripheral bunds will be erected on the outer edge of the abandoned benches before reclamation so that the soil is not carried away by storm water.
- A water gradient of about 1 in 100 will be kept at every bench towards inside of the bench to prevent formation of gullies in the bench slopes causing serious erosion.
- Chutes will be constructed by using local stone or masonry to guide the water in areas with loose soil to prevent erosion and uncontrolled descent of water wherever necessary.
- Construction of garland drains around freshly excavated and dumped areas so that flow of water with loose material is prevented. The mine water will be passed through specially constructed settling ponds to arrest any loose material being carried away with water.
- Any areas with loose debris within the lease hold will be planted.

c) Measures to minimise adverse effects on water regime

During the process of mine rehabilitation and with the completion of backfilling, a water body will be created in the mined out pit which will act as water reservoir improving the ground water recharge, source of attraction for fauna and will help in the maintenance of afforested areas. To enhance aesthetic appearance, parks and lawns will be made around the water body.

15.4.2 Air quality management

i. Air quality

Ambient air quality monitoring results of 5 different stations including 1 station within the core area is given in Table 15.14. The monitoring results

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indicated that the air quality is good and conforms to the standards stipulated for rural areas.

TABLE 15.14
AIR QUALITY OF THE STUDY AREA

	PM 10	PM 2.5	SO_2	NO_x	PM 10	PM 2.5	SO_2	NO_x	PM 10	PM 2.5	SO_2	NO_x
	Kunjemura (CA1)				Kosampali (BA1)				Khamharia (BA2)			
Max.	65	46	8.5	17.0	78	45	11.0	19.5	76	53	11.0	19.0
Min.	58	34	6.0	14.0	65	32	8.0	17.5	63	38	7.5	16.0
Avg.	61	40	7.2	15.5	71	38	9.5	18.5	69	45	9.2	17.5
98%tile	65	46	8.5	17.0	78	45	11.0	19.5	76	53	11.0	19.0
	Kerakhol (BA3)				Gorhi (BA4)							
Max.	65	46	8.0	16.0	67	51	10.0	18.0				
Min.	55	30	5.5	13.0	60	33	6.5	15.0				
Avg.	60	38	6.7	14.5	63	42	8.2	16.5				
98%tile	65	46	8.0	16.0	67	51	10.0	18.0				

The Indian Ambient Air Quality Standards permitting the maximum concentration of contaminants for ambient air quality, set for different categories of areas are given in Table 15.15 for the sake of comparison.

TABLE 15.15
AMBIENT AIR QUALITY STANDARDS

Area	Category	24 hours average concentrations, $\mu g/m^3$				
		PM10	PM2.5	SO_2	NO_X	CO (8 hourly)
A	Industrial, Residential, Rural and Other Area	100	60	80	80	02 mg/m^3
B	Ecologically Sensitive Area (notified by Central Government)	100	60	80	80	02 mg/m^3

Source: National Ambient Air Quality Standards vide CPCB Notification B-29016/20/90/PCI-L dated 18th November 2009

As is apparent from the analytical data, the ambient air quality in the region is well within the standards specified as per the Air (Prevention & Control of Pollution) Act, 1981.

ii. Ambient noise quality

Noise level survey has been conducted and results at 5 locations including 1 at core zone and 4 in the buffer zone is given in Table 15.16. The noise level monitoring data was recorded round the clock for 24 hours. The ambient noise levels were found within the permissible limits as per the statutory norms.

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TABLE 15.16
AMBIENT NOISE LEVELS IN THE STUDY AREA, LEQ DB(A)

Hours	Kunjemura	Kosampali	Khamharia	Kerakhol	Gorhi
	(N1)	(N2)	(N3)	(N4)	(N5)
Day time Leq.	48.10	68.20	49.60	52.40	58.5
Night time Leq.	36.40	55.40	38.70	44.50	49.3
Average Leq.	42.20	61.80	44.10	48.40	53.9
Permissible (Day)	55	65	55	55	65
Permissible (Night)	45	55	45	45	55

Impact on air quality

The opencast mining operations are prone to generation of higher levels of SPM and to a limited extent of SO_2, NO_x and CO due to blasting, fuel, oil combustion, burning of coal etc. However, there are no point source emissions. The OB will be transported by 150 T and 100 T R.D. trucks to surface dumps and later on, as soon as decoaled area is available suitable for backfilling, to the site of back-filling. The coal will be transported by 85T/100 T R.D.(CB) trucks to the coal receiving pit/crusher and further transported to the plant by conveyors. This may cause increased air pollution along the roads, if adequate control measure like regular maintenance of road, tree plantation along road and maintenance of leak proof truck bodies are not taken.

Impact on noise level

Noise is unwanted and unpleasant sound which causes distraction, disturbance and annoyance. Continuous exposure to high level of noise can impair human hearing power.

The mining activities generate noise mainly on account of:

- Operating mining machinery
- Use of explosives
- Moving road vehicles

The impact of this airborne noise will be more on the operating personnel and on the persons working nearby and not so much on the surroundings. The noise of activities may also disturb animals/birds living in the surroundings forcing them to change their habitat. In the present case, the noise caused will be mainly restricted to the core zone. The noise level data recorded at various places in the study area is well within the desired limit. But, the future establishment of noise due the proposed project activity may pose some problem if project management does not adopt appropriate control measures.

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Air and dust pollution control measures

The SPM, CO, SO_2 and NO_x concentrations are within limits as already discussed earlier. The mining operations and related activities are anticipated to increase the levels of SPM and gaseous pollutants to a limited extent. The control measures to be adopted are mentioned in the following paragraphs:

i. Controlling fugitive dust

Dust particles, which are normally generated during mining operation and transportation, deteriorate the ambient air quality. Adequate control measures are, therefore, proposed to be taken during mining operations, transportation and loading operations. These control measures are discussed as follows:

a) Mines

a) Dust suppression systems (like water spraying) will be adopted at:
   - Faces before and after blasting
   - Faces while loading

b) Dust extraction systems will be used in drill machines and coal handling systems.

c) Dust generation will also be reduced by using sharp drill bits for drilling holes and drills with flushing system.

b) Haul roads and stock-piles

- Dust suppression system (like water spraying) would be adopted at roads, which are used for transportation. Fixed sprinklers (Whirling) have been proposed with timers to be installed along the haul roads and coal transportation roads to suppress the dust.
- Transport vehicles shall be maintained leak proof.
- Suitable dust suppression systems such as mist sprays with or without chemical will be provided at appropriate places for preventing dust pollution during handling and stockpiling of coal.
- Transfer points of coal will be provided with appropriate hoods/chutes to prevent fugitive dust emission.

ii. Preventing dispersal of air borne dust

In addition to the control measures proposed during mining and transportation operations, following steps will be taken to prevent air pollution due to airborne dust:

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- Dense tree belts will be planted around the mine and sites housing handling/ loading facilities.
- Plantation over already mined out area will be done after backfilling as per schedule (with minimum gap between excavation and afforestation)
- Dust masks will be provided as safety measure to the workers, engaged at dust generation points like drills, loading/unloading points, etc.

iii. Measures to mitigate CO levels

It has already been discussed that the concentration of CO in the ambient air is negligible and is far below the prescribed limit of CPCB and is not anticipated to exceed it in future.

Still all heavy and light vehicles shall be tested for pollutants concentration in their exhausts regularly and well maintained. Strict vigil will be kept in and around the operational area for any fire which shall be immediately controlled.

iv. Measures to mitigate NO_x levels

The main reasons of production of NO_x gases are:

a. Poor quality of explosive having large oxygen imbalance which can be due to following reasons:
   - Manufacturing defect
   - The use of expired explosives in which disintegration of ingredients has taken place.

b. Incomplete detonation is caused mainly due to low primer: column ratio.

To ensure that NO_x levels do not increase during the proposed mining operations, the following control measures will be adopted:

a. Good quality explosives will be used for which the oxygen balance will be checked from time to time. The expired explosives will not be used for which a strict vigil will be kept on the date of manufacture. Even as a normal procedure, all explosives will be subjected to a visual inspection and if disintegrated ingredient are spotted, the explosives will not be used even if it is within expiry date.

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b. Primer: Column ratio will be rationalised. The ratio thus established, for producing minimum NO_x, will be adhered to.

The mine ambient air quality will be regularly tested to detect the presence of any pollutants above prescribed limits and appropriate measures will be adopted.

15.4.3 Noise and blasting

a) Measures to control noise pollution

The following control measures will be adopted to keep the ambient noise levels below permissible limits of 75 dB (A).

i. Provision and maintenance of thick tree belts to screen noise.

ii. Avenue plantation within the project area to dampen the noise.

iii. Proper maintenance of noise generating machinery including the transport vehicles will be ensured.

iv. Provision of the air silencer to modulate the noise generated by the machines will be made wherever required.

To protect the workers from exposures to higher noise levels, the following measures will be adopted:

i. Provision of protective devices like ear muffs/ear plugs to those workers who cannot be isolated from the source of noise.

ii. Confining the noise by isolating the source of noise.

iii. Reducing the exposure time of workers to the higher noise levels.

15.4.4 Waste management

i. The surface dumps

There is only one surface dump proposed which will be located over the coal bearing area in the southern portion of the West pit area. This dump will be spread over an area 380 ha by 5th year end and will accommodate 197.50 mcum (L) OB waste upto that year. The Dumping will start from 1st year and continue upto 6th year however the exclusive dumping into this surface dump will be upto 5th year after which part of the OB will be backfilled in 6th year. The full height of the dump will be 90m in 6th year. No OB will be required to be disposed over the surface dump after 6th year.

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ii. Backfill dump

Backfilling will start from 6th year of the project operation with a quantity of 54.13 mcum(L). During 6th year partial backfilling will be done and then upto final year full backfilling will take place concurrent with mining.

iii. Top soil dump

The total topsoil generated will be 14.64 mcum (B) during the life of the mine. Unutilised part of the same will be stacked separately in a soil stack pile located beyond the surface dump over the coal bearing area within West Pit area of 60.00 Ha. It will be used for growing plants along the fringes of the site roads and reclamation of surface dump and backfilled area. The top soil stockpile will be low height not exceeding 6 m and will be grassed to retain fertility. Besides this, there would be temporary stacks near the excavation area and area to be reclaimed which will be made use of for concurrent filling without bringing the topsoil to the soil stack near the OB dump.

Year wise top-soil generation and disposal is given in the table 15.17 below.

TABLE 15.17
YEAR WISE TOP-SOIL GENERATION AND UTILISATION

Year	Top Soil Genration		Top soil Utilisation		Balance Stack
	Progressive	Cumulative	Progressive	Cumulative	Cumulative
Const. (0)	0.00	0.00	0.00	0.00	0.00
1st Year	0.16	0.16	0.00	0.00	0.16
2nd to 3rd Year	0.62	0.78	0.00	0.00	0.78
4th to 5th Year	1.50	2.28	0.00	0.00	2.28
6th to 10th Year	4.31	6.60	2.05	2.05	4.54
11th to 15th Year	3.89	10.48	2.41	4.46	6 02
16th to 20th Year	1.22	11.70	2.25	6.72	4.98
21st to 25th Year	1.94	13.63	2.19	8.90	4.73
26th Year to of OC Mine/ 29th Year	1.01	14.64	3.83	12.74	1.91
Closure Plan 30th to 32nd	0.00	14.64	1.90	14.64	0.00
Total	**14.64**		**14.64**		

15.4.5 Void

The remaining void area of 331.06 ha (195.15ha in east pit with 170m depth upto pit floor + 135.91 ha in west pit with reduced depth of 60m as a result of partial backfilling) of the excavated pits will be at the end of mine life 29th year. The voids will be completely backfilled during post mine closure period 30th to 32nd both in East as well as West pit. Plate XXVI shows the final

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stage at the end of mine operations with external dump rehandled and final void.

15.4.6 Tailing dam management

In the Mining Plan, provision for space for a washery has been made. The decision regarding capacity and layout of washery will be reached after thorough investigation. The rejects generated from the washery could also be backfilled into the quarry voids after taking permission from the relevant authorities. However, quantification of rejects and tailings is not possible at this stage as the washability study is still under preparation. Therefore, the question of tailing dam management after the study is completed and circuit is frozen.

15.4.7 Infrastructure

Important surface features can be seen in Plate-I and IV.

i. Habitation within the block:

Habitation of following villages is lying within the block (Refer Table 15.18).

TABLE 15.18
HABITATION OF VILLAGES LYING WITHIN THE BLOCK

Villages	Population
Libra	757 (7.89)
Bhalumuda	314 (3.27)
Dholnara	408 (4.25)
Chitwahi	747 (7.78)
Dolesara	1061 (11.05)
Radopali	688 (7.17)
Kunjemura	1054 (10.98)
Gare	741 (7.72)
Pata	1189 (12.39)
Murogaon	520 (5.42)
Saraitola	564 (5.88)
Sarasmal	508 (5.29)
Tihli Rampur	448 (4.67)
Jhinku Bahal	599 (6.24)
Total	**9598* (100)**

A perusal of Plate-IV shows the location of all the above village habitations within the block.

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ii. The following road network is lying within the block:

Road from Bajarmura to Ghargoda (approx 11.6KMs) and Milupara to Tamnar (approx 3 Kms) are passing through the block.

iii. The following network of drainage and canals is lying within the block:

Kelo River is flowing across the coal block towards.

iv. Forest within Block

75.945 Ha of Protected Forest land and 135.374 Ha of Revenue Forest land is present within the mine lease area.

(A) Surface reorganization required (refer Plate IV)

a. Roads from Bajarmura to Ghargoda (approx 11.6 KMs) and Milupara to Tamnar (approx 3 Kms) will be diverted.

b. Kelo River is flowing across the coal block towards East - Diversion is not proposed- will be protected by leaving statutory barriers.

c. 75.945 Ha of Protected Forest land and 135.374 Ha of Revenue Forest land is present within the mine lease area, which needs to be diverted for mining purpose after obtaining forestry clearance from the Ministry of Environment and Forest, Govt. of India under the Forest (Conservation) Act 1980.

d. A proposed alignment of railway line is passing though the block. The length of railway line passing through the block is 4.7 km. The width of the corridor for proposed railway line is 90 m (45 m on either side of tracks). During Public hearing held on 29.01.2016, MSPGCL has given the proposal for re-routing the alignment along periphery out side the block boundary citing the reason of blocking of 30 Mt of coal reserves. (Refer **Annexure 3-4**)

(B) Need of dismantling the present facilities

There are no such existing facilities which will require to be dismantled. However there are some villages to be rehabilitated for which due care will be taken.

(C) Future proposed use

The coal mined will be loaded on to the closed conveyor for onwards transpoertation to the TPP located within 10 km of the mine.

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(D) Maintenance of facilities

Roads from Bajarmura to Ghargoda (approx 11.6KMs) and Milupara to Tamnar (approx 3 Kms) will be diverted.

15.4.8 Safety and security

The life of the OC mine operations is 29 years. During mining operations some of the safety precautions will be implemented are as under:

i. Erecting barbed wire fencing around the areas being excavated

ii. Erecting barbed wire fencing around the areas being dumped

iii. Erecting bunds / toe walls around the surface dumps to prevent damage to property or injury to persons by rolling stones.

iv. After abandoning mine, the OC workings are to be effectively protected by a chain link with masonary pillars.

v. Isolation stoppings will be constructed underground.

vi. The shafts and inclines will be sealed in the post mine closure stage.

After finishing the mining operations, all areas which are inaccessible and are dangerous will be fenced. In the post mining scenario, proper approach to the water body will be made for men and animals and the routes will be thrown open for the public.

15.5 ECONOMIC REPERCUSSIONS OF CLOSURE OF MINE AND MANPOWER RETRENCHMENT

Mine closure always has environmental, social and economic impacts associated with it. While the environmental impact is largely addressed, the socio-economic aspects do not receive the same degree of attention.

During the life of the mine, the communities in the surrounding villages come to depend on the same for some of their economic activities due to development of small business linked to the mine and its employees.

The closure of the mine brings about not only loss of jobs for the direct employees but also affects the likelihood of those who have come to depend upon it indirectly. We thus have two classes of affected people.

The direct employees shall be offered jobs at alternate sites of the organization and those willing to relocate shall be transferred there. Skill up-gradation training would also be imparted to such willing employees to make them suitable for alternate jobs where required.

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Mine closure is an inevitability and it is anticipated that by the time the closure occurs, the community shall have become self sustainable.

For those, who due to their advanced age or other constraint, cannot relocate to alternate site or alternate employment, the company will explore the possibility of offering them an opportunity to opt for voluntary retirement with commensurate benefits. The provision apart from financial settlement would also include retention of the company house provided during the employment.

The indirectly affected persons would also be rehabilitated by offering them alternate means of livelihood by undertaking plantation and cultivation in the reclaimed land, poultry, craft, handloom, pisciculture etc.

To effectively implement the SHG projects, the company shall provide following facilities to the affected persons.

- Training for skill improvement
- Financial assistance for procurement of land, plant and machinery and raw material required, If any
- Assistance for undertaking market surveys, marketing of the finished products etc.

It is proposed to maintain the following facilities at the mine site post mine closure.

1. Training Centre with required staff
2. Warehouse facility of storage of agriculture and other projects as and when required.
3. Local market place.

i. Number of local residents employed in the mine, status of the continuation of family occupation and scope of joining the occupation back

Employment of the local residents in the mine will depend on requirement of the project. Preference will be given to the project affected people (PAP). Training will be provided to the eligible PAP and after successful completion of the training they will be placed in the project according to their trade subject to vacancy. The families have ample scope to take up the agriculture activity after the closure of mines as the reclaimed land will be handed over to the PAFs through the District Administration / state Govt. The reclaimed land will be made suitable for agriculture with irrigation

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facilities before handling over. We will encourage the local people to start the activities on their own.

ii. Compensation given or to be given to the employees concerning their sustenance and their family member

Rehabilitation package to be given to the project affected people with a view to improve living standard for the people of the affected area, a meticulous plan will be chalked out as under, in presence of district administration and the local people.

The details of compensation and benefits to be given to the PAFs are mentioned below.

- Project affected families will be 1679 of fourteen villages which need rehabilitation.
- Land oustees will also be given rehabilitation and resettlement benefits according to the Govt. of Chhattisgarh Policies and prevailing practice in industries in the vicinity.
- We will pay annual instalment to the PAP for the area of actual excavation operation in line with the R&R Policy of the State Govt.
- To provide hand pumps of sufficient depth to cover up the depression of water table during the summer season. Also water tankers will be provided to supply water to the villages. Overhead tank will be constructed to supply pure drinking water.
- The Company will help in improving water supply and irrigation facilities
- Encourage and motivate the Gram Sabha to form co-operative groups and all assistance will be provided by us.
- We will negotiate with villagers for a proper place for local market and we are prepared to provide all financial and technical assistance.
- Job will be provided to the PAFs after successful completion of training and availability of vacancy irrespective of area of land.
- We will adopt some primary schools of the area
- Medical facilities will be available to the villagers in the dispensary of the Company. Mobile dispensary will also be provided for the villages. Serious cases will be referred to a hospital of metropolitan city for better treatment.

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iii. Satellite occupations connected to the mining industry – Number of persons engaged therein – continuance of such business after mine closure

Satellite occupations connected to mining industry will flourish in the area and skill development programme of the company will equip the people of the area to participate in economic activity on a sustainable basis. Local infrastructure will be developed to service social and economic needs. Social investment projects and employee welfare programs will cater effectively to human needs into the indefinite future.

Some of the satellite occupations connected to the mining industry are.

⇒ Off loading of maintenance jobs of HEMM and other equipment

⇒ Coal transportation on cooperative basis

⇒ Civil construction and maintenance on cooperative basis

⇒ Supply of items used in mining

⇒ Services like running canteen on cooperative basis

⇒ Hiring of bus services for school

⇒ Hiring of jeep and taxis.

⇒ Set up nursery for supply of sapling, flowering plants, bio-composts to garden and reclamation program for afforestation.

⇒ Running services for mess and transit hostel

⇒ Agro based production unit like Sericulture, Horticulture and pisiculture in unused mining and plantation area

⇒ Photocopying, typing and printing which are otherwise off loaded to outside agency.

⇒ Supply of daily wages labourer on cooperative basis

⇒ Electrical maintenance of the company

⇒ Skill development programme

⇒ Tyre repairing workshop

⇒ Tea staff and hotels

⇒ Private transportation

⇒ Retail grocery shop

⇒ Gardening and house keeping

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iv. Continued engagement of employees in the rehabilitated status of mining lease area and any other remnant activities

While providing education to local youths and in the process of planning different agro based livelihood activities, it has been observed, in general, that the local population initiates different activities in the area like hotels, transportation, repairing shop and other allied activities. It is envisaged that these activities will flourish in days to come. Commitment to local economic development and capacity building will be provided by requiring that contractors also target their training and employment opportunities to the local community, and by giving preference to a local supply chain.

v. Envisaged expectation of the society on closure of mine

Agriculture and coal mining are the basic sectors of employment of the people of the leasehold and adjoining area. People are engaged in coal mines and coal based industries. There are many coal based and other industries in nearby areas which provide many employment opportunities to these people.

Closure of this coal block will be something new for the society. But, they are quite aware of the fact that closure of a mine is inevitable and logical culmination of the mining activity.

On its part, the Company will strive to minimize the social impact of the closure by offering attractive rehabilitation package, training for upgrading skills, incentive and assistance for self employment and by generally involving the local people in the post closure utilization of assets of the mine.

It undertakes to give full effort for the following important issues inter-alia many other.

- Re-deployment of work force
- Management of community facilities
- Canalization of available water
- Reclamation of the worked out area for agro forestry and agriculture
- Returning of the reclaimed land to the raiyats through the District / State authorities

Re deployment of work force

The peak work force required for mine operations is in the first few years of the mine when construction activities as well as operational activities achieve their peak.

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This work force slowly goes down with completion of development and when only the operational work remains. Again near the end of the mine life say 4-5 years before closure the activity of the mine starts getting reduced and therefore management gets opportunity to taper the operational manpower. After closure skeleton service people are proposed to be left for continuing with the actual closure operation. The reduction of manpower could be done as per the following options.

- Natural requirement
- Implementation of VRS schemes for age group of +50
- Retraining and redeployment of younger groups -40
- Transfer of experienced middle aged groups between 40-50 year to other projects

Management of community facilities

Community facilities are proposed to be developed for betterment of the neighbouring community. The mine management will provide and assist in developing educational facilities, health facilities, community halls and also some communication facilities. After the mine closure, these facilities are to be continued for the neighbouring communities to the possible extent. The closure plan will envisage interaction with the state of local bodies who will take over these facilities and run the same for the community. The local / state bodies may propose/ may make a one time payment towards running these facilities.

Canalization of available water

If it is found that the mine is having sufficient water and on closure, the mine water flows into the surface watercourses, canalizing the water for surrounding community for their irrigational / domestic uses may be taken up.

Manpower as available at the closure stage will be absorbed at alternative locations of the company if available. Those required to be relieved, will be compensated in line with the applicable laws at that time. Gain from development activities in the region will be additional opportunity for local people.

The disturbed land would be made fertile by use of top soil and fertilisers under expert's guidance and use of available water in the void firstly for the land which remained undisturbed and also for the land which will partly be recovered after dismantling infrastructures and implemented.

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These all areas along with the surface level backfilled area will be possible to utilise for agriculture. The areas which can be used for agriculture are given in Table 15.19.

TABLE 15.19
AREAS WHICH COULD BE USED FOR AGRICULTURE, FOREST AND OTHER USES IN POST MINE CLOSURE STAGE

Sl. No.	Particulars	Area (ha.)	Agriculture, ha	Forest	Others
i	Surface level area over the backfill dump and the area made level after removing the crown dump	2440.55	2265.30	175.25	0
ii	Facilities area including set. pond	55.94	Facilities area 45.94 ha and backfilled settling pond 5 ha.	0	5 ha facilities for public use
iii	Undisturbed / indirectly affected	86.99		36.07 Green Belt	50.92 others (30.3 road+5.2 ha bund+ +15.42 ha under Kelo river).
	Total	**2583.48**	**2316.24**	**211.32***	**55.92**

* *During pre-mining 75.945 Ha of Protected Forest land and 135.374 Ha of Revenue Forest land = Total 211.319 ha*

A perusal of above table shows that the total land useable as agriculture 2316.25 ha, forest 211.319 ha while the rest will be under other land uses as explained under the last column above.

15.6 TIME SCHEDULING FOR ABANDONMENT

The abandonment activities of the OC mine will start 5 years prior to the abandoning of the mine i.e. from 24th year. Study Report of the existing status of the project and tasks required for final abandonment will be identified along with their possible time frame for implementation will be undertaken. Items among others could be as under:

i) Some machinery having, remaining life will be utilised in the other coal mines of the company if operative at that time. The other machineries will be e-auctioned after decommissioning.

ii) Dismantling schedule of permanent and temporary structures excepting few which may have utility in the revised scheme for managing abandoned area.

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iii) Winding up all H. T & L.T electrical lines, delivery pipe lines for sprinklers and other varied uses other than those which may be required for development of the abandoned area.

iv) All the excavated area will be backfilled and there will not be any lagoon.

v) Scheme for undisturbed and recovered land development programme for making the land more fertile by use of fertilisers and other measures under expert's guidance to sustain affected population after abandonment of the mine.

vi) Related matter of land development is also developing irrigation system by following drip irrigation system.

vii) Any other matter related for gainful development.

The minute details will be worked out in the 24th year. The execution of abandonment activities of the OC mines will be started about four years before the mines get abandoned i.e. 25th year. One year time is assigned for study of items as indicated above in i to vii and for preparation of detailed schemes and reports for implementation. Many of the required activities will be carried out during last four years of the mine operation. Some abandonment activities will have to be continued for about two to three years more after the mine operations get fully closed by retaining only few temporary essential office / residential structures.

The facilities infrastructure to be retained and dismantled are given in Table 15.20.

TABLE 15.20
FACILITIES/ INFRASTRUCTURE TO BE RETAINED AND DISMANTLED

Sl. No.	Particulars	To be Retained (Area in Ha)	To be Dismantled (Area in Ha)
I	**Facilities to be retained**		
i	Office, VT Center, Canteen, dispensary, Parking, Essential quarters near the shaft and inclines	5.00	
ii	Diverted road	30.30	
	Total-I (to be retained)	**35.30**	
II	**Facilities to be dismantled**		
i	C.H.P		5.00
ii	Facilities including inclines, shaft, Store, Security post, weigh bridge		1.50
iii	Indirectly affected area within facilities		5.0

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Sl. No.	Particulars	To be Retained (Area in Ha)	To be Dismantled (Area in Ha)
iv	Coal stack yard		4.00
v	Road		**0.14**
	Total-II (to be dismantalled)		**15.64**
	Total-I and II	**35.30**	**15.64**
	Grand total	**50.94**	

It is proposed that the residential quarters can be given on rent to the people which may be engaged at that time by the future mines in the surrounding area which will sustain the maintenance of the facilities proposed to be retained at site. However, it is proposed that a corpus fund of Rs 20 lakh will be provided which will easily earn an annual interest of Rs 2 lakh to maintain the retained facilities.

The year wise abandonment activities details have been furnished in the Bar Chart given as Annexure 15-3. Year wise Maydays requirement for carrying out progressive and final mine closure activities have also been given in that Annexure.

15.7 ABANDONMENT COST

a) Activities and Cost

Detailed Final Mine Closure Plan will be prepared 5 years prior to the anticipated actual closure of the opencast/underground mine (Refer Plate XXVI and XXXVI). Indicative cost of implementation is given below in Table 15.21, while the schedule of implementation in bar chart form is given with duration of each activity in **Annexure 15-3**.

TABLE 15.21
TENTATIVE ABANDONMENT COST

Heads		Activities		Unit	Vol. of work	Rate, Rs./Unit	Total amt., Rs. Lakh
PROGRESSIVE CLOSURE							
02.	Safety and Security	a)	Barbed wire fencing	M	39668	212	84.10
		f)	Toe wall around the dump	m	9010	1000	90.10
		g)	Garland drain around the dump	m	9028	500	45.14
		h)	Drainage channel from main OB dump and main sump to nala	m	6010	5000	300.50
		i)	Settling pond	Lakh Cum	4	2000000	80.00

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Heads	Activities	Unit	Vol. of work	Rate, Rs./Unit	Total amt., Rs. Lakh
	j) Securing Air Shaft and installation of bore well pump		2	1000000	20.00
	k) Securing of Incline 1 &2		2	500000	10.00
	l) Fire stoppings	Lakh Cum	1898	70000	1328.60
04. Top soil management		Lakh Cum	112.56	5000000	5628.00
05. Technical and biological reclamation of mined out land and OB dump	a1) Reclamation	Ha.	2221	400000	8884.00
	a2) Rehandling of crown dump to East Pit	Lakh Cum	428.60	3000000	12858.00
	b2) Rehandling of crown dump to West pit	Lakh Cum	2414.40	3000000	72432.00
06. Plantation over virgin area including Green Belt	a) Plantation/ Green Belt over Virgin Area	Ha.	35.86	400000	143.44
09. Water quality management		LS	0		340 00
10. Air quality management		LS	0		340 00
11. Subsidence monitoring for		LS			19.09
12. Manpower cost and supervision		LS	0		163.50
FINAL CLOSURE					
01. Dismantling of Infrastructure, disposal/ rehabilitation of mining machinery	a) Dismantling of workshop	LS	0		300.00
	b) Dismantling of CHP	LS	0		500.00
	c) Dismantling of facilities	LS	0		1000.00
	d) Dismantling of pumps and pipes	LS	0		45.00
	f) Dismantling of UG facilities including main fan		0		100.00
	g) Dismantling of UG Conveyors		0		300.00
	h) Dismantling of UG Rail tracks		0		150.00
	i) Dismantling of UG equipment		0		200.00
	j) Re-arranging of water pipelines to dump top, park	LS	0		15 00

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Heads	Activities	Unit	Vol. of work	Rate, Rs./Unit	Total amt., Rs. Lakh
	k) Dismantling of power line	LS	0		30.00
	l) Rehabilitation over area of dismentaled facilities	Ha.	50.94	400000	203.76
04. Top soil management		Lakh Cum	19.10	5000000	955.00
05. Technical and biological reclamation of mined out land and OB dump	a1) Reclamation	Ha.	414.8	400000	1659.12
	a2) Rehandling of crown dump to East Pit	Lakh Cum	1027.40	3000000	30822.00
	b2) Rehandling of crown dump to West pit	Lakh Cum	298.1	3000000	8943.00
07. Landscaping and plantation	a) Peripheral road, gates, view point, cemented steps on bank		0		40.00
	b) Beautification and landscaping over dump	LS	0		20.00
	c) Plantation				35.00
08. Power cost		LS	0		40.00
09. Water quality management		LS	0		12.00
10. Air quality management		LS	0		12.00
11. Subsidence monitoring for		LS	0		0.91
12. Manpower cost and supervision		LS	0		4.50
13. Others	a) Entrepreneurship development (vocational skill development, training for sustainable income of affected people	LS	0		100.00
	d) One time financial grant to society/ institution/ organisation which is dependent upon the project	LS	0		50.00
	f) Continuation of other services like running of schools etc	LS	0		150.00
	Grand Total				**148453.76**

* ***All persons are proposed to be absorbed in other units of the company, hence no provision for Golden handshake has been make.***

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Indicative costs for Mine closure activities are based upon data collected from various sources including discussion with actual mine operators, internet, quotations from vendors.

A perusal of above Table shows that the expenditure on implementation of the mine closure activities will be **1484.54** crore.

Adoption of safety measures and monitoring of safety aspects for a maximum period of 3 years could be considered pertinent.

It may be noted that the 1st major activity is to rehandle 241.44 Mcum(B) OB from the crown dump of 100m height from west to west pit during the 4 years (26th to 29th).

The 2nd major activity is to rehandle 132.55 Mcum(B) or 152.43 mcum(L) of OB from the crown dump of 100m height from west to east pit during the 3 closure years (30th to 32nd) for which the HEMM comprising existing shovel and dumpers will be utilised for dealing with the said volume.

As the underground operation would be continued long after cessation of opencast operation, certain closure activities especially dismantling of facilities as envisaged for opencast may need to be deferred till the end of underground operation. The status will be reviewed and submitted while submitting the final closure plan for the opencast.

b.) Escrow account amount/ Annual Closure cost

Annual Closure cost computed considering the total project areas at the estimated rates mentioned in the Guidelines and deviding the same by the entire life of the mine in the years. An amount equal to the annual cost is to be deposited each year through out the mine life compounded @5% annually.

As estimated in the Guidelines that typically closure cost for an opencast mine will come around six lakhs per hectare of the total project area and it would be rupees one lakh per hectare for underground project area at price level of August 2009 and these rates has been modified based on the whole Sale Price Index as notified by Government from time to time.

The leasehold area of the block is 2583.48 hectares. The opencast mining will be undertaken over 2583.48 Ha whereas underground mining will be undertaken only over 2208.18 Ha. area. A part of the area on western side is not workable by UG and the same has not been considerd for UG mine.

Since the total project area of 2583.48 Ha has been taken into consideration for mine closure cost calculation of OC, the cost calculation for Escrow fund

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for UG i.e for 2208.18 Ha has been done from 30th year i.e after closure of the OC mine.

Base date of the WPI has been considered as January 2016.for calculation of Escrow Amount.

The amount of mine closure cost with WPI at 175.4 (January 2016) works out Rs. 8.12037 Lakh/ha for opencast mining and Rs. 1.3534 Lakh/ha for belowground mining as per guidelines issued by MOC. The calculations for the needed funds are detailed in Table 15.22 and the yearly amount to be deposited in Table 15.23.

TABLE 15.22
DERIVATION OF ESCROW AMOUNT RELATED TO OC & UG MINING

Monthly Wholesale Price Index "Aug. 2009"	129.600
WPI as on base date "January 2016"	175.400
Escalation rate of Closure cost	**1.3534**
Rate of compounding of Annual Closure Cost	5.00%
Amount to be deposited into Escrow Account after compounding @ of 5% "Rs. in Crs"	**932.7141**

	OC	UG
Base rate of closure cost - August 2009 (Rs. Crore/Ha.)	0.0600	0.0100
Closure cost as on base date January 2016 (Rs. Crores/Ha.)	0.08120	0.01353
Project Area (Ha.)	2583.48	2208.18*
Amount to be deposited into Escrow Account "Rs.Cr."	209.7881	29.8855
Amount already deposited into Escrow Account "Rs. Cr."	0.00	0.00
Net Amount to be deposited into Escrow Account "Rs. Cr."	209.7881	29.8855
Starting year for Escrow deposit	1	30
Ending year for Escrow deposit	29	77
Balance Life of the project For Escrow Account "in Yrs"	29	48
Annual Closure Cost (Rs. Cr.)	7.2341	0.6226
Annual Closure Cost escalated @ 5% as on first year of deposit "Rs. Cr"	7.2341	2.5628

* ***A part of the area on western side is not workable by UG and the same has not been considerd for UG mining and the UG project area is only 2208.18 Ha.***

TABLE 15.23
AMOUNT TO BE DEPOSITED IN ESCROW ACCOUNT ANNUALLY

Year	Amount, Rs. Crore		
	OC	UG	Total
1	7.2341	-	7.2341
2	7.5958	-	7.5958
3	7.9756	-	7.9756

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Year	Amount, Rs. Crore		
	OC	UG	Total
4	8.3743	-	8.3743
5	8.7931	-	8.7931
6	9.2327	-	9.2327
7	9.6944	-	9.6944
8	10.1791	-	10.1791
9	10.6880	-	10.6880
10	11.2224	-	11.2224
11	11.7835	-	11.7835
12	12.3727	-	12.3727
13	12.9914	-	12.9914
14	13.6409	-	13.6409
15	14.3230	-	14.3230
16	15.0391	-	15.0391
17	15.7911	-	15.7911
18	16.5806	-	16 5806
19	17.4097	-	17.4097
20	18.2801	-	18.2801
21	19.1942	-	19 1942
22	20.1539	-	20.1539
23	21.1616	-	21.1616
24	22.2196	-	22.2196
25	23.3306	-	23.3306
26	24.4971	-	24.4971
27	25.7220	-	25.7220
28	27.0081	-	27.0081
29	28.3585	-	28.3585
30	-	2 5628	2.5628
31	-	2.6909	2.6909
32	-	2.8255	2 8255
33	-	2.9667	2.9667
34	-	3.1151	3 1151
35	-	3.2708	3.2708
36	-	3.4344	3.4344
37	-	3.6061	3.6061
38	-	3.7864	3.7864
39	-	3.9757	3.9757
40	-	4.1745	4.1745
41	-	4.3832	4.3832

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Year	Amount, Rs. Crore		
	OC	UG	Total
42	-	4.6024	4.6024
43	-	4.8325	4.8325
44	-	5.0741	5.0741
45	-	5.3278	5.3278
46	-	5.5942	5.5942
47	-	5.8739	5.8739
48	-	6.1676	6.1676
49	-	6.4760	6.4760
50	-	6.7998	6.7998
51	-	7.1398	7.1398
52	-	7.4968	7.4968
53	-	7.8716	7.8716
54	-	8.2652	8.2652
55	-	8.6784	8.6784
56	-	9.1124	9.1124
57	-	9.5680	9.5680
58	-	10.0464	10.0464
59	-	10.5487	10.5487
60	-	11.0761	11.0761
61	-	11.6299	11.6299
62	-	12.2114	12.2114
63	-	12.8220	12.8220
64	-	13.4631	13.4631
65	-	14.1363	14.1363
66	-	14.8431	14.8431
67	-	15.5852	15.5852
68	-	16.3645	16.3645
69	-	17.1827	17.1827
70	-	18.0418	18.0418
71	-	18.9439	18.9439
72	-	19.8911	19.8911
73	-	20.8857	20.8857
74	-	21.9300	21.9300
75	-	23.0265	23.0265
76	-	24.1778	24.1778
77	-	25.3867	25.3867
Total*	450.8471	481.8652	932.7123

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Thus the total amount which will be deposited upto the end of post mine closure plan will be Rs 932.7123 crores (450.8471 Crores for OC mine + 481.8652 Crores for UG mine) and will stand security for proper implementation of Mine Closure Plan.

15.8 FINANCIAL ASSURANCE

i) For financial Assurance the mining company shall open an Escrow account, with any Scheduled Bank, with the Coal Controller Organisation (on behalf of the Central Govt.) as exclusive beneficiary. The mining company shall cause payments to be deposited in such Escrow account at the rate computed as indicated in table given above. The owner of the company may select the Scheduled Bank where the Escrow account is to be opened and inform the same to Coal Controller, Kolkata. The Escrow amount has to be opened as per the Guidelines of the Mine Closure Plan. The amount being deposited will be reviewed with such periodicity as deemed fit by Coal Controller.

ii) Up to 80% of the total deposited amount including interest accrued in the Escrow Account may be released after every 5 years in line with the periodic examination of the Closure Plan. Amount released shall be equal to the expenditure incurred on the progressive mine closure in the past 5 years or 80% which ever is less. The balance amount at the end of final mine closure shall be released to mine owner on compliance of all statutory Rules, Regulations, Orders made by Central or State Govt., Statutory Organisations, Courts, etc. and duly certified by the Coal controller.

iii. An agreement, outlining the detailed terms and conditions of operating the Escrow account, shall be executed between the Mining company, Coal Controller and the concerned bank in order to give effect to this. The agreement will be executed before the grant of the permission by the Coal Controller to open the mine.

15.9 RESPONSIBILITY OF THE MINE OWNER

It is the responsibility of the mine owner to ensure that the protective measures contained in the Mine Closure Plan including reclamation and rehabilitation works have been carried out in accordance with the approved mine Closure Plan and Final Mine Closure Plan.

The owner shall submit yearly report to the Coal Controller before 1st July of every year setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved Mine Closure Plan (Progressive and Post mine Closure Plan).

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The prime responsibility of mine closure shall always lie with the mine owner, and incase the funds deposited are found to be insufficient to cover the cost of final mine closure, the mine owner undertakes to provide additional fund equivalent to gap in funding before five years of mine closure.

15.10 PROVISION FOR MINE CLOSURE

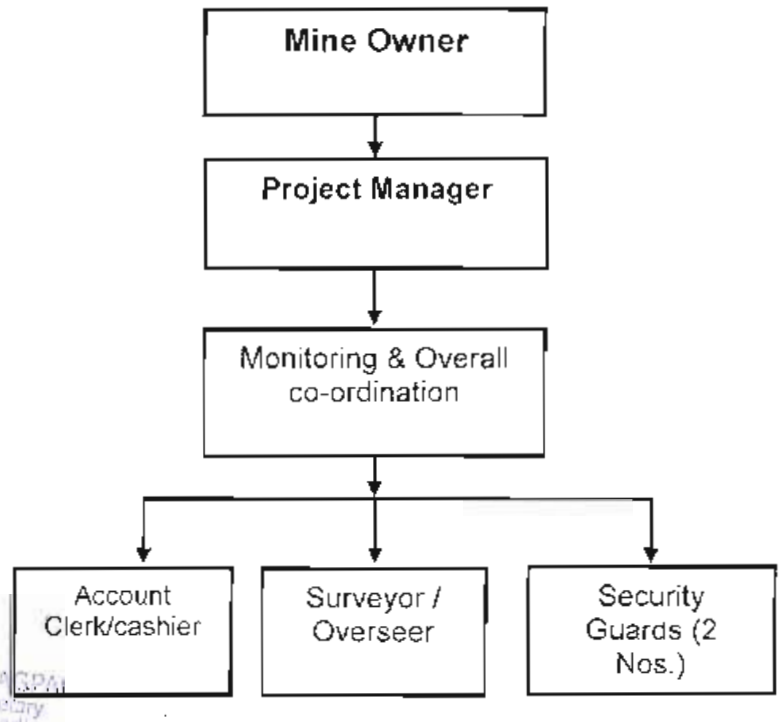
The mine owner will obtain a mine closure certificate from Coal Controller to the effect that the protective, reclamation and rehabilitation works in accordance with the approved mine closure plan/ Final mine Closure Plan have been carried out by the mine owner for surrendering the reclaimed land.

After the closure of mine, the reclaimed leasehold area and any structure thereon, which is not to be utilized by the mine owner, shall be surrendered to the State Govt. concerned following a laid down procedure as in vogue at that point of time.

15.11 IMPLEMENTATION PROTOCOL

Progressive mine closure activities will be taken care of by a team as shown in Fig 15.2.

FIG 15.2: ORGANISATION FOR POST MINE CLOSURE ACTIVITIES



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15.12 CSR ACTIVITIES

Under CSR, developmental programmes will be implemented as per the needs of the community since development of the Mine to completion of the project. A detailed study will be conducted to identify the actual needs of the people in the area to formulate CSR Policy. The SCR policy of the Company is attached as **Annexure 15-4**.

- The CSR activities will be implemented over and above R&R package.
- Company CSR will be based in general on the following :
- Education Development Activities
- Sport Art and Culture promotion activities
- Health & Sanitation (aarogya) programme
- Financial Assistance for self sustenance and other need based activities.
- Infrastructure development

However the following CSR activities have already been conducted in the project area:

i. 20 self help groups have been formed in villages and training has been imparted in Vermi Compost activity and Poultry farming.

ii. 2 Cricket tournaments have been conducted.

iii. Training on mushroom farming has bee imparted to villagers.

In future more CSR activities will be charted out for creation of employment/vocational opportunities for local people with education, skill development & training programme.

P.P. NAGPAL
Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

ANNEXURES TO CHAPTER - 1

1-1 Allotment order no. 103/30/2015/NA, dated 31-08-2015

1-2 Request to NA for production at full capacity vide letter No. CMD/Mahagenco/ED(Coal/Fuel)/34c dt. 17.2.2016

1-3 Order CMPDI for Washability study dt. 25-01-2016

1-4 MOC letter no. 103/32015/ NA dt. 19-02-2016 for full capacity of the mine

1-5 Observations issued vide MOC letter no. 34011/16/2016-CPAM dt. 03-05-2016

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

Government of India

Ministry of Coal

O/o the Nominated Authority

World Trade Tower, New Delhi

Office of the nominated authority constituted under section 6 of the Coal Mines (Special Provisions) Act, 2015.

Allotment order under clause (c) of sub-rule (2) of rule 7 and sub-rule (1) of rule 13

In re: **Gare Palma Sector – II Coal Mine** (the "mine") particulars of which is specified in **Annexure I**

Order no.: 103/30/2015/NA

Date: August 31, 2015

In favour of: **Maharashtra State Power Generation Company Limited** incorporated in India under the Companies Act, 1956 with corporate identity number U40100MH2005SGC153648, whose registered office is at "Prakashgad" Plot No G-9 Anant Kanekar Marg, Bandra (East), Mumbai, Maharashtra-400051, India (the "Allottee").

For utilisation in: End Use Plants situated at 1) Nirman Bhavan, Urja Nagar, Chandrapur-442404 2) Koradi Complex, Chindwara Road, Koradi-441111, Dist. Nagpur, Maharashtra and 3) Taluka- Parli Vaijnath, Dist. Beed - 431520, Maharashtra, as more particularly described below (the "End Use Plant")

S. No	Name of Specified End Use Plant	Address	Configuration	Capacity
1	Chandrapur Thermal Power Station Unit 8 & Unit 9	Chandrapur Unit 8 &9 (2x500 MW), Expansion Project, Nirman Bhavan, Urja Nagar, Chandrapur-442404.	2x 500 MW	1000 MW
2	Koradi Thermal Power Station, Unit 8, Unit 9 & Unit 10	Koradi Complex, Chindwara Road, Koradi-441111, Dist. Nagpur, Maharashtra	3 x 660 MW	1980 MW
3	Parli Thermal Power Station, Unit 8	Taluka- Parli Vaijnath, Dist. Beed - 431520, Maharashtra	250 MW	250 MW

* MW stands for Mega Watt

B.D. SHARMA
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WHEREAS, the nominated authority has, in accordance with the provisions the Coal Mines (Special Provisions) Act, 2015 (the "Act") and the Coal Mines (Special Provisions) Rules 2014 (the "rules") conducted the allotment of the relevant Schedule I coal mine;

AND WHEREAS the allottee is eligible to receive this allotment order with respect to the mine, including, inter-alia -

(a) the coal bearing land acquired by the prior allottee and the lands, in or adjacent to the coal mines used for coal mining operations acquired by the prior allottee; and

(b) any existing mine infrastructure as defined in clause (j) of sub-section (1) of section 3 of the Act;

AND WHEREAS the allottee has furnished performance bank guarantees dated a) April 25, 2015 for an amount equal to INR 1,20,14,40,000 (Indian Rupees One Hundred Twenty Crore Fourteen Lakh and Forty Thousand) issued by Canara Bank, b) April 27, 2015 for an amount equal to INR 3,00,00,00,000 (Indian Rupees Three Hundred Crore) issued by Bank of Maharashtra and c) April 27, 2015 for an amount equal to INR 1,00,00,00,000 (Indian Rupees One Hundred Crore) issued by Bank of India, in accordance with the allotment document and in accordance with the provisions of sub-section (6) and sub-section (12) of section 8 of the Act;

AND WHEREAS the allottee has entered into an Allotment Agreement dated March 30, 2015 (as amended) with the nominated authority in accordance with the provisions of sub-rule (5) of rule 13.

NOW, THE NOMINATED AUTHORITY DOES ORDER:

1. On and from August 31, 2015 ("allotment date") and in accordance with sub-section (4) of section 8 read with sub-section (12) section 8 of the Act, with respect to the mine, the following shall stand fully and absolutely transferred and vested in the allottee, namely: -

   (a) all the rights, title and interest of the prior allottee in and over the land and mine infrastructure free from all encumbrances;

   (b) entitlement to a mining lease to be granted by the State Government with the terms and conditions of the Allotment Agreement forming a part of it on making an application;

   (c) all statutory licences, permits, permissions, approvals or consents as per rules, required to undertake coal mining operations in the mine, if already issued by the Central Government, to the prior allottee on the same terms and conditions as were applicable to the prior allottee, as listed in the **Annexure 2**;

   (d) entitlement to any statutory licence, permit, permission, approval or consent required to undertake coal mining operations in the mine, if already issued by the Central Government, to the prior allottee on making an application on the same terms and conditions as were applicable to the prior allottee, as listed in the **Annexure 3**;

U.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal

Govt. of India
Min Coal
Nominated Authority

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Part B – Description of Land in relation to the mine

Not applicable

M.P. NAGPAL

Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

भारत सरकार
कोयला मंत्रालय
Govt. of India
M/o Coal
Nominated Authority

B.D. SHARMA
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Part C – Description of Mine Infrastructure in relation to the mine

Not applicable

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B.D. SHARMA
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Annexure 2: Particulars of statutory licences, permits, permissions, approvals or consents issued by the Central Government which are being transferred along with this Allotment Order.

Not applicable

I.P. NAGPAL

Nominated Authority, Govt. of India, M/o Coal

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Annexure 3: Particulars of statutory licences, permits, permissions, approvals or consents issued by the Central Government to be obtained on application by the Allottee.

Not applicable

U.P. NAGPAL
Secretary
Coal

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भारत सरकार
कोयला मंत्रालय
Govt. of India
M/o Coal
Nominated Authority

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

Annexure 4: Particulars of statutory licences, permits, permissions, approvals or consents issued by the State Government to be obtained on application by the Allottee.

Not applicable

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Shastri
New Delhi

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Annexure 5: Particulars of the contracts adopted by the Allottee.

The Allottee does not intend to adopt and continue with any of the contracts of the Prior Allottee.

U.P. NAGPAL

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भारत सरकार
कोयला मंत्रालय
Govt. of India
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Nominated Authority

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

ANNEXURE : 1-2

Ref. No.: CMD/Mahagenco/ ED (Coal)/Fuel)/34c/ Date: 17.02.2016
Camp New Delhi

To,
The Nominated Authority,
Ministry of Coal,
Government of India
Shastri Bhawan, New Delhi

Subject: Mining Plan for Gare-Palma Sector II coal mine allotted to MAHAGENCO

Respected Sir,

The Ministry of Coal , GOI has allotted Gare Palma Sector II coal mine to MAHAGENCO vide Allotment Order No. 103/30/2015/NA dated 31.08.2015 for its following end use plants:-.

i) 3X660 MW KORADI,

ii) 2X500 MW CHANDRAPUR and,

iii) 1X250 MW PARLI .

2. While the requirement of coal for above mentioned EUPs is 13.82 MMTPA, the Peak Rated Capacity of above coal mine can go upto 23.6 MMTPA. MAHAGENCO proposes to extract coal upto its full capacity i.e. 23.6 MMTPA and utilize extra coal from this mine for other thermal power plants of MAHAGENCO. MAHAGENCO undertakes to surrender an equal amount of linkage coal from CIL to the extent the demand of other EUPs will be met from Gare-Palma Sector II coal mine.

3. Nominated Authority, Ministry of Coal may allow MAHAGENCO to extract max. capacity from this mine so that a mine plan can accordingly be prepared and submitted to MoC for approval. The details of End Use Plants other than the mentioned above where the coal from Gare Palma Sector II coal mine will be supplied shall be intimated to MoC in due course and the linkage coal of an equal quantity from CIL will be surrendered.

Yours faithfully,

(V. M. Jaidev)
Executive Director (Coal)
Tel: 9769907714

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

सेन्ट्रल माईन प्लानिंग एण्ड डिजाइन इन्स्टीच्यूट लिमिटेड
(कोल इण्डिया लिमिटेड की अनुषंगी कम्पनी / भारत सरकार का एक लोक उपक्रम)
गोन्डवाना प्लेस, कांके रोड, राँची - 834 031, झारखंड (भारत)

cmpdi
A Mini Ratna Company

Central Mine Planning & Design Institute Limited
(A Subsidiary of Coal India Limited / Govt. of India Public Sector Undertaking)
Gondwana Place, Kanke Road, Ranchi - 834 031, Jharkhand (INDIA)

Corporate Identity Number – U14292JH1975GOI001223

फैक्स / स्पीड डाक द्वारा

पत्रांक : सीएमपीडीआई / बी.डी. / ए (003)ऑफर भाँ –XXII / 44 दिनांक : 25.01.2016

सेवा में,

The Executive Director (Fuel/ Coal)
MAHAGENCO,
Prakashgad, 3rd Floor, Bandra (East)
Mumbai (Maharashtra) -400 051
Fax No. – 022-26581466
E-mail: edfuel@mahagenco.in

विषय : Washability study of borecore coal samples for Gare palma Sector-II Coal Mine Reg. Submission of Offer

संदर्भ : **i) Your letter no. Mahagenco/ED (Fuel/Coal)/E5/34C/16 dtd. 14.01.2016**
ii) Your letter no. Mahagenco/ED (Fuel/Coal)/E5/34C/20 dtd. 19.01.2016

महोदय,

This has reference to the above letters addressed to CMD, CMPDI pertaining to the subject assignment, followed by the discussion held with your representative.

We have examined the requirement and we are submitting our proposal consisting of Scope of Services, Consultancy fee, Time schedule, Terms of Payment etc., as detailed below, for your kind consideration and acceptance.

1.0 SCOPE OF SERVICES

The Scope of services of CMPDI shall be

- Preparation of bore core sample as per lithology, correlation and advice supplied by Mahagenco.
- Crushing each bore coal sample at 13 mm.
- Screening at 6 & 0.5 mm and determination of Wt% and Ash% of 13-6 mm, 6-0.5 mm and -0.5 mm fraction.
- Float & Sink test of 13-6 and 6-0.5 mm fraction at 1.4, 1.5, 1.6, 1.7 & 1.8 Determination of wt% & Ash%.
- Cleaning possibilities.
  Generation of clean coal at an ash level.
- Proximate analysis (i.e. Ash%, Moisture%, VM & FC), GCV, Ultimate analysis, Petrography analysis, Ash fusion temperature and HGI of crushed bore coal sample.
- Proximate analysis (i.e. Ash%, Moisture%, VM & FC), GCV, Ultimate analysis, Petrography analysis, Ash fusion temperature and HGI of generated cleans.
- Proximate analysis (i.e. Ash%, Moisture%, VM & FC), GCV, Ash fusion temperature and HGI of generated rejects.
- Report preparation.

1.1 Responsibility of the Client (Mahagenco)

- Approximately 50 kgs per bore coal sample of bore core dia. 2.5 inches is required for washability testing of the samples as per scope of services.

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

- Bore core sample of above coalmine shall be delivered to the General Manager (CMP), Coal and Mineral Preparation Laboratory, R&D building, CMPDI (HQ), Gondwana Place, Kanke Road, Ranchi- 834008, Jharkhand.
- Transportation of samples to the CMP Lab. CMPDI (HQ), Ranchi shall be done by Mahagenco at their own cost.
- Lithology and advice regarding preparation of sample and their total number shall be provided by Mahagenco along with samples.

2.0. TIME SCHEDULE

Time required for completion of the assignment will be six weeks from "zero" date for 10 number of samples. For each additional sample, one week extra will be required. It is presumed that a minimum of 10 samples will be there for the study and all the samples will arrive at one time.

The "Zero" date shall reckon from the date of receipt of Work Order along with the initial payment and/or receipt of coal samples at CMPDI laboratory, whichever is later.

3.0 CONSULTANCY FEE

The consultancy fee for the subject assignment as per Scope of Services envisaged at 1.0 for 10 samples would be Rs. 80,76,950=00 (Rupees eighty lakhs seventy six thousand nine hundred and fifty) only, and Rs.8,07,695.00=00 (Rs. Eight lakhs seven thousand six hundred and ninety five only) for each additional sample, which shall be paid by the client as per Payment Terms mentioned hereafter.

The above fee does not include service tax, which is to be paid by the Client as applicable during the billing period in addition to the consultancy fee indicated above. The service tax including education cess chargeable currently is @ 14.5% of the total consultancy fee.

4.0 TERMS OF PAYMENT

The Terms of Payment for consultancy fee quoted at para 3.0 would be as follows :-

i) 50% of the total Consultancy fee along with service tax shall be paid by the client as initial payment along with the Work order.

ii) The balance 50% of the consultancy fee for testing of each sample along with Service tax shall be paid by the client on submission of its Washability Test Report.

The payment shall be made through e-payment in the below mentioned account of CMPDI :

Electronic Fund Transfer/ RTGS	
ACCOUNT No : 10106155087	**Account Type** : Current Account
IFSC/NEFT/RTGS code: SBIN0005598	**Bank Code** : 5598
MICR code : 834002012	
PAN No. : AAACC7475N	
Bank Name : STATE BANK OF INDIA, CMPDI Branch, Gondwana Place, Kanke Road, Ranchi, Jharkhand	

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Govt. of India
Ministry of Coal
Shastri Bhawan, New Delhi

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RQP NO. 34012/03/2014-CPAM

5.0 VALIDITY

The offer shall remain valid up to 60 (Sixty) days from the date of submission.

धन्यवाद एवं सदैव अपनी सर्वोत्तम सेवाओं के आश्वासन सहित ।

भवदीय

25/1/16

महाप्रबंधक

(व्यवसाय विकास)

आई.पी. नागपाल / I.P. NAGPAL
Secretary
Govt. of India
Ministry of Coal
Shram Shakti Bhawan
नई दिल्ली / New Delhi

B.D. SHARMA.
RQP NO. 34012/03/2014-CPAM

Through Email/Speed Post

F.No. 103/3/2015/NA
Government of India
Ministry of Coal
O/o Nominated Authority
****

World Trade Tower, Barakhamba Lane
New Delhi, dated the 19th February, 2016

To,

Shri V.M. Jaidev,
Executive Director (Coal),
Maharashtra State Power Generation Company Limited,
Plot No G 9, Prof Anant Kanekar Marg,
Bandra East, Mumbai – 400051.

Subject: Mining Plan for Gare-Palma Sector II coal mine allotted to MAHAGENCO.

Sir,

I am directed to refer to your letter No. CMD/Mahagenco/ED (Coal)/Fuel/34C dated 17.02.2016 proposing to extract coal from Gare Palma Sector II coal mine upto its full capacity and utilize extra coal for other thermal power plants of MAHAGENCO and surrender an equal amount of linkage coal from CIL to the extent the demand of other EUPs will be met from the said coal mine.

2. It is mentioned that utilisation of coal for any other plant of the successful allocatee is permitted under Section 20 of the Coal Mines (Special Provisions) Act, 2015 and Rule 20 (1) of the Rules with prior intimation to Central Government/Nominated Authority alongwith details of proposed diversion as prescribed in Allotment Agreement. In that event the Successful Allottee shall also be required to adhere to the stipulations under Agreement with respect to the utilisation of coal from the Coal Mine and the Specified End Use and any Applicable Law.

3. However, the issue of diversion arises after the commencement of production. You may submit Mine Plan to Ministry of Coal for approval and tender intimation towards proposed diversion as per clause 8.4 of Allotment Agreement as and when required.

U.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

Yours faithfully,

19/2/16

[Ajay Kumar]
Section Officer

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

No.34011/16/2016-CPAM
Government of India
Ministry of Coal

Shastri Bhawan,
New Delhi, the 3rd May, 2016

To,

M/s Maharashtra State Power Generation Co. Ltd,
Prakashgad, Plot No. G-9, Bandra(E),
Mumbai-400051
Email :md@mahagenco.in/mdmspgcl@gmail.com

Subject :	Mine Plan And Mine Closure Plan of Gare Palma Sector-II Coal Mine, Distt Raigarh, Chhattisgarh State of M/s Maharashtra State Power Generation Company Limited.

Sir,

I am directed to convey that the Mine Plan presentation to the Technical Members of the Standing Committee constituted under MMDR Act, 1957 of the above mentioned project was held on 29-04-2016 at Ministry of Coal, Shastri Bhavan, New Delhi and the members of the committee observed that

	Ref Para	Observations
1.	Cover Page	Project area and Block area should be indicated.
2	Para 1.9	The allotment order for the block indicates a coal requirement of 12.76 Mt/annum for the specified end-use plants. The Mining Plan proposes to mine at a capacity of 23.6 Mt/annum, utilize the coal from seams with less than 34% ash (in the specified plants without washing and is silent about the balance coal. This aspect may kindly be addressed in detail. Details have to be presented for the full production capacity.

	Power Plant "kW"	Reject based Power plant "kW"
Coal availability from this project "MTPA"		
Washed coal availability "MTPA"		
Reject "MTPA"		
Thermal Power Plant / Sponj Iron		
Station Heat Rate "K Cal/Kwhr"		
Avg Calorific Value of Coal "Kcal/Kg"		
Specific consumption "Kg/Kwhr"		
Plant Load Factor/ Capacity Utilisation		
Coal Requirement "MTPA"		
Coal availability from this project "MTPA"		
Linkages/ E-auction from CIL "MTPA"		
Other block of the Company "MTPA"		
Percentage of and use requirement to be met from this mine		

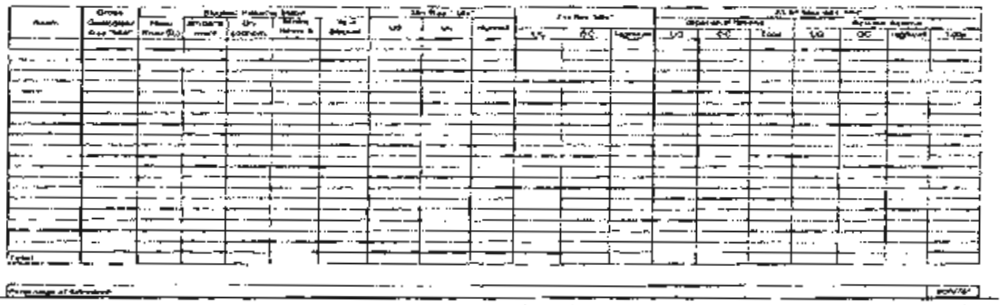
The quantum of CIL likely to be surrendered needs to be envisaged. Further possibility of providing washing arrangement should also be looked into.

3		Details of HEMM needs to be reconciled.
4	Para 5.3.7	Justification for having a production rate of 23.6 Mty (22 Mty – OC, 1.6 Mty –UG) may be brought out. Further, the reason for tapering the OC production, when the contribution from UG operations start, may also be justified.
5	Sum E (d) &	The Mining Plan proposes to work out the coal block upto Seam VI by opencast method in two quarries separated by the Kelo river. Assessment may kindly be presented to show at

ED(Coal/Fuel)
May Pl. issue.

U.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

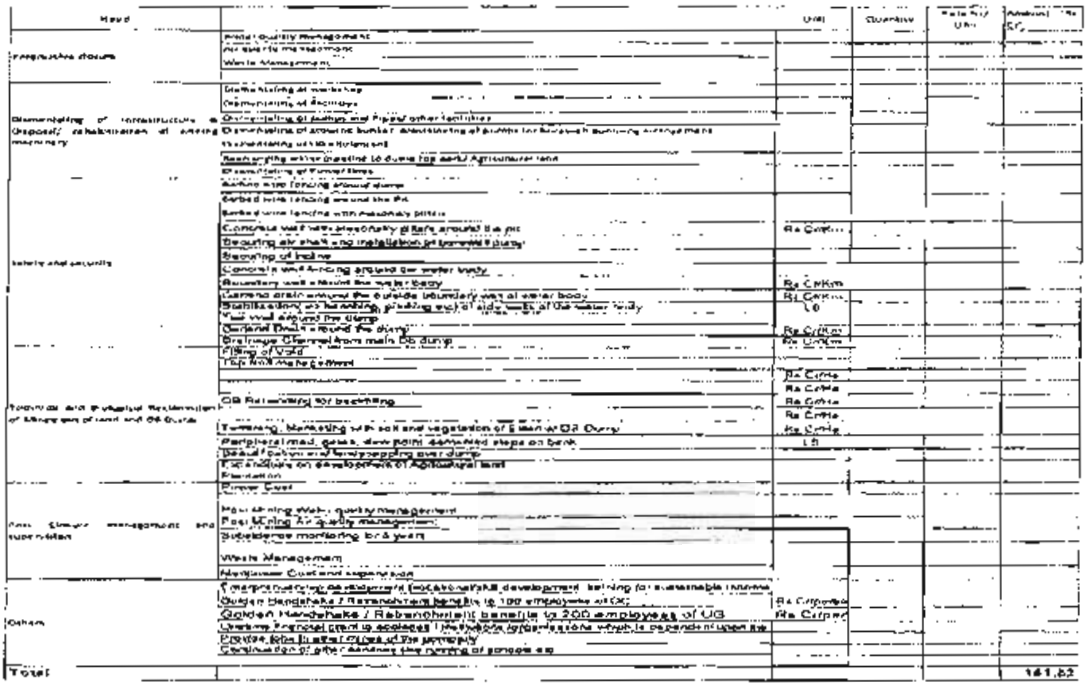
B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

	Ref Para	Observations
	Para 5.1.2	what stripping ratios the incremental coal can be made available from the lower seam(s), if proposed to be worked by opencast method.
6	Sum E (d)	The OBR quantities for the Years 16-29 have not been shown in the Table showing the Combined Calendar Program on Page ES-12. The same may please be incorporated.
7	Para 5.3.12	The MP proposes to extract 553.177 Mt of coal and remove about 2761 Mcum of Overburden at a stripping ratio of 4.99 cum/t. It also proposes to rehandle around 636 Mcum of OB (218.83 Mcum for surface dump rehandling and 417 Mcum of crown dump rehandling), increasing the effective strip ratio to 6.14 cum/t from 4.99 cum/t, whereas, Table 5.12 shows the Stripping ratio as 5.75 cum/t.
8	Para 5.3.11.2	The MP proposes to handle about 135 Mcum of solid OB per year during steady state operations excluding the quantity for rehandling of surface dumps. It also proposes deploy 348 dumpers within the project in addition to the contractors trucks deployed for contractual rehandling. Safety issues related to a huge fleet of dumpers may kindly be addressed. Possibility of providing conveying arrangement through belt should be looked into.
9	Chapter 5	The embankment against the Kelo river should be designed keeping in view the HFL levels and other protective measures against flooding may be addressed.
10	Para 5.3.10.1	RQP may reconfirm the dump space availability for internal and external dumps to meet the desired coal production as proposed in the Calendar Plan. Further optimization is desired in mine planning to improve the viability of the project.
11	Chapter 5	The CHP design parameters are not in conformity with large capacity mines. The coal flow diagram is too sketchy. The coal flow diagram shows the coal to be truck loaded for sending it to the railway siding, which may not be the desired option from environmental point of view.
12	Chapter 5	It has been proposed to extract coal seams by deployment of Continuous Miners having minimum cutting height of 1.8m. However, in the projection plans the minimum extraction height has been shown as 1.5m.
13	Chapter 5	Transport system in underground for coal and material may be given
14	Para D (s) & Para 5.1.1	Seam –wise geological and corresponding extractable reserve should be indicated in the following table 
15	Para 5.1.2	It appears that about 10 Mt of coal is getting blocked under Kelo river, is there any plan to divert Kelo river, if so than the action plan for the same should be envisaged.
16	Para 5.1.2	Some reserve is likely to be locked below infrastructure and Batter, is there any action plan to liquidate the same?
17	Sum Para E	Distance of end use power plant to be envisaged required in line with the guidelines for formulation of mining plan at summary para " End use of Coal/ Lignite"
18	Sum	What will be the ash % of the ROM Coal? Whether washery is being provisioned to comply

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Secretary
Ministry of Coal
Government of India
New Delhi

B.D. SHARMA
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	Ref Para	Observations
	Para F (d)	the MoEF restriction on transportation of coal with more than 34% ash for power stations located at 500 km and away from the pitheads from June 2016?
19	Para 15.3.2	Table 15.10 & 15.11 needs to be reconciled and Post closure land management needs to be elaborated
20	Water	Hydro-geological Study & Water Balance Chart should be provided.
21	Top soil	Year wise top soil utilization should be furnished
22	Disposal	Disposal of Mining machineries should be provided as per Mine Closure Plan Guidelines issued by MOC, New Delhi dated 07.01.2013
23		Manpower requirement for carrying out mine closure activities should be furnished in the para for Time scheduling for abandonment with bar chart & manpower requirement for implementation
24		Infrastructure to be retained and to be demolished to be provided in a tabular form.
25	15.7	The Mine closure activities required to be taken should be in coherence with the guidelines of the Mine Closure plan. The basis of assessment of indicative cost should be envisaged.
26	15.6	Bar chart for the activities to the taken up for the period life of the mine plus 3 year should be provided indicating activity-wise breakup of the abandonment cost.
27	15.7	WPI as on the base date should be considered for assessment of amount to be deposited in escrow account as a security against the mine activities to be carried out for the closure of the mine.



Head		Unit	Quantity	Rate per Unit	Amount (Rs. Lakhs)
Progressive closure	Water Quality Management				
	Air quality management				
	Waste Management				
Dismantling of infrastructure & Disposal/ rehabilitation of mining machinery	Sealing/sealing of mine/shaft				
	Dismantling of Structures				
	Dismantling of Coal Handling Plant/ other facilities				
	Dismantling of Workshop & Magazine/ Blasting arrangement				
	Dismantling of Workshop				
	Reshaping of the dump to blend with surrounding area				
	Dismantling of Conveyors				
	Backfilling of mine voids/ dumps				
	Barbed wire fencing around the pit				
	Barbed wire fencing with masonry pillars				
Safety and security	Concrete wall with plaque/safety signs around the pit	Rs Cr/Km			
	Securing air shaft and installation of barricades/ gates				
	Sealing of Incline				
	Concrete wall fencing around the water body				
	Boundary wall around the water body	Rs Cr/Km			
	Catchment drain around the pit/side boundary wall of water body	Rs Cr/Km			
	Stabilization of the mining pit/dump and all sides walls of the water body	LS			
	Toe wall around the dump				
	Garland Drain around the dump	Rs Cr/Km			
	Drainage Channel from main OB dump	Rs Cr/Km			
	Filling of Voids				
	Top Soil Re-handling				
		Rs Cr/Ha			
Restoration and physical Rehabilitation of Mine pit and OB Dump	OB Re-handling for backfilling	Rs Cr/Ha			
	Terracing, Marketing with soil and vegetation of External OB Dump	Rs Cr/Ha			
	Peripheral road, gates, view point, demarked steps on bank	Rs Cr/Ha			
	Dozed / Cultivation and Development over dump	LS			
	Transfer of land to original owner/ Agricultural land				
	Plantation				
	Fencing Cost				
Post closure management and supervision	Post Mining Water quality management				
	Post Mining Air quality management				
	Subsidence monitoring for 5 years				
	Waste Management				
	Manpower Cost and supervision				
Others	Compensation for development (including skill development training for sustainable income)				
	Golden Handshake / Retrenchment benefits to 100 employees of OC	Rs Cr/person			
	Golden Handshake / Retrenchment benefits to 200 employees of UG	Rs Cr/person			
	Diverting Proposed plant to adjacent / Developing/operating vehicle to operate in open pit				
	Provide jobs to one of the person/s				
	Construction of other activities like opening of garages etc				
Total					161.82

(U.P. NAGPAL)
Secretary
Ministry of Coal
Shastri Bhawan
New Delhi

B.D. SHARMA
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	Ref Para	Observations
		WPI as on August'00 — 129.00 WPI as on Base date "Dec. 2015" — 177.40 Escalation rate of Closure cost — 1.37 Rate of discounting of Annual Closure Cost — 8.00% Amount to be deposited into Escrow Account after compounding @ of 5% "Rs. in Cre" — 840.05

	UG	OC
Base Rate of Closure Cost "Rs. Cre./Ha"	0.01	0.00
Closure Cost "Rs. Cre/Ha"	0.01	0.05
Lease Area	2583.48	2583.48
Amount to be deposited into Escrow Account "Rs. in Cre"	35.36	212.18
Amount already deposited into Escrow Account "Rs. in Cre"		
Net Amount to be deposited into Escrow Account "Rs. in Cre"	35.36	212.18
Balance Life of the project "in Yrs"	77	29
Annual Closure Cost	0.459	7.317

From the plan it is not clear to what extent there is the superimposition of OC and UG. Since the total project area of 2583.48 Ha has been taken into consideration for mine closure cost calculation of OC, the cost calculation for Escrow fund for UG i.e for 2208.18 Ha should be done from 30th year i.e after closure of the OC mine. Rs. 43.81 lakhs in Table 15.21 for the UG mine should be escalated to the value in the 30rd year (i.e the first year for Escrow fund for UG mine). For UG, fund depositing should start from the 30th year.

28	Para 15.8	Financial Assurance para should be described as per Mine Closure Plan Guidelines issued by MOC, New Delhi dated 07.01.2013
29		Para 15.9 and 15.10 should be as per Mine Closure Plan Guidelines issued by MOC, New Delhi dated 07.01.2013
		Annexure (to be attached)
30		Certificate of acceptance of the RQP to formulate the mining plan on behalf of the project proponent.
31		A certificate by the RQP that he has been duly authorized by the mining company to prepare Mining plan on their behalf and that he has a valid recognition from MOC under MCR, 1960 to prepare the Mining plan and that provisions of all relevant rules and regulations made there under have been observed in the preparation of mining plan. The Mining plan has been prepared considering the guidlines pertaining to mining plan issued by MoC, GOI & wherever specific permission will be required the applicant will approach the concerned authorities
32		Certificate from empowered representative of / or Block allottee / applicant that the mine will be developed as per the approval of the mining plan from Ministry of coal and all other approvals, as required will be obtained from relevant authorities
33		Certificate from empowered representative of / or Block allottee / applicant that the reclamation & rehabilitation work shall be carried out in accordance with the approved mine closure plan and any modification /amendments which may be made in the mine Closure Plan by Ministry of Coal, from time to time
34		Copy of the document to establish that the geological report has been duly purchased from CMPDI, GSI/ MECL as the case may be
		Plates (to be attached)
35		Progressive mine closure plan/ stage plan indicating stages at 1st,3rd, 5th, 10th, and 20th interval (showing area, volume, dump height etc for OC and seam-wise layout projects and ventilation system in UG)
36		Post mining land use & Reclamation plan
37		The plan indicating the lease boundary and block boundary & Mine boundary superimposed over it in distinct colour.
38		Ventilation system may be provided in the seam-wise projection plans
39		Support system & Transport system layout plan should be provided.

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It is requested that Mine Plan (Text and Plates) incorporating clarifications to the above cited observations of technical members may be submitted to this Ministry in quadruplicate duly signed by RQP. **The point-wise compliance in a tabular form (with proper reference) to the observations should also be enclosed in Mining Plan and the .docx file of the same should also be e-mailed to socpam.moc@nic.in**. The front page of the Mine Plan should indicate the Month and year in which it will be submitted.

(I P Nagpal)
Under Secretary to the Govt. of India
Tele : 011 23073937
Fax : 011 23073934

I.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

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ANNEXURES TO CHAPTER - 2

2-1 **MOC letter no. 103/30/2015-NA dt. 11.1.2016 for fresh submission of Mining Plan and Mine Closure Plan**

आई०पी० नागपाल / I.P. NAGPAL
अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi

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CMD/Mahagenco/R-10/GOI/60
16.01.16

F.NO. 103/30/2015-NA
Government of India
Ministry of Coal
O/o Nominated Authority

World Trade Tower, Barakhamba Lane
New Delhi, 11th Jan 2016

To,
The Chairman-cum Managing Director,
Maharashtra State Power Generation Corporation Ltd.
Prakashgad, Plot No. G-9, Bandra(E),
Mumbai, Maharashtra, 440015

Sub: Approval and Transfer of Mining Plan in respect of Gare Palma Sector-II Coal Mine.

Ref: CMD/Mahagenco/Coal/34C/29 dated 31.10.2015.

Sir,

With reference to the above, the undersigned is directed to state that the Mining Plan in respect of Gare Palma Sector-II Coal Mine submitted by the prior allotee, did not receive the approval of the Ministry of Coal.

In view of the above, Mahagenco needs to apply afresh as per the guidelines laid for seeking approval of the Mining Plan.

A soft copy of the Mining Plan has already been provided to you.

Yours Sincerely,

किशोर चौधरी

(Kishore Chaudhary)
Sr. manager(NA)

The file may kindly be confirmed from Shri Sharma ji

U.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

E.D (Coal / Fuel)

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ANNEXURES TO CHAPTER - 3

3-1	Khasra wise land use of core zone
3-2	CMPDI letter letter no. CMPDI/BD/C(886)/118 dt 26-02-2016 for block boundary
3-3	Nominated Authority letter for block boundary F.No.104/28/2015/ NA dt 13-10-2015
3-4	Proposal for re-routing the railway alignment along periphery out side the block boundary dt. 28-1-2016 and 01-02-2016

आई॰पी॰ नागपाल /I.P. NAGPAL
अपर सचिव / Addl. Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi

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ANNEXURE : 3-1

ABSTRACT OF LAND SCHEDULE

COAL BLOCK- GARE SECTOR II DISTRICT RAIGARH (C.G.)

A. As per Revenue Departments Records

Sl.No.	Village	Private Land				Government Land						Total	
		Area		Category		Populated		Others		Small/Big Tree			
		Total Area of Khasra	Total Applied Area	ST	Others	Total Area	Applied Area	Total Area	Applied Area	Total Area	Applied Area	Total Area	Applied Area
1	Tihlirampur	174.030	160.587	44.200	116.387	6.830	6.830	62.720	60.319	0.000	0.000	243.580	227.736
2	Dholnara	75.904	59.640	37.420	22.220	7.402	6.833	3.693	3.693	2.788	2.788	89.787	72.954
3	Muragaon	302.932	302.393	190.917	111.476	8.256	8.256	5.593	5.593	23.504	23.504	340.285	339.746
4	Libra	177.452	129.037	77.258	51.779	3.006	2.897	5.133	5.133	16.574	15.943	202.165	153.010
5	Kunjemura	210.123	199.715	94.789	104.926	14.230	14.221	21.904	21.904	37.119	30.170	283.376	266.010
6	Jhinkabaha	5.800	3.844	1.153	2.691	0.000	0.000	0.000	0.000	0.000	0.000	5.800	3.844
7	Rodopali	356.334	351.676	241.125	110.551	8.336	8.336	25.885	25.850	0.125	0.125	390.680	385.987
8	Dolesara	28.060	20.748	9.295	11.453	0.000	0.000	1.242	1.242	0.000	0.000	29.302	21.990
9	Bhalumura	21.072	16.297	12.841	3.456	0.000	0.000	1.607	0.704	0.809	0.622	23.488	17.623
10	Sarasmal	71.072	66.027	38.943	27.084	0.000	0.000	5.795	4.895	15.262	15.236	92.129	86.158
11	Pata	349.875	329.230	116.302	212.928	13.314	13.314	19.999	19.999	15.326	15.326	398.514	377.869
12	Chitwahi	151.918	142.461	93.582	48.879	0.486	0.252	9.492	9.020	0.000	0.000	161.896	151.733
13	Gare	163.203	157.224	123.321	33.903	10.482	10.482	16.028	15.837	2.464	1.957	192.177	185.500
14	Saraitola	173.180	169.950	117.613	52.337	8.395	8.395	9.929	9.333	30.335	29.703	221.839	217.381
Total of A		**2260.955**	**2108.829**	**1198.759**	**910.070**	**80.737**	**79.816**	**189.020**	**183.522**	**144.306**	**135.374**	**2675.018**	**2507.541**
B. As per Forest Departments Record													
Government Forest Land													75.945
Grand Total													2583.486

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Land Schedule					
Coal Block Gare Sector -II, Raigarh District, Chhattisgarh					
Sl. No.	Forest Compartment No.	Forest Range	Forest Division	Total Area of Compartment	Applied Area of Compartment
1	732 P	Tamnar	Raigarh	24.214	2.013
2	740	Tamnar	Raigarh	13.154	13.154
3	741P	Tamnar	Raigarh	16.897	16.897
4	744 P	Tamnar	Raigarh	30.698	30.698
5	745 P	Tamnar	Raigarh	123.920	13.183
Total				208.883	75.945

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Land Schedule

Village : Tihlirampur, P.H.N.: 39, R.I.Circle : Tamnar, Tehsil : Tamnar, District : Raigarh(Chhattisgarh)

Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1	1/1	0.100	0.100	Prahalad S/o Nanki	Agharya	Others								
2	1/2	0.105	0.105	Balakram S/o Nanki	Agharya	Others								
3	1/3	0.220	0.220	Prahalad	Agharya	Others								
4	1/4	0.195	0.195	Balakram S/o Nanki	Agharya	Others								
5	1/5	0.130	0.130	Kartikram S/o Harishchandra	Agharya	Others								
6	2	0.090	0.090	Kartikram S/o Harishchandra	Agharya	Others								
7	3/1	0.138	0.138	Ramprasad S/o Harishchandra	Agharya	Others								
8	3/2	0.324	0.324	Mohanlal S/o Harishchandra	Agharya	Others								
9	3/3	0.228	0.228	Ghanshyam, Malavati, Kalavati,Bhamati, Ramvati S/o Shree Dhar	Agharya	Others								
10	4	0.150	0.150	Kartikram S/o Harishchandra	Agharya	Others								
11	5/1	0.260	0.260	Balaxram S/o Nanki	Agharya	Others								
12	5/2	0.080	0.080	Prahulad	Agharya	Others								
13	6/1	0.150	0.150	Balakram S/o Nanki	Agharya	Others								
14	6/2	0.085	0.085	Ghanshyam, Malavati, Kalavati,Bhamati, Ramvati S/o Shree Dhar	Agharya	Others								
15	6/3	0.085	0.085	Ramprasad	Agharya	Others								
16	6/4	0.070	0.070	Prahalad	Agharya	Others								
17	6/5	0.170	0.170	Ramprasad	Agharya	Others								
18	6/6	0.060	0.060	Ghanshyam, Malavati, Kalavati,Bhamati, Ramvati S/o Shree Dhar	Agharya	Others								
19	7	0.930	0.930	Jagmati S/o Samaru	Maina	ST								
20	8									1.170	1.170			
21	9											0.720	0.720	Mountain, Rock
22	10											0.630	0.630	Grass
23	11											0.660	0.660	Grass
24	12	0.380	0.380	Medha Rami S/o Gokhru	Khadya	ST								
25	13/1	0.175	0.175	Parsuram S/o Mackande	Maina	ST								
26	13/2	0.175	0.175	Somnath S/o Kahuram	Khadya	ST								
27	14											1.750	1.750	Grass
28	15	1.200	1.200	Bhagirathi S/o Tilakram	Kanwar	ST								
29	16											0.610	0.610	Mountain, Rock
30	17	0.210	0.210	Kilamber S/o Guruswam and others	Khadya	ST								
31	18											1.270	1.270	Grass
32	19	0.420	0.420	Vidyadhar Sardhi	Kanwar	ST								
33	20											0.250	0.250	Grass
34	21											0.250	0.250	Grass
35	22	0.730	0.730	Viddyadhar S/o Purthi and others	Kanwar	ST								
36	23	0.520	0.520	Viddyadhar S/o Purthi and others	Kanwar	ST								
37	24/1	0.688	0.688	Haricam S/o Budharam	Kanwar	ST								
38	24/2	1.092	1.092	Dinbandhu S/o Budharam	Kanwar	ST								
39	25	0.160	0.160	Harishchandra S/o Mohan	Teli	Others								
40	26	0.110	0.110	Harishchandra S/o Mohan	Teli	Others								
41	27	0.100	0.100	Harishchandra S/o Mohan	Teli	Others								
42	28											0.020	0.020	Grass
43	29	0.470	0.470	Sanoram S/o Hiraram	Kanwar	ST								
44	30	0.320	0.320	Kishna S/o Shivlal	Teli	Others								
45	31	0.410	0.410	Hiraram	Kanwar	ST								
46	32	0.230	0.230	Somnath	Khadya	ST								
47	33											0.140	0.140	Grass
48	34	0.220	0.220	Babulal Radhe Bal Anil Prasad S/o Kartikram	Gond	ST								
49	35/1	0.280	0.280	Parsuram Maina	Maina	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
50	35/2	0.030	0.030	Somnath	Kiradiya	ST								
51	36											1.390	1.390	Grass
52	37/1	0.140	0.140	Prahalad	Aghariya	Others								
53	37/2	0.120	0.120	Balakram S/o Nanki	Aghariya	Others								
54	37/3	0.120	0.120	Kartikram S/o Harishchandra	Aghariya	Others								
55	37/4	0.150	0.150	Prahalad	Aghariya	Others								
56	37/5	0.310	0.310	Balakram S/o Nanki	Aghariya	Others								
57	37/6	0.160	0.160	Prahalad	Aghariya	Others								
58	38/1	0.093	0.093	Ghanshyam, Malavati, Kalavati, Bhanvari, Ramvati S/o Shree Dhar	Aghariya	Others								
59	38/2	0.184	0.184	Ramprasad	Aghariya	Others								
60	38/3	0.093	0.093	Mohanlal	Aghariya	Others								
61	39											0.400	0.400	Seva Bhumi Gram Naukri
62	40											0.510	0.510	Grass
63	41	0.940	0.940	Sobharam S/o Ratansei	Rawat	Others								
64	42/1	0.138	0.138	Ghanshyam, Malavati, Kalavati, Bhanvari, Ramvati S/o Shree Dhar	Aghariya	Others								
65	42/2	0.138	0.138	Mohanlal	Aghariya	Others								
66	42/3	0.134	0.134	Kartikram S/o Harishchandra	Aghariya	Others								
67	43											1.150	1.150	Mountain, Rock
68	44											0.230	0.230	Grass
69	45											0.170	0.170	Grass
70	46											0.170	0.170	Grass
71	47											0.070	0.070	Grass
72	48											0.920	0.920	Grass
73	49	0.100	0.100	Budga S/o Ujiyar	Kanwar	ST								
74	50	0.110	0.110	Budga S/o Ujiyar	Kanwar	ST								
75	51											1.290	1.290	Grass
76	52/1	0.480	0.480	Pitamber S/o Sondar, Bhagmati	Kanwar	ST								
77	52/2	0.120	0.120	Rameshwar S/o Ranjeet	Kanwar	ST								
78	52/3	0.100	0.100	Sukhal, Sukmati, Ramati S/o Ramnath	Kanwar	ST								
79	53	0.280	0.280	Rameshwar	Kanwar	ST								
80	54	0.400	0.400	Sukhal and others	Kanwar	ST								
81	55	0.430	0.430	Desingh, Pihan S/o Mitu	Kanwar	ST								
82	56											0.380	0.380	Grass
83	57/1	0.626	0.626	Kagta W/o Kalander	Rawat	Others								
84	57/2	0.194	0.194	Laksmi Prasad S/o Krishna	Teli	Others								
85	58/1	0.040	0.040	Sobharam	Rawat	Others								
86	58/2	0.668	0.668	Govind Ram S/o Ranjeet	Rawat	Others								
87	58/3	0.603	0.603	Laksmi Prasad S/o Krishna	Teli	Others								
88	58/4	0.117	0.117	Govind Ram S/o Ranjeet	Rawat	Others								
89	58/5	0.328	0.328	Subharam	Rawat	Others								
90	59											0.500	0.500	Road
91	60	0.300	0.300	Kripuram S/o Boloram and others	Aghariya	Others								
92	61	0.190	0.190	Sakharam S/o Budhu	Rawat	Others								
93	62	0.910	0.910	Khanamak S/o Bhagvatram	Rawat	Others								
94	63	0.900	0.900	Bhagrathi S/o Tilakram	Kanwar	ST								
95	64	0.840	0.840	Krisana S/o Sukhlal	Teli	Others								
96	65	0.170	0.170	Shobharam	Rawar	Others								
97	66											0.740	0.740	Grass
98	67											1.980	1.980	Grass
99	68	0.420	0.420	Nalamber S/o Guruvarn and others	Khadiya	ST								
100	69											0.100	0.100	Mountain, Rock

B.D. SHARMA
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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
101	70											0.130	0.130	Mountain, Rock
102	71/1	0.243	0.243	Chatursingh S/o Aadisingh Maina	Gond	ST								
103	71/2	0.202	0.202	Chamansingh S/o Tekha	Uraov	ST								
104	71/3	0.283	0.283	Parsuram Maina	Maina	ST								
105	71/4	0.910	0.910	Parsuram Maina	Maina	ST								
106	71/5	0.138	0.138	Nidhar S/o Gukharu	Khadiya	ST								
107	71/6	0.080	0.080	Parsuram Maina	Maina	ST								
108	71/7	0.202	0.202	Chatursingh S/o Aadisingh Maina	Gond	ST								
109	71/8	0.202	0.202	Vedsingh S/o Somnath	Gond	ST								
110	71/9	0.101	0.101	Ramo S/o Gukharu	Khadiya	ST								
111	71/10	0.034	0.034	Ramo S/o Gukharu	Khadiya	ST								
112	71/11	0.405	0.405	Kushomoti W/o Dinbandhu	Kanwar	ST								
113	72/1	0.265	0.265	Nanki Balakram	Agharya	Others								
114	72/2	0.265	0.265	Prahalad S/o Nanki	Agharya	Others								
115	73	4.040	2.050	Kriparam S/o Boleram and others	Agharya	Others								
116	74											0.930	0.818	Grass
117	75	0.970	0.300	Sukram, Sukrara, Sukhsa, Chaturam S/o Metwar	Kanwar	ST								
118	97											12.250	12.250	Below Water
119	106	0.930	0.510	Khadiram S/o Devsingh	Khadiya	ST								
120	107	0.860	0.750	Arun S/o Vanmali	Gond	ST								
121	108											0.050	0.050	Road
122	109	0.350	0.350	Arun S/o Vanmali	Gond	ST								
123	110/1	0.138	0.138	Ratiram Geso	Uraov	ST								
124	110/2	0.170	0.170	Sunas W/o Hirau, Rupmati S/o Hirau	Uraov	ST								
125	110/3	0.032	0.032	Ratiram	Uraov	ST								
126	111											0.390	0.390	Grass
127	112/1	0.250	0.250	Hiraram	Kanwar	ST								
128	113	0.320	0.320	Hiramati S/o Nandlal	Rawat	Others								
129	114											0.460	0.460	Grass
130	115	0.650	0.650	Arup Agrawal, Santlal Agrawal	Agrawal	Others								
131	116											0.140	0.140	Mountain, Rock
132	117											0.080	0.080	Grass, Gaothan
133	118											0.320	0.320	Mountain, Rock
134	119											4.680	4.680	Below Water
135	120											0.240	0.240	Grass
136	121	1.380	1.380	Kiritram and others	Rawat	Others								
137	122	0.400	0.400	Kriparam, Kumal Vipin, Nilamber, Ramcharan, Chatrbu and others	Aghariya	Others								
138	123	0.810	0.810	Kriparam S/o Boloram and others	Aghariya	Others								
139	124											0.880	0.880	Grass
140	125											0.910	0.910	Grass
141	126	1.080	1.080	Kriparam S/o Boloram and others	Aghariya	Others								
142	127											2.560	2.560	Grass
143	128	0.240	0.240	Sankunwar W/o Rameshwar	Kanwar	ST								
144	129	0.230	0.230	Pitamber and others	Kanwar	ST								
145	130	0.210	0.210	Rameshwar	Kanwar	ST								
146	131	0.230	0.230	Desingh, Pihau S/o Milu	Kanwar	ST								
147	132	0.280	0.280	Dokri S/o Rangeet	Kanwar	ST								
148	133/1	0.360	0.360	Suklal and others	Kanwar	ST								
149	133/2	0.020	0.020	Sankunwar	Kanwar	ST								
150	134/1	0.500	0.500	Sankunwar	Kanwar	ST								
151	134/2	0.060	0.060	Dokri	Kanwar	ST								

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
152	135	0.550	0.550	Dokri	Kanwar	ST									
153	136/1	0.080	0.080	Rameshwar	Kanwar	ST									
154	136/2	0.070	0.070	Dokri	Kanwar	ST									
155	137	0.110	0.110	Rameshwar	Kanwar	ST									
156	138/1	0.160	0.160	Rameshwar	Kanwar	ST									
157	138/2	0.080	0.080	Dokri	Kanwar	ST									
158	138/3	0.090	0.090	Sukla and others	Kanwar	ST									
159	138/4	0.260	0.250	Desingh, Pitau S/o Milu	Kanwar	ST									
160	139/1	0.250	0.250	Sankunwar	Kanwar	ST									
161	139/2	0.040	0.040	Rameshwar	Kanwar	ST									
162	139/3	0.040	0.040	Pitamber Sunder	Kanwar	ST									
163	140	0.100	0.100	Pitamber Sunder	Kanwar	ST									
164	141	0.190	0.190	Pitamber and others	Kanwar	ST									
165	142	0.155	0.155	Desingh, Pitau S/o Milu	Kanwar	ST									
166	143											3.330	3.330	Below Water	
167	144											0.220	0.220	Mountain, Rock	
168	145	2.860	2.860	Sadhuram S/o Budharam	Rawat	Others									
169	146	0.420	0.420	Kriparam S/o Beluram and others	Aghariya	Others									
170	147	0.270	0.267	Jindal Power Limited ,Dinesh Kumar Bhargav		Others									
171	148											0.050	0.050	Grass	
172	149	0.170	0.170	Sakharam	Rawat	Others									
173	150	0.210	0.210	Rajkumar S/o Ram	Rawat	Others									
174	151											0.040	0.040	Grass	
175	152	0.260	0.169	Jindal Power Limited ,Dinesh Kumar Bhargav		Others									
176	153	0.640	0.320	Jindal Power Limited ,Dinesh Kumar Bhargav		Others									
177	154	1.210	1.100	Jindal Power Limited ,Dinesh Kumar Bhargav		Others									
178	155	1.070	1.070	Beasu S/o Bheem and others	Uraov	ST									
179	156	0.820	0.820	Ghasita S/o Kripalal, Banshilal S/o Komal	Agharjya	Others									
180	157	0.330	0.330	Kripanam S/o Boloram and others	Agharjya	Others									
181	158/1	0.100	0.100	Rameshwar	Kanwar	ST									
182	158/2	0.100	0.100	Sankanwar	Kanwar	ST									
183	158/3	0.100	0.100	Desingh, Pitau S/o Milu	Kanwar	ST									
184	158/4	0.100	0.100	Sukla and others	Kanwar	ST									
185	158/5	0.100	0.100	Dokri	Kanwar	ST									
186	158/6	0.100	0.100	Pitamber and others	Kanwar	ST									
187	159	2.410	2.410	Jindal Power Limited ,Dinesh Kumar Bhargav		Others									
188	160/1	0.202	0.202	Jageshwar S/o Sakharam	Rawat	Others									
189	160/2	0.202	0.202	Munuram S/o Nandlal	Rawat	Others									
190	160/3	0.332	0.332	Youdhisthir S/o Ujjawalsingh	Agharsya	Others									
191	160/4	0.202	0.202	Gokul S/o Budha	Rawat	Others									
192	161/1	0.364	0.364	Hiraram	Kanwar	ST									
193	161/2	1.571	1.571	Dinbandhu	Kanwar	ST									
194	161/3	0.547	0.547	Hiraram	Kanwar	ST									
195	161/4	0.777	0.777	Hiraram	Kanwar	ST									
196	161/5	0.081	0.081	DinSandhu	Kanwar	ST									
197	162	0.200	0.200	Dokra, Thelo, Munki S/o Lalram	Kanwar	ST									
198	163	0.110	0.110	Rameshwar S/o Kheni	Kanwar	ST									
199	164	0.510	0.510	Dhaneshwar S/o Kheni	Kanwar	ST									
200	165	0.090	0.090	Kushmati	Kanwar	ST									
201	166	0.090	0.090	Dhaneshwar	Kanwar	ST									
202	167	0.820	0.820	Kusumati	Kanwar	ST									

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
203	168											0.350	0.150	Road
204	169	0.540	0.540	Dhaneshwar	Kanwar	ST								
205	170	0.410	0.410	Chaswar S/o Ratiram and others	Kanwar	ST								
206	171/1	0.069	0.069	Yudhisthir S/o Ujawalsingh	Agharya	Others								
207	171/2	0.040	0.040	Thuraram S/o Sano	Ravat	Others								
208	171/3	0.040	0.040	Gokul	Ravat	Others								
209	171/4	0.081	0.081	Thuraram	Ravat	Others								
210	172											0.340	0.340	Seva Bhumi Gram Nirkan Kotwar
211	173/1	0.150	0.150	Jageshwar S/o Sakhiram	Ravat	Others								
212	173/2	0.559	0.559	Rajendra Kumar S/o Nilamber	Aghariya	Others								
213	173/3	0.332	0.332	Ramcharan S/o Bajoram	Aghariya	Others								
214	173/4	0.567	0.567	Sarduram S/o Hiraram	Kanwar	ST								
215	173/5	0.704	0.704	Komal Prasad S/o Boloram	Aghariya	Others								
216	173/6	0.817	0.817	Chandanram S/o Boloram and others	Aghariya	Others								
217	173/7	0.210	0.210	Rajendra Kanwar	Aghariya	Others								
218	173/8	0.555	0.555	Youdhisthir S/o Ujawalsingh	Aghariya	Others								
219	173/9	0.555	0.555	Munuram	Ravat	Others								
220	173/10	0.555	0.555	Youdhisthir S/o Ujawalsingh	Aghariya	Others								
221	173/11	0.555	0.555	Gokul	Ravat	Others								
222	173/12	0.567	0.567	Mriketan S/o Madansudan	Aghariya	Others								
223	173/13	1.214	1.214	Mohanlal, Rudra Pratap,Onkilal S/o Dhanuriai and others	Ravat	Others								
224	173/14	0.376	0.376	Hinamati W/o Jhunkunali	Ravat	Others								
225	173/15	0.547	0.547	Gokul	Ravat	Others								
226	173/16	0.713	0.713	Jaiman W/o Ramkumar	Ravat	Others								
227	173/17	0.455	0.455	Vaaram S/o Thuraram	Ravat	Others								
228	173/18	0.210	0.210	Gokul	Ravat	Others								
229	173/19	0.210	0.210	Youdhistair S/o Ujawalsingh	Aghariya	Others								
230	173/20	0.210	0.210	Jagnath	Ravat	Others								
231	173/21	0.210	0.210	Jageshwar	Ravat	Others								
232	173/22	0.462	0.462	Youdhisthir S/o Ujawalsingh	Aghariya	Others								
233	173/23	1.113	1.113	Jindal Power Limited, Vivek Dadu A.V.N. Darlo		Others								
234	173/24	0.493	0.493	Youdhisthir S/o Ujawalsingh	Aghariya	Others								
235	173/25	0.202	0.202	Gokul	Ravat	Others								
236	173/26	0.304	0.304	Sakhuram	Ravat	Others								
237	173/27	0.405	0.405	Heramati	Ravat	Others								
238	173/28	0.530	0.530	Youdhisthir S/o Ujawalsingh	Aghariya	Others								
239	173/29	0.817	0.817	Ghasiram S/o Karparam	Aghariya	Others								
240	173/30	0.405	0.405	Somnath S/oBaderam	Khadya	ST								
241	173/31	0.101	0.101	Angadram S/o Chulu	Ravat	Others								
242	173/32	1.186	1.186	Youdhisthir	Agharya	Others								
243	174											0.350	0.350	Mountain, Rock
244	175											0.810	0.810	Grass (Save for Tree)
245	176/1	0.125	0.125	Jageshwar S/o Babulal	Ravat	Others								
246	176/2	1.182	1.182	Babulal Tilochan S/o Ramprasad and others	Ravat	Others								
247	176/3	1.011	1.011	Bahmati W/o Nilamber	Aghariya	Others								
248	176/4	0.032	0.032	Baboni S/o Thuraram	Ravat	Others								
249	176/5	0.422	0.422	Jageshwar S/o Sakhiram	Ravat	Others								
250	176/6	0.202	0.202	Churau S/o Jethuram	Ravat	Others								
251	176/7	0.202	0.202	Ganeshram S/o Munuram and others	Aghariya	Others								
252	177											0.090	0.090	Grass

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
253	178											0.450	0.450	Road
254	179											1.330	1.330	Road
255	180	1.500	0.700	Devnath S/o Ramsingh, Mohit S/o Chainsingh	Kanwar	ST								
256	181											0.200	0.200	Mountain, Rock
257	182											0.810	0.439	Grass Charagah
258	183											0.810	0.470	Sarvajanik Khel Maidan
259	184											0.210	0.062	Grass Murda Maveshi Chime
260	185											0.400	0.203	Grass Shamshan Kaben ke liye
261	193	1.460	0.100	Devnath S/o Ramsingh, Mohit S/o Chainsingh	Kanwar	ST								
262	194	0.930	0.832	Devnath S/o Ramsingh, Mohit S/o Chainsingh	Kanwar	ST								
263	195	1.480	1.400	Devnath S/o Ramsingh, Mohit S/o Chainsingh	Kanwar	ST								
264	196	0.310	0.310	Khadiram S/o Devsingh	Khadiya	ST								
265	197											1.170	1.170	Grass
266	198	0.360	0.360	Palram, Ballooram, S/o Rukhmadi	Kanwar	ST								
267	199	0.380	0.380	Dogi S/o Bochan	Kanwar	ST								
268	200/1	0.227	0.227	Pilau Nanhi, Subhash S/o Jhagru	Kanwar	ST								
269	200/2	0.243	0.243	Bhagbati, Premhari S/o Rombha	Kanwar	ST								
270	201	0.190	0.190	Paleuram and others	Kanwar	ST								
271	202											0.780	0.780	Grass
272	203	0.890	0.890	Lachhan W/o Kumarsingh, Kumarsingh S/o Pingalsingh	Kanwar	ST								
273	204	0.800	0.750	Luri, Kolmet, Buchnu, Aasa S/o Gond,Sukul S/o Bhaira	Gond	ST								
274	205											0.750	0.469	Grass
275	206	0.700	0.700	Santuram, Bhagatram, Bindram S/o Sudhu	Rayat	Others								
276	207	0.180	0.180	Santuram and others	Kanwar	ST								
277	208	1.000	1.000	Jindal Power Limited , Rakesh S/o Anand Swarong		Others								
278	209	4.950	0.865	Ruban S/o Bheem and others	Uraon	ST								
279	236	0.320	0.050	Devnath S/o Ramsingh, Mohit S/o Chainsingh	Kanwar	ST								
280	239	0.400	0.030	Devnath S/o Ramsingh, Mohit S/o Chainsingh	Kanwar	ST								
281	267	0.390	0.050	Devnath S/o Ramsingh, Mohit S/o Chainsingh	Kanwar	ST								
282	268											0.470	0.295	Below Water
283	269											0.220	0.132	Mountain, Rock
284	270											0.080	0.080	Grass
285	271											0.150	0.155	Grass
286	272											0.400	0.399	Grass(Khad)
287	273/1	0.093	0.020	Balram S/o Thamram	Rayat	Others								
288	273/2	0.019	0.003	Dhaniram	Rayat	Others								
289	273/3	0.049	0.003	Sukharam	Rayat	Others								
290	273/4	0.049	0.003	Gokul	Rayat	Others								
291	274	0.050	0.030	Jindal Power Limited, Dinesh Kumar A P N Bhargava		Others								
292	275											0.350	0.175	Grass
293	276	0.120	0.120	Jindal Power Limited, Dinesh Kumar A P N Bhargava		Others								
294	277	1.390	0.800	Jindal Power Limited, Dinesh Kumar A P N Bhargava		Others								
295	278	0.320	0.090	Santram S/o Nagiram	Kanwar	ST								
296	279	0.770	0.770	Jindal Power Limited Vivek Dadu S/o V N Dadu		Others								
297	280	0.480	0.480	Vidyadhar and others	Kanwar	ST								
298	281	2.300	2.300	GM District Industries, Raigarh		Others								
299	282	0.390	0.390	Sunil, Prabal	Uraon	ST								
300	283	0.350	0.350	GM District Industries, Raigarh		Others								
301	284	0.860	0.860	Jindal Power Steel, Rakesh S/o Anand Swarup Jindal Nivasi		Others								

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
302	285	0.500	0.500	Jindal Power Limited , Rakesh S/o Anand Swaroop		Others									
303	286/1	0.069	0.069	Jindal Power Limited , Rakesh S/o Anand Swaroop		Others									
304	286/2	0.361	0.361	Pamakram S/o Harishchandra Beli		Others									
305	287	0.930	0.930	Jindal Power Limited , Rakesh S/o Anand Swaroop		Others									
306	288	0.660	0.660	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
307	289	0.260	0.260	Viddyadhar and others	Kanwar	ST									
308	290	0.220	0.220	Viddyadhar and others	Kanwar	ST									
309	291	0.740	0.740	Jindal Power Limited ,Dinesh Kumar Bhargav		Others									
310	292	0.460	0.460	Krishna S/o Shivlal	Teli	Others									
311	293	0.230	0.230	Jindal Power Limited ,Dinesh Kumar Bhargav		Others									
312	294	0.270	0.270	Jindal Power Limited ,Dinesh Kumar Bhargav		Others									
313	295	0.090	0.090	Jindal Power Limited ,Dinesh Kumar Bhargav		Others									
314	296	0.810	0.800	Jindal Power Limited ,Dinesh Kumar Bhargav		Others									
315	297									5.660	5.660				
316	298											0.160	0.160	Grass	
317	299/1	0.170	0.170	Hiramati	Ravat	Others									
318	299/2	0.077	0.077	Kanjal S/o Nandlal	Ravat	Others									
319	299/3	0.077	0.077	Mahesh Ram S/o Nandlal	Ravat	Others									
320	299/4	0.077	0.077	Munnram S/o Nandlal	Ravat	Others									
321	299/5	0.029	0.029	Gokul	Ravat	Others									
322	300	0.250	0.250	Sadhram, Santosh, Sumita, Koshilya, Snhadra, D/o Dhansingh	Ravat	Others									
323	301/1	0.065	0.055	Komal, Vipin S/o Boloram	Aghariya	Others									
324	301/2	0.065	0.055	Ghasiram S/o Kriparam	Aghariya	Others									
325	301/3	0.065	0.065	Nilamber, Mohan S/o Boloram	Aghariya	Others									
326	301/4	0.065	0.065	Nilamber, Mohan S/o Boloram	Aghariya	Others									
327	301/5	0.032	0.032	Mohan lal Boloram	Aghariya	Others									
328	302											0.750	0.750	Road	
329	303	0.300	0.300	Sadhram and others	Ravat	Others									
330	304/1	0.100	0.100	Dinhandim	Kanwar	ST									
331	304/2	0.110	0.110	Hiraram	Kanwar	ST									
332	305	0.100	0.100	Sadhram and others	Ravat	Others									
333	306											0.380	0.280	Grass	
334	307/1	0.100	0.100	Hiraram	Kanwar	ST									
335	307/2	0.185	0.185	Diebandhu	Kanwar	ST									
336	307/3	0.085	0.085	Hiraram	Kanwar	ST									
337	308											0.680	0.680	Grass	
338	309/1	0.016	0.016	Komal, Vipin S/o Boloram	Aghariya	Others									
339	309/2	0.057	0.057	Chandanram S/o Boloram	Aghariya	Others									
340	309/3	0.048	0.048	Ghasiram	Aghariya	Others									
341	309/4	0.049	0.049	Manoj S/o Bharat	Aghariya	Others									
342	309/5	0.048	0.048	Manoj S/o Bharat	Aghariya	Others									
343	310/1	0.048	0.048	Komal, Vipin S/o Boloram	Aghariya	Others									
344	310/2	0.089	0.089	Chandanram S/o Boloram	Aghariya	Others									
345	310/3	0.462	0.462	Ghasiram	Aghariya	Others									
346	310/4	0.421	0.421	Chandanram S/o Boloram	Aghariya	Others									
347	310/5	0.372	0.372	Komal, Vipin S/o Boloram	Aghariya	Others									
348	310/6	0.462	0.462	Nilamber S/o Boloram	Aghariya	Others									
349	310/7	0.208	0.208	Nilamber and others	Aghariya	Others									
350	310/8	0.065	0.065	Khemraj S/o Onkardal	Aghariya	Others									
351	310/9	0.060	0.060	Yondhister	Aghariya	Others									
352	310/10	0.097	0.097	Manoj S/o Bharat	Aghariya	Others									

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
353	310/12	0.224	0.224	Manoj S/o Bharat	Aghariya	Others									
354	310/13	0.041	0.041	Manoj S/o Bharat	Aghariya	Others									
355	311	1.440	1.440	Keparam S/o Bolhram and others	Aghariya	Others									
356	312											0.670	0.520	Below Water	
357	313											0.170	0.170	Mountain, Rock	
358	314											1.610	1.510	Seva Bhumi Gram Nuksar Kotwar	
359	315	1.010	1.010	Jindal Power Limited , Rakesh S/o Anand Swaroop		Others									
360	316	0.690	0.690	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
361	317	1.090	1.090	Jyoti Prakash S/o Prabhusai	Uraw	ST									
362	318	0.710	0.710	GM District Industries, Raigarh		Others									
363	319											0.120	0.120	Grass	
364	320	0.050	0.050	Shobharam	Rawat	Others									
365	321/1	0.049	0.049	Shobharam	Rawat	Others									
366	321/2	0.049	0.049	Jindal Power Limited, Dinesh Kumar A P N Bhargava		Others									
367	321/3	0.022	0.022	Shobharam	Rawat	Others									
368	322/1	0.065	0.065	Govind Ram S/o Ranjeet	Rawat	Others									
369	322/2	0.085	0.085	Shobharam	Rawat	Others									
370	323											0.160	0.150	Mountain, Rock	
371	324	0.200	0.200	Hira Ram	Kanwar	ST									
372	325	0.510	0.510	Santram S/o Negiram	Kanwar	ST									
373	326	0.960	0.960	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
374	327	0.130	0.130	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
375	328	0.090	0.090	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
376	329	0.070	0.070	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
377	330	0.110	0.110	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
378	331	0.190	0.190	Bodhram S/o Harishchandra	Teli	Others									
379	332	0.090	0.090	Jhanakram S/o Harischandra	Teli	Others									
380	333	0.120	0.120	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
381	334	0.320	0.320	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
382	335	0.070	0.070	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
383	336	0.720	0.720	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
384	337/1	0.104	0.104	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
385	337/2	0.016	0.016	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
386	338/1	0.052	0.052	Jhanaram S/o Harischandra	Teli	Others									
387	338/2	0.006	0.008	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
388	339/1	0.078	0.078	Bodhram S/o Harishchandra	Teli	Others									
389	339/2	0.012	0.012	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
390	340	0.450	0.450	Jhanakram S/o Harishchandra	Teli	Others									
391	341	0.660	0.660	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
392	342											0.990	0.990	Grass	
393	343/1	0.508	0.508	Govind Ram S/o Ranjeet	Rawat	Others									
394	343/2	0.162	0.162	Jindal Power Limited, Dinesh Kumar A P N Bhargava		Others									
395	344	0.070	0.070	Jhanakram S/o Harischandra	Teli	Others									
396	345	0.070	0.070	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
397	346	0.360	0.350	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
398	347	0.270	0.270	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others									
399	348	0.200	0.200	Dasrath,Babulal S/o Jhanakram	Teli	Others									
400	349	0.400	0.400	Jhanakram S/o Harischandra	Teli	Others									
401	350	0.360	0.360	Jhanakram S/o Harischandra	Teli	Others									
402	351	0.150	0.150	Jhanakram S/o Harischandra	Teli	Others									

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
403	352	0.170	0.170	GM District Industries, Raigarh		Others								
404	353	0.280	0.280	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others								
405	354	0.170	0.170	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others								
406	355	0.490	0.490	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others								
407	356	0.430	0.430	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others								
408	357	0.400	0.400	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others								
409	358	0.340	0.340	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others								
410	359/1	0.210	0.210	Jindal Power Limited, Dinesh Kumar A.P.N.Bhargava		Others								
411	359/2	0.070	0.070	Jindal Power Limited, Dinesh Kumar Bhargav		Others								
412	360	0.830	0.830	Dhaneshwar	Kanwar	ST								
413	361	0.370	0.370	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others								
414	362	0.380	0.380	Dhaneshwar	Kanwar	ST								
415	363	0.360	0.360	GM District Industries, Raigarh		Others								
416	364	1.110	1.110	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others								
417	365	0.430	0.430	Sanatram S/o Harishchandra	Teli	Others								
418	366	0.950	0.950	GM District Industries, Raigarh		Others								
419	367	0.670	0.670	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others								
420	368	0.510	0.510	Sanatram S/o Harishchandra	Teli	Others								
421	369	0.360	0.360	Rameshwar	Kanwar	ST								
422	370	0.330	0.330	Jindal Power Limited , Rakesh S/o Anand Swaroop		Others								
423	371/1	9.043	9.043	Jindal Power Limited , Rakesh S/o Anand Swaroop		Others								
424	371/2	4.044	4.044	Jindal Power Limited , Dinesh Kumar Bhargav		Others								
425	372	0.330	0.330	Jindal Power Limited , Rakesh S/o Anand Swaroop		Others								
426	373/1	0.526	0.526	GM District Industries, Raigarh		Others								
427	373/2	0.567	0.567	GM District Industries, Raigarh		Others								
428	373/3	0.137	0.137	GM District Industries, Raigarh		Others								
429	374	0.300	0.300	GM District Industries, Raigarh		Others								
430	375	0.310	0.310	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others								
431	376	0.300	0.300	Jindal Power Limited Vivek Dadu S/o V.N. Dadu		Others								
432	377	0.690	0.690	GM District Industries, Raigarh		Others								
433	378	0.220	0.220	GM District Industries, Raigarh		Others								
434	379	0.180	0.180	GM District Industries, Raigarh		Others								
435	380	0.170	0.170	Palaram and others	Kanwar	ST								
436	381	0.170	0.170	Asan Kumar Shanti S/o Nirdosh	Uraw	ST								
437	382	0.070	0.070	GM District Industries, Raigarh		Others								
438	383/1	0.070	0.070	GM District Industries, Raigarh		Others								
439	383/2	0.190	0.190	GM District Industries, Raigarh		Others								
440	384	0.190	0.190	GM District Industries, Raigarh		Others								
441	385	0.220	0.220	GM District Industries, Raigarh		Others								
442	386	0.620	0.620	Jindal Power Limited , Rakesh S/o Anand Swaroop		Others								
443	387	0.550	0.550	Prakash Dev	Kanwar	ST								
444	388	0.400	0.200	Jindal Power Limited , Rakesh S/o Anand Swaroop		Others								
445	389	0.680	0.510	Prakash Dev	Kanwar	ST								
446	390	0.140	0.128	GM District Industries, Raigarh		Others								
447	391	0.140	0.140	GM District Industries, Raigarh		Others								
448	392	0.710	0.060	GM District Industries, Raigarh		Others								
449	393	0.580	0.100	GM District Industries, Raigarh		Others								
450	394	0.520	0.400	GM District Industries, Raigarh		Others								
451	395	1.340	1.340	GM District Industries, Raigarh		Others								
452	396	0.950	0.950	GM District Industries, Raigarh		Others								
453	397	1.520	1.520	GM District Industries, Raigarh		Others								

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
454	398	0.590	0.590	GM District Industries, Raigarh		Others									
455	399	0.610	0.610	GM District Industries, Raigarh		Others									
456	400	0.970	0.970	GM District Industries, Raigarh		Others									
457	401	0.510	0.510	GM District Industries, Raigarh		Others									
458	402	0.250	0.250	GM District Industries, Raigarh		Others									
459	403											0.730	0.207	Grass	
460	404	0.560	0.313	Jindal Power Limited , Rakesh S/o Anand Swaroop		Others									
461	405											1.180	1.180	Mountain, Rock	
462	406	7.500	7.450	GM District Industries, Raigarh		Others									
463	407											0.820	0.820	Seva Bhumi Gram Naukar Kolwar	
Total of		174.030	160.587							6.830	6.830	62.720	60.319		

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Land Schedule

Village : Dholnara, P.H.N.: 30, R.I.Circle : Tamnar,Tehsil : Tamnar, District : Raigarh(Chhattisgarh)

Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/ Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1	3/1								Forest Compartment					
2	3/3	4.047	2.290	Umashankar, Gopiram, Kumari Rajkumari W/o Kanhaiya and others	Gond	ST								
3	7/1	0.543	0.543	Babulal Nel Kumar S/o Digamber and others	Aghariya	Others								
4	7/2	1.084	0.857	Ashok, Dilip S/o Kushal Prasad and others	Aghariya	Others								
5	7/3	0.542	0.542	Khemradhi Duklal S/o Komal Prasad and others	Aghariya	Others								
6	8/1	0.208	0.208	Gulabram S/o Haricharan and others	Aghariya	Others								
7	8/2	0.209	0.209	Fulkunwar W/o Bhagirathi	Aghariya	Others								
8	9/1	0.099	0.056	Bharat Lal S/o Chhabil	Aghariya	Others								
9	9/2	0.099	0.057	Madhav LalS/o Gayaram and others	Aghariya	Others								
10	10	0.154	0.150	Ratthulal S/o Amrut and others	Aghariya	Others								
11	11	0.174	0.174	Sankritan S/o Maheshwar	Aghariya	Others								
12	12/1	0.081	0.081	Bharat Lal S/o Chhabil	Aghariya	Others								
13	12/2	0.081	0.081	Madhav LalS/o Gayaram and others	Aghariya	Others								
14	13/1	0.202	0.202	Madhav LalS/o Gayaram and others	Aghariya	Others								
15	13/2	0.202	0.202	Bharat Lal S/o Chhabil	Aghariya	Others								
16	13/3	0.170	0.170	Tarachand S/o Kirtan	Aghariya	Others								
17	13/4	0.239	0.239	Purshottam S/o Dhashrath	Aghariya	Others								
18	14	4.460	4.460	Rathbo S/o Thakuram	Gada	ST								
19	15/1	0.204	0.204	Madhav LalS/o Gayaram and others	Aghariya	Others								
20	15/2	0.205	0.205	Bharat Lal S/o Chhabil	Aghariya	Others								
21	16	0.409	0.409	Sankirtan and others	Aghariya	Others								
22	17	0.275	0.275	Ratthulal S/o Amrut and others	Aghariya	Others								
23	18/1											2.104	2.104	Road
24	18/2	0.081	0.081	Fulkunwar W/o Bhagirathi	Aghariya	Others								
25	22/1	0.729	0.500	Gulabram S/o Haricharan and others	Aghariya	Others								
26	22/2	0.101	0.060	Ramkumar S/o Gopal	Aghariya	Others								
27	22/10	0.344	0.280	Ramkumar S/o Gopal	Aghariya	Others								
28	23	0.117	0.117	Fulkunwar W/o Bhagirathi	Aghariya	Others								
29	24	0.445	0.445	Manmati S/o Bhagirathi	Aghariya	Others								
30	25/1	0.135	0.135	Bharat Lal S/o Chhabil	Aghariya	Others								
31	25/2	0.136	0.136	Madhav LalS/o Gayaram and others	Aghariya	Others								
32	26	0.239	0.239	Ajamber S/o Loknath	Aghariya	Others								
33	27/1	1.339	0.950	Vinayram S/o Dokra	Kanwar	ST								
34	28/1	0.667	0.590	Mohatram Sohitram S/o Ransingh and others	Kanwar	ST								
35	29/1	0.182	0.182	Madhav LalS/o Gayaram and others	Aghariya	Others								
36	29/2	0.016	0.016	Fulkunwar W/o Bhagirathi	Aghariya	Others								
37	29/3	0.162	0.162	Bharat Lal S/o Chhabil	Aghariya	Others								
38	29/4	0.190	0.190	Tarachand S/o Kirtan	Aghariya	Others								
39	29/5	0.263	0.263	Tarachand S/o Kirtan	Aghariya	Others								
40	30/1	0.283	0.249	Tarachand S/o Kirtan	Aghariya	Others								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/ Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
41	30/2	0.445	0.440	Tarachand S/o Kirtan	Aghariya	Others								
42	30/3	0.619	0.390	Tarachand S/o Kirtan	Aghariya	Others								
43	32/1	0.065	0.007	Jhanakram S/o Amir	Kanwar	ST								
44	32/2	0.028	0.007	Shital Singh	Kanwar	ST								
45	32/3	0.036	0.008	Mohitram Sohitram S/o Raisingh and others	Kanwar	ST								
46	32/4	0.006	0.006	Shital Singh	Kanwar	ST								
47	32/5	0.013	0.007	Jhanakram S/o Amir	Kanwar	ST								
48	32/6	0.014	0.007	Mohitram Sohitram S/o Raisingh and others	Kanwar	ST								
49	32/7	0.036	0.006	Shital Singh	Kanwar	ST								
50	33	0.061	0.061	Shital D/o Bodhan	Kanwar	ST								
51	34/1	0.486	0.380	Dokri -Budha	Kanwar	ST								
52	34/2	0.400	0.400	Chaitram,Chaitan, Aktiram, Bhaktiram, S/o Shaniram	Kanwar	ST								
53	35	0.607	0.607	Madvari, Gururam,Dokri S/o Ghasiram	Kanwar	ST								
54	36/1	0.162	0.162	Fulkunwar W/o Bhagirathi	Aghariya	Others								
55	36/2	0.162	0.162	Gulabram S/o Haricharan and others	Aghariya	Others								
56	36/3	0.158	0.158	Santkumar S/o Gopal	Aghariya	Others								
57	36/4	0.166	0.166	Ramkumar S/o Gopal	Aghariya	Others								
58	36/5	0.129	0.129	Gulabram S/o Haricharan and others	Aghariya	Others								
59	36/6	0.121	0.121	Setkumar	Aghariya	Others								
60	36/7	0.188	0.188	Fulkunwar W/o Bhagiratlu	Aghariya	Others								
61	36/8	0.170	0.170	Santkumar S/o Gopal	Aghariya	Others								
62	36/9	0.202	0.202	Gulabram S/o Haricharan and others	Aghariya	Others								
63	36/10	0.222	0.222	Tarachand S/o Sankirtan	Aghariya	Others								
64	37	0.202	0.202	Vinayram S/o Dokra	Kanwar	ST								
65	38	1.699	1.699	Setram, Hariram, Raghunath S/o Sadaram	Kanwar	ST								
66	39/1						0.999	0.999	Small Tree Forest					
67	39/2	0.567	0.567	Sukhram S/o Dokra	Kanwar	ST								
68	40	0.405	0.405	Hari S/o Baiga	Dhoba	Others								
69	41	1.991	1.991	Chaitram,Chaitan, Aktiram, Bhaktiram, S/o Shaniram	Kanwar	ST								
70	42	0.243	0.243	Madvari, Gururam,Dokri S/o Ghasiram	Kanwar	ST								
71	43	3.234	3.234	Ishwarchand S/o Bondhar and others	Kolta	ST								
72	44	1.214	1.214	Ramkumar S/o Gopal	Aghariya	Others								
73	45									5.755	5.755			
74	46						0.299	0.239	Small Tree Forest					
75	47/1	0.111	0.111	Mangalsingh S/o Babulal and others	Uraov	ST								
76	47/2	0.202	0.202	Dhanuram, Venudhar S/o Banjo	Uraov	ST								
77	47/3	0.202	0.202	Minketan S/o Thandoram and others	Uraov	ST								
78	47/4	0.092	0.092	Dhanuram, Jairam S/o Pila and others	Uraov	ST								
79	47/5	0.092	0.092	Rameshwar, Jageshwar, Monesar, Dhanesar S/o Daulat	Uraov	ST								
80	48/1	0.156	0.156	Tarachand S/o Kirtan	Aghariya	Others								

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/ Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
81	48/2	0.466	0.466	Bharat Lal S/o Chhabil	Aghariya	Others									
82	48/3	0.409	0.409	Madhav LalS/o Gayaram and others	Aghariya	Others									
83	48/4	0.263	0.263	Tarachand S/o Kirtan	Aghariya	Others									
84	48/5	0.310	0.310	Purshottam S/o Dhashrath	Aghariya	Others									
85	49	0.432	0.432	Ramkumar, Satkumar, Nanakram S/o Gopal	Aghariya	Others									
86	50/1	0.070	0.070	Haritam S/o Baiga	Dhoba	Others									
87	50/2	0.154	0.154	Sukhram S/o Dokra	Kanwar	ST									
88	51						0.559	0.559	Small Tree Forest						
89	52	0.053	0.053	Mohitram Sohitram S/o Raisingh and others	Kanwar	ST									
90	53	1.753	1.753	Madvari, Gunuram.Dokri S/o Ghasiram	Kanwar	ST									
91	54/1	0.324	0.324	Injorsingh S/o Anturam and others	Kanwar	ST									
92	54/2	0.134	0.134	Sahebin D/o Nanki Injorsingh S/o Anturam	Kanwar	ST									
93	54/3	0.059	0.059	Sahebin D/o Nanki Injorsingh S/o Anturam	Kanwar	ST									
94	55/1	0.214	0.214	Mohitram Sohitram S/o Raisingh and others	Kanwar	ST									
95	55/2	0.252	0.252	Jhanakram S/o Amir	Kanwar	ST									
96	55/3	0.032	0.032	Mohitram Sohitram S/o Raisingh and others	Kanwar	ST									
97	55/4	0.247	0.247	Shital Singh	Kanwar	ST									
98	56	0.324	0.324	Ramkumar S/o Gopal and others	Aghariya	Others									
99	57	0.267	0.267	Ishwarchand S/o Benudhar and others	Kolta	ST									
100	58	0.194	0.194	Haritam S/o Baiga	Dhoba	Others									
101	59	0.223	0.223	Ghasiyako W/o Sitaram	Kanwar	ST									
102	60	0.069	0.069	Ramkumar, Satkumar, Nanakram S/o Gopal	Aghariya	Others									
103	61	0.049	0.049	Motiram S/o Budhiya	Dhanudhar	Others									
104	61/1	0.010	0.010	Terachand	Aghariya	Others									
105	62/2	0.020	0.020	Tarachand S/o Kirtan	Aghariya	Others									
106	63	0.032	0.032	Usatram S/o Veersingh	Kanwar	ST									
107	64	0.008	0.008	Ramlal S/o Loknath	Aghariya	Others									
108	65	0.012	0.012	Sankirtan S/o Mahesar	Aghariya	Others									
109	66	0.012	0.012	Madhav LalS/o Gayaram and others	Aghariya	Others									
110	67	0.057	0.009	Dhanuram, Jairam S/o Pila and others	Uranv	ST									
111	68									1.647	1.078				
112	69/1	0.150	0.150	Dhanuram, Jairam S/o Pila and others	Uranv	ST									
113	69/2	0.056	0.056	Rameshwar, Jageshwar, Manesar, Dhanesar S/o Daulat	Uranv	ST									
114	70	0.125	0.125	Bharat Lal S/o Chhabil	Aghariya	Others									
115	71	0.077	0.077	Usatram S/o Veersingh	Kanwar	ST									
116	72	0.081	0.081	Ishwarchand S/o Benudhar and others	Kolta	ST									
117	73	0.125	0.090	Ishwarchand and others	Kolta	ST									
118	78	0.093	0.020	Ramlal	Aghariya	Others									
119	79	0.065	0.054	Usatram S/o Veersingh	Kanwar	ST									
120	81/1	4.795	0.020	Iswarchand and others	Kolta	ST									
121	81/2	0.405	0.030	Phulkunwar and others	Aghariya	ST									
122	81/3	1.619	0.001	Ishwarchand	Kolta	ST									

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/ Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
123	148											0.930	0.930	Road
124	149	0.129	0.129	Ishwarchand S/o Benudhar and others	Kolta	ST								
125	150	2.270	2.270	Ishwarchand S/o Benudhar and others	Kolta	ST								
126	151											0.283	0.283	Grass
127	152											0.376	0.376	Below Water
128	153/1	0.243	0.243	Mohitram Sohitram S/o Raisingh and others	Kanwar	ST								
129	153/2	0.364	0.364	Shital Singh	Kanwar	ST								
130	154/1	0.291	0.291	Bharat Lal S/o Chhabil	Aghariya	Others								
131	154/2	0.364	0.364	Madhav LalS/o Gayaram and others	Aghariya	Others								
132	154/3	0.086	0.086	Tarachand S/o Kirtan	Aghariya	Others								
133	154/4	0.312	0.312	Bharat Lal S/o Chhabil	Aghariya	Others								
134	154/5	0.320	0.320	Purshottam S/o Dhashrath	Aghariya	Others								
135	154/6	0.040	0.040	Purshottam S/o Dhashrath	Aghariya	Others								
136	154/7	0.166	0.166	Purshottam S/o Dhashrath	Aghariya	Others								
137	154/8	0.101	0.101	Tarachand S/o Kirtan	Aghariya	Others								
138	154/9	0.081	0.081	Tarachand S/o Kirtan	Aghariya	Others								
139	154/10	0.056	0.056	Gulabram Devcharan S/o Hariram	Aghariya	Others								
140	155/1	0.761	0.761	Jhanakram S/o Amir	Kanwar	ST								
141	155/2	0.121	0.121	Shital Singh	Kanwar	ST								
142	155/3	0.061	0.061	Mohitram Sohitram S/o Raisingh and others	Kanwar	ST								
143	156/1	0.413	0.413	Bharat Lal S/o Chhabil	Aghariya	Others								
144	156/2	0.012	0.012	Gulabram Devcharan S/o Hariram	Aghariya	Others								
145	156/3	0.100	0.100	Tarachand S/o Kirtan	Aghariya	Others								
146	156/4	0.445	0.445	Bharat Lal S/o Chhabil	Aghariya	Others								
147	156/5	0.197	0.197	Gulabram Devcharan S/o Hariram	Aghariya	Others								
148	156/6	0.073	0.073	Purshottam S/o Dhashrath	Aghariya	Others								
149	156/7	0.081	0.081	Purshottam S/o Dhashrath	Aghariya	Others								
150	156/9	0.061	0.061	Purshottam S/o Dhashrath	Aghariya	Others								
151	156/10	0.061	0.061	Purshottam S/o Dhashrath	Aghariya	Others								
152	156/11	0.049	0.049	Gulabram Devcharan S/o Hariram	Aghariya	Others								
153	156/12	0.121	0.121	Gulabram Devcharan S/o Hariram	Aghariya	Others								
154	157/1						0.162	0.162	Small Tree Forest					
155	157/2						0.162	0.162	Small Tree Forest					
156	158						0.405	0.405	Small Tree Forest					
157	159	1.518	1.518	Usatram S/o Veersingh	Kanwar	ST								
158	160/1,13								Forest Compartment					
159	160/2	0.466	0.466	Usatram S/o Veersingh	Kanwar	ST								
160	160/3	1.214	1.214	Ramsai S/o Dokri	Kanwar	ST								
161	160/4	1.214	1.214	Santosh, Satvati, Minketan S/o Denguram and others	Sodhi	ST								
162	160/5	1.214	1.214	Rathforam, Ratansingh, S/o Thakuram and others	Gada	ST								
163	160/6	0.951	0.951	Rameshwar S/o Daulatram	Uranv	ST								
164	160/7	1.214	0.429	Mahesh S/o Chodilal	Kanwar	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/ Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
165	160/8	1.214	0.809	Maniram S/o Rupansai	Kanwar	ST								
166	160/9	1.214	1.214	Purushottam S/o Chandan	Aghariya	Others								
167	160/10	0.405	0.405	Hari S/o Baiga	Dhoba	Others								
168	160/11	0.639	0.639	Sukhram S/o Dokra	Kanwar	ST								
169	160/12						0.202	0.202	Small Tree Forest					
170	161/1	0.219	0.175	Minketan S/o Thandaram and others	Uranv	ST								
171	161/2/1	0.073	0.070	Chhabiram S/o Jalsai	Uranv	ST								
172	161/2/2	0.073	0.070	Ajit and others	Uranv	ST								
173	161/2/3	0.073	0.070	Rohit S/o Jagatram and others	Uranv	ST								
174	161/3	0.506	0.349	Rameshwar, Jageshwar, Manesar, Dhancsar S/o Daulat	Uranv	ST								
175	161/4	0.262	0.350	Mangalsingh S/o Babulal and others	Uranv	ST								
176	161/5	0.101	0.100	Mangalsingh S/o Babulal and others	Uranv	ST								
177	161/6	0.071	0.070	Dhanuram, Jairam S/o Pila and others	Uranv	ST								
178	161/7	0.061	0.061	Dhanuram, Jairam S/o Pila and others	Uranv	ST								
179	162/1	1.497	0.060	Gautiya S/o Verudhar	Kolta	ST								
180	162/2	1.012	0.060	Khirilal S/o Bodh	Aghariya	Others								
181	163/1	0.445	0.395	Ramlal S/o Loknath	Aghariya	Others								
182	163/2	0.445	0.445	Ajomber S/o Loknath	Aghariya	Others								
183	163/3	0.202	0.202	Dindayal S/o Amrut and others	Aghariya	Others								
184	163/4	0.219	0.219	Rupsingh S/o Amrut and others	Aghariya	Others								
185	163/5	0.202	0.202	Ratthilal S/o Amrut and others	Aghariya	Others								
186	163/6	0.020	0.020	Runsingh S/o Amrut and others	Aghariya	Others								
187	163/7	0.020	0.020	Dindayal S/o Amrut and others	Aghariya	Others								
188	163/8	0.053	0.053	Ajamber S/o Loknath	Aghariya	Others								
189	163/9	0.053	0.053	Ramlal S/o Loknath	Aghariya	Others								
190	164/1	1.076	0.619	Mohittam Sohitram S/o Raisingh and others	Kanwar	ST								
191	185/4	0.606	0.090	Rameshwar and others	Uranv	ST								
192	185/5	0.283	0.200	Bhanakram and others	Kanwar	ST								
193	186/6	1.505	0.405	Madhav Lal and others	Aghariya	Others								
Total of Dholnara		75.904	59.640				2.788	2.788		7.402	6.833	3.693	3.693	

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Land Schedule

Village : Muragaon,P.H.N.: 39, R.I.Circle : Tamnar, Tehsil : Tamnar District : Raigarh(Chhattisgarh)

Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1	1/1	0.578	0.578	Dhovaram - Sodhram	Gond	ST								
2	1/2	0.269	0.269	Dhovaram - Sodhram	Gond	ST								
3	1/3	0.578	0.578	Mohitram, Sohiram, S/o Bhogsingh and others	Gond	ST								
4	1/4	0.579	0.579	Mahesh, Jhiri, Vandhe, Machinder S/o Behram and others	Uranv	ST								
5	1/5	0.270	0.270	Mohitram, Sohitram, S/o Bhogsingh and others	Gond	ST								
6	1/6	0.270	0.270	Mohitram, Sohitram, S/o Bhogsingh and others	Gond	ST								
7	1/7	0.270	0.270	Mahesh, Jhiri, Vandhe, Machinder S/o Behram and others	Uranv	ST								
8	2	0.914	0.914	Hansingh S/o Bodri	Gond	ST								
9	3	0.405	0.405	Karamsingh-Chhabiram	Kanwar	ST								
10	4/1						2.103	2.103	Small Tree Forest					
11	4/2	1.214	1.214	Jagannath S/o Balbhadra and others	Aghariya	Others								
12	4/3	1.214	1.214	Haldhar, Shyamvati Ramvati, Kamla S/o Sonadas	Pauka	ST								
13	4/4	1.214	1.214	Jagannath S/o Balbhadra and others	Aghariya	Others								
14	4/5	0.405	0.405	Pahiram, Bhagiratha, Bhogsingh,Angara S/o Chamru	Kanwar	ST								
15	5/1	0.113	0.113	Budhram S/o Hiraram, Budhni W/o Hiraram	Uranv	ST								
16	5/2	0.113	0.113	Amarsai-Dokra	Kanwar	ST								
17	5/3	0.113	0.113	Mangalsingh S/o Hiraram, Budhni W/o Hiraram	Uranv	ST								
18	5/4	0.111	0.111	Nohrsai S/o Hiraram,Budhni W/o Hiraram	Uranv	ST								
19	6	2.144	2.144	Prakash S/o Gudnidhi and others	Kanwar	ST								
20	7	0.308	0.308	Shyamsunder, Rajkumari, Mankunwar S/o Maheshram and others	Kanwar	ST								
21	8	0.312	0.312	Pahiram, Bhagiratai, Bhogsingh,Angara S/o Chamru	Kanwar	ST								
22	9/1	0.202	0.202	Bairavchand-Padumlal	Aghariya	Others								
23	9/2	0.247	0.247	Ganpat S/o Manjhi, Tuknath S/o Dataram	Aghariya	Others								
24	9/3	0.218	0.218	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
25	10/1	0.202	0.202	Satyanand - Bhoram	Kanwar	ST								
26	10/2	0.242	0.242	Lachankunwar W/o Rathuram	Kanwar	ST								
27	10/3	0.273	0.273	Lachankunwar W/o Rathuram	Kanwar	ST								
28	11/1	0.101	0.101	Bairavchand-Padumlal	Aghariya	Others								
29	11/2	0.097	0.097	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
30	12	0.809	0.809	Prakash S/o Gudnidhi and others	Kanwar	ST								
31	13	0.194	0.194	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
32	14	0.462	0.462	Mahketan - Tirandaram, Kandhi - Thancaram and others	Uranv	ST								
33	15	0.166	0.166	Mahettar, Maheshram, Santram S/o Bodhram	Gond	ST								
34	16/1	0.239	0.239	Maheshram - Sidar	Gond	ST								
35	16/2	1.011	1.011	Ramsingh S/o Sadhram	Kanwar	ST								
36	16/3	0.261	0.261	Sukhram S/o Sidar	Gond	ST								
37	16/4	0.056	0.056	Gulabsingh S/o Sidar	Gond	ST								
38	16/5	0.057	0.057	Chaitanram S/o Sidar	Gond	ST								
39	16/6	0.057	0.057	Butang S/o Sidar	Gond	ST								
40	16/7	0.057	0.057	Sukhram S/o Sidar	Gond	ST								
41	17	0.142	0.142	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
42	18	0.093	0.093	Bairavchand-Padumlal	Aghariya	Others								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
43	19	0.825	0.825	Phulsingh - Samaru, Devsingh and others	Rawat	Others								
44	20	0.648	0.648	Bhogsingh S/o Maheshram and others	Manjhi	Others								
45	21/1	0.441	0.441	Ramsingh S/o Sadiram	Gond	ST								
46	21/2	0.405	0.405	Mohitram, Sohitram S/o Bhogsingh and others	Gond	ST								
47	21/3	0.056	0.056	Maheshram - Sidar	Gond	ST								
48	21/4	0.221	0.221	Gulabsingh S/o Sidar	Gond	ST								
49	21/5	0.056	0.056	Sukhram S/o Sidar	Gond	ST								
50	21/6	0.056	0.056	Butang S/o Sidar	Gond	ST								
51	21/7	0.056	0.056	Chaitanram S/o Sidar	Gond	ST								
52	22/1	0.393	0.393	Ganpat S/o Manjar, Loknath S/o Dataram	Aghariya	Others								
53	22/2	0.308	0.308	Bihari, Champavati, Hiravati S/o Devdhar	Aghariya	Others								
54	22/3	0.498	0.498	Ganpat S/o Manjar, Loknath S/o Dataram	Aghariya	Others								
55	22/4	0.409	0.409	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
56	22/5	0.494	0.494	Ganpat S/o Manjar, Loknath S/o Dataram	Aghariya	Others								
57	22/6	0.498	0.498	Bihari, Champavati, Hiravati S/o Devdhar	Aghariya	Others								
58	22/7	0.340	0.340	Ganpat S/o Manjar, Loknath S/o Dataram	Aghariya	Others								
59	22/8	0.295	0.295	Mansingh S/o JankiPrasad	Aghariya	Others								
60	22/9	0.575	0.575	Ganpat S/o Manjar, Loknath S/o Dataram	Aghariya	Others								
61	22/10	0.259	0.259	Bihari, Champavati, Hiravati S/o Devdhar	Aghariya	Others								
62	22/11	0.097	0.097	Ganpat S/o Manjar, Loknath S/o Dataram	Aghariya	Others								
63	22/12	0.182	0.182	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
64	22/13	0.761	0.761	Paluram, Bhagirathi, Bhogsingh S/o Chamru	Kanwar	ST								
65	22/14	0.307	0.202	Mansingh S/o JankiPrasad	Aghariya	Others								
66	22/15	0.202	0.202	Mansingh S/o JankiPrasad	Aghariya	Others								
67	22/16	0.162	0.162	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
68	23/1	0.344	0.344	Mahettar, Maheshram, Santram S/o Badhuram	Gond	ST								
69	23/2	0.344	0.344	Mohitram, Sohitram S/o Bhogsingh	Gond	ST								
70	24/1	0.040	0.040	Jallal, Piladau, Nandlal S/o Nanku	Gond	ST								
71	24/2	0.057	0.057	Mohitram, Sohitram S/o Bhogsingh and others	Gond	ST								
72	24/3	0.255	0.255	Mohitram, Sohitram S/o Bhogsingh and others	Gond	ST								
73	25/1	0.069	0.069	Pancham - Dukru	Kanwar	ST								
74	25/2	2.229	2.229	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
75	25/3	0.133	0.133	Amritkunwar-Loknath	Aghariya	Others								
76	26/1	0.113	0.113	Jaikumar - Padumlal	Aghariya	Others								
77	26/2	0.105	0.105	Chatram - Padumlal	Aghariya	Others								
78	26/3	0.789	0.789	Harisingh S/o Nilkanth	Aghariya	Others								
79	26/4	0.259	0.259	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
80	26/5	0.587	0.587	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
81	27/1	0.202	0.202	Budhram S/o Paluram	Kanwar	ST								
82	27/2	1.296	1.296	Shyamsunder, Rajkumari, Mankunwar S/o Maheshram and others	Kanwar	ST								
83	27/3	0.486	0.486	Budhram S/o Paluram	Kanwar	ST								
84	27/4	0.267	0.267	Shyamsunder, Rajkumari, Mankunwar S/o Maheshram and others	Kanwar	ST								
85	27/5	0.121	0.121	Budhram S/o Paluram	Kanwar	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
86	27/6	0.137	0.137	Shyamsunder, Rajkumari, Manjunwar S/o Maheshram and others	Kanwar	ST								
87	28	0.202	0.202	Dhovaram S/o Sodhiram, Matvaar S/o Ganpati	Gond	ST								
88	29/1	0.024	0.024	Ganpat S/o Manijar, Loknath S/o Dataram	Aghariya	Others								
89	29/2	0.057	0.057	Bihari, Champavati, Hiravati S/o Devdhar	Aghariya	Others								
90	30/1	0.619	0.619	Padumlal S/o Padmavati	Aghariya	Others								
91	30/2	0.816	0.816	Ganpat S/o Manijar, Loknath S/o Dataram	Aghariya	Others								
92	30/3	0.534	0.534	Padumlal S/o Padmavati	Aghariya	Others								
93	30/4	0.405	0.405	Ganpat S/o Manijar, Loknath S/o Dataram	Aghariya	Others								
94	30/5	0.405	0.405	Ganpat S/o Manijar, Loknath S/o Dataram	Aghariya	Others								
95	30/6	0.093	0.093	Bihari, Champavati, Hiravati S/o Devdhar	Aghariya	Others								
96	30/7	0.506	0.506	Bihari, Champavati, Hiravati S/o Devdhar	Aghariya	Others								
97	30/8	0.384	0.384	Bihari, Champavati, Hiravati S/o Devdhar	Aghariya	Others								
98	31	0.413	0.413	Panchram - Dokri	Kanwar	ST								
99	32	0.219	0.219	Mohitram - Bhogsingh and others	Gond	ST								
100	33	1.469	1.469	Sitaramprasad, Shivamder, Laxman, Disandur S/o Ayodhyasingh and others	Gond	ST								
101	34/1								Forest Compartment					
102	34/2	0.243	0.243	Dhovaram - Sodhiram	Gond	ST								
103	34/3								Forest Compartment					
104	35	0.125	0.125	Bhogsingh S/o Maheshram and others	Manjhi	Others								
105	36/1	0.142	0.142	Padumlal S/o Padmavati	Aghariya	Others								
106	36/2	0.194	0.194	Bihari, Champavati, Hiravati S/o Devdhar	Aghariya	Others								
107	36/3	0.295	0.295	Padumlal S/o Padmavati	Aghariya	Others								
108	36/4	0.368	0.368	Bihari, Champavati, Hiravati S/o Devdhar	Aghariya	Others								
109	37/1	0.405	0.300	Ganpat S/o Manijar, Loknath S/o Dataram	Aghariya	Others								
110	37/2	0.466	0.466	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
111	38	0.636	0.636	Padumlal S/o Padmavati	Aghariya	Others								
112	39/1	0.016	0.016	Padumlal S/o Padmavati	Aghariya	Others								
113	39/2	0.020	0.020	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
114	39/3	0.032	0.032	Padumlal S/o Padmavati	Aghariya	Others								
115	39/4	0.040	0.040	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
116	40	0.283	0.283	Dhova S/o Sodhi, Kamal Singh S/o Matvar and others	Gond	ST								
117	41	0.429	0.429	Ganpat S/o Manijar, Loknath S/o Dataram	Aghariya	Others								
118	42	0.443	0.360	Dhova S/o Sodhi, Kamal Singh S/o Matvar and others	Gond	ST								
119	43	0.397	0.120	Padumlal S/o Padmavati	Aghariya	Others								
120	45	0.146	0.070	Mohitram, Bhogsingh	Gond	ST								
121	49/1								Forest Compartment					
122	49/2								Forest Compartment					
123	50	0.405	0.405	Harisingh S/o Bodri	Gond	ST								
124	51/1	0.162	0.162	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
125	51/2	0.081	0.081	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
126	52/1						0.943	0.943	Small Tree Forest					
127	52/2	0.202	0.202	Dhovaram - Sodhram	Gond	ST								
128	53	0.125	0.125	Vidhyachar -Chamansingh and others	Rawat	Others								
129	54	0.121	0.121	Harisingh S/o Bodri	Gond	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
130	55	0.428	0.424	Mansingh S/o JankiPrasad	Aghariya	Others								
131	56	0.267	0.267	Dharamsingh - Janaram	Gada	ST								
132	57/1	0.607	0.607	Ganpat S/o Manjar, Loknath S/o Dataram	Aghariya	Others								
133	57/2	1.210	1.210	Mansingh S/o JankiPrasad	Aghariya	Others								
134	58/1	0.405	0.405	Rukhmadi Bai - Khageshwar	Aghariya	Others								
135	58/2	0.599	0.599	Mansingh S/o JankiPrasad	Aghariya	Others								
136	59	1.100	1.100	Baliram-Chandsingh , Ramo - Matvar and others	Manjhi	Others								
137	60/1	0.291	0.291	Harisingh	Aghariya	Others								
138	60/2	0.089	0.089	Rukhmadi Bai - Khageshwar	Aghariya	Others								
139	61	0.709	0.709	Dhova S/o Sodhi, Kamal Singh S/o Matvar and others	Gond	ST								
140	62	0.166	0.166	Harisingh S/o Bodri	Gond	ST								
141	63	0.401	0.401	Phulsingh - Samaru, Devsingh and others	Rawat	Others								
142	64	0.219	0.219	Dharamsingh - Janaram	Gada	ST								
143	65	0.202	0.202	Mansingh S/o JankiPrasad	Aghariya	Others								
144	66	1.173	1.173	Pyaridas S/o Sukdev	Panika	ST								
145	67	0.405	0.405	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
146	68	0.563	0.563	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
147	69	0.113	0.113	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
148	70/1	0.696	0.696	Jashoda W/o Ramcharan and others	Gond	ST								
149	70/2	0.202	0.202	Radhabai W/o Bahadur and others	Aghariya	Others								
150	71/1	0.081	0.081	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
151	71/2	0.020	0.020	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
152	71/3	0.174	0.174	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
153	72	0.065	0.065	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
154	73	0.065	0.065	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
155	74/1						0.202	0.202	Small Tree Forest					
156	74/2	0.341	0.341	Parvati W/o Harisingh	Aghariya	Others								
157	75	0.073	0.073	Lila, Mundai S/o Raghunath and others	Kolta	ST								
158	76	0.129	0.129	Lila, Mundai S/o Raghunath and others	Kolta	ST								
159	77	0.190	0.190	Dharamsingh - Janaram	Gada	ST								
160	78/1	0.162	0.162	Dharamsingh-Janaram	Gada	ST								
161	78/2	0.202	0.202	Amritkunwar-Loknath	Aghariya	Others								
162	78/3	0.304	0.304	Khemraj S/o Khageshwar and others	Aghariya	Others								
163	78/4	0.101	0.101	Dharamsingh, Premsingh Pitarsingh S/o Dhobaram	Gond	ST								
164	78/5	0.202	0.202	Khemraj S/o Khageshwar and others	Aghariya	Others								
165	78/6	0.202	0.202	Khemraj S/o Khageshwar and others	Aghariya	Others								
166	78/7	0.061	0.061	Sunsu S/o Salikram	Gada	ST								
167	78/8	0.170	0.170	Kazhaiyalal - Lalsai	Aghariya	Others								
168	79/1	0.194	0.194	Jaikumar - Padumlal	Aghariya	Others								
169	79/2	0.162	0.162	Bairavchand-Padumlal	Aghariya	Others								
170	79/3	0.178	0.178	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								

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Sl. No	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
171	79/4	0.182	0.182	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
172	80											0.364	0.364	Road
173	81/1	0.057	0.057	Dhovaram - Sodhram	Gond	ST								
174	82	0.239	0.239	Viddyadhar - Chamarsingh and others	Ravat	Others								
175	83	0.384	0.384	Jairam, Mayeram, Dayeram, Sunder, Barlo, S/o Rupsingh	Kanwar	ST								
176	84											0.324	0.324	Road
177	85	0.320	0.320	Viddyadhar - Chamarsingh and others	Ravat	Others								
178	86	0.203	0.203	Bhogsingh S/o Chamru	Kanwar	ST								
179	87	0.364	0.364	Metvar - Dukharam	Gond	ST								
180	88	0.761	0.761	Poluram, Bhagirathi, Bhogsingh,Angara S/o Chamru	Kanwar	ST								
181	89/1	0.101	0.101	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
182	89/2	0.134	0.134	Mansingh S/o JankiPrasad	Aghariya	Others								
183	89/3	0.182	0.182	Bihari, Champavah, Hiravati S/o Devdisar	Aghariya	Others								
184	89/4	0.069	0.069	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
185	89/5	0.040	0.040	Mansingh S/o JankiPrasad	Aghariya	Others								
186	90/1	1.033	1.033	Jaikumar - Padmalal	Aghariya	Others								
187	90/2	0.182	0.182	Khemraj-Khageshwar, Lekharam-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
188	90/3	0.749	0.749	Khemraj-Khageshwar, Lekharam-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
189	91	0.304	0.304	Sitamherprasad, Shivamber, Laxman, Dilamber S/o Ayudhyasingh and others	Gond	ST								
190	92	0.182	0.182	Harisingh S/o Rudra	Gond	ST								
191	93	0.348	0.348	Mohuram, Sobiram S/o Bhogsingh and others	Gond	ST								
192	94	0.522	0.522	Shyamsunder, Rajkumari, Mankunwar S/o Maheshram and others	Kanwar	ST								
193	95	0.809	0.809	Baiga - Mangal, Santram S/o Jageshwar, Netram S/o Rameshwar	Gond	ST								
194	96	1.271	1.271	Phulsingh - Samaro, Devsingh and others	Ravat	Others								
195	97/1	0.155	0.155	Bhogsingh S/o Maheshram and others	Manjhi	Others								
196	97/2	0.202	0.202	Chaitram	Aghariya	Others								
197	97/3	0.202	0.202	Bahadur S/o Shivcharan ,Bhagvati S/o Shivcharan	Gond	ST								
198	98/1	0.324	0.324	Ramsingh S/o Sadhuram	Gond	ST								
199	98/2	0.185	0.185	Maheshram - Sidar	Gond	ST								
200	98/3	0.344	0.344	Ramsingh S/o Sadhuram	Gond	ST								
201	98/4	0.081	0.081	Ramsingh S/o Sadhram	Gond	ST								
202	98/5	0.162	0.162	Chantanram S/o Sidar	Gond	ST								
203	98/6	0.146	0.146	Butang S/o Sidar	Gond	ST								
204	98/7	0.206	0.206	Gulabsingh S/o Sidar	Gond	ST								
205	98/8	0.028	0.028	Butang S/o Sidar	Gond	ST								
206	98/9	0.024	0.024	Chaitanram S/o Sidar	Gond	ST								
207	98/10	0.008	0.008	Sukharam S/o Sidar	Gond	ST								
208	98/11	0.008	0.008	Gulabsingh S/o Sidar	Gond	ST								
209	98/12	0.008	0.008	Maheshram - Sidar	Gond	ST								
210	98/13	0.008	0.008	Butang S/o Sidar	Gond	ST								
211	99	0.113	0.113	Shyamsunder, Rajkumari, Mankunwar S/o Maheshram and others	Kanwar	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
212	100	0.170	0.170	Sitamberprasad, Shivamber, Laxman, Disamber S/o Ayodhyasingh and others	Gond	ST								
213	101/1	1.323	1.323	Shyamsunder, Rajkumari, Mankunwar S/o Maheshram and others	Kanwar	ST								
214	101/2	0.154	0.154	Budhram S/o Paluram	Kanwar	ST								
215	102	0.867	0.867	Paluram, Bhagirathi, Bhogsingh S/o Chamru	Kanwar	ST								
216	103						0.125	0.125	Small Tree Forest					
217	104/1	0.324	0.324	Harisingh S/o Nilkanth	Aghariya	Others								
218	104/2	0.065	0.065	Khemraj , Lekhram S/o Khageshwar and others	Agharia	Others								
219	104/3	0.227	0.227	Khemraj-Khageshwar, Lekhram-Khageshwar Devnati W/o Khageshwar	Agharia	Others								
220	104/4	0.052	0.052	Khemraj , Lekhram S/o Khageshwar and others	Aghariya	Others								
221	104/5	0.085	0.085	Khemraj , Lekhram S/o Khageshwar and others	Aghariya	Others								
222	105/1	0.696	0.696	Mohiram, Sohitram S/o Bhogsingh and others	Gond	ST								
223	105/2	0.304	0.304	Mohiram, Sohitram S/o Bhogsingh and others	Gond	ST								
224	106	1.311	1.311	Baiga - Mangal, Santram S/o Jageshwar, Setram S/o Rameshwar	Gond	ST								
225	107	0.380	0.380	Shyamsunder, Rajkumari, Mankunwar S/o Maheshram and others	Kanwar	ST								
226	108	0.595	0.595	Baigaram - Mangluram ,Santram- Jageshwar, Setram,and others	Gond	ST								
227	109	0.162	0.162	Baigaram - Mangluram ,Santram- Jageshwar, Setram,and others	Gond	ST								
228	110/1						0.347	0.347	Small Tree Forest					
229	110/2	0.809	0.809	Sohitram S/o Bhogsingh	Gond	ST								
230	111/1	0.850	0.850	Mohitram, Sohitram, S/o Bhogsingh and others	Gond	ST								
231	111/2	0.607	0.607	Mahettar, Maheshram, Santram S/o Bodiram	Gond	ST								
232	111/3	0.607	0.607	Matvar - Dukhiram	Gond	ST								
233	111/4	0.607	0.607	Mohitram - Bhogsingh and others	Gond	ST								
234	111/5	0.288	0.288	Mohitram Bhogsingh and others	Gond	ST								
235	111/6	0.288	0.288	Mahettar, Maheshram, Santram S/o Bodiram	Gond	ST								
236	111/7	0.289	0.289	Matvar - Dukhiram	Gond	ST								
237	111/8	0.288	0.288	Mohitram - Bhogsingh and others	Gond	ST								
238	112	0.243	0.243	Harisingh S/o Bodri	Gond	ST								
239	113	0.733	0.733	Mohitram, Sohitram S/o Bhogsingh and others	Gond	ST								
240	114	1.088	1.088	Dharamsingh - Janaram	Gada	ST								
241	115	0.275	0.275	Paltram, Bhagirathi, Bhogsingh S/o Chamru	Kanwar	ST								
242	116	0.178	0.178	Ramsingh S/o Sadhuram	Gond	ST								
243	117	0.372	0.372	Loknath - Dataram	Aghariya	Others								
244	118/1 क	0.162	0.162	Chaitram - Tilakram, Setram Tilakram	Uranv	ST								
245	118/1 ख	0.105	0.105	Ramlal - Kandra	Uranv	ST								
246	118/1 ग	0.057	0.057	Ramlal - Kandra	Uranv	ST								
247	118/1 घ	0.162	0.162	Palan S/o Nanki	Uranv	ST								
248	118/1 ङ	0.121	0.121	Lalsai - Nanki	Uranv	ST								
249	118/1 च	0.040	0.040	Lalsai - Nanki	Uranv	ST								
250	118/2	0.285	0.285	Amrutkunwar-Loknath	Aghariya	Others								
251	119	2.023	2.023	Damrudhar - Sunder	Gond	ST								
252	120	0.178	0.178	Loknath - Dataram	Aghariya	Others								
253	121/1 क	1.619	1.619	Bairavchand-Padumlal	Agharia	Others								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
254	121/1 क	0.1619	1.619	Jaikumar - Padumlal	Aghariya	Others								
255	121/1 ग	0.1619	1.619	Chaitram - Padumlal	Aghariya	Others								
256	121/1 घ	0.173	0.173	Harisingh S/o Nilkanth	Aghariya	Others								
257	121/2	0.324	0.324	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
258	121/3	0.081	0.081	Gangat S/o Manjar, Loknath S/o Dataram	Aghariya	Others								
259	122	0.445	0.445	Parvati W/o Harisingh	Aghariya	Others								
260	123	0.243	0.243	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
261	124	1.149	1.149	Phulsingh - Samaru, Devsingh and others	Rawat	Others								
262	125	1.311	1.311	Jairam, Mayaram, Sunder,Gharato S/o Rupsingh,Rameshwar-Dekhu	Kanwar	ST								
263	126/1	0.405	0.405	Jaisoda W/o Ramcharan and others	Gond	ST								
264	126/2	1.113	1.113	Harisingh S/o Nilkanth	Aghariya	Others								
265	126/3	1.109	1.109	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
266	127											2.080	2.080	Road
267	128	0.324	0.324	Dhoda S/o Sudhu	Gond	ST								
268	129	4.391	4.391	Dhoya S/o Sodhi, Kamal Singh S/o Matvar and others	Gond	ST								
269	130											0.555	0.555	Mountain, Rock
270	131/1	0.299	0.299	Baiga - Mangal, Santram S/o Jageshwar, Sitram S/o Rameshwar	Gond	ST								
271	131/2	0.607	0.607	Devkaran S/o Bahadur, Shivcharan and others	Kanwar	ST								
272	132/1	0.182	0.182	Chitrasen S/o Dharamsingh	Kanwar	ST								
273	132/2	0.182	0.182	Jaglal - Chhattarsingh	Kanwar	ST								
274	132/3	0.182	0.182	Sirkumar S/o Gantiya	Kanwar	ST								
275	132/4	0.182	0.182	Basantram - Bhavarsingh	Kanwar	ST								
276	132/5	0.182	0.182	Kittyakumar S/o Devsingh	Kanwar	ST								
277	133/1 ख	0.304	0.304	Maheshram Sidar	Gond	ST								
278	133/1 ख	0.045	0.045	Gulabsingh S/o Sidar	Gond	ST								
279	133/1 ग	0.206	0.206	Sukhram S/o Sidar	Gond	ST								
280	133/1 घ	0.202	0.202	Butang S/o Sidar	Gond	ST								
281	133/1 ङ	0.202	0.202	Chaitanram S/o Sidar	Gond	ST								
282	133/1 च	0.162	0.162	Gulabsingh S/o Sidar	Gond	ST								
283	133/2	1.475	1.475	Ramsingh S/o Sadhuram	Gond	ST								
284	133/3 क	0.195	0.195	Chaitanram S/o Sidar	Gond	ST								
285	133/3 ख	0.190	0.190	Gulabsingh S/o Sidar	Gond	ST								
286	133/3 ग	0.162	0.162	Sukhram S/o Sidar	Gond	ST								
287	133/3 घ	0.162	0.162	Butang S/o Sidar	Gond	ST								
288	133/4	0.336	0.336	Maheshram - Sidar	Gond	ST								
289	133/5	0.186	0.186	Ramsingh S/o Sadhram	Gond	ST								
290	133/6 क	0.012	0.012	Maheshram - Sidar	Gond	ST								
291	133/6 ख	0.012	0.012	Gulabsingh S/o Sidar	Gond	ST								
292	133/6 ग	0.012	0.012	Sukhram S/o Sidar	Gond	ST								
293	133/6 घ	0.012	0.012	Chaitan Sidar	Gond	ST								
294	133/7	0.040	0.040	Ramsingh S/o Sadhram	Gond	ST								
295	133/8	0.010	0.010	Maheshram - Sidar	Gond	ST								
296	133/9	0.304	0.304	Ramsingh S/o Sadhram	Gond	ST								
297	133/10	0.010	0.010	Gulabsingh S/o Sidar	Gond	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
298	133/11	0.010	0.010	Sukharam S/o Sidar	Gond	ST								
299	133/12	0.010	0.010	Chaitanram S/o Sidar	Gond	ST								
300	133/13	0.065	0.065	Butang S/o Sidar	Gond	ST								
301	133/14	0.065	0.065	Sukhram S/o Sidar	Gond	ST								
302	133/15	0.065	0.065	Gulabsingh S/o Sidar	Gond	ST								
303	133/16	0.065	0.065	Maliesuram - Sidar	Gond	ST								
304	133/17	0.113	0.113	Chaitanram S/o Sidar	Gond	ST								
305	133/18	0.079	0.079	Maheshram - Sidar	Gond	ST								
306	133/19	0.032	0.032	Gulabsingh S/o Sidar	Gond	ST								
307	133/20	0.032	0.032	Butang S/o Sidar	Gond	ST								
308	133/21	0.194	0.194	Sukharam S/o Sidar	Gond	ST								
309	134/1	0.203	0.203	Damrudhar - Sunder	Gond	ST								
310	134/2	0.478	0.478	Khemraj S/o Khageshwar and others	Agharya	Others								
311	134/3	0.344	0.344	Padamlal-Harisingh	Agharya	Others								
312	134/4	0.380	0.380	Baigaram - Mangluram ,Santram- Jageshwar, Setram,and others	Gond	ST								
313	134/5	0.182	0.182	Ramsingh - Samaru, LaxmiPrasad - Samaru	Gond	ST								
314	134/6	0.444	0.444	Ugresen, Dinbandhu and others	Gond	ST								
315	135/1	0.425	0.425	Ramsingh S/o Sadhram	Gond	ST								
316	135/2	0.109	0.109	Damrudhar - Sunder	Gond	ST								
317	135/3	0.105	0.105	Buduram-Hiraram	Uranv	ST								
318	135/4	0.032	0.032	Bnduram-Hiraram	Uranv	ST								
319	135/5	0.081	0.081	Bnduram S/o Hiraram, Budhni W/o Hiraram	Uranv	ST								
320	135/6	0.073	0.073	Buduram-Hiraram	Uranv	ST								
321	135/7	0.020	0.020	Buduram S/o Hiraram, Budhni W/o Hiraram	Uranv	ST								
322	135/8	0.178	0.178	Mangalsingh S/o Hiraram, Budhni W/o Hiraram	Uranv	ST								
323	135/9	0.065	0.065	Buduram S/o Hiraram, Budhni W/o Hiraram	Uranv	ST								
324	135/10	0.060	0.060	Kartikram - Hiaram and others	Uranv	ST								
325	135/11	0.061	0.061	Nohorsai S/o Hiraram,Budhni W/o Hiraram	Uranv	ST								
326	136/1	0.125	0.125	Palau S/o Nanku	Uranv	ST								
327	136/2	0.405	0.405	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
328	136/3	0.012	0.012	Baderam S/o Hiraram, Budhni W/o Hiaram	Uranv	ST								
329	136/4	0.125	0.125	Lalsai - Nanki	Uranv	ST								
330	136/5	0.251	0.251	Ramlal - Kandra	Uranv	ST								
331	136/6	0.158	0.158	Lalsai - Nauki	Uranv	ST								
332	136/7	0.121	0.121	Chentram - Tilakram, Setram Tilakram	Uranv	ST								
333	136/8	0.184	0.184	Palau S/o Nanki	Uranv	ST								
334	136/9	0.101	0.101	Lalsai - Nanki	Uranv	ST								
335	136/10	0.121	0.121	Chaitram - Tilakram, Setram Tilakram	Uranv	ST								
336	136/11	0.016	0.016	Nohorsai S/o Hiaram,Budhni W/o Hiaram	Uranv	ST								
337	136/12	0.016	0.016	Kartikram - Hiraram and others	Uranv	ST								
338	137	0.514	0.514	Dhoda S/o Sudhu	Gond	ST								
339	138/1	1.497	1.497	Damrudhar - Sunder	Gond	ST								
340	138/2	0.529	0.529	Khemraj S/o Khageshwar and others	Aghariya	Others								
341	138/3	0.543	0.543	Khemraj S/o Khageshwar and others	Aghariya	Others								
342	138/4	0.380	0.380	Baigaram - Manghram ,Santram- Jageshwar, Setram,and others	Gond	ST								
343	138/5	0.425	0.425	Pigalsai -Dhevaram	Gond	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
344	138/6	0.283	0.283	Padamlal-Harisingh	Aghariya	Others								
345	138/7	0.364	0.364	Ugrasen, Dinbandhu and others	Gond	ST								
346	139	3.439	3.439	Ratiram, Gaurishankar , Motiram S/o Budha ,Ghewati W/o Budha	Kanwar	ST								
347	140/1	0.607	0.607	Baiga - Mangal, Santram S/o Jageshwar, Setram S/o Raveshwar	Gond	ST								
348	140/2	0.202	0.202	Khemraj S/o Khageshwar and others	Agharia	Others								
349	141	2.533	2.533	Khemraj S/o Khageshwar and others	Agharia	Others								
350	142/1	0.105	0.105	Chitrasen - Dharamsingh	Kanwar	ST								
351	142/2	0.105	0.105	Basantram - Bhavarsingh	Kanwar	ST								
352	142/3	0.093	0.093	Jaglal - Chhattarsingh	Kanwar	ST								
353	142/4	0.093	0.093	Setkumar S/o Gautiya	Kanwar	ST								
354	142/5	0.239	0.239	Nattyakumar S/o Devsingh	Kanwar	ST								
355	142/6	0.129	0.129	Chitrasen - Dharamsingh	Kanwar	ST								
356	142/7	0.129	0.129	Basantram - Bhavarsingh	Kanwar	ST								
357	142/8	0.142	0.142	Setkumar S/o Gautiya	Kanwar	ST								
358	142/9	0.142	0.142	Jaglal - Chhattarsingh	Kanwar	ST								
359	143	0.251	0.251	Khemraj S/o Khageshwar and others	Agharia	Others								
360	144/1	2.229	2.229	Sitamberprasad, Shivamber, Laxman, Disamber S/o Ayodhyasingh and others	Gond	ST								
361	144/2	0.769	0.769	Sitamberprasad, Shivamber, Laxman, Disamber S/o Ayodhyasingh and others	Gond	ST								
362	144/3	1.214	1.214	Sitamberprasad, Shivamber, Laxman, Disamber S/o Ayodhyasingh and others	Gond	ST								
363	144/4	0.971	0.971	Sitamberprasad, Shivamber, Laxman, Disamber S/o Ayodhyasingh and others	Gond	ST								
364	144/5	0.223	0.223	Sitamberprasad, Shivamber, Laxman, Disamber S/o Ayodhyasingh and others	Gond	ST								
365	145/1	0.203	0.203	Khemraj S/o Khageshwar and others	Agharia	Others								
366	145/2	0.202	0.202	Padamlal-Harisingh	Agharia	Others								
367	146/1	0.458	0.458	Jogu S/o Dharsingh	Kanwar	ST								
368	146/2	0.166	0.166	Padamlal-Harisingh	Agharia	Others								
369	146/3	0.057	0.057	Khemraj S/o Khageshwar and others	Agharia	Others								
370	146/4	0.202	0.202	Khemraj S/o Khageshwar and others	Agharia	Others								
371	147	4.266	4.266	Bhavansingh, Bhagutram, Kartikram, Bhuvneshwar S/o Salikram	Kanwar	ST								
372	148	2.962	2.962	Shyamsunder, Rajkumar, Morkunwar S/o Maheshram and others	Kanwar	ST								
373	149/1	0.567	0.567	Jaikumar - Padumlal	Agharia	Others								
374	149/2	0.526	0.526	Chaitram - Padumlal	Agharia	Others								
375	149/3	0.045	0.045	Harisingh S/o Nilkanth	Agharia	Others								
376	149/4	0.529	0.529	Lekhram - Khageshwar and others	Agharia	Others								
377	149/5	0.036	0.036	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devwati W/o Khageshwar	Agharia	Others								
378	149/6	0.823	0.823	Mohanmati - Lekhram	Agharia	Others								
379	149/7	0.049	0.049	Kunjram S/o Nilkanth	Agharia	Others								
380	149/8	0.709	0.709	Harisingh S/o Nilkanth	Agharia	Others								
381	149/9	0.823	0.823	Kamlabai W/o Padumlal	Agharia	Others								
382	150	0.455	0.455	Palharam - Kunjalsingh	Gond	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
383	153	0.397	0.397	Gopal - Balakram	Kanwar	ST								
384	152	1.197	1.197	Mehinder S/o Velram	Uranv	ST								
385	153	0.983	0.983	Baliram-Chamarsingh , Ramu - Malvar and others	Manjhi	Others								
386	154	0.979	0.979	Ramsingh S/o Sadhram	Gond	ST								
387	155	6.070	6.070	Jairam, Mayaram, Sunder,Ghasiu S/o Rupsingh,Rameshwar-Dukku	Kanwar	ST								
388	156/1	0.709	0.709	Rishikumar-Shyamlal	Kanwar	ST								
389	156/2	0.498	0.498	Khemraj S/o Khageshwar and others	Aghariya	Others								
390	156/3	0.494	0.494	Kapurbai - Harisingh	Aghariya	Others								
391	156/4	0.282	0.282	Ugrasen, Dighandhu and others	Gond	ST								
392	157	1.898	1.898	Shyamsunder, Rajkumari, Mankunwar S/o Maheshram and others	Kanwar	ST								
393	158/1	0.129	0.129	Palau S/o Nanki	Uranv	ST								
394	158/2	0.227	0.227	Lalsai - Nanki	Uranv	ST								
395	158/3	0.283	0.283	Ramlal - Kandra	Uranv	ST								
396	158/4	0.202	0.202	Palau S/o Nanki	Uranv	ST								
397	158/5	0.283	0.283	Chaitram - Tilakram, Setram Tilakram	Uranv	ST								
398	158/6	0.332	0.332	Noharsai S/o Hiraram,Budhni W/o Hiraram	Uranv	ST								
399	158/7	0.049	0.049	Noharsai S/o Hiraram,Budhni W/o Hiraram	Uranv	ST								
400	158/8	0.382	0.382	Pihulal - Sukhsagar	Kanwar	ST								
401	158/9	0.445	0.445	Mangalsingh S/o Hiraram, Budhni W/o Hiraram	Uranv	ST								
402	158/10	0.445	0.445	Budhram S/o Hiraram, Budhni W/o Hiraram	Uranv	ST								
403	158/11	0.121	0.121	Lalsai - Nanki	Uranv	ST								
404	158/12	0.109	0.109	Palau S/o Nanki	Uranv	ST								
405	158/13	0.194	0.194	Chaitram - Tilakram, Setram Tilakram	Uranv	ST								
406	158/14	0.134	0.134	Budhram S/o Hiraram, Budhni W/o Hiraram	Uranv	ST								
407	158/15	0.134	0.134	Mangalsingh S/o Hiraram, Budhni W/o Hiraram	Uranv	ST								
408	158/16	0.134	0.134	Noharsai S/o Hiraram,Budhni W/o Hiraram	Uranv	ST								
409	158/17	0.134	0.134	Pihulal - Sukhsagar	Kanwar	ST								
410	158/18	0.202	0.202	Lalsai - Nanki	Uranv	ST								
411	158/19	0.352	0.352	Palau S/o Nanki	Uranv	ST								
412	158/20	0.162	0.162	Ramlal - Kandra	Uranv	ST								
413	158/21	0.162	0.162	Chaitram - Tilakram, Setram Tilakram	Uranv	ST								
414	158/22	0.304	0.304	Ramlal - Kandra	Uranv	ST								
415	158/23	0.162	0.162	Chaitram - Tilakram, Setram Tilakram	Uranv	ST								
416	158/24	0.162	0.162	Lalsai - Nanki	Uranv	ST								
417	158/25	0.113	0.113	Noharsai S/o Hiraram,Budhai W/o Hiraram	Uranv	ST								
418	158/26	0.113	0.113	Basantram - Bhavarsingh	Kanwar	ST								
419	159	0.809	0.809	Palluram - Kunjalsingh	Gond	ST								
420	160											0.857	0.857	Mountain, Rock
421	161/1	0.404	0.404	Mahettar, Maheshram, Santram S/o Bodutam	Gond	ST								
422	161/2	0.405	0.405	Mohuram - Bhogsingh and others	Gond	ST								
423	162						0.105	0.105	Small Tree Forest					
424	163/1	1.870	1.870	Sitamherprasad, Shivamber, Laxman, Disamber S/o Ayodhyasingh and others	Gond	ST								
425	163/2	0.809	0.809	Ghasuram S/o Manyar and others	Gond	ST								
426	163/3	0.405	0.405	Mahettar, Maheshram, Santram S/o Bodiwara	Gond	ST								
427	163/4	1.019	1.019	Khemraj S/o Khageshwar and others	Aghariya	Others								
428	163/5	0.518	0.518	Sagunbai W/o Narayan and others	Saura	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
429	163/6	0.364	0.364	Sagunibai W/o Narayan and others	Saura	ST								
430	163/7	0.324	0.324	Sagunibai W/o Narayan and others	Saura	ST								
431	163/8	0.518	0.518	Gopal - Balakram	Kanwar	ST								
432	163/9	1.214	1.214	Dokhsingh - Gadaram	Raval	Others								
433	163/10,16 3/11,163/ 19	0.809	0.809	Lekhram - Khageshwar and others	Aghariya	Others								
434	163/12	0.405	0.405	Lekhram - Khageshwar and others	Aghariya	Others								
435	163/13	0.405	0.405	Shiv Mandir Pratishan Raigarh										
436	163/14	0.061	0.061	Jairam, Mayaram, Dayaram, Sunder, Barfo, S/o Rupsingh	Kanwar	ST								
437	163/15	0.081	0.081	Mohitram, Sohitram S/o Bhogsingh and others	Gond	ST								
438	163/16	0.526	0.526	Jairam, Mayaram, Dayaram, Sunder, Barfo, S/o Rupsingh	Kanwar	ST								
439	163/17	0.656	0.656	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
440	163/18	0.934	0.934	Ishwarsingh - Sidheram	Kanwar	ST								
441	163/20	0.202	0.202	Sitamberprasad, Shivamber, Laxman, Disamber S/o Ayodhyasingh and others	Gond	ST								
442	163/21	0.809	0.809	Gokul Prasad S/o Rajaram	Gond	ST								
443	163/22	1.011	1.011	Devkaran S/o Bahadur, Shivcharan and others	Kanwar	ST								
444	163/25	0.409	0.409	Gokul Prasad S/o Rajaram	Gond	ST								
445	163/24	0.607	0.607	Gokul Prasad S/o Rajaram	Gond	ST								
446	163/25	0.202	0.202	Sitamberprasad, Shivamber, Laxman, Disamber S/o Ayodhyasingh and others	Gond	ST								
447	163/26	0.308	0.308	Sagunibai W/o Narayan and others	Saura	ST								
448	163/27	0.178	0.178	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
449	163/28	0.016	0.016	Moharmati - Lekhram	Aghariya	Others								
450	163/29	0.162	0.162	Padamlal-Harisingh	Aghariya	Others								
451	163/30	0.648	0.648	Sagunibai W/o Narayan and others	Saura	ST								
452	163/31	0.478	0.478	Padamlal-Harisingh	Aghariya	Others								
453	163/32	0.405	0.405	Damrudhar - Sunder	Gond	ST								
454	163/33	0.405	0.405	Gokul Prasad S/o Rajaram	Gond	ST								
455	163/34	0.101	0.101	Gokul Prasad S/o Rajaram	Gond	ST								
456	163/35	0.101	0.101	Gokul Prasad S/o Rajaram	Gond	ST								
457	163/36	0.101	0.101	Gokul Prasad S/o Rajaram	Gond	ST								
458	163/37	0.109	0.109	Gokul Prasad S/o Rajaram	Gond	ST								
459	163/38	0.202	0.202	Jalal, Paladu, Nandlal S/o Nanki	Gond	ST								
460	163/39	0.154	0.154	Jalal Nanki and others	Gond	ST								
461	163/40	0.202	0.202	Dhavaram - Sodhuram	Gond	ST								
462	163/41	0.202	0.202	Mangal, Nohar S/o Huraram	Uraw	ST								
463	163/42	0.266	0.266	Jalal, Palad, Nandlal S/o Nanki	Gond	ST								
464	163/43	0.240	0.240	Mohitram, Sohitram S/o Bhogsingh and others	Gond	ST								
465	163/44	0.263	0.263	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
466	163/45	0.161	0.161	Panchram - Dokri	Kanwar	ST								
467	163/46	0.254	0.254	Panchram - Dokri	Kanwar	ST								
468	163/47	0.947	0.947	Pathram - Kanjalsingh	Gond	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
469	163/48	0.202	0.202	Nandai W/o Mangalsingh	Uranv	ST								
470	163/49	0.110	0.110	Panchram - Dokri	Kanwar	ST								
471	163/50	0.405	0.405	Panchram - Dokri	Kanwar	ST								
472	163/51	0.223	0.223	Panchram - Dokri	Kanwar	ST								
473	163/52	0.203	0.203	Tilmet S/o Dhovaram	Gond	ST								
474	163/53	0.182	0.182	Gokul Prasad S/o Rajaram	Gond	ST								
475	163/54	0.304	0.304	Mangal -Hiraram	Uranv	ST								
476	163/55	0.182	0.182	Gokul Prasad S/o Rajaram	Gond	ST								
477	163/56	0.607	0.607	Mahesh, Jhili, Vandhe, Machieder S/o Belram and others	Uranv	ST								
478	163/57	0.093	0.093	Mahesh, Jhili, Vandhe, Machinder S/o Belram and others	Uranv	ST								
479	163/58 क,163/59 क,163/60 क	0.405	0.405	Basantram - Bhavansingh	Kanwar	ST								
480	163/58 ख,163/59 ख,163/60 ख	0.591	0.591	Vidyadhar - Sukhsai ,Gajadhar - Sukhsai	Kanwar	ST								
481	163/58 ग,163/29 ग,163/60 ग	0.185	0.185	Pirulal - Sukhsagar	Kanwar	ST								
482	163/61	0.202	0.202	Sitambarprasad, Shyamber, Laxman, Dsamber S/o Ayodhyasingh and others	Gond	ST								
483	163/62	0.607	0.607	Mehtar, Mahesh, Santram S/o Bodhram and others	Gond	ST								
484	163/63	0.935	0.935	Shyamsunder - Maheshram and others	Kanwar	ST								
485	163/64	0.016	0.016	Kamlabai W/o Padumlal	Aghariya	Others								
486	164									4.977	4.977			
487	165	0.186	0.186	Ghasuram S/o Maniyar and others	Gond	ST								
488	166/1	0.073	0.073	Chainram - Padumlal	Aghariya	Others								
489	166/2	0.644	0.644	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
490	167	0.498	0.498	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
491	168						0.405	0.405	Small Tree Forest					
492	169						0.809	0.809	Small Tree Forest					
493	170/1						0.218	0.218	Small Tree Forest					
494	170/2						0.591	0.591	Small Tree Forest					
495	171/1						0.409	0.409	Small Tree Forest					
496	171/2						0.400	0.400	Small Tree Forest					
497	172/1						1.012	1.012	Small Tree Forest					
498	172/2, 173/2									1.721	1.721			
499	173/1	0.547	0.547	Dukhsingh -Gadaram	Rawat	Others								
500	173/3	0.809	0.809	Ishwarsingh - Sidheram	Kanwar	ST								
501	173/4	0.405	0.405	Dharamsingh, Premsingh, Pitarsingh S/o Dhobaram	Gond	ST								
502	173/5						6.052	6.052	Small Tree Forest					

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
503	174/6						0.618	0.618	Small Tree Forest						
504	174	0.664	0.664	Devkaran S/o Bahadur, Shivcharan and others	Kanwar	ST									
505	175	0.360	0.360	Ganpat S/o Manjar, Loknath S/o Dataram	Aghariya	Others									
506	176	0.817	0.817	Devkaran S/o Bahadur, Shivcharan and others	Kanwar	ST									
507	177/1	1.002	1.002	Sadhram, Nanhuram S/o Bodram	Kanwar	ST									
508	177/2	0.304	0.304	Sagunbai W/o Narayan and others	Saura	ST									
509	177/3	0.555	0.555	Mohitram, Sohitram, S/o Bhagsingh and others	Gond	ST									
510	177/4	0.364	0.364	Sagunibai W/o Narayan and others	Saura	ST									
511	178	0.043	0.043	Dhova S/o Sodhi, Kamal Singh S/o Matvar and others	Gond	ST									
512	179	0.081	0.081	Dhula S/o Sudhu	Gond	ST									
513	180	0.077	0.077	Sitamberprasad, Shivamber, Laxman, Disamber S/o Ayodhyasingh and others	Gond	ST									
514	181						1.465	1.465	Small Tree Forest						
515	182	0.150	0.150	Dhovaram - Sodhiram	Gond	ST									
516	183/1	0.146	0.146	Ganpat S/o Manjar, Loknath S/o Dataram	Aghariya	Others									
517	183/2	0.113	0.113	Bihari, Champavati, Hiravati S/o Devdhar	Aghariya	Others									
518	184	0.890	0.890	Phulsingh - Samaru, Devsingh and others	Rawat	Others									
519	185						0.202	0.202	Small Tree Forest						
520	186	0.024	0.024	Bihari, Champavati, Hiravati S/o Devdhar	Aghariya	Others									
521	187	0.239	0.239	Sitamberprasad, Shivamber, Laxman, Disamber S/o Ayodhyasingh and others	Gond	ST									
522	188	0.170	0.170	Palluram, Kunjasingh, Ghasiram ,Maniyar and others	Gond	ST									
523	189/1						0.008	0.008	Small Tree Forest						
524	189/2	0.202	0.202	Sukdev S/o Ramnath	Gond	ST									
525	189/3	0.304	0.304	Ghasiram S/o Maniyar and others	Gond	ST									
526	190											0.093	0.093	Below Water	
527	191/1											0.405	0.405	Below Water	
528	191/2	0.405	0.405	Dheramsingh, Premsingh, Pitarsingh S/o Dhobaram	Gond	ST									
529	191/3	0.129	0.129	Ghasiram S/o Maniyar and others	Gond	ST									
530	192	1.416	1.416	Balram-Chamarsingh , Ramo - Matvar and others	Manjhi	Others									
531	193	1.291	1.291	Dukhsingh, Gadasai, Viddyadhar S/o Chamarsingh and others	Rawat	Others									
532	194/1	0.955	0.955	Gangaram - Hiraram	Kanwar	ST									
533	194/2	0.760	0.760	Ghasiyaram - Bodu, Ragi - Bodo	Gada	ST									
534	194/3	0.210	0.210	Bululal - Balakram	Uraw	ST									
535	194/4	0.405	0.405	Ghasiyaram - Bodu, Ragi - Bodu	Gadu	ST									
536	195	0.202	0.202	Karman Das - Budhadas, Sahisdas and others	Panika	ST									
537	196	0.101	0.101	Lodhuram - Sidu	Kanwar	ST									
538	197/1	0.433	0.433	Ghasiyaram - Bodu	Gada	ST									
539	197/2	0.081	0.081	Ram S/o Chikru	Manjhi	Others									
540	198						0.158	0.158	Small Tree Forest						
541	199	1.185	1.185	Ghasiyaram - Bodu, Ragi - Bodu	Gada	ST									
542	200/1	0.121	0.121	Kripalsingh - Raghunath	Rajput	Others									
543	200/2	0.122	0.122	Pursottam-Raghunath	Rajput	Others									
544	201/1								Forest Compartment						
545	201/2								Forest Compartment						
546	202/1						2.156	2.156	Small Tree Forest						

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
547	202/2	0.809	0.809	Gangaram - Hiraram	Kanwar	ST								
548	203	0.789	0.789	Dhowaisingh, Amarsai, Suveran S/o Reshuram and others	Kanwar	ST								
549	204/1	0.080	0.080	Jaukram - Akturam, Naradmati and others	Kanwar	ST								
550	204/2	0.260	0.260	Mehter, Rugu, Jadulal, Bhim and others	Kanwar	ST								
551	204/5	0.580	0.380	Angad Masu - Ganeshram -Goverdhan	Kanwar	ST								
552	204/47	0.080	0.080	Gangaram - Hiraram	Kanwar	ST								
553	204/5	0.941	0.941	Mehter, Rugu, Jadulal, Bhim and others	Kanwar	ST								
554	204/6	0.260	0.260	Angad Masu - Ganeshram -Goverdhan	Kanwar	ST								
555	204/7	0.120	0.120	Gangaram - Hiraram	Kanwar	ST								
556	204/8	0.229	0.229	Angad Masu - Ganeshram -Goverdhan	Kanwar	ST								
557	204/9	0.028	0.028	Gangaram - Hiraram	Kanwar	ST								
558	205						2.250	2.250	Small Tree Forest					
559	206	0.943	0.943	Akturam S/o Hariser	Kanwar	ST								
560	207	0.405	0.405	Gangaram - Hiraram	Kanwar	ST								
561	208											0.380	0.380	Below Water
562	21	0.202	0.202	Vidyadhar Ramsingh Govind Chamarsingh and others	Kanwar	ST								
563	210/1	0.214	0.214	Dhanuram - Chakradhar	Aghariya	Others								
564	210/2	0.134	0.134	Sanjivan S/o Shambhu Das and others	Panika	ST								
565	210/3	0.067	0.067	Dhanuram - Chakradhar	Aghariya	Others								
566	210/4	0.069	0.069	Manohar - Chakradhar	Aghariya	Others								
567	210/5-11 ग	0.150	0.150	Lakeshwar - Hiradhar, Buduram -Hiradhar and others	Aghariya	Others								
568	210/5-11 ख	0.113	0.113	Lakeshwar - Hiradhar, Buduram -Hiradhar and others	Aghariya	Others								
569	210/5-11 ङ	1.330	1.330	Dhaniram - Chakradhar	Aghariya	Others								
570	210/5-11 क	1.071	1.071	Lakeshwar - Hiradhar, Buduram -Hiradhar and others	Aghariya	Others								
571	210/5-11 ङ	0.465	0.465	Dhanuram - Chakradhar	Aghariya	Others								
572	210/12	0.024	0.024	Kalpalsingh - Raghunath	Rajput	Others								
573	210/13	0.021	0.021	Purusottam-Raghunath	Rajput	Others								
574	210/14	0.024	0.024	Sudarsan S/o Raghunath	Rajput	Others								
575	210/15	0.373	0.373	Lakeshwar - Hiradhar, Buduram -Hiradhar and others	Aghariya	Others								
576	210/16	0.162	0.162	Dhaniram - Chakradhar	Aghariya	Others								
577	210/17	0.067	0.067	Lakeshwar - Hiradhar, Buduram -Hiradhar and others	Aghariya	Others								
578	211	0.142	0.142	Karman Das - Budhadas, Sahisdas and others	Panika	ST								
579	212	0.219	0.219	Sonsai-Chikru and others	Manjhi	Others								
580	213	0.308	0.308	Karman Das - Budhadas, Sahisdas and others	Panika	ST								
581	214	0.198	0.198	Ledhuram - Sidri	Kanwar	ST								
582	215	0.845	0.845	Hariengh S/o Bodri	Gond	ST								
583	216	0.947	0.947	Dukhsingh, Gadakai, Vidyadhar S/o Chamarsingh and others	Rawat	Others								
584	217	1.173	1.173	Ghasiram S/o Manyar and others	Gond	ST								
585	218/1	0.490	0.490	Chaitram - Padumlal	Aghariya	Others								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
586	218/2	0.040	0.040	Jaikumar - Padamlal	Aghariya	Others								
587	218/3	1.145	1.145	Chaitram - Padmmlal	Aghariya	Others								
588	218/4	0.437	0.437	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
589	218/5	0.793	0.793	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
590	218/6	0.340	0.340	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
591	219/1	0.123	0.123	Bairavchand-Padamlal	Aghariya	Others								
592	219/2	0.162	0.162	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
593	219/3	0.320	0.320	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
594	220											0.110	0.110	Road
595	221/1	0.154	0.154	Nirmaldas - Sahasram and others	Panika	ST								
596	221/2	0.097	0.097	Birbal - Sahasram,Makarmati and others	Panika	ST								
597	222	0.077	0.077	Karman Das - Budhadas, Sahsdas and others	Panika	ST								
598	223/1	0.040	0.040	Punau, Sonau and others	Uranv	ST								
599	223/2	0.045	0.045	Karman Das - Budhadas, Sahsdas and others	Panika	ST								
600	224	0.045	0.045	Birbal - Sahasram,Makarmati and others	Panika	ST								
601	225									1.558	1.558			
602	226	0.174	0.174	Pimisingh - Samaru, Devsingh and others	Rawat	Others								
603	227	1.627	1.627	Loknath - Dataram	Aghariya	Others								
604	228/1	0.429	0.429	Mahettar, Mahesharm, Santram S/o Boduram	Gond	ST								
605	228/2	0.429	0.429	Malwar - Dukhiram	Gond	ST								
606	229/1	0.089	0.089	Ramlal - Kandra	Uranv	ST								
607	229/2	0.093	0.093	Chaitram - Tilakram, Setram Tilakram	Uranv	ST								
608	229/3	0.150	0.150	Palau S/o Nanki	Uranv	ST								
609	229/4	0.093	0.093	Lalsai - Nanki	Uranv	ST								
610	229/5	0.032	0.032	Chaitram - Tilakram, Setram Tilakram	Uranv	ST								
611	229/6	0.069	0.069	Mangalsingh S/o Hiraram, Budhni W/o Hiraram	Uranv	ST								
612	229/7	0.069	0.069	Budhram S/o Hiraram, Budhni W/o Hiraram	Uranv	ST								
613	229/8	0.073	0.073	Amarsai-Dokra	Kanwar	ST								
614	229/9	0.069	0.069	Noharsai S/o Hiraram,Budhni W/o Hiraram	Uranv	ST								
615	229/10	0.073	0.073	Ramlal - Kandra	Uranv	ST								
616	229/11	0.040	0.040	Chaitram - Tilakram, Setram Tilakram	Uranv	ST								
617	229/12	0.065	0.065	Lalsai - Nanki	Uranv	ST								
618	230/1	0.906	0.906	Harisingh S/o Nikanth	Agharya	Others								
619	230/2	0.166	0.166	Bairavchand-Padamlal	Aghariya	Others								
620	230/3	0.494	0.494	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
621	230/4	0.105	0.105	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
622	230/5	1.011	1.011	Ganpat S/o Mangar, Loknath S/o Dataram	Agharya	Others								
623	230/6	0.256	0.256	Ganpat S/o Mangar, Loknath S/o Dataram	Agharya	Others								
624	230/7	0.170	0.170	Bihari, Champavati, Hiravati S/o Devdhar	Agharya	Others								
625	230/8	0.328	0.328	Mansingh S/o JankiPrasad	Agharya	Others								
626	230/9	0.291	0.291	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
627	230/10	0.243	0.243	Mansingh S/o JankiPrasad	Aghariya	Others								
628	230/11	0.423	0.421	Bihari, Champavati, Hiravati S/o Devdhar	Aghariya	Others								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
629	231/1	0.413	0.413	Kapuribai - Harisingh	Aghariya	Others								
630	231/2	0.417	0.417	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
631	231/3	0.243	0.243	Mansingh S/o JankiPrasad	Aghariya	Others								
632	231/4	0.401	0.101	Gajadhar S/o Lochanprasad	Aghariya	Others								
633	231/5	0.243	0.243	Bihari, Chatrapwati, Hirayati S/o Devdhar	Aghariya	Others								
634	231/6	0.242	0.243	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
635	232/1	0.388	0.388	Kapuribai - Harisingh	Aghariya	Others								
636	232/2	0.388	0.388	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
637	233/1	0.142	0.142	Mahettar, Maheshram, Santram S/o Badriram	Gond	ST								
638	233/2	0.141	0.141	Mohitram - Bhagsingh and others	Gond	ST								
639	234	1.047	1.047	Atmaram,Ratanram S/o Ratiram and others	Manjhi	Others								
640	235						2.278	2.278	Small Tree Forest					
641	236	0.150	0.150	Viddyadhar - Chamarsingh and others	Rawat	Others								
642	237	0.296	0.296	Dharamsingh - Janaram	Gada	ST								
643	238	0.802	0.802	Setram - Tilokram and others	Uraon	ST								
644	239	0.591	0.591	Jairam, Mayaram, Sunder,Gharato S/o Rupsingh,Rameshwar-Dukhu	Kanwar	ST								
645	240/1	1.922	1.922	Dharamsingh - Janaram	Gada	ST								
646	240/2	0.065	0.065	Sevabhuma Gram Naukari Kotwaar										
647	241	0.109	0.109	Banshidhar S/o Jagatram and others	Kanwar	ST								
648	242	1.708	1.708	Viddyadhar - Chamarsingh and others	Rawat	Others								
649	243/1	6.323	6.323	Balram-Chamarsingh , Ramo - Malvar and others	Manihi	Others								
650	243/2	0.308	0.308	Basantram - Bhavarsingh	Kanwar	ST								
651	243/3	0.223	0.223	Jairam, Mayaram, Dayaram, Sunder, Barlo, S/o Rupsingh	Kanwar	ST								
652	243/4	0.105	0.105	Basantram - Bhavarsingh	Kanwar	ST								
653	243/5	0.275	0.275	Viddyadhar -Chamarsingh and others	Rawat	Others								
654	243/6	0.142	0.142	Viddyadhar -Chamarsingh and others	Rawat	Others								
655	243/7	0.081	0.081	Viddyadhar -Chamarsingh and others	Rawat	Others								
656	243/8	0.129	0.129	Ghasiram S/o Maniyar and others	Gond	ST								
657	243/9	0.073	0.073	Ghasiram S/o Maniyar and others	Gond	ST								
658	243/10	0.065	0.065	Ghasiram S/o Maniyar and others	Gond	ST								
659	243/11	0.186	0.186	Atvaar S/o Dhansingh	Lohar	Others								
660	244	0.785	0.785	Jairam, Mayaram, Sunder,Gharato S/o Rupsingh,Rameshwar-Dukhu	Kanwar	ST								
661	245/1	0.263	0.263	Birbal - Sahasram,Makarmati and others	Panika	ST								
662	245/2	0.263	0.263	Nirmaldas - Sahasram and others	Panika	ST								
663	245/3	0.185	0.185	Narmaldas - Sahasram and others	Panika	ST								
664	245/4	0.300	0.300	Birbal - Sahasram,Makarmati and others	Panika	ST								
665	245/5	0.263	0.263	Nirmaldas - Sahasram and others	Panika	ST								
666	245/6	0.170	0.170	Barbal - Sahasram,Makarmati and others	Panika	ST								
667	245/7	0.121	0.121	Nirmaldas - Sahasram and others	Panika	ST								
668	245/8	0.061	0.061	Barbal - Sahasram,Makarmati and others	Panika	ST								
669	245/9	0.061	0.061	Nirmaldas - Sahasram and others	Panika	ST								
670	246	1.485	1.485	Lodhiram - Sidri	Kanwar	ST								
671	247	0.186	0.186	Bhagsingh S/o Maheshram and others	Manjhi	Others								
672	248	0.416	0.416	Karman Das - Budhadas, Sahisdas and others	Panika	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
673	249/1	0.458	0.458	Sonsai, Chkrn and others	Manjhi	Others								
674	249/2	0.458	0.458	Ghasiyaram - Bodu	Gada	ST								
675	249/3	0.461	0.461	Sonsai, Chkrn and others	Manjhi	Others								
676	249/4	0.461	0.461	Ghasiyaram - Bodu	Gada	ST								
677	250/1	1.250	1.250	Ramsingh S/o Sadhuram	Gond	ST								
678	250/2	0.201	0.201	Maheshram - Sidar	Gond	ST								
679	250/3	0.200	0.200	Gulabsingh S/o Sidar	Gond	ST								
680	250/4	0.200	0.200	Sukhram S/o Sidar	Gond	ST								
681	250/5	0.250	0.250	Bhaag S/o Sidar	Gond	ST								
682	250/6	0.400	0.400	Chatanram S/o Sidar	Gond	ST								
683	251	1.538	1.538	Jairam, Mayaram, Sunder,Gharato S/o Rupsingh,Rameshwar-Dukhu	Kanwar	ST								
684	252/1	0.145	0.145	Bihari, Champavati, Hiravati S/o Devdhar	Aghariya	Others								
685	252/2	0.150	0.150	Kanhaiya Lal S/o Lalsa,Basanti S/o Lalsa	Aghariya	Others								
686	252/3	0.150	0.150	Vansingh S/o JankiPrasad	Aghariya	Others								
687	253						0.085	0.085	Small Tree Forest					
688	254/1	0.405	0.405	Sudarsan S/o Raghunath	Rajput	Others								
689	254/2	0.405	0.405	Pursettam-Raghunath	Rajput	Others								
690	254/3	0.730	0.730	Kripalsingh - Raghunath	Rajput	Others								
691	254/4	0.304	0.304	Pursettam-Raghunath	Rajput	Others								
692	254/5	0.304	0.304	Sudarsan S/o Raghunath	Rajput	Others								
693	255	3.189	3.189	Karamsingh-Chhabiram	Kanwar	ST								
694	256	1.264	1.364	Vidyadhar-Ramsingh and others	Kanwar	ST								
695	257	1.623	1.623	Gangaram - Hiraram	Kanwar	ST								
696	258											0.425	0.425	Below Water
697	259/1	1.623	1.623	Ghuran S/o Jallal	Kanwar	ST								
698	259/2	0.984	0.984	Usatram-Tilakram	Gond	ST								
699	259/3	0.324	0.324	Hemvati - Maheshram and others	Kanwar	ST								
700	259/4	0.324	0.324	Shanti W/o Samaru	Kanwar	Others								
701	260	0.664	0.664	Jashoda W/o Ramcharan and others	Gond	ST								
702	261						0.563	0.563	Small Tree Forest					
703	262	0.737	0.737	Kantakumar- Ablamanns and others	Kanwar	ST								
704	263	2.290	2.290	Bihari, Champabai, Hirabai -Devdhar and others	Aghariya	Others								
705	264	1.134	1.134	Devachan - Padman , Dhanru - Ghasiram	Kanwar	ST								
706	265	3.193	3.193	Dhada S/o Sudhu	Gond	ST								
707	266/1	0.202	0.202	Bhiciram - Sohan	Kanvar	Others								
708	266/2	0.405	0.405	Samiram-Bandhna	Uraw	ST								
709	266/3	0.202	0.202	Nanudas S/o Sahasram	Panika	ST								
710	267/1	0.263	0.263	Birbal - Sahasram,Makarmati and others	Panika	ST								
711	267/2	0.172	0.172	Usatram-Tilakram	Gond	ST								
712	267/3	0.959	0.959	Nirmaldas - Sahasram and others	Panika	ST								
713	267/4	1.097	1.097	Birbal - Sahasram,Makarmati and others	Panika	ST								
714	267/5	0.692	0.692	Nirmaldas - Sahasram and others	Panika	ST								
715	267/6	0.101	0.101	Birbal - Sahasram,Makarmati and others	Panika	ST								
716	267/7	0.162	0.162	Usatram-Tilakram	Gond	ST								
717	267/8	0.010	0.010	Usatram-Tilakram	Gond	ST								
718	268/1	2.283	2.283	Mannulal S/o Parkhit	Aghariya	Others								
719	268/2	0.809	0.809	Suksai - Balaram	Uraw	ST								
720	268/3	0.210	0.210	Mina W/o Udaichand	Teli	Others								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
721	268/4	0.210	0.210	Dhanmati W/o Suksai	Oraon	ST								
722	268/5	0.429	0.429	Jagaram - Dukhiram	Kanwal	Others								
723	269/1	0.405	0.405	Ratanchand-Padamlal	Aghariya	Others								
724	269/2	0.543	0.543	Khemraj-Khageshwar, Lekhram-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
725	269/3	0.016	0.016	Khemraj-Khageshwar, Lekharam-Khageshwar ,Devmati W/o Khageshwar	Aghariya	Others								
726	269/4	0.971	0.971	Ganpat S/o Manjar, Loknath S/o Dataram	Aghariya	Others								
727	269/5	0.129	0.129	Ganpat S/o Manjar, Loknath S/o Dataram	Aghariya	Others								
728	269/6	0.166	0.166	Mansingh S/o JankiPrasad	Aghariya	Others								
729	269/7	0.101	0.101	Bheri, Champavati, Hiravati S/o Devdhar	Aghariya	Others								
730	269/8	0.146	0.146	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
731	269/9	0.146	0.146	Bheri, Champavati, Hiravati S/o Devdhar	Aghariya	Others								
732	269/10	0.101	0.101	Gajadhar S/o Lochanprasad	Aghariya	Others								
733	269/11	0.073	0.073	Kanhaiya Lal S/o Lalsai,Basanti S/o Lalsai	Aghariya	Others								
734	269/12	0.073	0.073	Mansingh S/o JankiPrasad	Aghariya	Others								
735	270	0.231	0.231	Vivek Kumar, Vidhyamati, Sitmati S/o Gokul and others	Kanwar	ST								
736	271/1	0.405	0.405	Kantikram and others	Kanwar	ST								
737	271/2	1.275	1.275	Panchram - Dokri	Kanwar	ST								
738	271/3	1.113	1.113	Panchram - Dokri	Kanwar	ST								
739	271/4	1.517	1.517	Padmavati - Kalyan	Kanwar	ST								
740	271/5	0.534	0.534	Gangabai - Kalyan	Kanwar	ST								
741	271/6	0.249	0.249	Kantakumar- Abhimanyu and others	Kanwar	ST								
742	271/7	0.121	0.121	Padmavati - Kalyan	Kanwar	ST								
743	271/8	0.196	0.196	Gangabai - Kalyan	Kanwar	ST								
744	271/9	0.809	0.809	Kantakumar- Abhimanyu and others	Kanwar	ST								
745	271/10	0.726	0.726	Padmavati - Kalyan	Kanwar	ST								
746	271/11	2.023	2.023	Kantakumar- Abhimanyu and others	Kanwar	ST								
747	271/12	0.073	0.073	Padmavati - Kalyan	Kanwar	ST								
748	271/13	1.550	1.550	Padmavati - Kalyan	Kanwar	ST								
Total of Muragaon		302.932	302.393				23.504	23.504		8.256	8.256	5.593	5.593	

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Land Schedule

Village : Libra,P.H.N.: 41, R.I.Circle : Tamnar,Tehsil: Tamnar, District : Raigarh (Chhattisgarh)

Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1	1/1	1.226	0.781	Jageshwar S/o Sakharam	Rawat	Others								
2	3/1	0.364	0.180	Jindal Power Limited, Vivek Dadu S/o B.N.Dadu										
3	3/2 क	0.049	0.049	Jindal Power Limited, Vivek Dadu S/o B.N.Dadu										
4	3/2 ख	0.344	0.344	Jindal Power Limited, Vivek Dadu S/o B.N.Dadu										
5	3/2 ग	0.293	0.291	Jindal Power Limited, Vivek Dadu S/o B.N.Dadu										
6	3/2 घ	0.449	0.449	Jindal Power Limited, Vivek Dadu S/o B.N.Dadu										
7	6/1	0.831	0.591	Jindal Power Limited, Vivek Dadu S/o B.N.Dadu										
8	6/2	4.047	0.151	Dhowai Kanwar	Kanwar	ST								
9	6/3	0.425	0.151	Jindal Power Limited, Vivek Dadu S/o B.N.Dadu										
10	6/4	0.900	0.151	Jindal Power Limited, Vivek Dadu S/o B.N.Dadu										
11	6/5	0.502	0.151	Jindal Power Limited, Vivek Dadu S/o B.N.Dadu										
12	6/6	0.405	0.151	Muramati W/o Narsingh	Kanwar	ST								
13	6/7	0.202	0.151	Ravinarayan Jagatram S/o Nurakar	Aghariya	Others								
14	6/8	0.202	0.151	Udhav S/o Niranjan	Aghariya	Others								
15	6/9	0.465	0.151	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N.Bhargava										
16	6/10	0.336	0.151	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N.Bhargava										
17	6/11	0.506	0.151	Ghasiyaram, Niranjan, Anulsingh S/o Dokri	Kanwar	ST								
18	6/12	0.468	0.151	Chuhiram S/o Bodhram	Rawat	Others								
19	6/13	0.970	0.151	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N.Bhargava										
20	6/14	0.077	0.077	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N.Bhargava										
21	6/15	0.065	0.065	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N.Bhargava										
22	6/16	0.069	0.069	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N.Bhargava										
23	6/17	0.069	0.069	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N.Bhargava										
24	6/18	0.061	0.061	Kanhai Aghariya	Aghariya	Others								
25	6/19	0.138	0.138	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N.Bhargava										
26	6/20	1.096	0.151	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N.Bhargava										
27	6/21	0.393	0.151	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N.Bhargava										
28	6/22	0.751	0.151	Falguni S/o Madhusudan	Aghariya	Others								
29	6/23	0.751	0.151	Venudhar S/o Madhusudan	Aghariya	Others								
30	6/24	0.451	0.151	Shivkumar S/o Parasram	Aghariya	Others								
31	6/25	0.450	0.151	Lalkumar S/o Parasram	Aghariya	Others								
32	6/26	0.450	0.151	Vinodkumar S/o Parasram	Aghariya	Others								
33	6/27	0.450	0.151	Chandan S/o Parasram	Aghariya	Others								
34	6/28	0.451	0.151	Tenura S/o Parasram	Aghariya	Others								
35	7/1						0.202	0.202	Small Tree Forest					
36	7/2	0.174	0.174	Dimini S/o Shukaru Prakash Nanki and others	Kanwar	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
37	7/3	0.104	0.104	Dimni S/o Shukltu Prakash Nanki and others	Kanwar	ST								
38	8	0.320	0.320	Netranand, Vedmati, Gayatri S/o Prakash	Kanwar	ST								
39	9						0.096	0.096	Small Tree Forest					
40	10						0.229	0.229	Small Tree Forest					
41	11	0.619	0.619	Netranand, Vedmati, Gayatri S/o Prakash	Kanwar	ST								
42	12/1	2.420	2.420	Kanwar	Kanwar	ST								
43	12/2	3.209	3.209	Netranand, Vedmati, Gayatri S/o Prakash	Kanwar	ST								
44	13						0.214	0.214	Small Tree Forest					
45	14/1	0.250	0.250	Bramha Prasnahai S/o Sona Rupdhar	Kanwar	ST								
46	14/2	0.235	0.235	Raghunath S/o Buduram	Khadiya	ST								
47	14/3	0.021	0.021	Raghunath S/o Buduram	Khadiya	ST								
48	14/4	0.162	0.162	Somnath- Budu	Khadiya	ST								
49	15/1 ख						0.162	0.162	Small Tree Forest					
50	15/1 ख	0.648	0.648	Janakram S/o Pattu and others	Kanwar	ST								
51	15/2	1.242	1.242	Netranand, Vedmati, Gayatri S/o Prakash	Kanwar	ST								
52	15/3	0.445	0.445	Janakram S/o Pattu and others	Kanwar	ST								
53	16	1.384	1.384	Janakram S/o Pattu and others	Kanwar	ST								
54	17	0.514	0.514	Janakram S/o Pattu and others	Kanwar	ST								
55	18	0.295	0.295	Arjun S/o Bharat	Kanwar	ST								
56	19/1	0.324	0.324	Rushmesh Sitaram,Alekhram S/o Loknath and others	Aghariya	Others								
57	19/2	0.312	0.312	Udenath S/o Raghunath and others	Aghariya	Others								
58	19/3	0.486	0.486	Durgaprasad S/o Vaidnath	Aghariya	Others								
59	19/4	1.655	1.655	Udenath S/o Raghunath and others	Aghariya	Others								
60	19/5	0.506	0.506	Harivansh S/o Padman	Aghariya	Others								
61	19/6	0.583	0.583	Babulal S/o Devanand	Aghariya	Others								
62	19/7	0.101	0.101	Rushmesh Sitaram,Alekhram S/o Loknath	Aghariya	Others								
63	19/8	0.101	0.101	Roshan S/o Shivshankar	Aghariya	Others								
64	19/9	0.141	0.141	Devkunari W/o Harilal Aghariya	Aghariya	Others								
65	19/10	0.365	0.365	Harivansh S/o Padman	Aghariya	Others								
66	19/11	0.202	0.202	Babulal S/o Devanand	Aghariya	Others								
67	19/12	0.447	0.447	Rushmesh Sitaram,Alekhram S/o Loknath and others	Aghariya	Others								
68	19/13	0.341	0.341	Babulal S/o Devanand	Aghariya	Others								
69	19/14	0.486	0.486	Rushmesh Sitaram,Alekhram S/o Loknath	Aghariya	Others								
70	19/15	0.178	0.178	Rushmesh Sitaram,Alekhram S/o Loknath	Aghariya	Others								
71	19/16	0.336	0.336	Durgaprasad Aghariya	Aghariya	Others								
72	19/17	0.113	0.113	Harivansh S/o Padman	Aghariya	Others								
73	20						0.045	0.045	Small Tree Forest					
74	21/1	0.057	0.057	Rushmesh Sitaram,Alekhram S/o Loknath and others	Aghariya	Others								
75	21/2	0.105	0.105	Rushmesh Sitaram,Alekhram S/o Loknath	Aghariya	Others								
76	21/3	0.186	0.186	Roshan S/o Shivshankar	Aghariya	Others								
77	21/4	0.073	0.073	Udenath S/o Raghunath and others	Aghariya	Others								
78	21/5	0.291	0.291	Harivansh S/o Padman	Aghariya	Others								
79	21/6	0.166	0.166	Babulal S/o Devanand	Aghariya	Others								
80	21/7	0.036	0.036	Harivansh S/o Padman	Aghariya	Others								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
81	22/1	0.061	0.061	Rushmesh Sitaram,Alekhram S/o Loknath and others	Aghariya	Others								
82	22/2	0.0214	0.170	Rushmesh Sitaram,Alekhram S/o Loknath	Aghariya	Others								
83	22/3	0.093	0.093	Roshan S/o Shivshankar	Aghariya	Others								
84	22/4	0.041	0.041	Udenath S/o Raghunath and others	Aghariya	Others								
85	22/5	0.198	0.198	Harivansh S/o Padman	Aghariya	Others								
86	22/6	0.085	0.085	Babulal S/o Devanand	Aghariya	Others								
87	22/7	0.024	0.024	Harivansh S/o Padman	Aghariya	Others								
88	22/8	0.040	0.040	Udenath S/o Raghunath and others	Aghariya	Others								
89	22/9	0.182	0.125	Rishimesh Sitaram,Alekhram S/o Loknath	Aghariya	Others								
90	23/1 क						0.947	0.947	Small Tree Forest					
91	23/1 ख	0.185	0.140	Jindal Power Limited, Vivek Dadu S/o B.N Dadu										
92	23/1 ग	0.092	0.092	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N.Bhargava										
93	23/1 घ	0.223	0.200	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N Bhargava										
94	23/1 ङ	0.016	0.016	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N Bhargava										
95	23/1 च	0.174	0.149	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N Bhargava										
96	23/1 छ	0.185	0.150	Falguni S/o Madhusudan	Aghariya	Others								
97	23/1 ज	0.136	0.136	Venudhar S/o Madhusudan	Aghariya	Others								
98	23/2	0.041	0.041	Rishimesh Sitaram,Alekhram S/o Loknath	Aghariya	Others								
99	23/3	0.049	0.049	Rishimesh Sitaram,Alekhram S/o Loknath	Aghariya	Others								
100	23/4	0.486	0.409	Niramatt W/o Narsingh	Kanwar	ST								
101	23/5	0.259	0.200	Udhav S/o Niranjan	Aghariya	Others								
102	23/6	0.050	0.050	Venudhar S/o Madhusudan	Aghariya	Others								
103	23/7	0.339	0.300	Rishimesh Sitaram,Alekhram S/o Loknath and others	Aghariya	Others								
104	23/8	0.143	0.143	Jindal Power Limited, Vivek Dadu S/o B.N Dadu										
105	23/9	0.235	0.200	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N Bhargava										
106	23/10	0.081	0.081	Ghasiyaram, Niranjan, Amrtsingh S/o Dokri	Kanwar	ST								
107	23/11	0.291	0.250	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N Bhargava										
108	23/12	0.085	0.085	Udenath S/o Raghunath and others	Aghariya	Others								
109	23/13	0.024	0.024	Harivansh S/o Padman	Aghariya	Others								
110	23/14	0.510	0.250	Udenath S/o Raghunath and others	Aghariya	Others								
111	23/15	0.214	0.140	Rawan S/o Shivshankar	Aghariya	Others								
112	23/16	0.101	0.101	Shivkumar S/o Parasram	Aghariya	Others								
113	23/17	0.112	0.112	Lalkumar S/o Parasram	Aghariya	Others								
114	23/18	0.112	0.112	Venudhar S/o Madhusudan	Aghariya	Others								
115	23/19	0.111	0.111	Chandan Singh S/o Parasram	Aghariya	Others								
116	23/20	0.111	0.111	Tejram S/o Parasram	Aghariya	Others								
117	136/2	0.309	0.090	Dasrath Jitendra S/o Valmadra Shobhabai	Sodhi	ST								
118	136/5	1.214	0.990	Dasrath Jitendra S/o Valmadra Shobhabai	Sodhi	ST								
119	139						0.717	0.464	Small Tree Forest					
120	140	0.579	0.579	Janakram S/o Pelu and others	Kanwar	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
121	141	0.247	0.247	KantiKeshwar,Vimalkumar, Ashok Kumar Naresh Kumar and others	Rawat	Others								
122	142/1											1.376	1.376	Road
123	142/2											0.405	0.405	Road
124	143	0.316	0.316	Bharat Narad S/o Nathi	Kanwar	ST								
125	144/1	0.176	0.175	Sohit S/o Mansav	Kanwar	ST								
126	144/2											0.057	0.057	Road
127	144/3	0.175	0.175	Bharat S/o Nathi	Kanwar	ST								
128	144/4	0.176	0.176	Narad S/o Nathi	Kanwar	ST								
129	145/1									0.368	0.259			
130	145/2	0.020	0.020	KantiKeshwar, Vimalkumar, Ashok Kumar Naresh Kumar and others	Rawat	Others								
131	145/3						0.405	0.311	Small Tree Forest					
132	145/4						0.405	0.405	Small Tree Forest					
133	145/5						0.101	0.101	Small Tree Forest					
134	145/6									1.574	1.574			
135	146									0.619	0.619			
136	147/1	0.295	0.295	Janakram S/o Pethi and others	Kanwar	ST								
137	147/2,3									0.445	0.445			
138	147/4	0.148	0.148	Dhowai and others	Gond	ST								
139	148/1	1.039	0.299	Chandramadi and others	Gond	ST								
140	148/2	0.202	0.100	Bablu S/o Matvaar	Gond	ST								
141	149/1 ङ	2.594	1.720	KantiKeshwar, Vimalkumar, Ashok Kumar Naresh Kunwar and others	Rawat	Others								
142	149/1 ग											0.121	0.121	Road
143	149/2						0.243	0.243	Small Tree Forest					
144	150	1.586	0.009	Smaj Kumar Lal Kumar S/o Veersingh and others	Gond	ST								
145	169/1	14.697	2.766	Chandramadi and others	Gond	ST								
146	169/2	1.246	0.938	Surajmon and others	Gond	ST								
147	169/3	0.705	0.705	Bablu S/o Matvaar	Gond	ST								
148	169/4	0.045	0.045	Ram S/o Gadasa	Kanwar	ST								
149	174/1	1.197	1.197	Jitendra S/o Balbhadra	Sodhi	ST								
150	174/2	0.162	0.162	Dukhiram and others	Gond	ST								
151	174/3						0.627	0.627	Small Tree Forest					
152	176/1 ख	0.491	0.084	Rishmesh Sitaram,Alekhram S/o Loknath	Aghariya	Others								
153	176/1 क	0.401	0.082	Roshan S/o Shivshankar	Aghariya	Others								
154	176/1 ग	0.592	0.082	Udenath	Aghariya	Others								
155	176/1 ङ	2.040	0.082	Harivansh S/o Padwan	Aghariya	Others								
156	176/1 च	0.263	0.082	Babulal S/o Devanand	Aghariya	Others								
157	176/1 छ	0.202	0.082	Babulal S/o Devanand	Aghariya	Others								
158	176/1 ज	0.487	0.087	Udenath S/o Raghunath and others	Aghariya	Others								
159	176/1 झ	0.101	0.082	Rishmesh Sitaram Alekhram S/o Loknath	Aghariya	Others								
160	176/1 ञ	0.077	0.077	Rishimesh Sitaram,Alekhram S/o Loknath	Aghariya	Others								
161	176/2	0.162	0.137	Dukhiram and others	Gond	ST								
162	177						0.125	0.125	Small Tree Forest					
163	178/1	0.841	0.742	Dasrathi and other	Sodhi	ST								
164	178/2	0.385	0.385	Dasrathi and other	Sodhi	ST								
165	178/3	0.232	0.232	Bihari lal,Kamal,Munni and others	Sodhi	ST								

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
166	178/4	0.954	0.954	Goverdhan S/o Narsingh	Sodhi	ST								
167	178/5	0.081	0.081	Nareshkumar, Yasoda S/o Ankur	Sodhi	ST								
168	178/6	0.081	0.081	Suko S/o Narsingh	Sodhi	ST								
169	178/7	0.334	0.334	Nareshkumar, Yasoda S/o Ankur	Sodhi	ST								
170	178/8	0.142	0.142	Suko S/o Narsingh	Sodhi	ST								
171	178/9	0.200	0.200	Biharilal,Kamal,Munni and others	Sodhi	ST								
172	178/10	0.200	0.200	Goverdhan S/o Narsingh	Sodhi	ST								
173	178/11	0.200	0.200	Nareshkumar, Yasoda S/o Ankur	Sodhi	ST								
174	178/12	0.200	0.200	Suko S/o Narsingh	Sodhi	ST								
175	178/13	0.416	0.416	Mannulal and others	Sodhi	ST								
176	178/14	0.200	0.200	Mannulal and others	Sodhi	ST								
177	179	0.093	0.093	Janakram S/o Pellu and others	Kanwar	ST								
178	180/1	0.081	0.081	Dasrathi and other	Sodhi	ST								
179	180/2	0.432	0.432	Biharilal,Kamal,Munni and others	Sodhi	ST								
180	180/3	0.346	0.346	Jindal Power Limited										
181	180/4	0.455	0.455	Nareshkumar, Yasoda S/o Ankur	Sodhi	ST								
182	180/5	0.400	0.400	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N Bhargava										
183	180/6	0.361	0.361	Dasrathi and other	Sodhi	ST								
184	180/7	0.181	0.181	Biharilal,Kamal,Munni and others	Sodhi	ST								
185	180/8	0.181	0.181	Goverdhan S/o Narsingh	Sodhi	ST								
186	180/9,10	0.282	0.282	Nareshkumar, Yasoda S/o Ankur	Sodhi	ST								
187	180/11	0.080	0.080	Suko S/o Narsingh	Sodhi	ST								
188	180/12	0.363	0.363	Mannulal and others	Sodhi	ST								
189	181/1	0.336	0.336	Baleshwar S/o Dokri	Kanwar	ST								
190	181/2	0.336	0.336	Shyamlal ,Chhabilal , S/o Baliram and others	Kanwar	ST								
191	182	0.725	0.725	Netranand,Vedmati, Gayatri S/o Prakashdev	Kanwar	ST								
192	183	0.388	0.388	Netranand, Vedmati, Gayatri S/o Prakash	Kanwar	ST								
193	184/1						0.510	0.510	Small Tree Forest					
194	184/2	0.162	0.162	Puran S/o Prithvi and others	Kanwar	ST								
195	185						1.028	1.028	Small Tree Forest					
196	186	0.954	0.954	Netranand Vedmati, Gayatri S/o Prakash	Kanwar	ST								
197	187	2.028	2.028	Shukla Jagannath S/o Vaniktam	Kanwar	ST								
198	188	1.448	1.448	Karamsingh S/o Ramsingh	Kanwar	ST								
199	189	0.595	0.595	Karamsingh S/o Ramsingh	Kanwar	ST								
200	190	0.388	0.388	Shukla and others	Kanwar	ST								
201	191/1						0.458	0.458	Small Tree Forest					
202	191/2	0.393	0.393	Karamsingh S/o Ramsingh	Kanwar	ST								
203	191/3 a	0.121	0.121	Gurwari -Budhu	Kanwar	ST								
204	191/3 a	0.809	0.809	Niramati W/o Narsingh	Kanwar	ST								
205	191/4	0.486	0.486	Gurwari -Budhu	Kanwar	ST								
206	191/5	0.384	0.384	Shukla and others	Kanwar	ST								
207	191/6						1.137	1.137	Small Tree Forest					
208	191/7	0.259	0.259	Chakradha, Mayadhar and others	Kanwar	ST								
209	191/8	0.020	0.020	Dharamsingh S/o Chamarsingh	Kanwar	ST								
210	191/9	0.020	0.020	Karamsingh S/o Chamarsingh	Kanwar	ST								
211	191/10	0.020	0.020	Haridhar S/o Chamarsingh and others	Kanwar	ST								
212	192/1	0.049	0.049	Shambhu S/o Ramprasad	Kanwar	ST								

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
213	192/2	0.041	0.041	Dharamsingh S/o Chamarsingh	Kanwar	ST									
214	192/3	0.210	0.210	Baleshwar S/o Dokri	Kanwar	ST									
215	192/4	0.041	0.041	Karamsingh S/o Chamarsingh	Kanwar	ST									
216	192/5	0.041	0.041	Harihar S/o Chamarsingh and others	Kanwar	ST									
217	192/6	0.445	0.445	Chakradha, Mayadhar and others	Kanwar	ST									
218	192/7	0.243	0.243	Baleshwar S/o Dokri	Kanwar	ST									
219	192/8	0.225	0.225	Shyamlal ,Chhabilal , S/o Bahram and others	Kanwar	ST									
220	192/9	0.073	0.073	Shyamlal ,Chhabilal , S/o Bahram and others	Kanwar	ST									
221	192/10	0.121	0.121	Sanpat S/o Budhuram	Gond	ST									
222	192/11	0.149	0.149	Shyamlal ,Chhabilal , S/o Baliram and others	Kanwar	ST									
223	192/12	0.705	0.705	Harihar S/o Chamarsingh and others	Kanwar	ST									
224	192/13	0.328	0.328	Sanpat S/o Budhuram	Gond	ST									
225	193/1	1.461	1.461	Ramkumar S/o Gadasa	Kanwar	ST									
226	193/2	0.149	0.149	Dharamsingh S/o Chamarsingh	Kanwar	ST									
227	193/3	0.149	0.149	Karamsingh S/o Chamarsingh	Kanwar	ST									
228	193/4	0.433	0.433	Harihar S/o Chamarsingh and others	Kanwar	ST									
229	193/5	0.921	0.921	Shyamlal ,Chhabilal , S/o Baliram and others	Kanwar	ST									
230	193/6	0.149	0.149	Baleshwar S/o Dokri	Kanwar	ST									
231	193/7	0.199	0.199	Chakradha, Mayadhar and others	Kanwar	ST									
232	193/8	0.085	0.085	Shyamlal ,Chhabilal , S/o Baliram and others	Kanwar	ST									
233	193/9	0.401	0.401	Dharamsingh S/o Chamarsingh	Kanwar	ST									
234	193/10	0.248	0.248	Karamsingh S/o Chamarsingh	Kanwar	ST									
235	193/11	0.149	0.149	Harihar S/o Chamarsingh and others	Kanwar	ST									
236	193/12	0.167	0.167	Dharamsingh S/o Chamarsingh	Kanwar	ST									
237	193/13	0.061	0.061	Dharamsingh S/o Chamarsingh	Kanwar	ST									
238	193/14	0.057	0.057	Sanpat S/o Budhuram	Gond	ST									
239	194/1						0.656	0.656	Small Tree Forest						
240	194/2	0.040	0.040	Baleshwar S/o Dokri	Kanwar	ST									
241	195	2.407	2.407	Shukla and others	Kanwar	ST									
242	196	0.368	0.368	KartiKeshwar,Vimalkumar, Ashok Kumar Naresh Kumar and others	Rawat	Others									
243	197	2.822	2.822	Shukla and others	Kanwar	ST									
244	198						0.386	0.386	Small Tree Forest						
245	199	0.336	0.336	Dhobai S/o Ghasiya	Kanwar	ST									
246	200	0.704	0.704	Dasrathi and other	Sodhi	ST									
247	201/1						0.500	0.500	Small Tree Forest						
248	201/2	0.121	0.121	Lachhuram	Kanwar	ST									
249	201/3						1.214	1.214	Small Tree Forest						
250	201/4						0.405	0.405	Small Tree Forest						
251	201/5						0.809	0.809	Small Tree Forest						
252	202/1 क	0.198	0.198	Ramkumar S/o Gadasa	Kanwar	ST									
253	202/1 ख						0.660	0.660	Small Tree Forest						
254	202/1 ग	0.138	0.138	Dharamsingh S/o Chamarsingh	Kanwar	ST									
255	202/1 घ	0.016	0.016	Harihar S/o Chamarsingh and others	Kanwar	ST									
256	202/1 ङ	0.093	0.093	Shivlal Chavilal Rogo Uma S/o Baliram	Kanwar	ST									
257	202/1 च	0.097	0.097	Karamsingh S/o Chamarsingh	Kanwar	ST									
258	202/1 छ	0.202	0.202	Harihar S/o Chamarsingh and others	Kanwar	ST									
259	202/1 ज	0.413	0.413	Dharamsingh S/o Chamarsingh	Kanwar	ST									

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
260	202/1	0.101	0.101	Karamsingh S/o Chamarsingh	Kanwar	ST								
261	202/2	0.101	0.101	Dharamsingh S/o Chamarsingh	Kanwar	ST								
262	202/3	0.041	0.041	Dharamsingh S/o Chamarsingh	Kanwar	ST								
263	202/4	0.117	0.117	Karamsingh S/o Chamarsingh	Kanwar	ST								
264	202/5	0.109	0.109	Harihar S/o Chhamarsingh and others	Kanwar	ST								
265	202/6	1.093	1.093	Shyambai ,Chhabilal , S/o Baliram and others	Kanwar	ST								
266	202/7	0.016	0.016	Harihar S/o Chamarsingh and others	Kanwar	ST								
267	202/2						0.134	0.134	Small Tree Forest					
268	202/3						0.550	0.550	Small Tree Forest					
269	203/1	0.109	0.109	Lachhuram	Kanwar	ST								
270	203/2						0.328	0.328	Small Tree Forest					
271	203/3						0.142	0.142	Small Tree Forest					
272	203/4	0.275	0.275	Maheshram and others	Kanwar	ST								
273	203/5	0.405	0.405	Premshila W/o Chamarsingh	Aghariya	Others								
274	204/1	0.081	0.081	Dharamsingh S/o Chamarsingh	Kanwar	ST								
275	204/2	0.125	0.125	Dharamsingh S/o Chamarsingh	Kanwar	ST								
276	205/1						0.348	0.348	Small Tree Forest					
277	205/2	0.065	0.065	Dharamsingh S/o Chamarsingh	Kanwar	ST								
278	205/3	0.405	0.405	Premshila W/o Chamarsingh	Aghariya	Others								
279	205/4	0.546	0.546	Dharamsingh S/o Chamarsingh	Kanwar	ST								
280	205/5	0.064	0.064	Harihar S/o Chamarsingh and others	Kanwar	ST								
281	206	1.979	1.979	Rushavlal Minketan Dolprasad Shivnath S/o Chamarsingh	Aghariya	Others								
282	207/1						0.188	0.188	Small Tree Forest					
283	207/2	0.105	0.105	Rushavlal Minketan Dolprasad Shivnath S/o Chamarsingh	Aghariya	Others								
284	207/3	0.506	0.506	Rajkumar	Kanwar	ST								
285	208	1.149	1.149	Rushavlal Minketan Dolprasad Shivnath S/o Chamarsingh	Aghariya	Others								
286	209/1	0.016	0.016	Shambhu S/o Ramprasad	Kanwar	ST								
287	209/2	0.121	0.121	Premshila W/o Chamarsingh	Aghariya	Others								
288	209/3	0.080	0.080	Sampat S/o Budhuram	Gond	ST								
289	210	0.397	0.397	Shambhu S/o Ramprasad	Kanwar	ST								
290	211/1	0.280	0.270	Mohitram S/o Toni	Kanwar	ST								
291	211/2	0.131	0.125	Mohitram S/o Toni	Kanwar	ST								
292	212/1	0.462	0.457	Netranand,Vedmati, Gayatri S/o Prakashdev	Kanwar	ST								
293	212/2	0.340	0.340	Karamsingh S/o Chamarsingh	Kanwar	ST								
294	213/1	0.413	0.350	Nanki S/o Bundesam	Kanwar	ST								
295	213/2	0.437	0.237	Veerendhar S/o Madhusudan	Aghariya	Others								
296	213/3	0.344	0.134	Goverdhan and others	Kanwar	ST								
297	213/4	0.070	0.070	Shivkumar	Aghariya	Others								
298	213/5	0.070	0.070	Lalkumar S/o Parasram	Aghariya	Others								
299	213/6	0.071	0.071	Vinodkumar	Aghariya	Others								
300	213/7	0.070	0.070	Chandan Singh S/o Parasram	Aghariya	Others								
301	213/8	0.071	0.071	Tejram S/o Parasram	Aghariya	Others								
302	214	1.283	1.283	Rishimesh Sitaram,Alekhram S/o Loknath and others	Aghariya	Others								
303	215/1	0.065	0.065	Dharamsingh, Karamsingh,Harisinghand others	Kanwar	ST								

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							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
304	215/2	0.255	0.255	Venudhar S/o Madhusudan	Aghariya	Others									
305	215/3	0.045	0.045	Rushavlal and others	Aghariya	Others									
306	215/4	0.312	0.312	Tejram S/o Parasram	Aghariya	Others									
307	216	0.465	0.370	Rushavlal Minketan Dulprasad Shivnath S/o Chamarsingh	Aghariya	Others									
308	217/1	0.474	0.474	Netramend, Vedmati, Gayatri S/o Prakash	Kanwar	ST									
309	217/2	0.607	0.607	Narsingh and others	Kanwar	ST									
310	217/3	2.056	0.700	Netramend, Vedmati, Gayatri S/o Prakash	Kanwar	ST									
311	219											0.845	0.845	Road	
312	234/1	1.468	0.014	Bhogsingh S/o Matvar	Gond	ST									
313	234/2	0.413	0.009	Sitaram, Radheshyam S/o Manbodh	Nagvanshi	Others									
314	234/3	0.628	0.009	Sukant S/o Durjan	Gond	ST									
315	234/4	0.219	0.009	Sukant S/o Durjan	Gond	ST									
316	234/5	0.308	0.009	Fulmati W/o Manbodh	Nagvanshi	Others									
317	234/6	0.129	0.009	Goverdhan S/o Samaru	Rawat	Others									
318	234/7	0.133	0.009	Hiralal S/o Dasrath	Gond	ST									
319	235/1	1.113	0.040	Chandramadi and others	Gond	ST									
320	235/2	0.085	0.040	Thansingh S/o Agarsingh	Gond	ST									
321	235/3	0.170	0.040	Akambar S/o kartikram	Gond	ST									
322	235/4	0.085	0.040	Aadsingh S/o Agarsingh	Gond	ST									
323	236	0.328	0.328	Parasram	Gond	ST									
324	237	0.733	0.733	Buduram and others	Kanwar	ST									
325	238						0.450	0.450	Small Tree Forest						
326	239/1	0.304	0.304	Ramsingh and others	Kanwar	ST									
327	239/2	0.150	0.150	Veersingh S/o Kuyram	Kanwar	ST									
328	239/3,240/1	1.117	1.117	Rushavlal Minketan Dulprasad Shivnath S/o Chamarsingh	Aghariya	Others									
329	240/2	0.040	0.040	Lachhiram	Kanwar	ST									
330	241/1	1.100	1.100	Lachhiram	Kanwar	ST									
331	241/2	0.142	0.142	Lachhiram and others	Gond	ST									
332	242/1	0.491	0.491	Chandramadi and others	Gond	ST									
333	242/2	0.209	0.209	Netramend,Vedmati, Gayatri S/o Prakashdev	Kanwar	ST									
334	243	0.412	0.412	Shukla and others	Kanwar	ST									
335	244	0.174	0.174	Mohanlal, Pahram	Gond	ST									
336	245						0.474	0.219	Small Tree Forest						
337	246/1	0.219	0.079	Netramend, Vedmati, Gayatri S/o Prakash	Kanwar	ST									
338	246/2	0.324	0.005	Niramati W/o Narsingh	Kanwar	ST									
339	251/3	0.287	0.190	Achhelkumar and others	Gond	ST									
340	251/4	0.405	0.405	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N.Bhargava											
341	251/5	0.255	0.255	Narad	Kanwar	ST									
342	251/6	0.049	0.049	Fulkunwar W/o Darjan ,Sukant S/o Darjan	Gond	ST									
343	290/1											1.890	1.890	Road	
344	297	0.125	0.125	Rushavlal and others	Aghariya	Others									
345	298/1	0.295	0.295	KartiKeshwar,Vimalkumar, Ashok Kumar Naresh Kumar and others	Rawat	Others									
346	298/2	0.044	0.044	KartiKeshwar,Vimalkumar, Ashok Kumar Naresh Kumar and others	Rawat	Others									

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
347	298/3	0.045	0.045	KartiKeshwar,Vimalkumar, Ashok Kumar Naresh Kumar and others	Rawat	Others								
348	299/2	0.113	0.113	Babulal S/o Devanand	Aghariya	Others								
349	300/1	0.040	0.040	Keshav S/o Raturam	Kanwar	ST								
350	300/2	0.158	0.158	Chakradhar	Aghariya	Others								
351	301/1	0.371	0.371	Shivnarayan S/o Chamarsingh	Aghariya	Others								
352	301/2	0.721	0.721	Babulal S/o Devanand	Aghariya	Others								
353	301/3	0.065	0.065	Rushavlal and others	Aghariya	Others								
354	302/1,303/1	1.080	1.080	Pushpavati W/o Motilal	Dava	Others								
355	303/2	0.040	0.040	KartiKeshwar, Vimalkumar, Ashok Kumar Naresh Kumar and others	Rawat	Others								
356	304/1	0.615	0.615	Babulal S/o Devanand	Aghariya	Others								
357	304/2	0.040	0.040	KartiKeshwar,Vimalkumar, Ashok Kumar Naresh Kumar and others	Rawat	Others								
358	304/3						0.429	0.429	Small Tree Forest					
359	305	0.368	0.368	Babulal S/o Devanand	Aghariya	Others								
360	306/1 ख	0.384	0.384	Babulal S/o Devanand	Aghariya	Others								
361	306/1 क	0.020	0.020	KartiKeshwar,Vimalkumar, Ashok Kumar Naresh Kumar and others	Rawat	Others								
362	306/2	0.190	0.190	Babulal S/o Devanand	Aghariya	Others								
363	307	3.625	3.625	KartiKeshwar,Vimalkumar, Ashok Kumar Naresh Kumar and others	Rawat	Others								
364	308/1	0.652	0.652	Babulal S/o Devanand	Aghariya	Others								
365	308/2	0.150	0.150	KartiKeshwar,Vimalkumar, Ashok Kumar Naresh Kumar and others	Rawat	Others								
366	309/1	0.139	0.139	Bharat S/o Gathkuru	Kanwar	ST								
367	309/2	0.275	0.275	Ghasiram S/o Bicari	Saura	ST								
368	309/3	0.024	0.024	Mohitram S/o Tuni	Kanwar	ST								
369	309/4	0.234	0.234	Tularam	Saura	ST								
370	310/1	0.012	0.012	Dalamadi and others	Aghariya	Others								
371	310/2	0.081	0.081	Ravinarayan Jagatram S/o Nirakar	Aghariya	Others								
372	310/3	0.053	0.053	Jindal Power Limited, Vivek Dadu S/o B.N.Dadu										
373	310/4	0.263	0.263	Janakram	Aghariya	Others								
374	310/5	0.138	0.138	Jindal Power Limited, Vivek Dadu S/o B.N.Dadu										
375	310/6,310/8	0.546	0.546	Rajkumar S/o Chakradhar	Aghariya	Others								
376	310/7	0.128	0.128	Dolprasad S/o Charansingh	Aghariya	Others								
377	310/9	0.125	0.125	Rushavlal and others	Aghariya	Others								
378	310/10	0.081	0.081	Udhav S/o Narayan	Aghariya	Others								
379	310/11	0.348	0.348											
380	310/12	0.016	0.016	Lakhanlal S/o Sobharam	Aghariya	Others								
381	311/1	0.043	0.043	Uttamlal, Pushpendra Pushpa S/o Dhaleshwar	Aghariya	Others								
382	311/2	0.043	0.043	Sukharam S/o Kalapram	Aghariya	Others								
383	311/3	0.029	0.029	LaGhapati S/o Rukhman	Aghariya	Others								
384	311/4	0.029	0.029	Ruplal	Aghariya	Others								
385	311/5	0.029	0.029	Rohitkumar S/o Kanwalsai	Aghariya	Others								
386	311/6	0.029	0.029	Minketan	Aghariya	Others								

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
387	311/7	0.029	0.029	Falguni S/o Madhusudan	Aghariya	Others									
388	311/8	0.029	0.029	Jindal Power Limited, Vivek Dadu S/o B.N.Dadu											
389	311/9	0.017	0.017	Shivkumar S/o Parasram	Aghariya	Others									
390	311/10	0.017	0.017	Lalkumar S/o Parasram	Aghariya	Others									
391	311/11	0.017	0.017	Vinodkumar S/o Parasram	Aghariya	Others									
392	311/12	0.018	0.018	Tejram S/o Parasram	Aghariya	Others									
393	311/13	0.015	0.015	Chandan Singh S/o Parasram	Aghariya	Others									
394	312	0.316	0.316	Sevabhumi Kotwar											
395	313/1 क	0.154	0.154	Rushavlal S/o Chamarsingh	Aghariya	Others									
396	313/1 ख	0.154	0.154	Mahetan	Aghariya	Others									
397	313/1 ग	0.154	0.154	Dolprasad S/o Chamarsingh	Aghariya	Others									
398	313/2	0.210	0.210	Tejram S/o Parasram	Aghariya	Others									
399	313/3 क	0.324	0.324	Shivnarayan S/o Chamarsingh	Aghariya	Others									
400	313/3ख	0.324	0.324	Ghanshyam S/o Chamar	Aghariya	Others									
401	314/1	0.183	0.183	Bhuri and others S/o Mangu	Kanwar	ST									
402	314/3 क	0.050	0.050	Ravinarayan Jagatram S/o Nirakar	Aghariya	Others									
403	314/3 ख	0.202	0.185	Gokulprasad Chamru S/o Damru Gangavati W/o Damru	Aghariya	Others									
404	314/4	0.390	0.390	Dhaleshwar	Aghariya	Others									
405	314/5	0.121	0.121	Lapwani Indumati and others	Sodhi	ST									
406	314/6	1.672	0.995	Ku. Draupati W/o Lambodar	Kanwar	ST									
407	314/7	0.101	0.101	Uttamlal, Pushpendra Pushpa S/o Dhaleshwar	Aghariya	Others									
408	314/8	0.186	0.186	Jindal Power Limited, Vivek Dadu S/o B.N.Dadu											
409	314/9	0.186	0.186	Naresakumar, Yasoda S/o Ankar	Sodhi	ST									
410	314/10	0.182	0.182	Suko S/o Narsingh	Sodhi	ST									
411	314/11	0.101	0.101	Khushiram	Aghariya	Others									
412	314/12	0.067	0.067	Ganpati S/o Rukmaa	Aghariya	Others									
413	314/13	0.067	0.067	Ruplal S/o Kalapram	Aghariya	Others									
414	314/14	0.068	0.068	Rohitkumar S/o Kanwalsai	Aghariya	Others									
415	314/15	0.067	0.067	Jindal Power Limited, Vivek Dadu S/o B.N.Dadu											
416	314/16	0.068	0.068	Suke S/o Narsingh	Sodhi	ST									
417	314/17	0.067	0.067	Jindal Power Limited, Vivek Dadu S/o B.N.Dadu											
418	314/18	0.041	0.041	Shivkumar S/o Parasram	Aghariya	Others									
419	314/19	0.041	0.041	Lalkumar S/o Parasram	Aghariya	Others									
420	314/20	0.040	0.040	Vinodkumar	Aghariya	Others									
421	314/21	0.041	0.041	Tejram S/o Parasram	Aghariya	Others									
422	314/22	0.040	0.040	Chandan Singh S/o Parasram	Aghariya	Others									
423	314/23	0.085	0.085	Ganpati S/o Rukman	Aghariya	Others									
424	314/24	0.016	0.016	Rohitkumar S/o Kanwalsai	Aghariya	Others									
425	314/25	0.293	0.293	Sukhiram S/o Kalapram	Aghariya	Others									
426	314/26	0.289	0.289	Ganpati S/o Rukman	Aghariya	Others									
427	314/27	0.288	0.288	Ruplal S/o Kalapram	Aghariya	Others									
428	314/28	0.237	0.237	Rohitkumar S/o Kanvalsai	Aghariya	Others									
429	315											0.439	0.439	Below water	
430	316						0.105	0.105	Small Tree Forest						
431	317/4	0.445	0.445	Draupati, Damyanti and others	Sodhi	ST									
432	317/1	0.121	0.100	Mansukh S/o Shree Chand	Sodhi	ST									
433	317/5	0.040	0.040	Premsingh S/o Pukharu	Gada	ST									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
434	317/6	0.131	0.090	Lapwani ,Indumati and others	Sodhi	ST									
435	317/7	0.809	0.416	Mannulal S/o Shree Chand	Sodhi	ST									
436	317/8	0.627	0.087	Lapwani ,Indumati and others	Sodhi	ST									
437	317/9	0.207	0.087	Lapwani ,Indumati and others	Sodhi	ST									
438	317/10	0.020	0.020	Minketan	Agharjya	Others									
439	317/11	0.010	0.010	Ganpat S/o Rukman	Agharjya	Others									
440	317/12	0.013	0.013	Ruplal S/o Kalapram	Agharjya	Others									
441	317/13	0.013	0.013	Rohitkumar S/o Kanwalsai	Agharjya	Others									
442	318/1	0.739	0.563	Premsingh S/o Pichhara	Gada	ST									
443	318/2	0.008	0.008	Manaklal S/o Shree Chand	Sodhi	ST									
444	319/1	0.105	0.080	Rishimesh, Sitaram,Alekhram S/o Loknath	Agharjya	Others									
445	319/2	0.100	0.100	Durgaprashad	Agharjya	Others									
446	319/3	0.053	0.053	Udenath S/o Raghunath and others	Agharjya	Others									
447	319/4	0.223	0.100	Hariyansh S/o Padman	Agharjya	Others									
448	320	0.138	0.138	Rushavlal Mirketan Dolprasad Shivnath S/o Chamarsingh	Agharjya	Others									
449	321/1	0.109	0.080	Rishimesh Sitaram,Alekhram S/o Loknath and others	Agharjya	Others									
450	321/2	0.259	0.259	Shivnarayan S/o Chamarsingh	Agharjya	Others									
451	321/3	0.215	0.120	Udenath S/o Raghunath and others	Agharjya	Others									
452	322/2	0.021	0.008	Jindal Power Limited, Vivek Dadu S/o B N Dadu											
453	322/3	0.044	0.044	Jankram S/o Ratiram	Agharjya	Others									
454	322/4	0.021	0.021	Mohanlal S/o Sobharam	Agharjya	Others									
455	322/5	0.021	0.021	Lakhanlal S/o Sobharam	Agharjya	Others									
456	322/6	0.022	0.022	Lalkumar S/o Sobharam	Agharjya	Others									
457	323	0.113	0.093	Lachhiram S/o Dokra	Kanwar	ST									
458	324/1	0.061	0.061	Ramkumar S/o Gadasai	Kanwar	ST									
459	324/2	0.383	0.383	Dharamsingh and others	Kanwar	ST									
460	324/3	0.020	0.020	Hachai S/o Chamarsingh and others	Kanwar	ST									
461	324/4	0.069	0.069	Manbodh S/o Nego	Kanwar	ST									
462	325/1						0.255	0.226	Small Tree Forest						
463	325/2	0.081	0.081	Rushavlal and others	Agharjya	Others									
464	325/2						0.081	0.081	Small Tree Forest						
465	460/3	0.055	0.015	Dulamadi and others	Agharjya	Others									
466	466	2.727	1.100	Manbodh and others	Gond	ST									
467	525	0.902	0.700	Rushavlal S/o Chamarsingh	Agharjya	Others									
468	526/1	0.292	0.163	Rishimesh Sitaram,Alekhram S/o Loknath	Agharjya	Others									
469	526/2	0.296	0.161	Dasrathi and other	Sodhi	ST									
470	526/3	0.383	0.161	Udenath S/o Raghunath and others	Agharjya	Others									
471	527/1	0.017	0.017	Mahesh S/o Jadumani	Saura	ST									
472	527/2	0.117	0.117	Ghasiram S/o Bihari	Saura	ST									
473	527/3	0.044	0.044	Ghasiram S/o Bihari	Saura	ST									
474	528/1	0.401	0.401	Bharatlal S/o Baiga	Nagvanshi	Others									
475	528/2	0.304	0.304	Sakiram S/o Rasiklal	Saura	ST									
476	529	0.182	0.182	Dropati, Damyanti and others	Sodhi	ST									
477	530/1	0.514	0.514	Chamsingh	Gond	ST									
478	530/2	0.433	0.433	Sakiram S/o Rasiklal	Saura	ST									
479	531/1 ex	0.405	0.405	Dropati, Damyanti and others	Sodhi	ST									

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
480	531/1	0.430	0.405	Uttamlal, Pushpendra Pushpe S/o Dhuleshwar	Aghariya	Others								
481	531/1	1.189	0.325	Dropati, Damyanti and others	Sodhi	ST								
482	531/1	0.061	0.061	Mohanlal S/o Sobharam	Aghariya	Others								
483	531/1	0.121	0.121	Manmulal S/o Shreechand	Sodhi	ST								
484	531/1	0.024	0.024	Rohitkumar S/o Kanwalsa	Aghariya	Others								
485	531/1	0.061	0.061	Mohanlal S/o Sobharam	Aghariya	Others								
486	531/1	0.077	0.077	Lakhanlal S/o Sobharam	Aghariya	Others								
487	531/1	0.349	0.349	Shyamsunder	Aghariya	Others								
488	531/1	0.384	0.384	Khushiram	Aghariya	Others								
489	531/1	0.441	0.441	Lakhapati S/o Rukhman	Aghariya	Others								
490	531/1	0.444	0.444	Ruplal S/o Kalapram	Aghariya	Others								
491	531/2	0.121	0.121	Manbodi and others	Gond	ST								
492	555/2	0.101	0.050	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N Bhargava										
493	555/3	1.045	0.400	Jindal Power Limited, Vivek Dadu S/o B.N Dadu										
494	555/5	0.837	0.414	Dropati, Damyanti and others	Sodhi	ST								
495	555/6	0.202	0.202	Tularam S/o Buleva	Sauta	ST								
496	555/7	0.405	0.312	Sakinram S/o Rasiklal	Saura	ST								
497	555/8	0.658	0.658	Chamarsingh, Bisansingh, Kenjram, Budhveram Gurwari Janki S/o Baiga	Kanwar	ST								
498	555/9	0.405	0.405	Bundram S/o Dhaneswar	Gond	ST								
499	555/10						0.809	0.809	Small Tree Forest					
500	555/11	0.208	0.208	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N.Bhargava										
501	555/12	0.242	0.150	Jindal Steel and Power Limited										
502	555/14	0.121	0.090	Jindal Steel and Power Limited										
503	555/15	0.034	0.034	Ganpati S/o Rukman	Aghariya	Others								
504	555/16	0.034	0.034	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N Bhargava										
505	555/17	0.035	0.035	Jindal Power Limited, Dinesh Kumar Bhargava S/o P.N.Bhargava										
506	555/18	0.033	0.033	Jindal Power Limited, Vivek Dadu S/o B.N Dadu										
507	555/19	0.019	0.019	Falguni S/o Madhusudan	Aghariya	Others								
508	555/20	0.049	0.049	Venedhar	Aghariya	Others								
509	555/21	0.020	0.020	Shivkumar S/o Parasram	Aghariya	Others								
510	555/22	0.021	0.021	Vinodkumar S/o Parasram	Aghariya	Others								
511	555/23	0.020	0.020	Tejram S/o Parasram	Aghariya	Others								
512	555/24	0.020	0.020	Chandan Singh S/o Parasram	Aghariya	Others								
513	555/25	0.202	0.202	Jindal Power Limited, Vivek Dadu S/o B.N Dadu										
514	556	0.494	0.080	Premsingh S/o Pickharu	Gada	ST								
515	558/1	0.485	0.159	Bharat S/o Nathi	Kanwar	ST								
Total of Libra		177.452	129.037				16.574	15.943		3.006	2.897	5.133	5.133	

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Land Schedule

Village : Kunjemura, P.H.N.: 39, R.I.Circle : Tamnar,Tehsil : Tamnar, District : Raigarh(Chhattisgarh)

Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1	134	0.218	0.218	Rodma S/o Manaram	Kenvat	Others								
2	1/2,2/2	0.121	0.121	Fakirmohan-Nohar	Gond	ST								
3	1/3,2/3	0.256	0.256	Fakirmohan-Nohar	Gond	ST								
4	3/1	0.142	0.142	Rodma S/o Manaram	Kenvat	Others								
5	3/2	0.162	0.162	Fakirmohan-Nohar	Gond	ST								
6	3/3	0.109	0.109	Fakirmohan-Nohar	Gond	ST								
7	4/1	0.040	0.040	Rodma S/o Manaram	Kenvat	Others								
8	4/2	0.526	0.526	Fakirmohan-Nohar	Gond	ST								
9	4/3	0.324	0.324	Fakirmohan-Nohar	Gond	ST								
10	5/1	0.809	0.809	Jindal Power Limited Tamnar, Dinesh Kumar Bhargava S/o P.N.Bhargava										
11	5/2	0.587	0.587	Jindal Power Limited Tamnar, Dinesh Kumar Bhargava S/o P.N.Bhargava										
12	5/3	0.647	0.647	Jindal Power Limited Tamnar, Dinesh Kumar Bhargava S/o P.N.Bhargava										
13	6/1	0.061	0.061	Phoolchand S/o Balakaran	Parghaniya	Others								
14	6/2	0.275	0.275	Tulsibai,Kumaribai S/o Chandan	Virtiya	Others								
15	6/3	0.340	0.340	Anupdaas, Govinddas and others	Panika	Others								
16	7/1	0.304	0.304	Jindal Power Limited Tamnar Vivek Dadu S/o B.N. Dadu										
17	7/2						0.506	0.506	Small Tree Forest					
18	7/3	0.291	0.291	Ramesh Kumar S/o Venudhar	Sodhi	Others								
19	7/4	0.113	0.113	Laxmibai W/o Liladhar	Gond	ST								
20	7/5	0.348	0.348	Fakirmohan-Nohar	Gond	ST								
21	7/6	0.551	0.551	Jindal Power Limited Tamnar Vivek Dadu S/o B.N. Dadu										
22	8	0.583	0.583	Laxmibai W/o Liladhar	Gond	ST								
23	9	0.202	0.202	Laxmibai W/o Liladhar	Gond	ST								
24	10/1	0.441	0.441	Sankar S/o Shivnath	Gond	ST								
25	10/2	0.450	0.450	Sanjiv Toppo S/o Pravat Toppo	Oraov	ST								
26	10/3	0.483	0.483	Revati -Khursagar and others	Gond	ST								
27	11	0.101	0.101	Bhuneshwar, Jageshwar S/o Dadu	Kanwar	ST								
28	12, 13/2	0.478	0.478	Bharat - Laxmiram	Gond	ST								
29	13/1	0.271	0.271	Sunibai - Manbodh, Arun - Manbodh	Gond	ST								
30	14/1	0.644	0.644	Sunitai - Manbodh, Arun - Manbodh	Gond	ST								
31	14/2	0.624	0.624	Ramesh Kumar S/o Venudhar	Sodhi	Others								
32	15/1	0.142	0.142	Bhagsingh - Gulaiai	Kanwar	ST								
33	15/2	0.162	0.162	Ramesh Kumar S/o Venudhar	Sodhi	Others								
34	15/3	0.421	0.421	Ramesh Kumar S/o Venudhar	Sodhi	Others								
35	16	0.174	0.174	Ramesh Kumar S/o Venudhar	Sodhi	Others								
36	17/1											3.524	3.524	Below Water
37	17/2	0.026	0.026	Amritdas, Hiradas and others	Panika	Others								
38	18	0.138	0.138	Sankar S/o Shivnath	Gond	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
39	19/1,20/1, 21/1,22/1, 41/1 ब	0.522	0.522	Prafulla Kumar Sachidanand	Sodhi	Others								
40	19/2,20/2, 21/2,22/2, 41/1 ब	0.505	0.505	Minketan ,Sachidanand	Sodhi	Others								
41	19/3,20/3, 21/3,22/3, 41/1 ब	0.486	0.486	Prafulla ,Sachidanand	Sodhi	Others								
42	19/4,20/4, 21/4,22/4, 41/1 ब	0.503	0.503	Ramakant S/o Sachidanand	Sodhi	Others								
43	23,40/2,4 0/3	0.978	0.978	Jairam - Hemanand	Aghariya	Others								
44	24/1	0.308	0.308	Sankar S/o Shivnath	Gond	ST								
45	24/2	0.053	0.053	Sankar S/o Shivnath	Gond	ST								
46	25	0.146	0.146	Tulsibai,Kumaribai S/o Chandan	Virtiya	Others								
47	26/1	0.299	0.299	Prembai - Ajambar and others	Gond	ST								
48	26/2	0.619	0.619	Prembai - Ajambar and others	Gond	ST								
49	26/3	0.534	0.534	Laxmibai - Liladhar	Gond	ST								
50	26/4	0.688	0.688	Bharat - Laxmanu	Gond	ST								
51	26/5	0.397	0.397	Chayaveti W/o Premsingh	Gond	ST								
52	27	0.267	0.267	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
53	28/1	0.101	0.101	Minketan ,Sachidanand	Sodhi	Others								
54	28/2	0.283	0.283	Ramakant S/o Sachidanand	Sodhi	Others								
55	28/3	0.280	0.280	Prafulla ,Sachidanand	Sodhi	Others								
56	28/4	0.109	0.109	Minketan ,Sachidanand	Sodhi	Others								
57	29/1	0.028	0.028	Minketan ,Sachidanand	Sodhi	Others								
58	29/2	0.024	0.024	Ramakant S/o Sachidanand	Sodhi	Others								
59	29/3	0.082	0.082	Ramakant S/o Sachidanand	Sodhi	Others								
60	29/4	0.109	0.109	Minketan ,Sachidanand	Sodhi	Others								
61	29/5	0.109	0.109	Ramakant	Sodhi	Others								
62	30/1	0.061	0.061	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
63	30/2	0.194	0.194	Ramesh Kumar S/o Venudhar	Sodhi	Others								
64	31,32/1	0.174	0.174	Prafulla ,Sachidanand	Sodhi	Others								
65	32/2,33/1	0.040	0.040	Mansai - Gujru	Uranv	ST								
66	33/2	0.049	0.049	Babulal S/o Michva	Uranv	ST								
67	33/3	0.065	0.065	Asap Kumar, Shantilal and others	Uranv	ST								
68	34/1 क						7.292	7.292	Small Tree Forest					
69	34/1 ख						0.809	0.809	Small Tree Forest					
70	34/1 ग						0.809	0.809	Small Tree Forest					
71	34/1 घ	0.295	0.295	Dhuva S/o Bokri S/o Purshottam	Kenvat	Others								
72	34/2 क	0.295	0.295	Bhalmati W/o Manglu and others	Kenvat	Others								
73	34/2 ख	0.146	0.146	Tulsibai,Kumaribai S/o Chandan	Virtiva	Others								
74	34/2 ग	0.295	0.295	Ghuran, Bolo S/o Purshottam	Kenvat	Others								
75	34/2 घ	0.112	0.112	Dipan S/o Dokri	Dhobi	Others								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
76	35/1	0.235	0.235	Minketan ,Sachidanand	Sodhi	Others								
77	35/2	0.239	0.239	Ramakant S/o Sachidanand	Sodhi	Others								
78	35/3	0.235	0.235	Prafulla ,Sachidanand	Sodhi	Others								
79	36/1											0.809	0.809	Grass
80	36/2	0.486	0.486	Brijesh Kumar S/o Rajendra Prasad	Agrawal	Others								
81	36/3	0.097	0.097	Yashodabai W/o Hiraram	Parghaniya	Others								
82	26/4	0.405	0.405	Tejram, Ajaykumar, Sunilkumar S/o Nandram	Uranv	ST								
83	37/1	0.235	0.235	Mansai - Gujru	Uranv	ST								
84	37/2	0.221	0.221	Prakash - Sodhram	Uranv	ST								
85	37/3	0.101	0.101	Nandlal - Michva	Uranv	ST								
86	37/4	0.024	0.024	Mansai - Gujru	Uranv	ST								
87	37/5	0.024	0.024	Asap Kumar, Shantilal and others	Uranv	ST								
88	37/6	0.101	0.101	Pyari S/o Ganga and others	Uranv	ST								
89	37/7	0.203	0.203	Mansai - Gujru	Uranv	ST								
90	37/8	0.024	0.024	Nandlal - Michva	Uranv	ST								
91	37/9	0.121	0.121	Asap Kumar, Shantilal and others	Uranv	ST								
92	37/10	0.122	0.122	Nandlal - Michva	Uranv	ST								
93	37/11	0.170	0.170	Asap Kumar, Shantilal and others	Uranv	ST								
94	38	0.170	0.170	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
95	39	0.478	0.478	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
96	40/1						0.809	0.809	Small Tree Forest					
97	40/4	0.020	0.020	Jairam - Hemanand	Aghariya	Others								
98	40/5	0.381	0.381	Kartikeshwar - Anantram	Mali	Others								
99	40/6	0.210	0.210	Jairam - Hemanand	Aghariya	Others								
100	40/7	0.251	0.251	Jhadulas,S/o Kuvedas	Panika	Others								
101	41/2	0.194	0.194	Jairam - Hemanand	Aghariya	Others								
102	42											0.109	0.109	Road
103	43/1	0.142	0.142	Jairam - Hemanand	Aghariya	Others								
104	43/2	0.065	0.065	Ramakant S/o Sachidanand	Sodhi	Others								
105	43/3	0.024	0.024	Kartikeshwar - Anantram	Mali	Others								
106	43/4	0.231	0.231	Samari W/o Sampatram and others	Ravat	Others								
107	44	0.239	0.239	Prafulla ,Sachidanand	Sodhi	Others								
108	45/1	0.587	0.587	Jairam - Hemanand	Aghariya	Others								
109	45/2	0.040	0.040	Prafulla ,Sachidanand	Sodhi	Others								
110	45/3	0.263	0.263	Minketan ,Sachidanand	Sodhi	Others								
111	45/4	0.223	0.223	Prafulla ,Sachidanand	Sodhi	Others								
112	45/5	0.162	0.162	Ramakant S/o Sachidanand	Sodhi	Others								
113	45	0.049	0.049	Bikal S/o Jairam and others	Dhobi	Others								
114	47/1	0.368	0.368	Jairam - Hemanand	Aghariya	Others								
115	47/2	0.332	0.332	Prafulla ,Sachidanand	Sodhi	Others								
116	47/3	0.121	0.121	Ramakant S/o Sachidanand	Sodhi	Others								
117	47/4	0.324	0.324	Munketan ,Sachidanand	Sodhi	Others								
118	47/5	0.142	0.142	Ramakant S/o Sachidanand	Sodhi	Others								
119	47/6	0.121	0.121	Prafulla ,Sachidanand	Sodhi	Others								
120	47/7	0.162	0.162	Ramakant S/o Sachidanand	Sodhi	Others								

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							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
121	47/8	0.162	0.162	Minketan ,Sachidanand	Sodhi	Others									
122	47/9	0.024	0.024	Prafulla ,Sachidanand	Sodhi	Others									
123	48	0.048	0.048	Prafulla ,Sachidanand	Sodhi	Others									
124	49	0.506	0.506	Murlidhar S/o Parsuram	Gond	ST									
125	50/1	0.093	0.093	Ramakant S/o Sachidanand	Sodhi	Others									
126	50/2	0.142	0.142	Phoolchand S/o Balakaran	Parghaniya	Others									
127	50/3	0.093	0.093	Minketan ,Sachidanand	Sodhi	Others									
128	50/4	0.093	0.093	Prafulla ,Sachidanand	Sodhi	Others									
129	51/1	0.656	0.656	Vijaibahadur S/o Liladhar	Gond	ST									
130	51/2 क	0.397	0.397	Bharat - Laxmiram	Gond	ST									
131	51/2 ख	0.045	0.045	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST									
132	51/3	0.841	0.841	Prembai - Ajambar and others	Gond	ST									
133	51/4	0.781	0.781	Bharat - Laxmuram	Gond	ST									
134	51/5	0.534	0.534	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST									
135	51/6	0.295	0.295	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST									
136	51/7	0.228	0.228	Umesh - Liladhar	Gond	ST									
137	51/8	0.817	0.817	Prembai - Ajambar and others	Gond	ST									
138	51/9	0.101	0.101	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST									
139	51/10	0.101	0.101	Sankar S/o Shivnath	Gond	ST									
140	52/1	1.214	1.214	Punyav Bai W/o Kriparam	Gond	ST									
141	52/2	0.142	0.142	Tulsibai,Kumaribai S/o Chandan	Virtiya	Others									
142	52/3	0.809	0.809	Suresh ,Amritbai S/o Raidram and others	Ghasiya	Others									
143	52/4	0.008	0.008	Gokul, Abdul S/o Mahesh and others	Ghasiya	Others									
144	52/5	0.405	0.405	Chhabiraj S/o Ajambar	Gond	ST									
145	52/6						0.051	0.061	Small Tree Forest						
146	53	0.198	0.198	Jairam Hemanand	Aghariya	Others									
147	54/1	0.450	0.450	Parmeshwar, Manukunvar S/o Buduram	Rawat	Others									
148	54/2	0.247	0.247	Gudul S/o Samaru and others	Rawat	Others									
149	54/3	0.040	0.040	Gudul S/o Samaru	Rawat	Others									
150	55/1	1.218	1.218	Jairam - Hemanand	Aghariya	Others									
151	55/2, 82, 83	1.056	1.056	Umesh - Liladhar	Gond	ST									
152	55/3	0.057	0.057	Murlidhar S/o Parsuram	Gond	ST									
153	55/4	0.263	0.263	Bhanumati-Jairam	Aghariya	Others									
154	55/5	0.263	0.263	Minketan ,Sachidanand	Sodhi	Others									
155	55/6	0.202	0.202	Ramakant S/o Sachidanand	Sodhi	Others									
156	55/7	0.202	0.202	Ramakant	Sodhi	Others									
157	55/8	0.089	0.089	Bhanumati-Jairam	Aghariya	Others									
158	56/1	0.316	0.316	Murlidhar S/o Parsuram	Gond	ST									
159	56/2	0.024	0.024	Bajrang S/o Gaipati and others	Gond	ST									
160	57/1	1.136	1.136	Murlidhar S/o Parsuram	Gond	ST									
161	57/2	0.405	0.405	Bajrang S/o Gaipati and others	Gond	ST									
162	57/3	0.134	0.134	Murlidhar S/o Parsuram	Gond	ST									
163	57/4	2.039	2.039	Bajrang S/o Gaipati and others	Gond	ST									
164	57/5	0.781	0.781	Murlidhar S/o Parsuram	Gond	ST									
165	57/6	0.121	0.121	Bajrang S/o Gaipati and others	Gond	ST									

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
166	58	0.129	0.129	Bajrang S/o Gajpati and others	Gond	ST								
167	59/1,59/4	0.798	0.798	Murlidhar S/o Parsuram	Gond	ST								
168	59/2	0.417	0.417	Bajrang S/o Gajpati and others	Gond	ST								
169	59/3	0.121	0.121	Murlidhar S/o Parsuram	Gond	ST								
170	59/5	0.259	0.259	Bajrang S/o Gajpati and others	Gond	ST								
171	60/1	0.049	0.049	Bajrang S/o Gajpati and others	Gond	ST								
172	60/2	0.020	0.020	Murlidhar S/o Parsuram	Gond	ST								
173	61/1	0.125	0.125	Murlidhar S/o Parsuram	Gond	ST								
174	61/2	0.024	0.024	Bajrang S/o Gajpati and others	Gond	ST								
175	62/1	0.405	0.405	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
176	62/2, 63, 74/3	0.417	0.417	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
177	64/1	0.032	0.032	Parmeshwar, Manukunvar S/o Budaram	Rawat	Others								
178	64/2	0.093	0.093	Gudul S/o Samaru	Rawat	Others								
179	64/3	0.057	0.057	Parmeshwar, Manukunvar S/o Budaram	Rawat	Others								
180	64/4	0.056	0.056	Gudul S/o Samaru	Rawat	Others								
181	64/5	0.057	0.057	Parmeshwar, Manukunvar S/o Budaram	Rawat	Others								
182	65	0.138	0.138	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
183	66/1	0.574	0.574	Parnavati Gangotri and others	Gond	ST								
184	66/2	0.081	0.081	Jairam - Hemanand	Aghariya	Others								
185	66/3	0.308	0.308	Bharat - Laxmiram	Gond	ST								
186	66/4	0.571	0.571	Vijaibahadur S/o Dadhar	Gond	ST								
187	67	0.207	0.207	Jairam Hemanand	Aghariya	Others								
188	68	0.624	0.624	Murlidhar S/o Parsuram	Gond	ST								
189	69/1	0.073	0.073	Suresh ,Amratlal S/o Raidram and others	Ghasiya	Others								
190	69/2	0.073	0.073	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
191	69/3	0.405	0.405	Jaiprasad, Rajkumar and others	Kanvat	Others								
192	69/4	0.406	0.406	Birbal - Mohar	Rawat	Others								
193	70/1	0.061	0.061	Asap Kumar, Shantilal and others	Uranv	ST								
194	70/2	0.060	0.060	Mansar - Gujru	Uranv	ST								
195	70/3	0.061	0.061	Balulal S/o Michva	Uranv	ST								
196	71						0.113	0.113	Small Tree Forest					
197	72/1											0.405	0.405	Grass
198	72/2	0.040	0.040	Bundel S/o Kunjram ,Shobharam S/o Kunjram	Dhobi	Others								
199	72/3	0.065	0.065	Shobharam - Kunjram,Bundel - Kunjram	Dhobi	Others								
200	72/4	0.065	0.065	Akrishna, Khemandhi S/o Bhagirathi and others	Kanvat	Others								
201	72/5	0.559	0.559	Gokul, Ahdul S/o Mahesh and others	Ghasiya	Others								
202	73/1	0.121	0.121	Bundel S/o Kunjram ,Shobharam S/o Kunjram	Dhobi	Others								
203	73/2	0.036	0.036	Shobharam - Kunjram,Bundel - Kunjram	Dhobi	Others								
204	73/5	0.049	0.049	Akrishna, Khemandhi S/o Bhagirathi and others	Kanvat	Others								
205	74/1	0.174	0.174	Samari W/o Sampatram and others	Rawat	Others								
206	74/2	0.202	0.202	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
207	74/4	0.150	0.150	Amardas - Rupdas, Vedmati W/o Rupdas	Panika	Others								
208	75/1	0.470	0.470	Hariprasad S/o Kanhai , Naresh S/o Jagdish and others	Gond	ST								
209	75/2	0.210	0.210	Murlidhar S/o Parsuram	Gond	ST								
210	75/3	0.040	0.040	Murlidhar S/o Parsuram	Gond	ST								
211	76	0.210	0.210	Murlidhar S/o Parsuram	Gond	ST								
212	77/1 अ	0.891	0.891	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
213	77/1 ब	0.040	0.040	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
214	77/2	1.036	1.036	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
215	77/3	1.052	1.052	Prembai - Ajambar and others	Gond	ST								
216	77/4	0.223	0.223	Prembai - Ajambar and others	Gond	ST								
217	77/5	0.559	0.559	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
218	77/6	0.506	0.506	Bharat - Laxmiram	Gond	ST								
219	77/7	0.282	0.282	Prembai - Ajambar and others	Gond	ST								
220	77/8	0.243	0.243	Kunjbihari S/o Premsingh	Gond	ST								
221	77/9	0.255	0.255	Chhayavati - Premsingh	Gond	ST								
222	77/10	0.505	0.505	Chhayavati - Premsingh	Gond	ST								
223	78/1	0.255	0.255	Amardas - Rupdas, Vedmati W/o Rupdas	Panika	Others								
224	78/2	0.247	0.247	Chhubiram S/o Budhram	Dhobi	Others								
225	79	0.162	0.162	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
226	80	0.178	0.178	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
227	81/1	0.340	0.340	Lalitsingh Chabiraj Niranjan S/o Ajambar	Gond	ST								
228	81/2	0.170	0.170	Chhayavati - Premsingh	Gond	ST								
229	84/1									2.367	2.367			
230	84/2 क, 86/6 क						4.746	4.746	Small Tree Forest					
231	84/2 ख, 86/6 ख									0.607	0.607			
232	84/2 ग, 86/6 ग						0.404	0.404	Small Tree Forest					
233	84/2 घ, 86/6 घ						0.202	0.202	Small Tree Forest					
234	84/2 ङ, 86/6 ङ						1.416	1.416	Small Tree Forest					
235	84/2 च, 86/6 छ						0.405	0.405	Small Tree Forest					
236	84/2 छ, 86/6 छ	0.101	0.101	Kanhaiya S/o Jairam	Sodhi	Others								
237	84/2 ज, 86/6 ज	0.065	0.065	Pratap Prakash S/o Bodhram and others	Uraov	ST								
238	84/2 झ, 86/6 झ	0.138	0.138	Shani S/o Jhagru	Uraov	ST								
239	84/2 ञ, 86/6 ञ	0.113	0.113	Pratap Bodhram Prakash Bodhram	Uraov	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
240	84/2 ह, 86/6 ह	0.101	0.101	Kachaiya S/o Jairam	Sodhi	Others								
241	84/2 क	0.073	0.073	Jairam Hemanand	Aghariya	Others								
242	84/2 ख									2.023	2.023			
243	84/2 ग						2.226	2.226	Small Tree Forest					
244	84/3	0.089	0.089	Prafulla ,Sachidanand	Sodhi	Others								
245	85/1 क	0.054	0.054	Ratiba ,Gurvatu,Govind and others	Uranv	ST								
246	85/1 ख	0.028	0.028	Budhram Mangal	Uranv	ST								
247	85/1 ग	0.020	0.020	Shyamlal Rungo and others	Uranv	ST								
248	85/1 घ	0.040	0.040	Chhabinl S/o Jhagru and others	Granv	ST								
249	85/1 ङ	0.020	0.020	Jagarmati W/o Ichharam and others	Uranv	ST								
250	85/2, 86/1	0.234	0.234	Ghasiya-Bulchi and others	Granv	ST								
251	86/2	0.129	0.129	Ghasiya-Bulchi and others	Granv	ST								
252	86/3 क	0.053	0.053	Jaipal - Mangalsai and others	Uranv	ST								
253	86/3 ख	0.057	0.057	Bihanu S/o Daulatram	Uranv	ST								
254	86/3 ग	0.053	0.053	Shukul - Chaitan	Uranv	ST								
255	86/3 घ	0.050	0.050	Bastiram - Chaitan	Uranv	ST								
256	86/3 ङ	0.061	0.061	Bihanu ,Ghasiram ,Sarram S/o Daulatram and others	Uranv	ST								
257	86/3 च	0.028	0.028	Shukul - Chaitan	Uranv	ST								
258	86/4 क	0.020	0.020	Jaipal - Mangalsai and others	Uranv	ST								
259	86/4 ख	0.020	0.020	Ghasiya Daulatram	Uranv	ST								
260	86/4 ग	0.020	0.020	Shukul - Chaitan	Uranv	ST								
261	86/5	0.036	0.036	Mansai - Gujru	Uranv	ST								
262	86/7	0.053	0.053	Mangalsai Gadha Jagarmati and others	Uranv	ST								
263	86/8	0.036	0.036	Asap Kumar, Shanilal and others	Uranv	ST								
264	86/9	0.014	0.014	Prakash -Budhram	Uranv	ST								
265	86/10	0.014	0.014	Babulal S/o Michva	Uranv	ST								
266	86/11	0.013	0.013	Nondlal - Michva	Uranv	ST								
267	87/1	0.413	0.413	Shukul - Chaitan	Uranv	ST								
268	87/2	0.166	0.166	Chhatarsingh - Chaitusingh	Gond	ST								
269	87/3	0.154	0.154	Damvanti S/o Basantkumar	Gond	ST								
270	88	0.417	0.417	Narsingh - Janakram	Gond	ST								
271	89/1	0.053	0.053	Damru S/o Nainsingh	Kenvat	Others								
272	89/2	0.049	0.049	Damru S/o Nainsingh	Kenvat	Others								
273	90/1	0.239	0.239	Laxmibai - Liladhar	Gond	ST								
274	90/2	0.009	0.009	Usatram - Balaram	Kenvat	Others								
275	90/3	0.121	0.121	Narsingh - Janakram	Gond	ST								
276	90/4	0.243	0.243	Premibai - Ajambar and others	Gond	ST								
277	90/5	0.012	0.012	Bhuneshwar - Balaram	Kenvat	Others								
278	90/6	0.036	0.036	Tejram - Ratan,Demoti W/o Ratan	Kenvat	Others								
279	90/7	0.016	0.015	Dubrai - Balaram	Kenvat	Others								
280	91/1	0.021	0.021	Dubrai - Balaram	Kenvat	Others								
281	91/2	0.024	0.024	Bhuneshwar - Balaram	Kenvat	Others								
282	92	0.028	0.028	Chhayavati - Premsingh	Gond	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
283	93									6.199	6.190			
284	94	0.154	0.154	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
285	95											0.324	0.324	Road
286	96/1	0.008	0.008	Prembai - Ajambar and others	Gond	ST								
287	96/2	0.012	0.012	Chhayavati - Premsingh	Gond	ST								
288	96/3	0.013	0.013	Umesh - Liladhar	Gond	ST								
289	96/4	0.012	0.012	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
290	97/1, 97/3	0.194	0.194	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
291	97/2	0.154	0.154	Hariprasad and others	Gond	ST								
292	98/1 क	0.013	0.013	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
293	98/1 ख	0.024	0.024	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
294	98/1 ग	0.004	0.004	Bharat - Laxmiram	Gond	ST								
295	98/1 घ	0.101	0.101	Ustiram Bafaram	Kenvat	Others								
296	98/1 ङ	0.125	0.125	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
297	98/1 च	0.036	0.036	Prembai - Ajambar and others	Gond	ST								
298	98/1 छ	0.036	0.036	Bharat - Laxmiram	Gond	ST								
299	98/1 ज	0.036	0.036	Vijaibahadur S/o Liladhar	Gond	ST								
300	98/1 झ	0.126	0.126	Prembai - Ajambar and others	Gond	ST								
301	98/1 ञ	0.126	0.126	Bharat Lachhuram	Gond	ST								
302	98/1 ट	0.065	0.065	Umesh - Liladhar	Gond	ST								
303	98/1 ठ	0.064	0.064	Vijaibahadur S/o Liladhar	Gond	ST								
304	98/2	0.081	0.081	Prembai - Ajambar and others	Gond	ST								
305	99/1	0.097	0.097	Prembai - Ajambar and others	Gond	ST								
306	99/2	0.170	0.170	Umesh - Liladhar	Gond	ST								
307	99/3	0.239	0.239	Bharat - Laxmiram	Gond	ST								
308	100/1	0.231	0.231	Chayavati W/o Premsingh	Gond	ST								
309	100/2, 103/2	0.178	0.106	Matvat, Gulab -Siyaram and others	Gond	ST								
310	100/3, 103/3	0.162	0.162	Revati -Khirsagar and others	Gond	ST								
311	100/4	0.101	0.101	Chhayavati - Premsingh	Gond	ST								
312	100/5	0.231	0.231	Prembai - Ajambar and others	Gond	ST								
313	100/6	0.154	0.154	Umesh - Liladhar	Gond	ST								
314	101	0.121	0.121	Matthuram, Maheshram, Vudumati S/o Baratram and others	Gond	ST								
315	102/1	0.065	0.065	Murlidhar S/o Parsuram	Gond	ST								
316	102/2	0.069	0.065	Bajrang S/o Gajpati and others	Gond	ST								
317	103/1											0.093	0.093	Road
318	104/2	0.194	0.100	Prembai - Ajambar and others	Gond	ST								
319	105/1	0.065	0.016	Anupdass, Govinddas and others	Panka	Others								
320	105/2	0.040	0.016	Umesh - Liladhar	Gond	ST								
321	105/3	0.134	0.016	Katthuram S/o Manturam and others	Rawat	Others								
322	108/1	0.202	0.050	Raghuveer Madhusudan	Sodhi	Others								
323	108/2	0.150	0.050	Parmeshwar - Madhusudan	Sodhi	Others								
324	109	0.049	0.020	Parmeshwar - Madhusudan	Sodhi	Others								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
325	110	0.128	0.128	Rajrang S/o Gajpati and others	Gond	ST								
326	111/5	0.020	0.017	Goverdhan -Dharsai	Kevat	Others								
327	112/1	0.150	0.150	Rameshwar Rupkunwar and others	Kevat	Others								
328	112/2	0.097	0.064	Ashok Kumar ,Bhuneshwar and others	Kevat	Others								
329	113/1,114/1,115/1	0.140	0.050	Jairam S/o Chamra	Kevat	Others								
330	113/2,114/2,115/2	0.187	0.048	Kalluram - Purshottam	Kevat	Others								
331	113/3,114/3,115/3	0.190	0.048	Kalluram - Purshottam	Kevat	Others								
332	113/4,114/4,115/6	0.085	0.048	Punau S/o Sukhram	Kevat	Others								
333	113/5,114/5,115/8	0.294	0.050	Punau S/o Sukhram	Kevat	Others								
334	115/1											0.291	0.291	Below Water
335	115/2	0.162	0.048	Dujraj S/o Dokri	Dhobi	Others								
336	115/5	0.020	0.020	Goverdhan -Dhansai	Kevat	Others								
337	115/7	0.049	0.049	Puttamber - Janakram	Kevat	Others								
338	116/1-6	0.859	0.414											
339	116/7	0.057	0.057	Laxman - Ramnath and others	Kevat	Others								
340	116/8	0.105	0.105	Laxman - Ramnath and others	Kevat	Others								
341	117/1	0.134	0.134	Laxman - Ramnath and others	Kevat	Others								
342	117/2	0.077	0.077	Akrishna, Khemanidhi S/o Bhagirathi and others	Kevat	Others								
343	118	0.425	0.425	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
344	119/1	0.353	0.353	Raghuveer Madhusudan	Sodhi	Others								
345	119/2	0.356	0.356	Parmeshwar - Madhusudan	Sodhi	Others								
346	120/1	0.182	0.175	Bulau S/o Nilu, Sahdev S/o Jagatram and others	Uranv	ST								
347	120/2	0.081	0.081	Bihanu ,Ghasiram ,Satram S/o Daulatram and others	Uranv	ST								
348	120/3	0.158	0.158	Shukul - Chaitan	Uranv	ST								
349	120/5	0.081	0.081	Shukul - Chaitan	Uranv	ST								
350	121/1	0.202	0.047	Jaipal - Mangalsai and others	Uranv	ST								
351	121/2	0.162	0.047	Bulau S/o Nilu, Sahdev S/o Jagatram and others	Uranv	ST								
352	121/3	0.101	0.047	Shukul - Chaitan	Uranv	ST								
353	121/4	0.142	0.047	Bihanu ,Ghasiram ,Satram S/o Daulatram and others	Uranv	ST								
354	121/5	0.081	0.047	Shakun Chaitan	Uranv	ST								
355	124											0.397	0.397	Road
356	149/1											5.228	5.228	Below Water
357	150/1											1.590	1.590	Road
358	152/1	0.297	0.004	Tejram Ratan and others	Kevat	Others								
359	152/2	0.129	0.004	Bhuneshwar - Balaram	Kevat	Others								
360	152/3	0.129	0.004	Usatram - Balaram	Kevat	Others								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
361	152/5	0.162	0.004	Amritkunwar- Mohan	Panika	Others								
362	152/6	0.085	0.003	Keshav Prasad -Bhagatram and others	Kevat	Others								
363	154/1	0.252	0.250	Punibai S/o Daulatram and others	Kenvat	Others								
364	154/2	0.020	0.020	Savita Shankar and others	Kenvat	Others								
365	154/3	0.024	0.024	Mangli W/o Jochan and others	Kenvat	Others								
366	154/4	0.101	0.101	Goverdhan -Dhansai	Kevat	Others								
367	154/5	0.10.	0.101	Savita Shankar and others	Kenvat	Others								
368	154/6	0.25.	0.161	Mangli Talochan and others	Kenvat	Others								
369	155		0.135											
370	156/1	0.316	0.250	Bundsai - Thandaram	Kenvat	Others								
371	156/2	0.283	0.250	Kityanand Bhojram and others	Kenvat	Others								
372	156/3	0.291	0.252	Akrishna and others	Kenvat	Others								
373	156/4	0.235	0.235	Akrishna, Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
374	156/5	0.118	0.118	Akrishna, Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
375	156/6	0.125	0.125	Keshav Prasad -Bhagatram and others	Kevat	Others								
376	157/1	0.385	0.133	Jindal Steel and Power Limited Tamuri by Dinesh Kumar Bhargav S/o A.P.N Bhargava										
377	157/2	0.137	0.133	Jagprasad-Rajkumar, Dhanmati W/o Rajkumar	Kenvat	Others								
378	158/1	0.599	0.599	Dhanmati W/o Harishankar	Kenvat	Others								
379	158/2	0.222	0.222	Maheshram Mandhar and others	Kenvat	Others								
380	159/1	0.031	0.031	Shriram W/o Motilal and others	Kenvat	Others								
381	159/2	0.049	0.049	Akrishna, Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
382	159/3	0.022	0.022	Harishankar S/o Shriram and others	Kenvat	Others								
383	159/4	0.031	0.031	Ghasiyano S/o Sindhe	Kenvat	Others								
384	159/5	0.202	0.202	Keshav Prasad -Bhagatram and others	Kevat	Others								
385	160/1	0.190	0.190	Mangli W/o Lochan and others	Kenvat	Others								
386	160/2	0.146	0.146	Akrishna, Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
387	161/1	0.290	0.290	Bidibai - Ramsingh and others	Panika	Others								
388	161/2	0.358	0.358	Pittamber - Janakram	Kevat	Others								
389	162/1	0.094	0.094	Ghasiyano S/o Sudhe	Kenvat	Others								
390	162/2	0.121	0.121	Karamvati W/o Rameshwar and others	Kenvat	Others								
391	162/3	0.095	0.095	Shrimati W/o Motilal and others	Kenvat	Others								
392	162/4	0.095	0.095	Harishankar S/o Shriram and others	Kenvat	Others								
393	162/5	0.072	0.072	Maheshram Mandhar and others	Kenvat	Others								
394	163/1	0.150	0.150	Santu S/o Sonsai	Kenvat	Others								
395	163/2	0.117	0.117	Kanhaiya S/o Jairam	Sodhi	Others								
396	164	0.571	0.571	Manu S/o Sonsai	Kenvat	Others								
397	165/1	0.284	0.284	Vimla Devi W/o Bhagatram	Kenvat	Others								
398	165/2	0.279	0.279	Kalluram - Purshottam	Kevat	Others								
399	166	0.421	0.421	Panchram - Tejram and others	Gond	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
400	167/1	0.299	0.299	Ramvati W/o Mangh Shivcharan and others	Kenvat	Others								
401	167/2	0.081	0.081	Punau S/o Sukhram	Kevat	Others								
402	167/3	0.129	0.129	Punau S/o Sukhram	Kevat	Others								
403	168/1 क	0.198	0.198	Bundkonvar and others	Gond	ST								
404	168/1 ख	0.061	0.061	Shivkumar - Kuriram	Kenvat	Others								
405	168/1 ग, 291/4	0.231	0.231	Tikaram S/o Tularam	Kenvat	Others								
406	168/2	0.089	0.089	Mathuram, Maheshram, Vuduman S/o Baratram and others	Gond	ST								
407	169/1	0.105	0.105	Parvati W/o Kalinder and others	Kenvat	Others								
408	169/2	0.105	0.105	Parvati W/o Kalinder and others	Kenvat	Others								
409	170											0.745	0.745	Road
410	171/1	0.101	0.101	Pitamber - Janakram and others	Kenvat	Others								
411	171/2, 172/5, 173/1	0.348	0.348	Basanti , Rajkumari S/o Ghurau	Kenvat	Others								
412	171/3	0.089	0.089	Pittamber - Janakram	Kevat	Others								
413	171/4	0.364	0.364	Pittamber - Janakram	Kevat	Others								
414	171/5	0.097	0.097	Pittamber - Janakram	Kevat	Others								
415	171/6	0.053	0.053	Lalram - Purshottam	Kenvat	Others								
416	171/7	0.101	0.101	Pitamber Janakram and others	Kenvat	Others								
417	171/8	0.053	0.053	Veersingh - Purshottam	Kenvat	Others								
418	171/9	0.069	0.069	Raghuveer - Purshottam	Kenvat	Others								
419	171/10	0.057	0.057	Kalluram - Purshottam	Kenvat	Others								
420	171/11	0.040	0.040	Kalluram - Purshottam	Kenvat	Others								
421	171/12	0.053	0.053	Boloram - Purshottam	Kenvat	Others								
422	171/13	0.053	0.053	Ghurau - Purshottam	Kenvat	Others								
423	171/14	0.024	0.024	Veersingh - Purshottam	Kenvat	Others								
424	171/15	0.025	0.025	Ghurau - Purshottam	Kenvat	Others								
425	171/16	0.024	0.024	Raghuveer - Purshottam	Kenvat	Others								
426	171/17	0.020	0.020	Kaliram - Purshottam	Kenvat	Others								
427	171/18	0.021	0.021	Ghurau - Purshottam	Kenvat	Others								
428	171/19	0.049	0.049	Boloram - Purshottam	Kenvat	Others								
429	171/20	0.101	0.101	Lalaram - Purshottam	Kenvat	Others								
430	171/21	0.032	0.032	Ghurau - Purshottam	Kenvat	Others								
431	171/22	0.134	0.134	Raghuveer - Purshottam	Kenvat	Others								
432	171/23	0.085	0.085	Veersingh - Purshottam	Kenvat	Others								
433	171/24	0.048	0.048	Lalaram - Purshottam	Kenvat	Others								
434	171/25	0.065	0.065	Ghurau - Purshottam	Kenvat	Others								
435	172/1	0.142	0.142	Pitamber - Janakram and others	Kenvat	Others								
436	172/2	0.008	0.008	Boloram - Purshottam	Kenvat	Others								
437	172/3	0.089	0.089	Pittamber - Janakram	Kevat	Others								
438	172/4	0.012	0.012	Veersingh - Purshottam	Kenvat	Others								
439	173/2	0.025	0.025	Veersingh - Purshottam	Kenvat	Others								
440	173/3	0.020	0.020	Boloram - Purshottam	Kenvat	Others								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
441	173/4	0.002	0.012	Veersingh - Purshottam	Kenvat	Others								
442	174	0.401	0.401	Manohar, Janakram	Gond	ST								
443	175	0.287	0.287	Hariprasad S/o Kanhai , Naresh S/o Jagdish and others	Gond	ST								
444	176	0.081	0.081	Narsingh - Janakram	Gond	ST								
445	177/1	0.737	0.737	Manohar, Janakram	Gond	ST								
446	177/2	0.162	0.162	Mangh W/o Lochan and others	Kenvat	Others								
447	177/3	0.354	0.354	Hariprasad S/o Kanhai , Naresh S/o Jagdish and others	Gond	ST								
448	177/4	0.866	0.866	Narsingh - Janakram	Gond	ST								
449	178/1	0.034	0.034	Natthuram S/o Manturam and others	Rawat	Others								
450	178/2	0.150	0.150	Jhadudas,S/o Kunjedas	Panika	Others								
451	179	0.316	0.316	Hariprasad S/o Kanhai , Naresh S/o Jagdish and others	Gond	ST								
452	180	0.150	0.150	Raju S/o Ghasiyaram	Uranv	ST								
453	181/1	0.622	0.622	Jairam, Sukhram S/o Chamra	Kenvat	Others								
454	181/2	0.490	0.490	Shankarlal ,Shekhardal S/o Shantilal and others	Uranv	ST								
455	181/3	0.065	0.065	Jairam and others	Aghariya	Others								
456	182/1	0.060	0.060	Ghurau S/o Krishna	Kenvat	Others								
457	182/2	0.057	0.057	Raju S/o Ghasiyaram	Uranv	ST								
458	182/3	0.097	0.097	Revati -Khirsagar and others	Gond	ST								
459	182/4	0.101	0.101	Ghurau S/o Krishna	Kenvat	Others								
460	182/5	0.040	0.040	Rameshwar - Sahdev	Kenvat	Others								
461	182/6	0.060	0.060	Rameshwar - Sahdev	Kenvat	Others								
462	182/7	0.075	0.075	Maheshram mangal Sai	Kenvat	Others								
463	183/1	0.124	0.124	Ghurau S/o Krishna	Kenvat	Others								
464	183/2	0.170	0.170	Rameshwar - Sahdev	Kenvat	Others								
465	183/3	0.121	0.121	Maheshram mangal Sai	Kenvat	Others								
466	184/1	0.040	0.040	Kanjogi W/o Rupsingh and others	Kenvat	Others								
467	184/2	0.291	0.291	Purshottam - Mansingh	Gond	ST								
468	185	0.069	0.069	Hariprasad S/o Kanhai , Naresh S/o Jagdish and others	Gond	ST								
469	186	0.312	0.312	Tulsibai Kunaribai and others	Virtiya	Others								
470	187/1	0.187	0.187	Indravati- Shukulram and others	Uranv	ST								
471	187/2	0.188	0.188	Ghasiyano S/o Sudhe	Kenvat	Others								
472	187/3	0.188	0.188	Harishankar S/o Shriram and others	Kenvat	Others								
473	188/1	0.049	0.049	Veersingh - Purshottam	Kenvat	Others								
474	188/2	0.049	0.049	Pittamber - Janakram	Kevat	Others								
475	188/3	0.405	0.405	Pittamber - Janakram	Kevat	Others								
476	188/4	0.049	0.049	Raghuveer - Purshottam	Kenvat	Others								
477	188/5	0.049	0.049	Ghurau - Purshottam	Kenvat	Others								
478	188/6	0.049	0.049	Kalluram Purshottam	Kenvat	Others								
479	188/8	0.052	0.052	Pitamber - Janakram and others	Kenvat	Others								
480	188/9	0.052	0.052	Raghuveer - Purshottam	Kenvat	Others								

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
481	188/1/1	0.052	0.052	Bolo ram - Purshottam	Kenvat	Others								
482	188/1/1	0.052	0.052	Lalaram - Purshottam	Kenvat	Others								
483	188/1/2	0.052	0.052	Veersingh - Purshottam	Kenvat	Others								
484	*89	0.121	0.121	Bhalmati W/o Manglu and others	Kenvat	Others								
485	190/1	0.372	0.372	Kanhaiya Baliram and others	Kenvat	Others								
486	190/2	0.405	0.405	Jindal Power Limited Tamnar by Vivek Dadu, B N Dadu										
487	191/1	0.348	0.348	Damru S/o Nainsingh	Kenvat	Others								
488	191/2	0.324	0.324	Damru S/o Nainsingh	Kenvat	Others								
489	192/1	0.154	0.154	Shivkumar - Kurtiram	Kenvat	Others								
490	192/2	0.332	0.332	Bundsai -Thandaram	Kenvat	Others								
491	192/3	0.299	0.299	Akrishna, Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
492	193/1 क	0.481	0.481	Indravati- Shukulram and others	Uranv	ST								
493	193/1 ख	0.103	0.103	Mathhuram, Maheshram, Vudumati S/o Baretram and others	Gond	ST								
494	193/2	0.081	0.081	Parvati W/o Kalinder and others	Kenvar	Others								
495	193/3	0.480	0.480	Ghasiyano S/o Sudhe	Kenvat	Others								
496	193/4	0.176	0.176	Harishankar S/o Shriram and others	Kenvat	Others								
497	193/5	0.304	0.304	Savita Atvar Gidhari and others	Kenvat	Others								
498	194/1	0.353	0.353	Devki W/o Komal Prasad	Gond	ST								
499	194/2	0.364	0.364	Akrishna Bhagirathi and others	Kenvat	Others								
500	195/1	0.757	0.757	Usatram - Balaram	Kenvat	Others								
501	195/2, 202/506	1.071	1.071	Akrishna, Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
502	196/1	0.049	0.049	Sankar S/o Shivnath	Gond	ST								
503	196/2	0.028	0.028	Akrishna and others	Kenvat	Others								
504	197/1	0.206	0.206	Minketan ,Sachidanand	Sodhi	Others								
505	197/2	0.028	0.028	Akrishna, Khemandhi S/o Bhagirathi and others	Kenvat	Others								
506	198	0.498	0.498	Maniram - Kurtiram	Kenvat	Others								
507	199/1	0.147	0.147	Shrimati W/o Motilal and others	Kenvat	Others								
508	199/2	0.145	0.145	Ghasiyano S/o Sudhe	Kenvat	Others								
509	199/3	0.145	0.145	Harishankar S/o Shriram and others	Kenvat	Others								
510	200	0.121	0.121	Mannu S/o Sonsai	Kenvat	Others								
511	201/1	0.178	0.178	Sunibai - Manbodh, Arun - Manbodh	Gond	ST								
512	201/2	0.235	0.235	Narsingh - Janakram	Gond	ST								
513	202/1 क	0.041	0.041	Kanhaiya S/o Nohar	Kenvat	Others								
514	202/1 ख											0.131	0.131	Grass
515	202/2	0.028	0.028	Sunibai - Manbodh, Arun - Manbodh	Gond	ST								
516	202/3	0.040	0.040	Jairam Chamra and others	Kenvat	Others								
517	203/1	0.395	0.395	Uttamkumar -Sukulram	Uranv	ST								
518	203/2	0.401	0.401	Prembai W/o Agambar and others	Gond	ST								
519	203/3	0.393	0.393	Yeshpal - Sukulram	Uranv	ST								
520	204	0.109	0.109	Sankar S/o Shivnath	Gond	ST								
521	205/1											0.308	0.308	Road

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
522	205/2	0.109	0.109	Narsingh - Janakram	Gond	ST								
523	205/3	0.032	0.032	Prafulla ,Sachidanand	Sodhi	Others								
524	205/4	0.036	0.036	Natthuram S/o Manturam and others	Rawat	Others								
525	205/5											0.032	0.032	Road
526	206/1											0.150	0.150	Grass
527	206/2,207/2,209/2,208/3											0.141	0.141	Road
528	206/3	0.020	0.020	Narsingh - Janakram	Gond	ST								
529	206/4	0.336	0.336	Bundel Sukmati Shobharam S/o Kunjram and others	Dhobi	Others								
530	206/5	0.142	0.142	Akrishna Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
531	207/1	0.174	0.174	Purravati Gangotri and others	Gond	ST								
532	207/3	0.040	0.040	Purravati Gangotri and others	Gond	ST								
533	208/1 क	0.069	0.069	Bundel Sukmati Shobharam S/o Kunjram and others	Dhobi	Others								
534	208/1 ख	0.166	0.166	Kanhaiya S/o Nohar	Kenvat	Others								
535	208/4	0.073	0.073	Bikul S/o Jairam and others	Dhobi	Others								
536	208/5	0.012	0.012	Muketan ,Sachidanand	Sodhi	Others								
537	208/6	0.032	0.032	Purravati Gangotri and others	Gond	ST								
538	208/7	0.162	0.162	Hemvati Jema Bhima and others	Gond	ST								
539	209	0.227	0.227	Jairam S/o Hemanand	Aghariya	Others								
540	210	0.623	0.623	Damyanti S/o Basantkumar	Gond	ST								
541	211											0.040	0.040	Below Water
542	212	0.490	0.490	Bairang S/o Gajpati and others	Gond	ST								
543	213	0.466	0.466	Bajrang S/o Gajpati and others	Gond	ST								
544	214	0.182	0.182	Murlidhar S/o Parsuram	Gond	ST								
545	215/1	0.174	0.174	Murlidhar S/o Parsuram	Gond	ST								
546	215/2	0.421	0.421	Bajrang S/o Gajpati and others	Gond	ST								
547	215/3	0.150	0.150	Murlidhar S/o Parsuram	Gond	ST								
548	215/4	0.135	0.135	Murlidhar S/o Parsuram	Gond	ST								
549	215/5	0.081	0.081	Bajrang S/o Gajpati and others	Gond	ST								
550	215/6	0.154	0.154	Murlidhar S/o Parsuram	Gond	ST								
551	215/7	0.154	0.154	Bajrang S/o Gajpati and others	Gond	ST								
552	216	0.636	0.636	Bajrang S/o Gajpati and others	Gond	ST								
553	217/1	0.930	0.930	Bajrang S/o Gajpati and others	Gond	ST								
554	217/2	0.761	0.761	Murlidhar S/o Parsuram	Gond	ST								
555	218											0.081	0.081	Road
556	219	0.425	0.425	Murlidhar S/o Parsuram	Gond	ST								
557	220/1	0.312	0.312	Jaipal - Mangelsai and others	Uranv	ST								
558	220/2, 220/6	0.235	0.235	Jaipal - Mangelsai and others	Uranv	ST								
559	220/3	0.198	0.198	Jairam - Hemanand	Aghariya	Others								
560	220/4	0.178	0.178	Bihanu and others	Uranv	ST								
561	220/5	0.178	0.178	Shukul - Chaitan	Uranv	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
562	221/1	0.789	0.789	Jairam Hemanand	Aghariya	Others								
563	221/2	0.243	0.243	Minketan ,Sachidanand	Sodhi	Others								
564	221/3	0.243	0.243	Bhanumati-Jairam	Aghariya	Others								
565	221/4	0.303	0.303	Ramakant S/o Sachidanand	Sodhi	Others								
566	221/5	0.182	0.182	Bhanumati-Jairam	Aghariya	Others								
567	221/6	0.182	0.182	Minketan ,Sachidanand	Sodhi	Others								
568	222/1	0.246	0.146	Kanbai W/o Rupsingh and others	Kenvat	Others								
569	222/2	0.162	0.162	Chaitram - Bokhiram	Gond	ST								
570	223/1	0.611	0.611	Rupsingh Dukalu	Kenvat	Others								
571	223/2	0.575	0.575	Chaitram - Bokhiram	Gond	ST								
572	224	0.239	0.239	Jaipal and others	Uranv	ST								
573	225/1	0.441	0.441	Chaitram - Bokhiram	Gond	ST								
574	225/2	0.057	0.057	Jairam Hemanand	Agnariya	Others								
575	226/1	0.243	0.243	Sachidanand - Pitamber ,Shanti W/o Pitamber	Kenvat	Others								
576	226/2	0.045	0.045	Akrishna	Kenvat	Others								
577	226/3	0.182	0.182	Raju S/o Ghasiyaram	Uranv	ST								
578	227	0.150	0.150	Damru S/o Nainsingh	Kenvat	Others								
579	228/1	0.458	0.458	Akrishna, Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
580	228/2	0.105	0.105	Keshav Prasad -Bhagatram and others	Kevat	Others								
581	229	0.466	0.466	Jaipal - Mangalsai and others	Uranv	ST								
582	230/1	0.397	0.397	Bundsai -Thandaram	Kenvat	Others								
583	230/2	0.397	0.397	Akrishna, Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
584	231/1	0.125	0.125	Kanbai W/o Rupsingh and others	Kenvat	Others								
585	231/2	0.105	0.105	Akrishna and others	Kenvat	Others								
586	232/1	0.239	0.239	Punau S/o Sukhram	Kevat	Others								
587	232/2	0.296	0.296	Karamvati - Ghasiya	Kenvat	Others								
588	232/3	0.040	0.040	Punau S/o Sukhram	Kevat	Others								
589	233	2.039	2.039	Bundsai -Thandaram	Kenvat	Others								
590	234/1	1.579	1.579	Santram - Nanhiram and others	Kenvat	Others								
591	234/2	0.194	0.194	Parvati W/o Kalinder and others	Kenvat	Others								
592	234/3	0.299	0.299	Pataraber - Janakram	Kevat	Others								
593	234/4	1.060	1.060	Kanhaiya Baliram and others	Kenvat	Others								
594	234/5	0.194	0.194	Parvati W/o Kalinder and others	Kenvat	Others								
595	235/1	0.166	0.166	Damru S/o Nainsingh	Kenvat	Others								
596	235/2	0.178	0.178	Urmila - Pitambar	Kenvat	Others								
597	235/3	0.146	0.146	Damru S/o Nainsingh	Kenvat	Others								
598	235/4	0.097	0.097	Roorna S/o Maniram	Kenvat	Others								
599	235/5	0.129	0.129	Akrishna, Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
600	236/1	0.222	0.222	Bhanu Pratap S/o Kurtiram	Kenvat	Others								
601	236/2	0.045	0.045	Akrishna, Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
602	236/3	0.223	0.223	Shankarlal S/o Shantilal and others	Uranv	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
603	237/1	0.186	0.186	Akrishna, Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
604	237/2	0.182	0.182	Maniram - Kurtiram	Kenvat	Others								
605	237/3	0.182	0.182	Akrishna, Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
606	238/1	0.429	0.429	Karibai W/o Rupsingh and others	Kenvat	Others								
607	238/2	0.332	0.332	Akrishna, Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
608	239	1.161	1.161	Akrishna, Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
609	240/1	0.432	0.432	Punau S/o Sukhram	Kevat	Others								
610	240/2	0.567	0.567	Akrishna, Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
611	241/1	0.268	0.268	Ramvati W/o Manglu and others	Kenvat	Others								
612	241/2	0.236	0.236	Karamvati W/o Rameshwar and others	Kenvat	Others								
613	241/3	0.174	0.174	Punau S/o Sukhram	Kevat	Others								
614	242/1	0.178	0.178	Damru S/o Nainsingh	Kenvat	Others								
615	242/2	0.198	0.198	Urmila - Pitambar	Kenvat	Others								
616	242/3	0.279	0.279	Damru S/o Nainsingh	Kenvat	Others								
617	242/4	0.219	0.219	Damru S/o Nainsingh	Kenvat	Others								
618	242/5	0.365	0.365	Bondeai -Thandaram	Kenvat	Others								
619	243/1 क	0.174	0.174	Mansni - Gajru	Uranv	ST								
620	243/1 ख	0.141	0.141	Babulal S/o Michva	Uranv	ST								
621	243/2 क	0.207	0.207	Bastiram - Chaitan	Uranv	ST								
622	243/2 ख	0.236	0.236	Ghasiya-Balchu and others	Uranv	ST								
623	243/2 ग	0.206	0.206	Shukul - Chaitan	Uranv	ST								
624	244/1 क	0.352	0.352	Mangli W/o Lochan and others	Kenvat	Others								
625	244/1 ख	0.234	0.234	Jindal Power Limited Tamnar Vivek Dadu S/o B N. Dadu										
626	244/2	0.267	0.267	Mangli W/o Lochan and others	Kenvat	Others								
627	244/3	0.162	0.162	Nilambar Tejram, Jagmohan-Sukhram and others	Kenvat	Others								
628	246/1	0.264	0.264	Jindal Power Limited Tamnar Vivek Dadu S/o B N. Dadu										
629	246/2	0.287	0.287	Jindal Power Limited Tamnar Vivek Dadu S/o B.N. Dadu										
630	247/1	0.101	0.101	Dayanidhi S/o Rishikesh and others	Bramhan	Others								
631	247/2	0.239	0.239	Sachidanand - Pitamber ,Shanti W/o Pitamber	Kenvat	Others								
632	248/1	0.138	0.138	Jaipal Mangalsai and others	Uranv	ST								
633	248/2	0.138	0.138	Shukul - Chaitan	Uranv	ST								
634	249	0.190	0.190	Santram-Negiram	Kanvar	ST								
635	250/1	0.105	0.105	Dayanidhi S/o Rishikesh and others	Bramhan	Others								
636	250/2	0.056	0.056	Milansingh - Machinder	Gond	ST								
637	250/3 क	0.174	0.174	Revati -Khirsagar and others	Gond	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
638	250/3 ग	0.158	0.158	Akrishna, Khemandhi S/o Bhagirathi and others	Kenvat	Others								
639	250/3 घ	0.316	0.316	Dayanidhi S/o Rishikesh and others	Bramhan	Others								
640	250/4	0.028	0.028	Milansingh - Machhinder	Gond	ST								
641	250/5	0.053	0.053	Haricharan - Machhinder	Gond	ST								
642	250/6	0.052	0.052	Ramsingh S/o Machhinder	Gond	ST								
643	250/7	0.049	0.049	Puran - Machhinder	Gond	ST								
644	250/8	0.073	0.073	Ramsingh S/o Machhinder	Gond	ST								
645	250/9	0.073	0.073	Haricharan - Machhinder	Gond	ST								
646	250/10	0.048	0.048	Milansingh - Machhinder	Gond	ST								
647	250/11	0.025	0.025	Puran - Machhinder	Gond	ST								
648	250/12	0.028	0.028	Haricharan - Machhinder	Gond	ST								
649	250/13	0.024	0.024	Ramsingh S/o Machhinder	Gond	ST								
650	251/1	0.235	0.235	Bundsai -Thandaram	Kenvat	Others								
651	251/2	0.154	0.154	Rajkumari Mandhar	Kenvat	Others								
652	251/3	0.138	0.138	Jindal Power Limited Tamnar Vivek Dadu S/o B N Dadu										
653	251/4	0.028	0.028	Bhanu Pratap S/o Kurtiram	Kenvat	Others								
654	251/5	0.778	0.778	Jindal Power Limited Tamnar Vivek Dadu S/o B N Dadu										
655	251/6	0.145	0.145	Ramkumari Mandhar	Kenvat	Others								
656	251/7	0.162	0.162	Jairam S/o Chamra	Kenvat	Others								
657	251/8	0.150	0.150	Bhanu Pratap S/o Kurtiram	Kenvat	Others								
658	251/9	0.214	0.214	Bhanu Pratap S/o Kurtiram	Kenvat	Others								
659	252	0.320	0.320	Nilambar Tejram, Jagmohan-Sukhram and others	Kenvat	Others								
660	253/1	0.202	0.202	Arun - Manbodh	Gond	ST								
661	253/2, 259/1	0.081	0.081	Puran - Machhinder	Gond	ST								
662	254	0.405	0.405	Dannu S/o Nansingh	Kenvat	Others								
663	255/1	0.254	0.254	Jindal Power Limited Tamnar Vivek Dadu S/o B N Dadu										
664	255/2	0.293	0.293	Samiram - Nanhiram and others	Kenvat	Others								
665	256/1	0.269	0.269	Matvar, Gulab -Siyaram and others	Gond	ST								
666	256/2	0.194	0.194	Ghasiya - Kunjram	Gond	ST								
667	257/1	0.243	0.243	Akrishna, Khemandhi S/o Bhagirathi and others	Kenvat	Others								
668	257/2	0.239	0.239	Akrishna, Khemandhi S/o Bhagirathi and others	Kenvat	Others								
669	258	0.429	0.429	Surukisan S/o Shankarkishan	Manjhi	ST								
670	259/2 क	0.113	0.113	Revati -Khirsagar and others	Gond	ST								
671	259/2 ख	0.146	0.146	Dayanidhi S/o Rishikesh and others	Bramhan	Others								
672	259/2 ग	0.255	0.255	Revati -Khirsagar and others	Gond	ST								
673	259/2 घ	0.138	0.138	Dayanidhi S/o Rishikesh and others	Bramhan	Others								
674	259/3	0.069	0.069	Asap Kumar, Shantilal and others	Oraov	ST								
675	259/4	0.073	0.073	Asap Kumar, Shantilal and others	Oraov	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
761	287/2	0.117	0.117	Santuram S/o Tejram	Gond	ST								
762	287/3	0.146	0.146	Santuram S/o Tejram	Gond	ST								
763	287/4	0.142	0.142	Dropati Kartikram	Kenvat	Others								
764	287/5	0.210	0.210	Amrit Mohan	Panika	Others								
765	287/6	0.194	0.194	Amrit Mohan	Panika	Others								
766	287/7	0.454	0.454	Dhiraj - Balaram	Kenvat	Others								
767	288											0.291	0.291	Road
768	289/1	0.890	0.890	Manohar, Janakram	Gond	ST								
769	289/2	0.721	0.721	Narsingh - Janakram	Gond	ST								
770	289/3	0.729	0.729	Narsingh - Janakram	Gond	ST								
771	289/4	0.947	0.939	Narsingh - Janakram	Gond	ST								
772	289/5	0.478	0.478	Narsingh - Janakram	Gond	ST								
773	289/6	0.729	0.729	Manohar, Janakram	Gond	ST								
774	289/7	0.263	0.263	Manohar, Janakram	Gond	ST								
775	289/8	0.471	0.471	Narsingh - Janakram	Gond	ST								
776	290/1	0.118	0.118	Jagdamba, Bhagirathi, Poni, Bhagvati S/o Saldev	Kenvat	Others								
777	290/2	0.127	0.127	Devnath Anandi Tilmati and others	Kenvat	Others								
778	290/3	0.202	0.202	Sunau - Parasram	Kenvat	Others								
779	290/4	0.129	0.129	Rameshwar Runkunwar and others	Kevat	Others								
780	290/5	0.405	0.405	Ashok Kumar ,Bhuneshwar and others	Kevat	Others								
781	290/6	0.239	0.239	Devnath Anandi Tilmati and others	Kenvat	Others								
782	290/7	0.057	0.057	Sunau - Parasram	Kenvat	Others								
783	290/8	0.117	0.117	Ashok Kumar ,Bhuneshwar and others	Kevat	Others								
784	290/9	0.128	0.128	Parvati W/o Kalinder and others	Kenvat	Others								
785	291/1 क	0.202	0.202	Pittambar S/o Ramcharan	Gond	ST								
786	291/1 ख	0.101	0.101	Atvar S/o Ghasiya and others	Gond	ST								
787	291/1 ग	0.178	0.178	Amrit Mohan	Panika	Others								
788	291/2 क	0.170	0.170	Bundkunvar and others	Gond	ST								
789	291/2 ख	0.202	0.202	Nilambar and others	Kenvat	Others								
790	291/2 ग	0.376	0.376	Dayanidhi S/o Rishikesh and others	Bramban	Others								
791	291/2 घ	0.048	0.048	Matthuram and others										
792	291/2 ङ	0.057	0.057	Akrishna and others	Kenvat	Others								
793	291/2 च	0.364	0.364	Bajrang S/o Gaipati and others	Gond	ST								
794	291/3 क	0.053	0.053	Atvar S/o Ghasiya and others	Gond	ST								
795	291/3 ख	0.061	0.061	Pittambar S/o Ramcharan	Gond	ST								
796	291/3 ग	0.048	0.048	Mathhuram, Maheshram, Vudumati S/o Baratram and others	Gond	ST								
797	291/3 घ	0.105	0.105	Tikaram	Kenvat	Others								
798	292	0.636	0.636	Mohitram - Baratram	Gond	ST								
799	293/1	0.445	0.445	Mangli Tilochan and others	Kenvat	Others								
800	293/2	0.101	0.101	Akrishna, Khemanidhi S/o Bhagirathi and others	Kenvat	Others								
801	293/3	0.239	0.239	Nilamber Tejram and others	Kenvat	Others								
802	293/4	0.202	0.202	Tejram Demoti S/o Ratan and others	Kenvat	Others								
803	294	0.267	0.267	Karamvati - Ghasiya	Kenvat	Others								

B.D. SHARMA
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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
804	295/1	0.200	0.200	Narsingh Janakram	Gond	ST								
805	295/2	0.124	0.124	Keshav Prasad -Bhagatram and others	Kevat	Others								
806	295/3	0.124	0.124	Ghanshyam-Kartikram and others	Kenvat	Others								
807	295/4	0.275	0.275	Akrishna Bhagirathi and others	Kenvat	Others								
808	295/5	0.405	0.324	Purshottam	Gond	ST								
809	295/6	0.144	0.144	Matbhuram, Maheshram, Vudumati S/o Baratram and others	Gond	ST								
810	296/1	0.688	0.610	Mansingh - Janakram	Gond	ST								
811	296/2	0.251	0.251	Mansingh - Janakram	Gond	ST								
812	297	0.696	0.590	Nityanand Bhojram and others	Kenvat	Others								
813	298	0.802	0.020	Mansingh - Janakram	Gond	ST								
814	424/1	0.254	0.154	Gharau-Bhokhu	Kenvat	Others								
815	424/2	0.696	0.101	Sachidanand - Pitamber ,Shanti W/o Pitamber	Kenvat	Others								
816	424/3	0.036	0.036	Keshav Prasad -Bhagatram and others	Kevat	Others								
817	425/1	0.441	0.441	Bajrang S/o Gajpati and others	Gond	ST								
818	425/2	0.510	0.573	Bajrang S/o Gajpati and others	Gond	ST								
819	426/1	0.180	0.080	Dubraj - Balaram	Kenvat	Others								
820	426/2	1.108	0.092	Kurmram - Pitambar and others	Kenvat	Others								
821	426/3	0.127	0.080	Keshav Prasad -Bhagatram and others	Kevat	Others								
822	426/4	0.281	0.080	Komal Prasad - Devsingh	Gond	ST								
823	426/5	0.127	0.080	Tikaram	Kenvat	Others								
824	426/6	0.242	0.080	Tikaram S/o Tularam	Kenvat	Others								
825	426/7	0.786	0.080	Bhuneshwar - Balram	Kenvat	Others								
826	426/8	0.192	0.080	Tejram Ratan and others	Kenvat	Others								
827	426/9	0.068	0.068	Dubraj - Balram	Kenvat	Others								
828	446	0.174	0.020	Dayanidhi S/o Rishikesh and others	Bramhan	Others								
829	447/1	0.206	0.140	Jindal Steel and Power Limited Tamnar by Dinesh Kumar Bhargav S/o A.P.N.Bhargava										
830	447/2	0.121	0.116	Nityanand Bhojram and others	Kenvat	Others								
831	447/3	0.205	0.116	Ghasiyano S/o Sudhe	Kenvat	Others								
832	447/4	0.105	0.105	Komal Prasad - Devsingh	Gond	ST								
833	447/5	0.117	0.117	Tejram S/o Ratan, Demoti W/o Ratan	Kenvat	Others								
834	447/6	0.101	0.101	Lalaram - Purshottam	Kenvat	Others								
835	448	0.316	0.196	Nityanand Bhojram and others	Kenvat	Others								
836	449	0.959	0.959	Uriprasad S/o Kanhai , Naresh S/o Jagdish and others	Gond	ST								
837	450/1	0.243	0.223	Nityanand Bhojram and others	Kenvat	Others								
838	450/2	0.121	0.121	Dayanidhi S/o Rishikesh and others	Bramhan	Others								
839	112/1	0.101	0.101	Ghasiyano Sudhe Harishankar and others	Kenvat	Others								
840	451	0.640	0.190	Narsingh - Janakram	Gond	ST								
841	458	0.332	0.230	Jindal Power Limited Tamnar Vivek Dadu S/o B.N. Dadu										
842	459/1	0.170	0.160	Bundsai -Chandaram	Kenvat	Others								
843	459/2	0.138	0.105	Nityanand Bhojram and others	Kenvat	Others								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
844	459/3	0.065	0.065	Dayanidhi S/o Rishikesh and others	Bramhan	Others								
845	460/1	0.240	0.233	Jindal Steel and Power Limited Tamnar by Dinesh Kumar Bhargav S/o A.P.N.Bhargava										
846	460/2	0.248	0.230	Ghasiyano S/o Sudhe	Kenvat	Others								
847	460/3	0.121	0.121	Harishankar S/o Shriram and others	Kenvat	Others								
848	460/4	0.127	0.127	Raipur Alloyas and Steel Pvt.Ltd by S.K. Sharma S/o Rammilan Sharma										
849	461/1	0.063	0.020	Kashiram - Udenath	Ravat	Others								
850	461/2	0.073	0.019	Gangaram-Udenath	Ravat	Others								
851	461/3	0.113	0.019	Lakeshwar Hiradhar and others	Aghariya	Others								
852	461/4	0.055	0.019	Kashiram - Udenath	Ravat	Others								
853	462/1	0.014	0.014	Gokul S/o Minketan	Maheti	Others								
854	462/2	0.014	0.014	Janardan Mishra S/o Rajpati Mishra	Bramhan	Others -								
855	463/1	0.251	0.249	Raipur Alloyas and Steel Pvt Ltd by S.K. Som,R.D.K. Som										
856	463/2	0.283	0.275	Manoj Behra and others	Sodhi	Others								
857	463/3	0.275	0.270	Raipur Alloyas and Steel Pvt Ltd by S.K. Som,R.D.K. Som										
858	463/4	0.138	0.138	Raipur Alloyas and Steel Pvt.Ltd by S.K. Som,R.D.K. Som										
859	463/5	0.352	0.329	Raipur Alloyas and Steel Pvt.Ltd by S.K. Som,R.D.K. Som										
860	463/6	0.049	0.049	Jindal Power Limited Rakesh Jindal S/o Anand, Raigarh										
861	464	0.214	0.210	Damyanti S/o Basantkumar	Gond	ST								
862	465/1	0.113	0.113	Bhalmati W/o Mangtu and others	Kenvat	Others								
863	465/2	0.101	0.101	Dayanidhi S/o Rishikesh and others	Bramhan	Others								
864	465/1 ख	0.105	0.105	Dayanidhi S/o Rishikesh and others	Bramhan	Others								
865	466/1 ख	0.113	0.113	Dayanidhi S/o Rishikesh and others	Bramhan	Others								
866	466/1 ग	0.032	0.032	Dayanidhi S/o Rishikesh and others	Bramhan	Others								
867	466/2	0.057	0.057	Haricharan - Machhinder	Gond	ST								
868	466/3 क	0.060	0.060	Bundkunvar and others	Gond	ST								
869	466/3 ख	0.146	0.146	Dayanidhi S/o Rishikesh and others	Bramhan	Others								
870	466/3 ग	0.146	0.146	Motimani and others	Uraov	ST								
871	466/4	0.182	0.182	Atvar S/o Ghasiya and others	Gond	ST								
872	467/1	0.036	0.036	Bolram Purshottam	Kenvat	Others								
873	467/2	0.061	0.061	Pittamber - Janakram	Kevat	Others								
874	467/3	0.061	0.061	Pittamber - Janakram	Kevat	Others								
875	467/4	0.137	0.137	Pittamber - Janakram	Kevat	Others								
876	467/5	0.036	0.036	Ghurau Purshottam	Kenvat	Others								
877	467/6	0.174	0.174	Puran Sukharn	Kenvat	Others								
878	467/8	0.075	0.075	Raghuveer - Purshottam	Kenvat	Others								
879	467/9	0.036	0.036	Veersingh - Purshottam	Kenvat	Others								
880	467/10	0.073	0.073	Ghurau Purshottam	Kenvat	Others								
881	467/11	0.073	0.073	Kalluram - Purshottam	Kenvat	Others								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
882	466/12	0.129	0.129	Boloram Purshottam	Kenvat	Others								
883	467/13	0.070	0.070	Pitambar and others	Kenvat	Others								
884	468/1	0.225	0.225	Keshav Prasad -Bhagatram and others	Kevat	Others								
885	468/2	0.364	0.364	Sunibai - Manbodh, Arun - Manbodh	Gond	ST								
886	468/3	0.255	0.255	Pittamlea - Janakram	Kevat	Others								
887	469/1	0.364	0.364	Sunibai - Manbodh, Arun - Manbodh	Gond	ST								
888	469/2	0.121	0.121	Narsingh Janakram	Gond	ST								
889	469/3	0.255	0.255	Akrishna, Khemaridhi S/o Bhagirathi and others	Kenvat	Others								
890	469/4	0.024	0.024	Keshav Prasad -Bhagatram and others	Kevat	Others								
891	469/5	0.259	0.259	Hariprasad S/o Kanhai , Naresh S/o Jagdish and others	Gond	ST								
892	469/6	0.162	0.162	Parvati W/o Kalinder and others	Kenvat	Others								
893	469/7	0.121	0.121	Sunibai - Manbodh, Arun - Manbodh	Gond	ST								
894	469/8	0.040	0.040	Vimla Devi W/o Bhagatram	Kenvat	Others								
895	470/1	0.069	0.069	Devnath Anandi Tilmali and others	Kenvat	Others								
896	470/2	0.073	0.073	Ashok Kumar ,Bhuneshwar and others	Kevat	Others								
897	471/1	0.219	0.219	Kariba W/o Rupsingh and others	Kenvat	Others								
898	471/2	0.121	0.121	Purshottam - Mansingh	Gond	ST								
899	472/1 a	0.136	0.136	Mangh W/o Lochan and others	Kenvat	Others								
900	472/1 b	0.014	0.014	Harishankar S/o Shriram	Kenvat	Others								
901	472/2	0.081	0.081	Nilambar Tejram, Jagmohan-Sukhram and others	Kenvat	Others								
902	473	0.680	0.680	Manohar, Janakram	Gond	ST								
903	474/1	0.402	0.402	Sukhram S/o Chanra	Kenvat	Others								
904	474/2	0.202	0.202	Sarvabharma W/o Lalitsingh	Kosta	ST								
905	474/3	0.064	0.064	Rishikesh S/o Nanda Chaudhri	Aghariya	Others								
906	475/1	0.006	0.006	Bundeli -Thandaram	Kenvat	Others								
907	475/2	0.093	0.093	Sachidanand Pitamber	Kenvat	Others								
908	475/3	0.093	0.093	Nilambar -Sahdeva	Kenvat	Others								
909	476/1	0.085	0.085	Jagarmati W/o Ichharam and others	Uranv	ST								
910	476/2	0.081	0.081	Shyamlal Runga and others	Uranv	ST								
911	476/3	0.166	0.166	Chhakuni S/o Jhagru and others	Uranv	ST								
912	477	0.214	0.214	Kapursingh S/o Somnath	Gond	ST								
913	478/1	0.091	0.091	Bihanlal-Jairam	Aghariya	Others								
914	478/2	0.242	0.242	Jindal Power Limited Rakesh Jindal S/o Anand, Raigarh										
915	478/3	0.085	0.085	Kamal Lochan S/o Vaishav	Sadhi	Others								
916	478/4	0.024	0.024	Mustkim S/o Mohammad Vasir	Muslim	Others								
917	478/5	0.010	0.010	Santosanand - Sovaxi	Aghariya	Others								
918	478/6	0.040	0.040	Ranjeetram, Amarsingh and others	Rajput	Others								
919	478/7	0.041	0.041	Umeshkumar ,Nageshwar Prasad Singh	Rajput	Others								
920	478/8	0.147	0.147	Ramakant, Rajnikant S/o Padumlal	Aghariya	Others								
921	478/9	0.010	0.010	Khirod Mahapatra S/o Anandram	Brahman	Others								
922	479											1.019	1.019	Road
923	480/1	0.454	0.454	Narsingh - Janakram	Gond	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
924	480/2	0.468	0.468	Manohar, Janakram	Gond	ST								
925	480/3	0.466	0.466	Mansingh - Janakram	Gond	ST								
926	481/1 ख	0.040	0.040	Radheshyam and others	Gond	ST								
927	481/3 ख	0.264	0.264	Pravin S/o Uiani and others	Uranv	ST								
928	481/2 क	0.243	0.243	Bundkunvar and others	Gond	ST								
929	481/2 ख	0.283	0.283	Dayanidhi S/o Rishikesh and others	Bramhan	Others								
930	482	0.435	0.435	Narsingh - Janakram	Gond	ST								
931	483/1	0.299	0.299	Bharat - Laxmiram	Gond	ST								
932	483/2	0.065	0.065	Kunjbihari,Kamalsingh S/o Premsingh	Gond	ST								
933	484/1	0.032	0.032	Gangaram-Udenath	Raval	Others								
934	484/2	0.032	0.032	Uksnli-Gayaram and others	Raval	Others								
935	484/3	0.134	0.134	Kashuram - Udenath	Raval	Others								
936	485/1	0.668	0.668	Narsingh - Janakram	Gond	ST								
937	485/2	1.121	1.121	Mansingh - Janakram	Gond	ST								
938	486/1						4.650	4.650	Small Tree Forest					
939	486/2	0.178	0.178	Pravin and others	Uranv	ST								
940	486/3	0.024	0.024	Pravin and others	Uranv	ST								
941	486/4	0.198	0.198	Kanhaiya S/o Nohar	Kenvat	Others								
942	486/5	0.405	0.399	Bundkunvar and others	Gond	ST								
943	486/6	0.405	0.399	Dayanidhi, Umakant, Chitrasen S/o Rishikesh	Bramhan	Others								
944	487	0.182	0.182	Puran Machinder	Gond	ST								
945	488/1 ऋ	0.299	0.299	Dayanidhi Rishikesh and others	Bramhan	Others								
946	488/1 ङ	0.057	0.057	Ramsingh Machinder	Gond	ST								
947	488/1 ग	0.320	0.138	Santram, Dokri S/o Shridhar	Gond	ST								
948	488/1 ट	0.016	0.016	Jindal Power Limited Rakesh Jindal S/o Anand, Raigarh										
949	488/2	0.101	0.101	Milansingh - Machinder	Gond	ST								
950	488/3 ऊ	0.214	0.214	Bundkunvar and others	Gond	ST								
951	488/3 च	0.129	0.129	Nityanand Bhoiram and others	Kenvat	Others								
952	488/3 ण	0.162	0.162	Dayanidhi S/o Rishikesh and others	Bramhan	Others								
953	488/4	0.016	0.016	Kushva S/o Budhau	Gond	ST								
954	489/1	0.195	0.195	Dayanidhi S/o Rishikesh and others	Bramhan	Others								
955	489/2 ऊ	0.190	0.190	Bundkunvar and others	Gond	ST								
956	489/2 ऋ	0.105	0.105	Amal Adak S/o Shivram	Maiso	Others								
957	489/2 ए	0.024	0.024	Kushva S/o Budhau	Gond	ST								
958	489/3 ऊ	0.150	0.150	Motiram and others	Uranv	ST								
959	489/3 च	0.162	0.162	Amal Adak S/o Shivram	Maiso	Others								
960	489/3 ए	0.150	0.150	Ramsai S/o Sahasram	Kenvat	Others								
961	489/4	0.024	0.024	Jindal Power Limited Rakesh Jindal S/o Anand, Raigarh										
962	490/1 ऊ	0.283	0.190	Bhuri S/o Durlabha and others	Gond	ST								
963	490/1 च						1.123	0.094	Small Tree Forest					
964	490/1 ए	0.061	0.061	Akrishna and others	Kenvat	Others								
965	490/1 ट	0.526	0.511	Mahisingh S/o Jasveer and others	Sikh	Others								
966	490/1 ठ	0.405	0.405	Purnchandra S/o Vijaram	Nair	Others								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
967	490/1 ग	0.081	0.081	Khemsingh S/o Rupsingh and others	Gond	ST								
968	490/2 क	1.166	0.734	Sagar S/o Kadan	Manjhi	ST								
969	490/2 ख	0.749	0.734	Phoolchand S/o Balakaran	Parghaniya	Others								
970	490/2 ग	0.202	0.202	Manish Agrawal S/o Babulal Agrawal Rajkumar	Agrawal	Others								
971	490/2 घ	0.202	0.202	Vinit Kaur - Mahendrapal Singh	Sikh	Others								
972	491/1	0.109	0.064	Puran - Machhinder	Gond	ST								
973	491/2	0.109	0.064	Ramsingh S/o Machhinder	Gond	ST								
974	491/3	0.109	0.064	Milansingh - Machinder	Gund	ST								
975	491/4	0.117	0.067	Harisharan - Machander	Gond	ST								
976	498/1						6.763	0.853	Small Tree Forest					
977	498/4,5	0.210	0.080	Purnav Bai W/o Kriparam	Gond	ST								
978	498/6	0.081	0.081	Pravin and others	Uraov	ST								
Total of Kunjemura		210.123	199.715				37.119	30.170		14.230	14.221	21.904	21.904	

(नागपाल / I.P. NAGPAL)
अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi

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ROP NO. 340[illegible]/2014-CPAM

Land Schedule

Village :Jhinkabahal, P.H.N.: 41, R.I.Circle : Tamnar,Tehsil : Tamnar, District : Raigarh(Chhattisgarh)

Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1	2/1 क, ख,ङ,च 2/2क 2/3ए,ख								Forest Compartment					
2	2/1 ग	0.809	0.809	Phoolchand and others	Kanwar	ST								
3	2/3 क	0.292	0.200	Nilkanth S/o Ishwar Prasad	Sodhi	Others								
4	2/4	0.304	0.304	Sunder Lal Avadhya Lal and others	Bhuiya	ST								
5	112/1क	0.174	0.027	Jindal Power Ltd Dinesh Kumar Bhargav										
6	112/1 ख	1.088	0.615	Jindal Power Ltd Dinesh Kumar Bhargav										
7	112/1 ग	0.146	0.146	Venudhar and others	Aghariya	Others								
8	112/2	0.486	0.049	Kumar S/o Sukdev	Sond	ST								
9	113,114,115,117-1	0.057	0.057	Munuram and others	Aghariya	Others								
10	113,114,115,117-7	0.332	0.179	Manikram and others	Aghariya	Others								
11	113,114,115,117-10	0.045	0.033	Biharilal and others	Aghariya	Others								
12	113,114,115,117-14	0.141	0.090	Saheb Ram and others	Aghariya	Others								
13	113,114,115,117-15	0.332	0.029	Manikram and others	Aghariya	Others								
14	113,114,115,117-18	0.081	0.057	Biharilal and others	Aghariya	Others								
15	113,114,115,117-21	0.097	0.070	Tarachand S/o Arjun and others	Aghariya	Others								
16	113,114,115,117-25	0.109	0.109	Aashram Rajaram and others	Aghariya	Others								
17	113,114,115,117-26	0.162	0.130	Saheb Ram and others	Aghariya	Others								
18	113,114,115,117-29	0.045	0.005	Munuram and others	Aghariya	Others								
19	113,114,115,117-30	0.234	0.152	Podumlal S/o Jyotilal and others	Aghariya	Others								
20	113,114,115,117-33	0.174	0.150	Khageshwar Raviram Champavati and others	Aghariya	Others								
21	116	0.692	0.660	Rupsingh and others	Rawat	Others								
Total of Jhinkabahal		5.800	3.844											

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Land Schedule

Village :Rodopali, P.H.N.: 32, R.I.Circle : Tamnar,Tehsil :Tamnar, District : Raigarh(Chhattisgarh)

Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1	25	1.032	0.090	Kartikeshwar and others	Bramha	Others								
2	26/3	0.547	0.275	Gaurange S/o Namo	Kolta	ST								
3	27	1.339	0.090	Bhogsingh Jethuram S/o Laxmuram and others	Kanwar	ST								
4	38	1.530	0.413	Devki, Rukhani Kasturi and others	Kolta	ST								
5	39	0.405	0.392	Sunder Haldhar S/o Govind and others	Kanwar	ST								
6	40	0.166	0.130	Chattarsai Ramsai and others	Kanwar	ST								
7	41											0.020	0.020	Seva Bhum. Gram Naykar Kotwar
8	42	6.433	6.286	Dharamsingh S/o Bandhiram and others	Kanwar	ST								
9	43	1.214	1.214	Dharamsingh S/o Bandhiram and others	Kanwar	ST								
10	44	2.489	2.489	Sarasvati W/o Dhufeshwer	Bramha	Others								
11		0.720	0.720											
12	45/1	0.323	0.323	Utra S/o Subhash and others	Kolta	ST								
13	45/2	0.162	0.162	Gaurago S/o Narango	Kolta	ST								
14	45/3	0.174	0.174	Premshankar S/o Narango	Kolta	ST								
15	45/4	0.323	0.323	Sitaram S/o Mghno	Kolta	ST								
16	46/1	0.312	0.312	Shankarlal	Kolta	ST								
17	46/2	0.313	0.313	Shyam Lal	Kolta	ST								
18	46/3	0.625	0.625	Sapuran S/o Shridhar and others	Kolta	ST								
19	47											0.045	0.045	Seva Bhum. Gram Naykar Kotwar
20	48	0.474	0.474	Sarasvati W/o Dhufeshwer	Bramha	Others								
21	49/1	0.237	0.237	Shri Mati Jairadh	Kolta	ST								
22	49/2	0.237	0.237	Gutvari Jairadh	Kolta	ST								
23	50/1	0.809	0.803	Asmati S/o Vikram	Kanwar	ST								
24	50/2	0.450	0.450	Amrit Balram	Kanwar	ST								
25	50/3	0.453	0.453	Rangmati W/o Makundram and others	Kanwar	ST								
26	50/4	0.304	0.304	Mansingh S/o Baiga	Kanwar	ST								
27	50/5	0.304	0.304	Ghurau S/o Baiga	Kanwar	ST								
28	50/6	0.299	0.233	Sadhmati Vedmati, Ahilya and others	Kanwar	ST								
29	51	3.039	3.039	Ghanshyam Haravati S/o Dukhu and others	Kanwar	ST								
30	52	0.930	0.930	Parasram S/o Bhanupratap and others	Kanwar	ST								
31	53											0.967	0.967	Seva Bhum. Gram Naykar Kotwar
32	54	0.422	0.422	Hanhar S/o Chamru	Kanwar	ST								
33	55	0.999	0.999	Devki, Rukhani Kasturi and others	Kolta	ST								
34	56	0.291	0.291	Ghanshyam Haravati S/o Dukhu and others	Kanwar	ST								
35	57	0.629	0.629	Sohan, Sagun S/o Balihor	Gond	ST								
36	58/1	0.084	0.084	Shankarlal and others	Kolta	ST								
37	58/2	0.091	0.091	Shyam Lal	Kolta	ST								
38	58/3	0.085	0.085	Sapuran S/o Shridhar and others	Kolta	ST								
39	58/4	0.081	0.081	Shri Mati Jairadh	Kolta	ST								
40	58/5	0.244	0.244	Gutvari Jairadh	Kolta	ST								
41	58/6	0.070	0.070	Sushi S/o Shankarlal and others	Kolta	ST								
42	58/7	0.184	0.184	Shyam La	Kolta	ST								
43	58/8	0.229	0.229	Sapuran S/o Shridhar and others	Kolta	ST								

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
44	58/9	0.087	0.087	Shri Mati Jairaoh	Kolta	ST									
45	58/10	0.318	0.318	Susbi S/o Shankarlal and others	Kolta	ST									
46	58/11	0.100	0.100	Sapuram S/o Shridhar and others	Kolta	ST									
47	58/12	0.081	0.081	Shri Mati Jairadh	Kolta	ST									
48	58/13	0.087	0.087	Sushi S/o Shankarlal and others	Kolta	ST									
49	58/14	0.495	0.495	Sapuram S/o Shridhar and others	Kolta	ST									
50	59	0.775	0.775	Parasram S/o Bhanupratap and others	Kanwar	ST									
51	60/1	0.502	0.502	Ghanshyam Haravati S/o Dukhu and others	Kanwar	ST									
52	60/2	0.999	0.999	Chaityam S/o Chamarsingh and others	Kanwar	ST									
53	61	1.323	1.323	Sankarsingh Dharamsingh	Kanwar	ST									
54	62/1	0.380	0.380	Rangmati W/o Makundram and others	Kanwar	ST									
55	62/2	0.504	0.504	Amrit Baliram	Kanwar	ST									
56	62/3	0.803	0.803	Sunder Haldhar S/o Govind and others	Kanwar	ST									
57	62/4	0.344	0.344	Sunder Haldhar S/o Govind and others	Kanwar	ST									
58	62/5	0.102	0.101	Chattarsai S/o Ramsai	Kanwar	ST									
59	62/6	0.101	0.101	Rangmati W/o Makundram and others	Kanwar	ST									
60	62/7	0.295	0.295	Mansingh S/o Baiga	Kanwar	ST									
61	62/8	0.263	0.263	Ghurau	Kanwar	ST									
62	62/9,62/10	0.563	0.563	Sadhmati Vedmati, Ahilya and others	Kanwar	ST									
63	62/11	0.089	0.089	Ghurau S/o Baiga	Kanwar	ST									
64	62/12	0.202	0.202	Mansingh	Kanwar	ST									
65	62/13	0.101	0.101	Sunder Haldhar S/o Govind and others	Kanwar	ST									
66	62/14	0.501	0.101	Mansingh S/o Baiga	Kanwar	ST									
67	62/15	0.445	0.445	Sunder Haldhar S/o Govind and others	Kanwar	ST									
68	62/16	0.134	0.134	Rangvati and others	Kanwar	ST									
69	62/17	0.134	0.134	Amrit	Kanwar	ST									
70	62/18	0.518	0.518	Chattersai S/o Ramsai	Kanwar	ST									
71	62/19	0.405	0.405	Sunder Haldhar S/o Govind and others	Kanwar	ST									
72	63	0.825	0.825	Barat Ram S/o Dhonoram	Uranv	ST									
73	64											0.865	0.865	Road	
74	65/1	0.008	0.008	Sunder Haldhar S/o Govind and others	Kanwar	ST									
75	65/2	0.020	0.020	Mansingh	Kanwar	ST									
76	66	0.644	0.644	Harihar S/o Chamru	Kanwar	ST									
77	67	0.858	0.858	Devki, Rukham Kasturi and others	Kolta	ST									
78	68	1.173	1.173	Dharamsingh and others	Kanwar	ST									
79	69	1.319	1.319	Mitrabhanu Lamodar and others	Kanwar	ST									
80	70/1	0.249	0.249	Utra S/o Subhash and others	Kolta	ST									
81	70/2	0.249	0.249	Staram S/o Mohno	Kolta	ST									
82	71/1	0.210	0.210	Chattarsai S/o Ramsai	Kanwar	ST									
83	71/2	0.279	0.279	Sunder Haldhar S/o Govind and others	Kanwar	ST									
84	71/3	0.129	0.129	Sadhmati Vedmati, Ahilya and others	Kanwar	ST									
85	71/4	0.089	0.089	Ghurau	Kanwar	ST									
86	71/5	0.345	0.345	Sunder Haldhar S/o Govind and others	Kanwar	ST									
87	71/6	0.089	0.089	Rangmati W/o Makundram and others	Kanwar	ST									
88	71/7	0.275	0.275	Chattarsai S/o Ramsai	Kanwar	ST									
89	71/8	0.324	0.324	Sadhmati Vedmati, Ahilya and others	Kanwar	ST									
90	71/9	0.057	0.057	Ghurau S/o Baiga	Kanwar	ST									

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Dr. T.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
91	71/10	0.097	0.097	Mansingh S/o Baiga	Kanwar	ST								
92	71/11	0.227	0.227	Amrit	Kanwar	ST								
93	71/12	0.162	0.162	Rangmati W/o Mokundram and others	Kanwar	ST								
94	71/13	0.101	0.101	Chattarsai S/o Ramsai	Kanwar	ST								
95	71/14	0.109	0.109	Rangvati and others	Kanwar	ST								
96	71/15	0.154	0.154	Sunder and others	Kanwar	ST								
97	71/16	0.109	0.109	Mansingh S/o Baiga	Kanwar	ST								
98	72	1.509	1.509	Janmjal S/o Pandak and others	Kanwar	ST								
99	73	0.729	0.729	Haniram, Dhaniram, Harichand S/o Sadhram	Kanwar	ST								
100	74/1	0.256	0.256	Nankidai W/o Nanki	Kanwar	ST								
101	74/2	0.128	0.128	Dhaniram, Sadhram	Kanwar	ST								
102	74/3	0.405	0.405	Prakash S/o Gunanidhi and others	Kanwar	ST								
103	75	1.659	1.659	Laxmi Bai W/o Gudnidhi and others	Kanwar	ST								
104	76	0.304	0.304	Haniram, Dhaniram, Harichand S/o Sadhram	Kanwar	ST								
105	77/1	0.084	0.084	Nankidai W/o Nanki	Kanwar	ST								
106	77/2	0.041	0.041	Dhaniram	Kanwar	ST								
107	77/3	0.219	0.219	Prakash S/o Gunanidhi and others	Kanwar	ST								
108	78/1	0.525	0.525	Guduram S/o Baldev	Kanwar	ST								
109	78/2	0.320	0.320	Daulat Ram Sukul and others	Kanwar	ST								
110	79	0.817	0.817	Jammajar Bhima and others	Kanwar	ST								
111	80/1	0.528	0.528	Nankidai W/o Nanki	Kanwar	ST								
112	80/2	0.265	0.265	Dhaniram S/o Sadhram	Kanwar	ST								
113	80/3	0.267	0.267	Prakash S/o Gunanidhi and others	Kanwar	ST								
114	80/4	0.332	0.332	Prakash S/o Gunanidhi and others	Kanwar	ST								
115	81	1.133	1.133	Laxmi Bai W/o Gudnidhi and others	Kanwar	ST								
116	82	1.356	1.356	Haniram, Dhaniram, Harichand S/o Sadhram	Kanwar	ST								
117	84	4.136	4.136	Baldev S/o Girdhar	Bramhan	Others								
118	85/1	11.682	11.400	Kartikeshwar S/o Girdhari and others	Bramhan	Others								
119	85/2											1.323	1.323	Below Water
120	85/3											1.049	1.049	Seva Bhumi Gram Naukar Kotwar
121	86/1	0.268	0.268	Tijobai W/o Baratram	Uranv	ST								
122	86/2	0.405	0.405	Barat Ram S/o Dhongram	Uranv	ST								
123	87	0.603	0.603	Dharamsingh S/o Bandhiram and others	Kanwar	ST								
124	88											0.384	0.384	Seva Bhumi Gram Naukar Kotwar
125	89/1	0.296	0.296	Mansingh S/o Baiga	Kanwar	ST								
126	89/2	0.299	0.299	Sunder Haldhar S/o Govind and others	Kanwar	ST								
127	89/3	0.299	0.299	Chattarsai S/o Ramsai	Kanwar	ST								
128	90	1.222	0.694	Ratthuram Santuram and others	Khadiya	ST								
129	91											2.526	2.526	Road
130	92	0.295	0.295	Harihar S/o Chamru	Kanwar	ST								
131	93	0.910	0.910	Ratthuram Santuram and others	Khadiya	ST								
132	94/1	0.065	0.065	Daulat Ram Sukul and others	Kanwar	ST								
133	94/2	0.137	0.137	Tijobai W/o Baratram	Uranv	ST								
134	95	0.373	0.373	Rangvati W/o Makundram and others	Kanwar	ST								
135	96	1.052	1.052	Rangvati W/o Makundram and others	Kanwar	ST								
136	97/1	0.049	0.049	Sadhmati and others	Kanwar	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
137	97/2	0.089	0.089	Sunder Haldhar S/o Govind and others	Kanwar	ST								
138	97/3	0.166	0.166	Chattarsai S/o Ramsai	Kanwar	ST								
139	97/4	0.101	0.101	Sunder Haldhar S/o Govind and others	Kanwar	ST								
140	97/5	0.020	0.020	Chattarsai S/o Ramsai	Kanwar	ST								
141	97/6	0.109	0.109	Sadhmati Vedmati, Ahilya and others	Kanwar	ST								
142	98	0.652	0.652	Tularam S/o Sindhuram	Gada	ST								
143	99	0.231	0.231	Tularam S/o Sindhuram	Gada	ST								
144	100											0.870	0.870	Seva Bhumi Gram Naukar Kotwar
145	101	0.239	0.239	Kartikeshwar S/o Girdhari and others	Bramhan	Others								
146	102/1	0.208	0.208	Jhularam S/o Jagatram	Gada	ST								
147	102/2	0.562	0.562	Ratan Kamari S/o Santram and others	Gada	ST								
148	103											0.263	0.263	Seva Bhumi Gram Naukar Kotwar
149	104/1	0.829	0.829	Ayoshya Prasad, Anand Kumar S/o Baldev	Bramhan	Others								
150	104/2/1	2.789	2.789	Chadrama Upma and others	Bramhan	Others								
151	104/2/2	0.934	0.934	Gajanand Rameswar and others	Kanwar	ST								
152	104/2/3	0.291	0.291	Gajanand Rameswar and others	Kanwar	ST								
153	104/3	2.064	2.064	Govind S/o Prahlad and others	Kolta	ST								
154	104/4	1.963	1.963	Parkhit, Chatiram and others	Aghariya	Others								
155	104/5	0.449	0.449	Ahilya W/o Parsit	Aghariya	Others								
156	104/6	0.202	0.202	Ahilya W/o Parsit	Aghariya	Others								
157	104/7	0.210	0.210	Ahilya W/o Parsit	Aghariya	Others								
158	104/8	0.226	0.226	Bhagvati W/o Shivprasad	Aghariya	Others								
159	104/9	0.040	0.040	Bhagvati W/o Shivprasad	Aghariya	Others								
160	104/10	0.856	0.856	Bhagvati W/o Shivprasad	Aghariya	Others								
161	104/11	0.186	0.186	JivanKunver W/o Ramkunver	Aghariya	Others								
162	104/12	0.570	0.570	JivanKunver W/o Ramkunver	Aghariya	Others								
163	104/13	0.469	0.469	Bhagvati W/o Shivprasad	Aghariya	Others								
164	104/14	0.259	0.259	Rashi Kumar S/o Haldhar	Gond	ST								
165	104/15	0.299	0.299	Kamla S/o Ghasiram	Aghariya	Others								
166	104/16	0.628	0.628	Gajanand Rameswar and others	Kanwar	ST								
167	104/17	0.518	0.518	Chattarsai S/o Ramsai	Kanwar	ST								
168	104/18	1.011	1.011	Chandrama and others	Bramha	Others								
169	104/19	0.647	0.647	Chandan Singh S/o Tetku	Kanwar	ST								
170	104/20	0.769	0.769	Ahilya	Aghariya	Others								
171	105											0.174	0.174	Seva Bhumi Gram Naukar Kotwar
172	106	1.092	1.092	Janmejai Bhuma and others	Kanwar	ST								
173	107/1	0.049	0.049	Vasudev S/o Karamsingh and others	Gada	ST								
174	107/2	0.485	0.485	Kanhai S/o Murakram	Kanwar	ST								
175	108	0.789	0.789	Sohan, Sagun S/o Balihar	Gond	ST								
176	109											1.692	1.692	Shamshan Ke liye
177	110	0.368	0.368	Bhopsingh Jeliram S/o Laxmiram and others	Kanwar	ST								
178	111	0.182	0.182	Chadrama Upma and others	Bramhan	Others								
179	112	0.405	0.405	Chadrama Upma and others	Bramhan	Others								
180	113/1	0.810	0.810	Chadrama Upma and others	Bramhan	Others								
181	113/2											0.190	0.190	Below Water

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
182	113/3	0.651	0.651	Tejram, Rashkumar S/o Jaldhar	Gond	ST									
183	113/4	0.805	0.805	Govindram and others	Kanwar	ST									
184	114/1	3.339	3.339	Chandrama Upira Kedarnath and others	Bramhan	Others									
185	114/2	4.014	4.014	Ayodhya Prasad, Anand Kumar S/o Baldev	Bramhan	Others									
186	114/3											0.494	0.494	Below Water	
187	114/4	1.956	1.956	Satish S/o Duryodhan and others	Sodhi	Others									
188	114/5	0.255	0.255	Santuram S/o Maldhanu	Khadiya	ST									
189	114/6	0.623	0.623	Pahariya Lalaram	Khadiya	ST									
190	115	0.247	0.247	Chattarsai Ramsai and others	Kanwar	ST									
191	116/1	0.089	0.089	Mansingh S/o Baiga	Kanwar	ST									
192	116/2	0.024	0.024	Chattarsingh	Kanwar	ST									
193	116/3	0.036	0.036	Mansingh S/o Baiga	Kanwar	ST									
194	116/4	0.036	0.036	Ghurau S/o Baiga	Kanwar	ST									
195	116/5	0.036	0.036	Sadhmati Vedmati, Ahilya and others	Kanwar	ST									
196	116/6	0.174	0.174	Sunder Haldhar S/o Govind and others	Kanwar	ST									
197	116/7	0.150	0.150	Chattarsai S/o Ramsai	Kanwar	ST									
198	116/8	0.028	0.028	Rangvati and others	Kanwar	ST									
199	116/9	0.028	0.028	Amrit	Kanwar	ST									
200	116/10	0.109	0.109	Ghurau S/o Baiga	Kanwar	ST									
201	116/11	0.243	0.243	Mansingh S/o Baiga	Kanwar	ST									
202	116/12	0.121	0.121	Sadhmati Vedmati, Ahilya and others	Kanwar	ST									
203	116/13	0.231	0.231	Amrit Bahram	Kanwar	ST									
204	116/14	0.109	0.109	Rangmati W/o Makundram and others	Kanwar	ST									
205	116/15	0.117	0.117	Chattarsai S/o Ramsai	Kanwar	ST									
206	116/16	0.364	0.364	Sunder Haldhar S/o Govind and others	Kanwar	ST									
207	116/17	0.109	0.109	Sadhmati Vedmati, Ahilya and others	Kanwar	ST									
208	116/18	0.109	0.109	Mansingh S/o Baiga	Kanwar	ST									
209	116/19	0.364	0.364	Ghurau S/o Baiga	Kanwar	ST									
210	116/20	0.073	0.073	Sadhmati Vedmati, Ahilya and others	Kanwar	ST									
211	116/21	0.073	0.073	Mansingh S/o Baiga	Kanwar	ST									
212	116/22	0.813	0.813	Sunder Haldhar S/o Govind and others	Kanwar	ST									
213	116/23	0.040	0.040	Sadhmati Vedmati, Ahilya and others	Kanwar	ST									
214	117	1.720	1.720	Thakur Ram	Kanwar	ST									
215	118	0.862	0.862	Thakur Ram	Kanwar	ST									
216	119											1.103	1.103	Seva Bhumi Gram Naukar Kotwar	
217	120	0.902	0.902	Krishnakumar Mangli S/o Bui Sukmet	Khadya	ST									
218	121/1	0.040	0.040	MohitSa. S/o Raniram	Gada	ST									
219	121/2	0.085	0.085	Digrilal S/o Aanandram and others	Aghariya	Others									
220	122/1	0.890	0.890	Ashok Garg S/o Govind and others	Agrawal	Others									
221	122/2	0.121	0.121	Kartikram S/o Shaniram and others	Gada	ST									
222	122/3	0.081	0.081	MohitSa. S/o Raniram	Gada	ST									
223	122/4	0.061	0.061	Digrilal S/o Aanandram and others	Aghariya	Others									
224	122/5	0.086	0.086	Salikram Shaniram	Gada	ST									
225	122/6	0.129	0.129	Kartikram S/o Shaniram and others	Gada	ST									
226	122/7	0.129	0.129	Digrilal S/o Aanandram and others	Aghariya	Others									
227	122/8	0.129	0.129	Salikram Shaniram	Gada	ST									
228	122/9	0.122	0.122	MohitSa S/o Raniram	Gada	ST									

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							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
229	123											0.632	0.632	Seva Bhumi Gram Naukar Kotwar	
230	124/1	0.191	0.191	Digrilal S/o Aanandram and others	Aghariya	Others									
231	124/2	0.190	0.190	Salikram Shankram	Gada	ST									
232	124/3	0.190	0.190	Digrilal S/o Aanandram and others	Aghariya	Others									
233	124/4	0.194	0.194	MohitSai S/o Raniram	Gada	ST									
234	125											0.930	0.895	Seva Bhumi Gram Naukar Kotwar	
235	126	0.061	0.061	Kartikeshwar S/o Girdhari and others	Bramhan	Others									
236	127	0.174	0.174	Ashok Garg S/o Govind and others	Agrawal	Others									
237	128/1	0.032	0.032	Kartikram S/o Shaniram and others	Gada	ST									
238	128/2	0.032	0.032	Salikram Shaniram	Gada	ST									
239	128/3	0.061	0.061	Jhularam S/o Jagatram	Gada	ST									
240	128/4	0.105	0.105	Ashok Garg S/o Govind and others	Agrawal	Others									
241	129/1	0.081	0.081	Kartikram S/o Shaniram and others	Gada	ST									
242	129/2	0.061	0.061	Digrilal S/o Aanandram and others	Aghariya	Others									
243	129/3	0.061	0.061	Kartikram S/o Shaniram and others	Gada	ST									
244	129/4	0.061	0.061	MohitSai S/o Raniram	Gada	ST									
245	129/5	0.121	0.121	Salikram Shaniram	Gada	ST									
246	129/6	0.121	0.121	Kartikram S/o Shaniram and others	Gada	ST									
247	129/7	0.049	0.049	Digrilal S/o Aanandram and others	Aghariya	Others									
248	129/8	0.105	0.105	MohitSai S/o Raniram	Gada	ST									
249	129/9	0.040	0.040	Salikram Shaniram	Gada	ST									
250	129/10	0.041	0.041	Digrilal S/o Aanandram and others	Aghariya	Others									
251	129/11	0.032	0.032	Mohitsai S/o Raniram	Gada	ST									
252	129/12	0.057	0.057	Kartikram S/o Shaniram and others	Gada	ST									
253	129/13	0.105	0.105	Digrilal S/o Aanandram and others	Aghariya	Others									
254	129/14	0.041	0.041	Salikram Shaniram	Gada	ST									
255	129/15	0.032	0.032	Mohitram	Gada	ST									
256	129/16	0.223	0.223	Salikram Shaniram	Gada	ST									
257	129/17	0.032	0.032	Digrilal S/o Aanandram and others	Aghariya	Others									
258	129/18	0.129	0.129	MohitSai S/o Raniram	Gada	ST									
259	129/19	0.121	0.121	Digrilal S/o Aanandram and others	Aghariya	Others									
260	130/1	0.182	0.182	Mansingh S/o Baiga	Kanwar	ST									
261	130/2	0.178	0.178	Ghurau S/o Baiga	Kanwar	ST									
262	130/3	0.176	0.176	Sadhmati Vedmati, Ahiya and others	Kanwar	ST									
263	130/4	0.134	0.134	Chattarsai S/o Ramsai	Kanwar	ST									
264	130/5	0.528	0.528	Sunder Haldhar S/o Govind and others	Kanwar	ST									
265	131											2.007	2.007	Seva Bhumi Gram Naukar Kotwar	
266	132	1.076	1.076	Chattarsai Ramsai and others	Kanwar	ST									
267	133/1	1.942	1.942	Bheem S/o Samaru	Kanwar	ST									
268	133/2	0.304	0.304	Kartikeshwar S/o Girdhari and others	Bramhan	Others									
269	134	0.583	0.583	Dolesari W/o Chitrasen	Bramhan	Others									
270	135/1	0.210	0.210	Haisram S/o Tejram and others	Kanwar	ST									
271	135/2/1	0.101	0.101	Khageshwar S/o Negiram	Kanwar	ST									
272	135/2/2	0.101	0.102	Dayanidhi S/o Negiram	Kanwar	ST									
273	135/3/1	0.101	0.101	Puran S/o Negiram	Kanwar	ST									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Others			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
274	135/3/2	0.201	0.101	Dhanuram S/o Gonaram	Kanwar	ST								
275	135/4	0.282	0.282	Rajaram S/o Mayaram	Kanwar	ST								
276	135/5	0.720	0.720	Badesidar S/o Jagdev	Kanwar	ST								
277	135/6	0.487	0.487	Badesidar	Kanwar	ST								
278	135/7	0.410	0.410	Sunita W/o Sandhyanand	Kanwar	ST								
279	135/8	0.506	0.506	Pursottam S/o Balmukund	Kanwar	ST								
280	135/9	0.202	0.202	Pursottam S/o Balmukund	Kanwar	ST								
281	136/1	1.011	1.011	Baldev S/o Girdhari	Bramhan	Others								
282	136/2	2.925	2.925	Vedmati W/o Kamta Prasad	Aghariya	Others								
283	136/3	1.908	1.908	Baldev S/o Girdhari	Bramhan	Others								
284	137						0.125	0.125	Small Tree Forest					
285	138									0.049	0.049			
286	139											0.405	0.405	Below Water
287	140	0.057	0.057	Haisram and others	Kanwar	ST								
288	141											1.181	1.181	Road
289	142	0.291	0.291	Kartikeshwar S/o Girdhari and others	Bramhan	Others								
290	143/1	6.337	5.337	Chandrama Upma Kedarnath and others	Bramhan	Others								
291	143/2	4.856	4.856	Ayodhya Prasad, Anand Kumar S/o Baldev	Bramhan	Others								
292	143/3	0.053	0.053	Doleswari W/o Chhasen	Bramhan	Others								
293	144	1.259	1.259	Saraswati W/o Dhuleshwer	Bramhan	Others								
294	145	0.809	0.809	Rajaram S/o Mayaram	Kanwar	ST								
295	146											0.219	0.219	Below Water
296	147											0.194	0.194	Below Water
297	148											1.720	1.720	Below Water
298	149	0.170	0.170	Kumar S/o Madan and others	Kolta	ST								
299	150											0.202	0.202	Below Water
300	151	0.198	0.198	Kumar S/o Madan and others	Kolta	ST								
301	152											1.914	1.914	School Gram Panchayat and others
302	153/1	0.442	0.442	Jairam S/o Thor Singh	Kanwar	ST								
303	153/2	0.081	0.081	Parasram S/o Baliram	Kanwar	ST								
304	153/3	0.040	0.040	Mansingh S/o Baliram	Kanwar	ST								
305	153/4	0.077	0.077	Sadhram, Suklal S/o Atvar Singh and others	Kanwar	ST								
306	154											0.283	0.283	Gothan Ke liye
307	155											0.202	0.202	Khalihan ke liye
308	156											0.607	0.607	Khalihan ke liye
309	157/1											0.539	0.539	Khad Garidha ke liye
310	157/2									0.210	0.210			
311	158											0.121	0.121	School Khel Maidan ke liye
312	159											0.182	0.182	Gothan Ke liye
313	160/1	0.183	0.183	Chandrama Upma Kedarnath and others	Bramhan	Others								
314	160/2	0.360	0.360	Laxmi Bai and others	Kolta	ST								
315	160/3	0.182	0.182	Gajanand Rameswar and others	Kanwar	ST								
316	161											0.306	0.306	Below Water
317	162									1.619	1.619			
318	163/1	0.028	0.028	Dhajaram S/o Gangaram	Kanwar	ST								
319	163/2	0.028	0.028	Rajaram S/o Mayaram	Kanwar	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
320	163/3	0.029	0.029	Tularam S/o Mayaram	Kanwar	ST								
321	164/1	0.058	0.058	Premanand S/o Pitambar	Kolta	ST								
322	164/2	0.059	0.059	Sitaram S/o Mohno	Kolta	ST								
323	165/1	0.073	0.073	Jairam S/o Injor Singh	Kanwar	ST								
324	165/2	0.065	0.065	Sidar S/o Kondi	Kanwar	ST								
325	165/3	0.016	0.016	Parasram S/o Baliram	Kanwar	ST								
326	165/4	0.008	0.008	Parasram S/o Baliram	Kanwar	ST								
327	165/5	0.065	0.065	Mansingh S/o Baliram	Kanwar	ST								
328	165/6	0.008	0.008	Mansingh S/o Baliram	Kanwar	ST								
329	165/7	0.016	0.016	Sadhram, Suklal S/o Atvar Singh and others	Kanwar	ST								
330	165/8	0.012	0.012	Sadhram, Suklal S/o Atvar Singh and others	Kanwar	ST								
331	165/9	0.041	0.041	Ghasiram S/o Baliram	Kanwar	ST								
332	165/10	0.012	0.012	Ghasiram S/o Baliram	Kanwar	ST								
333	166/1	0.100	0.100	Gauraga S/o Narango	Kolta	ST								
334	166/2	0.110	0.110	Premshankar S/o Narango	Kolta	ST								
335	167/1	0.048	0.048	Pitambar S/o Rupdhar	Kolta	ST								
336	167/2	0.048	0.048	Gauraga S/o Narango	Kolta	ST								
337	167/3	0.025	0.025	Vasumati W/o Pralad	Kolta	ST								
338	168/1	0.170	0.170	Tularam S/o Mayaram	Kanwar	ST								
339	168/2	0.065	0.065	Dhajaram S/o Gangaram	Kanwar	ST								
340	169/1	1.469	1.469	Chandrama Upma Kedarnath and others	Bramhan	Others								
341	169/2	0.049	0.049	Pitambar S/o Rupdhar	Kolta	ST								
342	170	0.121	0.121	Kartikeshwar S/o Girdhari and others	Bramhan	Others								
343	171	0.340	0.340	Kartikeshwar S/o Girdhari and others	Bramhan	Others								
344	172											0.170	0.170	Below Water
345	173											0.324	0.324	Below Water
346	174	0.445	0.445	Kartikeshwar S/o Girdhari and others	Bramhan	Others								
347	175	0.239	0.239	Kartikeshwar S/o Girdhari and others	Bramhan	Others								
348	176/1									6.458	6.458			
349	176/2											0.005	0.005	Up Sanchalak Krishi Vibhag Raigarh
350	177	0.065	0.065	Vasudev and others	Gada	ST								
351	178/1	0.093	0.093	Ramsingh S/o Dhaniram	Kanwar	ST								
352	178/2	0.093	0.093	Dubraj S/o Chaitan, and others	Gada	ST								
353	179	0.263	0.263	Kartikeshwar S/o Girdhari and others	Bramhan	Others								
354	180	0.150	0.150	Chandrama Upma Kedarnath and others	Bramhan	Others								
355	181/1	0.061	0.061	Laxman Kunwar S/o Ghasiya and others	Gada	ST								
356	181/2	0.060	0.060	Dubraj S/o Chaitan, and others	Gada	ST								
357	182/1	0.157	0.157	Laxmi Bai and others	Kanwar	ST								
358	182/2	0.227	0.227	Gaur shankar, Motiram S/o Budha	Kanwar	ST								
359	183	0.263	0.263	Prakash S/o Gurandhi and others	Kanwar	ST								
360	184	0.490	0.490	Hariram, Dhaniram, Harichand S/o Sachram	Kanwar	ST								
361	185	0.108	0.108	Ghansnyam Harayati S/o Dukhu and others	Kanwar	ST								
362	186	0.219	0.219	Mitrabhanu Lambodar and others	Kanwar	ST								
363	187/1	0.071	0.071	Nankidai W/o Nanki	Kanwar	ST								
364	187/2	0.014	0.014	Dhaniram	Kanwar	ST								
365	188/1	0.031	0.031	Rajaram S/o Mayaram	Kanwar	ST								
366	188/2	0.031	0.031	Tularam S/o Mayaram	Kanwar	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
367	188/3	0.031	0.031	Dhajaram S/o Gangaram	Kanwar	ST								
368	189											2.023	2.023	Road
369	190/1	0.769	0.769	Baldev S/o Girdhari	Bramhan	Others								
370	190/2	0.607	0.607	Sunita W/o Sandhyanand	Kanwar	ST								
371	190/3	0.405	0.405	Ponsram Rathiya S/o Tejram	Kanwar	ST								
372	191/1	0.162	0.162	Prakash S/o Gunanidhi and others	Kanwar	ST								
373	191/2	0.304	0.304	Mahesham S/o Bhima	Kanwar	ST								
374	192	0.283	0.283	Hariram, Dhaniram, Harichand S/o Sadhram	Kanwar	ST								
375	193	0.567	0.567	Laxmi Bai W/o Gudnidhi and others	Kanwar	ST								
376	194	0.324	0.324	Janmejai Bhima and others	Kanwar	ST								
377	195	0.539	0.539	Mitrabhanu Lambodar and others	Kanwar	ST								
378	196/1	0.376	0.376	Rajaram S/o Mayaram	Kanwar	ST								
379	196/2	0.377	0.377	Tularam S/o Mayaram	Kanwar	ST								
380	196/3	0.377	0.377	Dhajaram S/o Gangaram	Kanwar	ST								
381	197	2.849	2.849	Ayodhya Prasad and others	Bramhan	Others								
382	198	0.206	0.206	Hariram, Dhaniram, Harichand S/o Sadhram	Kanwar	ST								
383	199	0.162	0.162	Laxmi Bai W/o Gudnidhi and others	Kanwar	ST								
384	200	0.324	0.324	Mitrabhanu Lambodar and others	Kanwar	ST								
385	201	2.865	2.865	Janmejai Bhima and others	Kanwar	ST								
386	202/1	0.235	0.235	Daulat Ram Sukul and others	Kanwar	ST								
387	202/2	0.311	0.311	Buduram S/o Baldev	Kanwar	ST								
388	202/3	0.233	0.233	Daulat Ram Sukul and others	Kanwar	ST								
389	202/4	0.190	0.190	Buduram S/o Baldev	Kanwar	ST								
390	203/1	0.122	0.122	Menaidai W/o Nanki	Kanwar	ST								
391	203/2	0.060	0.060	Dhaniram	Kanwar	ST								
392	203/3	0.182	0.182	Prakash S/o Gunanidhi and others	Kanwar	ST								
393	204	3.387	3.387	Ghanshyam Harovati S/o Dukhii and others	Kanwar	ST								
394	205	0.951	0.951	Laxmi Bai W/o Gudnidhi and others	Kanwar	ST								
395	206/1	0.101	0.101	Prakash S/o Gunanidhi and others	Kanwar	ST								
396	206/2	0.745	0.745	Ratchoram S/o Marvadi	Kanwar	ST								
397	206/3	0.587	0.587	Prakash S/o Gunanidhi and others	Kanwar	ST								
398	207	3.583	3.583	Hariram, Dhaniram, Herichand S/o Sadhram	Kanwar	ST								
399	208	1.881	1.881	Laxmi Bai W/o Gudnidhi and others	Kanwar	ST								
400	209	1.457	1.457	Prakash S/o Gunanidhi and others	Kanwar	ST								
401	210	2.509	2.509	Mitrabhanu Lamoodar and others	Kanwar	ST								
402	211	5.002	5.002	Dharamsingh S/o Bandhiram and others	Kanwar	ST								
403	212	0.906	0.906	Laxmi Bai W/o Gudnidhi and others	Kanwar	ST								
404	213	0.526	0.526	Prakash S/o Gunanidhi and others	Kanwar	ST								
405	214	0.506	0.506	Laxmi Bai W/o Gudnidhi and others	Kanwar	ST								
406	215	0.652	0.652	Mitrabhanu Lamoodar and others	Kanwar	ST								
407	216	3.524	3.524	Sarasvat W/o Dhuleshwer	Bramhan	Others								
408	217	0.405	0.405	Sapuran S/o Shridhar	Kolta	ST								
409	218/1	0.405	0.405	Gaurago S/o Narango	Kolta	ST								
410	218/2	0.404	0.404	Premshankar S/o Narango	Kolta	ST								
411	219	0.032	0.032	Sapuran S/o Shridhar	Kolta	ST								
412	220	4.140	4.140	Shri Ram Ji Dashrath Ji Swami Mandir Raigarh										
413	221	0.405	0.405	Kamikeshwar S/o Girdhari and others	Bramhan	Others								
414	222	0.733	0.733	Atvar S/o Manglu	Kanwar	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
415	223	2.108	2.108	Dharamsingh S/o Bandhiram and others	Kanwar	ST								
416	224	0.494	0.494	Manoj Kumar S/o Arun Kumar and others	Gond	ST								
417	225/1	6.674	6.674	Sarasvati	Bramhan	Others								
418	225/2	0.546	0.546	Sapuran S/o Shridhar and others	Kolta	ST								
419	225/2	0.272	0.272	Shankar Lal, Parvati S/o Mohno	Kolta	ST								
420	225/2	0.272	0.272	Shyamlal, Parvati S/o Mehro	Kolta	ST								
421	225/3	0.202	0.202	Gaurago S/o Norango	Kolta	ST								
422	226/1	0.119	0.119	Sushi S/o Shankarlal and others	Kolta	ST								
423	226/2	0.128	0.128	Shyam al	Kolta	ST								
424	227	0.243	0.243	Mehtar S/o Poyal and others	Kanwar	ST								
425	228	0.603	0.603	Laxmi Bai W/o Gudnidhi and others	Kanwar	ST								
426	229	0.579	0.579	Dharamsingh S/o Bandhiram and others	Kanwar	ST								
427	230/1	0.012	0.012	Sushi S/o Shankarlal and others	Kolta	ST								
428	230/2	0.012	0.012	Shyamlal	Kolta	ST								
429	231/1	0.120	0.120	Shankarlal	Kolta	ST								
430	231/2	0.104	0.104	Shyamlal	Kolta	ST								
431	231/3	0.504	0.504	Sapuran S/o Shridhar and others	Kolta	ST								
432	231/4	0.210	0.210	Gutvari Javradh	Kolta	ST								
433	232	0.053	0.053	Mehtar and others	Kanwar	ST								
434	233	1.090	1.090	Pitambar	Kolta	ST								
435	234/1	0.223	0.223	Rangmati W/o Makundram and others	Kanwar	ST								
436	234/2	0.219	0.219	Amrit Balram	Kanwar	ST								
437	234/3	0.441	0.441	Sunder and others	Kanwar	ST								
438	234/4	0.409	0.405	Ghurau S/o Baiga	Kanwar	ST								
439	234/5	0.231	0.231	Chottarsai Ramsai and others	Kanwar	ST								
440	234/6	0.121	0.121	Mansingh S/o Baiga	Kanwar	ST								
441	234/7	0.121	0.121	Sadhmati and others	Kanwar	ST								
442	235/1	0.202	0.202	Ashok Garg S/o Govind and others	Agrawal	ST								
443	235/2	0.142	0.142	Tularam S/o Sindhuram	Gada	ST								
444	235/3	0.101	0.101	Ratankumari and others	Gada	ST								
445	235/4	0.081	0.081	Savitri W/o Tikeswar	Aghariya	Others								
446	236	0.117	0.117	MohitSai S/o Raniram	Gada	ST								
447	237	0.125	0.125	MohitSai S/o Raniram	Gada	ST								
448	238/1	0.323	0.323	Haisram S/o Tejram and others	Kanwar	ST								
449	238/2	1.427	1.427	Haisram S/o Tejram and others	Kanwar	ST								
450	238/3,238/4,238/5,1	0.348	0.348	Khageshwar and others	Kanwar	ST								
451	238/3,238/4,238/5,2	0.142	0.142	Dayanidhi S/o Nepiram	Kanwar	ST								
452	238/6,238/7,238/8,1	0.439	0.439	Puran S/o Golaram	Kanwar	ST								
453	238/6,238/7,238/8,2	0.439	0.439	Dhanurjai S/o Gonaram	Kanwar	ST								
454	238/9	0.363	0.363	Rajaram S/o Mayaram	Kanwar	ST								

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
455	238/10	0.285	0.285	Rajaram S/o Mayaram	Kanwar	ST									
456	238/11	0.162	0.162	Rajaram S/o Mayaram	Kanwar	ST									
457	238/12	0.190	0.190	Rajaram S/o Mayaram	Kanwar	ST									
458	238/13	1.763	1.763	Matvarin, Gutvari S/o Budha	Kanwar	ST									
459	238/14	1.116	1.116	Badesidar	Kanwar	ST									
460	238/15/1	0.202	0.202	Madan S/o Jagdev	Kanwar	ST									
461	238/15/2	0.717	0.717	Balmukund S/o Munku	Kanwar	ST									
462	238/15/3	0.202	0.202	Ambika Prasad S/o Balmukund	Kanwar	ST									
463	238/15/4	0.202	0.202	Purshottam	Kanwar	ST									
464	238/16	0.303	0.303	Ajai S/o Balmukund	Kanwar	ST									
465	239	0.263	0.263	Kartikeshwar S/o Girdhari and others	Bramhan	Others									
466	240/1	1.373	1.373	Thakur Ram	Kanwar	ST									
467	240/2	0.332	0.332	Chattarsal Ramsal and others	Kanwar	ST									
468	240/3	0.073	0.073	Haldhar S/o Govind	Kanwar	ST									
469	241/1 क	0.202	0.202	Vasudev and others	Gada	ST									
470	241/1 ख	0.283	0.283	Premanand S/o Pitamber	Kolta	ST									
471	241/2	0.101	0.101	Gajanand and others	Kanwar	ST									
472	241/3	0.405	0.405	Sumti W/o Bodhram	Kanwar	ST									
473	241/4	0.668	0.668	Gajanand Rameswar and others	Kanwar	ST									
474	242/1	2.550	2.550	Laxman Kunwar S/o Ghasiya and others	Gada	ST									
475	242/2	2.549	2.549	Dujram and others	Gada	ST									
476	243	0.356	0.356	Bodhiram S/o Munku	Kanwar	ST									
477	244/1	1.988	1.988	Baldev S/o Girdhari	Bramhan	Others									
478	244/2	3.577	3.577	Ayodhya Prasad, Anand Kumar S/o Baldev	Bramhan	Others									
479	244/3	0.345	0.345	Premanend S/o Pitambar	Kolta	ST									
480	244/4	0.283	0.283	Satyanand S/o Bhajoram	Kanwar	ST									
481	244/5	0.628	0.628	Gauraga S/o Narango	Kolta	ST									
482	245/1	1.135	1.135	Jairam S/o Injor Singh	Kanwar	ST									
483	245/2	0.660	0.660	Sidar S/o Kondi	Kanwar	ST									
484	245/3	0.263	0.263	Sidar S/o Kondi	Kanwar	ST									
485	245/4	0.185	0.185	Sider S/o Kondi	Kanwar	ST									
486	245/5	0.174	0.174	Parasram S/o Baliram	Kanwar	ST									
487	245/6	0.279	0.279	Mansingh S/o Baliram	Kanwar	ST									
488	245/7	0.246	0.246	Sadhram, Sukial S/o Atvar Singh and others	Kanwar	ST									
489	245/8	0.223	0.223	Ghasiram S/o Baliram	Kanwar	ST									
490	246/1	0.041	0.041	Haisram S/o Tejram and others	Kanwar	ST									
491	246/2	0.062	0.062	Haisram S/o Tejram and others	Kanwar	ST									
492	246/3	0.064	0.064	Haisram S/o Tejram and others	Kanwar	ST									
493	246/4	0.044	0.044	Haisram S/o Tejram and others	Kanwar	ST									
494	246/5,246/6,	0.086	0.086	Khageshwar and others	Kanwar	ST									
495	246/7	0.087	0.087	Dayaridhr and others	Kanwar	ST									
496	246/8,246/9,1	0.073	0.073	Puran S/o Golaram	Kanwar	ST									
497	246/8,246/9,2	0.073	0.073	Dhanurjai S/o Gonaram	Kanwar	ST									
498	246/10	0.101	0.101	Rajaram S/o Mayaram	Kanwar	ST									
499	246/11	0.064	0.064	Rajaram S/o Mayaram	Kanwar	ST									

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
500	246/12	0.044	0.044	Rajaram S/o Mayaram	Kanwar	ST								
501	246/13	0.172	0.172	Mayaram, Gulvar S/o Budha	Kanwar	ST								
502	246/14	0.202	0.202	Badesidar	Kanwar	ST								
503	246/15	0.162	0.162	Badesidar	Kanwar	ST								
504	246/16	0.064	0.064	Badesidar	Kanwar	ST								
505	246/17	0.331	0.331	Ajay Balmukund	Kanwar	ST								
506	246/18	0.064	0.064	Madan S/o Jagdev	Kanwar	ST								
507	246/19	0.052	0.052	Balmukund S/o Munku	Kanwar	ST								
508	247/1	0.524	0.524	Jairam S/o Injor Singh	Kanwar	ST								
509	247/2	0.524	0.524	Sidar S/o Kongi	Kanwar	ST								
510	248	0.032	0.032	Vasumati W/o Prahlad	Kolta	ST								
511	249	0.040	0.040	Jairam S/o Injor Singh	Kanwar	ST								
512	250/1	0.341	0.341	Premanand S/o Pitambar	Kolta	ST								
513	250/2	0.101	0.101	Premanand S/o Pitambar	Kolta	ST								
514	250/3	0.101	0.101	Gaurago S/o Narango	Kolta	ST								
515	250/4	0.081	0.081	Gaurago S/o Narango	Kolta	ST								
516	250/5	0.141	0.141	Sitaram S/o Mohne	Kolta	ST								
517	250/6	0.141	0.141	Sitaram S/o Mohne	Kolta	ST								
518	251	0.756	0.755	Shyamlal S/o Mohne	Kolta	ST								
519	252											0.405	0.405	Murda Janwar Chirne Fadne Ki Jagah
520	253	1.113	1.113	Mitrabhanu Lambodar and others	Kanwar	ST								
521	254/1	0.085	0.085	Buduram S/o Baldev	Kanwar	ST								
522	254/2	0.218	0.218	Dhajaram S/o Mayaram	Kanwar	ST								
523	254/3	0.093	0.093	Daulat Ram Sukul and others	Kanwar	ST								
524	254/4	0.134	0.134	Buduram S/o Baldev	Kanwar	ST								
525	254/5	0.098	0.098	Daulat Ram Sukul and others	Kanwar	ST								
526	255	0.454	0.454	Kartikeshwar S/o Girdhari and others	Bramha	Others								
527	256/1	0.077	0.077	Haisram S/o Tejram and others	Kanwar	ST								
528	256/2	0.086	0.086	Khageshwar and others	Kanwar	ST								
529	256/3	0.085	0.085	Dayanidhi S/o Negiram	Kanwar	ST								
530	256/4,256/5,256/6,1	0.167	0.167	Puran S/o Golaram	Kanwar	ST								
531	256/4,256/5,256/6,2	0.167	0.167	Dhanurjai S/o Gonaram	Kanwar	ST								
532	256/7	0.240	0.240	Rajaram S/o Mayaram	Kanwar	ST								
533	256/8	0.162	0.162	Rajaram S/o Mayaram	Kanwar	ST								
534	256/9	0.071	0.071	Rajaram S/o Mayaram	Kanwar	ST								
535	256/10	0.280	0.280	Rajaram S/o Mayaram	Kanwar	ST								
536	256/11	0.202	0.202	Badesidar	Kanwar	ST								
537	256/12	0.240	0.240	Madan S/o Jagdev	Kanwar	ST								
538	256/13	0.244	0.244	Madan S/o Jagdev	Kanwar	ST								
539	256/14	0.288	0.288	Ajay Balmukund	Kanwar	ST								
540	257	1.230	1.230	Ghanshyam Haravati S/o Dukhu and others	Kanwar	ST								
541	258/1	0.167	0.162	Tulsiram S/o Mayaram	Kanwar	ST								
542	258/2	0.218	0.218	Dhajaram S/o Gangaram	Kanwar	ST								

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							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
543	258/3	0.114	0.114	Rajaram S/o Mayaram	Kanwar	ST									
544	259	0.454	0.454	Ghanshyam Haravati S/o Dukhu and others	Kanwar	ST									
545	260/1	0.285	0.285	Rajaram S/o Mayaram	Kanwar	ST									
546	260/2	0.168	0.168	Tularam S/o Mayaram	Kanwar	ST									
547	260/3	0.054	0.054	Dhajaram S/o Gangaram	Kanwar	ST									
548	260/4	0.049	0.049	Dhajaram S/o Gangaram	Kanwar	ST									
549	260/5	0.132	0.132	Tularam	Kanwar	ST									
550	261	0.660	0.660	Baldev S/o Girdhari	Bramha	Others									
551	262/1,262/2,1	0.173	0.173	Khageshwar and others	Kanwar	ST									
552	262/1,262/2,2	0.174	0.174	Dayanidhi S/o Negiram	Kanwar	ST									
553	262/3/1	0.070	0.070	Puran S/o Golaram	Kanwar	ST									
554	262/3/2	0.071	0.071	Dhanurjal S/o Gonaram	Kanwar	ST									
555	262/4	0.553	0.553	Badesidar	Kanwar	ST									
556	262/5	0.394	0.394	Balmukund S/o Munku	Kanwar	ST									
557	262/6	0.101	0.101	Rajaram S/o Mayaram	Kanwar	ST									
558	263/1	0.105	0.105	Daulat Ram Sukul and others	Kanwar	ST									
559	263/2	0.769	0.769	Buduram S/o Baldev	Kanwar	ST									
560	263/3	0.121	0.121	Daulat Ram Sukul and others	Kanwar	ST									
561	263/4	0.579	0.579	Daulat Ram Sukul and others	Kanwar	ST									
562	264/1	0.077	0.077	Halsram S/o Tejram and others	Kanwar	ST									
563	264/2/1	0.181	0.181	Khageshwar and others	Kanwar	ST									
564	264/2/2	0.180	0.180	Dayanidhi S/o Negiram	Kanwar	ST									
565	264/3,264/4,1	0.116	0.116	Puran S/o Golaram	Kanwar	ST									
566	264/3,264/4,2	0.116	0.116	Dhanurjal S/o Gonaram	Kanwar	ST									
567	264/5	0.210	0.210	Rajaram S/o Mayaram	Kanwar	ST									
568	264/6	0.077	0.077	Rajaram S/o Mayaram	Kanwar	ST									
569	265	0.737	0.737	Baldev S/o Girdhari	Bramha	Others									
570	266/1/1	0.650	0.650	Laxman Kunwar S/o Ghasiya and others	Gada	ST									
571	266/1/2	0.322	0.322	Amaj, Parvati Dharnidhar and others	Aghariya	Others									
572	266/2/1	0.161	0.161	Amaj, Parvati Dharnidhar and others	Aghariya	Others									
573	266/2/2	0.810	0.810	Amaj, Parvati Dharnidhar and others	Aghariya	Others									
574	267	0.356	0.356	Shri Ram Ji Dashrath Ji Swami Mandir Raigarh		ST									
575	268	1.850	1.850	Shri Ram Ji Dashrath Ji Swami Mandir Raigarh											
576	269	0.475	0.475	Amalsai Ratiya and others	Kanwar										
577	270	2.950	2.950	Shri Ram Ji Dashrath Ji Swami Mandir Raigarh											
578	271/1	0.210	0.210	Satyanand S/o Bhajoram	Kanwar	ST									
579	271/2	0.450	0.450	Premanand S/o Pitambar	Kolta	ST									
580	271/3	0.101	0.101	Satyanand S/o Bhajoram	Kanwar	ST									
581	271/4	0.162	0.162	Gaurago S/o Narango	Kolta	ST									
582	271/5	0.400	0.400	Gaurago S/o Narango	Kolta	ST									
583	271/6	0.242	0.242	Gaurago S/o Narango	Kolta	ST									
584	271/7	0.121	0.121	Vasumati W/o Prahlad	Kolta	ST									
585	271/8	0.151	0.151	Vasumati W/o Prahlad	Kolta	ST									
586	271/9	0.202	0.202	Sitaram S/o Mohno	Kolta	ST									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
587	272/1	0.113	0.113	MohitSai S/o Raniram	Gada	ST									
588	272/2	0.113	0.113	Satishchandra S/o Nityanand	Sodhi	Others									
589	272/3	0.109	0.109	Salikram Shaniram	Gada	ST									
590	272/4	0.109	0.109	Jindal Power Ltd Tamnar Dinesh Bhargav											
591	272/5	0.150	0.150	Jhularam S/o Jagatram	Gada	ST									
592	272/6	0.150	0.150	Ratan Kaman S/o Santram and others	Gada	ST									
593	272/7	0.146	0.146	Satishchandra S/o Nityanand	Sodhi	Others									
594	272/8	0.445	0.445	Punram	Gada	ST									
595	273											0.073	0.073	Below Water	
596	274											0.275	0.275	Below Water	
597	275	0.742	0.741	Laxmi Ba. W/o Gyanidhi and others	Kanwar	ST									
598	276/1	0.446	0.446	Premshankar S/o Narango	Kolta	ST									
599	276/2	0.460	0.460	Sitaram S/o Mohno	Kolta	ST									
600	277/1	2.023	2.023	Injor Bai C/o Bandhan	Kanwar	ST									
601	277/2	2.023	2.023	Girohari S/o Libri	Kanwar	ST									
602	277/3	2.023	2.023	Ramsingh S/o Sukhram	Kanwar	ST									
603	277/4	2.023	2.023	Jagatram, Bhagatram S/o Dharamsingh and others	Kanwar	ST									
604	277/5	2.023	2.023	Bhogsingh Jethuram S/o Laxmiram and others	Kanwar	ST									
605	277/6	2.023	2.023	Injori Bai	Kanwar	ST									
606	277/7	1.131	1.131	Atvar	Kanwar	ST									
607	278	0.425	0.429	Sukhru S/o Manbodh	Khatiya	ST									
608	279/1	0.158	0.158	Lairam	Kanwar	ST									
609	279/2	0.161	0.161	Sidar S/o Kondi	Kanwar	ST									
610	279/3	0.158	0.158	Parasram S/o Baliram	Kanwar	ST									
611	279/4	0.158	0.158	Mansingh S/o Baliram	Kanwar	ST									
612	279/5	0.158	0.158	Sadhram, Suklal S/o Atvar Singh and others	Kanwar	ST									
613	279/6	0.158	0.158	Ghasram S/o Baliram	Kanwar	ST									
614	280/1	0.405	0.405	Janmojal S/o Chandak	Kanwar	ST									
615	280/2	2.140	2.140	Sarasvati W/o Dhuleshwer	Bramha	ST									
616	280/3	0.405	0.405	Salikram S/o Shaniram	Gada	ST									
617	280/4	0.405	0.405	Balakram S/o Mandhar	Ghasiya	Others									
618	280/5	0.405	0.405	Hansram, Sahasram S/o Marvan Singh and others	Gada	ST									
619	280/6	0.405	0.405	Santuram S/o Kark	Rawat	Others									
620	280/7	0.405	0.405	Bhojram S/o Kark	Rawat	Others									
621	280/8	0.405	0.405	Santuram S/o Bhagirathi	Teli	Others									
622	280/9	0.283	0.283	Rajni W/o Laxmiram	Gada	ST									
623	280/10	0.405	0.405	Jhanduram S/o Ramdas	Bairagi	ST									
624	280/11	0.405	0.405	Panchram S/o Ghasram	Kanwar	ST									
625	280/12	0.405	0.405	Dharam S/o Banshiram	Kanwar	ST									
626	280/13	0.405	0.405	Kartikram S/o Ghasiram	Kanwar	ST									
627	280/14	0.405	0.405	Dhursai S/o Bairagi	Gada	ST									
628	280/15	0.405	0.405	Amarsai S/o Bairagi	Gada	ST									
629	281	0.304	0.304	Chandrama Uma Kedarnath and others	Brambhan	Others									
630	282/1	1.740	1.740	Santuram S/o Ratiram Jagatram S/o Dharamsingh	Kanwar										
631	282/2	1.740	1.740	Budh S/o Manbodh and others	Khadiya	ST									

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
632	282/3	1.740	1.740	Chamra S/o Ghasiram	Gada	ST								
633	282/4	1.740	1.740	Mansingh Dharamsingh, Sila S/o Roghi	Kanwar	ST								
634	282/5	1.740	1.740	Dinesh, Chameli S/o Falguni and others	Kanwar	ST								
635	282/6	1.740	1.740	Sriya Bai Sirmani, Punimachand others	Gada	ST								
636	282/7/1	0.651	0.651	Bhujbal S/o Chinta	Gada	ST								
637	282/7/2	0.405	0.405	Hemlata W/o Nirmal	Aghoriya	Others								
638	283/1	0.145	0.145	Jairam S/o Injor Singh	Kanwar	ST								
639	283/2	0.202	0.202	Jairam S/o Injor Singh	Kanwar	ST								
640	283/3	0.131	0.131	Sidar S/o Kondi	Kanwar	ST								
641	283/4	0.045	0.045	Sidar S/o Kondi	Kanwar	ST								
642	283/5	0.081	0.081	Parasram S/o Baliram	Kanwar	ST								
643	283/6	0.160	0.160	Parasram S/o Baliram	Kanwar	ST								
644	283/7	0.060	0.060	Mansingh S/o Baliram	Kanwar	ST								
645	283/8	0.090	0.090	Mansingh S/o Baliram	Kanwar	ST								
646	283/9	0.081	0.081	Mansingh S/o Baliram	Kanwar	ST								
647	283/10	0.075	0.075	Mansingh S/o Baliram	Kanwar	ST								
648	283/11	0.070	0.070	Sadhram, Sukial S/o Atvar Singh and others	Kanwar	ST								
649	283/12	0.090	0.090	Sadhram, Sukial S/o Atvar Singh and others	Kanwar	ST								
650	283/13	0.091	0.091	Ghasiram S/o Baliram	Kanwar	ST								
651	283/14	0.091	0.091	Ghasiram	Kanwar	ST								
652	283/15	0.093	0.093	Ghasiram S/o Baliram	Kanwar	ST								
653	284/1	0.032	0.032	Sidar S/o Kondi	Kanwar	ST								
654	284/2	0.020	0.020	Parasram S/o Baliram	Kanwar	ST								
655	284/3	0.032	0.032	Parasram S/o Baliram	Kanwar	ST								
656	284/4	0.032	0.032	Parasram S/o Baliram	Kanwar	ST								
657	284/5	0.044	0.044	Parasram S/o Baliram	Kanwar	ST								
658	284/6	0.032	0.032	Mansingh S/o Balram	Kanwar	ST								
659	284/7	0.016	0.016	Mansingh S/o Balram	Kanwar	ST								
660	284/8	0.028	0.028	Mansingh S/o Balram	Kanwar	ST								
661	284/9	0.045	0.045	Mansingh S/o Balram	Kanwar	ST								
662	284/10	0.041	0.041	Sadhram, Suklal S/o Atvar Singh and others	Kanwar	ST								
663	284/11	0.045	0.045	Sadhram, Suklal S/o Atvar Singh and others	Kanwar	ST								
664	284/12	0.024	0.024	Sadhram, Suklal S/o Atvar Singh and others	Kanwar	ST								
665	284/13	0.053	0.053	Sadhram, Suklal S/o Atvar Singh and others	Kanwar	ST								
666	284/14	0.061	0.061	Ghasiram S/o Balram	Kanwar	ST								
667	284/15	0.040	0.040	Ghasiram S/o Balram	Kanwar	ST								
668	284/16	0.016	0.016	Ghasiram S/o Balram	Kanwar	ST								
669	284/17	0.040	0.040	Ghasiram S/o Balram	Kanwar	ST								
670	284/18	0.056	0.056	Ghasiram S/o Balram	Kanwar	ST								
671	285	0.535	0.535	Jindal Power Ltd Tamnar Vivek Dadu										
672	286	0.125	0.125	Rajaram S/o Mayaram	Kanwar	ST								
673	287/1	0.081	0.081	Jairam S/o Injor Singh	Kanwar	ST								
674	287/2	0.202	0.202	Sidar S/o Kondi	Kanwar	ST								
675	287/3	0.320	0.320	Parasram S/o Baliram	Kanwar	ST								
676	288/1	0.243	0.243	Jairam S/o Injor Singh	Kanwar	ST								
677	288/2	0.121	0.121	Sidar S/o Kondi	Kanwar	ST								
678	288/3	0.282	0.282	Sidar S/o Kondi	Kanwar	ST								
679	288/4	0.081	0.081	Sidar S/o Kondi	Kanwar	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
680	288/5	0.121	0.121	Parasram S/o Baliram	Kanwar	ST								
681	288/6	0.151	0.151	Parasram S/o Baliram	Kanwar	ST								
682	288/7	0.101	0.101	Parasram S/o Baliram	Kanwar	ST								
683	288/8	0.121	0.121	Mansingh S/o Baliram	Kanwar	ST								
684	288/9	0.121	0.121	Mansingh S/o Baliram	Kanwar	ST								
685	288/10	0.081	0.081	Mansingh S/o Baliram	Kanwar	ST								
686	288/11	0.202	0.202	Sadhram, Suklal S/o Atvar Singh and others	Kanwar	ST								
687	288/12	0.162	0.162	Sadhram, Suklal S/o Atvar Singh and others	Kanwar	ST								
688	288/13	0.162	0.162	Sadhram, Suklal S/o Atvar Singh and others	Kanwar	ST								
689	288/14	0.202	0.202	Ghasiram S/o Baliram	Kanwar	ST								
690	288/15	0.081	0.081	Ghasiram S/o Baliram	Kanwar	ST								
691	288/16	0.113	0.113	Ghasiram S/o Baliram	Kanwar	ST								
692	288/17	0.081	0.081	Ghasiram S/o Baliram	Kanwar	ST								
693	289/1	0.583	0.583	Haisram S/o Tejram and others	Kanwar	ST								
694	289/2/1	0.196	0.196	Maheshram and others	Unrav	ST								
695	289/2/2	0.196	0.196	Maheshram and others	Unrav	ST								
696	289/3,289/4,1	0.226	0.226	Puran S/o Go aram	Kanwar	ST								
697	289/3,289/4,2	0.225	0.225	Dhanurja	Kanwar	ST								
698	289/5	0.344	0.344	Rajaram S/o Mayaram	Kanwar	ST								
699	289/6	0.125	0.125	Rajaram S/o Mayaram	Kanwar	ST								
700	289/7	1.314	1.314	Badesidar	Kanwar	ST								
701	289/8	0.530	0.530	Ambika Prasad S/o Balmukund	Kanwar	ST								
702	289/9	0.166	0.166	Ambika Prasad S/o Balmukund	Kanwar	ST								
703	290	0.695	0.696	Ghanshyam Harawati S/o Dukhu and others	Kanwar	ST								
704	291/1	0.187	0.187	Rajaram	Kanwar	ST								
705	291/2	0.186	0.186	Maheshram S/o Bhima	Kanwar	ST								
706	291/3	0.186	0.186	Tularam	Kanwar	ST								
707	292/1	0.404	0.404	Premanand S/o Pitambar	Kolta	ST								
708	292/2	0.214	0.214	Gaurago S/o Narango	Kolta	ST								
709	292/3	0.232	0.232	Premshankar S/o Narango	Kolta	ST								
710	292/4	0.310	0.310	Vasumati W/o Prahlad	Kolta	ST								
711	292/5	0.111	0.111	Sitaram	Kolta	ST								
712	293/1	0.045	0.045	Parasram S/o Baliram	Kanwar	ST								
713	293/2	0.012	0.012	Parasram S/o Baliram	Kanwar	ST								
714	293/3	0.162	0.152	Mansingh S/o Baliram	Kanwar	ST								
715	293/4	0.012	0.012	Mansingh S/o Baliram	Kanwar	ST								
716	293/5	0.012	0.012	Sadhram, Suklal S/o Atvar Singh and others	Kanwar	ST								
717	293/6	0.008	0.008	Ghasiram S/o Baliram	Kanwar	ST								
718	294/1	0.170	0.170	Parasram S/o Baliram	Kanwar	ST								
719	294/2	0.089	0.089	Parasram S/o Baliram	Kanwar	ST								
720	294/3	0.013	0.013	Parasram S/o Baliram	Kanwar	ST								
721	294/4	0.073	0.073	Mansingh S/o Baliram	Kanwar	ST								
722	294/5	0.012	0.012	Mansingh S/o Baliram	Kanwar	ST								
723	294/6	0.178	0.178	Sadhram, Suklal S/o Atvar Singh and others	Kanwar	ST								
724	294/7	0.012	0.012	Sadhram, Suklal S/o Atvar Singh and others	Kanwar	ST								
725	294/8	0.178	0.178	Ghasiram S/o Baliram	Kanwar	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
726	294/9	0.008	0.008	Ghasiram S/o Baliram	Kanwar	ST								
727	295/1	0.202	0.202	Rajaram S/o Mayaram	Kanwar	ST								
728	295/2	0.348	0.348	Dhajaram	Kanwar	ST								
729	295/3	0.345	0.348	Tularam S/o Mayaram	Kanwar	ST								
730	296/1	0.470	0.470	Jairam S/o Injor Singh	Kanwar	ST								
731	296/2	0.120	0.120	Jairam S/o Injor Singh	Kanwar	ST								
732	296/3	0.534	0.534	Sidar S/o Kondi	Kanwar	ST								
733	296/4	0.190	0.190	Sidar S/o Kondi	Kanwar	ST								
734	296/5	0.061	0.061	Parasram S/o Baliram	Kanwar	ST								
735	296/6	0.097	0.097	Parasram S/o Baliram	Kanwar	ST								
736	296/7	0.061	0.061	Mansingh S/o Baliram	Kanwar	ST								
737	296/8	0.057	0.057	Mansingh S/o Baliram	Kanwar	ST								
738	296/9	0.060	0.069	Sadhram, Sukal S/o Atvar Singh and others	Kanwar	ST								
739	296/10	0.061	0.061	Ghasiram S/o Baliram	Kanwar	ST								
740	296/11	0.040	0.040	Ghasiram S/o Baliram	Kanwar	ST								
741	297/2	0.032	0.032	Tularam S/o Mayaram	Kanwar	ST								
742	297/3	0.953	0.953	Rajaram S/o Mayaram	Kanwar	ST								
743	297/4	0.600	0.600	Tularam S/o Mayaram	Kanwar	ST								
744	297/5	0.760	0.760	Dhajaram S/o Gangaram	Kanwar	ST								
745	297/6	0.120	0.120	Tularam S/o Mayaram	Kanwar	ST								
746	298/1	0.203	0.203	Hansram and others	Kanwar	ST								
747	298/2/1	0.101	0.101	Khageshwar and others	Kanwar	ST								
748	298/2/2	0.101	0.101	Dayanidhi S/o Negiram	Kanwar	ST								
749	298/3	0.202	0.202	Balmukund S/o Munku	Kanwar	ST								
750	299	2.606	2.606	Jindal Power Ltd Tamnar Dinesh Bhargav										
751	300/1	0.362	0.362	Pitambar	Kolta	ST								
752	300/2	0.202	0.202	Gaurago S/o Narango	Kolta	ST								
753	300/3	0.202	0.202	Premshankar S/o Narango	Kolta	ST								
754	300/4	0.162	0.162	Vasumati W/o Prahlad	Kolta	ST								
755	300/5	0.163	0.163	Sitaram	Kolta	ST								
756	301/1	1.387	1.387	Ghanshyam Horavati S/o Dukhu and others	Kanwar	ST								
757	301/2	0.454	0.454	Shyamlal S/o Chandaram	Kanwar	ST								
758	301/3	0.648	0.648	Chaitram S/o Chamarsingh and others	Kanwar	ST								
759	302/1	0.282	0.282	Amoj, Parvati Dharnidhar and others	Agharlya									
760	302/2	0.281	0.281	Duvra and others	Gada	ST								
761	303/1	0.860	0.860	Pitambar S/o Rupdhar	Kolta	ST								
762	303/2	0.131	0.131	Premanand S/o Pitambar	Kolta	ST								
763	303/3	0.755	0.755	Pitambar S/o Rupdhar	Kolta	ST								
764	303/4	0.071	0.071	Gaurago S/o Narango	Kolta	ST								
765	303/5	0.032	0.032	Gaurago S/o Narango	Kolta	ST								
766	303/6	0.387	0.387	Gaurago S/o Narango	Kolta	ST								
767	303/7	0.371	0.371	Gaurago S/o Narango	Kolta	ST								
768	303/8	0.536	0.536	Premshankar S/o Narango	Kolta	ST								
769	303/9	0.341	0.341	Premshankar S/o Narango	Kolta	ST								
770	303/10	0.032	0.032	Vasumati W/o Prahlad	Kolta	ST								
771	303/11	0.082	0.082	Vasumati W/o Prahlad	Kolta	ST								
772	303/12	0.460	0.460	Vasumati W/o Prahlad	Kolta	ST								
773	303/14	0.371	0.371	Sitaram S/o Mohno	Kolta	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
774	304	0.709	0.709	Govind S/o Prahlad and others	Kolta	ST								
775	305	1.053	1.053	Rajaram S/o Mayaram	Kanwar	ST								
776	306/1	1.202	1.202	Vimla W/o Govind	Kolta	ST								
777	306/2	0.809	0.809	Ramsingh S/o Sukhram	Kanwar	ST								
778	306/3	0.910	0.910	Dhovaram S/o Fanuram and others	Ghasiya	Others								
779	306/4	2.833	2.833	Sanatkumar S/o Chendulal	Agnariya	Others								
780	306/5	0.478	0.478	Motiram S/o Budha	Kanwar	ST								
781	307	0.910	0.910	Sohan, Sagun S/o Balihar	Gond	ST								
782	14/308	0.105	0.105	Kartikeshwar S/o Girdhari and others	Bramha	Others								
Total of Rodopali		356.334	351.676				0.125	0.125		8.336	8.336	25.885	25.850	

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

Land Schedule

Village :Dolesara, P.H.N.: 32, R.I.Circle : Tamnar,Tehsil : Tamnar, District : Raigarh(Chhattisgarh)

Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1	296	0.113	0.090	Bacatram	Agharya	Others								
2	305/1	0.121	0.087	Rajendra Prasad S/o Gulenadi	Kanwar	ST								
3	305/2 a	0.061	0.061	Dileshwar Jageshwar S/o Motiram and others	Kanwar	ST								
4	305/2 /b	0.061	0.061	Chitu S/o Laxman	Kanwar	ST								
5	305/3	0.356	0.139	Ramsingh	Kanwar	ST								
6	305/4	0.123	0.087	Harisingh	Kanwar	ST								
7	305/5	0.345	0.087	Tukaram	Kanwar	ST								
8	307	0.129	0.105	Nityanand S/o Karunakar	Mahti	Others								
9	308/1	0.235	0.235	Annpurna	Agharjya	Others								
10	308/2	0.236	0.233	Ashok Kumar	Agharjya	Others								
11	308/3	0.236	0.233	Bansladhar	Agharjya	Others								
12	308/4	0.236	0.235	Posheram	Agharjya	Others								
13	309/1	0.713	0.699	Ghanshayam and others	Kenvat	Others								
14	309/2	0.203	0.101	Nilamber and others	Mahti	Others								
15	310/1	0.389	0.105	Hemkanwar Pankaj Kumari S/o Asheram	Agharjya	Others								
16	310/2	0.308	0.105	Laxmiram	Agharjya	Others								
17	310/3	0.024	0.024	Ujisram S/o Pandu	Agharjya	Others								
18	310/4	0.263	0.110	Ujisram S/o Pandu	Agharjya	Others								
19	310/5	0.101	0.101	Ujisram S/o Pandu	Agharjya	Others								
20	310/6	0.584	0.184	Hemkumar and others	Agharjya	Others								
21	310/7	0.588	0.105	Ujisram S/o Pandu	Agharjya	Others								
22	312/1	0.331	0.198	Duryodhan	Agharjya	Others								
23	312/2	0.065	0.065	Jalal	Agharjya	Others								
24	312/3	0.467	0.323	Jalal	Agharjya	Others								
25	312/4	0.040	0.040	Duryodhan	Agharjya	Others								
26	312/5	0.249	0.123	Jalal	Agharjya	Others								
27	312/6	0.020	0.020	Padumlal	Agharjya	Others								
28	312/7	0.089	0.089	Duryodhan	Agharjya	Others								
29	313/1	0.219	0.219	Nandram	Agharjya	Others								
30	313/2	0.150	0.150	Baraseram	Agharjya	Others								
31	313/3	0.048	0.048	Nandram	Agharjya	Others								
32	314/1	0.251	0.251	Kalanjlal and others	Agharjya	Others								
33	314/2	0.097	0.097	Rupchand S/o Ashwani Kumar and others	Agharjya	Others								
34		1.239	1.239											
35	315	0.267	0.129	Ujalmati W/o Gangaram and others	Teli	Others								
36	316	0.809	0.263	Ghanshyam and others	Kenvat	Others								
37	317/1	0.430	0.205	Bodhram	Kolta	ST								
38	317/2	0.101	0.101	Vimlabai	Kolta	ST								
39	317/3	0.113	0.113	Vimlabai	Kolta	ST								
40	317/4	0.214	0.200	Bodoram S/o Lagamram	Gada	ST								
41	318/1	0.126	0.103	Sardharam S/o Mandan	Kumhar	Others								
42	318/2	0.885	0.102	Rameshwar and others	Teli	Others								

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
43	319/1	0.186	0.150	Omprakash S/o Nageshwar and others	Teli	Others									
44	319/2	0.186	0.150	Kashi Prasad	Aghariya	Others									
45	320	0.206	0.196	Bhagirathi and others	Kolta	ST									
46	321/1	0.469	0.469	Bodhram	Kolta	ST									
47	321/2	0.226	0.226	Meghu S/o Jivdhan	Gada	ST									
48	321/3	0.243	0.243	Meghu	Gada	ST									
49	322	0.450	0.450	Vaindavati W/o Hasi Bhagirathi S/o Devar	Gada	ST									
50	323/1	0.073	0.073	Bararam	Aghariya	Others									
51	323/2	0.121	0.121	Chandmati	Aghariya	Others									
52	323/3	0.122	0.122	Nandram	Agharrya	Others									
53	323/4	0.134	0.134	Baraniam	Aghariya	Others									
54	324	0.454	0.454	Duvebai	Gada	ST									
55	325/1	0.020	0.020	Baratram	Aghariya	Others									
56	325/2	0.126	0.126	Chandram	Aghariya	Others									
57	325/3	0.089	0.089	Nandram	Agharrya	Others									
58	326/1	0.121	0.121	Baratram	Agharrya	Others									
59	326/2	0.105	0.105	Chandram	Aghariya	Others									
60	326/3	0.142	0.142	Nandram	Aghariya	Others									
61	327/1	1.214	1.214	Mangla S/o Koyla	Gada	ST									
62	327/2	0.454	0.454	Dalba	Gada	ST									
63	327/3	1.214	1.214	Vamaderam S/o Suveran and others	Kanwar	ST									
64	327/4	1.214	1.214	Varansai S/o Ghasiya	Kanwar	ST									
65	327/5	1.214	1.214	Uderam S/o Kalinder	Kanwar	ST									
66	327/6 क	0.182	0.182	Ghasnin W/o Samuram	Gada	ST									
67	327/6 ख	0.182	0.182	Bahadin S/o Samuram	Gada	ST									
68	327/6 ग	0.182	0.182	Sunderram S/o Samuram	Gada	ST									
69	328	0.340	0.340	Nityanand	Mehi	Others									
70	329	0.170	0.170	Jaipal and others	Mehi	Others									
71	330/1	0.870	0.870	Saratan and others	Aghariya	Others									
72	330/2	0.866	0.866	Gopalprasad	Aghariya	Others									
73	331											1.242	1.242	Road	
74	332/1	1.161	0.355	Vijalal	Aghariya	Others									
75	332/2	1.161	0.332	Ashok Kumar	Aghariya	Others									
76	332/3	0.308	0.308	Duryodhan and others	Agharrya	Others									
77	332/4	1.162	0.337	Poram	Aghariya	Others									
78	333/1	0.118	0.059	Ashok Kumar and others	Aghariya	Others									
79	333/2	0.118	0.057	Jalal	Agharrya	Others									
80	333/3	0.117	0.057	Vijalal	Agharrya	Others									
81	333/4	0.117	0.052	Padmalal	Aghariya	Others									
82	334/1	0.092	0.044	Ashok Kumar and others	Aghariya	Others									
83	334/2	0.092	0.045	Jalal	Aghariya	Others									
84	334/3	0.092	0.043	Vijalal	Aghariya	Others									
85	334/4	0.092	0.043	Padamlal	Aghariya	Others									
86	345/1	0.308	0.150	Manmati and others	Uranv	ST									
87	345/2	0.309	0.070	Dhansu	Uranv	ST									
Total of Dolesara		28.066	10.748									1.242	1.242		

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Land Schedule

Village :Bhalumura, P.H.N.: 30, R.I.Circle : Tamnar,Tehsil : Tamnar, District : Raigarh(Chhattisgarh)

Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1	155/1						0.405	0.162	Small Tree Forest					
2	155/5						0.809	0.400	Small Tree Forest					
3	155/3	0.971	0.850	Panchram and others	Agharya	Others								
4	156	0.053	0.024	Ratthuram and others	Kanwar	ST								
5	164	0.599	0.150	Vijayram	Gada	ST								
6	165/1											0.097	0.097	Grass
7	165/2	0.134	0.083	Kartikram and others	Kanwar	ST								
8	165/3	0.263	0.083	Dhovaram Punu	Ghasiya	Others								
9	167	0.097	0.029	Dhovaram Punu	Ghasiya	Others								
10	169/1	0.200	0.123	Gadaram Sukhiram	Kanwar	ST								
11	169/2	0.182	0.122	Dhovaram Punu	Ghasiya	Others								
12	169/3	0.258	0.122	Basant Devnati and others	Kanwar	ST								
13	170/1	0.320	0.021	Gadaram Sukhiram	Kanwar	ST								
14	170/2	0.428	0.021	Basant Devnati and others	Kanwar	ST								
15	170/5,242/6	0.146	0.023	Basant and others	Kanwar	ST								
16	220/1		0.010									0.551	0.019	Grass
17	222/2		0.088									0.445	0.074	Road
18	226/1	0.925	0.122	Manohar and others	Kanwar	ST								
19	226/2	0.947	0.398	Ramsingh and others	Kanwar	ST								
20	229											0.611	0.611	Road
21	231/1 क	0.065	0.003	Basant Devnati and others	Kanwar	ST								
22	231/1 ख	0.032	0.003	Basant Devnat, and others	Kanwar	ST								
23	231/1 ग	0.273	0.004	Gadaram Sukhiram	Kanwar	ST								
24	233	0.417	0.090	Ghasiram and others	Kanwar	ST								
25	234/1	0.813	0.311	Ghaseram and others	Kanwar	ST								
26	234/2	0.809	0.518	Somram Laxmuram and others	Kanwar	ST								
27	234/3	0.809	0.799	Kashiram Dhiraram	Kanwar	ST								
28	235	0.689	0.689	Vijayram Atwal	Gada	ST								
29	236/1	0.017	0.017	Sonkunwar and others	Kanwar	ST								
30	236/2	0.081	0.081	Anandram Mandhar	Ghasiya	Others								
31	236/3	0.110	0.110	Sonkunwar and others	Kanwar	ST								
32	236/4	0.040	0.040	Sonkunwar and others	Kanwar	ST								
33	237	0.227	0.222	Viddyadhar Chandrapal	Aghariya	Others								
34	238/1	0.162	0.162	Udaram Chandrapal	Aghariya	Others								
35	238/2	0.356	0.336	Vashudev Pursottam	Aghariya	Others								
36	239/1	0.127	0.127	Ghasiram Chakudhar	Aghariya	Others								
37	239/2	0.052	0.032	Uddiram Chandrapal	Aghariya	Others								
38	240/1 क	0.413	0.030	Ghasiram Chakrdhar	Aghariya	Others								
39	240/1 ख	0.093	0.010	Uduram	Aghariya	Others								
40	240/1 ग	0.101	0.010	Ram Kumar	Aghariya	Others								

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
41	240/1 ब	0.020	0.016	Noharsingh	Aghariya	Others									
42	240/1 ब.	0.081	0.016	Udairam Chandrapal	Aghariya	Others									
43	240/1 घ	0.056	0.016	Udairam Chandrapal	Aghariya	Others									
44	240/1 घ	0.036	0.016	Dhanurpal Pursottam	Aghariya	Others									
45	240/1 छ	0.060	0.016	Dhanurpal Pursottam	Aghariya	Others									
46	240/1 झ	0.056	0.016	Noharsingh Pursottam	Aghariya	Others									
47	240/1 ञ	0.195	0.016	Parkhit Chakrdhar	Aghariya	Others									
48	240/1 ट	0.162	0.016	Vidhyadhar Chandrapal	Aghariya	Others									
49	240/1 ट	0.101	0.016	Girdhari Chandrapal	Aghariya	Others									
50	240/1 ड	0.054	0.016	Hariram Pursottam	Aghariya	Others									
51	240/1 ढ	0.064	0.016	Vashudev Pursottam	Aghariya	Others									
52	240/1 ण	0.040	0.016	Vashudev Pursottam	Aghariya	Others									
53	240/1 त	0.020	0.016	Hariram Pursottam	Aghariya	Others									
54	240/1 थ	0.020	0.016	Dhanurpal Pursottam	Aghariya	Others									
55	240/1 द	0.036	0.016	Vashudev Pursottam	Aghariya	Others									
56	240/1 ध	0.037	0.016	Noharsingh Pursottam	Aghariya	Others									
57	240/1 न	0.036	0.016	Hariram Pursottam	Aghariya	Others									
58	240/1 प	0.055	0.016	Noharsingh Pursottam	Aghariya	Others									
59	240/2	0.486	0.486	Hariram and others	Kanwar	ST									
60	241/1	0.304	0.304	Manohar and others	Kanwar	ST									
61	241/2	0.024	0.024	Gadaram Sukhiram	Kanwar	ST									
62	242/1	0.495	0.495	Basanti Devnath and others	Kanwar	ST									
63	242/2	0.405	0.405	Ramsingh and others	Kanwar	ST									
64	242/3	0.487	0.487	Gadaram Sukhiram	Kanwar	ST									
65	243/1	0.183	0.183	Gadaram Sukhiram	Kanwar	ST									
66	243/2	0.707	0.707	Panikram and others	Kanwar	ST									
67	243/3	0.210	0.210	Basanti Devnath and others	Kanwar	ST									
68	244/1	0.288	0.182	Bansram and others	Kanwar	ST									
69	244/2	0.085	0.085	Jagdish and others	Kanwar	ST									
70	244/3	0.085	0.085	Sukhiram Thakurram	Kanwar	ST									
71	244/4	0.085	0.085	Veersingh Thakurram	Kanwar	ST									
72	244/5	0.085	0.085	Veersingh Thakurram	Kanwar	ST									
73	245	0.417	0.410	Vijayram Atwal	Gada	ST									
74	246/1	0.121	0.121	Parkhit Chakrdhar	Aghariya	Others									
75	246/2	0.202	0.202	Girdhari Chandrapal	Aghariya	Others									
76	246/3	0.202	0.202	Noharsingh Pursottam	Aghariya	Others									
77	246/4	0.109	0.109	Ramkumar Chakrdhar	Aghariya	Others									
78	246/5	0.109	0.109	Girdhari Chandrapal	Aghariya	Others									
79	246/6	0.110	0.110	Noharsingh Pursottam	Aghariya	Others									
80	246/7	0.081	0.081	Ramkumar Chakrdhar	Aghariya	Others									
81	247	0.450	0.450	Ghasiram and others	Kanwar	ST									
82	248/1	0.809	0.809	Ghasiram and others	Kanwar	ST									
83	248/2	0.813	0.813	Santram Laxmiram and others	Kanwar	ST									
84	248/3	0.809	0.809	Raghuram Dhiraram	Kanwar	ST									
85	249	1.153	1.153	Luchhiram and others	Kanwar	ST									
86	250/1	0.146	0.146	Ghasiram and others	Kanwar	ST									
87	250/2	0.150	0.150	Santram Laxmiram and others	Kanwar	ST									
88	250/3	0.146	0.146	Kashuram Dhiraram	Kanwar	ST									
Total of Bhalumura		21.072	16.297				0.809	0.622				1.602	0.704		

(Sudhir Kumar) Under Secretary Govt. of India Ministry of Coal New Delhi

(A.P. NAGPAL) Director (Under Secretary) Govt. of India Ministry of Coal New Delhi

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Land Schedule

Village : Sarasmal, P.H.N.: 39, R.I.Circle : Tamnar,Tehsil : Tamnar, District : Raigarh(Chhattisgarh)

Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/ Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1	39/3 ⊕	0.587	0.587	Shrutkisan	Uranv	ST								
2	39/1 [illegible]	1.254	0.980	Shrutkishan	Uranv	ST								
3	40/1	0.567	0.178	Nabodh, Prabodh	Uranv	ST								
4	44											0.368	0.368	Road
5	50											5.103	2.200	Seva Bhara Gram Naukar
6	51/1	0.182	0.065	Santram Negiram	Kanwar	ST								
7	51/4	0.081	0.015	Surukishan S/o Shankar Kishan	Machi	Others								
8	51/7	0.102	0.015	Nabodhprabhat Topo	Uranv	ST								
9	51/9	0.076	0.022	Andeyesh Tirki Seso Tirki	Uranv	ST								
10	52/1	2.541	0.300	Mohan S/o Ghasiram	Gond	ST								
11	54/1	1.200	1.200	Jindal Power Limited Tamnar Vivek										
12	54/2	0.122	0.122	Jindal Power Limited Vivek Dadu										
13	54/3	0.081	0.042	Santram and others	Aghariya	Others								
14	54/4	0.129	0.129	Bhanupratap	Aghariya	Others								
15	55/1	0.170	0.170	Surukishan S/o Shankar Kishan	Machi	Others								
16	55/2	0.174	0.151	Salikram Sukdev	Maina	ST								
17	56/1	2.781	1.503	Tikaram and others	Kanwar	ST								
18	56/2	0.093	0.020	Ramnath	Agharya	Others								
19	58						0.668	0.642	Small Tree Forest					
20	59/1	0.267	0.267	Nabodhpraohat Topo	Uranv	ST								
21	59/2	0.267	0.267	Santram Negiram	Kanwar	ST								
22	60						0.628	0.628	Small Tree Forest					
23	61/1	0.356	0.356	Jagdev	Gond	ST								
24	61/2	0.227	0.227	Ramsingh	Gond	ST								
25	62/1	0.082	0.082	Surukishan S/o Shankar Kishan	Machi	Others								
26	62/2	0.032	0.032	Santram Negiram	Kanwar	ST								
27	62/3	0.164	0.164	Sukdev and others	Machi	Others								
28	62/4	0.164	0.164	Gutvari and others	Kanwar	ST								
29	62/5	0.082	0.082	Nabodhprabhat Topo	Uranv	ST								
30	62/6	0.032	0.032	Santram Negiram	Kanwar	ST								
31	62/7	0.032	0.032	Santram Negiram	Kanwar	ST								
32	62/8	0.0321	0.032	Santram Negiram	Kanwar	ST								
33	62/9	0.036	0.036	Sewran	Kanwar	ST								
34	63	0.312	0.312	Vicanchi Shankar and others	Gond	ST								
35	64/1	0.251	0.251	Surukishan S/o Shankar Kishan	Machi	Others								
36	64/2	0.218	0.218	Santram Negiram	Kanwar	ST								
37	64/3	0.219	0.219	Santram Negiram	Uranv	ST								
38	65/1	0.635	0.635	Surekishan S/o Shankar Kishan	Machi	Others								
39	65/2	0.567	0.567	Salikram Sukdev	Maina	ST								
40	66/1	0.283	0.283	Andeyesh Tirki Seso Tirki	Uranv	ST								
41	66/2	0.089	0.089	Surekishan S/o Shankar Kishan	Machi	Others								
42	66/3	0.218	0.218	Andeyesh Tirki Seso Tirki	Uranv	ST								
43	66/4	0.089	0.089	Andeyesh Tirki Seso Tirki	Uranv	ST								
44	66/5	0.089	0.089	Punivat S/o Ramnath and others	Gond	ST								
45	66/6	0.142	0.142	Nabodhprabhat Topo	Uranv	ST								
46	67/1	0.150	0.150	Gutvari and others	Kanwar	ST								
47	67/2	0.145	0.145	Jagatram and others	Agharya	Others								
48	67/3	0.150	0.150	Santram Negiram	Kanwar	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/ Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
49	68/1	0.195	0.195	Santram and others	Aghariya	Others								
50	68/2	0.223	0.223	Parvati S/o Jagdish	Gond	ST								
51	68/3	0.101	0.101	Santram and others	Aghariya	Others								
52	68/4	0.102	0.102	Santram and others	Aghariya	Others								
53	68/5	0.243	0.243	Ramnath	Aghariya	Others								
54	68/6	0.324	0.324	Jindal Power Limited Vivek Dadu										
55	68/7	0.283	0.283	Jindal Power Limited Dinesh Bhargav										
56	68/8	0.081	0.081	Ramnath	Aghariya	Others								
57	68/9	0.101	0.101	Camruman	Aghariya	Others								
58	68/10	0.202	0.202	Bhanupratap	Aghariya	Others								
59	68/11	0.322	0.322	Bhanupratap	Aghariya	Others								
60	68/12	0.348	0.348	Jindal Power Limited Vivek Dadu										
61	68/13	0.335	0.335	Bhanupratap	Aghariya	Others								
62	68/14	0.696	0.696	Ramnath	Aghariya	Others								
63	68/15	0.162	0.162	Jindal Power Limited Camrar Vivek Dadu										
64	68/16	0.202	0.202	Chandrasekhar S/o Madan	Aghariya	Others								
65	69	0.368	0.368	Santram S/o Negiram	Kanwar	ST								
66	70/1	0.082	0.082	Salikram Sukdev	Maina	ST								
67	70/2	0.078	0.078	Surukishan S/o Shankar Kishan	Machi	Others								
68	70/3	0.082	0.082	Surukishan S/o Shankar Kishan	Machi	Others								
69	70/4	0.073	0.073	Nabodhprabhat Topo	Uraov	ST								
70	70/5	0.053	0.053	Gulam	Kanwar	ST								
71	70/6	0.304	0.304	Surukishan S/o Shankar Kishan	Machi	Others								
72	70/7	0.182	0.182	Santram Negiram	Kanwar	ST								
73	70/8	0.162	0.162	Andeyash Tirki Seso Tirki	Uraov	ST								
74	71/1	0.255	0.255	Pose	Uraov	ST								
75	71/2	0.255	0.255	Madhu	Uraov	ST								
76	72/3	0.170	0.170	Kartikram and others	Uraov	ST								
77	72/1	0.291	0.291	Santram Negiram	Kanwar	ST								
78	72/2	0.405	0.405	Santram Negiram	Kanwar	ST								
79	73/1	0.348	0.348	Surukishan S/o Shankar Kishan	Machi	Others								
80	73/2	0.343	0.343	Salikram Sukdev	Maina	ST								
81	74	0.579	0.579	Tikaram and others	Kanwar	ST								
82	75/1	0.356	0.356	Dokra	Kanwar	ST								
83	75/2	0.356	0.356	Nabodhprabhat Topo	Uraov	ST								
84	75/3	0.354	0.356	Santram Negiram	Kanwar	ST								
85	76	0.611	0.611	Tikaram and others	Kanwar	ST								
86	77/1	0.688	0.688	Nabodhprabhat Topo	Uraov	ST								
87	77/2	0.587	0.587	Surukishan S/o Shankar Kishan	Machi	Others								
88	77/3	0.750	0.750	Salikram Sukdev	Maina	ST								
89	77/4	0.040	0.040	Salikram Sukdev	Maina	ST								
90	78/1	0.223	0.223	Surukishan S/o Shankar Kishan	Machi	Others								
91	78/2	0.202	0.202	Salikram Sukdev	Maina	ST								
92	79/1	0.294	0.294	Sukdev and others	Machi	Others								
93	79/2	0.103	0.103	Surukishan S/o Shankar Kishan	Machi	Others								
94	79/3	0.058	0.058	Santram Negiram	Kanwar	ST								
95	79/4	0.198	0.198	Nabodhprabhat Topo	Uraov	ST								
96	79/5	0.294	0.294	Gotvari and others	Kanwar	ST								
97	79/6	0.049	0.049	Santram Negiram	Kanwar	ST								
98	79/7	0.049	0.049	Santram Negiram	Kanwar	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/ Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
99	79/8	0.041	0.041	Santram Negiram	Kanwar	ST								
100	79/9	0.041	0.041	Santram Negiram	Kanwar	ST								
101	79/10	0.018	0.018	Santram Negiram	Kanwar	ST								
102	79/11	0.018	0.018	Santram Negiram	Kanwar	ST								
103	79/12	0.010	0.010	Santram Negiram	Kanwar	ST								
104	79/13	0.010	0.010	Santram Negiram	Kanwar	ST								
105	80/1	0.040	0.040	Puse	Uranv	ST								
106	80/2	0.048	0.048	Madhu	Uranv	ST								
107	80/3	0.105	0.105	Laxmiram and others	Kanwar	ST								
108	80/4	0.255	0.255	Madhu	Uranv	ST								
109	80/5	0.255	0.255	Puse	Uranv	ST								
110	80/6	0.138	0.138	Laxmiram and others	Kanwar	ST								
111	81	0.053	0.053	Tejram Anandram S/o Dokri and others	Kanwar	ST								
112	83	0.615	0.615	Chirvedine Harishchandra and others	Gond	ST								
113	83/1						0.016	0.016	Big Tree Forest					
114	83/2	0.081	0.081	Andeyesh Tirki Sesu Tirki	Uranv	ST								
115	83/3	0.182	0.182	Sidar	Kanwar	ST								
116	83/4	0.194	0.194	Tejram Dokri and others	Kanwar	ST								
117	83/5	0.057	0.057	Surukishar S/o Shankar Kishan	Machi	Others								
118	83/6	0.027	0.027	Nanodiprabhat Topo	Uranv	ST								
119	83/7	0.028	0.028	Andeyesh Tirki Seso Tirki	Uranv	ST								
120	83/8	0.073	0.073	Andeyesh Tirki Seso Tirki	Uranv	ST								
121	83/9	0.101	0.101	Nabudiprabhat Topo	Uranv	ST								
122	83/10	0.089	0.089	Nabodiprabhat Topo	Uranv	ST								
123	83/11	0.230	0.230	Punimati and others	Gond	ST								
124	83/12	0.081	0.081	Andeyesh Tirki Sesu Tirki	Uranv	ST								
125	84	0.396	0.396	Surukishan S/o Shankar Kishan	Machi	Others								
126	85/1	1.011	1.011	Gutvari and others	Kanwar	ST								
127	85/2	0.227	0.227	Santram and others	Agharia	Others								
128	85/3	0.668	0.668	Gutvari and others	Kanwar	ST								
129	86	0.417	0.417	Ramnath, and others	Agharia	Others								
130	87	0.741	0.741	Gutvari and others	Kanwar	ST								
131	88/1	0.202	0.202	Ramnath	Agharia	Others								
132	88/2	0.202	0.202	Santram and others	Agharia	Others								
133	88/3	0.174	0.174	Jindal Power Limited Tanmay Vivek Dadu										
134	88/4	0.287	0.287	Jindal Power Limited Tanmay Vivek Dadu										
135	88/5	0.182	0.182	Surukishan S/o Shankar Kishan	Machi	Others								
136	88/6	0.210	0.210	Padaman and others	Agharia	Others								
137	89	0.506	0.506	Ghsiya and others	Uranv	ST								
138	90/1	0.251	0.251	Ghsiya and others	Uranv	ST								
139	90/2	0.283	0.283	Jindal Power Limited Vivek Dadu										
140	90/3	0.203	0.203	Jindal Power Limited Dinesh Bhargav										
141	90/4						11.002	11.002	Big Tree forest					
142	90/5	0.259	0.259	Jindal Power Limited Vivek Dadu										
143	90/6	0.210	0.210	Jindal Power Limited Vivek Dadu										
144	90/7	0.061	0.061	Padman and others	Agharia	Others								
145	90/8	0.405	0.405	Padama	Agharia	Others								
146	90/9	0.101	0.101	Devsingh S/o Dhanram	Kanwar	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/ Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
147	90/10	0.202	0.202	Jindal Power Limited Tamnar Vivek Dadu										
148	91	1.072	1.072	Tikaram and others	Kanwar	ST								
149	92/1	0.146	0.146	Nabodhprabhat Topo	Uraov	ST								
150	92/2	0.065	0.065	Nabodhprabhat Topo	Uraov	ST								
151	92/3	0.202	0.202	Nabodhprabhat Topo	Uraov	ST								
152	92/4	0.543	0.543	Santram Negiram	Kanwar	ST								
153	93/1	0.421	0.421	Jindal Power Limited Vivek Dadu										
154	93/2	0.692	0.692	Ramnath and others	Agharia	Others								
155	93/3	0.101	0.101	Ramnath	Agharia	Others								
156	93/4	0.101	0.101	Santram and others	Agharia	Others								
157	93/5	0.049	0.049	Jindal Power Limited Vivek Dadu										
158	93/6	0.121	0.121	Jindal Power Limited Vivek Dadu										
159	93/7	0.032	0.032	Santram and others	Agharia	Others								
160	93/8	0.016	0.016	Jindal Power Limited Dinesh Bhargav										
161	93/9	0.142	0.142	Bhanupratap	Agharia	Others								
162	93/10	0.526	0.526	Ramnath	Agharia	Others								
163	93/11	0.081	0.081	Santram and others	Agharia	Others								
164	93/12	0.041	0.041	Jindal Power Limited Dinesh Bhargav										
165	93/13	0.081	0.081	Jindal Power Limited Vivek Dadu										
166	93/14	0.142	0.142	Santram and others	Agharia	Others								
167	93/15	0.405	0.405	Jindal Power Limited Vivek Dadu										
168	93/16	0.024	0.024	Santram and others	Agharia	Others								
169	93/17	0.020	0.020	Santram and others	Agharia	Others								
170	93/18	0.020	0.020	Ramnath	Agharia	Others								
171	93/19	0.081	0.081	Jindal Power Limited Tamnar Vivek Dadu										
172	93/20	0.020	0.020	Jindal Power Limited Vivek Dadu										
173	93/21	0.445	0.445	Santram and others	Agharia	Others								
174	93/22	0.040	0.040	Jindal Power Limited Tamnar Vivek Dadu										
175	93/23	0.506	0.506	Ramnath	Agharya	Others								
176	93/24	0.223	0.223	Padaiya and others	Agharya	Others								
177	93/25	0.223	0.223	Jindal Power Limited Vivek Dadu										
178	93/26	0.105	0.105	Nabodhprabhat Topo	Uraov	ST								
179	93/27	0.166	0.166	Santram Negiram	Kanwar	ST								
180	93/28	0.368	0.368	Bhanupratap	Agharya	Others								
181	93/29	0.016	0.016	Jindal Power Limited Tamnar Vivek Dadu										
182	93/30	0.114	0.114	Jindal Power Limited Tamnar Vivek Dadu										
183	93/31	0.109	0.109	Jindal Power Limited Dinesh Bhargav										
184	93/32	0.280	0.280	Jindal Power Limited Dinesh Bhargav										
185	93/33	0.287	0.287	Jindal Power Limited Tamnar Vivek Dadu										
186	94/1						0.474	0.474	Small Tree Forest					
187	94/2	0.105	0.105	Jindal Power Limited Vivek Dadu										
188	95/1	0.255	0.255	Jindal Power Limited Dinesh Bhargav										
189	95/2,96/6	0.089	0.089	Santram and others	Agharia	Others								
190	95/3	0.051	0.051	Ramnath	Agharya	Others								
191	95/4	0.020	0.020	Jagannath	Agharya	Others								

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/ Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
192	95/5	0.179	0.179	Jindal Power Limited Tarmar Vivek Dadu											
193	96/1	0.101	0.101	Jindal Power Limited Dinesh Bhargav											
194	96/2	0.324	0.324	Jindal Power Limited Vivek Dadu											
195	96/3	0.324	0.324	Jindal Power Limited Vivek Dadu											
196	96/4	0.101	0.101	Santram and others	Aghariya	Others									
197	96/5	0.324	0.324	Jindal Power Limited Dinesh Bhargav											
198	96/7	0.089	0.089	Santram and others	Aghariya	Others									
199	96/8	0.101	0.101	Ramnath	Aghariya	Others									
200	96/9	0.202	0.202	Ravilal	Aghariya	Others									
201	96/10	0.575	0.575	Jindal Power Limited Vivek Dadu											
202	96/11	0.121	0.121	Jindal Power Limited Vivek Dadu											
203	97/1						0.199	0.199	Small Tree Forest						
204	97/2	0.024	0.024	Jindal Power Limited Vivek Dadu											
205	97/3	0.028	0.028	Jindal Power Limited Vivek Dadu											
206	98/1											0.461	0.461	Below Water	
207	98/2	0.223	0.223	Suraj S/o Parvati	Gond	ST									
208	99/1	0.036	0.036	Shobharam Rakhilal	Uranv	ST									
209	99/2	0.036	0.036	Andeyesh Tirki Seso Tirki	Uranv	ST									
210	99/3	0.028	0.028	Nabodhprabhat Tepo	Uranv	ST									
211	99/4	0.057	0.057	Nabodhprabhat Tepo	Uranv	ST									
212	99/5	0.097	0.097	Andeyesh Tirki Seso Tirki	Uranv	ST									
213	99/6	0.061	0.061	Nabodhprabhat Tepo	Uranv	ST									
214	99/7	0.179	0.179	Nabodhprabhat Tepo	Uranv	ST									
215	100											0.413	0.413	Road	
216	101/1	0.016	0.016	Nabodhprabhat Tepo	Uranv	ST									
217	101/2	0.032	0.032	Nabodhprabhat Tepo	Uranv	ST									
218	101/3	0.121	0.121	Andeyesh Tirki Seso Tirki	Uranv	ST									
219	101/4	0.179	0.179	Nabodhprabhat Tepo	Uranv	ST									
220	101/5	0.012	0.012	Nabodhprabhat Tepo	Uranv	ST									
221	101/6	0.081	0.081	Shobharam Rakhilal	Uranv	ST									
222	102	0.631	0.631	Vaishnav Ahemram and others	Gond	ST									
223	103/1	0.804	0.804	Vaishnav Prasad and others	Gond	ST									
224	103/2	0.567	0.567	Ramsingh	Gond	ST									
225	104/1	0.332	0.332	Ramsingh	Gond	ST									
226	104/2 पा						1.542	1.542	Small Tree Forest						
227	104/2 ख	0.202	0.202	Vaishnav and others	Gond	ST									
228	104/2 ग	0.607	0.607	Ramsingh	Gond	ST									
229	104/2 घ	0.405	0.405	Viranchi Shankar and others	Gond	ST									
230	105/1	0.070	0.070	Viranchi Shankar and others	Gond	ST									
231	105/2	0.080	0.080	Viranchi Shankar and others	Gond	ST									
232	106/1	0.104	0.104	Viranchi Shankar and others	Gond	ST									
233	106/2	0.030	0.030	Ramsingh	Gond	ST									
234	107	0.308	0.308	Ramsingh	Gond	ST									
235	108/1	0.219	0.219	Viranchi Shankar and others	Gond	ST									
236	108/2	0.016	0.016	Jagdev	Gond	ST									
237	108/3	0.324	0.324	Ramsingh	Gond	ST									
238	108/4	0.008	0.008	Jagdev	Gond	ST									
239	109/1	1.875	1.875	Suraj Kumar S/o Kayaram	Gond	ST									
240	109/2	0.080	0.080	Ramsingh	Gond	ST									
241	110/1	0.052	0.052	Andeyesh Tirki Seso Tirki	Uranv	ST									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/ Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
242	110/2	0.036	0.036	Nabodhprabhat Topo	Uranv	ST									
243	110/3	0.109	0.109	Andeyesh Tirki Seso Tirki	Uranv	ST									
244	110/4	0.101	0.101	Salikram Sukdev	Majna	ST									
245	110/5	0.145	0.145	Nabodhprabhat Topo	Uranv	ST									
246	110/6	0.133	0.133	Gulam	Kanwar	ST									
247	110/7	0.089	0.089	Nabodhprabhat Topo	Uranv	ST									
248	110/8	0.022	0.022	Santram Negiram	Kanwar	ST									
249	110/9	0.073	0.073	Santram Negiram	Kanwar	ST									
250	110/10	0.251	0.251	Surukishan S/o Shankar Kishan	Machi	Others									
251	110/11	0.182	0.182	Sidar	Kanwar	ST									
252	111/1	0.129	0.129	Surukishan S/o Shankar Kishan	Machi	Others									
253	111/2	0.081	0.081	Surukishan S/o Shankar Kishan	Machi	Others									
254	111/3	0.121	0.121	Santram Negiram	Kanwar	ST									
255	111/4	0.147	0.147	Andeyesh Tirki Seso Tirki	Uranv	ST									
256	111/5	0.044	0.044	Surukishan S/o Shankar Kishan	Machi	Others									
257	111/6	0.089	0.089	Surukishan S/o Shankar Kishan	Machi	Others									
258	111/7	0.032	0.032	Ramchand	Kanwar	ST									
259	111/8	0.164	0.164	Gulam	Kanwar	ST									
260	111/9	0.154	0.154	Santram Negiram	Kanwar	ST									
261	111/10	0.069	0.069	Surukishan S/o Shankar Kishan	Machi	Others									
262	111/11	0.141	0.141	Andeyesh Tirki Seso Tuki	Uranv	ST									
263	111/12	0.133	0.133	Nabodhprabhat Topo	Uranv	ST									
264	111/13	0.077	0.077	Surukishan S/o Shankar Kishan	Machi	Others									
265	112											0.676	0.676	Below Water	
266	113	0.121	0.121	Amalsai S/o Ghasiram and others	Kanwar	ST									
267	114/1	0.243	0.243	Santram and others	Agharya	Others									
268	114/2	0.283	0.283	Jindal Power Limited Vivek Dadu											
269	114/3	0.162	0.162	Santram and others	Agharya	Others									
270	114/4	0.146	0.146	Ramnath	Agharya	Others									
271	115/1 क	0.319	0.319	Ghsiya and others	Uranv	ST									
272	115/1 ख	1.629	1.629	Sukhram S/o Asharam	Machi	Others									
273	115/2 क	0.465	0.465	Suraj Kumar S/o Kayctram	Gond	ST									
274	115/2 ग	0.404	0.404	Padman	Agharya	Others									
275	115/2 घ	0.405	0.405	Ramsingh S/o Hatihar	Gond	ST									
276	115/2 ङ	1.011	1.011	Surukishan S/o Shankar Kishan	Machi	Others									
277	115/2 च	0.154	0.154	Jindal Power Limited Vivek Dadu											
278	115/2 छ	0.466	0.466	Rupsingh	Gond	ST									
279	115/2 ज	1.011	1.011	Chita and others	Kanwar	ST									
280	115/2 झ	0.405	0.405	Gutvari and others	Kanwar	ST									
281	115/2 ञ	0.809	0.809	Amarsai S/o Mukhi	Machi	Others									
282	115/2 ट	0.465	0.465	Jagdev	Gond	ST									
283	115/2 ठ	0.283	0.283	Ramsingh	Gond	ST									
284	116	1.185	1.185	Ghsiya and others	Uranv	ST									
285	117	0.543	0.543	Gutvari and others	Kanwar	ST									
286	118						0.304	0.304	Small Tree Forest						
287	119											0.117	0.117	Below Water	
288	120											0.121	0.121	Mountain, Rock	
289	121											0.539	0.539	Below Water	
290	122						0.429	0.429	Small Tree Forest						
Total of Sarasmal		71.072	66.027				15.262	15.236				5.795	4.895		

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Land Schedule

Village : Pata,P.H.N.: 39, R.I.Circle : Tamnar,Tehsil :Tamnar, District : Raigarh (Chhattisgarh)

Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1	1/1	0.170	0.170	Tejram Lochan	Aghariya	Others								
2	1/2	0.170	0.170	Sanatan S/o Laxman	Aghariya	Others								
3	1/3	0.045	0.045	Chandra Shekhar S/o Ramprasad	Aghariya	Others								
4	1/4	0.166	0.166	Bihari, Gulab Singh, Devmati W/o Gulab Singh	Aghariya	Others								
5	1/5	0.166	0.166	Jalal S/o Bhuvaneshwar										
6	1/6	0.166	0.166	Pitabar, Laxman	Aghariya	Others								
7	1/7	0.098	0.098	Sanatan, Laxman	Aghariya	Others								
8	1/8	0.166	0.166	Pancharam S/o Laxman	Aghariya	Others								
9	1/9	0.068	0.068	Prem Kumar Pitambar	Aghariya	Others								
10	1/10	0.040	0.040	Fakirchand, Ramprasad	Aghariya	Others								
11	1/11	0.040	0.040	Lal Kumar Ramprasad	Aghariya	Others								
12	1/12	0.045	0.045	Chandramani, Ramprasad	Aghariya	Others								
13	2	0.798	0.798	Mangal S/o Charan, Sukhram S/o Udairam S/o Mohan	Kanwar	ST								
14	3	0.898	0.898	Lalita D/o Ram and others	Kanwar	ST								
15	4/1	0.207	0.207	Chain Singh , Munshi and others	Kanwar	ST								
16	4/2	0.105	0.105	Shankar S/o Puran	Kanwar	ST								
17	4/3	0.101	0.101	Shamu, Puran, Dropati W/o Puran	Kanwar	ST								
18	5/1	0.633	0.101	Sumri W/o Kawalsingh and others	Kanwar	ST								
19	5/2	0.634	0.101	Maheshram S/o Sukhram	Kanwar	ST								
20	6	0.429	0.101	Parmeshwar S/o Tilakram	Kanwar	ST								
21	7/1	0.097	0.097	Jaglal S/o Chhatar	Kanwar	ST								
22	7/2	0.093	0.093	Chitrasen S/o Dharamsingh	Kanwar	ST								
23	7/3	0.093	0.093	Gautiya S/o Tilakram	Kanwar	ST								
24	7/4	0.093	0.093	Devsingh.Tilakram	Kanwar	ST								
25	8	0.388	0.388	Nikanth, S/o Kuber	Aghariya	Others								
26	9	1.015	1.015	Adhano W/o Ghasiram and others	Kanwar	ST								
27	10	0.680	0.680	Ratiram S/o Kaleshwar	Kanwar	ST								
28	11/1	1.052	1.052	Virajo Balakram and others	Kanwar	ST								
29	11/2क	0.798	0.798	Devmati Sitaram	Kanwar	ST								
30	11/2ख	0.132	0.132	Parmeshwar S/o Tilakram	Kanwar	ST								
31	11/3	0.769	0.769	Manbodh Madhav S/o Harishankar	Kanwar	ST								
32	11/4	0.243	0.243	Ramlal, Shyamlal, Narayan, Ratkunwar, Phulkunwar S/o Thandaram	Kanwar	ST								
33	11/5	0.567	0.567	Parmeshwar S/o Tilakram	Kanwar	ST								
34	11/6	1.092	1.092	Virajo Balakram and others	Kanwar	ST								
35	11/7	0.466	0.466	Ramlal, Shyamlal, Narayan, Ratkunwar, Phulkunwar S/o Thandaram	Kanwar	ST								
36	11/8	0.194	0.194	Manbodh Madhav S/o Harishankar	Kanwar	ST								
37	12	0.194	0.194	Karam Singh S/o Bhagatram and others	Kanwar	ST								
38	13/1	0.486	0.486	Virajo Balakram and others	Kanwar	ST								
39	13/2	0.364	0.364	Manbodh Madhav S/o Harishankar	Kanwar	ST								
40	13/3	0.085	0.085	Virajo Balakram and others	Kanwar	ST								

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
41	13/4	0.049	0.049	Parmeshwar S/o Tilakram	Kanwar	ST									
42	13/5	0.802	0.802	Ramlal, Thandaram	Kanwar	ST									
43	13/6	0.100	0.100	Manbodh Madhav S/o Harshankar	Kanwar	ST									
44	14/1	0.186	0.186	Shiv Kunwar, Chain Shingh and others	Aghariya	Others									
45	14/2	0.263	0.263	Madan S/o Kuber	Aghariya	Others									
46	14/3	0.368	0.368	Laxman S/o Dokri	Ghasiya	Others									
47	14/4	0.101	0.101	Nikanth, S/o Kuber	Aghariya	Others									
48	14/5	0.223	0.223	Chaitan Prasad S/o Balmukund	Aghariya	Others									
49	14/6	0.243	0.243	Shiv Kumar, Chain Shingh and others	Aghariya	Others									
50	14/7	0.262	0.262	Nikanth, S/o Kuber	Aghariya	Others									
51	14/8	0.222	0.222	Shiv Kumar, Chain Shingh and others	Aghariya	Others									
52	14/9	0.101	0.101	Madan S/o Kuber	Aghariya	Others									
53	14/10	0.186	0.186	Chaitan Prasad S/o Balmukund	Aghariya	Others									
54	15	1.655	1.655	Amrut, Laladhar, Ravkumar	Raval	Others									
55	16/1	0.080	0.080	Amru S/o Hariram	Kanwar	ST									
56	16/2	0.081	0.087	Devsingh Tilakram	Kanwar	ST									
57	16/3	0.093	0.093	Chitrasen S/o Dharamsingh	Kanwar	ST									
58	16/4	0.053	0.053	Jaglal S/o Chhatar	Kanwar	ST									
59	16/5	0.053	0.053	Gamiya S/o Tilakram	Kanwar	ST									
60	17	0.934	0.934	Rambharosh S/o Buduram	Kanwar	ST									
61	18	0.534	0.534	Budhani, Dhanmati M/o Dokribai, Shyamsunder, Maheshram	Kanwar	ST									
62	19/1	0.546	0.546	Ramsai S/o Chhatarsingh	Kanwar	ST									
63	19/2	0.697	0.607	Roop Singh S/o Manbodh	Kanwar	ST									
64	20/1	0.324	0.324	Nikanth, S/o Kuber	Aghariya	Others									
65	20/2	0.101	0.101	Chaitan Prasad S/o Balmukund	Aghariya	Others									
66	20/3	0.445	0.445	Shiv Kumar, Chain Shingh and others	Aghariya	Others									
67	20/4	0.223	0.223	Chaitan Prasad S/o Balmukund	Aghariya	Others									
68	20/5	0.182	0.182	Madan S/o Kuber	Aghariya	Others									
69	20/6	0.364	0.364	Nikanth, S/o Kuber	Aghariya	Others									
70	20/7	0.486	0.486	Madan S/o Kuber	Aghariya	Others									
71	21/1	0.093	0.093	Jaglal S/o Chhatar	Kanwar	ST									
72	21/2	0.040	0.040	Devsingh Tilakram	Kanwar	ST									
73	21/3	0.040	0.040	Jaglal S/o Chhatar	Kanwar	ST									
74	21/4	0.040	0.040	Gautiya S/o Tilakram	Kanwar	ST									
75	21/5	0.227	0.227	Chitrasen S/o Dharamsingh	Kanwar	ST									
76	21/6	0.162	0.162	Devsingh Tilakram	Kanwar	ST									
77	21/7	0.138	0.138	Anuru S/o Hariram	Kanwar	ST									
78	21/8	0.150	0.150	Jaglal S/o Chhatar	Kanwar	ST									
79	21/9	0.206	0.206	Gauliya S/o Tilakram	Kanwar	ST									
80	22	0.713	0.713	Chandan S/o Chamra	Kanwar	ST									
81	23	0.709	0.709	Lalita D/o Ram and others	Kanwar	ST									
82	24/1	1.117	1.117	Budhani, Dokribai	Kanwar	ST									
83	24/2	0.065	0.065	Chandan S/o Chamra	Kanwar	ST									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
84	25/1	2.141	2.141	Budhan, Doktibai	Kanwar	ST									
85	25/2	0.121	0.121	Santram and others	Kenvat	Others									
86	25/3	0.040	0.040	Chandan Singh Chamra	Kanwar	ST									
87	26/1,49/2	1.293	1.293	Karam Singh S/o Bhagatram and others	Kanwar	ST									
88	26/2	0.243	0.243	Laxmi Lunt and others	Kanwar	ST									
89	27/1	0.304	0.304	Haribar S/o Samaru	Kenvat	Others									
90	27/2	0.680	0.680	Ghasiya S/o Balbhadra	Kenvat	Others									
91	27/3	0.376	0.376	Haribar S/o Samaru	Kenvat	Others									
92	28/1	0.374	0.374	Badalabhu S/o Chandan Singh, Kaleshram, Ramchandra S/o Chakradhar	Aghariya	Others									
93	28/2	0.267	0.267	Jindal Power Limited Tamnar, Vivek Das, B.N Das											
94	29	0.376	0.376	Badalabhu S/o Chandan Singh	Aghariya	Others									
95	30	1.206	1.206	Dubraj, Vishram and others	Kanwar	ST									
96	31	0.567	0.567	Budhan Doktibai	Kanwar	ST									
97	32/1	0.340	0.340	Ghasiya S/o Balbhadra	Kenvat	Others									
98	32/2	0.348	0.348	Haribar S/o Samaru	Kenvat	Others									
99	33	0.328	0.328	Budhan Doktibai	Kanwar	ST									
100	34/1	0.536	0.536	Madan S/o Kuber	Aghariya	Others									
101	34/2	0.081	0.081	Balmukund, Kirtan	Aghariya	Others									
102	34/3	0.447	0.447	Shiv Kumar, Chain Shingh and others	Aghariya	Others									
103	34/4	0.344	0.344	Balmukund, Kirtan	Aghariya	Others									
104	35	0.146	0.146	Hariram, Bimal	Gada	ST									
105	36	0.049	0.049	Bhojram Padman	Kenvat	Others									
106	37	0.231	0.231	Mangal Singh, Sumitra S/o Kirtan, Dhanwet W/o Kirtan	Rawat	Others									
107	38	0.138	0.138	Mangal singh, Kirtan and others	Rawat	Others									
108	39/1	0.421	0.421	Mangal singh, Kirtan and others	Rawat	Others									
109	39/2	0.286	0.286	Bhojram Padman	Kenvat	Others									
110	39/3	1.165	1.165	Mangal singh, Kirtan and others	Rawat	Others									
111	39/4	0.097	0.097	Ramcharan S/o Dhaneshwar	Rawat	Others									
112	40	0.166	0.166	Bhojram Padman	Kenvat	Others									
113	41/1											0.024	0.024	Below Water	
114	41/2	0.081	0.081	Kantram, Sadhram	Rawat	Others									
115	42											0.777	0.777	Road	
116	43	0.210	0.210	Karam Singh S/o Bhagatram and others	Kanwar	ST									
117	44/1	0.587	0.587	Nokanth, S/o Kuber	Aghariya	Others									
118	44/2	0.402	0.402	Shiv Kumar, Chain Shingh and others	Aghariya	Others									
119	44/3	0.391	0.391	Balmukund, Kirtan	Aghariya	Others									
120	45/1	0.200	0.200	Chitrasen S/o Dharamsingh	Kanwar	ST									
121	45/2	0.162	0.162	Devsingh Tilakram	Kanwar	ST									
122	45/3	0.138	0.138	Arun S/o Hariram	Kanwar	ST									
123	45/4	0.170	0.170	Jagial S/o Chhatar	Kanwar	ST									
124	45/5	0.260	0.260	Gautiya S/o Tilakram	Kanwar	ST									
125	46	1.384	1.384	Santram, Sadhuram	Kanwar	ST									
126	47/1	0.028	0.028	Chitrasen S/o Dharamsingh	Kanwar	ST									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
127	47/2	0.020	0.020	Amru S/o Hariram	Kanwar	ST									
128	47/3	0.028	0.028	Devsingh Tilakram	Kanwar	ST									
129	47/4	0.028	0.028	Gautiya S/o Tilakram	Kanwar	ST									
130	47/5	0.213	0.213	Jaglal Chhatar	Kanwar	ST									
131	47/6	0.024	0.024	Chhrasen S/o Dharamsingh	Kanwar	ST									
132	47/7	0.040	0.040	Amru, Hiram	Kanwar	ST									
133	47/8	0.040	0.040	Devsingh Tilakram	Kanwar	ST									
134	47/9	0.049	0.049	Gautiya S/o Tilakram	Kanwar	ST									
135	47/10	0.081	0.081	Amru S/o Hariram	Kanwar	ST									
136	47/11	0.081	0.081	Chhrasen S/o Dharamsingh	Kanwar	ST									
137	47/12	0.109	0.109	Devsingh Tilakram	Kanwar	ST									
138	47/13	0.101	0.101	Gautiya S/o Tilakram	Kanwar	ST									
139	48	0.405	0.405	Ramdayal S/o Bhagvano	Aghariya	Others									
140	49/1	1.114	1.114	Santram, Sadharam	Kanwar	ST									
141	49/3	1.075	1.075	Budhani Dokubai	Kanwar	ST									
142	49/4,50/ क	1.356	1.356	Budhani Dokubai	Kanwar	ST									
143	49/4,50/ ख	0.259	0.259	Santram, Sadhuram	Kanwar	ST									
144	49/5	0.373	0.373	Santram Sadhuram	Kanwar	ST									
145	49/6	0.065	0.065	Chamkan S/o Chunra	Kanwar	ST									
146	51/1	0.890	0.890	Lalita D/o Ram and others	Kanwar	ST									
147	51/2	0.426	0.426	Ramdayal S/o Bhagvano	Aghariya	Others									
148	51/3	0.543	0.543	Jaglal, Bhuvaneshwar	Aghariya	Others									
149	52	1.323	1.323	Ramdayal S/o Bhagvano	Aghariya	Others									
150	53	0.478	0.478	Jaglal, Bhuvaneshwar	Aghariya	Others									
151	54	1.056	1.056	Chhatan Prasad S/o Balmukund	Aghariya	Others									
152	55/1						0.969	0.969	Small Tree Forest,Gothan						
153	55/2											0.121	0.121	Grass	
154	55/3	0.089	0.089	Jalal ,Bhuvaneshwar	Aghariya	Others									
155	55/4						0.162	0.162	Small Tree Forest,Gothan						
156	55/5	0.223	0.223	Tuleshwar S/o Jalal, Jalal S/o Bhuvaneshwar	Aghariya	Others									
157	55/6	0.075	0.075	Sewa Bhumi Gram Naukar											
158	56/1	0.632	0.632	Tejram Lochan	Aghariya	Others									
159	56/2	0.235	0.235	Tejram Lochan	Aghariya	Others									
160	56/3	0.121	0.121	Tejram Lochar	Aghariya	Others									
161	57											0.241	0.241	Grass	
162	58/1											2.724	2.724	Below Water	
163	58/2	0.121	0.121	Chhatan Prasad, Balmukund	Aghariya	Others									
164	59/1	0.101	0.101	ChadraShkhar, Ramprasad	Aghariya	Others									
165	59/2	0.069	0.069	Dhamsingh, Sahkram	Aghariya	Others									
166	59/3	0.580	0.580	Jalal ,Bhuvaneshwar	Aghariya	Others									
167	59/4	0.150	0.150	Lal Kumar Ramprasad	Aghariya	Others									
168	59/5	0.101	0.101	Paluram, Rushi Kumar S/o Parasram	Aghariya	Others									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
169	59/6	0.069	0.069	Rai Sing, Salikram	Aghariya	Others									
170	59/7	0.064	0.064	Parasram S/o Salikram	Aghariya	Others									
171	59/8	0.101	0.101	Dhamsingh, Salikram	Aghariya	Others									
172	59/9	0.101	0.101	Rai Sing, Salikram	Aghariya	Others									
173	59/10	0.101	0.101	Parasram S/o Salikram	Aghariya	Others									
174	59/11	0.040	0.040	Sadhram, Dayaram, Mayaram S/o Lachhoram	Aghariya	Others									
175	59/12	0.102	0.102	Chandramani, Ramprasad	Aghariya	Others									
176	59/13	0.026	0.026	Ram Prasad S/o Laxman	Aghariya	Others									
177	59/14	0.025	0.025	Venudhar, Mohan	Aghariya	Others									
178	59/15	0.025	0.025	Jaglal, Bhuvaneshwar	Aghariya	Others									
179	59/16	0.025	0.025	Pitalor, Laxman	Aghariya	Others									
180	59/17	0.025	0.025	Pancharam S/o Laxman	Aghariya	Others									
181	59/18	0.026	0.026	Tejram S/o Laxman	Aghariya	Others									
182	59/20	0.040	0.040	Fakirchand, Ramprasad	Aghariya	Others									
183	60/1	0.295	0.295	Ujiyar , Sadhram and others	Kanwar	ST									
184	60/2	0.295	0.295	Ramlal, Shyamlal, Narayan, Raitkunwar, Phulkunwar S/o Thandaram	Kanwar	ST									
185	61	0.259	0.259	Adhino W/o Ghasiram and others	Kanwar	ST									
186	62/1	0.189	0.189	Karam Singh S/o Bhagatram and others	Kanwar	ST									
187	62/2	0.240	0.240	Laxmi Lunu and others	Kanwar	ST									
188	63	0.112	0.112	Ujiyar , Sadhram and others	Kanwar	ST									
189	64	0.745	0.745	Dubraj, Vishram and others	Kanwar	ST									
190	65	0.330	0.330	Badebahn S/o Chandan Singh	Aghariya	Others									
191	66/1	0.651	0.651	Jaglal, Bhuvaneshwar	Aghariya	Others									
192	66/2	0.652	0.652	Ramdayal S/o Bhagwano	Aghariya	Others									
193	67/1	0.349	0.349	Mangal S/o Charan, Sukharam S/o Usharam S/o Mohan	Kanwar	ST									
194	67/2	0.170	0.170	Sunai W/o Kawalsingh and others	Kanwar	ST									
195	67/3	0.170	0.170	Maheshram S/o Sukhram	Kanwar	ST									
196	68/1											0.478	0.478	Road	
197	68/2	0.049	0.049	Bhagmal W/o Dhobiram and others	Kanwar	ST									
198	69	0.154	0.154	Puran S/o Gajpat	Kanwar	ST									
199	70/1	0.595	0.595	Santram S/o Sadharam	Kanwar	ST									
200	70/2,71	0.405	0.405	Roop Singh S/o Mankedh	Kanwar	ST									
201	72	0.498	0.498	Adhino W/o Ghasiram and others	Kanwar	ST									
202	73	0.547	0.547	Phool Singh Sadhu	Kanwar	ST									
203	74/1	0.163	0.163	Kartikram, Dev Singh and others	Kanwar	ST									
204	74/2	0.081	0.081	Abhaisingh Mansingh and others	Kanwar	ST									
205	74/3	0.129	0.129	Rohit Devsingh and others	Kanwar	ST									
206	75/1	0.089	0.089	Rohit, Deva Singh and others	Kanwar	ST									
207	75/2	0.089	0.089	Kartikram, Deva Singh and others	Kanwar	ST									
208	75/3	0.129	0.129	Abhaisingh Mansingh and others	Kanwar	ST									
209	75/4	0.065	0.065	Kartikram, Dev Singh and others	Kanwar	ST									
210	75/5	0.194	0.194	Rohit, Man Singh and others	Kanwar	ST									
211	75/6	0.202	0.202	Rohit Devsingh and others	Kanwar	ST									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
212	75/7	0.162	0.162	Mohitram S/o Mansingh and others	Kanwar	ST									
213	75/8	0.195	0.195	Kartikram, Dev Singh and others	Kanwar	ST									
214	76	0.413	0.413	Roop Singh S/o Matibodh	Kanwar	ST									
215	77/1	0.210	0.210	Virayo S/o Balakram	Kanwar	ST									
216	77/2	0.198	0.198	Asahu S/o Jagannath	Teli	Others									
217	77/3	0.065	0.065	Virayo S/o Balakram	Kanwar	ST									
218	77/4	0.121	0.121	Asahu S/o Jagannath	Teli	Others									
219	77/5	0.259	0.259	Dhuru, Salikram	Teli	Others									
220	78/1	0.073	0.073	Chaitan Prasad S/o Balmukund	Aghariya	Others									
221	78/2	0.162	0.162	Shiv Kumar, Chain Shingh and others	Aghariya	Others									
222	78/3	0.089	0.089	Chaitan Prasad S/o Balmukund	Aghariya	Others									
223	79/1	0.792	0.792	Virayo Balakram and others	Kanwar	ST									
224	79/2	0.337	0.337	Ramki, Thandaram and others	Kanwar	ST									
225	80/1	0.749	0.749	Jairam ,Bodhram and others	Kanwar	ST									
226	80/2	0.890	0.890	Jairam ,Budhram and others	Kanwar	ST									
227	81/1	0.296	0.296	Adhino W/o Ghasiram and others	Kanwar	ST									
228	81/2	0.340	0.340	Adhino W/o Ghasiram and others	Kanwar	ST									
229	82	0.509	0.509	Aanadram, Dhaniram and others	Kanwar	ST									
230	83/1	0.279	0.279	Shankar, Dayaram	Teli	Others									
231	83/2	0.405	0.405	Gita S/o Heeralal and others	Teli	Others									
232	84/1	0.296	0.296	Nikanth, Kuber	Aghariya	Others									
233	84/2	0.581	0.581	Nikanth, Kuber	Aghariya	Others									
234	84/3	0.405	0.405	Shiv Kumar, Chain Shingh and others	Aghariya	Others									
235	84/4	0.232	0.232	Chaitan Prasad, Balmukund	Aghariya	Others									
236	84/5	0.295	0.295	Shiv Kumar, Chain Shingh and others	Aghariya	Others									
237	84/6	0.553	0.553	Chaitan Prasad S/o Balmukund	Aghariya	Others									
238	85/1	0.109	0.109	Parasram S/o Salikram	Aghariya	Others									
239	85/2	1.142	1.142	Parasram S/o Salikram	Aghariya	Others									
240	85/3	0.108	0.108	Parasram S/o Salikram	Aghariya	Others									
241	85/4	0.486	0.486	Parasram S/o Salikram	Aghariya	Others									
242	85/5	0.081	0.081	Rai Sing, Salikram	Aghariya	Others									
243	85/6	0.752	0.752	Rai Sing, Salikram	Aghariya	Others									
244	85/7	0.065	0.065	Ghasiya, Ram Singh	Aghariya	Others									
245	86/1											0.757	0.757	Road	
246	86/2	0.040	0.040	Mangmati W/o Dhobiram	Kanwar	ST									
247	87	0.983	0.983	Ramlal S/o Thandaram	Kanwar	ST									
248	88	0.991	0.991	Aanadram, Dhaniram and others	Kanwar	ST									
249	89/1	1.052	1.052	Bhagmati W/o Dhobiram and others	Kanwar	ST									
250	89/2	0.162	0.162	Chain Singh , Munshi and others	Kanwar	ST									
251	89/3	0.101	0.101	Shankar S/o Puran	Kanwar	ST									
252	89/4	0.101	0.101	Shobhi, Puran and others	Kanwar	ST									
253	90/1	0.242	0.242	Rohit Devsingh and others	Kanwar	ST									
254	90/2	0.242	0.242	Kartikram, Dev Singh and others	Kanwar	ST									
255	90/3	0.305	0.305	Mohitram S/o Mansingh and others	Kanwar	ST									

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
256	90/4	0.101	0.101	Sohitram, Mansingh and others	Kanwar	ST								
257	91/1	0.255	0.255	Mohitram S/o Mansingh and others	Kanwar	ST								
258	91/2	0.101	0.101	Kartikram, Dev Singh and others	Kanwar	ST								
259	91/3	0.097	0.097	Rohit Devsingh and others	Kanwar	ST								
260	91/4	0.182	0.182	Abhaisingh Mansingh and others	Kanwar	ST								
261	91/5	0.082	0.082	Rohit Devsingh and others	Kanwar	ST								
262	91/6	0.089	0.089	Kartikram, Dev Singh and others	Kanwar	ST								
263	91/7	0.060	0.060	Rohit Devsingh and others	Kanwar	ST								
264	92/1	0.365	0.365	Jairam ,Bodhram and others	Kanwar	ST								
265	92/2	1.339	1.163	Jairam ,Bodhram and others	Kanwar	ST								
266	93	0.344	0.344	Jairam ,Bodhram and others	Kanwar	ST								
267	94/1	0.081	0.081	Sunai W/o Kawalsingh and others	Kanwar	ST								
268	94/2	0.077	0.077	Mangal S/o Charan, Sukharam S/o Ushtram S/o Mohan	Kanwar	ST								
269	95	0.364	0.364	Mohitram S/o Mansingh and others	Kanwar	ST								
270	96/1	0.182	0.182	Bhagmati W/o Dhobiram and others	Kanwar	ST								
271	96/2	0.115	0.115	Cham Singh , Munshir and others	Kanwar	ST								
272	96/3	0.101	0.101	Shankar S/o Puran	Kanwar	ST								
273	96/4	0.271	0.271	Cham Singh , Munshir and others	Kanwar	ST								
274	96/5	0.065	0.065	Shankar S/o Puran	Kanwar	ST								
275	96/6	0.607	0.587	Bhagmati W/o Dhobiram and others	Kanwar	ST								
276	97/1	0.324	0.207	Jairam ,Bodhram and others	Kanwar	ST								
277	97/2	0.610	0.206	Jairam ,Bodhram and others	Kanwar	ST								
278	98/1	0.405	0.405	Parmeshwar S/o Tilokram	Kanwar	ST								
279	98/2	0.417	0.202	Virajo Balakram and others	Kanwar	ST								
280	99	0.283	0.283	Santram S/o Negram	Kanwar	ST								
281	100/1	0.459	0.026	Kartikram, Dev Singh and others	Kanwar	ST								
282	100/2	0.567	0.024	Rohit Devsingh and others	Kanwar	ST								
283	100/3	0.430	0.024	Abhaisingh Mansingh and others	Kanwar	ST								
284	100/4	0.102	0.024	Santram S/o Negram	Kanwar	ST								
285	101/1	0.865	0.017	Virajo Balakram and others	Kanwar	ST								
286	117/2	0.101	0.016	Lalita D/o Ram and others	Kanwar	ST								
287	118/2	0.279	0.050	Lalita D/o Ram and others	Kanwar	ST								
288	119/1	0.667	0.667	Parasram	Aghariya	Others								
289	119/2	0.170	0.170	Madeva S/o Rai Singh	Aghariya	Others								
290	119/3	0.129	0.129	Munna S/o Rai Singh	Aghariya	Others								
291	119/4	0.114	0.114	Ghasiya, Ram Singh	Aghariya	Others								
292	120/1	0.181	0.181	Ramlal, Shyamlal, Narayan, Ratkanwar, Phulkunwar S/o Thandaram	Kanwar	ST								
293	120/2	0.186	0.186	Manbodh Madhav S/o Harshankar	Kanwar	ST								
294	121	0.624	0.624	Aanadram, Dhaniram and others	Kanwar	ST								
295	122/1	0.097	0.088	Devsingh Tilakram	Kanwar	ST								
296	122/2	0.210	0.210	Devsingh Tilakram	Kanwar	ST								
297	122/3	0.225	0.210	Jagtal S/o Chhotu	Kanwar	ST								
298	123/1	0.093	0.093	Chitrasen S/o Dharamsingh	Kanwar	ST								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
299	123/2	0.186	0.186	Jaglal S/o Chhatar	Kanwar	ST								
300	123/3	0.093	0.093	Devsingh,Tilakram	Kanwar	ST								
301	123/4	0.093	0.093	Gautiya Tilakram	Kanwar	ST								
302	123/5	0.073	0.073	Chitrasen S/o Dharamsingh	Kanwar	ST								
303	123/6	0.065	0.065	Devsingh,Tilakram	Kanwar	ST								
304	124/1	0.242	0.090	Gautiya S/o Tilakram	Kanwar	ST								
305	124/2	0.344	0.250	Chitrasen S/o Dharamsingh	Kanwar	ST								
306	124/3	0.081	0.081	Jaglal S/o Chhatar	Kanwar	ST								
307	124/4	0.131	0.102	Devsingh,Tilakram	Kanwar	ST								
308	126/1	0.206	0.206	Dharam Singh, Salikram	Aghariya	Others								
309	125/2	0.097	0.097	Parasram Salikram	Aghariya	Others								
310	125/3	0.182	0.182	Madeva S/o Rai Singh	Aghariya	Others								
311	125/4	0.065	0.065	Parasram, Salikram	Aghariya	Others								
312	125/5	0.126	0.126	Dhamsingh, Salikram	Aghariya	Others								
313	125/6	0.057	0.057	Mangu S/o Rai Singh	Aghariya	Others								
314	126	0.267	0.267	Ujiyar , Sadhram and others	Kanwar	ST								
315	127	0.352	0.352	Jairam ,Bodhram and others	Kanwar	ST								
316	128											0.065	0.065	Below Water
317	129	0.073	0.073	Jairam ,Bodhram and others	Kanwar	ST								
318	130,131/1	1.506	1.506	Jairam ,Bodhram and others	Kanwar	ST								
319	131/2	0.101	0.101	Phool Singh Sadhu	Kanwar	ST								
320	132/1	0.085	0.085	Mahadeva,Raysingh	Aghariya	Others								
321	132/2	0.081	0.081	Mangu S/o Rai Singh	Aghariya	Others								
322	133/1	1.117	1.117	Jairam ,Bodhram and others	Kanwar	ST								
323	133/2	0.251	0.251	Sukhram s/o Oklutram and others	Kanwar	ST								
324	133/3	1.368	1.368	Jairam ,Bodhram and others	Kanwar	ST								
325	134	0.458	0.458	Chaitanprasad , Balmukund	Aghariya	Others								
326	135/1	0.160	0.160	Madan S/o Kuber	Aghariya	Others								
327	135/2	0.142	0.142	Chaitan Prasad S/o Balmukund	Aghariya	Others								
328	135/3	0.385	0.385	Chaitan Prasad S/o Balmukund	Aghariya	Others								
329	135/4	0.405	0.405	Shiv Kumar, Chain Singh and others	Aghariya	Others								
330	135/5	0.020	0.020	Chaitan Prasad S/o Balmukund	Aghariya	Others								
331	136/1	0.042	0.042	Chaitan Prasad S/o Balmukund	Aghariya	Others								
332	136/2	0.202	0.202	Madan S/o Kuber	Aghariya	Others								
333	136/3	0.162	0.162	Nikanth, S/o Kuber	Aghariya	Others								
334	136/4	0.048	0.048	Shiv Kumar, Chain Singh and others	Aghariya	Others								
335	136/5	0.026	0.026	Chaitan Prasad S/o Balmukund	Aghariya	Others								
336	136/6	0.028	0.028	Shiv Kumar, Chain Singh and others	Aghariya	Others								
337	136/7	0.028	0.028	Chaitan Prasad S/o Balmukund	Aghariya	Others								
338	136/8	0.028	0.028	Shiv Kumar, Chain Singh and others	Aghariya	Others								
339	137/1											0.162	0.162	Gothan
340	137/2									0.809	0.809			
341	137/3											0.405	0.405	Khalihan

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
342	137/4						0.053	0.053	Small Tree Forest, Murda, Maweshi					
343	137/5											1.619	1.619	Sarvajanik Karya Ke Liye
344	137/6											0.405	0.405	Khadh,Kura Ke Liye
345	138/1	0.174	0.174	Chain Singh , Munshir and others	Kanwar	ST								
346	138/2	0.089	0.089	Bhagmati W/o Dhubiram and others	Kanwar	ST								
347	138/3	0.101	0.101	Khem Singh, Madhusudan	Gond	ST								
348	138/4	0.101	0.101	Bhagmati W/o Dhubiram and others	Kanwar	ST								
349	138/5	0.061	0.061	Bhagmati W/o Dhubiram and others	Kanwar	ST								
350	139/1	0.073	0.073	Mohitram, Maan Singh and others	Kanwar	ST								
351	139/2	0.069	0.069	Sohitram, Mansingh and others	Kanwar	ST								
352	139/3	0.073	0.073	Abhaisingh Mansingh and others	Kanwar	ST								
353	139/4	0.105	0.105	Rohit Devsingh and others	Kanwar	ST								
354	139/5	0.105	0.105	Kartikram, Dev Singh and others	Kanwar	ST								
355	140/1	0.195	0.195	Udhav S/o Mohitram	Kanwar	ST								
356	140/2	0.195	0.195	Abhai Singh, Maan Singh	Kanwar	ST								
357	140/3	0.197	0.197	Iswar S/o Sohitram	Kanwar	ST								
358	141/1	0.087	0.087	Chaitan Prasad, Balmukund	Aghariya	Others								
359	141/2	0.037	0.037	Madan S/o Kuber	Aghariya	Others								
360	141/3	0.051	0.051	Madan S/o Kuber	Aghariya	Others								
361	141/4	0.088	0.088	Shiv Kumar, Chain Shingh and others	Aghariya	Others								
362	142/1	0.306	0.306	Santram and others	Kanwar	Others								
363	142/2	0.305	0.305	Bodhram S/o Dokri Bai and others	Kanwar	ST								
364	143/1	0.091	0.091	Nikanth, S/o Kuber	Aghariya	Others								
365	143/2	0.093	0.093	Chaitan Prasad S/o Balmukund	Aghariya	Others								
366	143/3	0.093	0.093	Shiv Kumar, Cham Shingh and others	Aghariya	Others								
367	143/4	0.091	0.091	Madan S/o Kuber	Aghariya	Others								
368	144/1											0.934	0.934	Road
369	144/2	0.065	0.065	Kartikram, Trilochan	Kanwar	ST								
370	145/1	0.142	0.142	Jairam ,Bodhram and others	Kanwar	ST								
371	145/2	0.410	0.410	Jairam ,Bodhram and others	Kanwar	ST								
372	145/3	0.089	0.089	Chatur Singh, Trilochan	Kanwar	ST								
373	146/1 क											0.014	0.014	Grass
374	146/1 ख	0.032	0.032	Dubraj, Vishram and others	Kanwar	ST								
375	146/1 ग	0.032	0.032	Lalita D/o Ram and others	Kanwar	ST								
376	146/1 घ	0.263	0.263	Lachhan Kunwar, Lachhiram and others	Kanwar	ST								
377	146/1 ङ	0.024	0.024	Dhoharam S/o Bandhan	Lohar	Others								
378	146/2 क	0.005	0.005	Lalaram, Trilochan	Kanwar	ST								
379	146/2 ख	0.005	0.005	Dohandha, Trilochan	Kanwar	ST								
380	146/2 ग	0.005	0.005	Chatur Singh, Trilochan	Kanwar	ST								
381	146/2 घ	0.005	0.005	Dudeya, Trilochan	Kanwar	ST								
382	146/2 ङ	0.020	0.020	Fulsingh, Sachuram	Kanwar	ST								
383	147/1	0.065	0.065	Lal Kumar Ramprasad	Aghariya	Others								
384	147/2	0.097	0.097	Lalita D/o Ram and others	Kanwar	ST								

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							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
385	148	0.267	0.267	Dubraj, Vishram and others	Kanwar	ST									
386	149/1	0.073	0.073	Karam Singh S/o Bhagatram and others	Kanwar	ST									
387	149/2	0.206	0.206	Jairam ,Budhram and others	Kanwar	ST									
388	149/3	0.020	0.020	Laxmi Lutu and others	Kanwar	ST									
389	150	0.065	0.065	Jairam ,Budhram and others	Kanwar	ST									
390	151/1	0.010	0.010	Bhagmati W/o Dhoduram and others	Kanwar	ST									
391	151/2	0.010	0.010	Chain Singh , Mnesbir and others	Kanwar	ST									
392	152	0.032	0.032	Onyar , Sadhram and others	Kanwar	ST									
393	153	0.045	0.045	Dubraj and others	Kanwar	ST									
394	154	0.024	0.024	Anand S/o Dhanram	Kanwar	ST									
395	155/1	0.020	0.020	Abhaisingh Mansingh and others	Kanwar	ST									
396	155/2	0.020	0.020	Kartikram, Dev Singh and others	Kanwar	ST									
397	156	0.045	0.045	Santram, Sadhuram	Kanwar	ST									
398	157	0.040	0.040	Adhing W/o Ghasiram and others	Kanwar	ST									
399	158/1	0.008	0.008	Sunderlal, Devashi, Urmila S/o Parivat and others	Rawat	Others									
400	158/2	0.008	0.008	Komal, Visambhar and others	Rawat	Others									
401	159/1	0.020	0.020	Parmeshwar S/o Tilakram	Kanwar	ST									
402	159/2	0.012	0.012	Manbodh Madhav S/o Harishankar	Kanwar	ST									
403	159/3	0.013	0.013	Ramlal, Thandaram and others	Kanwar	ST									
404	160	0.930	0.930	Ramlal, Thandaram and others	Kanwar	ST									
405	161/1 &	0.930	0.674	Ratiram S/o Kaleshwar	Kanwar	ST									
406	161/2 &	0.089	0.001	Chitrasen Dharam Singh	Kanwar	ST									
407	161/2&	0.202	0.001	Rushi , Thanderam and others	Gond	ST									
408	161/3	0.065	0.009	Devsingh Tilakram	Kanwar	ST									
409	161/4	0.235	0.008	Sunp W/o Kawalsingh and others	Kanwar	ST									
410	161/14	0.024	0.021	Cautiya S/o Tilakram	Kanwar	ST									
411	161/15	0.113	0.053	Devsingh Tilakram	Kanwar	ST									
412	162/1											0.559	0.559	Road	
413	298	0.134	0.050	Laxmi Lutu and others	Kanwar	ST									
414	299/1	0.607	0.597	Santram, Sadhuram	Kanwar	ST									
415	299/2	0.469	0.316	Budhni Dokri Bai and others	Kanwar	ST									
416	300/1	0.466	0.466	Lalita Dru Ram and others	Kanwar	ST									
417	300/2	0.526	0.526	Kapuribai W/o Chatanprasad	Agharya	Others									
418	300/3	0.049	0.049	Samaru, Piharirao, Devsingh, Tilakram	Agharya	Others									
419	301/2	0.170	0.170	Santram, Raghumani	Kanwar	Others									
420	301/3	0.335	0.335	Santram, Raghumani	Kanwar	Others									
421	301/4	0.146	0.146	Narsgh, Sudhe	Kanwar	Others									
422	301/5	0.097	0.097	Girdhari S/o Sudheram	Kanwar	Others									
423	301/6	0.089	0.089	Jindal Power Limited Tamnar, Dinesh Kumar Bhargav											
424	301/7	0.081	0.081	Khageshwar, Sahdev	Kanwar	Others									
425	301/8	0.121	0.121	Khageshwar, Sahdev	Kanwar	Others									
426	301/9	0.089	0.089	Anuj Ram,Sudhe	Kanwar	Others									
427	301/10	0.083	0.083	Girdhari S/o Sudheram	Kanwar	Others									
428	301/11	0.142	0.142	Santram, Raghumani	Kanwar	Others									

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
429	302/1	0.220	0.032	Laxmi Lunt and others	Kanwar	ST								
430	302/2	0.169	0.032	Karam Singh S/o Bhagatram and others	Kanwar	ST								
431	302/3	0.056	0.032	Laxmi Lunt and others	Kanwar	ST								
432	302/4	0.058	0.032	Karamsingh Jagatram and others	Kanwar	ST								
433	303	0.802	0.689	Tejram,Ustram,Gajadhar,Kunjram S/o Lochan	Aghariya	Others								
434	306/2	0.324	0.190	Shiv Kumar, Chain Shingh and others	Aghariya	Others								
435	306/3	0.154	0.154	Madan S/o Kuber	Aghariya	Others								
436	306/4	0.158	0.158	Nikanth, S/o Kuber	Aghariya	Others								
437	306/5	0.162	0.003	Madan S/o Kuber	Aghariya	Others								
438	306/6	0.182	0.151	Chaitan Prasad S/o Balmukund	Aghariya	Others								
439	306/7	0.182	0.033	Chaitan Prasad S/o Balmukund	Aghariya	Others								
440	306/8	0.061	0.010	Shiv Kumar, Chain Shingh and others	Aghariya	Others								
441	307/1	0.478	0.478	Hemvati W/o Sukhchand	Aghariya	Others								
442	307/2	0.194	0.194	Bhikho S/o Shobha	Kenvat	Others								
443	307/3	0.101	0.101	Shiv Kumar, Chain Shingh and others	Aghariya	Others								
444	307/4	0.101	0.101	Chaitan Prasad S/o Balmukund	Aghariya	Others								
445	307/5	0.127	0.127	Madan S/o Kuber	Aghariya	Others								
446	307/6	0.057	0.057	Nikanth, S/o Kuber	Aghariya	Others								
447	307/7	0.020	0.020	Shiv Kumar, Chain Shingh and others	Aghariya	Others								
448	307/8	0.036	0.036	Nikanth	Aghariya	Others								
449	308	0.785	0.785	Tejram Lochan	Aghariya	Others								
450	309	1.080	1.080	Dubraj, Vighram and others	Kanwar	ST								
451	310	0.688	0.688	Parmeshwar S/o Tilakram	Kanwar	ST								
452	311	0.239	0.239	Tejram Lochan	Aghariya	Others								
453	312/1	0.141	0.141	Ramlal, Thandaram	Kanwar	ST								
454	312/2	0.134	0.134	Manbodh Madhav S/o Harishankar	Kanwar	ST								
455	313/1	0.144	0.144	Shiv Kumar, Chain Shingh and others	Aghariya	Others								
456	313/2	0.346	0.190	Chaitan Prasad S/o Balmukund	Aghariya	Others								
457	317/1	0.022	0.002	Sanatan S/o Laxman	Aghariya	Others								
458	317/2	0.569	0.001	Panchram Laxman	Aghariya	Others								
459	318/1	0.101	0.101	Sanatan S/o Laxman	Aghariya	Others								
460	318/2	0.312	0.256	Jindal Power Limited Tamnar Vivek Dau										
461	319	0.219	0.020	Tejram S/o Laxman	Aghariya	Others								
462	320/1	0.060	0.060	Tejram S/o Laxman	Aghariya	Others								
463	320/2	0.171	0.085	Jindal Power Limited Tamnar Vivek Dau										
464	321/1	0.217	0.217	Ram Prasad S/o Laxman	Aghariya	Others								
465	321/2	0.287	0.287	Jindal Power Limited Tamnar Vivek Dau										
466	322/1	0.202	0.026	Chaitan Prasad S/o Balmukund	Aghariya	Others								
467	322/2	0.400	0.026	Bharatlal , Khubchand	Aghariya	Others								
468	322/3	0.178	0.026	Shiv Kumar, Chain Shingh and others	Aghariya	Others								
469	322/4	0.032	0.026	Chaitan Prasad S/o Balmukund	Aghariya	Others								
470	322/5	0.032	0.026	Chaitan Prasad S/o Balmukund	Aghariya	Others								
471	322/6	0.170	0.026	Chaitan Prasad S/o Balmukund	Aghariya	Others								
472	322/7	0.032	0.026	Shiv Kumar, Chain Shingh and others	Aghariya	Others								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
473	322/8	0.065	0.026	Nikanth, S/o Kuber	Aghariya	Others								
474	322/9	0.083	0.026	Madan S/o Kuber	Aghariya	Others								
475	322/10	0.061	0.026	Nikanth, S/o Kuber	Aghariya	Others								
476	322/11	0.077	0.026	Madan S/o Kuber	Aghariya	Others								
477	322/12	0.235	0.026	Shiv Kumar, Chain Singh and others	Aghariya	Others								
478	322/13	0.247	0.026	Madan S/o Kuber	Aghariya	Others								
479	322/14	0.247	0.026	Nikanth, S/o Kuber	Aghariya	Others								
480	322/15	0.468	0.026	Trilochan , Khubchand	Aghariya	Others								
481	322/16	0.303	0.026	Narhari, Khubchand	Aghariya	Others								
482	322/17	0.320	0.046	Narhari, Khubchand	Aghariya	Others								
483	322/18	0.398	0.026	Bharatlal , Khubchand	Aghariya	Others								
484	322/19	0.032	0.026	Narhari, Khubchand	Aghariya	Others								
485	322/20	0.020	0.020	Trilochan , Khubchand	Aghariya	Others								
486	323/1	0.809	0.809	Lalkumar / Girdhari and others	Aghariya	Others								
487	323/2	0.202	0.202	Pundanand	Aghariya	Others								
488	323/3	0.279	0.279	Pitabar, Laxman	Aghariya	Others								
489	323/4	0.101	0.101	Tirthanand S/o Sanatan	Aghariya	Others								
490	323/5	0.202	0.202	Pitabar, Laxman	Aghariya	Others								
491	323/6	0.162	0.162	Pancharam S/o Laxman	Aghariya	Others								
492	323/7	0.202	0.202	Purnanand, S/o Sanatan	Aghariya	Others								
493	323/8	0.101	0.101	Purnanand, S/o Sanatan	Aghariya	Others								
494	323/9	0.239	0.239	Tejram S/o Lachan	Aghariya	Others								
495	323/10	0.466	0.466	Sambalan S/o Laxman	Aghariya	Others								
496	323/11	0.405	0.405	Ram Prasad S/o Laxman	Aghariya	Others								
497	323/12	0.166	0.166	Pitambar ,Laxman	Aghariya	Others								
498	323/13	0.089	0.089	Tejram S/o Laxman	Aghariya	Others								
499	323/14	0.101	0.101	Tejram S/o Laxman	Aghariya	Others								
500	323/15	0.177	0.177	Prem Kumar Pitambar	Aghariya	Others								
501	324/1	0.202	0.202	Sanatan S/o Laxman	Aghariya	Others								
502	324/2	0.121	0.121	Pitabar, Laxman	Aghariya	Others								
503	324/3	0.097	0.097	Pancharam S/o Laxman	Aghariya	Others								
504	324/4	0.081	0.081	Shyamkumar, Pitambar	Aghariya	Others								
505	325/1	0.101	0.101	Budhni Dokrudar and others	Kanwar	ST								
506	325/2	0.069	0.069	Santram, Sadhuram	Kanwar	ST								
507	326/1	0.093	0.093	Bihari S/o Gulabsingh, Devmati W/o Gulabsingh	Aghariya	Others								
508	326/2	0.162	0.162	Tejram Lochan	Aghariya	Others								
509	326/3	0.077	0.077	Sunil Kumar, Bharatlal	Aghariya	Others								
510	327											0.291	0.291	Road
511	328/1	0.081	0.081	Jailal, Bhuvaneshwar	Aghariya	Others								
512	328/2	0.235	0.235	Lahta D/o Ram and others	Kanwar	ST								
513	328/3	0.081	0.081	Pitabar, Laxman	Aghariya	Others								
514	329	0.547	0.547	Adhiro W/o Ghasiram and others	Kanwar	ST								
515	330	0.032	0.032	Adhiro W/o Ghasiram and others	Kanwar	ST								
516	331	0.036	0.036	Dulraj, Vishram and others	Kanwar	ST								

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							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
517	332	0.032	0.032	Manbodh S/o Harishankar and others	Kanwar	ST									
518	333	0.049	0.049	Ratiram S/o Kaleshwar	Kanwar	ST									
519	334/1	0.035	0.035	Mohitram S/o Mansingh and others	Kanwar	ST									
520	334/2	0.034	0.034	Rohitram, Deva Singh and others	Kanwar	ST									
521	335/1	0.035	0.035	Virajo Balakram and others	Kanwar	ST									
522	335/2	0.024	0.024	Manbodh Madhav S/o Harishankar	Kanwar	ST									
523	335/3	0.024	0.024	Parmeshwar S/o Tilakram	Kanwar	ST									
524	336/1	0.035	0.035	Shankar S/o Puran	Kanwar	ST									
525	336/2	0.034	0.034	Shomit, Puran, Dropati W/o Puran	Kanwar	ST									
526	337	0.024	0.024	Jairam ,Bodhram and others	Kanwar	ST									
527	338/1	0.016	0.016	Shankar S/o Puran	Kanwar	ST									
528	338/2	0.016	0.016	Shomit, Puran, Dropati W/o Puran	Kanwar	ST									
529	339	0.073	0.073	Jairam ,Bodhram and others	Kanwar	ST									
530	340									0.070	0.070				
531	341/1	0.016	0.016	Ram Prasad S/o Laxman	Aghariya	Others									
532	341/2	0.073	0.073	Nikanth, S/o Kaber	Aghariya	Others									
533	341/3,341/4,341/5	0.288	0.288	Shiv Kumar, Chain Singh and others	Aghariya	Others									
534	341/6	0.008	0.008	Jagdal, Bhuvaneshwar	Aghariya	Others									
535	342/1	0.023	0.023	Ram Prasad S/o Laxman	Aghariya	Others									
536	342/2	0.032	0.032	Ram Prasad S/o Laxman	Aghariya	Others									
537	342/3	0.012	0.012	Vinudhar, Mohan	Aghariya	Others									
538	342/4	0.012	0.012	Jagdal, Bhuvaneshwar	Aghariya	Others									
539	342/5	0.012	0.012	Pancharam S/o Laxman	Aghariya	Others									
540	342/6	0.022	0.022	Ramprasad, Laxman	Aghariya	Others									
541	342/7	0.033	0.033	Jagdal, Bhuvaneshwar	Aghariya	Others									
542	343/1	0.053	0.053	Dhamsingh, Salikram	Aghariya	Others									
543	343/2	0.053	0.053	Parasram S/o Salikram	Aghariya	Others									
544	343/3	0.053	0.053	Rai Sing, Salikram	Aghariya	Others									
545	344	0.089	0.089	Lalkumar / Girdhari and others	Aghariya	Others									
546	345	0.089	0.089	Lalkumar / Girdhari and others	Aghariya	Others									
547	346/1क/2	0.020	0.020	Tejram	Aghariya	Others									
548	346/1ख/1	0.316	0.316	Lalkumar / Girdhari and others	Aghariya	Others									
549	346/1 ख	1.036	1.036	Lalkumar / Girdhari and others	Aghariya	Others									
550	346/1 ग	0.121	0.121	Tejram S/o Laxman	Aghariya	Others									
551	346/1 घ	0.267	0.267	Panchuam S/o Laxman	Aghariya	Others									
552	346/1 ङ	0.283	0.283	Vinodkumar, Biharilal, Rakeshkumar,Biharilal and others	Aghariya	Others									
553	346/1 च	0.154	0.154	Ram Prasad S/o Laxman	Aghariya	Others									
554	346/1 छ	0.033	0.033	Biharilal	Aghariya	Others									
555	346/1 ज	0.113	0.113	Jagdal, Bhuvaneshwar	Aghariya	Others									
556	346/1 झ	0.020	0.020	Pitabar, Laxmen	Aghariya	Others									
557	346/1 ञ	0.125	0.125	Panchram, Laxman	Aghariya	Others									

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							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
558	346/1 ट	0.935	0.933	Sanatan, Laxman	Aghariya	Others									
559	346/1 ठ	0.174	0.174	Ram Prasad S/o Laxman	Aghariya	Others									
560	346/1 ड	0.315	0.315	Jagbal, Bhuvaneshwar	Aghariya	Others									
561	346/1 ढ	0.024	0.024	Pancharam S/o Laxman	Aghariya	Others									
562	346/1 ण	0.153	0.153	Ram Prasad S/o Laxman	Aghariya	Others									
563	346/2 त	0.244	0.244	Pitabar, Laxman	Aghariya	Others									
564	346/2 थ	0.129	0.129	Shyamkumar, Pitambar	Aghariya	Others									
565	346/2 द	0.046	0.046	Sanatan, Laxman	Aghariya	Others									
566	346/2 ध	0.626	0.626	Shyamkumar, Pitambar	Aghariya	Others									
567	346/2 न	0.506	0.506	Shyamkumar, Pitambar	Aghariya	Others									
568	346/2 प	0.156	0.156	Kiem Kumar, Pitambar	Aghariya	Others									
569	346/2 फ	0.883	0.883	Vemdhar, Mohan	Aghariya	Others									
570	346/2 ब	0.202	0.202	Pancharam S/o Laxman	Aghariya	Others									
571	347/1	0.049	0.049	Tejram Lochan	Aghariya	Others									
572	347/2	0.012	0.012	Chandra Shekhar S/o Ramprasad	Aghariya	Others									
573	347/3	0.048	0.048	Pitabar, Laxman	Aghariya	Others									
574	347/4	0.040	0.040	Pancharam S/o Laxman	Aghariya	Others									
575	347/5	0.012	0.012	Chandramani, Ramprasad	Aghariya	Others									
576	347/6	0.113	0.113	Fakirchand, Ramprasad	Aghariya	Others									
577	347/7	0.013	0.013	Lal Kumar Ramprasad	Aghariya	Others									
578	348/1	0.012	0.012	Pancharam S/o Laxman	Aghariya	Others									
579	348/2											0.061	0.061	Road	
580	348/3	0.053	0.053	Pitabar, Laxman	Aghariya	Others									
581	348/4	0.053	0.053	Jalal, Bhuvaneshwar	Aghariya	Others									
582	348/5	0.053	0.053	Pitabar, Laxman	Aghariya	Others									
583	348/6	0.053	0.053	Sanatan S/o Laxman	Aghariya	Others									
584	349/1											0.672	0.672	Road	
585	349/2	0.081	0.081	Pancharam S/o Laxman	Aghariya	Others									
586	350	0.065	0.065	Pancharam S/o Laxman	Aghariya	Others									
587	351	1.206	1.206	Pancharam S/o Laxman	Aghariya	Others									
588	352/1	0.227	0.227	Pitabar, Laxman	Aghariya	Others									
589	352/2	1.428	1.428	Prem Kumar Pitambar	Aghariya	Others									
590	353	0.283	0.283	Pancharam S/o Laxman	Aghariya	Others									
591	354											0.886	0.886	Below Water	
592	355/1	0.121	0.121	Harihar S/o Samaru	Kenvat	Others									
593	355/2	0.259	0.259	Ghasiya S/o Balbhadra	Kenvat	Others									
594	355/3	0.130	0.130	Harihar S/o Samaru	Kenvat	Others									
595	356/1	0.280	0.280	Medan S/o Kuber	Aghariya	Others									
596	356/2	0.150	0.150	Shiv Kumar, Chain Shingh and others	Aghariya	Others									
597	356/3	0.028	0.028	Shiv Kumar, Chain Shingh and others	Aghariya	Others									
598	356/4	0.336	0.336	Chaitan Prasad S/o Balmukund	Aghariya	Others									
599	356/5	0.053	0.053	Chaitan Prasad S/o Balmukund	Aghariya	Others									
600	356/6	0.040	0.040	Shiv Kumar, Chain Shingh and others	Aghariya	Others									
601	356/7	0.033	0.053	Nikanth, S/o Kuber	Aghariya	Others									

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							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
602	356/8	0.280	0.280	Nikanth, S/o Kuber	Aghariya	Others									
603	356/9	0.035	0.035	Madan S/o Kuber	Aghariya	Others									
604	357/1	0.032	0.032	Nikanth, S/o Kuber	Aghariya	Others									
605	357/2	0.053	0.053	Chatan Prasad S/o Balmukund	Aghariya	Others									
606	357/3	0.069	0.069	Shiv Kumar, Chain Shingh and others	Aghariya	Others									
607	357/4	0.101	0.101	Madan S/o Kuber	Aghariya	Others									
608	357/5	0.081	0.076	Nikanth, S/o Kuber	Aghariya	Others									
609	358/1	0.129	0.033	Nikanth, S/o Kuber	Aghariya	Others									
610	358/2	0.174	0.033	Shiv Kumar, Chain Shingh and others	Aghariya	Others									
611	358/3	0.170	0.054	Chatan Prasad S/o Balmukund	Aghariya	Others									
612	358/4	0.142	0.033	Madan S/o Kuber	Aghariya	Others									
613	358/5	0.012	0.012	Nikanth, S/o Kuber	Aghariya	Others									
614	367/1											1.145	1.145	Road	
615	367/2	0.121	0.121	Rajiv Lochan, Daulatram	Teli	Others									
616	411/1	0.202	0.003	Tejram Lochan	Aghariya	Others									
617	411/2	0.202	0.003	Sanatan S/o Laxman	Aghariya	Others									
618	411/3	0.202	0.003	Jindal Power Limited Tamnar by Vivek Dau V.N. Dau											
619	411/4	0.162	0.003	Jindal Power Limited Tamnar by Vivek Dau V.N. Dau											
620	411/5	0.202	0.003	Pitabar, Laxman	Aghariya	Others									
621	411/6	0.202	0.003	Santan, Laxman	Aghariya	Others									
622	411/7	0.202	0.003	Pancharam S/o Laxman	Aghariya	Others									
623	412	1.003	0.495	Bade Babu Chandansingh and others	Aghariya	Others									
624	413	1.239	0.392	Koki W/o Sanaru and others	Uranv	ST									
625	414/1	1.214	0.987	Tirthanand S/o Sanatan	Aghariya	Others									
626	414/2	0.527	0.369	Manohar, Bahumani,Ramlal S/o Mohan	Teli	Others									
627	414/3	0.328	0.328	Jindal Powar Limited Tamnar, Dinesh Kumar Bhargav											
628	414/4	0.162	0.162	Loknath, Laxmiprasadm and others	Teli	Others									
629	414/5	0.202	0.202	Dinesh Kumar Bhargav	Kanwar	ST									
630	415/1											0.156	0.156	Below Watar	
631	415/2	0.053	0.053	Manohar, Bahumani,Ramlal S/o Mohan	Teli	Others									
632	415/3	0.013	0.013	Netranand, Laxmiprasad and others	Teli	Others									
633	415/4	0.013	0.013	Hemsagar, Laxmi Prasad and others	Teli	Others									
634	415/5	0.014	0.014	Loknath, Laxmiprasadm and others	Teli	Others									
635	415/6	0.260	0.260	Rajiv Lochan, Daulatram	Teli	Others									
636	416/1	0.089	0.089	Turthanand S/o Sanatan	Aghariya	Others									
637	416/2	0.134	0.134	Tejram Lochan	Aghariya	Others									
638	417	0.425	0.425	Purnanand, S/o Sanatan	Aghariya	Others									
639	418/1	0.405	0.405	Manohar S/o Mohan and others	Teli	Others									
640	418/2	0.961	0.051	Hemsagar, Laxmi Prasad and others	Teli	Others									
641	418/3 क	0.235	0.235	Hemsagar, Laxmi Prasad and others	Teli	Others									
642	418/3 ख	0.073	0.073	Netranand, Laxmiprasad and others	Teli	Others									
643	418/3 ग	0.097	0.097	Loknath, Laxmiprasadm and others	Teli	Others									
644	418/4	0.178	0.178	Purnanand, S/o Sanatan	Aghariya	Others									
645	418/5	0.405	0.290	Sanatan S/o Laxman	Aghariya	Others									

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							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
646	418/6	0.202	0.060	Tirthanand S/o Sanatan	Aghariya	Others									
647	418/7	0.431	0.431	Tejram Lochan	Agharya	Others									
648	419/1,420, 421/2	0.607	0.607	Tirthanand S/o Sanatan	Aghariya	Others									
649	419/2	0.210	0.210	Purnanand, S/o Sanatan	Aghariya	Others									
650	421/1	0.089	0.089	Manohar, Bahuman,Ramlal S/o Mohan	Teli	Others									
651	421/2	0.065	0.065	Hemsagar, Laxmi Prasad and others	Teli	Others									
652	421/3	0.008	0.008	Netanand, Laxmiprasad and others	Teli	Others									
653	421/4	0.097	0.097	Tirthanand S/o Sanatan	Aghariya	Others									
654	421/5	0.008	0.008	Hemsagar, Laxmi Prasad and others	Teli	Others									
655	421/6	0.008	0.008	Loknath, Laxmiprasadm and others	Teli	Others									
656	422											0.142	0.142	Grass	
657	423											0.117	0.117	Grass	
658	424/1	0.040	0.040	Hemsagar, Laxmi Prasad and others	Teli	Others									
659	424/2	0.109	0.109	Manohar, Bahuman,Ramlal S/o Mohan	Teli	Others									
660	424/3	0.073	0.073	Hemsagar, Laxmi Prasad and others	Teli	Others									
661	424/4	0.061	0.061	Purnanand, S/o Sanatan	Aghariya	Others									
662	425/1	0.190	0.190	ChandraShekhar, Ramprasad	Aghariya	Others									
663	425/2,644	0.615	0.615	ChadraShkhar, Ramprasad	Aghariya	Others									
664	426/1											0.174	0.174	Road	
665	426/2	0.061	0.061	Fakirchand, Ramprasad	Aghariya	Others									
666	427											0.138	0.138	Grass	
667	428/1											0.870	0.870	Below Watar	
668	428/2											0.060	0.060	Road	
669	429/1	0.202	0.202	Pancharam S/o Laxman	Aghariya	Others									
670	429/2	0.057	0.057	Pancharam S/o Laxman	Aghariya	Others									
671	430/1	0.575	0.575	Vinod Kumar, Bihari and others	Aghariya	Others									
672	430/2	0.809	0.809	Shyamkumar, Pitambar	Aghariya	Others									
673	430/3	1.918	1.918	Pancharam S/o Laxman	Aghariya	Others									
674	430/4	0.275	0.275	Khem Kumar, Pitambar	Aghariya	Others									
675	431/1 क	0.654	0.654	Tejram Lochan	Aghariya	Others									
676	431/1 ख	0.162	0.162	Vinod Kumar, Bihari and others	Aghariya	Others									
677	431/1 ग	0.304	0.304	ChadraShkhar, Ramprasad	Aghariya	Others									
678	431/2	0.543	0.543	Vinod Kumar, Bihari and others	Aghariya	Others									
679	432/1	0.138	0.138	Tejram S/o Laxman	Aghariya	Others									
680	432/2	0.101	0.101	Venudhar, Mohan	Aghariya	Others									
681	433/1 क	0.373	0.373	Tejram S/o Laxman	Aghariya	Others									
682	433/1 ख	0.506	0.506	Kamalkant, Khemkumar, Arun, Khemkumar	Aghariya	Others									
683	433/1 ग	0.222	0.222	Sanatan S/o Laxman	Aghariya	Others									
684	433/1 घ	0.032	0.032	Khem Kumar, Pitambar	Aghariya	Others									
685	433/1 ङ	0.105	0.105	Venudhar, Mohan	Aghariya	Others									
686	433/2 क	0.444	0.444	Venudhar, Mohan	Aghariya	Others									
687	433/2 ख	1.680	1.680	Vinod Kumar, Bihari and others	Aghariya	Others									

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
688	433/2 ग	0.162	0.162	Shyamkumar, Pitambar	Aghariya	Others								
689	433/2 घ	0.267	0.267	Khem Kumar, Pitambar	Aghariya	Others								
690	433/2 च	0.730	0.730	Khemkumar, Pitambar	Aghariya	Others								
691	433/2 छ	0.445	0.445	Pancharam S/o Laxman	Aghariya	Others								
692	435	0.154	0.154	Ram Prasad S/o Laxman	Aghariya	Others								
693	436											0.036	0.036	Below Watar
694	437	0.097	0.097	Vikram, Lachhiram	Gada	ST								
695	438	0.225	0.225	Vikram, Lachhiram	Gada	ST								
696	439											0.530	0.530	Below Watar
697	440/1	0.447	0.447	Sanatan, Laxman	Aghariya	Others								
698	440/2	0.077	0.077	Ram Prasad S/o Laxman	Aghariya	Others								
699	440/3	0.410	0.410	Khem Kumar, Pitambar	Aghariya	Others								
700	441	0.241	0.241	Khem Kumar, Pitambar	Aghariya	Others								
701	442	1.023	1.023	Satyavadi, Trilochan	Teli	Others								
702	443/1 क	0.040	0.040	Vinod Kumar, Bihari and others	Aghariya	Others								
703	443/1 ख	0.105	0.105	Bihariial, Gulabsingh and others	Aghariya	Others								
704	443/1 ग	0.057	0.057	Khem Kumar, Pitambar	Aghariya	Others								
705	443/2 क	0.178	0.178	Vinod Kumar, Bihari and others	Aghariya	Others								
706	443/2 ख	0.024	0.024	Khem Kumar, Pitambar	Aghariya	Others								
707	444/1	0.380	0.380	Surendra kumar S/o Chakranand	Teli	Others								
708	444/2	0.226	0.226	Parasram, Salikram	Teli	Others								
709	444/3	0.077	0.077	Ramlal, Thandaram and others	Kanwar	ST								
710	444/4	0.753	0.753	Savitri W/o Gangachai	Teli	Others								
711	444/5	0.615	0.615	ChadraShekhar, Janakram and others	Teli	Others								
712	444/6	0.275	0.275	Surendra kumar S/o Chakranand	Teli	Others								
713	445/1	0.166	0.166	Dhansingh, Salikram	Aghariya	Others								
714	445/2	0.040	0.040	Parasram S/o Salikram	Aghariya	Others								
715	445/3	0.069	0.069	Ghasiya, Ram Singh	Aghariya	Others								
716	446	0.648	0.648	Ramlal, Thandaram and others	Kanwar	ST								
717	447/1	0.210	0.210	Tejram S/o Laxman	Aghariya	Others								
718	447/2	0.428	0.428	Ram Prasad S/o Laxman	Aghariya	Others								
719	447/3	0.078	0.078	Ram Prasad S/o Laxman	Aghariya	Others								
720	447/4	0.117	0.117	Khem Kumar, Pitambar	Aghariya	Others								
721	448/1	0.873	0.873	Ramsai S/o Chhatarsingh	Kanwar	ST								
722	448/2	0.466	0.466	Roop Singh S/o Manbudh	Kanwar	ST								
723	449/1	0.142	0.142	Dhansingh, Salikram	Aghariya	Others								
724	449/2	0.672	0.672	Parasram S/o Salikram	Aghariya	Others								
725	449/3	0.190	0.190	Mahadeva,Ravsingh	Aghariya	Others								
726	449/4	0.162	0.162	Mannu S/o Rai Singh	Aghariya	Others								
727	449/5	0.073	0.073	Ghasiya, Ram Singh	Aghariya	Others								
728	449/5	0.182	0.182	Ghasiya, Ram Singh	Aghariya	Others								
729	450/1	0.138	0.138	Nathan, Khubchand	Aghariya	Others								
730	450/2	0.206	0.206	Dhansingh, Salikram	Aghariya	Others								
731	450/3	0.210	0.210	Bhikho S/o Shobha	Kanwal	Others								

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
732	450/4	0.105	0.105	Nikanth, S/o Kuber	Aghariya	Others								
733	450/5	0.097	0.097	Balmukund, Kirtan	Aghariya	Others								
734	450/6	0.098	0.098	Madan S/o Kuber	Aghariya	Others								
735	450/7	0.113	0.113	Shiv Kumar, Chain Shingh and others	Aghariya	Others								
736	450/8	0.138	0.138	Bharatlal , Khubchand	Aghariya	Others								
737	450/9	0.137	0.137	Trilochan , Khubchand	Aghariya	Others								
738	451/1	0.061	0.061	Buduram, Harihar	Gond	ST								
739	451/2	0.121	0.121	Buduram, Harihar	Gond	ST								
740	451/3	0.113	0.113	Munu Dau S/o Mangal	Gond	ST								
741	451/4	0.270	0.270	Munu Dau S/o Mangal	Gond	ST								
742	451/5	0.065	0.065	Rushi , Thandaram and others	Gond	ST								
743	451/6	0.347	0.347	Darshan Singh,S/o Chain Singh	Kanwar	ST								
744	452/1	0.451	0.451	Laxmi Lucu and others	Kanwar	ST								
745	452/2	0.450	0.450	Karam Singh S/o Bhagatram and others	Kanwar	ST								
746	453	0.231	0.231	Gopa, S/oChamara and others	Gand	ST								
747	454/1	0.061	0.061	Buduram, Harihar	Gond	ST								
748	454/2	0.219	0.219	Buduram, Harihar	Gond	ST								
749	454/3	0.105	0.105	Buduram, Harihar	Gond	ST								
750	454/4	0.105	0.105	Munu Dau S/o Mangal	Gond	ST								
751	454/5	0.202	0.202	Munu Dau S/o Mangal	Gond	ST								
752	454/6	0.121	0.121	Munu Dau S/o Mangal	Gond	ST								
753	454/7	0.061	0.061	Munu Dau S/o Mangal	Gond	ST								
754	454/8	0.097	0.097	Dindayal, Trilochan, Dubandhu, Trilochan	Kanwar	ST								
755	454/9	0.138	0.138	Dindayal S/o Trilochan and others	Kanwar	ST								
756	454/10	0.138	0.138	Chanda S/o Buchu	Kanwar	ST								
757	454/11	0.635	0.635	Chanda S/o Buchu	Kanwar	ST								
758	454/12	0.089	0.089	Rushi , Thandaram and others	Gond	ST								
759	454/13	0.138	0.138	Rushi , Thandaram and others	Gond	ST								
760	455/1	0.506	0.506	Ghasiya S/o Balbhadra	Kenvar	Others								
761	455/2	0.578	0.578	Harihar S/o Samaru	Kenvar	Others								
762	456	0.862	0.862	Adhiro W/o Ghasiram and others	Kanwar	ST								
763	457/1	0.890	0.890	Satyavadi, Trilochan	Teli	Others								
764	457/2	0.357	0.357	Chatru Singh, Trilochan	Kanwar	ST								
765	457/3	1.549	1.549	Ramji S/o Bhagwano	Aghariya	Others								
766	458	0.474	0.474	Jindal Steel & Pvt. Ltd Dinesh Kumar Bhargav, P.N.Bhargav										
767	459/1	0.150	0.150	Buduram, Harihar	Gond	ST								
768	459/2	0.154	0.154	Munu Dau S/o Mangal	Gond	ST								
769	459/3	0.259	0.259	Devmati, Sidar	Gond	ST								
770	460	1.092	1.092	Vikram, Lachhiram	Gada	ST								
771	461	0.804	0.804	Aanadram, Dhaniram and others	Kanwar	ST								
772	462	0.571	0.571	Karam Singh S/o Bhagatram and others	Kanwar	ST								
773	463	1.090	1.090	Sukhdev / Rampyari S/oKuriram, Hemant kumar and others	Ghasiya	Others								

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
774	464	0.295	0.295	Jaipal, Dayaram	Ravat	Others								
775	465	0.458	0.458	Laxmi kumar, Vidyadhar, and others	Gada	ST								
776	466	0.157	0.157	Laxmi kumar, Vidyadhar, and others	Gada	ST								
777	467	0.394	0.394	Sukhdev / Rampyari S/oKirtram, Hemant kumar and others	Ghasiya	Others								
778	468	0.384	0.384	Vikram, Lachhiram	Gada	ST								
779	469	1.582	1.582	Vikram, Lachhiram	Gada	ST								
780	470/1	0.421	0.421	Pitambar , Vishram S/o Gopal, Jalal, Jaipal S/o Dayaram and others	Ravat	Others								
781	470/2	0.137	0.137	Pa'singh, Sadhuram	Kanwar	ST								
782	470/3	0.035	0.035	Chatur Singh, Trilochan	Kanwar	ST								
783	470/4	0.035	0.035	Lalaram, Trilochan	Kanwar	ST								
784	470/5	0.034	0.034	Dandaval, Trilochan	Kanwar	ST								
785	470/6	0.024	0.024	Dunbandhu, Trilochan	Kanwar	ST								
786	471/1	1.254	1.254	Amrul S/o Atwalsingh and others	Ravat	Others								
787	471/2	0.809	0.809	Sundalal, Parival and others	Raval	Others								
788	472	0.676	0.676	Amrul S/o Atwalsingh and others	Ravat	Others								
789	473/1	0.016	0.016	Dhansingh, Sahkram	Aghariya	Others								
790	473/2	0.049	0.049	Parasram S/o Sahkram	Aghariya	Others								
791	473/3	0.064	0.064	Ghasiya, Ram Singh	Aghariya	Others								
792	474/1	0.105	0.105	Dhansingh, Sahkram	Aghariya	Others								
793	474/2	0.057	0.057	Parasram S/o Sahkram	Aghariya	Others								
794	474/3	0.057	0.057	Ghasiya, Ram Singh	Aghariya	Others								
795	475	0.129	0.129	Amrul S/o Atwalsingh and others	Ravat	Others								
796	476	0.656	0.656	Amrul S/o Atwalsingh and others	Ravat	Others								
797	477/2	2.865	2.865	Sundalal, Parival and others	Ravat	Others								
798	477/1	1.214	1.214	Amrul, Atvalsingh and others	Raval	Others								
799	478/1,479/1,479/3											1.214	1.214	Road
800	478/2,479/2492/2	1.040	1.040	Lalita Ram and others	Kanwar	ST								
801	480/1	1.526	1.526	Mangal singh, Kirtan and others	Ravat	Others								
802	480/2	0.251	0.251	Darshan Singh,S/o Chain Singh	Kanwar	ST								
803	481	0.571	0.571	Ujyar , Sadhram and others	Kanwar	ST								
804	482	0.765	0.765	Vanshidhar, Shushilla s/o Dhansingh and others	Kanwar	ST								
805	483/1	0.135	0.135	Madan S/o Kuber	Aghariya	Others								
806	483/2	0.091	0.091	Kathari, Khubchand	Aghariya	Others								
807	483/3	0.069	0.069	Balmukund, Kirtan	Aghariya	Others								
808	483/4	0.069	0.069	Shiv Kumar, Chain Singh and others	Aghariya	Others								
809	483/5	0.090	0.090	Bhoralal , Khubchand	Aghariya	Others								
810	483/6	0.090	0.090	Trilochan , Khubchand	Aghariya	Others								
811	484/1	0.607	0.607	Ramsai S/o Chhatarsingh	Kanwar	ST								
812	484/2	1.052	1.052	Roop Singh S/o Manhoda	Kanwar	ST								
813	485	0.765	0.765	Vinod Kumar, Bihari and others	Aghariya	Others								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
814	486/1	0.749	0.749	Satyavati, Trilochan	Teli	Others								
815	486/2	0.138	0.138	Asahu S/o Jagannath	Teli	Others								
816	486/3	0.510	0.510	Dhuru, Salikram	Teli	Others								
817	486/4	0.299	0.299	Bhurisarva, Jaganath	Teli	Others								
818	487/1	0.235	0.235	Adhir@W/o Ghasiram and others	Kanwar	ST								
819	487/2	0.235	0.235	Fulmati W/o Devnath and others	Kanvar	ST								
820	488	0.320	0.320	Fulmati , Devnath and others	Kanwar	ST								
821	489/1	0.093	0.093	Shiv Kumar, Chain Shingh and others	Aghariya	Others								
822	489/2	0.122	0.122	Narhari, Khubchand	Aghariya	Others								
823	489/3	0.089	0.089	Balmukund, Kirtan	Aghariya	Others								
824	489/4	0.182	0.182	Nikanth, S/o Kuber	Aghariya	Others								
825	489/5	0.121	0.121	Bharatlal , Khubchand	Aghariya	Others								
826	489/6	0.121	0.121	Trilochan , Khubchand	Aghariya	Others								
827	490	0.967	0.967	Pitambar S/o Gopal, and others	Rawat	Others								
828	491	1.858	1.858	Shobharam and others	Gond	ST								
829	492	0.809	0.809	Chaitan Prasad S/o Balmukund	Aghariya	Others								
830	493						0.405	0.405	Small Tree Forest					
831	494/1	0.190	0.190	Balmukund, Kirtan	Aghariya	Others								
832	494/2	0.146	0.146	Nikanth, S/o Kuber	Aghariya	Others								
833	494/3	0.190	0.190	Shiv Kumar, Chain Shingh and others	Aghariya	Others								
834	494/4	0.145	0.145	Madan S/o Kuber	Aghariya	Others								
835	495	2.031	2.031	Sundalal, Parival and others	Rawat	Others								
836	496	0.692	0.692	Ramlal, Tese and others	Kanwar	ST								
837	497/1	0.518	0.518	Bhojram, Ramprasad S/o Shoban	Kenvat	Others								
838	497/3	0.324	0.324	Amrul, Atval and others	Rawat	Others								
839	497/2	0.628	0.628	Amrul S/o Atwalsingh and others	Rawat	Others								
840	497/4	0.465	0.465	Jindal Powar Limited Tamnar Vivek Dau										
841	497/5	0.392	0.392	Harihar, Tilakram and others	Rawat	Others								
842	497/6	0.447	0.447	Bhojram, Ramprasad S/o Shoban	Kenvat	Others								
843	497/7	0.247	0.247	Jindal Powar Limited Tamnar Vivek Dau										
844	497/8	0.279	0.279	Harihar, Tilakram and others	Raval	Others								
845	498/1	0.020	0.020	Balmukund, Kirtan	Aghariya	Others								
846	498/2	0.288	0.288	Shiv Kumar, Chain Shingh and others	Aghariya	Others								
847	498/3	0.267	0.267	Balmukund, Kirtan	Aghariya	Others								
848	499	0.247	0.247	Sundalal, Parival and others	Rawat	Others								
849	500/1	0.648	0.648	Sundarlal, Parival and others	Rawat	Others								
850	500/2	0.309	0.309	Amrul S/o Atwalsingh and others	Rawat	Others								
851	501	0.312	0.312	Tejram Lochan	Aghariya	Others								
852	502	0.393	0.393	Virendkumar, Bharilal, Rakeshkumar,Bharilal and others	Aghariya	Others								
853	503/1	0.061	0.061	Venudhar, Mohan	Aghariya	Others								
854	503/2	0.494	0.494	Pitabar, Laxman	Aghariya	Others								
855	503/3	0.101	0.101	Pitabar, Laxman	Aghariya	Others								
856	504/1	0.558	0.558	Venudhar, Mohan	Aghariya	Others								
857	504/2	0.486	0.486	Pitabar, Laxman	Aghariya	Others								

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
858	504/3	0.182	0.182	Pitalwat, Laxman	Aghariya	Others								
859	505	0.129	0.129	Venudhar, Mohan	Aghariya	Others								
860	506/1	0.226	0.226	Buduram, Haribar	Gond	ST								
861	506/2	0.073	0.073	Buduram, Haribar	Gond	ST								
862	506/3	0.065	0.065	Buduram, Haribar	Gond	ST								
863	506/4	0.065	0.065	Buduram, Haribar	Gond	ST								
864	506/5	0.040	0.040	Buduram, Haribar	Gond	ST								
865	506/6	0.073	0.073	Munr Dau S/o Mangal	Gond	ST								
866	506/7	0.089	0.089	Munr Dau S/o Mangal	Gond	ST								
867	506/8	0.065	0.065	Munr Dau S/o Mangal	Gond	ST								
868	506/9	0.065	0.065	Munr Dau S/o Mangal	Gond	ST								
869	506/10	0.089	0.089	Munr Dau S/o Mangal	Gond	ST								
870	506/11	0.202	0.202	Chanda S/o Budeu	Kanwar	ST								
871	506/12	0.170	0.170	Rushi , Tramlaram and others	Gond	ST								
872	507	0.065	0.065	Venudhar, Mohan	Aghariya	Others								
873	508	0.113	0.113	Venudhar, Mohan	Aghariya	Others								
874	509/1	0.125	0.125	Buduram, Haribar	Gond	ST								
875	509/2	0.130	0.130	Chanda S/o Budeu	Kanwar	ST								
876	510/1 क	0.089	0.089	Bhurishrava, Jagannath	Teli	Others								
877	510/1 ख	0.283	0.283	Asahu S/o Jagannath	Teli	Others								
878	510/1 ग	0.060	0.060	Asahu S/o Jagannath	Teli	Others								
879	510/1 घ	0.227	0.227	Asahu S/o Jagannath	Teli	Others								
880	510/1 ङ	0.640	0.640	Dhuru, Salikram	Teli	Others								
881	510/1 च	0.040	0.040	Asahu S/o Jagannath	Teli	Others								
882	510/2,516 /2,548/2											0.137	0.137	Below Wate
883	511	0.709	0.709	Lilavati, ChandraShekhar	Aghariya	Others								
884	512/1	0.531	0.531	Savitri W/o Gangadhar	Teli	Others								
885	512/2	0.174	0.174	Ramlal, Thandaram and others	Kanwar	ST								
886	512/3	0.267	0.267	ChandraShekhar, Janakram and others	Teli	Others								
887	513	0.287	0.287	Lilavati, ChandraShekhar	Aghariya	Others								
888	514	0.142	0.142	Lilavati, ChandraShekhar	Aghariya	Others								
889	515/1	0.053	0.053	Jagatram, Dukhiram	Kenvat	Others								
890	515/2	0.142	0.142	Ramlal, Tetu	Uraiv	ST								
891	515/3	0.194	0.194	Bhojram Padman	Kenvat	Others								
892	515/4	0.178	0.178	Jagatram, Dukhiram	Kenvat	Others								
893	516/1	0.206	0.206	Lilavati, ChandraShekhar	Aghariya	Others								
894	517/1	0.142	0.142	Mangal singh, Kirtan and others	Rawat	Others								
895	517/2	0.146	0.146	Kuman W/o Bhojram	kenvat	Others								
896	517/3	0.251	0.251	Mangal singh, Kirtan and others	Rawat	Others								
897	517/4	0.186	0.186	Kuman W/o Bhojram	kenvat	Others								
898	518	0.256	0.356	Viram, Lachhiram	Gada	ST								
899	519	0.097	0.097	ChadraSikhar, Ramprasad	Aghariya	Others								
900	520/1	0.421	0.421	ChadraSikhar, Ramprasad	Aghariya	Others								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
901	520/2 a	0.041	0.041	Khemkumar, Pitambar	Aghariya	Others								
902	520/2 b	0.241	0.241	Tejram S/o Laxman	Aghariya	Others								
903	520/3	0.138	0.138	Chandramani, Ramprasad	Aghariya	Others								
904	520/4	0.532	0.532	Sanatan, Laxman	Aghariya	Others								
905	520/5	0.263	0.263	Ram Prasad S/o Laxman	Aghariya	Others								
906	520/6	0.061	0.061	Khem Kumar, Pitambar	Aghariya	Others								
907	520/7	0.344	0.344	Pancharam S/o Laxman	Aghariya	Others								
908	521/1	0.060	0.060	Sanatan, Laxman	Aghariya	Others								
909	521/2	0.053	0.053	Pancharam S/o Laxman	Aghariya	Others								
910	522/1	0.158	0.158	Pancharam S/o Laxman	Aghariya	Others								
911	522/2	0.081	0.081	Pancharam S/o Laxman	Aghariya	Others								
912	523	0.116	0.116	Sundalal, Parjval and others	Ravat	Others								
913	524/1	0.639	0.639	Chandramani, Ramprasad	Aghariya	Others								
914	524/2											0.061	0.061	Road
915	524/3	0.526	0.526	Lal Kumar, Ramprasad	Aghariya	Others								
916	524/4	0.089	0.089	ChandraShekhar, Ramprasad	Aghariya	Others								
917	524/5	0.304	0.304	Ramprasad, Laxman	Aghariya	Others								
918	524/6	0.607	0.607	Fakirchand, Ramprasad	Aghariya	Others								
919	525	0.324	0.324	Ramprasad, Laxman	Aghariya	Others								
920	526											0.125	0.121	Road
921	527/1	0.248	0.248	Ramprasad, Laxman	Aghariya	Others								
922	527/2	0.036	0.036	Ramprasad, Laxman	Aghariya	Others								
923	527/3	0.141	0.141	ChandraShekhar, Ramprasad	Aghariya	Others								
924	527/4	0.061	0.061	Lal Kumar Ramprasad	Aghariya	Others								
925	527/5	0.040	0.040	Fakirchand, Ramprasad	Aghariya	Others								
926	528											0.202	0.202	Grass
927	529/1	0.120	0.120	Lal Kumar Ramprasad	Aghariya	Others								
928	529/2	0.089	0.089	Fakirchand, Ramprasad	Aghariya	Others								
929	529/3	0.129	0.129	Lal Kumar Ramprasad	Aghariya	Others								
930	529/4	0.129	0.129	Fakirchand, Ramprasad	Aghariya	Others								
931	529/5	0.129	0.129	Chandramani, Ramprasad	Aghariya	Others								
932	529/6	0.121	0.121	ChadraShikhar, Ramprasad	Aghariya	Others								
933	530/1	1.433	1.433	Amrut, Atvansingh and others	Ravat	Others								
934	530/2	0.085	0.085	Chandramani, Ramprasad	Aghariya	Others								
935	530/3	0.227	0.227	Shyawadi,	Teli	Others								
936	530/4	0.251	0.251	Satyawadi, Tribohan	Teli	Others								
937	530/5	0.073	0.073	Fakirchand, Ramprasad	Aghariya	Others								
938	530/6	0.085	0.085	Lal Kumar Ramprasad	Aghariya	Others								
939	531	0.364	0.364	Shobharam and others	Gond	ST								
940	532	0.283	0.283	Shobheram, Jaipal, Gopal, Chamara and others	Gond	ST								
941	533/1	0.089	0.089	Suksav, Lalaram	Uraav	ST								
942	533/2	0.162	0.162	Yoluskankar, Bahddur, Samari and others	Gond	ST								
943	534/1	0.202	0.202	Amrut S/o Atvalsingh and others	Ravat	Others								
944	534/2	0.858	0.858	Sundalal, Parjval and others	Ravat	Others								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
945	534/3	0.340	0.340	Komal, Visambhar and others	Rawat	Others								
946	534/4	0.405	0.405	Kuman W/o Bhojram	kenvat	Others								
947	535/1	0.182	0.182	Sahodra W/o Maheshram	Kanwat	ST								
948	535/2	0.433	0.433	Bhurishrava, Jaganath	Teli	Others								
949	536/1	0.769	0.769	Pitambar S/o Gopal and others	Rawat	Others								
950	537	0.259	0.259	Bhurishrava, Jaganath	Teli	Others								
951	538/1	0.121	0.121	Bnduram, Hariha	Gund	ST								
952	538/2	0.089	0.089	Munn Dan S/o Mangal	Gund	ST								
953	538/3	0.226	0.226	Rushi , Thandaram and others	Gund	ST								
954	538/4	0.194	0.194	Rushi, Thandaram and others	Gund	ST								
955	539	0.210	0.210	Bhojram, Ramprasad S/o Shohan	kenvat	Others								
956	540	0.113	0.113	Sohan S/o Dukhiram and others	Kenvat	Others								
957	541	0.583	0.583	Sohan S/o Dukhiram and others	Kenvat	Others								
958	542	0.413	0.413	Pitambar S/o Gopal and others	Rawat	Others								
959	543	0.308	0.308	Pitambar, Gopal and others	Rawat	Others								
960	544	0.425	0.425	Sundalal, Parivel and others	Rawat	Others								
961	545/1	0.106	0.106	ChadraShekhar, Ramprasad	Aghariya	Others								
962	545/2	0.105	0.105	Chandramani, Ramprasad	Aghariya	Others								
963	545/3	0.105	0.105	Fakirchand, Ramprasad	Aghariya	Others								
964	545/4	0.105	0.105	Lal Kumar Ramprasad	Aghariya	Others								
965	546/1	0.202	0.202	Loknath Laxmuprasadm and others	Teli	Others								
966	546/2	0.195	0.195	Hemsagar, Laxmiprasad and others	Teli	Others								
967	547/1	0.388	0.388	Manohar, Bahumani,Ramlal S/o Mohan	Teli	Others								
968	547/2	0.193	0.193	Netranand, Laxmiprasad and others	Teli	Others								
969	547/3	0.965	0.965	Loknath, Laxmuprasadm and others	Teli	Others								
970	547/4	0.065	0.065	Hemsagar, Laxmiprasad and others	Teli	Others								
971	547/5	0.065	0.065	Netranand, Laxmiprasad and others	Teli	Others								
972	548/1 क	2.622	2.622	Mangal singh, Kirtan and others	Rawat	Others								
973	548/1 ख	0.242	0.242	Devarchan, Padman	Kenvat	Others								
974	548/1 ग	0.166	0.166	Vidyadhar, Bhikhari S/o Parasram	Teli	Others								
975	548/1 घ	0.648	0.648	Rameheran S/o Dhaneshwar	Rawat	Others								
976	548/1 ङ	0.324	0.324	Kumari W/o Bhojram	kenvat	Others								
977	549	0.437	0.437	Bhojram Padman	Kenvat	Others								
978	550/1						0.477	0.477	Small Tree Forest					
979	550/2	0.405	0.405	Amarsay S/o Atvalsingh	Rawat	Others								
980	550/3	0.607	0.607	Bhichanlal, Parasram	Teli	Others								
981	551	0.320	0.320	Sundalal, Parival and others	Rawat	Others								
982	552											1.331	1.331	Road
983	553/1	0.184	0.184	Jindal Powar Limited Tamnar Vivek Dau										
984	553/2	0.184	0.184	Hamhar, Tilakram and others	Rawat	Others								
985	554						1.442	1.442	Small Tree Forest					
986	555	0.336	0.336	Sunau, Mangalu	Gada	ST								
987	556/1	0.121	0.121	Sunau, Mangalu	Gada	ST								
988	556/2	0.527	0.527	Kamalsay, Chamarsingh and others	Gada	ST								

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
989	557/1 [illegible]	0.150	0.150	Sunau, Mangalu	Gada	ST									
990	557/2 [illegible]	0.149	0.149	Kamalsay, Cvamarsingh and others	Gada	ST									
991	558						0.837	0.837	Small Tree Forest						
992	559 [illegible]	0.295	0.295	Jindal Powar Limited , Vivek Dau and others											
993	560/1 [illegible]	0.303	0.303	Madan S/o Kuber	Aghariya	Others									
994	560/2 [illegible]	0.069	0.069	Sunau, Mangalu	Gada	ST									
995	560/3 [illegible]	0.401	0.401	Balmikand, Kartan	Aghariya	Others									
996	560/4	0.402	0.402	Shiv Kumar, Cham Shingh and others	Aghariya	Others									
997	560/5	0.304	0.304	Nikunth, S/o Kuber	Aghariya	Others									
998	561	0.530	0.530	Asahu, Bhanishrava S/o Kajuram	Teli	Others									
999	562/1	0.231	0.231	Pitambar S/o Gopal and others	Ravat	Others									
1000	562/2	0.162	0.162	Asahu S/o Kumaram and others	Teli	Others									
1001	563	0.409	0.409	Mangal and others	Kanwar	ST									
1002	564	0.878	0.878	Pitamba S/o Gopal and others	Ravat	Others									
1003	565/1 क	0.497	0.497	Chhattar Lal, Gangadhar and others	Kalar	Others									
1004	565/1 ख	0.065	0.065	Chhattar Lal, Gangadhar	Kalar	Others									
1005	565/1 ग	0.101	0.101	Budharam, Balaram and others	Uranv	ST									
1006	565/1 घ	0.138	0.138	Hanhar, Tilakram and others	Ravat	Others									
1007	565/1 ङ	0.091	0.091	Budharam, Balaram and others	Uranv	ST									
1008	565/2 क ,566/1,567/1 क	0.117	0.117	Harjhar, Tilakram and others	Ravat	Others									
1009	565/2 ख ,566/2,567/2 ख	0.160	0.160	Chhattar Lal, Gangadhar	Kalar	Others									
1010	565/2 ग ,566/3,567/2 ग	0.163	0.163	Budharam, Balaram and others	Uranv	ST									
1011	565/2 घ ,566/4,567/2 घ	0.248	0.248	Hanhar, Tilakram and others	Ravat	Others									
1012	565/2 ङ ,566/5,567/2 ङ	0.168	0.168	Budharam, Balaram and others	Uranv	ST									
1013	565/2 च , 566/6, 567/2 च	0.214	0.214	Chhattarlal, Gangadhar	Kalar	Others									
1014	567/1 क	0.085	0.085	Chhattarlal, Gangadhar	Kalar	Others									
1015	567/1 ख	0.197	0.197	Jindal Powar Limited Tamnar Vivek Dau											
1016	567/1 ग	0.061	0.061	Chhattarlal, Gangadhar	Kalar	Others									
1017	567/1 घ	0.166	0.166	Chhattarlal, Gangadhar	Kalar	Others									
1018	567/1 ङ	0.485	0.485	Budharam, Balaram and others	Uranv	ST									
1019	567/1 च	0.057	0.057	Chhattarlal, Gangadhar	Kalar	Others									
1020	567/1 छ	0.049	0.049	Jindal Powar Limited Tamnar Vivek Dau											

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1021	568/1	0.033	0.033	Chhattarlal, Gangadhar	Kalar	Others								
1022	568/1	0.093	0.093	Jindal Powar Limited Tamnar Vivek Dau										
1023	568/2	0.028	0.028	Harihar, Tilakram and others	Rawat	Others								
1024	568/3	0.098	0.098	Harihar, Tilakram and others	Rawat	Others								
1025	568/4	0.965	0.965	Budharam, Balaram and others	Uraov	ST								
1026	568/5	0.166	0.166	Budharam, Balaram and others	Uraov	ST								
1027	568/6	0.053	0.053	Harihar, Tilakram and others	Rawat	Others								
1028	569	0.040	0.040	Harihar, Tilakram and others	Rawat	Others								
1029	570/1	0.097	0.097	Harihar, Tilakram and others	Rawat	Others								
1030	570/2	0.210	0.210	Budharam, Balaram and others	Uraov	ST								
1031	570/3	0.786	0.786	Harihar, Tilakram and others	Rawat	Others								
1032	570/4	0.328	0.328	Bhojram, Shuhan	Kenvat	Others								
1033	570/5	0.081	0.081	Harihar, Tilakram and others	Rawat	Others								
1034	571/1	0.304	0.304	Harihar, Tilakram and others	Rawat	Others								
1035	571/2	0.214	0.214	Bhojram, Shadhu	Kenvat	Others								
1036	571/3	0.105	0.105	Harihar, Tilakram and others	Rawat	Others								
1037	571/4	0.065	0.065	Harihar, Tilakram and others	Rawat	Others								
1038	571/5	0.065	0.065	Bhojram Padman	Kenvat	Others								
1039	571/6	0.481	0.481	Harihar, Tilakram and others	Rawat	Others								
1040	571/7	0.105	0.105	Harihar, Tilakram and others	Rawat	Others								
1041	571/8	0.243	0.243	Jindal Powar Limited Tamnar Vivek Dau										
1042	571/9	0.251	0.251	Bhagwatlal, Asahu	Teli	Others								
1043	572/1	0.125	0.125	Jindal Powar Limited Tamnar Vivek Dau										
1044	572/2	0.170	0.170	Harihar, Tilakram and others	Rawat	Others								
1045	572/3	0.348	0.348	Jindal Powar Limited Tamnar Vivek Dau										
1046	572/4	0.320	0.320	Harihar, Tilakram and others	Rawat	Others								
1047	572/5	0.102	0.102	Jindal Powar Limited Tamnar Vivek Dau										
1048	572/6	0.498	0.498	Harihar, Tilakram and others	Rawat	Others								
1049	572/7	0.040	0.040	Jindal Powar Limited Tamnar Vivek Dau										
1050	572/8	0.125	0.125	Harihar, Tilakram and others	Rawat	Others								
1051	572/9	0.344	0.344	Bhagwatlal, Asahu	Teli	Others								
1052	572/10	0.206	0.206	Jindal Powar Limited Tamnar Vivek Dau										
1053	573/1	1.807	1.807	Sundalal, Parsvel and others	Rawat	Others								
1054	573/2	0.180	0.180	Pushpa W/o Devarchan	Kenvat	Others								
1055	574/1	0.956	0.956	Sundarlal and others	Rawat	Others								
1056	574/2	0.225	0.225	Pushpa W/o Devarchan	Kenvat	Others								
1057	575/1	0.142	0.142	Rupdhar, Ghanshyam, Janki, Chitraba	Kenvat	Others								
1058	575/2	0.036	0.036	Devarchan, Padman	Kenvat	Others								
1059	575/3	0.016	0.016	Ushitram, Hiralal and others	Kenvat	Others								
1060	576/6	0.081	0.081	Jagatram, Dukhiram	Kenvat	Others								
1061	576/2	0.044	0.044	Ajulya S/o Salikram	Rawat	Others								
1062	576/3	0.060	0.060	Jagatram, Dukhiram	Kenvat	Others								
1063	577/1	0.077	0.077	Ushitram, Hiralal and others	Kenvat	Others								
1064	577/2	0.024	0.024	Bhojram Padman	Kenvat	Others								

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
1065	577/3	0.089	0.089	Damudhr, Kashiram	Kenvat	Others									
1066	578/1	0.152	0.152	Gitasiya S/o Balbhadra	Kenvat	Others									
1067	578/2	0.152	0.152	Hardhar S/o Samaru	Kenvat	Others									
1068	579/1	0.178	0.178	Jindal Powar Limited Tamnar Vivek Dau											
1069	579/2	0.178	0.178	Harihar, Tilakram and others	Rawat	Others									
1070	580/1	0.202	0.202	Santram, Nanki	Gada	ST									
1071	580/2	0.172	0.172	Santram, Nanki	Gada	ST									
1072	580/3	0.182	0.182	Parasram, Salikram	Teli	Others									
1073	581	0.223	0.223	Parasram, Salikram	Teli	Others									
1074	582/1	0.190	0.190	Hardhar, Tilakram and others	Rawat	Others									
1075	582/2	0.126	0.126	Jindal Powar Limited Tamnar Vivek Dau											
1076	582/3	0.049	0.049	Bhagirathi, Asahu	Teli	Others									
1077	582/4	0.016	0.016	Harihar, Tilakram and others	Rawat	Others									
1078	582/5	0.125	0.125	Bhojram Padman	Kenvat	Others									
1079	583	0.777	0.777	Vikram, Lachhiram	Gada	ST									
1080	584/1	0.057	0.057	Harihar, Tilakram and others	Rawat	Others									
1081	584/2	0.098	0.098	Bhojram Padman	Kenvat	Others									
1082	584/3	0.105	0.105	Harihar, Tilakram and others	Rawat	Others									
1083	584/4	0.097	0.097	Bhagwathi, Asahu	Teli	Others									
1084	584/5	0.049	0.049	Harihar, Tilakram and others	Rawat	Others									
1085	584/6	0.024	0.024	Bhojram Padman	Kenvat	Others									
1086	584/7	0.040	0.040	Bhagirathi, Asahu	Teli	Others									
1087	585/1	0.089	0.089	Harihar, Tilakram and others	Rawat	Others									
1088	585/2	0.210	0.210	Amojram S/o Sudhe	Kenvat	Others									
1089	585/3	0.089	0.089	Bhojram Padman	Kenvat	Others									
1090	586	0.603	0.603	Asahu, Kunu / Jagannath	Teli	Others									
1091	587	0.603	0.603	Santuram, Nanki	Gada	ST									
1092	588	0.291	0.291	Santram, Raghumani	Kenvat	Others									
1093	589	0.134	0.134	Asahu, Kunu / Jagannath	Teli	Others									
1094	590	0.534	0.534	Asahu, Kunu / Jagannath	Teli	Others									
1095	591	0.397	0.397	Ramlal, Thandaram and others	Kanwar	ST									
1096	592/1	0.036	0.036	Balmukund, Kirtan	Aghariya	Others									
1097	592/2	0.113	0.113	Jindal Powar Limited Tamnar Dinesh Kumar Bhargav											
1098	592/3	0.032	0.032	Shiv Kumar, Chain Singh and others	Aghariya	Others									
1099	592/4	0.034	0.034	Madan S/o Kuber	Aghariya	Others									
1100	592/5	0.032	0.032	Nikanth, S/o Kuber	Aghariya	Others									
1101	593	0.472	0.472	Jindal Powar Limid Tamnar Vivek Dau B.M.Dau											
1102	594	0.336	0.336	Asahu, Kunu / Jagannath	Teli	Others									
1103	595/1	0.182	0.182	Tejram Lochan	Aghariya	Others									
1104	595/2	0.182	0.182	Purnanand, S/o Sanatan	Aghariya	Others									
1105	595/3	0.182	0.182	Bihari S/o Gulabsingh, Devmati W/o Gulabsingh	Aghariya	Others									
1106	595/4	0.182	0.182	Pancharam S/o Laxman	Aghariya	Others									
1107	595/5	0.182	0.182	Pitnbar, Laxman	Aghariya	Others									
1108	596											0.413	0.413	Road	

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1109	597/1 क ,597/2 क	0.368	0.368	Pitambar, Laxman	Aghariya	Others								
1110	597/1 ख ,597/2 ख	0.372	0.372	Tejram Lochan	Aghariya	Others								
1111	597/1 ग ,597/2 ग	0.368	0.368	Bihari, Gokal Singh, and others	Aghariya	Others								
1112	597/1 घ ,597/2 घ	0.368	0.368	Purnanand, S/o Sanatan	Aghariya	Others								
1113	597/1 ङ ,597/2 ङ	0.368	0.368	Pancharam S/o Laxman	Aghariya	Others								
1114	598/1	0.700	0.700	Chaavi S/o Jhagaru	Oraon	ST								
1115	598/2	0.405	0.405	Jagatram, Dukhuram	Kanwat	Others								
1116	598/3	0.202	0.202	Jagatram, Dukhuram	Kanwat	Others								
1117	599	0.283	0.283	Jindal Powar Limited Tamnar Vivek Dau										
1118	600/1	0.343	0.343	Pitambar, Gopal and others	Rawat	Others								
1119	600/2	0.344	0.344	Gadaram, Kunjram	Rawat	Others								
1120	600/3	0.340	0.340	Jindal Powar Limited Tamnar Vivek Dau										
1121	600/4	0.300	0.300	Jindal Powar Limited Tamnar Vivek Dau										
1122	601	0.085	0.085	Jindal Powar Limited Tamnar Vivek Dau										
1123	602/1	0.198	0.198	Jindal Powar Limited Tamnar Vivek Dau										
1124	602/2	0.129	0.129	Chitrasen, Harihar	Rawat	Others								
1125	602/3	0.324	0.324	Setkumar S/o Mehattar, Mahattar S/o Jahirsingh	Rawat	Others								
1126	602/4	0.115	0.115	Setkumar , Mehattar,	Rawat	Others								
1127	602/5	0.195	0.195	Jindal Powar Limited Tamnar Vivek Dau										
1128	603/1	0.060	0.060	Jindal Powar Limited Tamnar Vivek Dau										
1129	603/2	0.405	0.405	Jindal Powar Limited Tamnar Vivek Dau										
1130	603/3	0.316	0.316	Jindal Powar Limited Tamnar Vivek Dau										
1131	604, 606/2 क	0.809	0.809	Kartikram, Anantram	Mali	ST								
1132	604, 606/2 ख	0.202	0.202	Amit, Sawarmal S/o Charanjiv Singh	Khatri	Others								
1133	605/1	0.749	0.749	Jindal Powar Limited Tamnar Vivek Dau										
1134	605/2	0.206	0.206	Jindal Powar Limited Tamnar Vivek Dau										
1135	606/1	0.947	0.947	Anantram, Bachiya	Garda	ST								
1136	606/3	0.450	0.450	Kartikram, Anantram	Mali	ST								
1137	606/4	0.454	0.454	Tejram, Raghu	Rawat	Others								
1138	607	1.100	1.100	Jindal Powar Limited Tamnar Vivek Dau										
1139	608	0.316	0.316	Jindal Powar Limited Tamnar Vivek Dau										
1140	609	0.101	0.101	Sundalal, Parwal and others	Rawat	Others								
1141	610	0.421	0.421	Sundalal, Parwal and others	Rawat	Others								
1142	611/1	0.250	0.250	Jindal Powar Limited Tamnar Vivek Dau										
1143	611/2	0.324	0.324	Jindal Powar Limited Tamnar Vivek Dau										
1144	611/3, 613/2	3.036	3.036	Jindal Powar Limited Tamnar Vivek Dau										

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1145	611/4	0.227	0.227	Sirmati, Tularam	Rawat	Others								
1146	611/5	0.194	0.194	Jindal Powar Limited Tamnar Vivek Dau										
1147	611/6	0.146	0.146	Sirmati, Tularam	Rawat	Others								
1148	612/1	0.142	0.142	Pushpa W/o Devarchan	Kenvat	Others								
1149	612/2	0.024	0.024	Sirmati, Tularam	Rawat	Others								
1150	613/1	1.088	1.088	Sundalal, Parival and others	Rawat	Others								
1151	614/1	0.243	0.243	Jindal Powar Limited Tamnar Vivek Dau										
1152	614/2	0.040	0.040	Jindal Powar Limited Tamnar Vivek Dau										
1153	615	0.150	0.150	Jindal Powar Limited Tamnar Vivek Dau										
1154	616/2	0.346	0.346	Damrudhr, Kashuram	Kenvat	Others								
1155	616/3	0.093	0.093	Jindal Powar Limited Tamnar Dinesh Kumar Bhargav										
1156	616/4	0.259	0.259	Rupdhar, Manbodh and others	Kenvat	Others								
1157	616/5	0.097	0.097	Devarchan, Padman	Kenvat	Others								
1158	617/1	0.057	0.057	Ghasiya S/o Balbhadra	Kenvat	Others								
1159	617/2	0.060	0.060	Haribar S/o Samaru	Kenvat	Others								
1160	618/1	0.051	0.051	Bhojram Padman	Kenvat	Others								
1161	618/2	0.154	0.154	Jindal Powar Limited Tamnar Dinesh Kumar Bhargav										
1162	618/3	0.057	0.057	Devarchan, Padman	Kenvat	Others								
1163	619/1	0.316	0.316	Santram, Raghumani	Kenvat	Others								
1164	619/2	0.079	0.079	Narsigh, Sudhe	Kenvat	Others								
1165	619/3	0.079	0.079	Anoojram S/o Sudhe	Kenvat	Others								
1166	619/4	0.079	0.079	Pitamnat, Sudhe	Kenvat	Others								
1167	619/5	0.069	0.069	Girdhari S/o Sudheram	Kenvat	Others								
1168	620/1	0.077	0.077	Anoojram S/o Sudhe	Kenvat	Others								
1169	620/2	0.053	0.053	Rameshwar, Sahdev	Kenvat	Others								
1170	620/3	0.068	0.068	Khageshwar, Sahdev	Kenvat	Others								
1171	620/4	0.057	0.057	Upasram, Sahdev	Kenvat	Others								
1172	620/5	0.080	0.080	Narsigh, Sudhe	Kenvat	Others								
1173	620/6	0.081	0.081	Nilambar, Sudhe	Kenvat	Others								
1174	620/7	0.077	0.077	Girdhari S/o Sudheram	Kenvat	Others								
1175	621	0.918	0.918	Jaipa., Dayaram	Rawat	Others								
1176	622/1	0.170	0.170	Ghasiya S/o Balbhadra	Kenvat	Others								
1177	622/2	0.166	0.166	Haribar S/o Samaru	Kenvat	Others								
1178	623	1.173	1.173	Vikram, Lachhuram	Gada	ST								
1179	624/1 क	0.454	0.454	Sundarlal and others	Rawat	Others								
1180	624/1 ख	1.307	1.307	Ajaykumar S/o Ramkumar										
1181	624/2, 625	0.384	0.384	Jindal Powar Limited Tamnar Vivek Dau										
1182	626	0.652	0.652	Jindal Powar Limited Tamnar Vivek Dau										
1183	627/1 क, 637/1 ख						8.429	8.429	Small Tree Forest					
1184	627/1 ख, 631/3 क						0.405	0.405	Small Tree Forest					

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
1185	627/4 ग, 631/3 ख	0.202	0.202	Tejram, Raghu	Rawat	Others									
1186	627/2, 630/2, 631/2	0.603	0.603	Jindal Powar Limited Tamnar Vivek Dau											
1187	627/4, 630/4, 631/4	0.049	0.049	Dukhani S/o Ganjaha	Gada	ST									
1188	627/3									1.214	1.214				
1189	628/1								Forest Compartment						
1190	628/2								Forest Compartment						
1191	629/1 ब, 630/1 ब						2.509	2.509	Small Tree Forest						
1192	629/1 क, 630/3 ख						0.607	0.607	Small Tree Forest						
1193	629/2, 630/2	0.688	0.688	Koki W/o Samaru and others	Oraov	ST									
1194	631/1 ब	0.093	0.093	Damrudhr, Kashuram	Kenwat	Others									
1195	631/1 ख	0.049	0.049	Ushtram, Hiralal and others	Kenwat	Others									
1196	631/1 ग	0.142	0.142	Rupdhar, Manbodh and others	Kenwat	Others									
1197	631/1 घ	0.166	0.166	Devarchan, Padman	Kenwat	Others									
1198	631/1 ङ	0.135	0.135	Damrudhr, Kashuram	Kenwat	Others									
1199	632	0.150	0.150	Pitambar, Gopal and others	Rawat	Others									
1200	633	0.109	0.109	Haldhar, Santram	Kenwat	Others									
1201	634/1	1.445	1.445	Sundarlal, Parwal and others	Rawat	Others									
1202	634/2	0.020	0.020	Rajkumar, Anuri kuwar S/o Mohan and others	kenwat	Others									
1203	634/3	0.116	0.116	Khageshwar, Rameshwar, Asram S/o Sahdev	Kenwat	Others									
1204	634/4	0.142	0.142	Bhikho S/o Shobharam and others	Kenwat	Others									
1205	634/5	0.005	0.005	Ghasiya S/o Balshadra	kenwat	Others									
1206	634/6	0.142	0.142	Komal, Visambhar and others	Rawat	Others									
1207	634/7	0.121	0.121	Sohan S/o Dukharam and others	Kenwat	Others									
1208	635											0.466	0.466	Road	
1209	636/1	0.247	0.247	Sahodra W/o Maheshram	Kanwar	ST									
1210	636/2	0.247	0.247	Ramcharan, Chandra Shekhar	Rawat	Others									
1211	637	0.073	0.073	Jindal Powar Limited Tamnar Vivek Dau											
1212	638	0.036	0.036	Pitambar S/o Gopal and others	Rawat	Others									
1213	639/1	0.073	0.073	Amrul S/o Atwalsingh and others	Rawat	Others									
1214	639/2	0.218	0.218	Kriparam, Mannulal S/o Ramratan	Rawat	Others									
1215	640	0.194	0.194	Ramprasad, Laxman	Agnariya	Others									
1216	641/1	0.083	0.083	Surendra kumar S/o Chakrawand	Teli	Others									
1217	641/2	0.089	0.089	Chandra Shekhar, Jarakram	Agnariya	Others									
1218	641/3	0.077	0.077	Bhikhardal, Parasram	Teli	Others									
1219	642									6.030	6.030				
1220	643	3.861	3.861	Buduram, Hathar and others	Gond	ST									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
1221	645/1	0.138	0.138	Buduram, Harihar	Gond	ST									
1222	645/2	0.032	0.032	Buduram, Harihar	Gond	ST									
1223	645/3	0.162	0.162	Munu Dau S/o Mangal	Gond	ST									
1224	645/4	0.036	0.036	Munu Dau S/o Mangal	Gond	ST									
1225	646/1	0.016	0.016	Buduram, Harihar	Gond	ST									
1226	646/2	0.129	0.129	Buduram, Harihar	Gond	ST									
1227	646/3	0.016	0.016	Munu Dau S/o Mangal	Gond	ST									
1228	646/4	0.097	0.097	Munu Dau S/o Mangal	Gond	ST									
1229	646/5	0.121	0.121	Chanda S/o Budhu	Kanwar	ST									
1230	646/6	0.121	0.121	Rushi , Thandaram and others	Gond	ST									
1231	647/1	0.186	0.186	Manohar, Babumani,Ramlal S/o Mohan	Teli	Others									
1232	647/2	0.125	0.125	Manohar S/o Mohan	Teli	Others									
1233	647/3 क	0.069	0.069	Netranand, Laxmiprasad and others	Teli	Others									
1234	647/3 ख	0.069	0.069	Hemsagar, Laxmi Prasad and others	Teli	Others									
1235	647/3 ग	0.064	0.064	Loknath, Laxmiprasadm and others	Teli	Others									
1236	647/4 क	0.065	0.065	Loknath, Laxmiprasadm and others	Teli	Others									
1237	647/4 ख	0.065	0.065	Hemsagar, Laxmi Prasad and others	Teli	Others									
1238	647/4 ग	0.396	0.396	Netranand, Laxmiprasad and others	Teli	Others									
1239	647/5	1.426	1.424	Manohar, Babumani,Ramlal S/o Mohan	Teli	Others									
1240	647/6	0.227	0.227	Netranand, Laxmiprasad and others	Teli	Others									
1241	647/7	0.049	0.049	Netranand, Laxmiprasad and others	Teli	Others									
1242	647/8	0.178	0.178	Rajiv Lochan, Daulatram	Teli	Others									
1243	647/9	0.344	0.344	Rajiv Lochan, Daulatram	Teli	Others									
1244	647/10	0.202	0.202	Chandan, Kalindar	Teli	Others									
1245	647/11	0.243	0.243	Bodhan S/o Gunanidhi	Teli	Others									
1246	647/12	0.061	0.061	Rajiv Lochan, Daulatram	Teli	Others									
1247	648											0.101	0.101	Below Wala	
1248	649/1, 656/1	1.214	1.214	Manohar S/o Mohan	Teli	Others									
1249	649/2 क ,656/2 क	0.139	0.139	Hemsagar, Laxmi Prasad and others	Teli	Others									
1250	649/2 ख ,656/2 ख	0.225	0.225	Loknath, Laxmiprasadm and others	Teli	Others									
1251	649/3 क ,656/3 क	0.132	0.132	Netranand, Laxmiprasad and others	Teli	Others									
1252	649/3 ख ,656/3 ख	0.232	0.232	Loknath, Laxmiprasadm and others	Teli	Others									
1253	649/4 क ,656/4 क	0.048	0.048	Netranand, Laxmiprasad and others	Teli	Others									
1254	649/4 ख ,656/4 ख	0.073	0.073	Hemsagar, Laxmi Prasad and others	Teli	Others									
1255	649/4 ग ,656/4 ग	0.093	0.093	Netranand, Laxmiprasad and others	Teli	Others									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
1256	649/4 क, 656/4 क	0.069	0.069	Loknath, Laxmiprasadm and others	Teli	Others									
1257	649/5, 655/5	0.040	0.040	Ranv Lochan, Daulatram	Teli	Others									
1258	649/6, 656/6	0.162	0.162	Bairmukund, Kartan	Aghariya	Others									
1259	649/7, 656/7	0.425	0.425	Bodhan S/o Gunanidhi	Teli	Others									
1260	649/8, 656/8	0.182	0.182	Shiv Kumar, Cham Shingh and others	Aghariya	Others									
1261	650, 651, 656/2	0.551	0.501	Purnanand, Sanatan	Aghariya	Others									
1262	652, 655/2	0.311	0.013	Sanatan and others	Aghariya	Others									
1263	654, 656/3	0.097	0.049	Damrudhr, Kashiram	Kenvat	Others									
1264	655/1 क	0.101	0.049	Chitrasen, Dharamsingh	Kanwar	ST									
1265	655/1 ख	0.216	0.055	Jeglal, Chhattar and others	Kanwar	ST									
1266	655/1 ग	0.053	0.049	Devsingh.Tilakram	Kanwar	ST									
1267	655/1 घ	0.219	0.049	Gautiya S/o Tilakram	Kanwar	ST									
1268	655/1 ङ	0.182	0.049	Gautiya S/o Tilakram	Kanwar	ST									
1269	655/1 च	0.352	0.049	Chitrasen S/o Dharamsingh	Kanwar	ST									
1270	655/1 छ	0.254	0.049	Gautiya S/o Tilakram	Kanwar	ST									
1271	655/1 ज	0.053	0.049	Chitrasen, Dharamsingh	Kanwar	ST									
1272	655/1 झ	0.053	0.049	Jaglal S/o Chhatar	Kanwat	ST									
1273	655/1 ञ	0.053	0.049	Amaru, Hariram	Kanwar	ST									
1274	655/1 ट	0.061	0.049	Devsingh.Tilakram	Kanwar	ST									
1275	657/1	0.142	0.142	Jindal Powar Limited Tamnar Dinesh Kumar Bhargav											
1276	657/2	0.101	0.101	Damrudhr, Kashiram	Kenvat	Others									
1277	657/3	0.304	0.304	Rupdhar, Manbodh and others	Kenvat	Others									
1278	657/4	0.024	0.024	Damrudhr, Kashiram	Kenvat	Others									
1279	657/5	0.032	0.032	Bhojram Padman	Kenvat	Others									
1280	657/6	0.053	0.053	Ushiram, Hiralal and others	Kenvat	Others									
1281	657/7	0.012	0.012	Bhojram Padman	Kenvat	Others									
1282	657/8	0.024	0.024	Damrudhr, Kashiram	Kenvat	Others									
1283	657/9	0.024	0.024	Rupdhar, Manbodh and others	Kenvat	Others									
1284	657/10	0.057	0.057	Devarchan, Padman	Kenvat	Others									
1285	657/11	0.012	0.012	Devarchan, Padman	Kenvat	Others									
1286	658	0.065	0.065	Bhojram Padman	Kenvat	Others									
1287	659/1	0.085	0.085	Bhojram Padman	Kenvat	Others									
1288	659/2	0.064	0.064	Ushiram, Hiralal and others	Kenvat	Others									
1289	659/3	0.134	0.134	Devarchan, Padman	Kenvat	Others									
1290	659/4	0.356	0.356	Bhojram Padman	Kenvat	Others									
1291	659/5	0.065	0.065	Ushiram Hiralal and others	Kenvat	Others									

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1292	659/6	0.032	0.032	Rupdhar, Manbodh and others	Kenvat	Others								
1293	659/7	0.344	0.344	Damrudhr, Kashiram	Kenvat	Others								
1294	659/8	0.027	0.057	Devarchan, Padman	Kenvat	Others								
1295	659/9	0.085	0.085	Devarchan, Padman	Kenvat	Others								
1296	659/10	0.049	0.049	Devarchan, Padman	Kenvat	Others								
1297	660/1	0.049	0.049	Rupdhar, Manbodh and others	Kenvat	Others								
1298	660/2	0.024	0.024	Bhojram Padman	Kenvat	Others								
1299	660/3	0.049	0.049	Damrudhr, Kashiram	kenvat	Others								
1300	660/4	0.053	0.053	Ushiram, Hiralal and others	Kenvat	Others								
1301	660/5	0.025	0.025	Devarchan, Padman	kenvat	Others								
1302	661/1	0.579	0.579	Tejram Lochan	Agharya	Others								
1303	661/2											0.324	0.324	Road
1304	661/3	0.518	0.518	Pancharam S/o Laxman	Agharya	Others								
1305	661/4	0.259	0.259	Veredhar, Mohan	Agharya	Others								
1306	661/5	0.259	0.259	Haldhar, Santram	Kenvat	Others								
1307	661/6	0.259	0.259	Sanatan S/o Laxman	Agharya	Others								
1308	661/7	0.259	0.259	Khem Kumar, Pitambar	Agharya	Others								
1309	662/1	0.203	0.203	Rupdhar, Manbodh and others	Kenvat	Others								
1310	662/2	0.101	0.101	Bhojram Padman	Kenvat	Others								
1311	662/3	0.101	0.101	Devarchan, Padman	Kenvat	Others								
1312	663	0.372	0.372	Vijayadhar, Bhikhari S/o Parasram	Teli	Others								
1313	664	0.502	0.502	Rupdhar, Manbodh, Ghanshyam, Manbodh	kenvat	Others								
1314	665/1	0.049	0.049	Devarchan, Padman	Kenvat	Others								
1315	665/2	0.032	0.032	Damrudhr, Kashiram	Kenvat	Others								
1316	665/3	0.134	0.134	Devarchan, Padman	Kenvat	Others								
1317	665/4	0.178	0.178	Damrudhr, Kashiram	Kenvat	Others								
1318	665/5	0.057	0.057	Ushiram, Hiralal and others	Kenvat	Others								
1319	666	0.684	0.684	Pitambar S/o Gopal and others	Rawat	Others								
1320	667, 668	1.371	1.300	Pitambar S/o Gopal and others	Teli	Others								
1321	675/1	1.581	0.064	Manketan S/o Chandan	Teli	Others								
1322	675/2	0.162	0.063	Asada S/o Kunuram and others	Teli	Others								
1323	675/3	0.162	0.063	Jems S/o Chevil	Uraov	ST								
1324	676	1.189	1.137	Miniketan S/o Chandan	Teli	Others								
1325	677/1	0.039	0.039	Santram, Raghunani	Kenvat	Others								
1326	677/2	0.024	0.024	Upasram, Sahdev	Kenvat	Others								
1327	677/3	0.040	0.040	Girdnari S/o Sudheram	Kenvat	Others								
1328	677/4	0.040	0.040	Anoojram S/o Sudhe	Kenvat	Others								
1329	677/5	0.024	0.024	Nilambar, Sudhe	Kenvat	Others								
1330	677/6	0.024	0.024	Narsingh,Sudhe	Kenvat	Others								
1331	677/7	0.069	0.069	Santram, Raghunani	Kenvat	Others								
1332	677/8	0.073	0.073	Rameshwar, Sahdev	Kenvat	Others								
1333	677/9	0.016	0.016	Girdhari S/o Sudheram	Kenvat	Others								
1334	677/10	0.016	0.016	Nilambar, Sudhe	Kenvat	Others								
1335	677/11	0.036	0.036	Narsingh, Sudhe	Kenvat	Others								

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
1336	677/12	0.036	0.036	Anoojram S/o Sudhe	Kenvat	Others									
1337	677/13	0.095	0.095	Khageshwar, Sahdev	Kenvat	Others									
1338	677/14	0.081	0.081	Santram, Raghumani	Kenvat	Others									
1339	677/15	0.049	0.049	Rameshwar, Sahdev	Kenvat	Others									
1340	677/16	0.077	0.077	Santram, Raghumani	Kenvat	Others									
1341	677/17	0.020	0.020	Nilambar, Sudhe	Kenvat	Others									
1342	677/18	0.020	0.020	Girdhari S/o Sudheram	Kenvat	Others									
1343	678/1, 682/1क	0.235	0.100	Chain Singh , Munshi and others	Kanwar	ST									
1344	678/4	0.146	0.090	Shankar S/o Puran	Kenvat	Others									
1345	678/2, 681/6	0.080	0.080	Shankar S/o Puran	Kenvat	Others									
1346	678/3	0.220	0.090	Shobhit, Puran and others	Kanwar	ST									
1347	681/1	0.640	0.056	Bhagmati W/o Dhobiram and others	Kanwar	ST									
1348	681/2	0.154	0.054	Shankar S/o Puran and others	Kenvat	Others									
1349	681/3	0.405	0.054	Chain Singh , Munshir and others	Kanwar	ST									
1350	681/4	0.065	0.054	Chain Singh , Munshir and others	Kanwar	ST									
1351	681/5,682/1 ग	0.141	0.054	Chain Singh , Munshir and others	Kanwar	ST									
1352	682/1 क	0.174	0.120	Mangmati W/o Dhobiram and others	Kanwar	ST									
1353	682/1 ख	0.121	0.115	Bhagmati W/o Dhobiram and others	Kanwar	ST									
1354	682/1 ग	0.128	0.115	Bhagmati W/o Dhobiram and others	Kanwar	ST									
1355	682/1 घ	0.121	0.115	Mangmati W/o Dhobiram and others	Kanwar	ST									
1356	682/1 ङ	0.117	0.115	Chainsingh, Munshir and others	Kanwar	ST									
1357	682/1 च	0.128	0.115	Shankar S/o Puran	Kanwar	ST									
1358	682/2	0.085	0.085	Chainsingh, Munshir and others	Kanwar	ST									
1359	683/1	0.753	0.379	Kondi W/o Samaru Ramlal Ramsai S/o Temo and others	Oranv	ST									
1360	683/2,685	0.239	0.239	Koki W/o Samaru and others	Oranv	ST									
1361	695/1	0.056	0.056	Ghasiya S/o Balbhadra	Kenvat	Others									
1362	695/2	0.680	0.400	Harihar S/o Samaru	Kenvat	Others									
1363	695/3	0.438	0.220	Ghasiya S/o Balbhadra	Kenvat	Others									
1364	695/4	0.138	0.060	Harihar S/o Samaru	Kenvat	Others									
1365	696/2	0.202	0.135	Harihar S/o Samaru	Kenvat	Others									
1366	696/3	0.506	0.500	Ghasiya S/o Balbhadra	Kenvat	Others									
1367	696/4	0.202	0.202	Harihar S/o Samaru	Kenvat	Others									
1368	697											1.100	1.100	Road	
1369	698	0.971	0.881	Raghuvar, Madhusudan and others	Suddhi	Others									
Total of Pata		349.875	329.230				15.326	15.326		13.314	13.314	19.999	19.999		

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Land Schedule

Village : Chitwahi, P.H.N.: 32, R.I.Circle : Tamnar,Tehsil : Tamnar, District : Raigarh (Chhattisgarh)

Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1	1/2											0.809	0.757	Grass
2	1/3	0.202	0.202	Sitkumar S/o Mathar	Gada	ST								
3	1/4	0.0662	0.094	Mehtar Sahatar S/o Dekri	Panika	Others								
4	1/7	1.012	0.835	Kartikram S/o Nathuram and others	Gond	ST								
5	1/8	1.012	0.253	Makhan S/o Ruksar	Gond	ST								
6	2/4/2	0.886	0.886	Dilkunwar W/o Dhaniram and others	Gond	ST								
7	2/4/2	0.324	0.324	Rameshwar S/o Sukram	Gond	ST								
8	3	0.608	0.548	Narsingh Shyamlal Ratiram Narayan and others	Gond	ST								
9	6											0.259	0.259	Seva Bhumi Gram Nawar Konar
10	7/1	0.271	0.251	Lochanprasad S/o Harsaran	Agnariya	Others								
11	7/2	0.267	0.264	Arjun S/o Ditharidhi	Agharya	Others								
12	7/3 क	0.134	0.096	Rohedar S/o Mayaram	Agnariya	Others								
13	7/3 ख	0.134	0.091	Udardhar S/o Mayaram	Agharya	Others								
14	7/3 ग	0.137	0.091	Tejram Maheshram Sahebram and others	Agnariya	Others								
15	7/3 घ	0.137	0.091	Rameshwar S/o Mayaram	Agharya	Others								
16	8											0.607	0.607	Seva Bhumi Gram Nawar Konar
17	9/1	0.757	0.757	Dilkunwar W/o Dhaniram and others	Gond	ST								
18	9/2	0.664	0.664	Sundermati W/o Arbal and others	Gond	ST								
19	10/1	0.202	0.202	Dhaniram Bhagatram S/o Bhokla and others	Gond	ST								
20	10/2	0.162	0.162	Anwar S/o Nanhe and others	Gond	ST								
21	11/1	0.239	0.239	Dhaniram Bhagatram S/o Bhokla and others	Gond	ST								
22	11/2	0.081	0.081	Anwar S/o Nanhi and others	Gond	ST								
23	11/3	0.073	0.073	Dhaniram Bhagatram S/o Bhokla and others	Gond	ST								
24	11/4	0.081	0.081	Anwar S/o Nanhe and others	Gond	ST								
25	11/5	0.008	0.008	Dhaniram Bhagatram S/o Bhokla and others	Gond	ST								
26	12/1	0.065	0.065	Anwar S/o Nanhi and others	Gond	ST								
27	12/2	0.125	0.125	Dhaniram Bhagatram S/o Bhokla and others	Gond	ST								
28	12/3	0.073	0.073	Anwar S/o Nanhi and others	Gond	ST								
29	12/4	0.089	0.089	Dhaniram Bhagatram S/o Bhokla and others	Gond	ST								
30	12/5	0.344	0.344	Anwar S/o Nanhi and others	Gond	ST								
31	12/6	0.356	0.351	Dhaniram Bhagatram S/o Bhokla and others	Gond	ST								
32	12/7	0.093	0.093	Mahiru S/o Sukaru	Gond	ST								
33	13/1	0.202	0.110	Sofochan S/o Anandram and others	Gond	ST								
34	13/2	0.567	0.502	Narsingh Shyamlal Ratiram Narayan and others	Gond	ST								
35	13/4									0.486	0.253			
36	14											1.028	1.028	Road
37	15	0.821	0.038	Narsingh Shyamlal Ratiram Narayan and others	Gond	ST								
38	16/1	0.093	0.023	Dhaniram Bhagatram S/o Bhokla and others	Gond	ST								
39	17/4	0.231	0.054	Dhaneshwar Gurju	Gada	ST								
40	17/5	0.073	0.023	Bandhu Karam	Gada	ST								
41	17/6	0.048	0.024	Rachhka W/o Jwalal	Agharya	Others								
42	17/7	0.049	0.045	Bandhu Karam	Gada	ST								
43	17/8	0.057	0.045	Shaklal S/o Dhaneshwar	Gada	ST								
44	17/9	0.243	0.054	Bandhu	Gada	ST								
45	18/2	0.090	0.012	Dhaneshwar Gurju	Gada	ST								
46	20/5	0.356	0.053	Mathuradas W/o Kanjalsingh	Agharya	Others								
47	40/1	0.695	0.136	Saukhilal Mukundram S/o Bhaneshar and others	Gada	ST								
48	40/2	0.121	0.109	Kunjabsingh S/o Nilkanth	Agharya	Others								
49	40/4	0.284	0.025	Kunjabsingh S/o Nilkanth	Agharya	Others								
50	41/1	0.323	0.323	Kedarnath Bharatkumar S/o Manohar Prasad	Brahman	Others								
51	41/2	0.040	0.034	Kunjabsingh S/o Nilkanth	Agharya	Others								
52	42	0.781	0.436	Kunjabsingh S/o Nilkanth	Agharya	Others								
53	44	0.057	0.040	Kunjabsingh S/o Nilkanth	Agharya	Others								
54	45/2	0.129	0.040	Kunjabsingh S/o Nilkanth	Agharya	Others								
55	46/1											0.445	0.445	Seva Bhumi Gram Nawkar Konar
56	46/2	0.170	0.102	Kunjabsingh S/o Nilkanth	Agharya	Others								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
57	47/1	0.320	0.315	Kedumath and others	Brarnchha	Others								
58	47/2											0.170	0.170	Seva Bharti Gram Nauker Konwar
59	48	0.202	0.202	Bihardal and others	Rawat	Others								
60	49/1	1.335	1.084	Hiralal Prafull S/o Ghasiram and others	Gond	ST								
61	49/2	0.526	0.526	Chainar Singh S/o Budhu Laxmibai and others	Gond	ST								
62	50/1	0.134	0.134	Fulsingh S/o Batansay	Gond	ST								
63	50/2	0.259	0.259	Fulsingh Jai Machhiya, Vidyawar and others	Teli	Others								
64	50/3	0.125	0.125	Pulumlal S/o Kartikram	Teli	Others								
65	51/1	0.809	0.809	Hiralal, Prafull S/o Ghasiram and others	Gond	ST								
66	51/2	0.809	0.802	Hiralal, Prafull S/o Ghasiram and others	Gond	ST								
67	52	0.340	0.340	Pradeep Kumar, Prabhat Kumar, Durgeshari and others	Sodha	Others								
68	53	0.983	0.983	Chainar Singh S/o Budhu Laxmibai and others	Gond	ST								
69	54/1	1.373	1.373	Hiralal Prafull S/o Ghasiram and others	Gond	ST								
70	54/2	0.393	0.393	Chainar Singh S/o Budhu Laxmibai and others	Gond	ST								
71	55	0.243	0.243	Kedanath, Bharat Kumar, Kanchan and others	Brarnchha	Others								
72	56/1	0.096	0.096	Jatarsingh, Amarsingh, Madhav and others	Gond	ST								
73	56/2	0.086	0.086	Bihardal and others	Kumar	ST								
74	56/3	0.043	0.043	Kamal Narsingh and others	Gond	ST								
75	56/4	0.043	0.043	Ramvir Sambhlu and others	Gond	ST								
76	56/5	0.086	0.086	Kanhaiya Rajaram and others	Gond	ST								
77	57/1	0.255	0.255	Fulman W/o Nathuram	Gond	ST								
78	57/2	0.510	0.510	Fulsingh and others	Teli	Others								
79	57/3	0.255	0.255	Pulumlal S/o Kartikram	Teli	Others								
80	58	0.032	0.032	Kotwari Seva Bharti										
81	59	0.040	0.040	Lilapkumar W/o Barbal	Gond	ST								
82	60/1	4.372	4.372	Lilapkuvar W/o Barbal	Gond	ST								
83	60/2 क	0.559	0.559	Rambiram S/o Ghasiya, Laxman W/o Ghasiya and others	Gond	ST								
84	60/2 ख	0.283	0.283	Jairam, Manbodh	Gond	ST								
85	60/2 ग	0.170	0.170	Joidha, Amarsingh S/o Phuliram and others	Gond	ST								
86	60/2 घ	0.134	0.134	Kumari Jaikunwar S/o Amarsingh and others	Gond	ST								
87	60/2 ङ	0.202	0.202	Ramala M/o Fulmet	Gond	ST								
88	60/3 क	0.073	0.073	Rabbiram S/o Ghasiya, Laxman W/o Ghasiya and others	Gond	ST								
89	60/2 ख	0.275	0.275	Jairam, Manbodh	Gond	ST								
90	60/2 ग	0.282	0.182	Joidha, and others	Gond	ST								
91	60/2 घ	0.134	0.134	Ramala M/o Fulmet	Gond	ST								
92	60/2 ङ	0.020	0.020	Rabbiram and others	Gond	ST								
93	60/2 च	0.040	0.040	Jairam, Manbodh	Gond	ST								
94	60/2 छ	0.020	0.020	Jairam, Manbodh	Gond	ST								
95	60/2 ज	0.040	0.040	Rabbiram S/o Ghasiya, Laxman W/o Ghasiya and others	Gond	ST								
96	60/2 झ	0.168	0.168	Jairam, Manbodh	Gond	ST								
97	60/2 ञ	0.040	0.040	Joidha, Amarsingh S/o Phuliram and others	Gond	ST								
98	60/2 ट	0.168	0.168	Rabbiram and others	Gond	ST								
99	60/3	0.809	0.809	Sumitra W/o Kunjram, Pavitra	Gond	ST								
100	61/1	0.453	0.453	Lilapkuvar W/o Barbal	Gond	ST								
101	61/2 क	0.079	0.079	Rabbiram S/o Ghasiya, Laxman W/o Ghasiya and others	Gond	ST								
102	61/2 ख	0.057	0.057	Joidha, Amarsingh S/o Phuliram and others	Gond	ST								
103	61/3 क	0.032	0.032	Rabbiram S/o Ghasiya, Laxman W/o Ghasiya and others	Gond	ST								
104	61/3 ख	0.057	0.057	Jairam, Manbodh	Gond	ST								
105	61/3 ग	0.016	0.016	Joidha, Amarsingh S/o Phuliram and others	Gond	ST								
106	61/3 घ	0.028	0.028	Jairam, Manbodh	Gond	ST								
107	61/3 ङ	0.028	0.028	Rabbiram S/o Ghasiya, Laxman W/o Ghasiya and others	Gond	ST								
108	61/3 च	0.028	0.028	Kumari Jaikunwar S/o Amarsingh and others	Gond	ST								
109	61/3 छ	0.028	0.028	Ramila M/o Fulmet	Gond	ST								
110	61/3 ज	0.028	0.028	Joydha, Amarsingh S/o Phuliram and others	Gond	ST								
111	61/4	0.081	0.081	Sumitra W/o Kunjram, Pavitra	Gond	ST								
112	62	0.293	0.293	Pyareli, S/o Puliram	Gond	ST								
113	63/1 क	0.080	0.080	Kalindar S/o Mayaram	Aghariya	Others								
114	63/1 ख	0.080	0.080	Jalidhar Mayaram	Aghariya	Others								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
115	63/1 घ	0.080	0.080	Tejram Veersingh and others	Agharia	Others								
116	63/1 ग	0.080	0.080	Rameshwar Mayaram	Agharia	Others								
117	63/2	0.162	0.162	Lochanprasad S/o Hansram	Agharya	Others								
118	63/2	0.163	0.163	Anjan	Agharya	Others								
119	64	0.534	0.534	Ramdular S/o Pana	Gond	ST								
120	65											0.393	0.393	Road
121	66/1	0.688	0.688	Laxmiprasad S/o Jageshwar	Gond	ST								
122	66/2	0.688	0.688	Rajaram S/o Mayaram	Gond	ST								
123	66/3	0.687	0.687	Tularam S/o Mayaram	Kanwar	ST								
124	67/1	0.405	0.405	Ashwani S/o Mohanlal and others	Agharya	Others								
125	67/2	0.405	0.405	Sagun S/o Kenda	Uraon	ST								
126	67/3	0.283	0.283	Shyamkumar S/o Bolaram	Uraon	ST								
127	68/1	0.101	0.101	Shyamkumar Bolaram	Uraon	ST								
128	68/2	0.405	0.405	Saraswati W/o Jalu	Gada	ST								
129	68/3	0.405	0.405	Meghuram S/o Jodhar	Gada	ST								
130	68/4	0.405	0.405	Shubha Bai W/o Udayshankar and others	Bava	Others								
131	68/5	0.343	0.343	Shivprasad S/o Chamaru	Nayi	Others								
132	69	0.795	0.783	Chamarsingh, Ramprasad S/o Dudhu	Gond	ST								
133	70/1	0.405	0.405	Hetram S/o Baleshwar and others	Gada	ST								
134	70/2	0.405	0.405	Mohan S/o Pilaji	Kanwar	ST								
135	70/3	0.063	0.063	Shivprasad S/o Chamaru	Nayi	Others								
136	70/4	0.724	0.724	Karansingh S/o Dilharsingh	Gond	ST								
137	71											0.619	0.619	Road
138	72/1	0.390	0.390	Mewa W/o Kedarnath	Teli	Others								
139	72/2 क	0.174	0.174	Kalindar S/o Mayaram	Agharya	Others								
140	72/2 ख	0.344	0.344	Mt.Karamvati W/o Ratiram	Gond	ST								
141	72/2 ग	0.344	0.344	Arjun	Agharya	Others								
142	72/2 घ	0.174	0.174	Jaldhar Mayaram	Agharya	Others								
143	72/2 ङ	0.170	0.170	Tejram, Veersingh and others	Agharya	Others								
144	72/2 च	0.170	0.170	Rameshwar	Agharya	Others								
145	73/1	0.239	0.239	Laxmiprasad S/o Dhaiya	Gond	ST								
146	73/2	0.239	0.239	Ramprasad S/o Ghasiyaram	Gond	ST								
147	73/3	0.239	0.239	Rameshwar S/o Ghasiyaram	Gond	ST								
148	73/4	0.564	0.564	Laxmiram, Ramprasad, Rameshwar and others	Gond	ST								
149	74/1	0.243	0.243	Umavati W/o Minketan and others	Agharia	Others								
150	74/2	0.192	0.190	Umavati W/o Minketan and others	Agharia	Others								
151	74/3	0.192	0.190	Umavati W/o Minketan and others	Agharia	Others								
152	74/4	0.065	0.065	Umavati W/o Minketan and others	Agharia	Others								
153	74/5	0.064	0.064	Umavati W/o Minketan and others	Agharia	Others								
154	74/6	0.061	0.061	Umavati W/o Minketan and others	Agharia	Others								
155	75/1 क	0.203	0.203	Jairam, Manbodh	Gond	ST								
156	75/1 ख	0.203	0.203	Kuwara Jaikunwar S/o Amarsingh and others	Gond	ST								
157	75/2	0.668	0.668	Pitambar S/o Rugdhar	Kolta	ST								
158	75/3	0.667	0.667	Govind, Surendra S/o Prahlad	Kolta	ST								
159	76/1	0.259	0.256	Thanduram, Setaram, Mangalsingh, and others	Gond	ST								
160	76/2	0.256	0.256	Amrulal and others	Gond	ST								
161	76/3	0.512	0.512	Kanhaiya Rajaram and others	Gond	ST								
162	76/4	0.285	0.285	Jalarsingh, Amarsingh, Madhav and others	Gond	ST								
163	76/5	0.256	0.256	Narad Narsingh and others	Gond	ST								
164	76/6	0.256	0.256	Ranvir Shushila and others	Gond	ST								
165	77	0.417	0.413	Chamar Singh S/o Budhu Laxmibai and others	Gond	ST								
166	78	0.405	0.405	Chamar Singh S/o Budhu Laxmibai and others	Gond	ST								
167	79/1	0.202	0.202	Annandram Rajakund and others	Gond	ST								
168	79/2	0.194	0.194	Darashram Parosram S/o Ghasiram	Gond	ST								
169	79/3	0.202	0.202	Thandaram, Setaram, Mangalsingh, and others	Agharia	Others								
170	79/4	0.440	0.440	Darashram Parosram S/o Ghasiram	Gond	ST								
171	79/5	0.097	0.097	Darashram Parosram S/o Ghasiram	Gond	ST								
172	79/6	0.012	0.012	Halal, Jyotilal and others	Gond	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
173	79/7	0.040	0.040	Jallal , Pyarlal and others	Gond	ST								
174	79/8	0.053	0.053	Pancharam , Kanjram Aghariai and others	Gond	ST								
175	79/9 ,80	0.227	0.227	Ghasiram, Prithvi, Ratiram and others	Gond	ST								
176	81	0.490	0.475	Maheshprasad, Shanklal , Shankarlal, and others	Bramchha	Others								
177	82/1	0.121	0.121	Pancharam , Kanjram Agharsai and others	Gond	ST								
178	82/2	0.101	0.101	Mnheshprasad S/o Kripasindhu	Bramchha	Others								
179	82/3	0.121	0.121	Aanandram Rajanand and others	Gond	ST								
180	82/4	0.223	0.223	Darneshram Parasram S/o Ghasiram	Gond	ST								
181	82/5	0.110	0.110	Jailal , Pyarlal and others	Gond	ST								
182	83	0.190	0.190	Maheshprasad, Shanklal , Shankarlal, and others	Bramhan	Others								
183	84/1	0.726	0.726	Maheshprasad, Shanklal , Shankarlal, and others	Bramhan	Others								
184	84/2	0.405	0.405	Maheshprasad, Kripasindhu, and others	Bramhan	Others								
185	84/3	0.105	0.105	Maheshprasad S/o Kripasindhu	Bramchha	Others								
186	84/4	0.121	0.121	Shyamlal S/o Kripasindhu	Bramhan	Others								
187	84/5	0.153	0.153	Maheshprasad S/o Kripasindhu	Bramchha	Others								
188	84/6	0.137	0.137	Shyamlal S/o Kripasindhu	Bramhan	Others								
189	84/7	0.243	0.243	Shanklilal S/o Kripasindhu	Bramhan	Others								
190	84/8	0.245	0.153	Shankarlal S/o Kripasindhu	Bramhan	Others								
191	85	0.421	0.421	Mnheshprasad, Shanklal , Shankarlal, and others	Bramhan	Others								
192	86	0.833	0.833	Kavasram, Chidaru and others	Gond	ST								
193	87/1	0.344	0.344	Mnheshprasad, Shanklal , Shankarlal, and others	Bramhan	Others								
194	87/2	0.137	0.137	Jailal , Pyarlal and others	Gond	ST								
195	87/3	0.117	0.117	ShaAbdal S/o Kripasindhu	Bramhan	Others								
196	87/4	0.113	0.113	Shankarlal S/o Kripasindhu	Bramhan	Others								
197	87/5	0.113	0.113	Shyamlal S/o Kripasindhu	Bramhan	Others								
198	87/6	0.125	0.125	Anandram and others	Gond	ST								
199	87/7	0.090	0.090	Pancharam , Kalluram Agharsai and others	Gond	ST								
200	88						0.240	0.040	Small Tree forest					
201	89/1	0.867	0.867	Dareshram Parasram S/o Ghasiram	Gond	ST								
202	89/2	0.016	0.016	Jailal , Pyarlal and others	Gond	ST								
203	89/3	0.040	0.040	Jailal , Pyarlal and others	Gond	ST								
204	89/4	0.093	0.093	Jailal , Pyarlal and others	Gond	ST								
205	89/5	0.040	0.040	Pancharam , Kanjram Agharsai and others	Gond	ST								
206	90	0.061	0.061	Kedarnath, Bharat Kumar ,Kanchan, and others	Bramchha	Others								
207	91											2.154	2.154	Seva Bhum, Gram Naukar Kalwar
208	92											0.162	2.162	Seva Bhum, Gram Naukar Kalwar
209	93/1	0.255	0.255	Salikram, Mahiram S/o Jwardi	Agharwa	Others								
210	93/2 ⊕	0.016	0.016	Salikram, Mahiram S/o Jwardi	Agharwa	Others								
211	93/2 ⊕	0.389	0.385	Nirmal Kumar S/o Pitaram	Agharwa	Others								
212	93/3	0.121	0.121	Nirmal Kumar S/o Pitaram	Agharwa	Others								
213	93/4	0.037	0.037	Nirmal Kumar S/o Pitaram	Agharwa	Others								
214	93/5	0.032	0.032	Nirmal kumar S/o Pitaram	Agharwa	Others								
215	94	0.749	0.749	Mundkar, Padmara, Ramlal and others	Teli	Others								
216	95/1	1.045	1.045	Dareshram Parasram S/o Ghasiram	Gond	ST								
217	95/2	0.234	0.234	Pancharam , Kanjram Agharsai and others	Gond	ST								
218	96	1.728	1.728	Chandiram, Sitaram, Mangalsingh and others	Gond	ST								
219	97/1 ⊕	0.445	0.445	Ramsaram S/o Pradhan	Gond	ST								
220	97/1 ⊕	0.632	0.632	Veersingh S/o Teeka	Gond	ST								
221	97/2	0.417	0.417	Jailal , Pyarlal and others	Gond	ST								
222	97/3	0.526	0.526	Ramniwas S/o Kalluram and others	Bramhan	Others								
223	97/4	0.465	0.465	Dareshram Parasram S/o Ghasiram	Gond	ST								
224	97/5	0.405	0.405	Aanandram Rajanand and others	Gond	ST								
225	97/6	0.405	0.405	Pancharam and others	Gond	ST								
226	98/1	0.202	0.202	Sundarsingh S/o Ramsaram, Suntanu and others	Gond	ST								
227	98/2	0.069	0.069	Maheshprasad, Shanklal , Shankarlal, and others	Bramhan	Others								
228	99/1	0.206	0.206	Maheshprasad Shanklal Shankarlal, and others	Bramhan	Others								
229	99/2	0.153	0.153	Maheshprasad S/o Kripasindhu	Bramchha	Others								
230	99/3	0.129	0.125	Shyamlal S/o Kripasindhu	Bramhan	Others								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
231	99/4	0.049	0.049	Shankarlal S/o Kripasandhu	Brahman	Others								
232	99/5	0.057	0.157	Shaukhilal S/o Kripasindhu	Brahman	Others								
233	99/6	0.105	0.078	Shankarlal S/o Kripasindhu	Brahman	Others								
234	100/1 क	0.798	0.208	Sagun S/o Ratiho	Gond	ST								
235	100/1 ख	0.081	0.081	Kamkeshwar and others	Brahman	Others								
236	100/2 क	0.227	0.227	Ramlingoo S/o Prachan	Gond	ST								
237	100/2 ख	0.936	0.446	Nanhu S/o Batansu	Gond	ST								
238	101	0.691	0.050	Sagun S/o Ratiho	Gond	ST								
239	145/1 क											1.213	0.296	Road
240	145/1 ख											0.405	0.202	Road
241	154/4	0.081	0.046	Shankar S/o Kripasindhu	Gond	ST								
242	154/5	0.061	0.061	Shankar S/o Kripasindhu	Gond	ST								
243	158/1	0.137	0.039	Kayaram S/o Chitra	Gond	ST								
244	159/2	0.128	0.073	Shankar S/o Kripasindhu	Gond	ST								
245	159/3	0.034	0.087	Shankar S/o Kripasindhu	Gond	ST								
246	159/6	0.025	0.021	Sunder s/o Hanuram and others and others	Gond	ST								
247	160/1	0.090	0.021	Shankar S/o Kripasindhu	Gond	ST								
248	160/2	0.012	0.012	Sunder singh Hanuram and others	Gond	ST								
249	160/3	0.126	0.031	Shankar S/o Kripasindhu	Gond	ST								
250	160/4	0.044	0.020	Sunder singh Hanuram and others	Gond	ST								
251	162/2	0.068	0.022	Sunder singh Hanuram and others	Gond	ST								
252	162/3	0.138	0.137	Shankar and others	Gond	ST								
253	163/1	0.334	0.334	Ganeshram S/o Kanhiram	Teli	Others								
254	163/2	0.344	0.344	Pdumlal S/o Kanhiram	Teli	Others								
255	164/1	0.032	0.032	Nirmal kumar S/o Piladau	Aghariya	Others								
256	166/2	0.036	0.036	Nirmal kumar S/o Piladau	Aghariya	Others								
257	165/1	0.352	0.352	Nirmal kumar S/o Piladau	Aghariya	Others								
258	165/2	0.121	0.121	Chandansingh Ramsaprasad	Agharwa	Others								
259	165/3	0.061	0.061	Nirmal kumar S/o Piladau	Aghariya	Others								
260	165/4	0.170	0.170	Nirmal kumar S/o Piladau	Agharya	Others								
261	167	0.129	0.129	Jalamsingh, Amarsingh, Mohanv and others	Gond	ST								
262	168	0.058	0.058	Bhrikhan S/o Jonakram	Gond	ST								
263	169/1	1.420	0.228	Hiralal S/o Jagatram	Teli	Others								
264	169/2	0.109	0.109	Khelsingh S/o Baliram	Gond	ST								
265	169/3	0.251	0.251	Shankarsingh S/o Sihru	Gond	ST								
266	169/4	0.263	0.263	Neharlal	Teli	Others								
267	169/5	0.108	0.108	Sundalal S/o Sunchu	Gaida	ST								
268	169/6	0.108	0.108	Sundalal S/o Sunchu	Gaida	ST								
269	170											0.227	0.222	Seva Bhumi Gram Naukar Korwa
270	171											0.336	0.234	Seva Bhumi Gram Naukar Korwa
271	214/1 क	0.141	0.100	Khelsingh	Gond	ST								
272	214/1 ख	0.567	0.219	Deepsingh S/o Dhuva	Gond	ST								
273	215/3	0.282	0.099	Ramniwas S/o Khiram and others	Brahman	Others								
274	217/1	0.466	0.179	Chamansingh Bhanwarsingh and others	Gond	ST								
275	217/2	0.182	0.182	Jalal and others	Gond	ST								
276	217/3	0.168	0.168	Sitaramsingh Ramsingh and others	Gond	ST								
277	217/4	0.178	0.150	Malkhan	Gond	ST								
278	218	0.142	0.142	Govind, Surendra S/o Prahlad and others	Kolta	ST								
279	219/1	0.426	0.426	Shankar S/o Kripasindhu	Gond	ST								
280	219/2	0.279	0.279	Jalal and others	Gond	ST								
281	219/3	0.495	0.495	Ramji, Gokul, Shankar, Sidam and others	Gond	ST								
282	219/5	0.385	0.385	Sunder singh Hanuram and others	Gond	ST								
283	220/1	0.407	0.407	Hiralal S/o Jagatram	Teli	Others								
284	220/2	0.455	0.455	Santosh S/o Mesaram	Gond	ST								
285	220/3	0.228	0.228	Padumlal S/o Jagatram	Teli	Others								
286	220/4	0.180	0.180	Neharulal S/o Jagatram	Teli	Others								
287	220/5	0.510	0.510	Hiralal S/o Jagatram	Teli	Others								
288	220/6	0.309	0.309	Padumlal S/o Jagatram	Teli	Others								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
289	220/2	0.427	0.427	Nehanlal S/o Jagatram	Teli	Others								
290	220/8	0.040	0.040	Padumlal S/o Jagatram	Teli	Others								
291	221/1	0.124	0.124	Khelsingh	Gond	ST								
292	221/2	0.124	0.124	Sansthband S/o Nityanand	Sadhu	Others								
293	221/3 &	0.072	0.072	Sansthband S/o Nityanand	Sadhu	Others								
294	222/3 &	0.052	0.052	Dujram S/o Ghatak	Gond	ST								
295	222/1	0.177	0.177	Khelsingh	Gond	ST								
296	222/2	0.177	0.177	Dujram S/o Ghatak	Gond	ST								
297	222/3	0.176	0.176	Dujram S/o Ghatak	Gond	ST								
298	223/1	0.210	0.210	Giralal S/o Jagatram	Teli	Others								
299	223/2	0.405	0.405	Dujram S/o Ghatak	Gond	ST								
300	223/3	0.202	0.202	Darashram Parasram S/o Ghasiram	Gond	ST								
301	223/4	0.405	0.405	Anandram S/o Mayaram and others	Gond	ST								
302	223/5	0.405	0.405	Ramlal S/o Rameshwar	Gond	ST								
303	223/6	0.575	0.575	Padumlal S/o Jagatram	Teli	Others								
304	223/7	0.656	0.656	Nehanlal S/o Jagatram	Teli	Others								
305	223/8	0.688	0.688	Giralal S/o Jagatram	Teli	Others								
306	223/9	0.482	0.482	Padumlal S/o Jagatram	Teli	Others								
307	223/10	0.890	0.890	Nehanlal S/o Jagatram	Teli	Others								
308	223/11	0.918	0.918	Padumlal S/o Jagatram	Teli	Others								
309	224/1	0.153	0.153	Annaram Rajanand and others	Gond	ST								
310	224/2											0.502	0.502	Below Water
311	224/5	0.142	0.142	Sevalal Pusram and others	Gond	ST								
312	224/6, 224/5											0.365	0.365	Below Water
313	224/6	0.150	0.150	Panchram, Nagram Aghonsai and others	Gond	ST								
314	224/7	0.150	0.150	Jeelal , Pyarilal and others	Gond	ST								
315	224/8	0.149	0.149	Darashram Parasram S/o Ghasiram	Gond	ST								
316	224/9	0.202	0.202	Ramlal, Gauri Purtati, Sukhi S/o Rameshwa	Gond	ST								
317	225	0.611	0.611	Ghasiram S/o Marwar	Gond	ST								
318	226/1	0.308	0.308	Jeelal , Pyarilal and others	Gond	ST								
319	226/2	0.251	0.251	Sevalal Pusram and others	Gond	ST								
320	226/3	0.253	0.253	Pusram and others	Gond	ST								
321	226/4											0.051	0.051	C.G. Govt.
322	226/5	0.310	0.310	Darashram Parasram S/o Ghasiram	Gond	ST								
323	226/6	0.308	0.308	Panchram and others	Gond	ST								
324	226/7	0.308	0.308	Annaram Rajanand and others	Gond	ST								
325	226/8	0.452	0.153	Ramlal, Gauri Purtati, Sukhi S/o Rameshwa	Gond	ST								
326	227/1	0.093	0.093	Laxmiprasad S/o Ghasiya	Gond	ST								
327	227/2	0.093	0.093	Ramprasad	Gond	ST								
328	227/3	0.093	0.093	Rameshwar S/o Ghasyaram	Gond	ST								
329	227/4	0.090	0.090	Laxmiprasad S/o Ghasiya	Gond	ST								
330	227/5	0.093	0.093	Ramprasad	Gond	ST								
331	227/6	0.093	0.093	Rameshwar S/o Ghasyaram	Gond	ST								
332	228/1	0.061	0.061	Laxmiprasad S/o Ghasiya	Gond	ST								
333	228/2	0.061	0.061	Ramprasad S/o Ghasiyaram	Gond	ST								
334	228/3	0.061	0.061	Rameshwar S/o Ghasyaram	Gond	ST								
335	228/4	0.104	0.104	Laxmiprasad S/o Ghasiya	Gond	ST								
336	228/5	0.105	0.105	Ramprasad S/o Ghasiyaram	Gond	ST								
337	228/6	0.105	0.105	Rameshwar S/o Ghasyaram	Gond	ST								
338	229/1	0.085	0.085	Sumitra, Pavitra S/o Udeinar	Gond	ST								
339	229/2	0.425	0.425	Nohansay and others	Panika	Others								
340	229/3 &	0.186	0.186	Rabbiram	Gond	ST								
341	229/3 &	0.109	0.109	Jairam, Manhoob	Gond	ST								
342	230/1	0.243	0.242	Vidyadhar S/o Pitaragh	Teli	Others								
343	230/2	0.259	0.259	Gurupodm W/o Purniram Gond and others	Gond	ST								
344	231/1	0.263	0.263	Sevalal Pusram and others	Gond	ST								
345	231/2	0.063	0.261	Gokaran Vimaru	Gond	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
346	231/3	0.441	0.441	Ratilal, Gauri Prasad, Sukilal S/o Rameshwa	Gond	ST								
347	232/...	1.040	1.040	Govind, Surendra S/o Prahlad and others	Kolta	ST								
348	233/2/1	0.364	0.364	Ghasiram S/o Mahyar	Gond	ST								
349	233/2/...	0.125	0.125	Govind, Surendra S/o Prahlad and others	Kolta	ST								
350	233/5/...	0.329	0.324	Kamlaprasad S/o Chandansingh and others	Agharya	Others								
351	233/4	0.145	0.142	Chamarsingh, Bhoopatsingh and others	Gond	ST								
352	233/5/...	0.068	0.065	Chamarsingh and others	Gond	ST								
353	233/6/...	0.129	0.129	Jairam	Gond	ST								
354	233/7	0.202	0.202	Ghasiram	Gond	ST								
355	233/8	0.069	0.069	Pratap S/o Premsingh and others	Gond	ST								
356	233/9	0.092	0.092	Pratap S/o Premsingh and others	Gond	ST								
357	233/10	0.057	0.057	Pratap S/o Premsingh and others	Gond	ST								
358	234	0.445	0.445	Narsingh Shyambai Balram Narayan and others	Gond	ST								
359	235/1	0.178	0.178	Ratilal, Gauri Prasad, Sukilal S/o Rameshwa	Gond	ST								
360	235/2	0.113	0.113	Pratap S/o Premsingh and others	Gond	ST								
361	236/1	0.069	0.069	Ugsen	Teli	Others								
362	236/2	0.206	0.206	Kanhaiya Lal S/o Jagannathiya	Teli	Others								
363	236/3	0.081	0.081	Kanhaiya Lal S/o Jagannathiya	Teli	Others								
364	237	0.368	0.368	Kunwar Jaikunwar S/o Anantsingh and others	Gond	ST								
365	238/1	0.061	0.061	Neeraj Kumar	Agharya	Others								
366	238/2	0.121	0.121	Chandansingh Kamlaprasad	Agharya	Others								
367	238/3	0.142	0.142	Chitradhar and others	Agharya	Others								
368	238/4	0.081	0.081	Sahikram, Mahikram S/o Lvarjal	Agharya	Others								
369	239	0.239	0.239	Chandansingh	Agharya	Others								
370	240/1	0.275	0.275	Panchram, Kumram Agharsai and others	Gond	ST								
371	240/2	0.669	0.669	Arjunprasad	Teli	Others								
372	240/3	0.235	0.235	Chitradhar and others	Agharya	Others								
373	241/1	0.624	0.624	Pankaj S/o Surendra Kumar	Agharya	Others								
374	241/2	0.210	0.210	Chandansingh Kamlaprasad	Agharya	Others								
375	241/3	0.170	0.170	Sanjay S/o Gaipat	Agharya	Others								
376	241/4	0.244	0.244	Sahikram, Mahikram S/o Jivanlal	Agharya	Others								
377	242/1	0.105	0.105	Ganeshram S/o Kanhaiyalal	Teli	Others								
378	242/2	0.020	0.020	Ganeshram S/o Kanhaiyalal	Teli	Others								
379	243/1	0.040	0.022	Ganeshram S/o Kanhaiyalal	Teli	Others								
380	243/2	0.137	0.137	Ganeshram S/o Kanhaiyalal	Teli	Others								
381	244/1	0.478	0.478	Kartikram S/o Nathuram and others	Gond	ST								
382	244/2	0.482	0.482	Chandersingh Kamlaprasad	Agharya	Others								
383	245/1	0.548	0.210	Laxmiprasad S/o Ghasiya	Gond	ST								
384	246	0.693	0.283	Phoolsingh Arjun S/o Jagnathiya	Teli	Others								
385	247/1	0.203	0.177	Ganeshram S/o Kartikram	Teli	Others								
386	247/2	0.206	0.191	Pdehlal, S/o Kartikram	Teli	Others								
387	248/2 ब	0.187	0.187	Dhanmat S/o Ugrasen and others	Teli	Others								
388	248/2 स	0.187	0.187	Dhansingh	Teli	Others								
389	248/2 ज	0.187	0.187	Phoolsingh	Teli	Others								
390	248/2 ट	0.187	0.187	Kanhaiya Lal S/o Jagannathiya	Teli	Others								
391	248/6	0.299	0.299	Kanhaiya Lal S/o Jagannathiya	Teli	Others								
392	248/7	0.148	0.148	Kamlaprasad S/o Chandansingh and others	Agharya	Others								
393	249/1	0.607	0.607	Maya W/o Kedarnath	Teli	Others								
394	249/2	0.194	0.191	Maya W/o Kedarnath	Teli	Others								
395	249/3	0.053	0.053	Sahikram, Mahikram S/o Jivanlal	Agharya	Others								
396	250	0.979	0.979	Kamlaprasad S/o Chandansingh and others	Agharya	Others								
397	251/2	0.386	0.386	Ramprasad	Gond	ST								
398	252/1 ब	0.117	0.117	Laxmiprasad S/o Ghasiya	Gond	ST								
399	252/1 ज	0.150	0.150	Koneshwar	Gond	ST								
400	252/2 ब	0.121	0.121	Laxmiprasad S/o Ghasiya	Gond	ST								
401	252/2 ज	0.049	0.049	Rameshwar	Gond	ST								
402	252/2 ट	0.081	0.081	Rameshwar S/o Gokulprasad	Gond	ST								
403	252/3	0.129	0.129	Ghasiya Vikram	Gond	ST								

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Sl.No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
404	253/2	0.214	0.214	Sumaru Parteg S/o Uddhar	Gond	ST								
405	253/2	0.178	0.178	Ghasiya Vekam	Gond	ST								
406	254/1/2	0.426	0.426	Rabburam S/o Ghasiya Laxmin W/o Ghasiya and others	Gond	ST								
407	254/2	0.052	0.052	Jairam, Manbodh	Gond	ST								
408	255, 261	0.976	0.976	Govind, Surendra S/o Prahlad and others	Kolta	ST								
409	256	0.352	0.352	Fulsingh and others	Teli	Others								
410	257/1	0.713	0.713	Chanvarsingh	Gond	ST								
411	257/2	0.162	0.162	Ramkumar	Gond	ST								
412	257/3	0.405	0.405	Lavipprasad Salikram	Agharia	Others								
413	257/4	0.182	0.182	Dhanuriy Khemsingh	Gond	ST								
414	257/5	0.162	0.162	Lavipprasad Salikram	Agharia	Others								
415	257/6	0.096	0.096	Ramkumar	Gond	ST								
416	257/7	0.129	0.129	Tejram and others	Gond	ST								
417	257/8	0.048	0.048	Dhanurjav Khemsingh	Gond	ST								
418	257/9	0.336	0.336	Silewarsingh Ramsingh and others	Gond	ST								
419	257/10	0.343	0.343	Dhanuray Khemsingh	Gond	ST								
420	257/11	0.128	0.128	Chanvarsingh, Bhanupratap and others	Gond	ST								
421	258	0.350	0.348	Padmalal S/o Kanhiram	Teli	Others								
422	259	1.129	1.129	Pulendal, S/o Kartikram	Teli	Others								
423	260/1 a	0.134	0.134	Rabburam S/o Ghasiya, Laxmin W/o Ghasiya and others	Gond	ST								
424	260/1 as	0.093	0.093	Jairam, Manbodh	Gond	ST								
425	260/2 as	0.405	0.405	Bhanupratap S/o Budhuram	Gond	ST								
426	260/2 as	0.404	0.404	Pulendal, S/o Kartikram	Teli	Others								
427	260/3	0.485	0.485	Fulsingh and others	Teli	Others								
428	260/4	0.219	0.219	Kanhaiya and others	Teli	Others								
429	260/5	0.223	0.223	Kamtaprasad S/o Chandautsingh and others	Agharia	Others								
430	261/1	0.168	0.168	Kanhaiya Lal S/o Jagannathiya	Teli	Others								
431	261/2	0.080	0.080	Amarprasad and others	Teli	Others								
432	261/3	0.202	0.202	Arjunprasad and others	Teli	Others								
433	262/1	0.247	0.247	Pancham, Kuriram Aghansai and others	Gond	ST								
434	262/2	0.040	0.040	Jalal, Pyarelal and others	Gond	ST								
435	263/1	0.142	0.142	Lavipprasad Salikram	Agharia	Others								
436	263/2	0.121	0.121	Lavipprasad Salikram	Agharia	Others								
437	263/3	0.239	0.299	Lavipprasad Salikram	Agharia	Others								
438	263/4	0.085	0.085	Jalal, Pyarelal and others	gond	ST								
439	264/1	0.330	0.330	Chamansingh, Bhanupratap and others	gond	ST								
440	264/2	0.016	0.016	Dhanurjav Khemsingh	gond	ST								
441	264/3	0.016	0.016	Ramkuvar	gond	ST								
442	264/4	0.064	0.064	Ramkuvar W/o Mansaar	gond	ST								
443	264/5	0.202	0.202	Silewarsingh Ramsingh and others	Gond	ST								
444	264/6	0.214	0.214	Dhanuriw Khemsingh	gond	ST								
445	264/7	0.020	0.020	Silewarsingh Ramsingh and others	Gond	ST								
446	264/8	0.202	0.202	Silewarsingh Ramsingh and others	Gond	ST								
447	264/9	0.090	0.090	Dhanurjav Khemsingh	gond	ST								
448	264/10	0.125	0.125	Chamansingh, Bhanupratap and others	gond	ST								
449	265	0.388	0.388	Chamar Singh S/o Budhu Laxmibai and others	gond	ST								
450	266/1	0.405	0.405	Anandram S/o Mayaram and others	gond	ST								
451	266/3	0.244	0.244	Neeraj Kumar	Agharia	Others								
452	266/4	0.210	0.210	Sahiram and others	Agharia	Others								
453	267/1	0.393	0.393	Chaintan S/o Mansar	Gond	ST								
454	267/2	0.028	0.028	Pratap S/o Premsingh and others	Gond	ST								
455	268	0.344	0.344	Chandkuvar, Setaram, Mangalsingh, and others	Gond	ST								
456	269	1.291	0.228	Harnial Prafull S/o Ghasiram and others	Gond	ST								
457	270	0.514	0.514	Chamar Singh S/o Budhu Laxmibai and others	Gond	ST								
458	271/1	0.478	0.478	Pratap S/o Premsingh and others	Gond	ST								
459	271/2	0.501	0.501	Jindal Power Ltd (Vice&Dade, B.N.Dadu)	Agrawal	Others								
460	272	0.816	0.816	Jindal Power Ltd (Vice&Dade, B.N.Dadu)	Agrawal	Others								
461	273/1	0.194	0.194	Deepsingh and others	Gond	ST								

Village : Chhuriit

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
463	273/2	0.214	0.214	Suveer singh S/o Hanseram	Gond	ST								
463	273/3	0.095	0.195	Amritlal and others	Gond	ST								
464	273/4	0.390	0.390	Kanhaiya Rajaram and others	Gond	ST								
465	273/5	0.390	0.390	Jaisingh, Amarsingh, Madhav and others	Gond	ST								
466	273/6	0.194	0.194	Narad Narsingh and others	Gond	ST								
467	273/7	0.195	0.195	Ramvir Shushila and others	Gond	ST								
468	274/1	0.501	0.501	Kunjalsingh S/o Nilkanth	Agharia	Others								
469	274/2 क	0.149	0.149	Sukhram, Maheshram S/o Jwandal	Agharia	Others								
470	274/2 ख	0.148	0.148	Nirmal Kumar S/o Piladau	Agharia	Others								
471	274/3	0.515	0.515	Kamlaprasad S/o Chandarsingh and others	Agharia	Others								
472	275/1	0.309	0.309	Rajaram S/o Mayaram	Kanwar	ST								
473	275/2	0.619	0.619	Radhar, Gomanidai and others	Teli	Others								
474	275/3	0.254	0.254	Rajaram S/o Mayaram	Gond	ST								
475	275/5	0.254	0.254	Tukaram	Kanwar	ST								
476	276/1	0.438	0.438	Deepsingh S/o Dadaram and others	Gond	ST								
477	276/2											0.495	0.486	Seva Bhatta Gram Nankar Kanwar
478	276/1 ब	0.486	0.486	Kanhaiya Rajaram and others	Gond	ST								
479	276/3 ग	1.416	1.416	Suraj kanwar W/o Maheshram	Agharia	Others								
480	276/3 घ	0.170	0.170	Narad Narsingh and others	Gond	ST								
481	276/3 ङ	0.170	0.170	Ramu and others	Gond	ST								
482	276/3 च	0.093	0.093	Narad Singh and others	Gond	ST								
483	276/3 छ	0.093	0.093	Ramvir Shushila and others	Gond	ST								
484	276/4	0.591	0.591	Kevin M/o Suraj kanwar W/o Maheshram	Agharia	Others								
485	276/5	2.152	2.152	Suraj kanwar W/o Maheshram	Agharia	Others								
486	276/6 क	0.626	0.626	Kanhaiya Rajaram and others	gond	ST								
487	276/6 ख	0.313	0.313	Narad Narsingh and others	gond	ST								
488	276/6 ग	0.313	0.313	Ramvir Shushila and others	gond	ST								
489	276/7	0.151	0.151	Prasram and others	gond	ST								
490	276/8	0.607	0.607	Arvalal ,Ramji and others	gond	ST								
491	276/9	0.152	0.152	Rameshwar	gond	ST								
492	276/10	0.304	0.304	Ghasiya	gond	ST								
493	277/1	0.203	0.203	Laxmiprasad S/o Ghasiya	gond	ST								
494	277/2	0.204	0.204	Ramprasad S/o Ghasiyaram	Gond	ST								
495	277/3	0.204	0.204	Rameshwar S/o Ghasiyaram	Gond	ST								
496	278	0.138	0.138	Hiralal Prahlad S/o Ghasiram and others	gond	ST								
497	279/1	0.323	0.323	Laxmiprasad S/o Ghsiya	gond	ST								
498	279/2	0.202	0.202	Dhovaram S/o Jairam	gond	ST								
499	279/3	0.184	0.184	Ramprasad S/o Ghasiyaram	Gond	ST								
500	279/4	0.326	0.326	Rameshwar S/o Ghasiyaram	Gond	ST								
501	279/5	0.150	0.150	Laxmiprasad S/o Ghsiya	gond	ST								
502	279/6	0.211	0.211	Ramprasad S/o Ghasiyaram	Gond	ST								
503	279/7	0.150	0.150	Rameshwar S/o Ghasiyaram	Gond	ST								
504	280/1	0.356	0.356	Ghasiya Vinaru	gond	ST								
505	280/2	0.225	0.225	Sagun S/o Ratiho	gond	ST								
506	280/3	0.225	0.225	Chamarsingh, Ramprasad S/o Budhru	gond	ST								
507	281/1	0.576	0.226	Jailal , Pratilal and others	gond	ST								
508	281/2	0.091	0.091	Laxiprasad Sakkaar.	Aghariya	Others								
509	281/3	0.202	0.202	Dareshram Parastram S/o Ghasiram	Gond	ST								
510	281/4	0.283	0.283	Thanduram, and others	Gond	ST								
511	281/5	0.150	0.150	Dareshram Parstram S/o Ghasiram	Gond	ST								
512	281/6	0.340	0.340	Anandram and others	Gond	ST								
513	282/1	0.353	0.353	Dhanunjay Khemsingh	Gond	ST								
514	282/2	1.648	1.648	Chadan singh S/o Kalicdas	Teli	Others								
515	282/3	0.240	0.240	Ramkunvar	Gond	ST								
516	282/4	0.621	0.621	Silewarsingh Ramsingh and others	Gond	ST								
517	283/1	0.291	0.291	Bhanupratap S/o Budhuram	Gond	ST								
518	283/2	0.092	0.092	Pirumal, S/o Kanhiram	Teli	Others								
519	283/3	0.829	0.829	Fulsingh and others	Teli	Others								

B.D. SHARMA
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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
520	284	0.275	0.275	Pirafal Prafull S/o Ghasiram and others	Gond	ST								
521	285/1	0.665	0.665	Chamansingh and others	Gond	ST								
522	285/2	0.405	0.405	Sileshwar Singh Ramsingh	Gond	ST								
523	285/3	0.405	0.405	Saleshwar Singa	Gond	ST								
524	285/4	0.101	0.101	Tejram and others	Gond	ST								
525	285/5	0.040	0.040	Dhanuray Khemsingh	Gond	ST								
526	285/6	0.338	0.338	Salewarsingh Ramsingh and others	Gond	ST								
527	285/7	0.256	0.256	Dhanuray Khemsingh	Gond	ST								
528	286	0.749	0.749	Shitalu W/o Ghasiram	Gond	ST								
529	287/1	0.256	0.256	Chadan singh S/o Kalendar	Gond	ST								
530	287/2	0.526	0.526	Khaleshwar singh and others	Gond	ST								
531	287/3	0.405	0.405	Lasiprasad Shikram	Agharya	Others								
532	287/4	0.040	0.040	Tejram Veersingh and others	Agharya	Others								
533	287/5	0.518	0.518	Saleshwar singh and others	Gond	ST								
534	287/6	0.251	0.251	Tejram Veersingh and others	Agharya	Others								
535	287/7	0.243	0.243	Tejram Veersingh and others	Agharya	Others								
536	287/8	0.170	0.170	Tejram and others	Gond	ST								
537	287/9	0.167	0.167	Tejram and others	Gond	ST								
538	287/10	0.188	0.188	Dhanuray Khemsingh	Gond	ST								
539	287/11	0.162	0.162	Salewarsingh Ramsingh and others	Gond	ST								
540	287/12	0.159	0.159	Chamansingh, Bhanupratap and others	Gond	ST								
541	287/13	0.151	0.151	Dhanuray Khemsingh	Gond	ST								
542	287/14	0.223	0.223	Dhanuray Khemsingh	Gond	ST								
543	287/15	0.055	0.055	Dhanuray Khemsingh	Gond	ST								
544	287/16	0.373	0.373	Salewarsingh Ramsingh and others	Gond	ST								
Total of Chitwahi		151.918	142.461				0.000	0.000		0.480	0.252	9.492	9.029	

B.D. SHARMA
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Land Schedule

Village : Gare, P.H.N.: 39, R.I.Circle : Tamnar,Tehsil : Tamnar, District : Raigarh (Chhattisgarh)

Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
1	28	0.466	0.185	Paksha Ram	Kanwar	ST								
2	29/1	0.255	0.219	Santram Chamra	Kanwar	ST								
3	29/2	0.043	0.040	Kartik Ram Chamra	Kanwar	ST								
4	30/1	0.162	0.162	Kartik Ram Chamra	Kanwar	ST								
5	30/2	0.190	0.159	Paksha Ram S/o Gudri	Kanwar	ST								
6	31/1	0.222	0.222	Kartik Ram Chamra	Kanwar	ST								
7	31/2	0.255	0.255	Seeram and others	Kanwar	ST								
8	31/3	0.260	0.219	Santram Chamra	Kanwar	ST								
9	32/1	0.195	0.159	Shyamlal, Sitabai S/o Baliram and others	Kalar	Others								
10	32/2	0.012	0.012	Baliram, Darasram, Mariram S/o Mayaram and others	Kalar	Others								
11	33	0.186	0.186	Baliram, Darasram, Mariram and others	Kanwar	ST								
12	34/1	1.238	1.238	Vijayram, Vidyasagar S/o Laxmiram	Kanwar	ST								
13	34/2	0.097	0.097	Panchuram,Ramsingh S/o Puran	Kanwar	ST								
14	35/1e	0.567	0.528	Sriram Bodhram	Kanwar	ST								
15	35/1f	0.343	0.343	Kartik Ram Chamra	Kanwar	ST								
16	35/1g	0.434	0.434	Jedubai, Sukmoti, Pacho S/o Vaulsram	Kanwar	ST								
17	35/1h	0.122	0.122	Laxmibai and others	Kanwar	ST								
18	35/1i	0.121	0.121	Bhagmari and others	Kanwar	ST								
19	35/1j	0.122	0.122	Jugiram and others	gond	ST								
20	35/1c	0.057	0.057	Laxmi prasad, Hariram, S/o Raghunath and others	Kalar	Others								
21	35/1b	0.032	0.032	Bhagmari and others	Kanwar	ST								
22	35/2											0.352	0.161	Below Water
23	35/2 g	0.101	0.072	Balsay	Kanwar	ST								
24	35/3 g	0.084	0.097	Setram and others										
25	35/3e	1.306	0.145	Fulkunwar and others										
26	39/1	0.162	0.063	Moharlal Akhayram	Kanwar	Others								
27	41/1 d	0.049	0.049	Salik Ram and others	Agharya	Others								
28	41/1 e	0.051	0.051	Bataniti, Sriram, Mahi S/o Padmlochan	Gonda	ST								
29	41/1 a	0.025	0.025	Ramprasad Harishchandra	Agharya	Others								
30	41/1 d	0.050	0.050	Umrao, S/o Buting	Gonda	ST								
31	41/2	0.214	0.214	Syamlal and others	Kalar	Others								
32	41/3	0.122	0.122	Kartik Ram Chamra	Kanwar	ST								
33	42	0.530	0.455	Laxmi prasad, Hariram, S/o Raghunath and others	Kalar	Others								
34	43/1	0.575	0.575	Geeta W/o Sanatan, Gangadhar S/o Salikram	Agharya	Others								
35	43/2	0.162	0.162	Gangadhar Salikram and others	Agharya	Others								
36	44/1, 45/1	0.568	0.568	Geeta W/o Sanatan, Gangadhar S/o Salikram	Agharya	Others								
37	44/2, 45/2	0.213	0.210	Salik Ram and others	Agharya	Others								
38	46											0.324	0.324	Road
39	68	0.243	0.0675	Laxmiprasad	Kalar	Others								
40	69/1	0.264	0.240	Gopichand	Kalar	Others								
41	69/2	0.121	0.040	Bachram and others	Kalar	Others								
42	69/3	0.154	0.040	Dhaniram Balakram	Kalar	Others								
43	69/4	0.214	0.040	Gopal Balakram	Kalar	Others								
44	69/5	0.514	0.040	Bachram and others	Kalar	Others								
45	69/6	0.865	0.040	Dhaniram Balakram	Kalar	Others								

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
46	69/7	0.113	0.045	Sukdev Balakram	Kalar	Others									
47	69/8	0.328	0.036	Gulaba Balakram and others	Kalar	Others									
48	69/9	0.281	0.040	Sukdev Balakram	Kalar	Others									
49	70	1.394	0.569	Premanand S/o Rameshwar	Gond	ST									
50	71	0.253	0.263	Laxmiprasad and others	Kalar	Others									
51	72	0.470	0.470	Lakhiprasad and others	Kalar	Others									
52	73	0.247	0.243	Raghunath, Motilal,Akarbar, Chedarram and others	Gond	ST									
53	74/1	0.328	0.303	Safik Ram and others	Agharya	Others									
54	74/2	0.324	0.302	Gangadhar Salikram and others	Agharya	Others									
55	75/1	0.243	0.243	Syamlal and others	Kalar	Others									
56	75/5	0.089	0.025	Ramprasad Harishchandra	Agharya	Others									
57	75/6	0.089	0.085	Kanhiram S/O Hareshand	Agharya	Others									
58	75/7	0.089	0.089	Ganshyam S/o Shridhar	Agharya	Others									
59	75/8	0.089	0.089	Motilal Harishchandra	Agharya	Others									
60	162/1						0.757	0.250	Small Tree Forest						
61	162/2	0.849	0.138	Manoj and others											
62	163	0.235	0.235	Sewa and others	Uraav	ST									
63	164	0.636	0.636	Randeep Kaur W/o Mahendrapal singh	Sikkh	Others									
64	165						0.878	0.878	Small Tree Forest						
65	166	0.162	0.162	Bairekhsingh S/o Uderam	Gond	ST									
66	167/1	0.539	0.539	Dhiraaj Govardhan	Gond	ST									
67	167/2	0.543	0.543	Balsay S/o Govardhan	Gond	ST									
68	168/1	0.717	0.717	Sahebram and others	Gond	ST									
69	168/2	0.113	0.113	Ghanshyam	Agharia	Others									
70	168/3	0.405	0.405	Sunau and others	Uraav	ST									
71	168/4	0.076	0.076	Chatrai and others	Uraav	ST									
72	168/5	0.113	0.113	Ramprasad	Agharia	Others									
73	168/6	0.097	0.097	Balak Ram Tilochan	Agharia	Others									
74	168/7	0.065	0.065	Prahlad Trilochan	Agharia	Others									
75	168/8	0.134	0.134	Bandhan and others	Uraav	ST									
76	168/9	0.073	0.073	Chapar and others	Uraav	ST									
77	169/1	0.053	0.053	Mohanlal Harishchandra	Agharia	Others									
78	169/2	0.053	0.053	Kanhiram S/O Hareshand	Agharia	Others									
79	169/3	0.032	0.032	Prahlad Trilochan	Agharia	Others									
80	169/4	0.032	0.032	Balak Ram Tilochan	Agharia	Others									
81	170	0.717	0.603	Randeep Kaur W/o Mahendrapal singh	Sikkh	Others									
82	171	0.567	0.567	Rajkumar and others	Kanwar	ST									
83	172/1	0.368	0.368	Gangadhar Salikram and others	Agharia	Others									
84	172/2	0.045	0.045	Bandhan and others	Uraav	ST									
85	172/3	0.056	0.056	Chatrai and others	Uraav	ST									
86	173/4	0.004	0.004	Bandhan and others	Uraav	ST									
87	173	0.918	0.771	Gangadhar Salikram and others	Agharia	Others									
88	174/2	0.151	0.005	Lamo S/o Bhago	Gond	ST									
89	177/1	0.134	0.053	Bairekhsingh S/o Uderam	Gond	ST									
90	177/2		0.018												
91	178	0.113	0.098	Raghunath, Motilal,Akarbar, Chedarram and others	Gond	ST									
92	179/1, 179/2	0.153	0.153	Triharan S/o Raghunath	Kalar	Others									
93	179/3	0.089	0.083	Keshav Jagdish S/o Gridhari	Agharia	Others									
94	179/4	0.037	0.037	Triharan S/o Raghunath	Kalar	Others									
95	280/1	0.162	0.083	Gangadhar Salikram and others	Agharia	Others									
96	280/2	0.162	0.143	Uddhavlal S/o Balaram	Agharia	Others									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
97	181	0.198	0.050	Raghunath, Motilal, Akambar, Chedamari and others	Gond	ST									
98	182/1	0.040	0.040	Manoj Lahnoram and others	Gond	ST									
99	182/2	0.053	0.051	Jagdish	Aghariya	Others									
100	182/3	0.283	0.201	Rajaram S/o Mayaram	Kanwar	ST									
101	183/1	1.049	1.049	Chudamani	Aghariya	Others									
102	183/2	0.146	0.146	Keshav Prasad Girdhari	Aghariya	Others									
103	183/3	0.093	0.092	Vishnu Daulatram	Uraov	ST									
104	184/1	0.170	0.170	Raghunath, Motilal, Akambar, Chudamani and others	Gond	ST									
105	184/2	0.024	0.024	Manoj Lahnoram and others	Gond	ST									
106	184/3	0.185	0.185	Gangadhar and others	Aghariya	Others									
107	184/4	0.409	0.409	Gangadhar Salikram and others	Aghariya	Others									
108	184/5	0.020	0.020	Jagdish Girdhari	Aghariya	Others									
109	184/6	0.596	0.587	Rajaram Mayaram	Kanwar	ST									
110	185	0.255	0.255	Gangadhar Salikram and others	Aghariya	Others									
111	186/1	0.065	0.065	Lalaram Girdhari	Aghariya	Others									
112	186/2	0.113	0.113	Narkumar Girdhari	Aghariya	Others									
113	186/3	0.089	0.089	Keshv Prasad	Aghariya	Others									
114	186/4	0.080	0.089	Jagdish Girdhari	Aghariya	Others									
115	187	0.886	0.886	Gangadhar Salikram and others	Aghariya	Others									
116	188	0.182	0.182	Ramkumar Gangadhar and others	Aghariya	Others									
117	189/1	0.645	0.645	Chandan Daulatram and others	Gurid	ST									
118	189/2	0.080	0.080	Milap singh Daulatram	Gurid	ST									
119	190/1	0.049	0.049	Ramprasad Harishchandra	Agharya	Others									
120	190/2	0.130	0.130	Balak Ram Tilochan	Agharya	Others									
121	190/3	0.075	0.070	Ramprasad Harishchandra	Agharya	Others									
122	190/4	0.045	0.040	Mohanlal Harishchandra	Agharya	Others									
123	190/5	0.130	0.130	Prahlad Trilochan	Agharya	Others									
124	190/6	0.088	0.088	Mohanlal	Agharya	Others									
125	190/7	0.093	0.093	Ghashyam S/o Shridhar	Agharya	Others									
126	190/8	0.093	0.093	Ramprasad Harishchandra	Agharya	Others									
127	190/9	0.077	0.077	Mohanlal Harishchandra	Agharya	Others									
128	191/1	0.041	0.041	Balak Ram Tilochan	Agharya	Others									
129	191/2	0.121	0.121	Kanhairam S/O Harischand	Agharya	Others									
130	191/3	0.105	0.105	Prahlad Trilochan	Agharya	Others									
131	192/1	0.152	0.152	Kardeiya and others	gond	ST									
132	192/2	0.202	0.202	Ramsingh Uderam	gond	ST									
133	192/3	0.152	0.152	Maheshram Uderam	Gond	ST									
134	193/1, 193/2	3.561	3.561	Raghunath, Motilal, Akambar, Chudamani and others	Gond	ST									
135	194/1	0.534	0.534	Punaram Nanki	gurid	ST									
136	194/2	0.534	0.534	Gangadhar Salikram and others	Agharya	Others									
137	195	0.611	0.611	Kanshiram S/o Sagharam	Gond	ST									
138	196/1	0.049	0.049	Balak Ram Tilochan	Agharya	Others									
139	196/2	0.049	0.049	Prahlad Trilochan	Agharya	Others									
140	196/3	0.117	0.117	Ramprasad Harishchandra	Agharya	Others									
141	196/4	0.117	0.117	Mohanlal Harishchandra	Agharya	Others									
142	197/1 & 197/2	2.024	2.024	Raghunath and others	Gond	ST									
143	197/1 & 197/2	0.526	0.526	Rohit Barsent S/o Ramchandra and others	Gond	ST									
144	197/1 & 197/2	0.425	0.425	Rohit S/o Ramchandra and others	Gond	ST									
145	197/1 & 197/2	1.032	1.032	Ramchandra	Gond	ST									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
146	198/1	0.335	0.135	Gajanand Ayidiya Prasad and others	Gond	ST									
147	198/2	0.202	0.202	Raghunath, Motilal, Akambar, Chudamani and others	Gond	ST									
148	198/3	0.433	0.433	Pratapsingh	Gond	ST									
149	198/4	0.243	0.241	Mitapsingh	Gond	ST									
150	198/5	0.243	0.243	Chandan Daulatram and others	Gond	ST									
151	198/6	0.251	0.251	Mitapsingh	Gond	ST									
152	198/7	0.146	0.146	Kanhaiya and others	Gond	ST									
153	198/8	0.141	0.141	Rameshwar Uderam	gond	ST									
154	198/9	0.141	0.141	Gajanand Ayidiya Prasad and others	Gond	ST									
155	198/10	0.141	0.141	Bairakhsingh S/o Uderam	Gond	ST									
156	198/11	0.141	0.141	Maheshram Uderam	Gond	ST									
157	198/12	0.113	0.113	Chotram S/O Sukhiramram	Gond	ST									
158	198/13	0.071	0.071	Tejram S/o Fagura	Quary	ST									
159	199/1											1.395	1.196	Road	
160	203/9	0.028	0.016	Mangeram and others											
161	205/1	0.215	0.167	Aanandram and others	Pinka	Others									
162	205/2	0.203	0.148	Kalupram S/o Ramprasad	Aghariya	Others									
163	206/1, 206/2	0.490	0.409	Gangadhar Parihar and others	Agharya	Others									
164	207	0.219	0.219	Mahendrapal Singh	Sikh	Others									
165	208	0.210	0.210	Hiranat Rameswar singh	Gond	ST									
166	209	0.154	0.069	Mahendrapal Singh	Sikh	Others									
167	210/1	0.073	0.074	Syamlal and others	Kalar	Others									
168	210/2	0.145	0.145	Amin Lal and others	Kanwar	ST									
169	210/3	0.073	0.046	Kartik Ram Chanva	Kanwar	ST									
170	211	0.186	0.186	Raghunath, Motilal, Akambar, Chudamani and others	Gond	ST									
171	212									1.536	1.536				
172	213/1	0.122	0.122	Aanandram and others	Pinka	Others									
173	213/2	0.072	0.072	Gangadhar and others	Agharia	Others									
174	214/1	0.179	0.179	Narsi Das and others	Gond	ST									
175	214/2	0.179	0.179	Premanand S/o Rameshwar	Gond	ST									
176	215/1	0.547	0.547	Gangadhar Parihar and others	Agharia	Others									
177	215/2	0.259	0.259	Lalaram Girdhari and others	Agharia	Others									
178	216/1	0.113	0.113	Gangadhar Parihar and others	Agharia	Others									
179	216/2	0.101	0.101	Lalaram and others	Agharia	Others									
180	216/3	0.162	0.162	Gangadhar and others	Agharia	Others									
181	216/4	0.158	0.158	Lalaram Girdhari	Agharia	Others									
182	217/1	0.757	0.684	Aanandram and others	Pinka	Others									
183	217/2	0.012	0.012	Salik Ram	Agharia	Others									
184	218						0.020	0.020	Small Tree Forest						
185	219/1	0.150	0.100	Daulam and others	gond	ST									
186	219/2	0.202	0.202	Sukdev, Chotram, Santram and others	Kanwar	ST									
187	219/3, 219/5	0.466	0.466	Jankuvar W/o Sukhiram	gond	ST									
188	219/4	0.024	0.024	Hardyal Shobharam	gond	ST									
189	219/5	0.172	0.172	Dashram and others	gond	ST									
190	219/8	0.210	0.210	Malkuvar	gond	ST									
191	219/8	0.057	0.057	Jagdiya, Sobharam	gond	ST									
192	219/10	0.057	0.057	Sukhi Shobharam	gond	ST									
193	219/11	0.057	0.032	Hardyal Shobharam	gond	ST									
194	219/12	0.028	0.028	Jaipal	gond	ST									
195	219/13	0.028	0.028	Hardyal	gond	ST									
196	220	0.421	0.250	Lalaram Chidhari and others	Agharia	Others									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
197	221	1.655	1.655	Laxmibai and others	Kanwar	ST									
198	222/1	0.150	0.150	Balak Ram Tilochan	Aghariya	Others									
199	222/2	0.053	0.053	Kartikram S/O Hareshand	Agharya	Others									
200	222/3	0.121	0.121	Mohanlal Harishchandra	Agharya	Others									
201	222/4	0.053	0.053	Ghashyam S/o Shridhar	Agharya	Others									
202	222/5	0.053	0.053	Ramprasad Parshotamdas	Agharya	Others									
203	222/6	0.271	0.271	Prahlad	Agharya	Others									
204	222/7	0.097	0.097	Ramprasad	Agharya	Others									
205	222/8	0.093	0.093	Kartikram S/O Hareshand	Agharya	Others									
206	222/9	0.171	0.121	Balak Ram Tilochan	Agharya	Others									
207	222/10	0.081	0.081	Ghashyam S/o Shridhar	Agharya	Others									
208	222/11	0.150	0.150	Mohanlal Harishchandra	Agharya	Others									
209	222/12	0.028	0.028	Ghanshyam and others	Agharya	Others									
210	222/13	0.040	0.040	Ramprasad	Agharya	Others									
211	223/1	0.105	0.105	Mohanlal Ashayram	Kanwal	Others									
212	223/2	0.106	0.106	Jugar Bai W/o Nathuram and others	Kanwal	Others									
213	223/3	0.093	0.093	Mohanlal Ashayram	Kanwal	Others									
214	223/4	0.097	0.097	Jugar Bai W/o Nathuram and others	Kanwal	Others									
215	224											0.129	0.129	Road	
216	225	0.340	0.340	Salik Ram	Agharya	Others									
217	226	0.040	0.040	Dayarh Prasad, Makhanlal, Pyarelal S/o Kuriak Ram	Kalar	Others									
218	227	0.983	0.983	Milap singh Daulaham	Gond	ST									
219	228											0.753	0.753	Below Wair	
220	229	0.255	0.255	Ramsingh Ratu	Kanwar	ST									
221	230/1	0.057	0.057	Pratapsingh Daulatram	gond	ST									
222	230/2	0.056	0.056	Chandan Daulatram and others	Gond	ST									
223	230/3	0.057	0.057	Milap singh Daulatram	Gond	ST									
224	230/4	0.057	0.057	Jalal singh Daulat	gond	ST									
225	231	0.737	0.737	Laxmiprasad and others	Kalar	Others									
226	232/1	0.785	0.785	Vijayram, Vidyasagar S/o Laxmiram	Kanwar	ST									
227	232/2 क	0.243	0.243	Vijayram, Vidyasagar S/o Laxmiram	Kanwar	ST									
228	232/2 ख	0.101	0.101	Ramsingh Ratu	Kanwar	ST									
229	232/2 ग	0.425	0.425	Panchram,Ramsingh S/o Purae	Kanwar	ST									
230	233	0.057	0.057	Jalal singh Daulat	gond	ST									
231	234											0.543	0.543	Below Wair	
232	235	0.077	0.077	Milap singh Daulatram	Gond	ST									
233	236	0.070	0.070	Milap singh Daulatram	Gond	ST									
234	237/1	0.111	0.111	Raghunath singh S/o Rameshwar singh	gond	ST									
235	237/2	0.112	0.112	Milap singh Daulatram	Gond	ST									
236	238	0.073	0.073	Milap singh Daulatram	Gond	ST									
237	239	0.360	0.360	Raghunath singh Rameswar	gond	ST									
238	240/1	0.216	0.216	Gajanand AyadhyaPrasad and others	Gond	ST									
239	240/2	0.251	0.251	Akambar singh Rameswar	gond	ST									
240	240/3	0.198	0.198	Maheshram	gond	ST									
241	240/4	0.125	0.125	Kunhaiya and others	Gond	ST									
242	240/5	0.125	0.125	Ramsingh Uderam	gond	ST									
243	240/6	0.227	0.227	BairaDhirsingh S/o Uderam	Gond	ST									
244	240/7	0.056	0.056	Gajanand AyadhyaPrasad and others	Gond	ST									
245	240/8	0.040	0.040	Kanhaiya and others	Gond	ST									
246	240/9	0.061	0.061	Ramsingh Uderam	gond	ST									
247	241	0.081	0.081	Raghunath singh Rameswar	gond	ST									
248	242	0.073	0.073	Kanhaiya and others	Gond	ST									

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							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
249	243	0.053	0.053	Rohit, S/o Ramchandra and others	Gond	ST									
250	244/1	0.049	0.045	Kanhaiya and others	Gond	ST									
251	244/2	0.072	0.072	Padmavati W/o Damodrand others	Gond	ST									
252	245/1	0.040	0.040	Kanhaiya and others	Gond	ST									
253	245/2	0.040	0.040	Maheshwary Uderam	Gond	ST									
254	245/3	0.073	0.073	Gayanand AyodiyaPrasad and others	Gond	ST									
255	245/4	0.056	0.056	Pairakhsingh S/o Uderam	Gond	ST									
256	246	0.223	0.223	Premanand S/o Rameshwar	Gond	ST									
257	247						0.032	0.032	Small Tree Forest						
258	248	0.138	0.138	Raghunath singh Rameswar	gond	ST									
259	249	0.170	0.170	Aanandram and others	Pnika	Others									
260	250	0.069	0.069	Milap Singh Daulatram	Gond	ST									
261	251						0.089	0.089	Small Tree Forest						
262	252/1	0.146	0.146	Rameshwar singh	gond	ST									
263	252/2	0.324	0.324	Raghunath and others	gond	ST									
264	253/1	0.110	0.110	Mohanlal Abhayram	Kenvat	Others									
265	253/2	0.109	0.109	Jugar Bai W/o Natthuram and others	Kenvat	Others									
266	254/1	0.113	0.113	Pratapsingh	gond	ST									
267	254/2	0.101	0.101	Jailal singh Daulat	gond	ST									
268	254/3	0.143	0.143	Milap singh Daulatram	Gond	ST									
269	254/4	0.142	0.142	Chandan and others	gond	ST									
270	254/5	0.040	0.040	Pratapsingh Daulatram	gond	ST									
271	254/6	0.016	0.016	Jailal singh Daulat	gond	ST									
272	255/1	0.068	0.068	Pratapsingh Daulatram	gond	ST									
273	255/2	0.065	0.065	Milap singh Daulatram	Gond	ST									
274	255/3	0.065	0.065	Chandan Daulatram and others	Gond	ST									
275	255/4	0.068	0.068	Jangi singh Daulat	gond	ST									
276	256/1	0.035	0.036	Pratapsingh Daulatram	gond	ST									
277	256/2	0.035	0.036	Jailal singh Daulat	gond	ST									
278	256/3	0.036	0.036	Milap singh Daulatram	Gond	ST									
279	256/4	0.036	0.036	Chandan Daulatram and others	Gond	ST									
280	256/5	0.107	0.107	Padmavati W/o Damodrand others	Gond	ST									
281	257	0.384	0.384	Rohit, S/o Ramchandra and others	Gond	ST									
282	258	0.123	0.121	Mohanlal Abhayram	Kenvat	Others									
283	259/1									0.555	0.555				
284	259/2	0.083	0.081	Jugar Bai W/o Natthuram and others	Kenvat	Others									
285	260	0.219	0.219	Ramjanab singh Rameswar	gond	ST									
286	261/1											0.878	0.878	Seva Bhumi Gram Nawagaon Kelwar	
287	261/2									0.129	0.129				
288	262									1.518	1.518				
289	263	0.040	0.040	Sumrita, Harsila Chudaraman and others	gond	ST									
290	264/1	0.186	0.186	Sumrita, Harsila Chudaraman and others	gond	ST									
291	264/2	0.024	0.024	Gangah S/o Harnichandra and others	Gond	ST									
292	265	0.263	0.263	Sumrita, Harsila Chudaraman and others	gond	ST									
293	266/1	0.020	0.020	Jaipal Sobharam	gond	ST									
294	266/2	0.020	0.020	Raghunath, Motilal, Akambar, Chudaraman and others	Gond	ST									
295	267									0.049	0.049				
296	268									0.093	0.093				

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
297	269/1	0.089	0.089	Laxman Giridhari and others	Aghariya	Others								
298	269/2	0.093	0.093	Salik Ram and others	Aghariya	Others								
299	270/1, 273/2	0.615	0.615	Premaram S/o Rameshwar	Gond	ST								
300	270/2, 273/13	0.110	0.110	Mohanlal Harishchandra	Agharya	Others								
301	271	0.494	0.494	Bhagatram, Ramprasad Ram, Chaitram S/o Pilaram and others	Gond	ST								
302	272	0.813	0.813	Harihar Rameswarsingh	Gond	ST								
303	273/1	0.024	0.024	Prahlad Trilochan	Agharya	Others								
304	273/5	0.041	0.041	Balak Ram Trilochan	Agharya	Others								
305	273/4	0.041	0.041	Prahlad Trilochan	Agharya	Others								
306	273/5	0.036	0.036	Balak Ram Trilochan	Agharya	Others								
307	273/6	0.040	0.040	Ramprasad	Agharya	Others								
308	273/7, 280/2	0.042	0.040	Mohanlal Harishchandra	Agharya	Others								
309	273/8	0.065	0.065	Ghashyam S/o Shridhar	Agharya	Others								
310	273/9	0.065	0.065	Ramprasad Harishchandra	Agharya	Others								
311	273/10	0.085	0.085	Prahlad Trilochan	Agharya	Others								
312	273/11	0.085	0.085	Balak Ram Trilochan	Agharya	Others								
313	273/12	0.109	0.109	Ramprasad Harishchandra	Agharya	Others								
314	274/1	0.150	0.150	Malap singh S/o Daulatram	Gond	ST								
315	274/2	0.024	0.024	Pratapsingh and others	Gond	ST								
316	274/3	0.024	0.024	Pratapsingh and others	Gond	ST								
317	274/4	0.024	0.024	Malap singh Daulatram	Gond	ST								
318	274/5	0.024	0.024	Chandan and others	Gond	ST								
319	274/6	0.054	0.054	Jaisal singh Daulat	gond	ST								
320	274/7	0.008	0.008	Pratapsingh Daulatram	gond	ST								
321	274/8	0.020	0.020	Jaisal singh Daulat	Gond	ST								
322	274/9	0.029	0.029	Chandan Daulatram and others	Gond	ST								
323	274/10	0.053	0.053	Malap singh Daulatram	Gond	ST								
324	274/11	0.016	0.016	Chandan Daulatram and others	Gond	ST								
325	274/12	0.024	0.024	Pratapsingh Daulatram	gond	ST								
326	275	0.295	0.295	Harihar Rameswarsingh	Gond	ST								
327	276/3											0.494	0.494	Seva Bhumi Gram Naukar Kotwar
328	276/2, 277/1, 278/1, 279/2											0.162	0.162	Road
329	276/3											0.024	0.024	Seva Bhumi Gram Naukar Kotwar
330	276/4											0.024	0.024	Seva Bhumi Gram Naukar Kotwar
331	277/2											0.275	0.275	Seva Bhumi Gram Naukar Kotwar
332	277/3											0.040	0.040	Seva Bhumi Gram Naukar Kotwar
333	277/4											0.016	0.016	Seva Bhumi Gram Naukar Kotwar
334	278/1	0.158	0.158	Harihar Rameswarsingh	Gond	ST								
335	278/1 &	0.032	0.032	Ramsingh Ratu	Kanwar	ST								
336	279/1 &	0.032	0.032	Panchram Ramsingh S/o Punaru	Kanwar	ST								
337	280/1	0.025	0.021	Kanhiram S/O Harichand	Agharia	Others								
338	280/3	0.012	0.012	Prahlad Trilochan	Agharya	Others								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
339	281									0.158	0.158			
340	282									0.089	0.089			
341	283											0.380	0.380	Sewa Bharati Gram Nirikas Kalwar
342	284	0.198	0.198	Premanand S/o Rameshwar	Gond	ST								
343	285									0.053	0.053			
344	286/1	0.425	0.305	Raghunath singh Rameswar	gond	ST								
345	286/2	1.628	1.628	Harihar Rameswar singh	Gond	ST								
346	287/1	0.582	0.582	Susmita, Harsita Chudamani and others	gond	ST								
347	287/2	0.607	0.607	Premanand S/o Rameshwar	Gond	ST								
348	287/3	1.588	1.588	Akambar singh Rameswar	Gond	ST								
349	287/4	0.081	0.041	Chudamani	Gond	ST								
350	287/5	0.045	0.045	Susmita, Harsita Chudamani and others	gond	ST								
351	287/6	0.085	0.085	Akamber singh	Gond	ST								
352	287/7	0.081	0.081	Susmita, Harsita Chudamani and others	gond	ST								
353	287/8	0.809	0.809	Milap singh Daulatram	Gond	ST								
354	288	0.028	0.028	Dataram and others	gond	ST								
355	289	0.020	0.020	Raghunath, Mohlal, Akambar, Chudamani and others	Gond	ST								
356	290, 291/5	0.032	0.032	Chandan Daulatram and others	Gond	ST								
357	291/1	0.069	0.069	Maheshram Ideram	Gond	ST								
358	291/2	0.121	0.121	Chandan Daulatram and others	Gond	ST								
359	291/3	0.178	0.178	Pretanand S/o Rameshwar	Gond	ST								
360	291/4	0.231	0.231	Chandan Daulatram and others	Gond	ST								
361	291/6	0.089	0.089	Amrit Kumar S/o Mohan	Kanwar	ST								
362	291/7	0.121	0.121	Maheshram	Gond	ST								
363	291/8	0.085	0.085	Gajanand AvaiyaPrasad and others	Gond	ST								
364	292	0.125	0.125	Raghunath, Mohlal, Akambar, Chudamani and others	Gond	ST								
365	293/1	0.105	0.105	Pratapsingh	Gond	ST								
366	293/2	0.105	0.105	Jaisal singh Daulat	Gond	ST								
367	293/3	0.105	0.105	Milap singh Dataram	Gond	ST								
368	293/4	0.102	0.102	Chandan Daulatram and others	Gond	ST								
369	294	0.413	0.413	Milap singh Daulatram	Gond	ST								
370	295	0.113	0.113	Laxmiprasad and others	Kalar	Others								
371	296						0.868	0.868	Small Tree Forest					
372	297/1	0.024	0.024	Kanhaiya S/o Ranga	Gond	ST								
373	297/2	0.036	0.036	Kanhaiya S/o Ranga	Gond	ST								
374	297/3	0.113	0.113	Kanhaiya S/o Ranga	Gond	ST								
375	297/4	0.045	0.045	Kanhaiya S/o Ranga	Gond	ST								
376	297/5	0.036	0.036	Kanhaiya S/o Ranga	Gond	ST								
377	297/6	0.041	0.041	Kanhaiya S/o Ranga	Gond	ST								
378	298											0.257	0.257	Road
379	299	0.125	0.125	Kanhaiya and others	Gond	ST								
380	300/1	0.017	0.017	Kanhaiya S/o Ranga	Gond	ST								
381	300/2	0.057	0.057	Kanhaiya S/o Ranga	Gond	ST								
382	300/3	0.016	0.016	Kanhaiya S/o Ranga	Gond	ST								
383	300/4	0.016	0.016	Kanhaiya S/o Ranga	Gond	ST								
384	300/5	0.016	0.016	Kanhaiya S/o Ranga	Gond	ST								
385	301/1	0.085	0.085	Dataram and others	gond	ST								
386	301/2	0.081	0.081	Jaisal Sobharam	gond	ST								
387	302/1	0.102	0.102	Dataram and others	gond	ST								
388	302/2											0.166	0.166	Below Water

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Sl No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
389	302/3	0.036	0.036	Rohit, S/o Ramchandra and others	Gond	ST									
390	302/4	0.028	0.028	Jaipal	Gond	ST									
391	302/5	0.024	0.024	Hardyal Shobharam	gond	ST									
392	302/6	0.024	0.024	Sukhlal	Gond	ST									
393	302/7	0.024	0.024	Jagdayal Sobharam	gond	ST									
394	303/1	2.481	2.481	Raghunath singh Rameswar	gond	ST									
395	303/2	0.021	0.021	Bairakhsingh S/o Uderam	Gond	ST									
396	303/3	0.101	0.101	Ramsingh Uderam	gond	ST									
397	303/4	0.101	0.101	Kathaiya and others	Gond	ST									
398	303/5	0.028	0.028	Maheshram Uderam	Gond	ST									
399	304	0.552	0.552	Ramsingh Rahu	Kanwar	ST									
400	305	0.247	0.247	Raghunath singh Rameswar	gond	ST									
401	306	1.084	1.084	Raghunath singh Rameswar	gond	ST									
402	307	0.717	0.717	Jagsay and others	Gond	ST									
403	309/1	0.918	0.918	Tekchan	Gond	ST									
404	309/2	0.223	0.223	Sanatev and others	Gond	ST									
405	309/1	0.226	0.226	Rohit, S/o Ramchandra and others	Gond	ST									
406	309/2	0.081	0.081	Rohit, S/o Ramchandra and others	Gond	ST									
407	309/3	0.271	0.271	Ganpati, Harishchandra and others	Gond	ST									
408	310/1	0.547	0.547	Rohit, S/o Ramchandra and others	Gond	ST									
409	310/2	0.486	0.486	Ganpati, Harishchandra and others	Gond	ST									
410	311	0.266	0.266	Santrut and others	Gond	ST									
411	312/1	0.267	0.267	Raghunath S/o Rameshwar	Gond	ST									
412	312/2	0.704	0.704	Hariha	Gond	ST									
413	312/3	0.728	0.728	Padmavati W/o Damodarand others	Gond	ST									
414	312/4	0.142	0.142	Pratapsingh Daularam	gond	ST									
415	312/5	0.056	0.056	Chenden Daularam and others	Gond	ST									
416	313/1	0.355	0.355	Padmavati W/o Damodarand others	Gond	ST									
417	313/2	0.729	0.729	Raghunath	Gond	ST									
418	313/3	0.154	0.154	Pratapsingh	Gond	ST									
419	313/4	0.154	0.154	Chenden Daularam and others	Gond	ST									
420	313/5	0.073	0.073	Milapsingh Daularam	Gond	ST									
421	313/6	0.073	0.073	Jaslal singh Daulat	gond	ST									
422	314/1	0.552	0.552	Dalram and others	gond	ST									
423	314/2	0.089	0.089	Jalal singh Daulat	gond	ST									
424	314/3	0.405	0.405	Premprasad S/o Rameshwar	Gond	ST									
425	314/4	0.121	0.121	Kanchuram S/o Sadhuram	Gond	ST									
426	314/5	0.182	0.182	Jagdayal Sublaram	gond	ST									
427	314/6	0.186	0.186	Hardyal Shobharam	gond	ST									
428	314/7	0.186	0.186	Sukhlal Shobharam	Gond	ST									
429	315/1	0.186	0.186	Harihar Rameswarsingh	Gond	ST									
430	315/2	0.494	0.494	Premanand S/o Rameshwar	Gond	ST									
431	316	0.235	0.235	Harihar Rameswarsingh	Gond	ST									
432	317	0.137	0.137	Harihar Rameswarsingh	Gond	ST									
433	318	0.166	0.166	Bhagatram Ramprasad, Ram, Chatram S/o Pitiram	Gond	ST									
434	319/1	1.611	1.611	Kashiram Jaikanwar	Gond	ST									
435	319/2	1.214	1.214	Raghunath singh Rameswar	gond	ST									
436	319/3	0.121	0.121	Milapsingh and others	Gond	ST									
437	319/4	0.817	0.817	Rohit and others	Gond	ST									
438	319/5	0.020	0.020	Gangati, Harishchandra and others	Gond	ST									
439	320	0.101	0.101	Pratiare Nanki	gond	ST									
440	321	0.324	0.324	Jagsay and others	Gond	ST									
441	322/1	0.413	0.413	Dalram and others	Gond	ST									
442	322/2	0.218	0.218	Milapsingh and others	Gond	ST									
443	322/3	0.987	0.987	Kanshiram S/o Sadhuram	Gond	ST									

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
444	322/6	0.217	0.217	Rohit, S/o Ramchandra and others	Gond	ST									
445	322/5	0.364	0.364	Gunpati S/o Hiralchandra and others	Gond	ST									
446	322/6	0.113	0.113	Ahalya W/o Mangsingh	Gond	ST									
447	322/7	0.109	0.109	Hiradyal Shobharam	gond	ST									
448	322/8	0.109	0.109	Sukhlal Shobharam	Gond	ST									
449	322/9	0.109	0.109	Jagdeyal Subharam	gond	ST									
450	322/10	0.109	0.109	Jaipal	Gond	ST									
451	323	0.142	0.142	Rohit, S/o Ramchandra and others	Gond	ST									
452	324	0.089	0.089	Rohit, S/o Ramchandra and others	Gond	ST									
453	325/1											0.599	0.599	Below Water	
454	325/2	0.324	0.324	Rohit, S/o Ramchandra and others	Gond	ST									
455	326	0.364	0.364	Puturam Nanki	gond	ST									
456	327/1	0.259	0.259	Laxmiprasad and others	Kalar	Others									
457	327/2	0.202	0.202	Raghunath singh Rameswar	gond	ST									
458	327/3	0.202	0.202	Ramchandra singh and others	gond	ST									
459	327/4	0.328	0.328	Ramchandra singh and others	gond	ST									
460	328	0.231	0.231	Laxmiprasad and others	Kalar	Others									
461	329	0.999	0.999	Laxmiprasad and others	Kalar	Others									
462	330											0.405	0.405	Seva Bhumi Gram Nankar Kotwar	
463	331	0.579	0.579	Jairam and others	Gond	ST									
464	332	0.534	0.534	Bhagatram,Ramprasad, Rani,Chaitram S/o Pilhram and others	Gond	ST									
465	333/1											0.849	0.849	Seva Bhumi Gram Nankar Kotwar	
466	333/2	0.138	0.138	Kanhaiya S/o Ranga	Gond	ST									
467	334									0.583	0.583				
468	335/1	0.028	0.028	Pratapsingh and others	Gond	ST									
469	335/2	0.024	0.024	Hariyar Rameswarsingh	Gond	ST									
470	335/3	0.364	0.364	Jalal singh Daulat	gond	ST									
471	335/4	0.049	0.049	Pratapsingh Daulatram	gond	ST									
472	335/5	0.263	0.263	Baratram Rungu	Gond	ST									
473	336, 337, 338									1.536	1.536				
474	339											0.963	0.961	Road	
475	340	0.223	0.223	Jagsay and others	Kanwar	ST									
476	341	0.324	0.324	Akamkar singh Rameswar	Gond	ST									
477	342/1	0.162	0.162	Rohit S/o Ramchandra and others	Gond	ST									
478	342/2	0.133	0.133	Gunpati, Harishchandra and others	Gond	ST									
479	343	0.380	0.380	Akamkar singh Rameswar	Gond	ST									
480	344	0.194	0.194	Akamkar singh Rameswar	Gond	ST									
481	345											0.125	0.125	Seva Bhumi Gram Nankar Kotwar	
482	346/1 to 346/2											1.673	1.675	Below Water	
483	346/1 to 346/9	1.779	1.779	Sitaram, Jhagsua Chaitram and others	gond	ST									
484	346/1 to 346/1	1.659	1.659	Chedamara	Gond	ST									
485	346/1 to 346/4	0.405	0.405	Premchand S/o Rameshwar	Gond	ST									
486	346/2						0.223	0.223	Small Tree Forest						
487	346/5	0.344	0.344	Akamkar singh Rameswar	Gond	ST									
488	347/1	0.125	0.125	Chedamara	Gond	ST									

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
489	347/2	0.123	0.123	Akambar singh Rameswar	Gond	ST									
490	348/1	1.032	1.032	Akambar singh Rameswar	Gond	ST									
491	348/2	0.113	0.113	Akambar singh Rameswar	Gond	ST									
492	348/3	0.405	0.405	Chudaman	Gond	ST									
493	349	0.401	0.401	Jagsay and others	Gond	ST									
494	350/1	0.210	0.210	Akambar singh Rameswar	Gond	ST									
495	350/2											0.194	0.194	Below Water	
496	351											0.150	0.150	Below Water	
497	352	0.170	0.170	Gangadhar and others	Agharia	Others									
498	353/1 ka	0.405	0.405	Sonu and others	Uraw	ST									
499	353/1 ga	0.202	0.202	Gangadhar Sahigam and others	Agharya	Others									
500	353/2	0.364	0.364	Pratapsingh Daulatram	gond	ST									
501	355/1	0.053	0.053	Salik Ram and others	Agharya	Others									
502	355/2	0.145	0.145	Lalaram Girdhari and others	Agharya	Others									
503	356/1	0.368	0.368	Salik Ram and others	Agharya	Others									
504	356/2	0.174	0.174	Lalaram Girdhari and others	Agharya	Others									
505	357/1	0.045	0.045	Salik Ram and others	Agharya	Others									
506	357/2	0.101	0.101	Nankuram Girdhari	Agharya	Others									
507	357/3	0.510	0.510	Salik Ram and others	Agharya	Others									
508	357/4	0.069	0.069	Lalaram and others	Agharya	Others									
509	357/5	0.089	0.089	Jagdish Girdhari	Agharya	Others									
510	357/6	0.344	0.344	Keshav Prasad Girdhari	Agharya	Others									
511	357/7	0.227	0.227	Jagdish Girdhari	Agharya	Others									
512	357/8	0.032	0.032	Jagdish Girdhari	Agharya	Others									
513	357/9	0.032	0.032	Keshav Prasad Girdhari	Agharya	Others									
514	357/10	0.053	0.053	Nankuram Girdhari	Agharya	Others									
515	357/11	0.056	0.056	Lalaram and others	Agharya	Others									
516	357/12	0.308	0.308	Lalaram and others	Agharya	Others									
517	358/1	0.283	0.283	Padmavati W/o Damodarand others	Gond	ST									
518	358/2	0.186	0.186	Chandan Daulatram and others	Gond	ST									
519	358/3	0.186	0.186	Milapsingh	Gond	ST									
520	358/4	0.360	0.360	Pratapsingh Daulatram	gond	ST									
521	359/1	0.267	0.267	Gangadhar Sahiram and others	Agharya	Others									
522	359/2	0.405	0.405	Padmavati W/o Damodarand others	Gond	ST									
523	359/3	0.162	0.162	Akambar singh	Gond	ST									
524	359/4	0.162	0.162	Nankuram Girdhari	Agharya	Others									
525	360/1	0.162	0.162	Maheshram Uderam	Gond	ST									
526	360/2											0.081	0.081	Seva Bhumi Gram Naukari Kerwar	
527	360/3	0.243	0.243	Pratapsingh and others	Gond	ST									
528	360/4	0.162	0.162	Milapsingh	Gond	ST									
529	360/5	0.433	0.433	Jaita singh Daulat	gond	ST									
530	360/6	0.032	0.032	Milap singh Daulatram	Gond	ST									
531	360/7	0.040	0.040	Pratapsingh Daulatram	gond	ST									
532	360/8	0.101	0.101	Milap singh Daulatram	Gond	ST									
533	360/9	0.308	0.308	Chandan Daulatram and others	Gond	ST									
534	360/10	0.116	0.116	Milapsingh	Gond	ST									
535	360/11	0.129	0.129	Ramsingh	Gond	ST									
536	360/12	0.053	0.053	Bhaskhsingh S/o Uderam	Gond	ST									
537	360/13	0.061	0.061	Rahulkumar Ramchandra	Gond	ST									
538	360/14	0.162	0.162	Gajanand AyidhyaPrasad and others	Gond	ST									
539	361											0.172	0.170	Seva Bhumi Gram Naukar Kolwar	
540	362											0.405	0.405	Seva Bhumi Gram Naukar Kolwar	

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
543	363											0.299	0.299	Seva Bhumi Gram Naukar Kotwar	
543	364											0.458	0.458	Seva Bhumi Gram Naukar Kotwar	
543	365/1											0.757	0.757	Seva Bhumi Gram Naukar Kotwar	
544	365/2									0.251	0.251				
545	366/1									1.753	1.753				
546	366/2											0.020	0.020	Agriculture Department	
547	367											0.235	0.235	Seva Bhumi Gram Naukar Kotwar	
548	368	1.449	1.449	Premanand S/o Rameshwar	Gond	ST									
549	369/1	0.182	0.182	Shaktiram S/o Sakram	Gond	ST									
550	369/2	0.219	0.219	Laxmiprasad and others	Kalar	Others									
551	369/3	0.308	0.308	Tejendra, Praful, Surendra S/o Mitaipsingh	Gond	ST									
552	370/1	0.291	0.291	Raghunath, Motilal, Akamber, Chaturam and others	Gond	ST									
553	370/2	0.081	0.081	Gajanand and others	gond	ST									
554	370/3	0.324	0.324	Jalal singh Daulat	Gond	ST									
555	370/4	0.170	0.170	Chatram S/O Bokhiramram	Gond	ST									
556	371/1	0.151	0.151	Premanand S/o Rameshwar	Gond	ST									
557	371/2	0.105	0.105	Gayanand Ayodhyaprasad and others	Gond	ST									
558	371/3	0.129	0.129	Mitap singh Daulatram	Gond	ST									
559	371/4	0.113	0.113	Bairaksingh S/o Uderam	Gond	ST									
560	371/5	0.079	0.079	Maheshram Uderam	Gond	ST									
561	371/6	0.076	0.076	Gayanand and others	Gond	ST									
562	372											1.447	1.447	Seva Bhumi Gram Naukar Kotwar	
563	372/1	0.275	0.275	Padmavati W/o Durigdas and others	Gond	ST									
564	373/2	0.336	0.336	Jalal singh Daulat	gond	ST									
565	374	0.709	0.709	Salik Ram and others	Agnarya	Others									
566	375/1 min /1	0.101	0.101	Maheshram Uderam	Gond	ST									
567	375/1 min /3	0.129	0.129	Bairaksingh S/o Uderam	Gond	ST									
568	375/1 min /3	0.121	0.121	Gajanand and others	Gond	ST									
569	375/1 min /4	0.097	0.097	Ramsingh Uderam	gond	ST									
570	375/1 min /5	0.101	0.101	Maheshram Uderam	Gond	ST									
571	375/1 min /6	0.101	0.101	Kanhaiya and others	Gond	ST									
572	375/1 min /7	0.141	0.141	Bairakhsingh S/o Uderam	Gond	ST									
573	375/1 min /8	0.069	0.069	Kanhaiya and others	Gond	ST									
574	375/1 min /9	0.069	0.069	Gayanand Ayodhyaprasad and others	Gond	ST									
575	375/1 min /10	0.069	0.069	Maheshram Uderam	Gond	ST									
576	375/1 min /11	0.162	0.162	Bairaksingh S/o Uderam	Gond	ST									
577	375/1 min /12	0.043	0.043	Ramsingh Uderam	gond	ST									
578	375/1 min /13	0.178	0.178	Kanhaiya and others	Gond	ST									
579	375/1 min /14	0.101	0.101	Ramsingh Uderam	gond	ST									
580	375/1 min /15	0.048	0.048	Maheshram Uderam	Gond	ST									
581	375/1 min /16	0.101	0.101	Maheshram Uderam	Gond	ST									

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
582	375/1 to /17	0.151	0.153	Gajanand Ayodhya Prasad and others	Gond	ST									
583	375/1 [illegible]	0.117	0.117	Jailal singh Daulat	gond	ST									
584	375/1 [illegible]	0.125	0.125	Milap singh Daulatram	Gond	ST									
585	375/1 [illegible]	0.231	0.231	Pratapsingh Daulatram	gond	ST									
586	375/1 [illegible]	0.113	0.113	Chandan Daulatram and others	Gond	ST									
587	375/1 [illegible]	0.109	0.109	Chandan Daulatram and others	Gond	ST									
588	375/1 [illegible]	0.109	0.109	Jailal singh Daulat	Gond	ST									
589	375/1 [illegible]	0.108	0.108	Milap singh Daulatram	Gond	ST									
590	376	0.729	0.729	Gangadhar Sukkram and others	Aghariya	Others									
591	377	4.283	4.283	Raghunath, Motilal, Akanbar, Chudawani and others	Gond	ST									
592	378	0.729	0.729	Akanbar singh	Gond	ST									
593	379/1	0.162	0.162	Kanhaiya and others	Gond	ST									
594	379/2	0.113	0.113	Milapsingh	Gond	ST									
595	379/3	0.121	0.121	Pratapsingh Daulatram	gond	ST									
596	379/4	0.041	0.041	Jailal singh Daulat	Gond	ST									
597	379/5	0.049	0.049	Chandan Daulatram and others	Gond	ST									
598	379/6	0.162	0.162	Gajanand Ayodhya Prasad and others	Gond	ST									
599	380/1	0.425	0.425	Harihar Rameswarsingh	Gond	ST									
600	380/2	0.243	0.243	Ramsingh Uderam	gond	ST									
601	380/3	0.081	0.081	Milap singh Daulatram	Gond	ST									
602	380/4	0.121	0.121	Pratapsingh Daulatram	gond	ST									
603	380/5	0.041	0.041	Jailal singh Daulat	gond	ST									
604	380/6	0.040	0.040	Chandan Daulatram and others	Gond	ST									
605	381/1	0.065	0.065	Jagdish	Aghariya	Others									
606	381/2	0.069	0.069	Keshav Prasad Girdhari	Aghariya	Others									
607	381/3	0.085	0.085	Lalaram Girdhari	Aghariya	Others									
608	381/4	0.097	0.097	Nanuram Girdhari	Aghariya	Others									
609	382/1	0.081	0.081	Sitram S/o Manikuram	Kanwar	ST									
610	382/2	0.073	0.073	Chaitram S/o Manikuram	Kanwar	ST									
611	382/3	0.073	0.073	Sukdev S/o Manikuram	Kanwar	ST									
612	382/4	0.223	0.223	Baalal S/o Rajaram	Kanwar	ST									
613	382/5	0.080	0.080	Chaitram	Kanwar	ST									
614	383/1	1.801	1.801	Nilambar Sahdev and others	Kanwar	ST									
615	383/2	1.209	1.109	A.Krishna Bhagirathi and others	Kanwar	ST									
616	383/3	0.486	0.486	Bhojram and others	Kanwar	Others									
617	383/4	0.170	0.170	Bhojram and others	Kanwar	Others									
618	384	0.287	0.287	Bhojram and others	Kanwar	Others									
619	385/1 to	0.211	0.211	Jailal singh Daulat	Gond	ST									
620	385/1 to	0.437	0.437	Gangadhar and others	Aghariya	Others									
621	385/1 [illegible]	0.012	0.012	Pratapsingh Daulatram	gond	ST									
622	385/2 to	0.129	0.135	Nilambar Sahdev and others	Kanwar	ST									
623	385/2 to	0.275	0.275	Bhojram	Kanwar	Others									
624	386	0.262	0.262	Nilambar Sahdev and others	Kanwar	ST									
625	387/1	0.129	0.129	Nilambar Sahdev and others	Kanwar	ST									
626	387/2	0.427	0.427	Rajkumar and others	Kanwar	ST									
627	387/3	0.120	0.120	A.Krishna Bhagirathi and others	Kanwar	ST									
628	387/4	0.119	0.119	Bhojram and others	Kanwar	Others									
629	387/5	0.150	0.150	Aarmi Kumar S/o Mohan	Kanwar	ST									
630	388/1	0.202	0.202	Nilambar Sahdev and others	Kanwar	ST									
631	388/2	0.085	0.085	Milap singh Daulatram	Gond	ST									
632	388/3	0.275	0.275	Rajkumar and others	Kanwar	ST									
633	388/4	0.182	0.182	Raghunath singh	Gond	ST									
634	388/4	0.020	0.020	Milap singh Daulatram	Gond	ST									
635	389/1	0.316	0.316	Milap singh Daulatram	Gond	ST									

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		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
636	389/2	0.364	0.364	Raghunath singh Rameswar	gond	ST									
637	390/1	0.214	0.214	Milap singh Daulatram	Gond	ST									
638	390/2	0.328	0.328	Raghunath singh	Gond	ST									
639	390/3	0.526	0.526	Milap singh Daulatram	Gond	ST									
640	390/4	0.867	0.867	Raghunath singh Rameswar	gond	ST									
641	391/1	0.138	0.138	Raghunath singh Rameswar	gond	ST									
642	391/2	0.251	0.251	Milap singh Daulatram	Gond	ST									
643	391/3	0.020	0.020	Raghunath singh Rameswar	gond	ST									
644	392/1	0.085	0.085	Raghunath singh Rameswar	gond	ST									
645	392/2	0.073	0.073	Milap singh Daulatram	Gond	ST									
646	393/1	0.243	0.243	Milap singh Daulatram	Gond	ST									
647	393/2	0.055	0.065	Ramsingh Uderam	gond	ST									
648	393/3	0.008	0.008	Raghunath singh Rameswar	gond	ST									
649	393/4	0.089	0.089	Pratapsingh	Gond	ST									
650	393/5	0.085	0.085	Dalal singh Darlat	gond	ST									
651	393/6	0.085	0.085	Khanden Daulatram and others	Gond	ST									
652	393/7	0.085	0.085	Milap singh Daulatram	Gond	ST									
653	393/8	0.065	0.065	Kanhaiya and others	Gond	ST									
654	393/9	0.065	0.065	Govanand Avidhyaprasad and others	Gond	ST									
655	393/10	0.073	0.073	Bankhtainga S/o Uderam	Gond	ST									
656	393/11	0.076	0.076	Mal sahzm Uderam	Gond	ST									
657	394	0.251	0.251	Ramsh'n	Kanwar	ST									
658	395/1	0.114	0.114	Motilal and others	Gond	ST									
659	395/2	0.169	0.169	Raghunath singh Rameswar	gond	ST									
660	396	0.202	0.202	Raghunath singh Rameswar	gond	ST									
661	397/1	1.550	1.550	Raghunath, Moolal, Adambar, Chudaraam and others	Gond	ST									
662	397/2	0.352	0.352	Raghunath singh Rameswar	gond	ST									
663	398/1	0.243	0.243	Hiralal S/o Rajaram	Kanwar	ST									
664	398/2	1.335	1.335	Vinyaram and others	Kanwar	ST									
665	398/3	0.061	0.061	Pancharam Ramsingh S/o Ponaa	Kanwar	ST									
666	398/4	0.101	0.101	Pancharm and others	Kanwar	ST									
667	398/5	0.219	0.219	Ramsingh Rata	Kanwar	ST									
668	398/6	1.133	1.133	Pancharm and others	Kanwar	ST									
669	398/7	0.202	0.202	Ramabhi	Kanwar	ST									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
670	398/8	0.065	0.065	Setram	Kanwar	ST									
671	398/9	0.024	0.024	Chaitram S/o Mankuram	Kanwar	ST									
672	398/10	0.121	0.121	Sukdev	Kanwar	ST									
673	398/11	0.101	0.101	Chaitram S/o Mankuram	Kanwar	ST									
674	398/12	0.048	0.048	Sukdev S/o Mankuram	Kanwar	ST									
675	398/13	0.048	0.048	Setram	Kanwar	ST									
676	398/14	0.048	0.049	Setram S/o Mankuram	Kanwar	ST									
677	398/15	0.048	0.048	Sukdev S/o Mankuram	Kanwar	ST									
678	398/16	0.485	0.485	Hiralal S/o Rajaram	Kanwar	ST									
679	398/17	0.057	0.057	Setram S/o Mankuram	Kanwar	ST									
680	398/18	0.089	0.089	Hiralal S/o Rajaram	Kanwar	ST									
681	398/19	0.251	0.251	Sukdev S/o Mankuram	Kanwar	ST									
682	398/20	0.202	0.202	Hiralal S/o Rajaram	Kanwar	ST									
683	398/21	0.057	0.057	Sukdev S/o Mankuram	Kanwar	ST									
684	398/22	0.057	0.057	Chaitram S/o Mankuram	Kanwar	ST									
685	398/23	0.057	0.057	Setram S/o Mankuram	Kanwar	ST									
686	398/24	0.073	0.073	Chaitram	Kanwar	ST									
687	398/25	0.073	0.073	Setram S/o Mankuram	Kanwar	ST									
688	398/26	0.064	0.064	Setram S/o Mankuram	Kanwar	ST									
689	398/27	0.064	0.064	Chaitram S/o Mankuram	Kanwar	ST									
690	398/28	0.129	0.129	Hiralal S/o Rajaram	Kanwar	ST									
691	399/1	0.870	0.870	Vijayram, Vidyasagar S/o Laxmiram	Kanwar	ST									
692	399/2	0.829	0.829	Vijayram and others	Kanwar	ST									
693	399/3	0.775	0.775	Hiralal S/o Rajaram	Kanwar	ST									
694	399/4	0.202	0.202	Panchram,Ramsingh S/o Pungu	Kanwar	ST									
695	399/5	0.008	0.008	Ramdas	Kanwar	ST									
696	399/6	0.324	0.324	Sukdev S/o Mankuram	Kanwar	ST									
697	399/7	0.308	0.308	Setram S/o Mankuram	Kanwar	ST									
698	399/8	0.304	0.304	Chaitram	Kanwar	ST									
699	399/9	0.304	0.304	Hiralal S/o Rajaram	Kanwar	ST									
700	399/10	0.040	0.040	Chaitram S/o Mankuram	Kanwar	ST									
701	400											0.365	0.963	Road	
702	401	0.405	0.405	Jagsay and others	Kanwar	ST									
703	402	1.206	1.206	Keshav Prasad Girdhari	Aghariya	Others									
704	403	0.777	0.777	Jagsay and others	Kanwar	ST									
705	404	0.255	0.255	Ramsingh Rata	Kanwar	ST									
706	405/1	0.324	0.324	Sahik Ram and others	Aghariya	Others									
707	405/2	0.769	0.769	Raghunath, Motilal,Akanbar, Chudaraini and others	Gond	ST									
708	405/3	0.073	0.073	Jagdidish	Ayloniya	Others									
709	405/4	0.469	0.055	Lalaram and others	Aghariya	Others									
710	405/5	0.101	0.101	Keshav Prasad Girdhari	Aghariya	Others									
711	405/6	0.085	0.085	Nankoram Girdhari	Aghariya	Others									
712	406						0.097	0.097	Small Tree Forest						
713	407/1	0.542	0.542	Lalaram Girdhari	Aghariya	Others									
714	407/2	0.473	0.473	Nankuram Girdhari	Aghariya	Others									
715	314/408	0.093	0.093	Hariha	Gond	ST									
716	360/409									0.202	0.202				
717	360/410/1	0.932	0.932	Ramsingh and others	Kanwar	ST									
718	360/410/2	0.154	0.154	Milapsingh Dantaram	Gond	ST									
719	360/410/3	0.146	0.145	Milapsingh	Gond	ST									
720	360/410/4	0.110	0.110	Parakhsingh S/o Uderam	Gond	ST									
721	360/410/5	0.101	0.101	Rohitkumar Ramchandra	Gond	ST									
722	363/411	0.225	0.225	Laxmiprasad and others	Kalu	Others									
Total of Cure		163.203	157.224				2.461	1.957		10.482	10.482	16.029	15.837		

Shri Hari / Under Secretary
Govt of India
Ministry of Coal
Shastri Bhawan
New Delhi

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Land Schedule

Village : Saraitola, P.H.N.: 39, R.I.Circle : Tamnar, Tehsil :Tamnar, District : Raigarh (Chhattisgarh)

Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
1	9/3	0.575	0.305	Mahesh Ram	Kanwar	ST									
2	9/4	0.833	0.608	Mining Lease Through S.D.M. Gharghoda											
3	9/5	0.923	0.708	Mining Lease Through S.D.M. Gharghoda											
4	9/6	0.729	0.266	Mining Lease Through S.D.M. Gharghoda											
5	9/9	0.081	0.081	Mining Lease Through S.D.M. Gharghoda											
6	9/10	0.081	0.081	Mining Lease Through S.D.M. Gharghoda											
7	9/12	0.247	0.190	Mining Lease Through S.D.M. Gharghoda											
8	9/14	0.721	0.400	Parkhit and others											
9	9/15	0.212	0.262	Mining Lease Through S.D.M. Gharghoda											
10	10/1 क						3.064	2.923	Small Tree Forest						
11	10/1 ख	0.809	0.809	Shambhu Das Kamaldas	Pnka	Others									
12	10/1 ग	0.607	0.607	Sundarmati W/o Maheshwa Das	Pnka	Others									
13	10/1 घ	1.214	1.214	Munnaram / Rupsingh	Gond	ST									
14	10/1 ङ						0.445	0.465	Small Tree Forest						
15	10/2											0.850	0.681	Below Watar	
16	11	0.255	0.255	Dharam Singh Nengi and others	Kanwar	ST									
17	12	0.543	0.543	Shambhu Das Kamaldas	Pnka	Others									
18	13/1	0.636	0.636	Manbodh Chakridhar	Aghariya	Others									
19	13/2	0.162	0.162	Ratan S/o Jagesar and others	Manjhi	Others									
20	14/1	0.661	0.661	Santosh S/o Ratu	Kanwar	ST									
21	14/2	0.194	0.194	Mohitram Veer singh	Kanwar	ST									
22	14/3	0.194	0.194	Ganpatsingh Veersingh	Kanwar	ST									
23	14/4	0.202	0.202	Ramkmar Thandaram	Kanwar	ST									
24	14/5	0.202	0.202	Vijayram Thandaram	Kanwar	ST									
25	15/1	0.085	0.085	Vidyadhar Ramsingh and others	Kanwar	ST									
26	15/2	0.243	0.243	Mehettar, Srkmati S/o Bekram and others	Kanwar	ST									
27	16	0.376	0.376	Phulal, Ramlal S/o Suksagar and others	Kanwar	ST									
28	17/1	0.101	0.101	Chaitram S/o Jeltartam and others	Kanwar	ST									
29	17/2	0.231	0.231	Bhagnathu	Kanwar	ST									
30	17/3	0.101	0.101	Fintram S/o Gaurya	Kanwar	ST									
31	18/1						1.401	1.185	Small Tree Forest						
32	18/2, 18/10									1.619	1.619				
33	18/3						0.202	0.202	Small Tree Forest						
34	18/4						0.405	0.405	Small Tree Forest						
35	18/5						0.405	0.405	Small Tree Forest						
36	18/6	0.202	0.202	Bhugdev, Sukdev S/o Maheshram and others	Manjhi	Others									
37	18/7	0.049	0.049	Arvar S/o Dhansingh	Lohar	Others									
38	18/8	0.210	0.210	Gangaram S/o Hiraram	Kanwar	ST									
39	18/9									3.023	2.023				
40	19/1	0.324	0.324	Mining Lease Through S.D.M. Gharghoda											
41	19/2	0.607	0.596	Mining Lease Through S.D.M. Gharghoda											
42	19/3	0.324	0.324	Mining Lease Through S.D.M. Gharghoda											
43	19/4	0.554	0.554	Mining Lease Through S.D.M. Gharghoda											
44	20/1	2.073	1.935	Mining Lease Through S.D.M. Gharghoda											
45	20/2	0.599	0.480	Mining Lease Through S.D.M. Gharghoda											
46	22/2	0.194	0.142	Mining Lease Through S.D.M. Gharghoda											

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
47	22/3											0.223	0.032	Below Watar
48	26/13	0.101	0.041	Mining Lease Through S.D.M. Gharghoda										
49	26/14	0.101	0.056	Mining Lease Through S.D.M. Gharghoda										
50	26/15	0.101	0.081	Mining Lease Through S.D.M. Gharghoda										
51	35/1	2.078	0.711	Mining Lease Through S.D.M. Gharghoda										
52	59/1	0.085	0.061	Mining Lease Through S.D.M. Gharghoda										
53	61											0.425	0.189	Seva Bhumi Gram Naukar Kotwar
54	62/1	0.651	0.651	Mining Lease Through S.D.M. Gharghoda										
55	62/2									0.049	0.049			
56	62/3	0.198	0.198	Mining Lease Through S.D.M. Gharghoda										
57	63/1	0.020	0.020	Mining Lease Through S.D.M. Gharghoda										
58	63/2									0.045	0.045			
59	63/3	0.012	0.012	Mining Lease Through S.D.M. Gharghoda										
60	63/4	0.324	0.324	Mining Lease Through S.D.M. Gharghoda										
61	63/5	0.016	0.016	Mining Lease Through S.D.M. Gharghoda										
62	63/6	0.324	0.324	Mining Lease Through S.D.M. Gharghoda										
63	63/7	0.255	0.255	Mining Lease Through S.D.M. Gharghoda										
64	64									0.085	0.085			
65	65									0.097	0.097			
66	66									0.077	0.077			
67	67									0.097	0.097			
68	68									0.045	0.045			
69	69									0.101	0.101			
70	70	0.873	0.867	Mining Lease Through S.D.M. Gharghoda										
71	71/1	0.340	0.235	Mining Lease Through S.D.M. Gharghoda										
72	71/5	0.230	0.200	Mining Lease Through S.D.M. Gharghoda										
73	71/6	0.206	0.119	Mining Lease Through S.D.M. Gharghoda										
74	72/1	0.259	0.221	Mining Lease Through S.D.M. Gharghoda										
75	72/2									0.073	0.073			
76	72/3	0.413	0.413	Mining Lease Through S.D.M. Gharghoda										
77	72/4	0.259	0.259	Mining Lease Through S.D.M. Gharghoda										
78	72/5	0.089	0.089	Dhovai singh and others	Kanvar	ST								
79	73/1						0.979	0.654	Small Tree Forest					
80	73/3	0.795	0.670	Mining Lease Through S.D.M. Gharghoda										
81	74	0.295	0.295	Mining Lease Through S.D.M. Gharghoda										
82	75/1	0.263	0.263	Bhavarsay Dokra	Kanvar	ST								
83	75/2	0.563	0.563	Mining Lease Through S.D.M. Gharghoda										
84	75/3	0.316	0.316	Amarsay Dokra	Kanvar	ST								
85	76/1 क	0.198	0.198	Mining Lease Through S.D.M. Gharghoda										
86	76/1 ख	0.202	0.202	Mining Lease Through S.D.M. Gharghoda										
87	76/2									0.162	0.162			
88	77									0.097	0.097			
89	78									0.301	0.301			
90	79/1	0.024	0.024	Mining Lease Through S.D.M. Gharghoda										
91	79/2	0.117	0.117	Mining Lease Through S.D.M. Gharghoda										
92	79/3	0.098	0.098	Mining Lease Through S.D.M. Gharghoda										
93	80									0.105	0.105			

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
94	81									0.085	0.085				
95	82									0.121	0.121				
96	85									1.243	1.243				
97	84/1 क	0.053	0.053	Gajpati S/oKurso and others	Gada	ST									
98	84/1 ख	0.150	0.150	Gajpati S/oKurso and others	Gada	ST									
99	84/1 ग	0.081	0.081	Kripal singh S/o RaghuNath and others	Rajput	Others									
100	84/1 घ	0.028	0.028	Dasrathi, Mangu kumar S/o Kalapram and others	Gada	ST									
101	84/2									0.024	0.024				
102	85									0.138	0.138				
103	86											0.227	0.227	Road	
104	87									0.081	0.081				
105	88									0.154	0.154				
106	89									0.065	0.065				
107	90									0.049	0.049				
108	91/1	0.190	0.190	Manchar and others	Aghatiya	Others									
109	91/2									0.219	0.219				
110	92									0.109	0.109				
111	93									0.117	0.117				
112	94	0.202	0.202	Gangaram S/o Hiraram	Kanvar	ST									
113	95	0.328	0.328	Panchram Dokri and others	Kanvar	ST									
114	95/1	0.053	0.053	Mahesh Ram Ramdhan	Kanvar	ST									
115	96/2	0.056	0.056	Dhanrjay Aanandram	Kanvar	ST									
116	96/3	0.024	0.024	Aasharam and others	Kanvar	ST									
117	96/4	0.015	0.015	Gyancharan Parsuram and others	Kanvar	ST									
118	96/5	0.052	0.052	Parkhit and others	Kanvar	ST									
119	96/6	0.016	0.016	Thakur Ram Rajaram	Kanvar	ST									
120	96/7	0.055	0.055	Rukman Rameswar and others	Kanvar	ST									
121	97/1											0.506	0.506	Road	
122	97/2	0.032	0.032	Panchram Dokri and others	Kanvar	ST									
123	97/3	0.032	0.032	Parvati Chamra and others	Kanvar	ST									
124	97/4	0.020	0.020	Kanvarsingh S/o Pingal and others	Kanvar	ST									
125	97/5											0.202	0.202	Road	
126	98									0.397	0.397				
127	99									0.372	0.372				
128	100									0.081	0.081				
129	101									0.142	0.142				
130	102									0.016	0.016				
131	103									0.109	0.109				
132	104											0.416	0.416	Road	
133	105/1	0.578	0.578	Phulal, Ramlal S/o Suksagar and others	Kanvar	ST									
134	105/2	0.208	0.208	Chantram S/o Jethuram and others	Kanvar	ST									
135	105/3	0.061	0.061	Firiram S/o Gautiya	Kanvar	ST									
136	105/4	0.061	0.061	Pihulal and others	Kanvar	ST									
137	106/1	0.483	0.483	Dhansingh and others	Kanvar	ST									
138	106/2	0.081	0.081	Sumitra W/o Khokha	Kanvar	ST									
139	106	0.100	0.100	Dhansingh and others	Kanvar	ST									
140	105/4	0.081	0.081	Parvati Chamra and others	Kanvar	ST									
141	106/5	0.081	0.081	Karammati	Kanvar	ST									

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
142	106/6	0.028	0.028	Karamnath	Kanvar	ST								
143	106/7	0.028	0.028	Parvati Chamra and others	Kanvar	ST								
144	106/8	0.028	0.028	Sumitra	Kanvar	ST								
145	107									0.097	0.097			
146	108	0.121	0.121	Ramila W/o Parkhit and others	Kanvar	ST								
147	109/1	0.166	0.166	Mahesh Ram Ramdhan	Kanvar	ST								
148	109/2	0.081	0.081	Jaisheyay Aanandram	Kanvar	ST								
149	109/3	0.052	0.052	Mahesh Ram Ramdhan	Kanvar	ST								
150	109/4	0.081	0.081	Aasharam and others	Kanvar	ST								
151	109/5	0.117	0.117	Thakur Ram Rajaram	Kanvar	ST								
152	109/6	0.166	0.166	Parkhit and others	Kanvar	ST								
153	109/7	0.061	0.061	Ramila W/o Parkhit and others	Kanvar	ST								
154	109/8	0.008	0.008	Mahesh Ram Ramdhan	Kanvar	ST								
155	109/9	0.077	0.077	Gurucharan, Parsuram and others	Kanvar	ST								
156	109/10	0.081	0.081	Rukmani Rameswar and others	Kanvar	ST								
157	110/1						13.529	13.529	Small Tree Forest					
158	110/2											0.202	0.202	Below Watar
159	110/3	0.061	0.061	Phulal, Ramlal S/o Suksagar and others	Kanvar	ST								
160	110/4	0.162	0.162	Manbodh Chakrdhar	Aghariya	Others								
161	110/5	0.243	0.243	Panchram and others	Kanvar	ST								
162	110/6	0.061	0.061	Gurucharan, Parsuram and others	Kanvar	ST								
163	110/7	0.089	0.089	Phulal and others	Kanvar	ST								
164	110/8						0.809	0.809	Small Tree Forest					
165	110/9						0.202	0.202	Small Tree Forest					
166	110/10						0.405	0.405	Small Tree Forest					
167	110/11						0.809	0.809	Small Tree Forest					
168	110/12						0.720	0.720	Small Tree Forest					
169	110/13						0.494	0.494	Small Tree Forest					
170	111	0.291	0.991	Padmani, Kalyan	Kanvar	ST								
171	112	0.454	0.454	Ghasiya and others	Kanvar	ST								
172	113	1.015	1.015	Na Kanta Kumar S/o Abhimanyu and others	Kanvar	ST								
173	114	0.967	0.967	Ghasiya and others	Kanvar	ST								
174	115						0.845	0.845	Small Tree Forest					
175	116/1	0.308	0.308	Gangabai W/o Kalyan	Kanvar	ST								
176	116/2	0.267	0.267	Na Kanta Kumar S/o Abhimanyu and others	Kanvar	ST								
177	116/3	0.567	0.567	Gangabai W/o Kalyan	Kanvar	ST								
178	116/4	0.717	0.717	Na Kolta and others	Kanvar	ST								
179	117	2.845	2.845	Ghora Das Sadhudas and others	Panisa	Others								
180	118	0.340	0.340	Phulal, Ramlal S/o Suksagar and others	Kanvar	ST								
181	119											0.049	0.049	Below Watar
182	120	0.785	0.785	Panchram Dukri and others	Kanvar	ST								
183	121/1	0.129	0.129	Parkhit and others	Kanvar	ST								
184	121/2	0.182	0.182	Kaushalya W/o Aanandram	Kanvar	ST								
185	121/3	0.186	0.186	Mahesh Ram Ramdhan	Kanvar	ST								
186	121/4	0.142	0.142	Aasharam and others	Kanvar	ST								
187	121/5	0.186	0.186	Ramila W/o Parkhit and others	Kanvar	ST								
188	121/6	0.182	0.182	Rukmani Rameswar and others	Kanvar	ST								
189	122/1	0.088	0.088	Dhaniram	Aghariya	Others								

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Sl No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
190	122/2	0.450	0.450	Kunvarsingh S/o Pingal and others	Kanvar	ST									
191	122/3	0.142	0.142	Dhnvar Rishiram and others	Kanvar	ST									
192	122/4	0.101	0.101	Bhogsingh Gadewam	Kanvar	ST									
193	122/5	0.228	0.228	Bururam Huradhar	Aghariya	Others									
194	122/6	0.040	0.040	Manohar Chakrdhar	Aghariya	Others									
195	123/1	0.119	0.119	Chandravati W/o Ratiram	Kanvar	ST									
196	123/2	0.234	0.234	Ghurau Das S/o Jailal	Kanvar	ST									
197	123/3	0.121	0.121	Shanti Ratiram	Kanvar	ST									
198	124	0.413	0.413	Manikdas S/o Piladas and others	Panika	Others									
199	125/1											0.486	0.486	Road	
200	125/2	0.016	0.016	Gajpati S/oKurso and others	Gada	ST									
201	126/1 क	0.138	0.138	Manbodh Chakrdhar	Aghariya	Others									
202	126/1 ख	0.162	0.162	Manohar Nayak and others	Rajput	Others									
203	126/1 ग	0.207	0.207	Manohar Chakrdhar	Aghariya	Others									
204	126/1 घ	0.275	0.275	Kripal singh S/o RaghuNath and others	Rajput	Others									
205	126/1 ङ	0.202	0.202	Manbodh ,Radhika, Dhankuvar S/o Chakradhar	Aghariya	Others									
206	126/2	0.129	0.129	Manohar Nayak and others	Rajput	Others									
207	126/3	0.028	0.028	Bundeli	Manjhi	Others									
208	126/4	0.202	0.202	Kalapram, Kenvara S/o Tulsi	Gada	ST									
209	126/5	0.255	0.255	Firitram S/o Gautiya	Kanvar	ST									
210	127/1	0.926	0.883	Manohar Chakrdhar	Aghariya	Others									
211	127/2	0.053	0.053	M.P Government Gram Panchayat											
212	127/3	0.632	0.632	Lakeswar Huradhar	Aghariya	Others									
213	127/4	0.518	0.518	Maniram Chakrdhar	Aghariya	Others									
214	127/5	0.454	0.454	Bururam Huradha	Aghariya	Others									
215	128/1	0.210	0.184	Bundeli	Manjhi	Others									
216	129	0.678	0.628	Chaturam Chakrdhar	Aghariya	Others									
217	130	0.926	0.926	Ghasiya and others	Kanvar	ST									
218	131/1	0.146	0.146	Dhovai Rishiram and others	Kanvar	ST									
219	131/2	0.291	0.291	Dhovai Rishiram and others	Kanvar	ST									
220	131/3	0.053	0.053	Manohar Nayak	Aghariya	Others									
221	131/4	0.154	0.154	Firitram S/o Gautiya	Kanvar	ST									
222	132	0.559	0.559	Vidyadhar Ramsingh and others	Kanvar	ST									
223	133/1						3.634	3.634	Small Tree Forest						
224	133/2						1.214	1.214	Small Tree Forest						
225	133/3						0.405	0.405	Small Tree Forest						
226	133/4											0.172	0.172	Seva Bhumi Gram Nankar Kolwar	
227	134	0.162	0.162	Ghasiya and others	Kanvar	ST									
228	135	0.194	0.194	Premshankar S/o Kuriram	Kanvar	ST									
229	136	0.085	0.085	Ghasiya and others	Kanvar	ST									
230	137/1	0.245	0.245	Chaitram S/o Jethuram and others	Kanvar	ST									
231	137/2	1.011	1.011	Dharam Singh Nengi and others	Kanvar	ST									
232	137/3	0.121	0.121	Dharam Singh Nengi and others	Kanvar	ST									
233	137/4	0.129	0.129	Firitram S/o Gautiya	Kanvar	ST									
234	137/5	0.214	0.214	Chaitram S/o Jethuram and others	Kanvar	ST									
235	137/6	0.231	0.231	Firitram S/o Gautiya	Kanvar	ST									
236	137/7	0.129	0.129	Chaitram S/o Jethuram and others	Kanvar	ST									

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
237	137/8	0.247	0.247	Firitram S/o Gautiya	Kanwar	ST								
238	138	2.246	2.246	Parmatma Sharan and others	Kanwar	ST								
239	138/2	0.081	0.081	Mehettar, Sukmati S/o Beloram and others	Kanwar	ST								
240	139	0.320	0.320	Nankiram	Nai	Others								
241	140/1	0.610	0.610	Parmatma Sharan and others	Kanwar	ST								
242	140/2	0.490	0.490	Nankiram	Nai	Others								
243	141/1	0.288	0.288	Mirketan,Satyanand S/oTvari Prasad and others	Kanwar	ST								
244	141/2	0.065	0.065	Ghurau Das Sadhudas and others	Panika	Others								
245	141/3	0.065	0.065	Firitram S/o Gautiya	Kanwar	ST								
246	141/4	0.395	0.397	Tulsi Bai Tularam	Kalar	Others								
247	141/5	0.150	0.150	Tulsi Bai Tularam	Kalar	Others								
248	141/6	0.165	0.165	Tulsi Bai Tularam	Kalar	Others								
249	141/7	0.085	0.085	Tulsi Bai Tularam	Kalar	Others								
250	141/8	0.397	0.397	Ravishankar, Suresh kumar S/o Mangbar	Aghariya	Others								
251	141/9	0.202	0.202	Tulsi Bai Tularam	Kalar	Others								
252	141/10	0.283	0.283	Bhagvatibai W/o Ganeshram	Kanwar	ST								
253	142											1.019	1.019	Seva Bhumi Gram Naukar Kotwar
254	143	2.821	2.821	Thakur Ram and others	Kanwar	ST								
255	144/1	0.202	0.202	Bhagirathi	Kanwar	ST								
256	144/2	0.324	0.324	Dharam Singh Nengi and others	Kanwar	ST								
257	144/3	0.490	0.490	Ganeram Bhagirathi and others	Kanwar	ST								
258	144/4	0.486	0.486	Dharam Singh Nengi and others	Kanwar	ST								
259	145/1	0.264	0.264	Ramdulari D/o Jairam	Kanwar	ST								
260	145/2	0.316	0.316	Mahesh Ram Ramchan	Kanwar	ST								
261	145/3	0.567	0.567	Thakur Ram	Kanwar	ST								
262	145/4	0.105	0.105	Mahesh Ram Ramdhan	Kanwar	ST								
263	145/5	0.586	0.586	Aasharam and others	Kanwar	ST								
264	145/6	0.122	0.122	Rukmani Rameswar and others	Kanwar	ST								
265	145/7	0.364	0.364	Aasharam and others	Kanwar	ST								
266	145/8	0.275	0.275	Ramila W/o Parkhit and others	Kanwar	ST								
267	145/9	0.105	0.105	Parkhit and others	Kanwar	ST								
268	145/10	0.121	0.121	Ramchran S/o Ratanram and others	Kanwar	ST								
269	145/11	0.053	0.053	Ramdulari D/o Jairam	Kanwar	ST								
270	145/12	0.053	0.053	Thakur Ram Rajaram	Kanwar	ST								
271	145/13	0.053	0.053	Gouricharan, Parsuram and others	Kanwar	ST								
272	145/14	0.121	0.121	Dhanunjay Aanandram	Kanwar	ST								
273	146	1.441	1.441	Vivek Kumar Gokul and others	Kanwar	ST								
274	147											1.011	1.011	Road
275	148	0.551	0.551	Vivek Kumar Gokul and others	Kanwar	ST								
276	149/1	0.571	0.571	Parmatma Sharan and others	Kanwar	ST								
277	149/2	0.089	0.089	Govardhan, Angat S/o Bhalu	Kanwar	ST								
278	150/1	0.914	0.914	Na. Kolta and others	Kanwar	ST								
279	150/2	1.084	1.084	Na Kanta Kumar S/o Abhimanyu and others	Kanwar	ST								
280	150/3	0.243	0.243	Na Kanta Kumar S/o Abhimanyu and others	Kanwar	ST								
281	151/1	0.008	0.008	Kalairam S/o Regahi	Kanwar	ST								
282	151/2	0.910	0.910	Kaushalya W/o Aanandram	Kanwar	ST								
283	152/1	0.421	0.421	Ravishankar Sadhram and others	Kanwar	ST								

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Sl.No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
284	152/2	0.211	0.211	Manohar Chakradhar	Aghariya	Others									
285	152/3	0.207	0.207	Bajturam Hiradha	Aghariya	Others									
286	153/1 क	0.308	0.308	Ravishankar, Suresh kumar S/o Manohar	Aghariya	Others									
287	153/1 ख	0.356	0.356	Manikdas S/o Piladas and others	Panika	Others									
288	153/1 ग	0.125	0.125	Ghurau Das Sadhudas and others	Panika	Others									
289	153/1 घ	0.142	0.142	Manikdas S/o Piladas and others	Panika	Others									
290	153/2	0.809	0.809	Sadhram and others	Kanvar	ST									
291	153/3	0.186	0.186	Basantram and others	Kanvar	ST									
292	153/4	0.040	0.040	Basantram And others	Kanvar	ST									
293	153/5	0.159	0.159	Manikdas S/o Piladas and others	Panka	Others									
294	153/6	0.272	0.272	Ravishankar and others	Aghariya	Others									
295	154/1	0.364	0.364	Kunvarsingh S/o Pingal and others	Kanvar	ST									
296	154/2	0.121	0.121	Mangal Mangal	Kanvar	ST									
297	154/3	0.143	0.143	Bhogsingh Gadaram	Kanvar	ST									
298	155/1 क	0.202	0.202	Gajpati S/oKurso and others	Gada	ST									
299	155/1 ख	0.154	0.154	Gajpati S/oKurso and others	Gada	ST									
300	155/1 ग	0.405	0.405	Kripal singh S/o RaghuNath and others	Rajput	Others									
301	155/1 घ	0.364	0.364	Ramila W/o Parkhit and others	Kanvar	ST									
302	155/1 च	0.101	0.101	Kalapram, Kanvara S/o Tulsi	Gada	ST									
303	155/2	0.040	0.040	Ramcharan Ralaa ram	Kanvar	ST									
304	155/3	0.364	0.364	Kalapram, Kanvara S/o Tulsi	Gada	ST									
305	155/4	0.198	0.198	Kalapram, Kanvara S/o Tulsi	Gada	ST									
306	155/5	0.041	0.041	Jairam	Kanvar	ST									
307	156/1	0.134	0.134	Bhogsingh Gadaram	Kanvar	ST									
308	156/2	0.121	0.121	Piriram S/o Gantiya	Kanvar	ST									
309	156/3	0.101	0.101	Piriram S/o Gautiya	Kanvar	ST									
310	156/4	0.122	0.122	Ganesh ram S/o Balaram	Kanvar	ST									
311	156/5	0.101	0.101	Ganesh ram S/o Balaram	Kanvar	ST									
312	156/6	0.194	0.194	Kunvarsingh S/o Pingal and others	Kanvar	ST									
313	156/7	0.113	0.113	Bhogsingh Gadaram	Kanvar	ST									
314	156/8	0.251	0.251	Mangal Mangal	Kanvar	ST									
315	157/1	0.138	0.138	Padmavati, Kalyan	Kanvar	ST									
316	157/2	0.561	0.561	Na Kanta and others	Kanvar	ST									
317	157/3	0.502	0.502	Padmavati, Kalyan	Kanvar	ST									
318	157/4	0.049	0.049	Na Kanta and others	Kanvar	ST									
319	158/1	0.154	0.154	Mahesh Ram Ramdhan	Kanvar	ST									
320	158/2	0.239	0.239	Dhanurjay Anandram	Kanvar	ST									
321	158/3	0.154	0.154	Ramila W/o Parkhit and others	Kanvar	ST									
322	158/4	0.239	0.239	Rukmani Rameswar and others	Kanvar	ST									
323	159	0.409	0.409	Pihulal and others	Kanvar	ST									
324	160	0.773	0.773	Ganesh Govardhan	Kanvar	ST									
325	161/1	0.342	0.342	Manohar and others	Kanvar	ST									
326	161	0.342	0.342	Radheshyam and others	Rawat	Others									
327	162/1											0.930	0.930	Seva Bharati Gram Nankar Kotwar	
328	162/2 क	0.632	0.632	Sadhram and others	Kanvar	ST									
329	162/2 ख	0.636	0.636	Ramkumar Sunau	Kanvar	Others									
330	163/1	0.393	0.393	Ravishankar Sadaram and others	Kanvar	ST									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
331	163/2	0.069	0.069	Radheshyam and others	Raval	Others									
332	163/3	0.138	0.138	Dhansingh, Raysingh S/o Balakram	Kanvar	ST									
333	163/4	0.138	0.138	Ravishankar Sadhram and others	Kanvar	ST									
334	163/5	0.069	0.069	Setram and others	Raval	Others									
335	164/1, 164/2	0.231	0.231	Lakeswar Hiradhar	Aghariya	Others									
336	164/3	0.235	0.235	Manbodh , Radhika, Dhankuvar S/o Chakradhar	Aghariya	Others									
337	165/1	0.510	0.510	Ramkumar Sonan	Konvat	Others									
338	165/2	0.069	0.069	Lakeswar Hiradhar	Aghariya	Others									
339	165/3	0.073	0.073	Manuram Chakrdhar	Aghariya	Others									
340	166/1	0.453	0.453	Dharam Singh Nengi and others	Kanvar	ST									
341	166/2	0.243	0.243	Ganeram Bhagaathi and others	Kanvar	ST									
342	166/3	0.113	0.113	Firitram S/o Gautiya	Kanvar	ST									
343	166/4	0.202	0.202	Chaitram S/o Jetheram and others	Kanvar	ST									
344	166/5	0.296	0.296	Firitram S/o Gautiya	Kanvar	ST									
345	167/1	0.405	0.405	Ravishankar Sadhram and others	Kanvar	ST									
346	167/2	0.409	0.409	Panchram Dokri and others	Kanvar	ST									
347	168/1	0.209	0.209	Mahesh Ram Ramdhan	Kanvar	ST									
348	168/2	0.208	0.208	Ramila W/o Parkhit and others	Kanvar	ST									
349	169	0.320	0.320	Parmatma Sharan and others	Kanvar	ST									
350	170/1	0.214	0.214	Dukhdai Makardas	Panika	Others									
351	170/2	0.202	0.202	Panchram Dokari and others	Kanvar	ST									
352	171/1											0.991	0.991	Road	
353	171/2, 176	0.522	0.522	Phulal, Ramlal S/o Suksagar and others	Kanvar	ST									
354	171/3	0.040	0.040	Radheshyam and others	Ravat	Others									
355	171/4	0.016	0.016	Ramkmar Thandaram	Kanvar	ST									
356	171/5	0.020	0.020	Ghuran Das Sadhudas and others	Panika	Others									
357	171/6	0.016	0.016	Mangal	Kanvar	ST									
358	172/1	0.156	0.156	Manohar Chakrdhar	Aghariya	Others									
359	172/2	0.156	0.156	Huadhar and others	Aghariya	Others									
360	173/1	0.081	0.081	Shriram Shishupal	Raval	Others									
361	173/2	0.065	0.065	Radheshyam and others	Raval	Others									
362	173/3	0.073	0.073	Setram and others	Raval	Others									
363	173/4	0.202	0.202	Radheshyam and others	Raval	Others									
364	173/5	0.174	0.174	Setram and others	Raval	Others									
365	173/6	0.235	0.235	Shriram Shishupal	Raval	Others									
366	173/7	0.085	0.085	Setram and others	Raval	Others									
367	173/8	0.056	0.056	Radheshyam and others	Raval	Others									
368	174/1	0.093	0.093	Vyavram Thandaram	Kanvar	ST									
369	174/2	0.129	0.129	Ramkmar Thandaram	Kanvar	ST									
370	174/3	0.122	0.122	Ganpatsingh Veersingh	Kanvar	ST									
371	174/4	0.122	0.122	Mohitpara Veer singh	Kanvar	ST									
372	175/1	0.114	0.114	Mahesh Ram Ramdhan	Kanvar	ST									
373	175/2	0.113	0.113	Ramila W/o Parkhit and others	Kanvar	ST									
374	177/1	0.057	0.057	Minkotan Tivariprasad and others	Kanvar	ST									
375	177/2	0.113	0.113	Na Kanta Kumar , Sanjay, Hem kumari and others	Kanvar	ST									
376	177/3	0.195	0.195	Shanti Raliram	Kanvar	ST									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
377	177/4	0.053	0.053	Minketan Tivariprasad and others	Kanvar	ST									
378	178/	0.243	0.243	Ghurau Das Sadhudas and others	Panika	Others									
379	179/1	0.069	0.069	Kunvarsingh S/o Pragal and others	Kanvar	ST									
380	179/2	0.089	0.089	Dhapvai Rushiram and others	Kanvar	ST									
381	179/3	0.344	0.344	Manga Mangal	Kanvar	ST									
382	179/4	0.069	0.069	Bhogsingh	Kanvar	ST									
383	180/1	0.246	0.246	Ruxmani Rameswar and others	Kanvar	ST									
384	180/2	0.263	0.263	Mahesh Ram Ramdhan	Kanvar	ST									
385	180/3	0.077	0.077	Ramchran S/o Ratanram and others	Kanvar	ST									
386	180/4	0.299	0.299	Mahesh Ram Ramdhan	Kanvar	ST									
387	180/5	0.142	0.142	Aasharam and others	Kanvar	ST									
388	180/6	0.142	0.142	Ramcluran S/o Ratanram and others	Kanvar	ST									
389	180/7	0.157	0.157	Gumchuran, Parsuram and others	Kanvar	ST									
390	180/8	0.263	0.263	Ramila W/o Parkhat and others	Kanvar	ST									
391	180/9	0.229	0.229	Ramila W/o Parkhat and others	Kanvar	ST									
392	180/10	0.079	0.079	Ramedulari D/o Jairam	Kanvar	ST									
393	180/11	0.056	0.056	Thakur Ram Rajuram	Kanvar	ST									
394	180/12	0.247	0.247	Dhanurjay Anandram	Kanvar	ST									
395	181/1						0.040	0.040	Small Tree Forest						
396	181/2						0.045	0.045	Small Tree Forest						
397	182											0.295	0.295	Below Water	
398	183						0.283	0.283	Small Tree Forest						
399	184	0.186	0.186	Mahesh Ram Ramdhan	Kanvar	ST									
400	185	1.023	1.023	Panchram Dokra and others	Kanvar	ST									
401	186	0.277	0.277	Gurau Das Sadhudas and others	Panika	Others									
402	187	0.870	0.870	Gangaram S/o Hiraram	Kanvar	ST									
403	188	0.910	0.910	Gangaram S/o Hiraram	Kanvar	ST									
404	189	0.138	0.138	Ghurau Das Sadhudas and others	Panika	Others									
405	190/1	0.320	0.320	Dharam Singh Nengi and others	Kanvar	ST									
406	190/2	0.101	0.101	Chaitram S/o Jethuram and others	Kanvar	ST									
407	190/3	0.113	0.113	Firatram S/o Gautiya	Kanvar	ST									
408	191/1	0.566	0.566	Gangaram Hootaram	Kanvar	ST									
409	191/2	0.154	0.154	Ghurau Das S/o Jaital	Kanvar	ST									
410	191/3	0.397	0.397	Panchram and others	Kanvar	ST									
411	191/4	0.016	0.016	Dharamsingh Nengi	Kanvar	ST									
412	191/5	0.024	0.024	Firatram S/o Gautiya	Kanvar	ST									
413	191/6	0.020	0.020	Gangaram Heeraram	Kanvar	ST									
414	191/7	0.462	0.462	Gangaram Heeraram	Kanvar	ST									
415	191/8	0.202	0.202	Dharamsingh Injor	Kanvar	ST									
416	192	0.081	0.081	Dharam Singh Nengi and others	Kanvar	ST									
417	193/1	0.061	0.061	Vijayram Thandaram	Kanvar	ST									
418	193/2	0.061	0.061	Ganpatsingh Veersingh	Kanvar	ST									
419	193/3	0.006	0.006	Mohitram Veer singh	Kanvar	ST									
420	194/1	0.324	0.324	Amarsay Dokra	Kanvar	ST									
421	194/2	0.368	0.368	Dharamsingh Nengi	Kanvar	ST									
422	195	1.011	1.011	Mangal Mangal	Kanvar	ST									
423	196	2.023	2.023	Dharamsingh , Injor	Kanvar	ST									
424	197/1	0.369	0.369	Amarsay Dokra	Kanvar	ST									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars	
425	197/2	0.368	0.368	Bhavarsay	Kanvar	ST									
426	198/	0.603	0.603	Padmavati, Kalyan	Kanvar	ST									
427	199/	0.287	0.287	Vivek Kumar Gokul and others	Kanvar	ST									
428	200/	0.223	0.223	Vivek Kumar Gokul and others	Kanvar	ST									
429	201/1	0.417	0.417	Parmatma Sharan and others	Kanvar	ST									
430	201/2	0.235	0.235	Vivek kumar and and others	Kanvar	ST									
431	202/	0.243	0.243	Vivek Kumar Gokul and others	Kanvar	ST									
432	203/	0.336	0.336	Ghasiya and others	Kanvar	ST									
433	204/	0.951	0.951	Parmatma Sharan and others	Kanvar	ST									
434	205	0.648	0.648	Vivek Kumar Gokul and others	Kanvar	ST									
435	206/1 ल	0.101	0.101	Janmejay Aanandram	Kanvar	ST									
436	206/1 य	0.559	0.559	Ramila W/o Parkhit and others	Kanvar	ST									
437	206/1 र	0.142	0.142	Aasharam and others	Kanvar	ST									
438	206/1 ब	0.105	0.105	Ratanram	Kanvar	ST									
439	206/1 श	0.081	0.081	Janmejay Aanandram	Kanvar	ST									
440	206/1 ष	0.081	0.081	Aasharam and others	Kanvar	ST									
441	206/1 स	0.150	0.150	Jairam	Kanvar	ST									
442	206/1 ह	0.138	0.138	Gurucharan, Parsuram and others	Kanvar	ST									
443	206/1 क्ष	0.101	0.101	Thakur Ram Rajaram	Kanvar	ST									
444	206/1 त्र	0.178	0.178	Ramchnn S/o Kataruam and others	Kanvar	ST									
445	206/1 ज्ञ	0.142	0.142	Thakur Ram Rajaram	Kanvar	ST									
446	206/1 ठ	0.146	0.146	Jairam	Kanvar	ST									
447	206/1 ढ	0.158	0.158	Gurnchan, Parsuram and others	Kanvar	ST									
448	206/1 ण	0.101	0.101	Rukmani and others	Kanvar	ST									
449	206/1 त	0.040	0.040	Rukmani Rameswar and others	Kanvar	ST									
450	206/2	0.405	0.405	Jogram, Saguna, Budhan S/o Gada ram and others	Rawat	Others									
451	207	0.146	0.146	Na.Kanta Kumar S/o Abhimanyu and others	Kanvar	ST									
452	208	0.178	0.178	Na.Kanta Kumar , and others	Kanvar	ST									
453	209/1	0.065	0.065	Padmavati, Kalyan	Kanvar	ST									
454	209/2	0.397	0.397	Na.Kanta Kumar , and others	Kanvar	ST									
455	209/3	0.709	0.709	Padmavati,W/o Tejaram	Kanvar	ST									
456	210	0.227	0.227	Na.Kanta Kumar S/o Abhimanyu and others	Kanvar	ST									
457	211/1	0.119	0.119	Aasharam and others	Kanvar	ST									
458	211/2	0.174	0.174	Aasharam and others	Kanvar	ST									
459	211/3	0.017	0.017	Gurucharan, Parsuram and others	Kanvar	ST									
460	211/4	0.121	0.121	Thakur Ram Rajaram	Kanvar	ST									
461	211/5	0.101	0.101	Gurucharan, Parsuram and others	Kanvar	ST									
462	211/6	0.032	0.032	Thakur Ram and others	Kanvar	ST									
463	211/7	0.032	0.032	Ratanram	Kanvar	ST									
464	212	0.247	0.247	Dharam Singh Nengi and others	Kanvar	ST									
465	213/1	0.117	0.117	Phulal, Ramlal S/o Suksagar and others	Kanvar	ST									
466	213/2											0.032	0.032	Road	
467	214											0.282	0.282	Road	
468	215	0.259	0.259	Phulal, Ramlal S/o Suksagar and others	Kanvar	ST									
469	216	0.283	0.283	Bhavarsay	Kanvar	ST									
470	217/1	0.385	0.385	Ravishankar Sadhram and others	Kanvar	ST									
471	217/2	0.773	0.773	Ghuran Das S/o Jallal	Kanvar	ST									

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
472	217/3	0.195	0.195	Shanti Ratanam	Kanvar	ST								
473	217/4	0.194	0.194	Panchram ,Prahlad,Santram,S/o Dokri	Kanvar	ST								
474	218/1	0.283	0.283	Sheram and others	Rawat	Others								
475	218/2	0.279	0.279	Sutram and others	Rawat	Others								
476	218/3	0.279	0.279	Radheshyam and others	Rawat	Others								
477	219	0.368	0.368	Padmavati W/o Tikaram	Kanvar	ST								
478	220/1	0.560	0.560	Dhansingh Balaram	Kanvar	ST								
479	220/2	0.065	0.065	Karamvati	Kanvar	ST								
480	220/3	0.065	0.065	Pithdal S/o Suksagar	Kanvar	ST								
481	220/4	0.114	0.114	Parvati Chamra and others	Kanvar	ST								
482	220/5	0.049	0.049	Pithdal S/o Suksagar	Kanvar	ST								
483	220/6	0.049	0.049	Karamvati	Kanvar	ST								
484	221/1	1.254	1.254	Ravishankar Sadhram and others	Kanvar	ST								
485	221/2	0.688	0.688	Manbodh Chakrdhar	Aghariya	Others								
486	221/3	0.429	0.429	Buturam Haradhar	Aghariya	Others								
487	222	0.983	0.983	Parmatma Sharan and others	Kanvar	ST								
488	223	0.299	0.299	Amarsay Dokra	Kanvar	ST								
489	224/1	0.076	0.076	Firiram S/o Coutiya	Kanvar	ST								
490	224/2	0.074	0.074	Chatram S/o Jethuram and others	Kanvar	ST								
491	225	0.186	0.186	Puyavati	Gada	ST								
492	226	0.360	0.360	Panchram and others	Kanvar	ST								
493	227											0.652	0.652	Seva Bhumi Gram Nankar Kotwar
494	228	0.255	0.255	Tulsi Bai Tularam	Kalar	Others								
495	229											0.849	0.849	Seva Bhumi Gram Nankar Kotwar
496	230/1	0.388	0.388	Tulsi Bai Tularam	Kalar	Others								
497	230/2	0.405	0.405	Manik Das and others	Panika	Others								
498	230/3	0.295	0.295	Manikdas S/o Phadas and others	Panika	Others								
499	230/4	0.728	0.728	Atmaram and others	Manjhi	Others								
500	230/5	0.162	0.162	Lakeswar Haradhar	Aghariya	Others								
501	230/6	0.360	0.360	Buturam Haradhar	Aghariya	Others								
502	230/7	0.105	0.105	Tulsi Bai Tularam	Kalar	Others								
503	231/1	0.190	0.190	Dhaneriay Aanandram	Kanvar	ST								
504	231/2	0.081	0.081	Mahesh Ram Ramdhan	Kanvar	ST								
505	231/3	0.316	0.316	Rukmani and others	Kanvar	ST								
506	231/4	0.105	0.105	Aasharam and others	Kanvar	ST								
507	231/5	0.105	0.105	Gurucharan, Parsuram and others	Kanvar	ST								
508	231/6	0.133	0.133	Ramila W/o Parkhit and others	Kanvar	ST								
509	231/7	0.049	0.049	Mahesh Ram	Kanvar	ST								
510	232/1	0.215	0.215	Mahesh Ram	Kanvar	ST								
511	232/2	0.214	0.214	Ramila W/o Parkhit and others	Kanvar	ST								
512	233/1	0.263	0.263	Manohar Chakrdhar	Aghariya	Others								
513	233/2	0.478	0.478	Pancheram Dokari and others	Kanvar	ST								
514	233/3	0.352	0.352	Pancheram Dokari and others	Kanvar	ST								
515	233/4	0.089	0.089	Sundarlal	Gada	ST								
516	233/5	0.380	0.380	Privavati	Gada	ST								
517	233/6	0.259	0.259	Ravishankar, Suresh kumar S/o Manohar	Aghariya	Others								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
518	233/7	0.283	0.283	Ravishankar and others	Aghariya	Others								
519	233/8	0.518	0.518	Neharu, Jailal, Nandlal, Babulal S/o Laxmiprasad	Kalar	Others								
520	233/9	0.210	0.210	Priyavati	Gada	ST								
521	233/10	1.265	1.265	Tijiyavati and otheras	Gada	ST								
522	233/11	0.194	0.194	Priyavati	Gada	ST								
523	234	0.318	0.318	Panchram and others	Kanvar	ST								
524	235/1	0.040	0.040	Padmavati, Kaiyac	Kanvar	ST								
525	235/2	0.194	0.194	Mohanlal S/o Harishchandra	Aghariya	Others								
526	235/3	0.809	0.809	Santosh, Kartikram, S/o Ratu	Kanvar	ST								
527	235/4	0.809	0.809	Manikdas S/o Piladas and others	Panika	Others								
528	235/5	0.121	0.121	Padmavati, Kalyan	Kanvar	ST								
529	235/6	0.138	0.138	Karnikram S/o Harishchand	Aghariya	Others								
530	235/7	0.283	0.283	Ramprasad S/o Harishchand	Aghariya	Others								
531	235/8	0.178	0.178	Ghanshyam S/o Shridhar	Aghariya	Others								
532	235/9	0.097	0.097	Mohanlal Harischand	Aghariya	Others								
533	235/10	0.178	0.178	Ghanshyam Shridhar	Aghariya	Others								
534	235/11	0.178	0.178	Mohanlal	Aghariya	Others								
535	235/12	0.437	0.437	Kartikram S/o Harishchand	Aghariya	Others								
536	235/13	0.235	0.235	Ramprasad Harischand	Aghariya	Others								
537	235/14	0.178	0.178	Mohanlal Harischand	Aghariya	Others								
538	235/15	0.241	0.241	Ghanshyam Shridhar	Aghariya	Others								
539	235/16	0.453	0.453	Ramprasad Harischand	Aghariya	Others								
540	235/17	0.235	0.235	Mohanlal	Aghariya	Others								
541	236/1	0.020	0.020	Sundarlal	Gada	ST								
542	236/2	0.454	0.454	Neharu, Jailal, Nandlal, Babulal S/o Laxmiprasad	Kalar	Others								
543	236/3	0.065	0.065	Ravishankar, Suresh kumar S/o Manohar	Aghariya	Others								
544	236/4	0.182	0.182	Neharulal and others	Kalar	Others								
545	236/5	0.203	0.203	Priyavati	Gada	ST								
546	236/6	0.320	0.320	Neharu, Jailal, Nandlal, Babulal S/o Laxmiprasad	Kalar	Others								
547	236/7	0.146	0.146	Priyavati	Gada	ST								
548	236/8	0.251	0.251	Tijyamati and others	Gada	ST								
549	236/9	0.336	0.336	Tijyamati and others	Gada	ST								
550	237	0.384	0.384	Bacan Balaram and others	Kanvar	ST								
551	238/1	0.125	0.125	Manohar and others	Aghariya	Others								
552	238/2	0.126	0.126	Lakeshwar and others	Aghariya	Others								
553	239	0.644	0.644	Bhavarsay S/o Dokra and others	Kanvar	ST								
554	240	0.413	0.413	Phulsi, Rastal S/o Suksagar and others	Kanvar	ST								
555	241	0.312	0.312	Amersay Dokra	Kanvar	ST								
556	242	0.668	0.668	Karam singh and others	Aghariya	Others								
557	242/1	0.537	0.537	Buturam Hiradhar	Aghariya	Others								
558	243/2	1.300	1.300	Maturam Chakradhar	Aghariya	Others								
559	243/3	0.101	0.101	Buturam Hiradhar	Aghariya	Others								
560	243/4	0.202	0.202	Lakeswar Hiradhar	Aghariya	Others								
561	244/1	0.141	0.141	Chaitram S/o Jethuram and others	Kanvar	ST								
562	244/2	0.138	0.138	Fritram S/o Gautya	Kanvar	ST								
563	245	0.384	0.384	Ghasiya and others	Kanvar	ST								
564	246	0.417	0.417	Na Kanta Kumar S/o Abhimanyu and others	Kanvar	ST								
565	247/1	0.308	0.308	Ravishankar, Suresh kumar S/o Manohar	Aghariya	Others								

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							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
566	247/2	0.106	0.106	Dhovai Rishiram and others	Kanvar	ST								
567	248/1 ख	0.355	0.355	Mahesh Ram Ramdhan	Kanvar	ST								
568	248/1 ख	0.173	0.173	Ramila W/o Parkhit	Kanvar	ST								
569	248/1 घ	0.162	0.162	Dhaturiay Aanandram	Kanvar	ST								
570	248/1 घ	0.324	0.324	Ramila W/o Parkhit and others	Kanvar	ST								
571	248/1 ङ	0.162	0.162	Rukmani Rameswar and others	Kanvar	ST								
572	248/2	0.121	0.121	Piritram S/o Gautiya	Kanvar	ST								
573	249	0.364	0.364	Bairagni Hiradhar	Aghariya	Others								
574	250/1	0.202	0.202	Ravishankar and others	Aghariya	Others								
575	250/2	0.121	0.121	Bishnu S/o Daulatram	Uranv	ST								
576	250/3	0.259	0.259	Buturam Hiradha	Aghariya	Others								
577	250/4	0.146	0.146	Parshram Dokari and others	Kanvar	ST								
578	250/5	0.203	0.203	Mira Bai W/o Nanki	Naai	Others								
579	250/6	0.182	0.182	Dhovai Rishiram and others	Kanvar	ST								
580	250/7	0.229	0.229	Manohar Chakrdhar	Aghariya	Others								
581	250/8	0.373	0.373	Fatiram S/o Gautiya	Kanvar	ST								
582	251	0.113	0.113	Panchram Dokari and others	Kanvar	ST								
583	252/1	0.410	0.410	Mahesh Ram Ramdhan	Kanvar	ST								
584	252/2	0.250	0.250	Bishnu S/o Daulatram	Uranv	ST								
585	253	0.995	0.995	Angad S/o Bhalu	Kanvar	ST								
586	254	0.219	0.219	Ganesh Ram , Gowardhan and others	Kanvar	ST								
587	255/1	0.251	0.251	Vijayram Thandoram	Kanvar	ST								
588	255/2	0.049	0.049	Ramkmar Thandaram	Kanvar	ST								
589	255/3	0.074	0.074	Ramkmar Thandaram	Kanvar	ST								
590	255/4	0.129	0.129	Mohitram Veer singh	Kanvar	ST								
591	255/5	0.129	0.129	Ganpatsingh Veersingh	Kanvar	ST								
592	256/1	1.159	1.159	Gangaram S/o Huraram	Kanvar	ST								
593	256/2	0.163	0.163	Parvati Chamra and others	Kanvar	ST								
594	256/3	0.085	0.085	Pahlal S/o Suksagar	Kanvar	ST								
595	256/4	0.085	0.085	Karamvati	Kanvar	ST								
596	256/5	0.070	0.070	Ransingh Balaram	Kanvar	ST								
597	256/6	0.243	0.243	Dhansingh and others	Kanvar	ST								
598	257	0.178	0.178	Gangaram Heeraram	Kanvar	ST								
599	258	0.194	0.194	Gangaram Heeraram	Kanvar	ST								
600	259/1	1.214	1.214	Na.Kanta Kumar S/o Abhimanyu and others	Kanvar	ST								
601	259/2	0.162	0.162	Bhagirathi	Kanvar	ST								
602	259/3	0.498	0.498	Mo. Kalia and others	Kanvar	ST								
603	259/4	0.809	0.809	Padmavati,W/o Tikaram	Kanvar	ST								
604	260	0.514	0.514	Ravishankar Sadhram and others	Kanvar	ST								
605	261/1	0.626	0.626	Bhagirathi	Kanvar	ST								

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Sl. No.	Khasra No.	Private Land					Government Land								
							Revenue Forest			Populated		Other's			
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
606	261/2	0.283	0.283	Dharam Singh Nengi and others	Kanvar	ST								
607	262/1	0.330	0.330	Rukmani Rameswar and others	Kanvar	ST								
608	262/2	0.636	0.636	Mahesh Ram	Kanvar	ST								
609	262/3	0.239	0.239	Rukmani Rameswar and others	Kanvar	ST								
610	262/4	0.069	0.069	Thakur Ram Rajaram	Kanvar	ST								
611	262/5	0.635	0.635	Ramila W/o Parkhit and others	Kanvar	ST								
612	262/6	0.101	0.101	Gurucharan, Parsuram and others	Kanvar	ST								
613	262/7	0.329	0.329	Janmejay Aanandram	Kanvar	ST								
614	262/8	0.239	0.239	Dhanunjay Aanandram	Kanvar	ST								
615	263	0.223	0.223	Ghasiya and others	Kanvar	ST								
616	264	0.186	0.186	Parmatma Sharan and others	Kanvar	ST								
617	265/1	0.251	0.251	Bhavarsey Dokra	Kanvar	ST								
618	265/2	0.202	0.202	Kalaram S/o Kanshiram	Kanvar	ST								
619	266	0.910	0.910	Parmatma Sharan and others	Kanvar	ST								
620	267/1	0.049	0.049	Sundarlal	Gada	ST								
621	267/2	0.162	0.162	Sadaram and others	Kanvar	ST								
622	267/3	0.162	0.162	Piriram S/o Gautiya	Kanvar	ST								
623	267/4	0.324	0.324	Piriram S/o Gautiya	Kanvar	ST								
624	268	0.117	0.117	Sundarlal	Gada	ST								
625	269/1	0.530	0.530	Padmavati, Kalyan	Kanvar	ST								
626	269/2	0.445	0.445	Padmani, Kalyan	Kanvar	ST								
627	270/1 क	0.110	0.110	Gajpati S/oKurse and others	Gada	ST								
628	270/1 ख	0.660	0.660	Gajpati S/oKurso and others	Gada	ST								
629	270/1 ग	0.243	0.243	Kripalsingh and oters	Rajput	Others								
630	270/1 घ	0.202	0.202	Akturam and others	Kanvar	ST								
631	270/1 ङ	0.242	0.213	Kalapram S/o Tulsiram	Gada	ST								
632	270/1 च	0.109	0.109	Mst.Dukhkhai W/o Makardas	Panika	Others								
633	270/2	0.611	0.611	Kalapram, Kenvara S/o Tulsi	Gada	ST								
634	271/1	1.477	1.477	Padmavati, Kalyan	Kanvar	ST								
635	271/2	0.397	0.397	Kuriram S/o Gautiya	Kanvar	ST								
636	271/3	0.526	0.526	Akturam and others	Kanvar	ST								
637	271/4	0.210	0.210	Janakram S/o Akturam and others	Kanvar	ST								
638	272/1	0.073	0.073	Ramkmar Thandaram	Kanvar	ST								
639	272/2	0.081	0.081	Ramkumar and others	Kanvar	ST								
640	272/3	0.076	0.076	Ganpatsingh Veersingh	Kanvar	ST								
641	272/4	0.074	0.074	Mohitram Veer singh	Kanvar	ST								
642	273/1	0.220	0.220	Aasharam and others	Kanvar	ST								
643	273/2	0.245	0.245	Mahesh Ram Ramdhan	Kanvar	ST								
644	273/3	0.061	0.061	Antarvanti Birbal S/o Ram	Manjhi	Others								
645	273/4	0.245	0.245	Ranula W/o Parkhit and others	Kanvar	ST								
646	274	1.392	1.392	Sunao	Kanvar	Others								
647	275	0.417	0.417	Piriram S/o Gautiya	Kanvar	ST								
648	276	0.097	0.097	Mehettar, Sukmati S/o Bolaram and others	Kanvar	ST								
649	106/277/1	0.245	0.245	Kunvarsingh S/o Pingal and others	Kanvar	ST								
650	106/277/2	0.251	0.251	Bhogsingh	Kanvar	ST								
651	117/278/1	0.336	0.336	Vidyadhar Ramsingh and others	Kanvar	ST								
652	117/278/2	0.057	0.057	Dhansingh Balaram	Kanvar	ST								
653	117/279	0.182	0.182	Panchram Dokri and others	Kanvar	ST								

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Sl. No.	Khasra No.	Private Land					Government Land							
							Revenue Forest			Populated		Other's		
		Total Area	Applied Area	Owner's Name	Cast	ST/Others	Total Area	Applied Area	Particulars	Total Area	Applied Area	Total Area	Applied Area	Particulars
654	250/280	0.530	0.530	Karamsingh and others	Kanvar	ST								
655	263/281/1	0.121	0.121	Ramkesar Thandaram	Kanvar	ST								
656	263/281/2	0.410	0.410	Vijayram Thandaram	Kanvar	ST								
657	263/281/3	0.113	0.113	Ganpatsingh Veersingh	Kanvar	ST								
658	263/281/4	0.113	0.113	Mohitram Veer singh	Kanvar	ST								
659	45/282											0.105	0.105	Below Water
Total of Saraitola		173.180	169.950				30.335	29.705		8.395	8.395	9.929	9.333	

Dr. (Smt.) I.P. NAGPAL / I.P. NAGPAL
Under Secretary / Under Secretary
Govt. of India / Govt. of India
Ministry of Coal / Ministry of Coal
Shastri Bhawan / Shastri Bhawan
New Delhi / New Delhi

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सेन्ट्रल माईन प्लानिंग एण्ड डिजाइन इन्स्टीच्यूट लिमिटेड
(कोल इण्डिया लिमिटेड की अनुषंगी कम्पनी / भारत सरकार का एक लघुरत्न उपक्रम)
गोण्डवाना प्लेस, कांके रोड, राँची - 834 031, झारखंड (भारत)
Central Mine Planning & Design Institute Limited
(A Subsidiary of Coal India Limited / Govt. of India Public Sector Undertaking)
Gondwana Place, Kanke Road, Ranchi - 834 031, Jharkhand (INDIA)
Corporate Identity Number (CIN): U14292JH1975GOI001223

फैक्स / स्पीड डाक द्वारा

पत्रांक : सीएमपीडीआई / बी.डी. / C(886)/ //&P दिनांक : 26.02.2016

सेवा में,

The Executive Director (Fuel/ Coal)
MAHAGENCO,
Prakashgad, 3rd Floor, Bandra (East)
Mumbai (Maharashtra) -400 051
Fax No. – 022-26581466
E-mail: edfuel@mahagenco.in

विषय : **Certification of Geological Coordinates used in preparation of Mining Plan of Gare Palma Sector-II Coal Mine of M/s Mahagenco in accordance with the vesting order -- Reg. Submission of Certificate (Job no. 511015230)**

संदर्भ : i) CMPDI's offer letter no. सीएमपीडीआई / बी.डी. / ए (003)ऑफर भों -XXII / 45 दिनांक : 25.01.2016
ii) Your Work Order no. Mahagenco/ED(Fuel/Coal)35 dtd. 04.02.2016

महोदय,

This has reference to your Work Order no. Mahagenco/ED(Fuel/Coal)35 dtd. 04.02.2016 in response to our offer letter dtd.18.12.2015 for the subject assignment.

Plan showing the Geological co-ordinates (Latitude, Longitude) used in the preparation of Mining Plan of Gare Palma Sector-II Coal Mine, which was submitted by you was examined by the committee constituted for the same. Accordingly, the two copies of plans having CMPDI's certification with its observation is enclosed herewith.

धन्यवाद एवं सदैव अपनी सर्वोत्तम सेवाओं के आश्वासन सहित ।

भवदीय,

महाप्रबंधक
(व्यवसाय विकास)

Encl : As above
(2 Nos.)

L.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

फोन नम्बर / Phone No. : +91 651 2230116
फैक्स नम्बर / Fax No.: +91 651 2232249 /2231447
ई-मेल: bdd@cmpdi.co.in वेब साईट / Website: www.cmpdi.co.in

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

BOUNDARIES
AS PER BOUNDARY OF GEOLOGICAL COORDINATES AND PROP. MINING LEASE BOTH COINCIDE. (AREA=2563.48 HA)

BOUNDING CO-ORDINATES OF BLOCK (AS PER GR)	
LATITUDE	22°06'22.3288"N TO 22°10'48.0044"N
LONGITUDE	83°28'21.8556"E TO 83°31'19.0660"E

BOUNDING CO-ORDINATES OF BLOCK (AS PER VO)	
LATITUDE	22°06'23.55"N TO 22°10'37.04"N
LONGITUDE	83°28'22.18"E TO 83°31'19.00"E

N

0 200 400 600 800 1000M
SCALE

LEGEND :-

	BOUNDARY AS PER GEOLOGICAL REPORT
	BOUNDARY AS PER PROPOSED MINING LEASE
	BOUNDING COORDINATE LINE AS PER VO
	BOUNDING COORDINATE LINE AS PER GR
	BOREHOLE DRILLED BY MECL
	BOREHOLE DRILLED BY G.S.I
	REDUCED LEVEL
	TRIANGULATION STATION
	SURFACE CONTOUR
	RIVER / NALA
	ROAD
	VILLAGE
	FOREST BOUNDARY
	POND
	FAULT WITH THROW
	INCROP OF COAL SEAM
	LATERITE
	DIP & STRIKE

Certified that the plan is correct

B.D. Sharma
R.Q.P. 34012/03/2014-CPAM

Maharashtra State Power Generation Company Limited

PROJECT: GARE PELMA SECTOR-II COAL MINE

TITLE: SURFACE PLAN SHOWING
GEOLOGICAL COORDINATES BOUNDARY, PROPOSED ML BOUNDARY AND VESTING ORDER BOUNDING COORDINATES

SCALE: 1:10,000 DATE: 07-01-2016

BHALUMADA BLOCK

DONGARIYA BLOCK

GARE PELMA SECTOR I BLOCK

GARE PELMA SECTOR II/1

GARE PELMA SECTOR II/2

GARE PELMA SECTOR-I BLOCK

PROTECTED FOREST

FOREST (PUBLIC WORKS DEPARTMENT)

BOUNDING COORDINATES AS PER VESTING ORDER (GEOGRAPHICAL)

BOUNDING COORDINATES AS PER GEOLOGICAL REPORT (GEOGRAPHICAL)

अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi

Through E-mail/SPEED POST/Website of Ministry of Coal

F.No. 104/28/2015/NA
Government of India
Ministry of Coal
Office of Nominated Authority
****

World Trade Tower, New Delhi
Dated: the 13th October, 2015

NOTICE

To
All the Successful Allocattees Gare Palma Sector coal mines.

It has been brought to notice by one of the allocattees of the coal mines in Gare Palma Sector that the maximum & minimum range of boundary co-ordinates mentioned in the Vesting Order do not tally with the boundary co-ordinates notified by Ministry of Coal while resolving boundary dispute in Raigarh Coalfield, vide letter No. 13016/5/2004-CA-I dated 23.03.2012.

2. In order to resolve this dispute, CMPDIL was asked to furnish the boundary co-ordinates of all the coal mines of Gare Plama Sector. CMPDIL has informed that the earlier exercise was undertaken using the reference system based on modified Everest datum. Presently, CMPDI is following the WGS-84 system which is the standard Reference system for the Global Positioning System (GPS) followed globally and is compatible with the International Terrestrial Reference system. The values of Geographical co-ordinates (Latitude and Longitude) differ in this system than the other systems followed earlier. It is to be noted that respective positions of any point does not physically change on ground, only the coordinate value changes due to change in reference in different system. Accordingly, boundary co-ordinates of all Gare-Palma Sector coal mines worked out in **WGS 84 system** have been provided by CMPDIL and the same is annexed herewith (**Annexure-I to X**).

3. The Successful Allocattees of the Gare Palma Sector coal mines are hereby directed to note these changes. Vesting Orders will be modified accordingly.

I.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

Vivek Bharadwaj
(Vivek Bharadwaj)
Joint Secretary to the Govt. of India/Nominated Authority

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

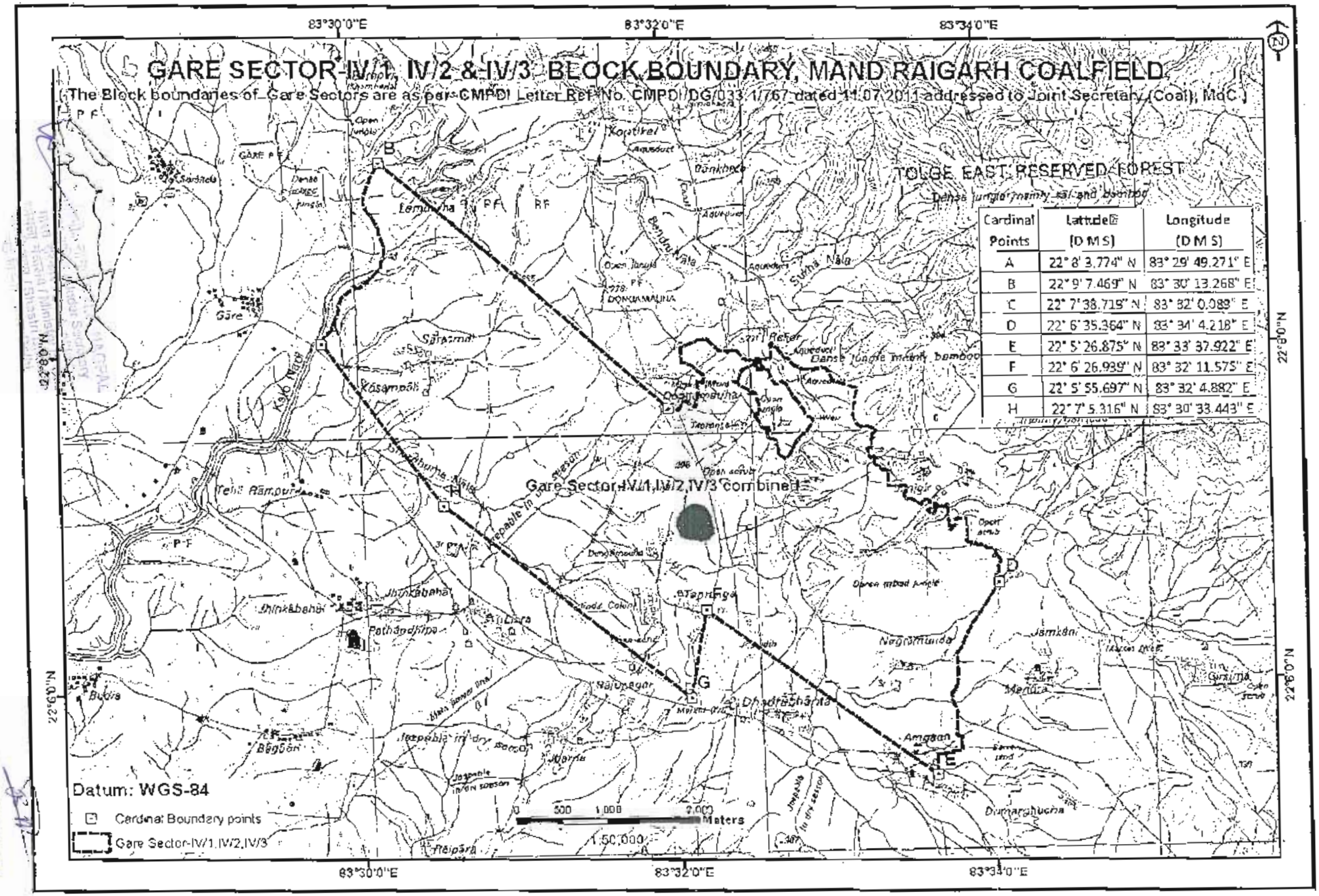
B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

B.D. SHARMA
RQP NO. 340I2/03/2014-CPAM

B.D. SHARMA
RQP NO. 34012/03/2014-CPAI

GARE SECTOR-IV/1, IV/2 & IV/3 BLOCK BOUNDARY, MAND RAIGARH COALFIELD.

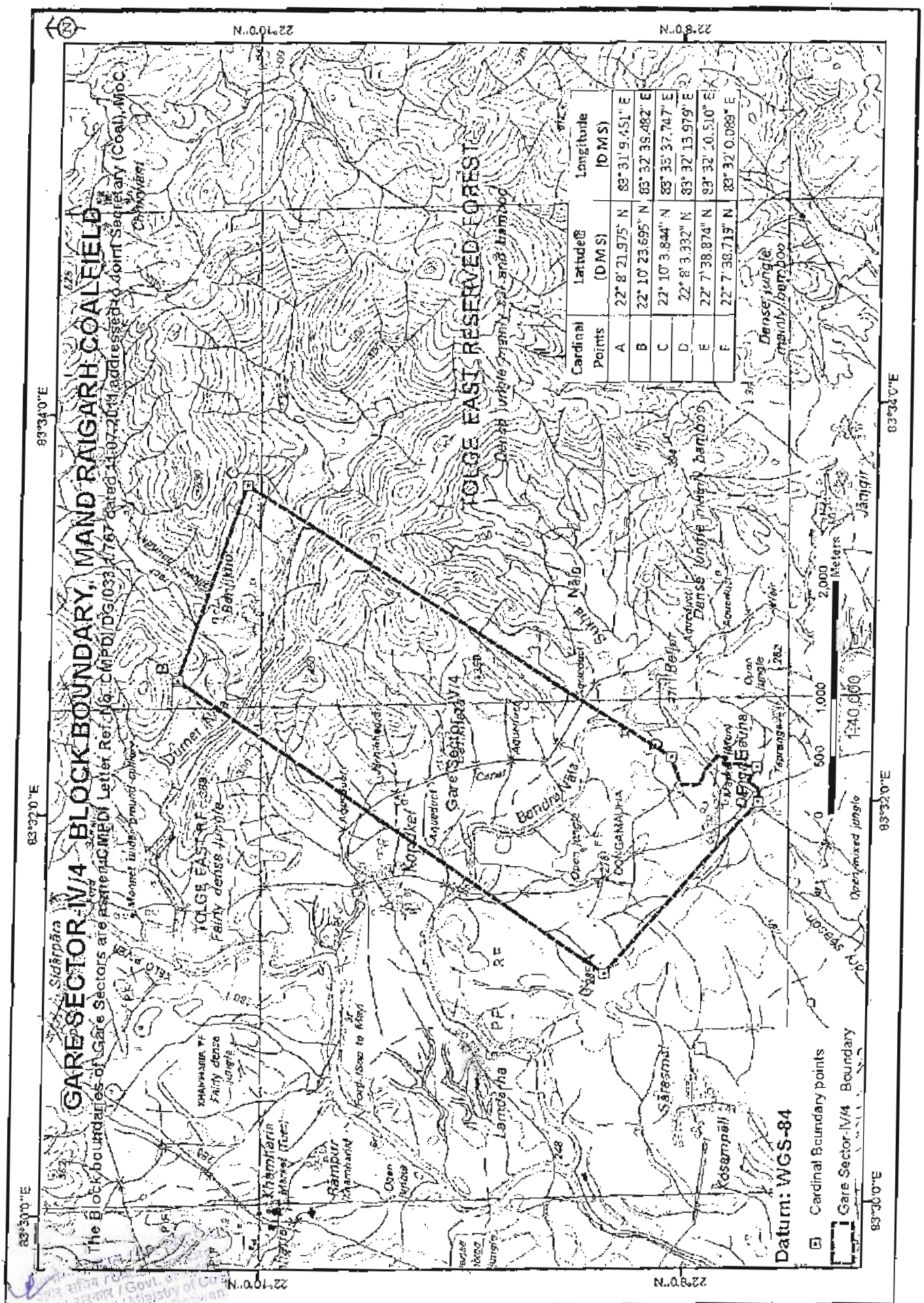
(The Block boundaries of Gare Sectors are as per CMPDI Letter Ref. No. CMPDI/DG/033-1/767 dated 11.07.2011 addressed to Joint Secretary (Coal), MoC.)



Cardinal Points	Latitude (D M S)	Longitude (D M S)
A	22° 8' 3.774" N	83° 29' 49.271" E
B	22° 9' 7.469" N	83° 30' 13.268" E
C	22° 7' 38.719" N	83° 32' 0.089" E
D	22° 6' 35.364" N	83° 34' 4.218" E
E	22° 5' 26.875" N	83° 33' 37.922" E
F	22° 6' 26.939" N	83° 32' 11.575" E
G	22° 5' 55.697" N	83° 32' 4.882" E
H	22° 7' 5.316" N	83° 30' 33.443" E

ANNEXURE : 3-3 Contd..

B.D. SHARMA
RQP NO. 340120312014-CPAM



Cardinal Points	Latitude (DMS)	Longitude (DMS)
A	22° 8' 21.975" N	83° 31' 9.451" E
B	22° 10' 23.695" N	83° 32' 38.482" E
C	22° 10' 3.844" N	83° 35' 37.747" E
D	22° 8' 3.332" N	83° 32' 13.979" E
E	22° 7' 38.874" N	83° 32' 10.510" E
F	22° 7' 38.719" N	83° 32' 0.089" E

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

Cardinal Points	Latitude (DMS)	Longitude (DMS)
A	22° 13' 24.363" N	83° 27' 48.422" E
B	22° 10' 31.455" N	83° 29' 37.515" E
C	22° 9' 57.249" N	83° 29' 38.166" E
D	22° 9' 49.320" N	83° 29' 50.405" E
E	22° 9' 9.892" N	83° 28' 57.871" E

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM.

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

ANNEXURE : 3-4

MAHAGENCO

Maharashtra State Power Generation Co Ltd.
(CIN NO-U40100MH2005SGC153648)

Office of :-
The Chief Engineer(Civil) Gen.III
M.S.P.G.C.L. 2nd floor,
Prakashgad Building, G-9,
Prof. Anant Kanekar Marg,
Bandra(E) Mumbai. 400 051.

Phones : 2672131,26474211(O)
26477070(P)
Fax : 022-26582627
Email : cgmcivil3@gmail.com
cgmcivil3@mahagenco.in

MSPGCL/CE(CIII)/Gare Pelma-II/ Dated - 28.01.2016

To,

The Addl. District Magistrate,
Collectorate Raigarh,
District Raigarh (C.G.)

Subject :-Proposed railway project Kharsia - Dharamjaigarh in Raigarh District.
Ref :- Govt of India Gazette, Ministry of Railway Notification- Bilaspur date 21st Nov.2015

Sir,

The Nominated Authority, Ministry of Coal Govt. of India vide its allotment order no. 103/30/2015/NA dated 31.08.2015 has allotted the Gare Pelma Sector-II Coal Mine to M/s Maharashtra State Power Generation Co. Ltd. (MSPGCL) for utilization of coal for power projects (Copy enclosed).

The Gare Pelma Sector-II Coal Mine is covered under villages Tihlirampur, Kunjemura, Gare , Saraitola, Muragoan, Rodopali Pata Chitwari, Dholnara, Jhinkabahal, Dolesara, Bhalumura, Sarasmal and Libra of Tahsil Tamnar, District Raigarh (C.G.)

MSPGCL has submitted the application for grant of Mining Lease to the Directorate of Geology and Mining Govt. of Chhattisgarh, Raipr vide latter dtd. 07.12.2015 and the proposal for acquisition of land for this project is initiated vide for letter dated 31.10.2015 to the Collector Raigarh.

Ministry of Railway vide Notification referred above propose to acquire the land in the villages Dolesara, Chitwahi, Pata, Radopali, Dholeshara, Taluka Tamnar District Riagarh (C.G.) which falls under the coal mine area.

As propose coal mine is Open Cast, it is very difficult to extract the coal if the Railway line is passing through our coal mine area. As such, it is requested to re-route the alignment of proposed railway project and acquire the land along the periphery/ outside of our propose boundary so that our mining activity will not be hampered.

Thanking you

Encl. - As Above

I.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

Your's faithfully

Chief Engineer.

Copy s.w.r.to;
1:- The Nominated Authority, Ministry of Coal. New Delhi
2:- Collector Raigarh (C.G.)
3:- Director , Directorate of Geology & Mining Raipur

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

Vikas Jaideo
Executive Director (Coal / Fuel)

MAHAGENCO
Maharashtra State Power Generation Co. Ltd.

Ref: Mahagenco/ED(Fuel/ Coal)/34C/30

Date 01.02.2016

To,
The District Collector ,
District : Raigarh
Chhattisgarh State

Sub: Proposed railway project Kharsia- Dharamjaigarh in Raigarh District.

Ref: 1) Govt. of India Gazette, Ministry of Railway Notification- Bilaspur dated 21.11.2015
2) Our letter dated MSPGCL/CE(CHI)/Gare Palma-II/ dated 28.01.2016

Sir,

The Ministry of Coal (MoC) has allocated Gare Palma Sector-II Coal Mine to M/s. Maharashtra State Power Generation Co. Ltd. (MAHAGENCO) vide Allotment Order no. 103/30/2015/NA dated August 31, 2015.

Gare Palma Sector II Coal Mine covered under villages Tihlirampur, Dholnara, Muragaon, Libra, Kunjemura, Jhinkabahal, Radopali, Dolesara, Bhalumura, Sarasmai, Pata, Chitwahi, Gare, Saraitola, Tahsil: Tamnar over an area of 2583.483 Hectares. In Raigarh District (Chhattisgarh State).

Mahagenco has submitted the mining lease application for Gare Palma Sector-II coal mine to the Director, Geology & Mining, Government of Chhattisgarh, Raipur on date 09.12.2015 and the proposal for acquisition of land for this project is initiated vide letter dated 31.010.2015 addressed to you.

Ministry of Railway vide notification referred above proposed to acquire the land in the villages Dolesara, Chitwahi, Pata, Radopali and Dholnara Talula Tamnar Dist. Raigarh which falls under the coal mine area.

During the public hearing on dated 29.01.2016 at Tamnar, Mahagenco had given proposal to re-route the alignment of proposed railway project and acquire the land along the periphery outside of our proposed boundary so that our mining activity will not be hampered otherwise the passing of this proposed railway project will result into following adverse effects.

1. Length of Railway line passing through the Gare Sector-II block area= 4.7 km
2. The railway corridor assumed for safety of line=90m (45m on either side of central line)
3. The Pit batter slope=45 degrees approx
4. Blocked coal to be lost considered only down upto Seam-VI as was to be open casted
5. The coal blocked by proposed Railway line and will be lost has been calculated as about 30 MT.

3rd Floor, 'Prakashgad', Plot No. G-9, Prof. A. K. Marg, Bandra (E), Mumbai - 400 051.
Tel.(P) : 2647 4758, (O) : 2647 4211 Ext.: 2215, Fax : 2658 1466, E-mail : edfuel@mahagenco.in, Website : www.mahagenco.in

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

6. The quality of blocked/lost coal=G10
7. The value of blocked/lost coal @Rs 860/te comes to about Rs 2580 crore.

The detailed sketch is enclosed herewith as supporting document.

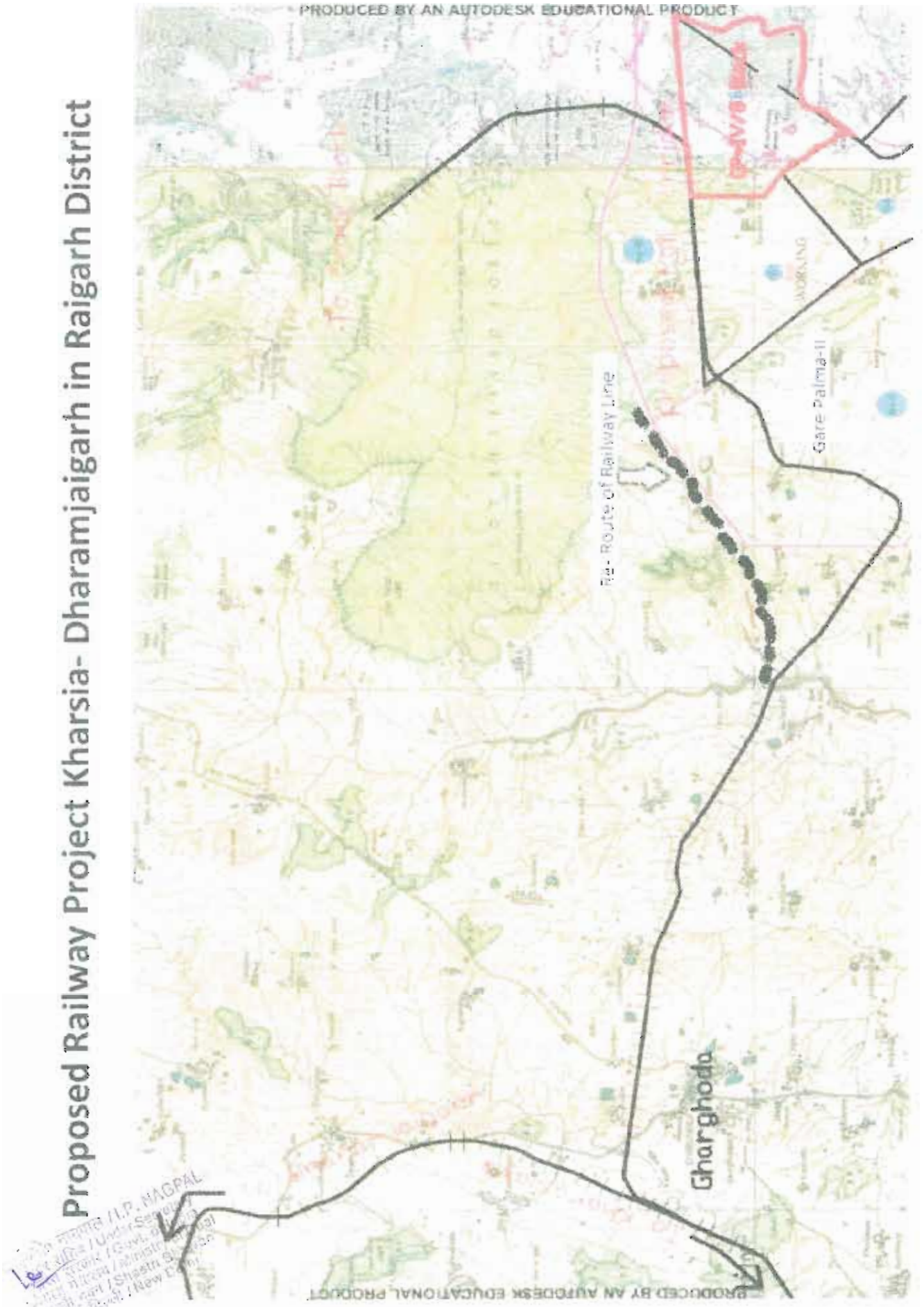
In view of the above it is requested to re-route the alignment of proposed railway project and acquire the land along the periphery outside of our proposed boundary so that our mining activity will not be hampered.

Encl:-As above

Executive Director(Fuel/Coal)
Mahagenco, Mumbai

P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM



B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

SUNDAY

कोल ब्लॉकों को चीर रही है रेल लाईन

रेल कॉरीडोर में सामंजस्य का अभाव, सर्वे के दौरान कोल ब्लॉकों का नहीं रखा ध्यान; तीन कंपनियों की जमीनों से होकर जाएगी लाईन

रायगढ़, 30 जनवरी। कई सरकार की महत्वाकांक्षी योजनाओं के आपस में सामंजस्य की कमी के कारण परियोजनाएं लगातार प्रभावित हो रही है। खासतौर से आर्थिक संसाधन जुटाने की कोशिशों को पलीता लगा रेल मंत्रालय विवादों का घर बनी है। इस पर तीन कंपनियों में हजारों करोड़ रुपए लगाने के बाद रेल मंत्रालय के एक निर्णय ने कंपनियों को मुश्किल में डाल दिया है। रेल मंत्रालय के अधिकारियों ने कोल ब्लॉक के बीच से रेल लाईन बिछाने का निर्णय लिया है।

पिछले दिनों सरकार ने निजी कंपनियों को कोलब्लॉक और कोयलांचल इलाकों को लेकर आवंटन के अतिरिक्त कोयला खरीदने की छूट दी। इसके पहले रेल मंत्री और कोयला मंत्री की बैठकें भी हुई थी। दोनों ही मंत्रालयों को एक दूसरे के सामंजस्य बैठाना चाहिए था लेकिन ऐसा नहीं हुआ और के सामंजस्य नहीं होने से कई परियोजनाएं प्रभावित हो रही है। ताजा मामला सामने आया है कि रेल मंत्रालय ने कोल ब्लॉक के बीच से रेल लाईन बिछाने का निर्णय लिया है। इससे कई कंपनियों को आवंटित कोयला खदानों को विकसित करने में दिक्कतें आएगी। यह भी संभव है कि रेल लाईन बिछाने के बाद कोयला खदानों को बंद करना पड़े। इससे कंपनियों को हजारों करोड़ रुपए का नुकसान होगा।

◆ पांच गांवों में कोल ब्लॉक की भूमि प्रभावित

रायगढ़ में कोल पावर जेनरेशन कंपनी प्रेमीसेरेक को तमनार के [illegible] ब्लॉक आवंटित किया गया है। इसके लिए भूमि अधिग्रहण की प्रक्रिया लगभग पूरी हो चुकी है। महाजेनको ने यहां प्लांट लगाने में सर्वाधिक यही भूमि रेल लाईन के दायरे में आने से खरीदी जाएगी। कंपनी का कहना है कि खदान के अंतर्गत लगभग 1.8 मिलियन टन कोयला नहीं निकाल जा सकेगा। लगभग 1.8 मिलियन टन कोयला नहीं खोदा जा सकेगा। साथ ही माईनिंग प्लान, लीज एग्रीमेंट, भूमि अधिग्रहण, पर्यावरण रोड, बैक फायरी, एयरपोर्ट एथारिटी आदि की प्रक्रिया पूरी हो चुकी है। रेल लाईन दोनों किनारे से कंपनी को करोड़ों का नुकसान होगा। पर्यावरण व अन्य मंजूरियां के भी पुनः प्रक्रिया लेनी पड़ेगी, जिसमें लंबा समय लगेगा। कंपनी ने खदान की जमीन को छोड़ते हुए रेल लाईन बिछाने को अंतिम रूप दे दिया है।

◆ नहीं निकाल सकेंगे 1.8 मिलियन टन कोयला

अंबुजा सीमेंट ने जीतमारी के लिए लगे पेपर 4/8 कोयला ब्लॉक आवंटित किया है। इसके लिए कंपनी ने [illegible] इसके लिए भी कंपनी [illegible] का कहना है कि इसमें भी [illegible] रेलवे कॉरीडोर की वजह से खदान की [illegible] आ रही है। अगर रेल लाईन नहीं बिछाई जाती है तो करीब सात हेक्टेयर कोयला खनित भूमि पर खनन नहीं किया जा सकेगा। लगभग 1.8 मिलियन टन कोयला नहीं खोदा जा सकेगा। साथ ही माईनिंग प्लान, लीज एग्रीमेंट, भूमि अधिग्रहण, पर्यावरण रोड, बैक फायरी, एयरपोर्ट एथारिटी आदि की प्रक्रिया पूरी हो चुकी है। रेल लाईन दोनों किनारे से कंपनी को करोड़ों का नुकसान होगा। पर्यावरण व अन्य मंजूरियां के भी पुनः प्रक्रिया लेनी पड़ेगी, जिसमें लंबा समय लगेगा। कंपनी ने खदान की जमीन को छोड़ते हुए रेल लाईन बिछाने को अंतिम रूप दे दिया है।

◆ 50 एकड़ जमीन हो जाएगी अनुपयोगी

[illegible] को आवंटित [illegible] में लाईनों को आवंटित किया गया है। कंपनी प्रबंधन का कहना है कि खदान के लिए भूमि अधिग्रहण की अधिसूचना का प्रकाशन पहले ही किया जा चुका है। अधिसूचना 21 सितंबर को प्रकाशित की गई है। इस पर एसईसीएल को हजारों करोड़ रुपए का नुकसान होगा। [illegible] खदान के लिए भूमि अधिग्रहण और डीपेटेशन इससे प्रभावित हो रही है। डीपेटेशन में करीब 200 मीटर अंदर से रेल लाईन गुजर रही है। इससे कोल ब्लॉक की [illegible] 50 एकड़ भूमि बेकार हो जाएगी। [illegible] रेल लाईन [illegible] के लिए [illegible] के लिए [illegible] प्रस्ताव से किया है।

◆ सरों नहीं किया संपर्क ?

रेल लाईन बिछाने की [illegible] हित के लिए जरूरी है। यही कोल ब्लॉक का डेवलपमेंट की जाने के लिए भी देश को आवश्यकता बताते हैं। लिए अधिकारी है। कोल ब्लॉक का प्रबंधन व [illegible] निर्धारण कई बार पहले भी हो चुका था। खदान का उत्पादन है कि जब [illegible] के रेल लाईन के लिए सर्वे हुआ तो तब क्या [illegible] भी कोई नहीं [illegible] विभाग [illegible] के अधिकारियों से [illegible] रेल कॉरीडोर का [illegible] के अधिकारियों को [illegible] अधिसूचना जारी होने के बाद ही [illegible]

क्या कहते हैं अधिकारी



तीन कंपनियों ने अरबों रुपए खर्च किए हैं। उनकी खदानें रेल लाईन के रूट में आ रही हैं। सरकार से मार्गदर्शन लेकर उचित।

- [illegible], एसईसीएल, रायगढ़

रेल लाईन के मौजूदा रूट से हमें आवंटित खदानों की करीब 50 एकड़ जमीन अनुपयोगी हो जाएगी। इस संबंध में जानकारी दे दी गई है।

- [illegible], जीएम, खदानें

अंतर्राज्यीय ओपन चैलेंज शील्ड



P.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

B.D. SHARMA
RQP NO. 34012/03/2014-CPA

ANNEXURES TO CHAPTER - 4

4-1 **Our letter dt. 13.7.2015 related to fund transaction of Rs 43.48 Cr to MOC includes the cost of GR**

U.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

ANNEXURE : 4-1

MAHAGENCO

MAHARASHTRA STATE POWER GENERATION COMPANY LTD.
Prakashgad, A. K. Marg, Bandra (East) - 400 051.
Phone :- 022 - 2647 4524/2647 4211/ 2287 3705

Ref No: CGM (F)/WM /

Date : 13/07/2015

To,
The Asst. General Manager,
Bank of Maharashtra,
Fort,Mumbai.

Reliance

Sub: - Transfer of fund of Rs. 43,48,16,953/-
Ref: - Our Account No- 20045005349

Dear Sir,

Kindly arrange to transfer funds **on 13/07/2015** to MSPGCL's Canara Bank Account through RTGS by debiting our above-referred account, under intimation to this office. The required details are given below

Name of Bank &	:	**State Bank of India**
RTGS No	:	**SBIN0003771**
Current A/c No	:	**'34823879210**
Beneficiary	:	**Nominated Authority, Account-II (Allotment) Ministry of Coal, Government of India.**
Amount	:	**Rs. 43,48,16,953/-** **(Rs. Forty Three Crore Forty Eight Lac Sixteen Thousand Nine Hundred Fifty Three Only)**

Thanking You,

Yours faithfully,

General Manager (F)/ Chief General Manager (F)
MSPGCL

दीपक नागपाल / I.P. NAGPAL
अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi

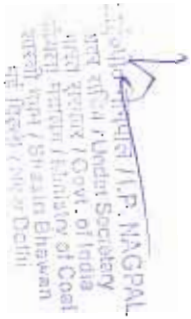
Bhaskar Kulkarni (AEE) PI.

Kind Attention : D.Ashok
Fax No : 22621779/22691351

B.D. SHARMA
EQP NO. 34012/03/2014-CPAM

Bank statement

13/07/2015	TO TRANSFER TRANSFER TO 60064601284 TO MSPGCL Project CC A/c.	6883000	
13/07/2015	TO TRANSFER RTGS MAHBR52015071301305702 NOMINATED AUTHORITY AC	434816953	
13/07/2015	**********	57	
13/07/2015	**********	6	
13/07/2015	BY TRF RTGS CNRBR52015071300575635 MAHARASHTRA STATE PO CHARGES PRINCIPAL		6897000
13/07/2015	BY TRF AMNT TRF FRM WCDL AC 60220408647 TRANSFER FROM 60220408647 FRM MAHARASHTRA STATE POW		434816953





ANNEXURE : 4-1 Contd..

ANNEXURES TO CHAPTER - 9

9-1 Waste generated from drivage of drifts in rock during UG mining

I.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

B.D. SHARMA
EQP NO. 34012/03/2014-CPAM

WASTE GENERATED FROM DRIVAGE OF DRIFTS IN ROCK DURING UNDERGROUND MINING OF SEAMS IN GARE PELMA SECTOR-II

Drift Name	No. of Drifts	Length (m)	Width (M)	Height (M)	FRL. (M)		Sector		Volume, cum
					From	To	From	To	
SEAM-IV VOLUME OF WASTE GENERATED BY DRIVING DRIFTS									
D1	5	60.00	4.80	3.00	97	97	E	D	4320
D2	5	52.00	4.80	3.00	60	64	C	B	3744
D3	5	52.00	4.80	3.00	54	58	B	A	3744
D4	2	55.00	4.80	3.00	82	82	D	F	1584
D5	2	52.00	4.80	3.00	33	33	A	A	1497.6
D6	5	52.00	4.80	3.00	68	62	D	C	3744
D7	5	52.00	4.80	3.00	56	56	C	B	3744
D8	5	52.00	4.80	3.00	41	49	B	A	3744
D9	5	52.00	4.80	3.00	56	47	D	C	3744
D10	2	52.00	4.80	3.00	31	31	C	C	1497.6
D11	2	52.00	4.80	3.00	47	56	H	G	1497.6
TOTAL Seam-IV	**43**	**583.00**	**52.80**	**33.00**	-	-	-	-	32860.8
SEAM-III VOLUME OF WASTE GENERATED BY DRIVING DRIFTS									
D12	5	60.00	4.80	3.00	28	28	E	D	4320
D13	5	52.00	4.80	3.00	(-) 15	(-) 15	C	B	3744
D14	5	52.00	4.80	3.00	(-) 15	(-) 15	B	A	3744
D15	2	54.00	4.80	3.00	30	18	E	F	1555.2
D16	2	52.00	4.80	3.00	(-) 44	(-) 43	A	A	1497.6
D17	5	52.00	4.80	3.00	(-) 5	(-) 13	D	C	3744
D18	5	52.00	4.80	3.00	(-) 15	(-) 15	C	B	3744
D19	5	55.00	4.80	3.00	(-) 28	(-) 20	B	A	3960
D20	5	53.00	4.80	3.00	(-) 19	(-) 21	D	C	3816
D21	3	51.00	4.80	3.00	(-) 30	(-) 32	C	C	2203.2
D22	5	56.00	4.80	3.00	(-) 57	(-) 57	C	B	4032
D23	5	52.00	4.80	3.00	(-) 75	(-) 75	B	A	3744
D24	2	54.00	4.80	3.00	(-) 13	(-) 25	H	G	1555.2
TOTAL Seam-III	**54**	**695.00**	**62.40**	**39.00**	-	-	-	-	41659.2

The underground mining operation during the 1st 30 years will mostly remain in upper most seams (proposed for UG mining) viz. Seam-IV and Seam-III. The waste generated from the drivage of drifts in the seams as calculated above comes to 32860.8 cum and 41659.2 cum = 74,520 cum. The total waste generated during life of the mine has been estimated to be about 1.5 lakh cum or 0.15 mcum.

B.D. SHARMA
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ANNEXURES TO CHAPTER - 15

15-1	Agreement signed with the Nominated Authority on 30th March 2015
15-2	Approval of Board of Directors of the Company
15-3	Details of expenditure on Progressive and Post Mine Closure activities and bar chart
15-4	Corporate Social Responsibility (CSR) Policy of the company
15-5	Amendment to allotment agreement dt. 31-08-2015





B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

सत्यमेव जयते

INDIA NON JUDICIAL

Government of National Capital Territory of Delhi

e-Stamp

Certificate No.	:	IN-DL78018537870614N
Certificate Issued Date	:	11-Mar-2015 03:12 PM
Account Reference	:	IMPACC (PF)/ dl763913/ DELHI/ DL-DLH
Unique Doc. Reference	:	SUBIN-DLDL76391352883418132737N
Purchased by	:	MAHARASHTRA STATE POWER GENERATION COMPANY LTD
Description of Document	:	Article 5 General Agreement
Property Description	:	Not Applicable
Consideration Price (Rs.)	:	0 (Zero)
First Party	:	MAHARASHTRA STATE POWER GENERATION COMPANY LTD
Second Party	:	Not Applicable
Stamp Duty Paid By	:	MAHARASHTRA STATE POWER GENERATION COMPANY LTD
Stamp Duty Amount(Rs.)	:	500 (Five Hundred only)

Please write or type below this line

THE ALLOTMENT AGREEMENT BY AND BETWEEN THE PRESIDENT OF INDIA AND MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED IN RESPECT OF GARE PALMA SECTOR - II COAL MINE

This Stamp-paper forms an integral part of this deed of Allotment Agreement.

अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal

Vivek Bharadwaj

Maharashtra State Power Generation Co. Ltd. Head Office Mumbai

Statutory Alert:
1. The authenticity of this Stamp Certificate should be verified at "www.shcilestamp.com". Any discrepancy in the details on this Certificate and as available on the website renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

B.D. SHARMA
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Maharashtra State Power Generation Co. Ltd. Head Mumbai

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Govt. of India M/o Coal Nominated Authority

Maharashtra State Power Generation Co. Ltd. Head Office Mumbai

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This Allotment Agreement is made by and between following:

PARTIES:

1 **The President of India**, acting through the Central Government represented by the Nominated Authority appointed under Section 6 of the Coal Mines (Special Provisions) Ordinance, 2014) read with Coal Mines (Special Provisions) Second Ordinance, 2014 (the "**Nominated Authority**").

2 **Maharashtra State Power Generation Company Limited** incorporated in India under the Companies Act, 1956 with corporate identity number U40100MH2005SGC153648, whose registered office is at "Prakashgad" Plot No G-9 Anant Kanekar Marg, Bandra (East), Mumbai, Maharashtra-400051, India (the "**Allottee**").

BACKGROUND:

A. The Supreme Court of India through its judgment dated August 25, 2014 read with its order dated September 24, 2014 (collectively the "**Supreme Court Judgment**") had cancelled allotment of 204 coal blocks.

B. Subsequent to the Supreme Court Judgment, the Coal Mines (Special Provisions) Ordinance, 2014 read with Coal Mines (Special Provisions) Second Ordinance, 2014 (collectively the "**Ordinance**") were promulgated and the Coal Mines (Special Provisions) Rules, 2014 (the "**Rules**") were framed for auction and allotment of all blocks which were subject to cancellation pursuant to the Supreme Court Judgment.

C. The Coal Mine (*as defined in Clause 1.1.18*) was included in the list of such 204 coal blocks and accordingly, its allotment to the Prior Allottee (*as defined in Clause 1.1.40*) was cancelled pursuant to the Supreme Court Judgment, with effect from the 'appointed date' (as defined in the Ordinance).

D. Thereafter, the Central Government issued an order under Rule 8(2) of the Rules, dated December 18, 2014, as amended, to the Nominated Authority for allotment of the Coal Mine pursuant to Section 5 of the Ordinance. In such order, generation of power was the "**Specified End Use**" with respect to the Coal Mine.

E. Pursuant to an allotment process conducted in accordance with the Ordinance, the Rules, the Allotment Document, dated February 18, 2015 and receipt of a direction from the Central Government under Rule 11(9) of the Rules, the Allottee has become entitled to enter into an agreement with the Nominated Authority pursuant to Rule 13(5) of the Rules with respect to allocation of the Coal Mine to the Allottee for use in the Specified End Use Plant (*as defined in Clause 1.1.45*).

F. Accordingly, the Nominated Authority and the Allottee are entering into this Agreement

Govt. of India M/o Coal Nominated Authority

U.P. NAGPAL Under Secretary Govt. of India Ministry of Coal Shastri Bhawan New Delhi

Maharashtra State Power Generation Co. Ltd.

B.D. SHARMA
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with respect to matters related to allocation of the Coal Mine, including without limitation development of the Coal Mine and production and utilisation of coal from the Coal Mine.

NOW THEREFORE, in consideration of the mutual covenants, terms and conditions and understandings set forth in this Agreement, and other good and valuable consideration (the adequacy of which are hereby mutually acknowledged), the Parties with the intent to be legally bound hereby agree as follows:

1. DEFINITIONS AND INTERPRETATION

The definitions and rules of interpretation in this clause apply in this Agreement.

1.1. Definitions

1.1.1. "**Acceptable Bank**" shall mean a Scheduled Bank as listed in the Second Schedule of the Reserve Bank of India Act, 1934 excluding those listed under the headings of Gramin Banks, Urban Co-operative Banks and State Co-operative Banks.

1.1.2. "**Agreement**" means this Allotment Agreement and all attached annexure, schedules, exhibits and instruments supplemental to or amending, modifying or confirming this Agreement in accordance with the provisions of this Agreement.

1.1.3. "**Agreement Date**" shall mean the date on which execution of this Agreement by both the Allottee and the Nominated Authority is completed.

1.1.4. "**Allotment Conditions**" shall have the meaning given to such expression in Clause 3.1.

1.1.5. "**Allotment Date**" shall have the meaning given to such expression in Clause 4.3.

1.1.6. "**Allotment Document**" shall have the meaning given to it under the Rules and shall include the Allotment Document dated February 18, 2015 for allotment of the Coal Mine.

1.1.7. "**Allotment Order**" shall have the meaning given to such expression in the Ordinance and the Rules.

1.1.8. "**Applicable Law**" shall mean all applicable statutes, laws, by-laws, rules, regulations, orders, ordinances, protocols, codes, guidelines, policies, notices, directions, judgments, decrees or other requirements or official directive of any Governmental Authority or court or other law, rule or regulation approval from the relevant Governmental Authority, government resolution, directive, or other government restriction or any similar form of decision of, or determination by, or any interpretation or adjudication having the force of law in India.

1.1.9. "**Appropriation Event**" shall have the meaning given to such expression in Clause 6.2.1.

B.D. SHARMA

1.1.10. "**Arrangement**" shall have the meaning given to such expression in Clause 8.3.1.

1.1.11. "**Arrangement Application**" shall have the meaning given to such expression in Clause 8.3.1.

1.1.12. "**Authorised Representative**" shall have the meaning given to such expression in Clause 4.4.

1.1.13. "**Business Day**" shall mean a day which is not a Saturday, Sunday or any other day declared as a public holiday by the Central Government.

1.1.14. "**Central Government**" shall mean the Government of India, acting through the Ministry of Coal.

1.1.15. "**CIL**" shall mean Coal India Limited (a Government of India undertaking).

1.1.16. "**CIL Notified Price**" shall mean the prevailing notified price of relevant grade(s) of coal by CIL or any of its subsidiaries, as may be territorially relevant to the Coal Mine, as on the date of sale of coal.

1.1.17. "**Claim**" shall have the meaning given to such expression in Clause 18.3.

1.1.18 "**Coal Mine**" shall mean the coal mine as more particularly described in SCHEDULE A.

1.1.19. "**Companies Act**" means the Companies Act, 1956 or the Companies Act, 2013, as applicable, as now enacted or as the same may from time to time be amended, re-enacted or replaced.

1.1.20. "**Control**" shall include the right to appoint majority of the directors or to control the management or policy decisions exercisable by a person or persons acting individually or in concert, directly or indirectly, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements or in any other manner.

1.1.21. "**Commencement Plan**" shall have the meaning given to such expression in Clause 5.1.

1.1.22. "**Designated Bank Account**" shall mean the following bank account of the Nominated Authority:

Name of the bank: State Bank of India
Account number: 34823879210
Name of the account holder: Nominated Authority, Account -II (Allotment), Ministry of Coal, Government of India
IFSC Code: SBIN0003771

1.1.23. "**Diversion Notice**" shall have the meaning given to such expression in Clause 8.4.1.

Govt. of India M/o Coal Nominated Authority

U.P. NAGPAL Under Secretary Govt. of India Ministry of Coal Shastri Bhawan New Delhi

State Power Generation Co. Ltd. Head Office Mumbai

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

1.1.24. "**Efficiency Parameters**" shall have the meaning given to such expression in Clause 10.1.

1.1.25. "**Eligibility Conditions**" shall mean the eligibility conditions specified in the Ordinance and the Rules including all the eligibility conditions listed in Clause 3.2 of the Allotment Document.

1.1.26. "**Encumbrances**" means any mortgage, pledge, equitable interest, assignment by way of security, conditional sales contract, hypothecation, right of other Persons, claim, security interest, encumbrance, title defect, title retention agreement, voting trust agreement, interest, option, lien, charge, commitment, restriction or limitation of any nature whatsoever, including restriction on use, voting rights, transfer, receipt of income or exercise of any other attribute of ownership, right of set-off, any arrangement (for the purpose of, or which has the effect of, granting security), or any other security interest of any kind whatsoever, or any agreement, whether conditional or otherwise, to create any of the same.

1.1.27. "**Governmental Approval**" means any authorization, approval, consent, licence or permit required from any Governmental Authority.

1.1.28. "**Governmental Authority**" means any government authority, statutory authority, government department, agency, commission, board, tribunal or court or other law, rule or regulation making entity having or purporting to have jurisdiction on behalf of the Republic of India or any state or other subdivision thereof or any municipality, district or other subdivision thereof.

1.1.29. "**Event of Force Majeure**" shall have the meaning given to such expression in Clause 23.1.

1.1.30. "**Good Industry Practice**" means, in relation to any undertaking and any circumstances, the exercise of that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced Person engaged in the same type of undertaking under the same or similar circumstances.

1.1.31. "**Indemnified Party**" shall have the meaning given to such expression in Clause18.1.

1.1.32. "**Mine Plan**" shall mean a plan which has been approved in accordance with the Applicable Laws in relation to the Coal Mine.

1.1.33. "**Mining Lease**" shall have the meaning given to such expression in Clause 5.3.1.

1.1.34. "**Monthly Payment**" shall have the meaning given to such expression in Clause 9.1.1.

1.1.35. "**Ordinance**" shall have the meaning given to such expression in Clause *B* of the Background.

Govt. of India M/o Coal Nominated Authority

Maharashtra State Power Generation Co. Ltd. Head Office Mumbai

B.D. SHARMA
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1.1.36. "**Other Plants**" shall have the meaning given to such expression in Clause 8.4.1.

1.1.37. "**Parties**" means and refers to the Nominated Authority and the Allottee collectively and "**Party**" refers to any one of them.

1.1.38. "**Performance Security**" shall have the meaning given to such expression in Clause 6.1.1.

1.1.39. "**Person**" means any individual, sole proprietorship, unincorporated association, body corporate, corporation, company, partnership, limited liability company, joint venture, Governmental Authority or trust or any other entity or organization.

1.1.40. "**Prior Allottee**" shall have the meaning given to it in the Ordinance and for the purposes of the Coal Mine, the Prior Allottee (s) shall be (i) Maharashtra State Mining Corporation Limited incorporated in India under the Companies Act with corporate identity number U10100MH1973SGC017008, whose registered office is at Plot No. 7, Ajni Chowk, Wardha Road, Nagpur, Maharashtra-440015, India and (ii) Tamil Nadu State Electricity Board constituted in India under the Electricity (Supply) Act 1948, whose head office is at NPKRR, Maaligai, 144, Anna Salai, Chennai - 600002, India.

1.1.41. "**Reference Index**" shall have the meaning given to such expression in Clause 9.2.1.

1.1.42. "**Reserve Price**" shall mean INR 100/Tonne (Indian Rupees One hundred/Tonne).

1.1.43. "**Rules**" shall have the meaning given to such expression in Clause B of the Background.

1.1.44. "**Selectee**" shall have the meaning given to such expression in Clause19.3.3(b).

1.1.45. "**Specified End Use Plant**" shall mean the plant engaged in generation of power situated at (i) Nirman Bhavan, Urja Nagar, Chandrapur-442404, Maharashtra (ii) Koradi Complex, Chindwara Road, Koradi-441111, Dist. Nagpur and (iii) Taluka- Parli Vaijnath, Dist. Beed - 431520, Maharashtra, India, as prescribed for the Coal Mine under Rule 8(2) of the Rules, as more particularly described in SCHEDULE B.

1.1.46. "**State Government**" shall mean the Government of the state where the Coal Mine is located.

1.1.47. "**Substitution Notice**" shall have the meaning given to such expression in Clause19.3.3(b).

1.1.48. "**Supreme Court Judgment**" shall have the meaning given to such expression in Clause A of the Background.

1.1.49. "**Taxation**" (including with correlative meaning, the terms "**Tax**" and "**Taxes**") means (a) any and all taxes, assessments and other charges, duties, impositions and similar

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liabilities imposed by any Governmental Authority, including without limitation taxes based upon or measured by gross receipts, income, profits, sales and value added, withholding, payroll, excise and property taxes, together with all interest, penalties and additions imposed with respect to such amounts; (b) any liability for the payment of any taxes, assessments and other charges, duties, impositions and similar liabilities by the Allottee as a result of being a member of an affiliated, consolidated, combined or unitary group for any period; and (c) any taxes, assessments and other charges, duties, impositions and similar liabilities for the payment of any amounts by the Allottee as a result of any express obligation to indemnify any other Person or as a result of any obligation under any agreement or arrangement with any other Person with respect to such amounts and including any liability for Taxes of a predecessor entity.

1.1.50. "**Third Party**" means any Person that is not a signatory to this Agreement.

1.1.51. "**Term**" shall have the meaning given to such expression in Clause 24.2.

1.1.52. "**Termination Event**" shall have the meaning given to such expression in Clause24.3.1.

1.1.53. "**Upfront Amount**" shall mean an amount equal to INR 151,96,58,160 (Indian Rupees One Hundred Fifty One Crore Ninety Six Lakh Fifty Eight Thousand One Hundred and Sixty) payable by the Allottee in terms of Clause 5.2.

1.1.54. "**Warranties**" shall have the meaning given to such expression in Clause 17.1.

1.2. **Interpretation**

1.2.1. Any reference to any statute or statutory provision shall include:

(i) all subordinate legislation made from time to time under that provision (whether or not amended, modified, re-enacted or consolidated);

(ii) such provision as from time to time amended, modified, re-enacted or consolidated (whether before or after the date of this Agreement) to the extent such amendment, modification, re-enactment or consolidation applies or is capable of applying to any transactions entered into under this Agreement prior to the Agreement Date and (to the extent liability there under may exist or can arise) shall include any past statutory provision (as from time to time amended, modified, re-enacted or consolidated) which the provision referred to has directly or indirectly replaced;

1.2.2. Unless the context otherwise requires, words in the singular shall include the plural and the plural shall include the singular.

1.2.3. References to the masculine, the feminine and the neuter shall include each other.

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1.2.4. References to a "**company**" shall include a company, corporation or other body corporate, wherever and however incorporated or established.

1.2.5. The recitals and schedules form part of this Agreement and shall have the same force and effect as if expressly set out in the body of this Agreement, and any reference to this Agreement shall include any recitals and schedules to it. Any references to clauses and schedules are to clauses and schedules to this Agreement. Any references to parts or paragraphs are, unless otherwise stated, references to parts or paragraphs of the schedule in which the reference appears.

1.2.6. A reference to **this Agreement or any other document** shall be construed as references to this Agreement or that other document as amended, varied, novated, supplemented or replaced from time to time.

1.2.7. A reference to **this Clause** shall, unless followed by reference to a specific provision, be deemed to refer to the whole Clause (not merely the sub-Clause, paragraph or other provision) in which the expression occurs.

1.2.8. A reference to a **party** shall include that party's representatives, successors and permitted assigns.

1.2.9. Each of the representations and warranties provided in this Agreement is independent of other representations and warranties and unless the contrary is expressly stated, no Clause in this Agreement limits the extent or application of another Clause.

1.2.10. Headings to Clauses, parts and paragraphs of schedules and schedules are for convenience only and do not affect the interpretation of this Agreement.

1.2.11. A reference to "**in writing**" includes any communication made by letter or fax but not e-mail (unless otherwise expressly provided in this Agreement).

1.2.12. Unless otherwise specified, any reference to a time of day is to Indian Standard Time.

1.2.13. Any words following the terms **including, include, in particular, for example or any similar expression** shall be construed as illustrative and shall not limit the sense of the words, description, definition, phrase or term preceding those terms.

1.2.14. Where the context permits, **other** and **otherwise** are illustrative and shall not limit the sense of the words preceding them.

1.2.15. References to a document in **agreed form** are to that document in the form agreed by the parties and initialled by them or on their behalf for identification

1.2.16. Any obligation on a party not to do something includes an obligation not to allow that thing to be done.

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2. ALLOCATION OF THE COAL MINE

2.1. The Allottee hereby represents and warrants to the Nominated Authority that it has complied with all the terms and conditions of the Ordinance, the Rules, the Allotment Document and other Applicable Laws, as were required to be complied with by the Allottee, with respect to allotment process for the Coal Mine and the Allottee is eligible in all respects to receive allocation of the Coal Mine. The Allottee also represents and warrants to the Nominated Authority that it is in compliance with all the Eligibility Conditions and would continue to be in compliance with all the Eligibility Conditions during the Term.

2.2. Relying on the representations and warranties of the Allottee and the information, documents and other undertaking provided by the Allottee, including the Warranties provided under Clause 17, the Nominated Authority is pleased to enter into this Agreement with the Allottee for allocation of the Coal Mine to the Allottee subject to terms and conditions specified in this Agreement.

3. CONDITIONS FOR ALLOTMENT

3.1. Allotment Conditions

The issuance of the Allotment Order in favour of the Allottee shall be subject to satisfaction of the following conditions (collectively the "**Allotment Conditions**"):

(a) the Allottee continuing to be in compliance with all the Eligibility Conditions;

(b) the Allottee having paid the first instalment of the Upfront Amount, in accordance with Clause 5.2.1;

(c) the Allottee having furnished the Performance Security;

(d) the Allottee having deposited an amount equal to INR 0 (Indian Rupees Zero), being the Fixed Amount, in the Designated Bank Account;

(e) only in the event that the Allottee is a Prior Allottee for the Coal Mine or any other Schedule I coal mine (as defined in the Ordinance), the Allottee having paid the Additional Levy within the due date for payment of such Additional Levy as specified in Rule 18 of the Rules; and

(f) The Allottee having provided a written intimation to the Nominated Authority in substantially the same form as provided in SCHEDULE C regarding: (i) the movable property which the Allottee has not negotiated to own or utilise and which it intends to move and store under Section 10(4) of the Ordinance; (ii) the contracts which the Allottee is desirous of adopting under Section 11(1) of the Ordinance, including contracts with secured creditors; and matters incidental

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thereto.

3.2. **Completion of Allotment Conditions and Notice**

3.2.1. Upon satisfaction of each of the Allotment Conditions specified in Clause 3.1, the Allottee shall provide a written notice to the Nominated Authority in substantially the same format as provided in SCHEDULE D (the "**Completion Notice**")

3.2.2. In the event the Allottee does not provide a Completion Notice with respect to each of the Allotment Conditions listed in Clauses 3.1(a); 3.1(b); 3.1(c); 3.1(d); 3.1(e) (in cases where the Allottee is a Prior Allottee for the Coal Mine or any other Schedule I coal mine (as defined in the Ordinance)) and Clause 3.1(f), within 30 Days of the Agreement Date, then the Nominated Authority may terminate this Agreement without incurring any liability whatsoever by providing a written notice to the Allottee. It is clarified that in such event the Allottee shall not be entitled to receive the Allotment Order and the Nominated Authority shall be entitled to dispose the Coal Mine in the manner provided in the Ordinance and the Rules, including through re-auction/re-allotment or through appointment of a designated custodian.

3.2.3. If the Allottee does not provide a Completion Notice with respect to 3.1(f) and fails to provide a written intimation in substantially the same form as provided in SCHEDULE C within 30 Days of the Agreement Date, then it shall be deemed that the Allottee is not desirous of owning or utilising any movable property or continuing any contract. In such cases, without prejudice to Clause 3.2.2, the Nominated Authority may elect to issue the Allotment Order without including aforementioned particulars in the Allotment Order, if all other Allotment Conditions have been satisfied by the Allottee and corresponding Completion Notice have been provided to the Nominated Authority.

4. **THE ALLOTMENT ORDER**

4.1. Upon receipt of the Completion Notice evidencing compliance with each of the applicable Allotment Conditions, the Nominated Authority may issue the Allotment Order, subject to the Ordinance, the Rules, the Allotment Document and other Applicable Laws, in the manner provided in this Clause 4.

4.2. The Allotment Order shall be issued by the Nominated Authority in substantially the same format as specified by the Central Government.

4.3. Prior to issuance of the Allotment Order, the Nominated Authority shall provide a written notice to the Allottee specifying the date of the Allotment Order (the "**Allotment Date**") and the date and time on which and place from where the Allotment Order may be collected by the Allottee.

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4.4. The Allottee shall depute an authorised representative of the Allottee ("**Authorised Representative**") to receive the Allotment Order on behalf of the Allottee on the date, time and place specified by the Nominated Authority under Clause 4.3.

4.5. The Authorised Representative shall be provided the Allotment Order in duplicate and shall be required to acknowledge the receipt of the Allotment Order. In the event, the Authorised Representative is not present on the date and time specified by the Nominated Authority under Clause 4.3, then the Nominated Authority shall dispatch the Allotment Order by registered post with acknowledgment due, to the registered office of the Allottee.

4.6. The Allottee shall, within seven Business Days of the receipt of the Allotment Order through the Authorised Representative or through registered post, as the case may be, sign and return the duplicate copy of the Allotment Order in acknowledgement thereof. In the event the duplicate copy of the Allotment Order duly signed by the Allottee is not received by the aforementioned date, the Nominated Authority may, unless it consents to extension of time for submission thereof, appropriate the Performance Security and other payments made by such Allottee as damages and also terminate this Agreement and cancel and withdraw the Allotment Order.

5. POST ALLOTMENT OBLIGATIONS

5.1. Commencement Plan

5.1.1. Within 30 Business Days of the date of the Allotment Order, the Allottee shall be required to submit a detailed plan (the "**Commencement Plan**") towards commencement of mining operations at the Coal Mine. The Commencement Plan shall include all actions that the Allottee may be required to perform to commence mining operations at the Coal Mine and shall include such information as may be required by the Nominated Authority, including without limitation, information regarding the following:

(a) the Governmental Approvals, including the Mining Lease which shall be required for commencement of mining operations at the Coal Mine and the time within which the Allottee would make applications for such Governmental Approvals; and

(b) revisions to the Mine Plan if any, as may be proposed by the Allottee.

5.1.2. The Commencement Plan shall be prepared by the Allottee to ensure strict compliance with the Efficiency Parameters.

5.2. Payment of the Upfront Amount

5.2.1. *First Instalment of fifty per cent*

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The first instalment of fifty per cent of the Upfront Amount being an amount equal to INR 75,98,29,080 (Indian Rupees Seventy Five Crore Ninety Eight Lakh Twenty Nine Thousand and Eighty), shall be deposited by the Allottee in the Designated Bank Account in the manner provided in Clause 3.1(b) as an Allotment Condition.

5.2.2. *Second Instalment of twenty five per cent*

The second instalment of twenty five per cent of the Upfront Amount being an amount equal to INR 37,99,14,540 (Indian Rupees Thirty Seven Crore Ninety Nine Lakh Fourteen Thousand Five Hundred and Forty), shall be deposited by the Allottee in the Designated Bank Account, on or prior to expiry of 15 Business Days from the date of execution of the Mining Lease by the relevant State Government.

5.2.3. *Third Instalment of twenty five per cent*

The third instalment of twenty five per cent of the Upfront Amount being an amount equal to INR 37,99,14,540 (Indian Rupees Thirty Seven Crore Ninety Nine Lakh Fourteen Thousand Five Hundred and Forty), shall be deposited by the Allottee in the Designated Bank Account, on or prior to expiry of 15 Business Days from the date of grant of mine opening permission from the state pollution control board of the relevant State where the Coal Mine is located..

5.2.4. *Failure to pay the Upfront Amount*

In the event the Allottee fails to pay the second instalment or the third instalment of the Upfront Amount within the time specified in Clause 5.2.2 or Clause 5.2.3, respectively, then the Nominated Authority shall be entitled to appropriate the Performance Security in the manner stipulated in Clause 6 (PERFORMANCE SECURITY) and such failure may also result in termination of this Agreement as provided in Clause 24 (EFFECTIVE DATE, TERM AND TERMINATION).

5.3. **The Mining Lease**

5.3.1. Pursuant to Section 8(4)(b) and Section 8(8), read with Section 8(12) of the Ordinance, the Allottee shall become entitled to the mining lease with respect to the Coal Mine (the "**Mining Lease**") to be granted by the State Government upon issuance of the Allotment Order.

5.3.2. The Allottee shall promptly upon issuance of the Allotment Order make an application to the State Government for grant of a Mining Lease in the name of the Allottee.

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6. PERFORMANCE SECURITY AND APPROPRIATION

6.1. Performance Security

6.1.1. The Allottee shall provide an irrevocable and unconditional guarantee from an Acceptable Bank payable at Delhi for an amount equal to INR 520,14,40,000 (Indian Rupees Five Hundred Twenty Crore Fourteen Lakh and Forty Thousand) (the "**Performance Security**") in substantially the same form as provided in SCHEDULE F for the performance of its obligations within such time as specified in Clause 3.2.2

6.1.2. The Performance Security shall be an amount which is equal to aggregate of: (a) one year royalty calculated on the basis of peak rated capacity of the Coal Mine as per the approved Mine Plan, payable to respective State Government with respect to the Coal Mine; and (b) the annual peak rated capacity of the Coal Mine as per the approved Mine Plan multiplied by the Reserve Price.

6.1.3. In case of any revision in the Mine Plan in accordance with Clause 14, the amount of Performance Security shall be revised accordingly.

6.1.4. In such case, bank guarantee constituting the Performance Security shall be substituted with another bank guarantee of the enhanced value issued in accordance with this Clause 6, within a period of 15 Business Days of receipt of approval for revision to the Mine Plan.

6.1.5. The Performance Security should remain valid until such time when the Coal Mine achieves the annual peak rated capacity.

6.2. Events for appropriation of the Performance Security

6.2.1. The Performance Security may be appropriated by the Nominated Authority upon occurrence of any of the following events (the "**Appropriation Event**"), to be determined by the Nominated Authority in its sole discretion:

(a) failure of the Allottee to provide the duly acknowledged duplicate copy of the Allotment Order as required under Clause 4.6;

(b) failure of the Allottee to make payment of the first instalment, second instalment or the third instalment of the Upfront Amount within the time specified in Clause 3.1(b), Clause 5.2.2 or Clause 5.2.3, respectively;

(c) failure of submission of Commencement Plan within the time specified in Clause 5.1.1;

(d) failure of the Allottee to comply with the Efficiency Parameters as required under

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Clause 10:

(e) any change in Control or transfer of right, title or interest in the Coal Mine which is not in conformity with Clause 13;

(f) failure to make payment of the Monthly Payment in accordance with this Agreement;

(g) any utilisation of coal which is not in conformity with Clause 8; or

(h) any other breach or non-compliance of any of the provisions of this Agreement including in case of the Warranties being untrue or misleading or incorrect in any manner whatsoever.

6.2.2. Provided however that in the event an Appropriation Event has occurred solely on account of an Event of Force Majeure as provided in Clause 23, which could not have been mitigated by the Allottee through Good Industry Practice, then the Performance Security shall not be appropriated for such specific Appropriation Event.

6.3. **Manner of appropriation of the Performance Security**

6.3.1. Upon occurrence of an Appropriation Event, to be determined by the Nominated Authority, the Nominated Authority shall have the unconditional right to appropriate the Performance Security by providing a written notice to the Allottee, in the following proportion:

#	Appropriation Event	Amount of the Performance Security to be appropriated
1.	Failure of the Allottee to provide the duly acknowledged duplicate copy of the Allotment Order as required under Clause 4.6	Entire Performance Security.
2.	Failure of the Allottee to make payment of the first instalment, second instalment or the third instalment of the Upfront Amount within the time specified in Clause 3.1(b), Clause 5.2.2 or Clause 5.2.3, respectively	An amount equal to the first instalment, and/or second instalment and/or third instalment of the Upfront Amount together with 12% per annum simple interest on such amount starting from the date on which such amount was due and until the date of appropriation

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#	Appropriation Event	Amount of the Performance Security to be appropriated
		of the Performance Security.
3.	Failure of submission of Commencement Plan within the time specified in Clause 5.1.1	An amount equal to 10% of the Performance Security
4.	Failure of the Allottee to comply with the Efficiency Parameters as required under Clause 10	Such per cent of the Performance Security for each failure to comply with the Efficiency Parameters as specified in SCHEDULE E.
5.	Any change in Control or transfer of right, title or interest in the Coal Mine which is not in conformity with Clause 13	Entire Performance Security.
6.	Any utilisation of coal which is not in conformity with Clause 8	Entire Performance Security.
7.	Failure of the Allottee to make payment of the Monthly Payment	The amount of Monthly Payment due and payable, along with a simple interest of twelve per cent per annum, starting from the date on which such amount was due and until the date of appropriation of the Performance Security.
8.	Any other breach or non-compliance with any of the provisions of this Agreement, including in case of the Warranties being untrue or misleading or incorrect in any manner whatsoever.	Such proportion as may be determined by the Nominated Authority in its sole discretion.

6.3.2. Any Appropriation Event resulting in appropriation of the entire Performance Security shall be a Termination Event for the purposes of Clause 24 (EFFECTIVE DATE, TERM AND TERMINATION).

6.3.3. In the event of a part appropriation of the Performance Security, the Allottee shall be

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required to: (i) rectify the Appropriation Event; and (ii) top-up the bank guarantee constituting the Performance Security within fifteen Business Days of receipt of a notice under Clause 6.3.1, failure to do so shall be a Termination Event for the purposes of Clause 24 (EFFECTIVE DATE, TERM AND TERMINATION). Appropriation Event, except as mentioned in clause 6.2.1(d), shall be rectified within seven Business Days of receipt of a notice under Clause 6.3.1. Appropriation Event mentioned in clause 6.2.1 (d) shall be rectified within the time specified in SCHEDULE E.

6.3.4. In the event that on account of one or more Appropriation Events, an amount equal to hundred per cent of the Performance Security is appropriated in aggregate in one or more instances, the same shall be a Termination Event for the purposes of Clause 24(EFFECTIVE DATE, TERM AND TERMINATION).

7. INFORMATION

7.1. In addition to information that may be required to be provided in accordance with Applicable Laws, the Allottee shall provide periodic reports to the Nominated Authority (or such other Governmental Authority as may be specified by the Nominated Authority) regarding mining operations at the Coal Mine, including compliance with the Efficiency Parameters, in accordance with the following provisions:

(a) Pre-Commencement Report

Prior to commencement of mining operations at the Coal Mine, the Allottee shall provide a written intimation (**"Pre-commencement Report"**) to the Nominated Authority and the Central Government once every thirty calendar days regarding the following:

(i) the actions taken by the Allottee towards commencement of the mining operations at the Coal Mine, including compliance with the Commencement Plan;

(ii) any deviations from the Commencement Plan, the reasons for such deviations and the steps taken by the Allottee to rectify such deviation; and

(iii) whether in the opinion of the Allottee, it shall be able to commence mining operations at the Coal Mine within the time mentioned in the Commencement Plan.

The Allottee shall also inform the Nominated Authority in writing within 3 Business Days of receipt of the mine opening permission from the state pollution control board of the relevant State where the Coal Mine is located.

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(b) Commencement Report

Within three Business Days of the commencement of mining operations at the Coal Mine, the Allottee shall provide a written intimation to the Nominated Authority confirming commencement of mining operations at the Coal Mine (the "**Commencement Report**").

(c) Monthly Report

Subsequent to the Commencement Report, the Allottee shall provide a written intimation ("**Monthly Report**") to the Coal Controller's Organisation within seven Business Days of end of each calendar month comprising: (i) a declaration regarding compliance with the Efficiency Parameters in the immediately preceding calendar month. In the event of a non-compliance with the Efficiency Parameters, complete particulars of the same, including the reasons for such non-compliance, and the corrective steps proposed to be undertaken; and (ii) such other information as may be required to be provided by the Nominated Authority.

(d) Yearly Report

Within seven Business Days of conclusion of the annual general meeting of the Allottee, it shall provide the following information to the Coal Controller's Organisation:

(i) two certified copies of its balance sheets, cash flow statement and profit and loss account, along with a report thereon by its statutory auditors; and

(ii) such other information as may be required to be provided, by the Nominated Authority.

7.2. The Pre-Commencement Report, the Commencement Report, the Monthly Report and the Yearly Report shall be provided to the Nominated Authority or the Coal Controller's Organisation as attachments to an email addressed to the following e-mail address: (i) nomauthority.moc@nic.in in case of the Nominated Authority; or (ii) coalcont-wb@nic.in in case of the Coal Controller's Organisation. Such attachments must be digitally signed by the Allottee using a Class III digital signature certificate issued by a certifying authority in India.

7.3. The Nominated Authority shall have the right to seek such further information regarding the Pre-Commencement Report, the Commencement Report, the Monthly Report or the Yearly Report and also seek independent verification of the same.

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8. UTILISATION OF COAL.

8.1. Utilisation of Coal in the Specified End Use Plant

Except as otherwise provided in this Clause 8, the coal extracted from the Coal Mine shall be utilised by the Allottee strictly in the Specified End Use Plant; and shall not be utilised for any other purpose whatsoever, either directly or indirectly.

8.2. Middling or washery rejects

8.2.1 The Allottee shall adhere to Good Industry Practice with respect to mining of coal and make best efforts to reduce generation of middling or washery rejects and utilise the same in any captive power plant of the Allottee. In any case the middling or washery rejects generated from the Coal Mine shall not exceed normative limits.

8.2.2. Any middling or washery rejects generated from the Coal Mine may be sold by the Allottee and the Allottee shall maintain separate records for the middling or washery rejects generated, utilised and sold. However, the middling or washery rejects generated from the Coal Mine should in no event, exceed the normative limits.

8.3. Arrangements for optimal utilisation

8.3.1. In terms of Section 20 of the Ordinance and Rule 19 of the Rules, the Allottee shall be permitted to enter into arrangements for optimum utilisation of the Coal Mine (the "**Arrangement**"). In the event the Allottee is desirous of entering into an Arrangement, it shall make an application (the "**Arrangement Application**") to the Central Government in accordance with Rule 19 of the Rules.

8.3.2. The Arrangement Application shall be filed by the Allottee prior to undertaking any Arrangement and no Arrangement shall be given effect to until the Arrangement Application has been approved by the Central Government.

8.3.3. The Arrangement Application shall be made in writing and shall include complete particulars of the proposed Arrangement, including the particulars required to be provided under Rule 19(2) of the Rules i.e. (a) parties to the proposed Arrangement; (b) the proposed Arrangement; (c) the manner in which such Arrangement would achieve optimal utilisation of the relevant coal mines and cost efficiencies.

8.3.4. In the event that the Central Government grants its approval to the Arrangement, then prior to implementation of the Arrangement, the Allottee shall provide to the Central Government duly certified copy of all agreements and other documents related to the Arrangement.

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अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi

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8.4. **Utilisation in any other plant of the Allottee**

8.4.1. In the event that the Allottee is desirous of utilising the coal extracted from the Coal Mine in any other plants of the Allottee or its subsidiary company (in terms of the Companies Act, 2013) engaged in the same specified end use as the Specified End Use Plant ("**Other Plant(s)**") pursuant to Section 20(2) of the Ordinance, then the Allottee shall provide a written intimation ("**Diversion Notice**") to the Central Government.

8.4.2. In accordance with Rule 20(2) of the Rules, the Diversion Notice shall be provided at least thirty Business Days prior to the intended date of such utilisation.

8.4.3. In the event that, upon submission of the Diversion Notice the Central Government seeks further information regarding the aforementioned utilisation, then the Allottee shall provide the same within seven Business Days. The Allottee shall not utilise the coal extracted from the Coal Mine in any Other Plant(s) if: (i) the Central Government determines in its sole discretion that such utilisation is not in accordance with Section 20(2) of the Ordinance or Rule 20(2) of the Rules; or (ii) information regarding compliance with Section 20(2) of the Ordinance or Rule 20(2) of the Rules with respect to such utilisation is not provided to the Central Government in the manner stipulated under this Clause 8.4.

8.4.4. The Diversion Notice shall include complete particulars of the proposed utilisation of coal extracted from the Coal Mine in any Other Plant, including without limitation:

(i) name and address of the Other Plant(s);

(ii) the ownership of the Other Plant(s). It is clarified that such Other Plant(s) should be owned solely by the Allottee or its subsidiary company (in terms of the Companies Act, 2013) to be eligible to get coal in terms of Section 20(2);

(iii) the mechanism for transportation of coal from the Coal Mine to the Other Plant(s);

(iv) the requirement of coal of the Other Plant(s); the sources from which such requirement is being met; and the per cent of such requirement being proposed to be met from the Coal Mine; and the manner in which such diversion would affect the Specified End Use Plant originally associated with the Coal Mine.

8.4.5. In the event that coal extracted from the Coal Mine is being diverted to any Other Plant(s) pursuant to this Clause 8.4, then the Allottee or any of its subsidiary company owning such Other Plant(s) shall also be required to adhere to the stipulations under this Agreement with respect to the utilisation of coal from the Coal Mine and the Specified End Use and any Applicable Law.

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8.5. **Sale to CIL**

8.5.1. Any coal extracted from the Coal Mine which is in excess of the requirements of coal for the Specified End Use Plant and the Other Plant(s) shall be required to be supplied to CIL at the CIL Notified Price.

8.5.2. It is clarified that for the purposes of sale of coal to CIL, the determination of grade of coal shall be based on joint analysis of coal carried out by the Allottee and CIL. It is further clarified that, the Allottee shall continue to make Monthly Payments with respect to the coal extracted from the Coal Mine as per Clause 9 including on the coal sold to CIL.

8.5.3. All Taxes applicable on such sale of coal shall be payable additionally.

9. MONTHLY PAYMENTS AND ESCALATION

9.1. **Monthly Payment**

9.1.1. The Allottee shall be required to make monthly payments (the "**Monthly Payment**") with respect to the coal extracted from the Coal Mine on the basis of the Reserve Price (as escalated in accordance with Clause 9.2).

9.1.2. The Monthly Payment is required to be made in the Designated Bank Account within 20 calendar days of expiry of each month with respect to coal extracted from the Coal Mine in such calendar month.

9.1.3. All payments required to be made by the Allottee shall be made net of all applicable Taxes. In the event, Taxes are payable, the Allottee shall gross-up the amount payable and make payment of the aggregate amount.

9.2. **Escalation**

9.2.1. For the purposes of computation of the Monthly Payment, the Reserve Price shall be subject to an escalation on a year-on-year basis every financial year on the basis of the pre-specified escalation formula that is prescribed in the relevant Standard Bidding Document for Design, Build, Finance, Own and Operate (DBFOO) bidding as formulated by Ministry of Power for escalation of fuel cost from captive mines (the "**Reference Index**"), and the Reserve Price shall stand increased by the per cent increase of the Reference Index on a year-on-year basis. It is clarified that for the purposes of escalation in a subsequent financial year, the escalated Reserve Price of the immediately preceding year shall be considered. The last published Reference Index shall be used for computing the escalation. The subject escalation would be applicable after the issuance of the Allotment Order.

9.2.2. In the event that the failure of the Allottee to make payment of the Monthly Payment

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exceeds for more than three instances, such non-compliance may also result in termination of this Agreement as provided in Clause 24 (EFFECTIVE DATE, TERM AND TERMINATION).

9.3. It is clarified that in addition to the aforementioned payments any royalty payable under Applicable Laws shall be payable additionally.

10. EFFICIENCY PARAMETERS

10.1. The conduct of mining operations at the Coal Mine shall be subject to the milestones listed in SCHEDULE E (the "**Efficiency Parameters**").

10.2. The Allottee would provide periodic information to the Nominated Authority and the Central Government regarding compliance with the Efficiency Parameters in the manner stipulated in Clause 7 (INFORMATION).

10.3. Any non compliance with the Efficiency Parameters would result in appropriation of the Performance Security in the manner stipulated in Clause 6 (PERFORMANCE SECURITY) and in case where such non-compliance exceeds for more than five instances, such non-compliance may also result in termination of this Agreement as provided in Clause 24 (EFFECTIVE DATE, TERM AND TERMINATION).

11. GENERAL RIGHTS AND OBLIGATIONS

11.1. Limited Mining Rights

The Allottee shall be entitled to receive a Mining Lease for conduct of mining operations only in the Coal Mine and shall not be entitled to conduct the mining operations in any other area pursuant to this Agreement. The rights granted to the Allottee herein to conduct mining operations are exclusive within the Coal Mine. The Government undertakes not to grant any rights to mine coal in the Coal Mine to any Third Party during the Term.

11.2. Authorisations

The Allottee shall obtain and maintain all Governmental Approvals required for conducting the mining operations at the Coal Mine and performing its obligations under this Agreement. The Government undertakes, on a no-obligation basis, to expeditiously provide all necessary approvals and assistance for conducting mining operations and as otherwise may be reasonably required by the Allottee in relation to the rights granted to it under this Agreement.

11.3. Geological and Archaeological Finds

It is expressly agreed that other than rights to mine for coal (as may be granted under any

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Mining Lease pursuant hereto), geological or archaeological rights do not form part of the rights granted to the Allottee under this Agreement and the Allottee hereby acknowledges that except in relation to coal (as may be granted under any Mining Lease pursuant hereto), it shall not have any mining rights or interest in the underlying minerals, metals (including gold, silver etc.), gas, oil, fossils, antiquities, structures or other remnants or things either of particular geological or archeological interest and that such rights, interest and property on or under the Coal Mine shall vest in and belong to the relevant Central/ State Government or the concerned Governmental Authority. The Allottee shall take all reasonable precautions to prevent its workmen or any other person from removing or damaging such interest or property and shall inform the relevant Central/ State Government forthwith of the discovery thereof and comply with such instructions as the concerned Governmental Authority may reasonably give for the removal of such property.

11.4. **Health, Safety, Welfare, Social Security and Minimum Wages**

11.4.1. The Allottee shall comply with all Applicable Laws and observe Good Industry Practice for the protection of the general health, safety, welfare, social security and minimum wages of employees engaged at the Coal Mine, including employees of any contractor or sub-contractor and of all other persons having legal access to the area covered by this Agreement.

11.4.2. Without prejudice to the generality of the foregoing, the Allottee shall ensure payment of minimum wages to the employees engaged at the Coal Mine and in related activity including employees of any contractor or sub-contractor.

11.4.3. The Allottee shall install and utilize such recognized modern safety devices and observe such recognized modern safety precautions as are provided and observed under Good Industry Practice. The Allottee shall maintain in a safe and sound condition for the duration of this Agreement all infrastructure and equipment constructed or acquired in connection with mining operations and required for ongoing operations.

11.4.4. The Allottee shall train employees engaged at the Coal Mine, including employees of any contractor or sub-contractor and of all other persons having legal access to the area covered by this Agreement, in accordance with the Good Industry Practice.

11.4.5. The Allottee shall construct, maintain, and operate health programs and facilities to serve the employees engaged at the Coal Mine, including employees of any contractor or sub-contractor and of all other persons having legal access to the area covered by this Agreement, which programs and facilities shall install, maintain and use modern health devices and equipment and shall practice modern health procedures and precautions in accordance with Good Industry Practice.

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11.4.6. Without prejudice to the generality of the foregoing, in the event the Allottee provides housing, the same shall be built to a standard that provides suitable living environments adequate for health and well-being, and which meet applicable sanitation standards in terms of Good Industry Practice.

12. CONTRACTORS AND SUB-CONTRACTORS

12.1. In the event the Allottee enters into any agreement with any contractor in relation to the mining operations at the Coal Mine, then a duly certified copy of such agreement shall also be submitted to the Nominated Authority within fifteen Business Days of its execution.

12.2. Any Agreement between the Allottee and its contractors shall contain appropriate terms by which the contractor shall acknowledge and comply with the terms of this Agreement, and the contractor shall also cause its sub-contractors to acknowledge and comply with the same.

12.3. Nothing in this Agreement shall exempt the Allottee from any and all obligations under this Agreement despite the delegation of such obligations to a contractor or its subcontractors.

12.4. Terms and Conditions for appointment of contractor(s) in relation to coal mining operations may be formulated in line with the terms and conditions specified in the Auction by Competitive Bidding of Coal Mines Rules, 2012 (as amended by notification dated 27.12.2012) framed under Sec. 11A of the MMDR Act. The terms and conditions may be as follows:

12.4.1. In case the Coal Mine is developed through contractor(s), the selection of the contractor(s) in relation to coal mining operation shall be through a competitive bidding process and the Allottee company shall inform the State Government concerned, the Central Government and the Nominated Authority about the engagement of such contractor(s) and the terms and conditions of such engagement, as soon as it is finalised.

12.4.2. The Allottee shall ensure that the criteria of bidding for engagement of the contractor(s) are not linked to CIL Notified Price.

12.4.3. The contractor(s) shall maintain all records as required to be maintained and shall provide such records for the inspection by the Allottee, the State Government concerned, the Central Government and the Nominated Authority.

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13. CHANGE IN CONTROL AND TRANSFER

13.1. Change in Control of the Allottee

13.1.1. Change in Control of the Allottee or any transfer of the Specified End Use Plant along with the rights in relation to the Coal Mine, shall be permissible with prior intimation to the Nominated Authority and the Central Government if:

(a) such change in Control does not result in the Allottee becoming non compliant with any of the Eligibility Conditions or the transferee is also compliant with the applicable Eligibility Conditions, as the case may be. It is clarified that no company other than a Government company or corporation shall be permitted to hold more than twenty-six per cent of the paid up share capital in the Allottee, either directly or through any of its subsidiary company or associate company; and

(b) such change in Control or transfer does not require any prior consent, approval, no-objection certificate or the like under any Applicable Law.

13.1.2. In the event that any change in Control of the Allottee or any proposed transfer of the Specified End Use Plant along with the rights in relation to the Coal Mine requires prior Governmental Approval under any Applicable Laws, then such Governmental Approval shall be granted (in addition to any other requirement under Applicable Law) only if:

(a) the transferee of such right, title or interest or the Allottee subsequent to change of Control, as the case may be, also meets all the applicable Eligibility Conditions; or

(b) the Allottee continues to meet all the applicable Eligibility Conditions, as the case may be

13.2. Change in Control in case of a joint venture

13.2.1. In the cases where allotment has been made to a joint venture of any two or more Government companies or corporations, such companies shall be prohibited from alienating or transferring any interest, except for taking of loans or advances from a bank or financial institution, in the joint venture of whatsoever nature including ownership in favour of a Third Party.

13.3. Consequences of default

13.3.1. In the event of any change in Control or any transfer of right, title or interest in the Coal Mine which is not in conformity with this Agreement or any Applicable Law, then in addition to any rights, remedy or consequences as may be applicable under Applicable Laws, the Nominated Authority or the Central Government may, in its sole discretion,

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appropriate the Performance Security, disqualify the Allottee from participating in any further auction or allotment process conducted by the Nominated Authority; terminate this Agreement; and/or terminate and withdraw the Allotment Order as the case may be.

13.3.2. Any transfer of right, title or interest which is not in conformity with this Agreement or Applicable Laws shall be deemed to be void *ab-initio*.

14. MINE PLAN

14.1. The Mine Plan approved in relation to the Prior Allottee, if any shall also be applicable to the Allottee.

14.2. Upon allocation of Coal Mine, the Allottee may revise the Mine Plan for extraction of more coal as compared to the Mine Plan being subject to revision in accordance with the provisions of Applicable Law and the Agreement.

14.3. The Allottee may increase mine production to the maximum possible extent and utilise the coal in accordance with Clause 8. Subject to Applicable Laws, the Allottee may apply for coal linkages or participate in auction/ allotment for the Specified End Use Plant three years prior to the exhaustion of extractable reserves in the Coal Mine.

15. MINE CLOSURE

15.1. Upon exhaustion of the extractable coal reserves at the Coal Mine the Coal Mine shall be closed, in the manner provided in the mine closure plan and Applicable Laws.

16. COMPLIANCE AND RECORD KEEPING

16.1. The Allottee shall keep at its normal place of business detailed, accurate and up to date records and books of account showing all payments made by the Allottee in connection with this Agreement, the development of the Coal Mine, mining operations and matters incidental thereto and the steps taken by the Allottee to comply with Applicable Laws. Such records and books of accounts shall be required to be maintained for a period of six years. The Allottee shall ensure that such records and books of accounts are sufficient to enable verification of the Allottee's compliance with its obligations under this this Agreement.

16.2. The Allottee shall permit the Nominated Authority and its representatives, to access and take copies of the Allottee's records and any other information held at the Allottee's premises and to meet with the Allottee's personnel to audit the Allottee's compliance with its obligations under this Agreement. Such audit rights shall continue for three years after termination of this Agreement. The Allottee shall give all necessary assistance to the conduct of such audits during the Term of this Agreement and for a period of three year after termination of this Agreement.

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17. REPRESENTATIONS AND WARRANTIES

17.1. The Allottee represents and warrants to the Nominated Authority (save as otherwise disclosed to the Nominated Authority in writing), as of the Agreement Date, in the manner as detailed in SCHEDULE G ("**Warranties**").

17.2. None of the representations, warranties and/ or statements contained in this Agreement shall be treated as qualified by any actual or constructive knowledge on the part of the Nominated Authority or the Central Government or any of its respective agents, representatives, officers, employees or advisers.

17.3 In the event that any of the representations or warranties made or given by the Allottee ceases to be true or stands changed, the Allottee shall promptly notify the Nominated Authority of the same. The Allottee hereby waive all its rights to invoke and shall not invoke the Nominated Authority's knowledge (actual, constructive or imputed) of a fact or circumstance that might make a statement untrue, inaccurate, incomplete or misleading as a defence to a claim for breach of Warranties or covenant or obligation of the Allottee.

18. INDEMNITIES

18.1. In this clause, a reference to the Nominated Authority shall include the Nominated Authority; the Government of India; any of the departments or ministries of Government of India; and of the officers, employees, staff, advisors, representatives or agents of the Government of India (collectively the "**Indemnified Party**") and the provisions of this Clause shall be for the benefit of the Indemnified Party, and shall be enforceable by each such Indemnified Party.

18.2. The Allottee shall indemnify the Indemnified Party against all liabilities, costs, expenses, damages and losses (including but not limited to any interest, penalties and legal costs (calculated on a full indemnity basis) and all other professional costs and expenses) suffered or incurred by the Indemnified Party arising out of or in connection with:

(a) any breach of the Warranties

(b) Allottee's breach or negligent performance or non-performance of this Agreement;

(c) the enforcement of this Agreement;

(d) any claim made against the Indemnified Party for actual or alleged infringement of a Third Party's rights arising out of or in connection with mining operations at the Coal Mine or performance or non performance of any of the obligations under this Agreement to the extent that such claim arises out of the breach, negligent performance or failure or delay in performance of this Agreement by the Allottee,

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its employees, agents or contractors;

(e) any claim made against the Indemnified Party by a Third Party for death, personal injury or damage to property arising out of or in connection with mining operations at the Coal Mine or performance or non performance of any of the obligations under this Agreement;

(f) any loss or damages caused on account of breach of any Applicable Law by the Allottee, including without limitation any costs incurred by the Nominated Authority in cleaning or rectifying of any environmental damages caused by the Allottee on account of, lack of Good Industry Practice; breach, negligent performance or failure or delay in performance of this Agreement; or non-compliance with Applicable Law.

18.3. If any Third Party makes a claim, or notifies an intention to make a claim, against the Indemnified Party which may reasonably be considered likely to give rise to a liability under this indemnity (a "**Claim**"), the Indemnified Party shall as soon as reasonably practicable, give written notice of the Claim to the Allottee, specifying the nature of the Claim in reasonable detail.

18.4. Subject to the Allottee providing security to the Indemnified Party, to the Indemnified Party's sole and absolute satisfaction against any claim, liability, costs, expenses, damages or losses which may be incurred, the Allottee may take such action as it may reasonably deem fit to avoid, dispute, compromise or defend the Claim.

18.5. Payments of the amount of Claim shall become due and payable within thirty Business Days of receipt of notice of Claim. If a payment due from the Allottee under this clause is subject to Tax (whether by way of direct assessment or withholding at its source), the Indemnified Party shall be entitled to receive from the Allottee such amounts as shall ensure that the net receipt, after Tax, to the Indemnified Party in respect of the payment is the same as it would have been were the payment not subject to Tax.

19. ASSIGNMENT, SECURITY FOR FINANCING

19.1. Prohibition on Assignment

19.1.1. Except as provided in this Clause 19, the Allottee shall not assign this Agreement, either directly or indirectly, save and except with the prior consent in writing of the Nominated Authority, which consent the Nominated Authority shall be entitled to decline without assigning any reason.

19.1.2. Subject to compliance with provisions of Clause 19.2, this Agreement may be assigned by the Allottee in the following events:

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(a) upon occurrence of a change in Control or transfer which is permissible in terms of Clause 13, to the transferee; or

(b) upon occurrence of an enforcement event, to a transferee as may be determined by a bank or financial institution in terms of Clause 19.3.

19.2 **Assignment Conditions**

Assignment of this Agreement shall also be subject to the following conditions precedent:

(a) the proposed assignee must meet the applicable Eligibility Conditions;

(b) the proposed assignee must agree to unconditionally and irrevocably adhere to the provisions of this Agreement and must enter into a deed of adherence in the manner as prescribed by the Nominated Authority;

(c) the proposed assignee must have furnished the Performance Security, to substitute any subsisting Performance Security provided by the Allottee;

(d) the proposed assignee must have paid any other amount due from the Allottee and agree to indemnify and hold the Nominated Authority harmless in all respects against any claims from any Third Party or the Allottee with respect to such assignment.

19.3. **Security for financing, enforcement Event**

19.3.1. Subject to Applicable Laws, the Allottee shall be entitled to create security over the Coal Mine through mortgage for the purposes of availing financing from a bank or financial institutions for the purposes of financing of the Specified End Use Plant or mining operations at the Coal Mine and such security creation shall not require prior approval by the Nominated Authority or the Central Government. It is clarified that the Allottee shall be permitted to enter into any agreement with bank or financial institutions with respect to assignment of this Agreement in terms of this Clause 19 and in such case the assignment conditions mentioned in Clause 19.2 shall not be applicable and the conditions specified in Clause 19.3 shall be applicable.

19.3.2. The Allottee shall keep the Nominated Authority promptly informed about: (i) any default in its obligation under any arrangement with any bank or financial institution; (ii) any security interest created over the Coal Mine; and (iii) any action initiated by the bank or financial institution regarding enforcement of security.

19.3.3. In the event of a default, the banks or financial institutions, as the case may be shall be entitled to enforce their security interest, provided that the conditions listed in Clause 19.2 are met, in the manner provided below:

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(a) the security interest shall be exercised in accordance with the provisions of Applicable Laws and any inter-se agreement between the secured creditors, if any;

(b) the lead secured creditor (in case of consortium lending) or the secured creditor with the highest exposure (in case of multiple banking), shall be entitled to seek a substitution of the Allottee by providing a written notice (the "**Substitution Notice**") to the Nominated Authority;

(c) the Substitution Notice shall contain complete particulars of the proposed transferee (the "**Selectee**"), particulars of compliance of the Selectee with all the Eligibility Conditions, particulars of the debt due and such data and information as would be necessary and relevant for the Nominated Authority to decide as to the acceptability of the Selectee;

(d) the Nominated Authority may require such other information as it may deem fit regarding the suitability of the Selectee to receive rights and obligations with respect to the Coal Mine;

(e) the Substitution Notice must be accompanied by an unconditional undertaking of the Selectee to the effect that it shall upon acceptance by the Nominated Authority observe, comply with, perform and fulfil the residual terms, conditions and covenants of this Agreement as if the Selectee had been the Allottee under this Agreement and to assume, discharge and pay the debt due on the terms and conditions agreed to by the Selectee with the secured creditors. The Selectee shall also undertake to enter into such documents and agreements with Nominated Authority as may be necessary or required to give effect to the substitution of the Allottee by the Selectee;

(f) the Nominated Authority shall convey its acceptance or otherwise of the Selectee within sixty Business Days of (a) the date of receipt of the Substitution Notice; or (b) the date of receipt of the additional information and clarifications requested in respect of any data, particulars or information comprised in the Substitution Notice, whichever is later.

(g) In the event that the Nominated Authority fails to communicate its acceptance or otherwise or the objections if any it has to the acceptance of the Substitution Notice, within the time specified in sub-clause (f) above, the Nominated Authority shall be deemed to have accepted the Substitution Notice and the Selectee.

19.3.4. Upon acceptance of the Selectee by the Nominated Authority or the Nominated Authority having been deemed to have accepted the Substitution Notice, this Agreement shall be

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deemed to be assigned in favour of the Selectee without any further act or deed of the Allottee.

20. INSURANCE

20.1. At all times during the Term hereof, the Allottee will maintain, and cause its contractors and sub-contractors to maintain, with financially sound and reputable insurers, insurance against such casualties and contingencies, of such types, on such terms and in such amounts (including deductibles, co-insurance and self-insurance, if adequate reserves are maintained with respect thereto) as is consistent with Good Industry Practice.

21. ACCOUNTS AND AUDIT

21.1. Audited Accounts

The Allottee shall maintain books of accounts recording all its receipts, income, expenditure, payment, assets and liabilities in accordance with Good Industry Practice and Applicable Laws.

21.2 Appointment of Auditors

The Nominated Authority shall have the right, but not the obligation, to appoint at its cost, from time to time and at any time, an auditing firm or an auditor to audit and verify all those matters, expenses, costs, realizations and things with respect to the Coal Mine or which the statutory auditors are required to do, undertake or certify pursuant to this Agreement.

21.3. Certification of claims by Statutory Auditors

Any claim or document provided by the Allottee to the Nominated Authority in connection with or relating to receipts, income, payments, costs, expenses, accounts or audit, and any matter incidental thereto shall be valid and effective only if certified by its statutory auditors.

22. GOVERNMENT INSPECTION

22.1. The Nominated Authority, through its authorized representatives shall have the right to free ingress and egress within any part of the Coal Mine at any time to inspect works or activities being undertaken or implemented by the Allottee in order to monitor and verify compliance with the terms of this Agreement and all Applicable Laws.

22.2. The Nominated Authority, through its authorized representatives, shall have access to the Allottee's financial and other records and transactions (relatable to any period) at any time upon reasonable advance notice, the right to copy therefrom, for the purpose of assessing the performance and compliance of the Allottee with the terms of this

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Agreement and all Applicable Laws, rules and regulations or to aid in the enforcement of the same.

22.3. The Nominated Authority shall have the right to conduct, either directly or indirectly through any Third Party, a performance audit to verify compliance by the Allottee, of its obligations hereunder.

23. EVENT OF FORCE MAJEURE

23.1. Event of Force Majeure means any of the following events or circumstances or combination of the following events or circumstances which are beyond the reasonable control of the Allottee, which could not have been prevented by Good Industry Practice or by the exercise of reasonable skill and care and which or any consequences of which, have a material and adverse effect upon the performance by the Allottee of its obligations or enjoyment of its rights:

(i) acts of God, flood, drought, earthquake or other natural disaster;

(ii) epidemic or pandemic;

(iii) terrorist attack, civil war, civil commotion or riots, war, threat of or preparation for war, armed conflict, imposition of sanctions, embargo, or breaking off of diplomatic relations;

(iv) nuclear, chemical or biological contamination or sonic boom;

(v) collapse of buildings, fire, explosion or accident;

(vi) any labour or trade dispute, strikes, industrial action or lockouts (other than those solely affecting Allottee claiming the same as an Event of Force Majeure and attributable to such Allottee's policies regarding labour, compensation or employment or labour related conditions).

23.2. Provided it has complied with Clause 23.3, if the Allottee is prevented, hindered or delayed in or from performing any of its obligations under this Agreement by an Event of Force Majeure, the Allottee shall not be in breach of this Agreement or otherwise liable for any such failure or delay in the performance of such obligations.

23.3. Upon occurrence of an Event of Force Majeure, the Allottee shall:

(i) as soon as reasonably practicable after the start of the Event of Force Majeure but no later than thirty Business Days from its start, notify the Nominated Authority and the Central Government in writing of the Event of Force Majeure, the date on which it started, its likely or potential duration, and the effect of the Event of Force Majeure on its ability to perform any of its obligations under this

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Agreement; and

(ii) use all reasonable endeavours to mitigate the effect of the Event of Force Majeure on the performance of its obligations including following of Good Industry Practice.

23.4. If an obligation is suspended by reason of an Event of Force Majeure for more than one month continuously, the Parties shall enter into good faith negotiations to revise the terms of this Agreement to reflect the changed circumstances, provided that this Agreement shall remain in effect during the period during which the Parties are negotiating the terms of any such revision.

23.5. Notwithstanding Clause 23.4, in the event that performance of obligations under this Agreement remain suspended for a period of: (a) six months continuously; (b) or nine months over a period of one year, then the Nominated Authority may in its sole discretion terminate this Agreement in the manner provided in Clause 24 (EFFECTIVE DATE, TERM AND TERMINATION).

24. EFFECTIVE DATE, TERM AND TERMINATION

24.1. Effective Date

This Agreement shall come into effect on the Agreement Date. It is clarified that the provisions of this Agreement shall also be included in the Mining Lease.

24.2. Term

This Agreement shall commence on the dates mentioned in Clause 24.1 and shall continue for the period of validity of the Mining Lease granted to the Allottee ("**Term**"), unless agreed otherwise by the Parties and unless this Agreement is terminated earlier in accordance with its terms prior to the expiry of the Term.

24.3. Termination

24.3.1. This Agreement may be terminated upon occurrence of any of the following events (each a "**Termination Event**"):

(a) failure of the Allottee to make payment of the Upfront Amount in the manner provided in Clause 5.2;

(b) failure of the Allottee to complete the Allotment Conditions within the time specified in Clause 3.2;

(c) failure of the Allottee to make payment of additional levy within the time specified under Rule 18 of the Rules, if required to be paid;

Govt. of India, M/o Coal, Nominated Authority

U.P. NAGPAL, Under Secretary, Govt. of India, Ministry of Coal, Shastri Bhawan, New Delhi

Maharashtra State Power Generation Co. Ltd., Head Office, Mumbai

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(d) occurrence of any Appropriation Event resulting in appropriation of the entire Performance Security or on account of one or more Appropriation Events, an amount equal to hundred per cent of the Performance Security being appropriated in aggregate (in one or more instances) as provided in Clause 6.3;

(e) failure of the Allottee to replenish the Performance Security within a period of 15 Business Days, in the event that a part of the Performance Security has been appropriated;

(f) non compliance of the Allottee with the Efficiency Parameters for more than five instances (in aggregate and not over a specified period) as provided in Clause 10.3;

(g) suspension of obligations on account of an Event of Force Majeure for a period longer than as specified in Clause 23.5;

(h) failure to make payment of the Monthly Payment for more than three instances (in aggregate and not over a specified period) in terms of Clause 9.2.2;

(i) failure to provide any information requested by the Nominated Authority in terms of this Agreement;

(j) failure of the Allottee to ensure continued compliance with the Eligibility Conditions;

(k) in case the Allottee is a joint venture company, alienation or transfer of any interest, except the taking of loans or advances from a bank or financial institution, in the joint venture of whatsoever nature including ownership in favour of a Third Party;

(l) a company other than a Government company or corporation holding more than twenty-six per cent of the paid up share capital of the Allottee, either directly or through any of its subsidiary company or associate company (such expressions having meaning ascribed under the Companies Act, 2013);

(m) the Allottee dissolves, liquidates, becomes insolvent, commits an act of bankruptcy, makes an assignment for the benefit of creditors, petitions or applies to any tribunal for the appointment of a trustee or receiver for itself, or commences any proceedings concerning itself under a law concerning bankruptcy, or insolvency other than for the purposes of corporate reorganization;

(n) any other breach of any of the provisions of this Agreement (including in case of the Warranties being untrue or misleading or incorrect in any manner whatsoever), which is not cured by the Allottee within thirty Business Days of

Nominated Authority Govt. of India M/o Coal

Maharashtra State Power Generation Co. Ltd. Head Office Mumbai

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becoming aware of the same, on it own accord or upon receipt of a notice from the Nominated Authority;

(o) surrender of the Coal Mine by the Allottee;

(p) cessation of coal mining operation exceeding a period of one year continuously, or 18 months over a period of two years without occurrence of any Event of Force Majeure;

(q) termination of the Mining Lease granted to the Allottee; or

(r) in the opinion of the Central Government, it is expedient in public interest to terminate this Agreement.

24.3.2. Upon occurrence of a Termination Event, the Nominated Authority may elect to terminate this Agreement by providing a 15 Business Days written notice to the Allottee. The determination of the Nominated Authority regarding occurrence of a Termination Event shall be final and binding on the Allottee.

24.3.3. In case the Nominated Authority elects to terminate this Agreement, then the Performance Security and all other payments made by the Allottee shall be forfeited and the Allottee shall not be entitled to any benefits under this Agreement but would continue to be liable towards any antecedent liability, all obligations accrued before the effective date of the surrender/ termination and also for the obligations that must be fulfilled after termination

24.4. **Retention of Books and Records**

Upon termination of this Agreement, the Allottee shall retain all documents, books and records related to the Coal Mine for a period of three years or such longer period as may specified under Applicable Law. It is clarified that the Allottee may also retain such books and records in electronic form if permitted under Applicable Laws.

25. GOVERNING LAW AND DISPUTE RESOLUTION

25.1. This Agreement and all questions of its interpretation shall be construed in accordance with the laws of India, without regard to its principles of conflicts of laws.

25.2. Any dispute, controversy or claim arising out of or relating to or in connection with the Agreement including a dispute as to the validity or existence of this Agreement, or any breach or alleged breach thereof, shall be settled through mutual discussions between the Parties. In this regard, the Allottee shall nominate an officer not below the rank of a director to participate in the discussions on its behalf.

25.3. In the event that the Allottee fails to nominate an officer in the manner required under Clause 25.2; or the Parties are unable to resolve any dispute in accordance with Clause

Govt. of India Min Coal Nominated Authority

दीपीत नागपाल / P.P. NAGPAL
अवर सचिव / Under Secretary
भारत सरकार / Govt. of India
कोयला मंत्रालय / Ministry of Coal
शास्त्री भवन / Shastri Bhawan
नई दिल्ली / New Delhi

Maharashtra State Power Generation Co. Ltd. Head Office Mumbai

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25.2 within a period of 30 Business Days starting from the date on which the first notice of dispute was provided by either Party, such dispute shall be resolved in accordance with Section 27 of the Ordinance.

25.4. It is expressly agreed between the Parties, that any existence of a dispute shall not affect in any manner any of the rights of the Nominated Authority under this Agreement, including without limitation the right to appropriate Performance Security or terminate this Agreement, until a final determination in this regard is made.

25.5. The provisions contained in this Clause 25 shall survive the termination of this Agreement.

26. MISCELLANEOUS

26.1. Time of Essence

Each of the Parties hereby agrees that, with regard to all dates and time periods set forth or referred to in this Agreement, time is of the essence.

26.2. Publicity

The Allottee shall not issue any information, document or article for publication in any news or communications media or make any public statement in relation to this Agreement without the prior written consent of the Nominated Authority unless required to do so by Applicable Law, provided that prior to any disclosure of any such information required by Applicable Law, the Allottee must first notify the Nominated Authority, who shall then have the opportunity to respond to and/or dispute such intended disclosure.

26.3. Severability

26.3.1. If any term, provision, covenant or restriction of this Agreement or the application thereof to any Person or circumstance shall be held invalid, void or unenforceable by a court of competent jurisdiction or other Governmental Authority to any extent, the remainder of the terms, provisions, covenants and restrictions of this Agreement and the application thereof to Persons or circumstances (other than those as to which any portion of this Agreement is held invalid, void or unenforceable) shall not be affected thereby and shall remain in full force and effect to the fullest extent permitted by law, so long as the economic or legal substance of the transactions contemplated hereby is not affected in any manner materially adverse to any Party.

26.3.2. Upon such a determination, the Parties shall negotiate in good faith to modify this Agreement so as to effect the original intent of the Parties as closely as possible in an acceptable manner in order that the transactions contemplated hereby be consummated as originally contemplated to the fullest extent possible.

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26.4. **Costs and Expenses**

26.4.1. The Allottee shall bear its own costs in connection with the negotiation, preparation and execution of this Agreement.

26.4.2. The stamp duty payable for this Agreement shall be borne by the Allottee.

26.5. **Further Assurance**

The Allottee shall cooperate with the Nominated Authority and execute and deliver to the Nominated Authority such instruments and documents and take such other actions as may be requested from time to time in order to carry out, evidence and confirm their rights and the intended purpose of this Agreement.

26.6. **Legal And Prior Rights**

All rights and remedies of the Nominated Authority hereto shall be in addition to all other legal rights and remedies belonging to the Nominated Authority and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid and it is hereby expressly agreed and declared by and between the Parties hereto, that the determination of this Agreement for any cause whatsoever shall be without prejudice to any and all rights and claims of the Nominated Authority, which shall or may have accrued prior thereto.

26.7. **Waiver**

26.7.1. The waiver of any default or breach under this Agreement by the Nominated Authority shall not constitute a waiver of the right to terminate this Agreement for any substantial default of a similar nature or under any other terms and conditions of this Agreement.

26.7.2. No failure or delay by the Nominated Authority in exercising any right or remedy provided by Applicable Law under or pursuant to this Agreement shall impair such right or remedy or operate or be construed as a waiver or variation of it or preclude its exercise at any subsequent time and no single or partial exercise of any such right or remedy shall preclude any other or further exercise of it or the exercise of any other right or remedy. The rights and remedies of the Nominated Authority under or pursuant to this Agreement are cumulative, may be exercised as often as it considers appropriate and are in addition to its rights and remedies under Applicable Law.

26.7.3. Submission of any document, information, report or notice, which contains any information or reference to any default or breach under this Agreement or any Applicable Law, to the Nominated Authority shall not be construed to be a deemed approval of such breach or default and the Nominated Authority may exercise any rights or remedies with respect to such default at any time.

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26.8. **Amendments**

No amendment of this Agreement (or of any of the documents referred to in this Agreement) shall be valid unless it is in writing and signed by or on behalf of each of the Parties to it. The expression "amendment" shall include any amendment, variation, supplement, deletion or replacement however effected. Unless expressly agreed, no amendment shall constitute a general waiver of any provisions of this Agreement, nor shall it affect any rights, obligations or liabilities under or pursuant to this Agreement which have already accrued up to the date of amendment, and the rights and obligations of the Parties under or pursuant to this Agreement shall remain in full force and effect, except and only to the extent that they are so amended.

26.9. **Counterparts**

This Agreement may be executed in two counterparts, each of which will be deemed an original, with the same effect as if the signatures thereto and hereto were upon the same instrument, but all of which together will constitute one and the same instrument.

26.10. **No Agency or partnership**

The Parties agree that nothing in this Agreement shall be in any manner interpreted to constitute an agency for and on behalf of any other Party. None of the provisions of this Agreement shall be deemed to constitute a partnership between the Parties hereto and no Party shall have any authority to bind the other Party or shall be deemed to be the agent of the other Party in any way.

26.11. **Notices**

All notices, requests, demands or other communication ("**Notice**") required or permitted to be given under this Agreement and the provisions contained herein shall be written in English and shall be deemed to be duly sent by registered post with acknowledgment due, or transmitted by facsimile transmission to the other Parties at the address indicated in SCHEDULE II hereof or at such other address as the Party to whom such notices, requests, demands or other communication is to be given shall have last notified to the Party giving the same in the manner provided in this Clause, but no such change of address shall be deemed to have been given until it is actually received by the Party sought to be charged with the knowledge of its contents. Any notice, request, demand or other communication delivered to the Party to whom it is addressed as provided in this Clause 26.11 shall be deemed to have been given and received on the day of its receipt at such address.

A copy of the Notice sent by registered post with acknowledgment due, or transmitted by facsimile transmission may also be sent through email to the email addresses specified in

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Maharashtra State Power Generation Co. Ltd. Head Office Mumbai

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SCHEDULE H solely for the information of the recipient and shall take effect only when the registered post is actually delivered or the fax is received by the recipient, as the case may be.

26.12. **Entire Agreement**

This Agreement (including all such deeds and documents issued or executed pursuant hereto or referred to herein) and the Allotment Document constitutes and represents the entire agreement between the Parties with regard to the rights and obligations of each of the Parties and cancels and supersedes all prior arrangements, agreements or understandings, if any, whether oral or in writing, between the Parties on the subject matter hereof or in respect of matters dealt with herein. In the event of a conflict between this Agreement and the Allotment Document, the provisions of this Agreement shall prevail to the extent of the conflict.

26.13. **Specific Performance of Obligations**

The Nominated Authority shall be entitled to an injunction or injunctions to prevent breaches of this Agreement or to seek or enforce specific performance of this Agreement, in addition to any other legal rights and remedies, without the necessity of demonstrating the inadequacy of monetary damages.

26.14. **Power of the Central Government**

The Allottee acknowledges that for the purposes of this Agreement, the Central Government is acting through the Nominated Authority pursuant to the Ordinance and the Rules. However, for the purposes of exercise of rights and obligations hereunder and any Applicable Law, the Central Government shall be entitled to act through any of its relevant departments, ministries or any Governmental Agencies and all such relevant departments, ministries or any Governmental Agencies shall be entitled to exercise rights and obligations under this Agreement as if such relevant departments, ministries or any Governmental Agencies were a Party hereto.

[Remaining part of this page intentionally left blank, schedules follow.]

U.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

Govt. of India
M/o Coal
Nominated Authority

Maharashtra State Power Generation Co. Ltd.
Head Office
Mumbai

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SCHEDULE A - PARTICULARS OF THE COAL MINE

Name of Coal Mine	Gare Palma Sector II
Latitude	22°06'23.55" N to 22°10'37.04" N
Longitude	83°26'22.18" E to 83°31'19" E
Coalfield	Mand Raigarh
Villages	Bhalumura, Chitwahi, Dholnara, Dholesara, Gare, Jhinkabahal, Kunjemura, Libra, Murogaon, Pata, Radopali, Saraitola, Sarasmal, Tihlirampur
District	Raigarh
State	Chhattisgarh

Govt. of India, M/o Coal, Nominated Authority

Shalini Tiwari (I.F.S.), NAGPAL
Secretary / Under Secretary
Govt. of India / Ministry of Coal,
Shastri Bhawan
New Delhi

Maharashtra State Power Generation Co. Ltd. Head Office Mumbai

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SCHEDULE B - PARTICULARS OF THE SPECIFIED END USE PLANT

S. No	Name of Specified End Use Plant	Address	Configuration	Capacity
1	Chandrapur Thermal Power Station Unit 8 & Unit 9	Chandrapur Unit 8 &9 (2x500 MW), Expansion Project, Nirman Bhavan, Urja Nagar, Chandrapur-442404.	2x 500 MW	1000 MW
2	Koradi Thermal Power Station, Unit 8, Unit 9 & Unit 10	Koradi Complex, Chindwara Road, Koradi-441111, Dist. Nagpur, Maharashtra	3 x 660 MW	1980 MW
3	Parli Thermal Power Station, Unit 8	Taluka- Parli Vaijnath, Dist. Beed - 431520, Maharashtra	250 MW	250 MW

**MW stands for Mega Watt*

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Maharashtra State Power Generation Co. Ltd. Head Office Mumbai

B.D. SHARMA
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SCHEDULE C - FORMAT OF INTIMATION TO THE NOMINATED AUTHORITY

To
The Nominated Authority
[address]

[*date*]

Sub: Intimation under Clause 3.1(f) of the Allotment Agreement (the "Agreement").

Dear Sir,

We write with reference to Clause 3.1(f) of the Agreement read with the Ordinance and the Rules, including Section 10 and Section 11 of the Ordinance in terms of which we intend to own and utilise certain movable property of the Prior Allottee and also adopt certain contracts as detailed below:

(a) particulars of movable property along with the details of the current owner, the terms of negotiations, related documentation and other details, which we intend to own and use in terms of Section 10(1) of the Ordinance is enclosed as Annexure A;

(b) particulars of movable property along with the details of the current owner, the terms of negotiations, related documentation and other details, which we do not intend to own and use and which we intend to move in terms of Section 10(4) of the Ordinance is enclosed as Annexure B;

(c) the list of contracts (including contracts with secured creditors[1]) which we intend to adopt and continue, along with complete particulars of such contracts is enclosed as Annexure C;

(d) the list of contracts (including contracts with secured creditors) which we do not intend to adopt and continue, along with complete particulars of such contracts is enclosed as Annexure D.

Apart from the particulars of the movable property and the contracts listed in this letter, we do not intent to own, use, continue or adopt any other movable property or contracts, as the case may be and do hereby relinquish our rights with respect to the same. We acknowledge that any information not provided in this letter may not be included by the Nominated Authority in the Allotment Order.

[1] Not applicable if the Allottee is the Prior Allottee in which case the secured creditors shall have an option to continue in terms of Section 12(1) of the Ordinance.

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Chhattisgarh State Power Generation Co. Ltd. Head Office Mumbai

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM(

Yours Sincerely,

.....

(Authorised Signatory)
Name:
Designation:

Enclosed: As Above

Annexure A

Annexure B

Annexure C

Annexure D

Govt. of India M/o Coal Nominated Authority

U.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

Maharashtra State Power Generation Co. Ltd. Project Office Mumbai

B.D. SHARMA
RQP NO. 34012/03/2014-CPAM

SCHEDULE D - FORMAT OF THE COMPLETION NOTICE

To
The Nominated Authority
[address]

[*date*]

Sub: Completion Notice under Clause 3.2.1 of the Allotment Agreement (the "Agreement").

Dear Sir,

We write with reference to Clause 3.2.1 of the Agreement. We have completed each of the Allotment Conditions specified in Clause 3.1 of the Agreement and the particulars of the same are provided below:

(a) We continue to be in compliance with all the Eligibility Conditions;

(b) we have paid the first instalment of the Upfront Amount, in accordance with Clause 5.2.1 through [*particulars of payment to be mentioned*];

(c) we have furnished the Performance Security through [*particulars of performance security and its manner of delivery to be mentioned*];

(d) we have paid the Fixed Amount through [*particulars of payment to be mentioned*];

(e) Additional Levy as was required to be paid has been paid through [*particulars of payment to be mentioned*][2]; and

(f) we have provided a written intimation as was required under Clause 3.1(f) of the Agreement through a letter dated [*particulars to be mentioned*].

Documentary evidence with respect to completion of each of the Allotment Conditions is enclosed.

Yours Sincerely,

.....

(Authorised Signatory)
Name:
Designation:

Enclosed: As Above

[2] Not applicable if the Allottee is not the Prior Allottee.

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SCHEDULE E - EFFICIENCY PARAMETERS

S. N.	Milestone	Time Limit in Months (From the date of the Allotment Order)
1	Prospecting License	0
2	Completion of Exploration and Preparation of Geological Report (GR)	0
	Events after preparation of GR	
3	Mining Lease Application	3
4	Submission of Mining Plan	6
5	Mining Plan Approval	11
6	Previous Approval Application	12
7	Previous Approval	13
8	Forest Clearance Application	11
9	Forest Clearance	21
10	Environment Clearance Application	11
11	Environment Clearance	21
12	Grant of Mining Lease	24
13	Land Acquisition (To reach rated capacity)	36/42(in case of forest land)
14	Opening of Escrow Account	37/43(in case of forest land)
15	Application for Opening Permission	37/43(in case of forest land)
16	Grant of Opening Permission	38/44(in case of forest land)
17	Schedule of Production/ Reaching Rated Capacity	As per approved Mining Plan
18	EUP Synchronisation	As per approved Mining Plan

(a) The percentage for appropriation of Performance Security shall be calculated in proportion to the failure/ delay in compliance with the timelines mentioned for achievement of Efficiency Parameters which shall be broadly based on the weightages prescribed in the recommendations of Inter-Ministerial Group.

(b) In case of non-compliance with the Efficiency Parameters mentioned above, the Successful Bidder shall be required to rectify the same within such time as may be prescribed.

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SCHEDULE F - FORMAT OF PERFORMANCE SECURITY

[*Reference number of the bank*] [*date*]

To

The Nominated Authority

[*address*]

WHEREAS

A. **[Name of the Allottee]** incorporated in India under the Companies Act, [1956/2013] with corporate identity number [CIN of the Allottee], whose registered office is at [address of registered office], India and principal place of business is at [address of principal place of business, if different from registered office] (the "**Allottee**") is required to provide an unconditional and irrevocable bank guarantee for an amount equal to INR [*figures*] (Indian Rupees [*words*]) as a performance security for a period of [*period of performance bank guarantee*].

B. The Performance Security is required to be provided to **The President of India**, acting through the Central Government represented by the Nominated Authority appointed under Section 6 of the Coal Mines (Special Provisions) Ordinance, 2014 read with Coal Mines (Special Provisions) Second Ordinance, 2014 (the "**Nominated Authority**") for discharge of certain obligations under the Allotment Agreement dated [*date*] (the "**Agreement**").

C. We, [*name of the bank*] (the "**Bank**") at the request of the Allottee do hereby undertake to pay to the Central Government an amount not exceeding INR [*figures*] (Indian Rupees [*words*]) to secure the obligations of the Allottee under the Agreement on demand from the Nominated Authority on the terms and conditions herein contained herein.

NOW THEREFORE, the Bank hereby issues in favour of the Nominated Authority this irrevocable and unconditional payment bank guarantee (the "**Guarantee**") on behalf of the Allottee in the amount INR [*figures*] (Indian Rupees [*words*]).

1. The Bank for the purpose hereof unconditionally and irrevocably undertakes to pay to the Nominated Authority without any demur, reservation, caveat, protest or recourse, immediately on receipt of first written demand from the Nominated Authority, a sum or sums (by way of one or more claims) not exceeding in the aggregate the amount of INR

Govt. of India Nominated Authority Mine Coal

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[figures] (Indian Rupees *[words]*) without the Nominated Authority needing to prove or to show to the Bank grounds or reasons for such demand for the sum specified therein and notwithstanding any dispute or difference between the Nominated Authority and Allottee on any matter whatsoever. The Bank undertakes to pay to the Nominated Authority any money so demanded notwithstanding any dispute or disputes raised by the Allottee in any suit or proceeding pending before any court or tribunal relating thereto the Bank's liability under this present being absolute and unequivocal.

2. The Bank acknowledges that any such demand by the Nominated Authority of the amounts payable by the Bank to the Nominated Authority shall be final, binding and conclusive evidence in respect of the amounts payable by Allottee to the Nominated Authority under the Agreement.

3. The Bank hereby waives the necessity for the Nominated Authority from demanding the aforesaid amount or any part thereof from the Allottee and also waives any right that the Bank may have of first requiring the Nominated Authority to pursue its legal remedies against the Allottee, before presenting any written demand to the Bank for payment under this Guarantee.

4. The Bank further unconditionally agrees with the Nominated Authority that the Nominated Authority shall be at liberty, without the Bank's consent and without affecting in any manner the Bank's obligation under this Guarantee, from time to time to:

(i) vary and/or modify and of the terms and conditions of the Agreement;

(ii) extend and / or postpone the time for performance of the obligations of the Allottee under the Agreement, or

(iii) forbear or enforce any of the rights exercisable by the Nominated Authority against the Allottee under the terms and conditions of the Agreement.

and the Bank shall not be relieved from its liability by reason of any such act or omission on the part of the Nominated Authority or any indulgence by the Nominated Authority to the Allottee or other thing whatsoever which under the law relating to sureties would, but for this provision, have the effect of relieving the Bank of its obligations under this Guarantee.

5. Any payment made hereunder shall be made free and clear of and without deduction for, or on account of, any present or future taxes, levies, imposts, duties, charges, fees, commissions, deductions or withholdings of any nature whatsoever and by whom ever imposed; and where any withholding on a payment is required by law, the Bank shall comply with such withholding obligations and shall pay such additional amount in respect of such payment such that the Nominated Authority receives the full amount due hereunder as if no such withholding had occurred. It is clarified that even in such case the

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Maharashtra State Power Generation Co. Ltd. Head Office Mumbai

B.D. SHARMA
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obligation of the Bank shall not in any manner exceed in the aggregate the amount of INR [*figures*] (Indian Rupees [*words*]).

6. The Bank agrees that Nominated Authority at its option shall be entitled to enforce this Guarantee against the Bank, as a principal debtor in the first instance without proceeding at the first instance against the Allottee.

7. The Bank further agree that the guarantee herein contained shall remain in full force and effect during the period that specified in the Agreement and that it shall continue to be enforceable till all the obligations of the Allottee under or by virtue of the said Agreement with respect to the Performance Security have been fully paid and its claims satisfied or discharged or till the Nominated Authority certifies that the terms and conditions of the Agreement with respect to the Performance Security have been fully and properly carried out by the Allottee and accordingly discharges this guarantee. Notwithstanding anything contained herein, unless a demand or claim under this guarantee is made on the Bank in writing on or before the [date of expiry of bank guarantee] the Bank shall be discharged from all liability under this guarantee thereafter.

8. The payment so made by the Bank under this Guarantee shall be a valid discharge of Bank's liability for payment thereunder and the Nominated Authority shall have no claim against the Bank for making such payment.

9. This Guarantee is subject to the laws of India. Any suit, action, or other proceedings arising out of this Guarantee or the subject matter hereof shall be subject to the exclusive jurisdiction of courts at Delhi.

10. The Bank has the power to issue this Guarantee in favour of the Nominated Authority. This guarantee will not be discharged due to the change in the constitution of the Bank.

11. The Bank undertakes not to revoke this Guarantee during its currency except with the previous consent of the Nominated Authority in writing.

12. The Nominated Authority may, with prior intimation to the Bank, assign the right under this Guarantee to any other departments, ministries or any governmental agencies, which may act in the name of the President of India. The Nominated Authority may also assign this Guarantee in favour of the Governor of a State, with prior intimation to the Bank. Save as provided in this Clause 12, this Guarantee shall not by assignable or transferable.

Dated the [day] day of [month] [year] for the Bank.

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B.D. SHARMA
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In witness whereof the Bank, through its authorized officer, has set its hand and stamp.

_____

(Signature)

_____

(Name and Designation)

_____

(Bank Stamp)

Govt. of India M/o Coal Nominated Authority

Under Secretary Govt. of India Ministry of Coal Shastri Bhawan New Delhi

State Power Generation Co. Ltd. Maharashtra

B.D. SHARMA
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SCHEDULE G – WARRANTIES

1. INFORMATION

1.1. The information, provided to the Nominated Authority during the allotment process and any time thereafter, including but not limited to the information contained in this Agreement, by the Allottee is true, accurate and not misleading in any manner whatsoever.

1.2. Neither this Agreement nor any of the information and documents provided during the allotment process exercise contains any untrue statement of fact, or omits to state a material fact necessary to make the statements herein or therein not misleading. The documents provided to the Nominated Authority and/or its advisors during the conduct of the allotment process, are true and complete copies of such documents and none of the information provided to the Nominated Authority and/or its advisors during the allotment process was incorrect, inaccurate or misleading in any manner whatsoever.

2. AUTHORITY

2.1. The Allottee has full legal capacity to enter into this Agreement and to perform its obligations under it and has taken all action necessary to authorise such execution and delivery and the performance of such obligations.

2.2. This Agreement has been duly executed and delivered by the Allottee, and (assuming due authorisation, execution and delivery and performance by the Parties), constitutes a legal, valid and binding obligation of the Allottee, enforceable against the Allottee in accordance with the terms of the Agreement.

2.3. The Allottee has obtained requisite corporate authorisation, including passing of all necessary resolutions to execute this Agreement and carry out all transactions and actions contemplated under this Agreement and do all necessary acts incidental to this Agreement.

2.4. The execution and delivery of this Agreement by the Allottee and the performance of the obligations under it do not and shall not:

(a) conflict with or violate any provision of the memorandum of association or articles of association of the Allottee;

(b) require on the part of the Allottee, any filing with, or permission, authorisation, consent or approval of, any Governmental Authority;

(c) conflict with, result in breach of, constitute (with or without due notice or lapse of time or both) a default under, result in the acceleration of obligations under, create in favour of any party any right to terminate, modify or cancel, or require any

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notice, consent or waiver under, any contract or instrument to which the Allottee is party or by which it is bound or to which its assets are subject;

(d) violate, conflict with or constitute a default under any Applicable Law, lien, lease, judgement, award, ordinance, order, writ, injunction, decree, statute, rule or regulation or any other restriction of any kind or character applicable to the Allottee or its properties or assets;

2.5. No person is entitled to any brokerage, finder's, or other similar fee or commission in connection with the transactions contemplated by this Agreement.

3. **GENERAL**

The Allottee

(a) is a Government company duly organised, validly existing and in good standing under the laws of India;

(b) meets all the Eligibility Conditions prescribed under the Ordinance read with the Rules and the Allotment Document;

(c) has the financial standing and capacity to undertake mining operations at the Coal Mine in accordance with the Efficiency Parameters;

(d) is subject to civil and commercial laws of India with respect to this Agreement and it hereby expressly and irrevocably waives any immunity in any jurisdiction in respect thereof;

(e) there are no actions, suits, proceedings or investigations pending or to the Allottee's knowledge threatened against it at law or in equity before any court or before any other judicial, quasi judicial or other authority, the outcome of which may constitute an event of default hereunder;

(f) has neither violated or defaulted nor has knowledge of any violation or default with respect to any order, writ, injunction or any decree of any court or any legally binding order of any Governmental Authority;

(g) has complied with all Applicable Laws and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities;

(h) except as set forth in any Mining Lease, all rights and interests of the Allottee in and to the Coal Mine shall pass to and vest in the relevant Governmental Authority on the date of termination or expiry hereof, free and clear of all Encumbrances without any further act or deed on the part of the Allottee or the Central Government;

Govt. of India M/o Coal Nominated Authority

Deputy Secretary / U.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal

Chhattisgarh State Power Generation Co. Ltd.

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(i) no bribe or illegal gratification or any other illegal amount has been paid or will be paid in cash or kind by or on behalf of the Allottee to any Person to procure the rights granted hereunder; and

(j) Without prejudice to any express provision contained in this Agreement, the Allottee acknowledges that prior to the execution of this Agreement, the Allottee has after a complete and careful examination made an independent evaluation of the Coal Mine and the information provided by the Nominated Authority, and has determined to its satisfaction the nature and extent of risks and hazards as are likely to arise or may be faced by the Allottee in the course of performance of its obligations hereunder. The Allottee also acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth above and hereby confirms that the Nominated Authority and any Governmental Authority shall not be liable for the same in any manner whatsoever to the Allottee.

Nominated Authority

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SCHEDULE H - ADDRESS FOR PROVIDING NOTICES

A. **Notice to the Nominated Authority**

Address	Nominated Authority, Ministry of Coal, World Trade Tower, Ground Floor, Barakhamba Lane, New Delhi - 110001
Telephone	011-23414136
Fax	011-23414136
E-mail (only for information)	nomauthority.moc@nic.in

With CC to the Central Government

Address	Ministry of Coal, Shastri Bhawan, New Delhi - 110001
Telephone	011-23073933
Fax	011-23381678
E-mail (only for information)	soca3.moc@nic.in

B. **Notice to the Allottee**

Address	Maharashtra State Power Generation Company Limited, "Prakashgad" Plot No G-9, A.K. Marg, Bandra (East), Mumbai, Maharashtra-400051, India
Telephone	022-26475927, 26474211 09096776741
Fax	022-26581466
E-mail (only for information)	cefmc@mahagenco.in

Govt. of India M/o Coal Nominated Authority

U.P. NAGPAL Under Secretary Govt. of India Ministry of Coal Shastri Bhawan New Delhi

Maharashtra State Power Generation Co. Ltd. Head Office Mumbai

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RQP NO. 34012/03/2014-CPAM

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorised representatives on the date and year written below, at New Delhi:

Signatories

The Nominated Authority

Vivek Bharadwaj

Name: Vivek Bharadwaj
Date: March 30, 2015

Maharashtra State Power Generation Company Limited

Name: Jayant Hanumantrao Bobde
Designation: Chief Engineer
Date: March 30, 2015
Duly authorized to execute this Agreement pursuant to resolution passed by the board of directors of the Maharashtra State Power Generation Company Limited.

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MAHAGENCO
Maharashtra State Power Generation Co. Ltd.

Maharashtra State Power Generation Co.Ltd.
Prakashgad, Prof.Anant Kanekar Marg,
Bandra(East), Mumbai-400 051.
Tel.Nos.022-26472146/ 4211

Ref. No.:- MSPGCL/BM-155/155.19 Date:- 25.02.2016

Copy of resolution passed at the meeting of Board held on 20th Feb., 2016

Item no 155.19: Approval for certification regarding protective measures and Mine Closure Activities including Reclamation and Rehabilitation of Gare Palma Sector – II coal mine and commitment to open an Escrow Account with Coal Controller Organization (On behalf of Govt.) in the matter of preparation and submission of Mining Plan and Mining Closure Plan of Gare Palma Sector – II coal mine to MoC.

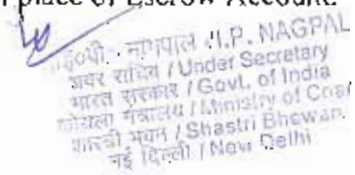
Resolution no 2016/1944: The Board considered the Proposal to the Board no. ED(Fuel/Coal)/34C/42 dated 12.02.2016 submitted by Executive Director (Fuel/Coal) for approval for certification regarding protective measures and Mine Closure Activities including Reclamation and Rehabilitation of Gare Palma Sector- II coal mine and commitment to open an Escrow Account with Coal Controller Organisation (On behalf of Govt.) in the matter of preparation and submission of Mining Plan and Mining Closure Plan of Gare Palma Sector- II coal mine to MoC.

Board resolved and accorded approval as under:

1. That Gare Palma Sector-II Coal Mine will be developed as per the approval of the Mining plan from Ministry of Coal and all other approvals, as required will be obtained from relevant authorities.
2. That the Protective Measures and Mine Closure Activities including Reclamation and Rehabilitation shall be carried out in accordance with approved Mining Plan and Mine Closure Plan and any amendments or modifications which may be made by the Ministry of Coal from time to time.
3. That the Maharashtra State Power Generation Company Ltd (Mahagenco) is committed to open an Escrow Account in one of the Scheduled Bank with the Coal Controller Organization (on behalf of Govt.) as exclusive beneficiary and Mahagenco shall make payments in such escrow account at the rate computed and finalized by Ministry of Coal as per Mine Closure Guidelines amended from time to time; and the escrow account shall be linked to the Wholesale Price Index as notified by the Govt. from time to time.

The Board further directed to ED (Fuel/coal) to write to Ministry of coal for the option to submit Bank Guarantee in place of Escrow Account.

Company Secretary
MSPGCL

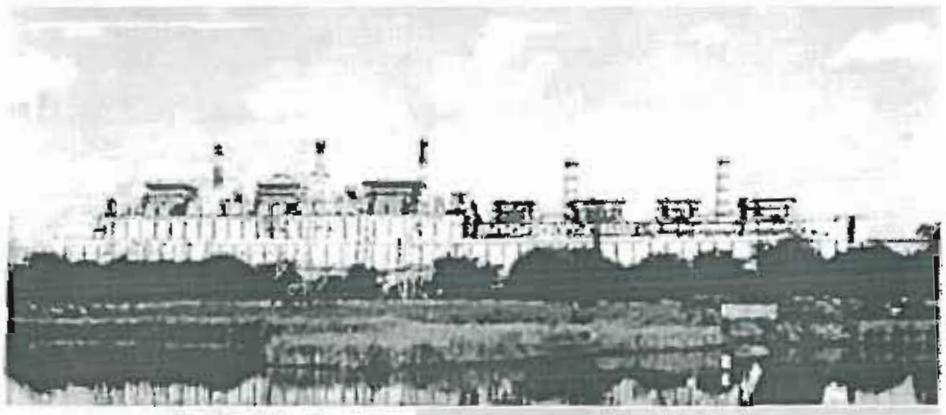


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MAHAGENCO
Maharashtra State Power Generation Co. Ltd

Corporate Social Responsibility (CSR) Policy



Maharashtra State Power Generation Company Limited
(Maharashtra)

U.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

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TIME SCHEDULE BAR CHART OF PROGRESSIVE AND POST MINE CLOSURE ACTIVITIES GARE PALMA SECTOR-II COAL MINE

ANNEXURE : 1-3

Heads	ACTIVITIES	Unit	Vol. of work	Rate, Rs./Unit	Total amt., Rs. Lakh	Manpower cost (% of total cost)
PROGRESSIVE CLOSURE						
02. Safety and Security	a) Barbed wire fencing	Mandays m	39668.00	212	84.10	80%
	f) Toe wall around the dump	Mandays m	9010.00	1000	90.10	80%
	g) Garland drain around the dump	Mandays m	9028.00	500	45.14	80%
	h) Drainage channel from main OB dump and main sump to nala	Mandays m	6010.00	5000	300.50	80%
	i) Settling pond	Mandays Lakh Cum	4.00	2000000	80.00	80%
	j) Securing Air Shaft and installation of bore well pump	Mandays	2.00	1000000	20.00	90%
	k) Securing of Incline 1 &2	Mandays	2.00	500000	10.00	90%
	l) Fire stoppings	Mandays Lakh Cum	1898.00	70000	1328.60	60%
04. Top soil management		Mandays Lakh Cum	112.56	5000000	5628.00	80%
05. Technical and biological reclamation of mined out land and OB dump	a1) Reclamation	Mandays Ha.	2221.00	400000	8884.00	80%
	a2) Rehandling of crown dump to East Pit	Mandays Lakh Cum	428.60	3000000	12858.00	0%
	b2) Rehandling of crown dump to West pit	Mandays Lakh Cum	2414.40	3000000	72432.00	0%
06. Plantation over virgin area including Green Belt	a) Plantation/ Green Belt over Virgin Area	Mandays Ha.	35.86	400000	143.44	80%
09. Water quality management		LS Mandays	0.00		340.00	50%
10. Air quality management		LS Mandays	0.00		340.00	50%
11. Subsidence monitoring for		LS Mandays	0.00		19.09	80%
12. Manpower cost and supervision		LS Mandays	0.00		163.50	100%
FINAL CLOSURE						
01. Dismantling of Infrastructure, disposal/ rehabilitation of mining	a) Dismantling of workshop	LS Mandays	0.00		300.00	70%
	b) Dismantling of CHP	LS Mandays	0.00		500.00	70%
	c) Dismantling of facilities	LS Mandays	0.00		1000.00	80%
	d) Dismantling of pumps and pipes	LS Mandays	0.00		45.00	60%
	f) Dismantling of UG facilities including main fan	Mandays	0.00		100.00	40%
	g) Dismantling of UG Conveyors	Mandays	0.00		300.00	40%
	h) Dismantling of UG Rail tracks	Mandays	0.00		150.00	40%
	i) Dismantling of UG equipment	Mandays	0.00		200.00	40%
	j) Re-arranging of water pipelines to dump top, park	LS Mandays	0.00		15.00	90%
	k) Dismantling of power line	LS Mandays	0.00		30.00	70%
	l) Rehabilitation over area of dismentaled facilities	Mandays Ha.	50.94	400000	203.76	80%
04. Top soil management		Mandays Lakh Cum	19.10	5000000	955.00	80%
05. Technical and biological reclamation of mined out land and OB dump	a1) Reclamation	Mandays Ha.	414.78	400000	1659.12	80%
	a2) Rehandling of crown dump to East Pit	Mandays Lakh Cum	1027.40	3000000	30822.00	0%
	b2) Rehandling of crown dump to West pit	Mandays Lakh Cum	298.10	3000000	8943.00	0%
07. Landscaping and plantation	a) Peripheral road, gates, view point, cemented steps on bank	Mandays	0.00		40.00	30%
	b) Beautification and landscaping over dump	LS Mandays	0.00		20.00	70%
	c) Plantation	LS Mandays Ha.	5.00	400000	35.00	80%
08. Power cost		LS Mandays	0.00		40.00	10%
09. Water quality management		LS Mandays	0.00		12.00	50%
10. Air quality management		LS Mandays	0.00		12.00	50%
11. Subsidence monitoring for		LS Mandays	0.00		0.91	80%
12. Manpower cost and supervision		LS Mandays	0.00		4.50	100%
13. Others	a) Entrepreneurship development (vocational skill development, training for sustainable income of affected people	LS Mandays Qty	0.00		100.00	0%
	d) One time financial grant to society/ institution/ organisation which is dependent upon the project	LS Mandays	0.00		50.00	0%
	f) Continuation of other services like running of schools etc	LS Mandays	0.00		150.00	0%
	GRAND TOTAL **Estimated mandays required**				148453.76 1739933	

YEARS (0–40)

Activity	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
02 a) Barbed wire fencing	-	12 962 5872	3 242 1425	3 242 1426	11 844 4975.5	11 844 4975.5	2 182 1072.4	2 182 1072.4	2 182 1072.4	2 182 1072.4	2 182 1072.4	1 84 493.6	1 84 493.6	1 84 493.6	1 84 493.6	1 84 493.6	4 281 1652.4	4 281 1652.4	4 281 1652.4	4 281 1652.4	4 281 1652.4	1 52 303.8	1 52 303.8	1 52 303.8	1 52 303.8	1 52 303.8	2 152 896	2 152 896	2 152 896	2 152 896	-	-	-	-	-	-	-	-	-	-	-
02 f) Toe wall around the dump	-	30 2,416 3019	5 399 499	5 399 499	25 1,998 2497	25 1,998 2497	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02 g) Garland drain around the dump	-	15 1,218 3036	2 199 497	2 199 497	12 1,000 2459.5	12 1,000 2459.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02 h) Drainage channel	-	301 24,040 6010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02 i) Settling pond	-	80 6,400 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02 j) Securing Air Shaft	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02 k) Securing of Incline 1 &2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02 l) Fire stoppings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13
04. Top soil management	-	78 6,250 1.57	75 6,020 1.505	75 6,020 1.505	457 36,520 9.13	457 36,520 9.13	178 14,208 3.552	178 14,208 3.552	178 14,208 3.552	178 14,208 3.552	178 14,208 3.552	190 15,206 3.802	190 15,206 3.802	190 15,206 3.802	190 15,206 3.802	190 15,206 3.802	18 1,400 0.35	18 1,400 0.35	18 1,400 0.35	18 1,400 0.35	18 1,400 0.35	169 13,520 3.38	169 13,520 3.38	169 13,520 3.38	169 13,520 3.38	169 13,520 3.38	429 34,300 8.575	429 34,300 8.575	429 34,300 8.575	429 34,300 8.575	-	-	-	-	-	-	-	-	-	-	-
05 a1) Reclamation	-	-	-	-	-	-	315 25,216 78.8	315 25,216 78.8	315 25,216 78.8	315 25,216 78.8	315 25,216 78.8	225 17,984 56.2	225 17,984 56.2	225 17,984 56.2	225 17,984 56.2	225 17,984 56.2	412 32,960 103	412 32,960 103	412 32,960 103	412 32,960 103	412 32,960 103	335 26,816 83.8	335 26,816 83.8	335 26,816 83.8	335 26,816 83.8	335 26,816 83.8	612 48,960 153	612 48,960 153	612 48,960 153	612 48,960 153	-	-	-	-	-	-	-	-	-	-	-
05 a2) Rehandling of crown dump to East Pit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,215 - 107.15	3,215 - 107.15	3,215 - 107.15	3,215 - 107.15	-	-	-	-	-	-	-	-	-	-	-
05 b2) Rehandling of crown dump to West pit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18,108 - 603.6	18,108 - 603.6	18,108 - 603.6	18,108 - 603.6	-	-	-	-	-	-	-	-	-	-	-
06. Plantation / Green Belt	-	28 2,240 7	29 2,309 7.215	29 2,309 7.215	29 2,309 7.215	29 2,309 7.215	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09. Water quality management	-	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200
10. Air quality management	-	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	5 250	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200
11. Subsidence monitoring	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25
12. Manpower cost and supervision	-	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	3 300	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150
FINAL 01 a) Dismantling of workshop	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100 7,000	100 7,000	-	-	-	-	-	-	-	-	-
FINAL 01 b) Dismantling of CHP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100 7,000	100 7,000	-	-	-	-	-	-	-	-	-
FINAL 01 c) Dismantling of facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500	500	-	-	-	-	-	-	-	-	-
FINAL 01 d) Dismantling of pumps and pipes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13 780	12 720	-	-	-	-	-	-	-	-	-
FINAL 01 f) Dismantling of UG facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 01 g) Dismantling of UG Conveyors	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 01 h) Dismantling of UG Rail tracks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 01 i) Dismantling of UG equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 01 j) Re-arranging of water pipelines	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10 900	5 450	-	-	-	-	-	-	-	-
FINAL 01 k) Dismantling of power line	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10 700	10 700	-	-	-	-	-	-	-	-	-
FINAL 01 l) Rehabilitation over area of dismentaled facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64 5,101 15.94	-	-	-	-	-	-	-	-
FINAL 04. Top soil management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	318 25,467 6.37	318 25,467 6.37	318 25,467 6.37	-	-	-	-	-	-	-	-
FINAL 05 a1) Reclamation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	553 44,244 138.26	553 44,244 138.26	553 44,244 138.26	-	-	-	-	-	-	-	-
FINAL 05 a2) Rehandling to East Pit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15,411 - 513.7	15,411 - 513.7	-	-	-	-	-	-	-	-	-
FINAL 05 b2) Rehandling to West pit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,472 - 149.05	4,472 - 149.05	-	-	-	-	-	-	-	-	-
FINAL 07 a) Peripheral road, gates, view point	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20 600	-	-	-	-	-	-	-	-
FINAL 07 b) Beautification and landscaping	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20 1400	-	-	-	-	-	-	-	-
FINAL 07 c) Plantation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10 800 2.50	10 800 2.50	-	-	-	-	-	-	-	-
FINAL 08. Power cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7 67	7 67	7 67	-	-	-	-	-	-	-	-
FINAL 09. Water quality management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 10. Air quality management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 11. Subsidence monitoring	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 12. Manpower cost and supervision	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 13 a) Entrepreneurship development	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33 1	33 1	33 1	-	-	-	-	-	-	-	-
FINAL 13 d) One time financial grant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	17	17	-	-	-	-	-	-	-	-
FINAL 13 f) Continuation of other services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	50	50	-	-	-	-	-	-	-	-
GRAND TOTAL / Estimated mandays required	0 0 0	567 44353 17750	129 9969 2429	128 9969 2429	546 43471 9988	546 43471 9988	508 40406 1155	508 40406 1155	508 40406 1156	508 40406 1155	508 40406 1155	429 34076 564	429 34076 564	429 34076 564	429 34076 564	450 35367 584	467 36732 1786	467 36732 1786	467 36732 1786	467 36732 1786	467 36732 1786	539 42479 421	539 42479 421	539 42479 421	539 42479 421	539 42479 421	22400 86503 1798	22400 86503 1798	22400 86503 1798	22400 86503 1798	21618 117360 836	21637 118990 840	1131 80221 183	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30

YEARS (41–80)

Activity	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
02 a) Barbed wire fencing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02 f) Toe wall around the dump	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02 g) Garland drain around the dump	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02 h) Drainage channel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02 i) Settling pond	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02 j) Securing Air Shaft	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7 600 0.67	7 600 0.67	7 600 0.67	-	-	-
02 k) Securing of Incline 1 &2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3 300 0.67	3 300 0.67	3 300 0.67	-	-	-
02 l) Fire stoppings	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	21 1,266 30.13	-	-	-
04. Top soil management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 a1) Reclamation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 a2) Rehandling of crown dump to East Pit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 b2) Rehandling of crown dump to West pit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06. Plantation / Green Belt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09. Water quality management	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	-	-	-
10. Air quality management	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	4 200	-	-	-
11. Subsidence monitoring	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	0 25	-	-	-
12. Manpower cost and supervision	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	2 150	-	-	-
FINAL 01 a) Dismantling of workshop	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50 3,500	50 3,500	-
FINAL 01 b) Dismantling of CHP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	150 10,500	150 10,500	-
FINAL 01 c) Dismantling of facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 01 d) Dismantling of pumps and pipes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10 600	10 600	-
FINAL 01 f) Dismantling of UG facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50 2,000	50 2,000	-
FINAL 01 g) Dismantling of UG Conveyors	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	150 6,000	150 6,000	-
FINAL 01 h) Dismantling of UG Rail tracks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75 3,000	75 3,000	-
FINAL 01 i) Dismantling of UG equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100 4,000	100 4,000	-
FINAL 01 j) Re-arranging of water pipelines	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 01 k) Dismantling of power line	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5 350	5 350	-
FINAL 01 l) Rehabilitation over area of dismentaled facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140 11,200 35
FINAL 04. Top soil management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 05 a1) Reclamation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 05 a2) Rehandling to East Pit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 05 b2) Rehandling to West pit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 07 a) Peripheral road, gates, view point	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7 200	7 200	7 200
FINAL 07 b) Beautification and landscaping	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 07 c) Plantation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5 400	5 400	5 400
FINAL 08. Power cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7 67	7 67	7 67
FINAL 09. Water quality management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4 200	4 200	4 200
FINAL 10. Air quality management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4 200	4 200	4 200
FINAL 11. Subsidence monitoring	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0 25	0 25	0 25
FINAL 12. Manpower cost and supervision	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2 150	2 150	2 150
FINAL 13 a) Entrepreneurship development	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 13 d) One time financial grant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL 13 f) Continuation of other services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GRAND TOTAL / Estimated mandays required	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	31 1841 30	41 2741 31	41 2741 31	41 2741 31	618 31182 0	618 31182 0	168 12442 35

*All persons are proposed to be absorbed in other units of the company, hence no provision for Golden Handshake has been made

I.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

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The detailed list of activities which may be taken up under some of the aforesaid categories is enclosed as 'Annexure-I'. All activities under the Policy should be environment friendly and for the benefit of the local people and society at large.

6. FUNDING

6.1 The **CSR budget will** be mandatorily passed by a Board Resolution.

6.2 2% of the average net profits of the company made during the three immediately preceding financial years, in pursuance of Corporate Social Responsibility Policy.

6.3 The CSR Budget should be fixed for each financial year.

6.4 60% limit of total CSR budget shall be utilize on CSR activities as mention in (a), (b) & (c) of 5.1 and 40% of total CSR budget shall be utilize on rest of CSR activities as mention in 5.1.

7. Monitoring the Progress of CSR activities

7.1 The CSR Committee shall regularly monitor the progress of the various CSR activities/ works undertaken by it. A periodical status report on the progress of CSR activities shall be furnished by the concerned Chief Engineer of Project/ Power Station to the Corporate Level CSR committee, MSPGCL.

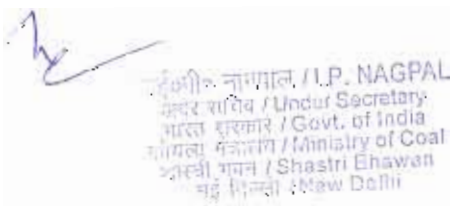
7.2 The Annual Progress Report and Annual Audited Expenditure approved by the CSR Committee shall be placed before the Board of Directors of MSPGCL.

8. Ownership of assets

Ownership of the assets developed under CSR Policy would vest in the concerned Government Departments/ Panchayats. Upkeep & Maintenance of these assets shall be the responsibility of the concerned Departments / Panchayats.

9. Power to issue clarifications

MSPGCL shall have the power to issue any clarifications on the various provisions of this CSR Policy, from time to time.





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Annexure –I

Suggestive CSR activities/ works under some of the fields stated at Clause-6 of Corporate Social Responsibility Policy of MSPGCL.

(i) Education
- Education by providing Primary, Middle and Higher Secondary Schools in colonies.
- Counseling of villagers to encourage their children for education and Conduct awareness programmes for promotion of girl education.
- Special attention on education, training and rehabilitation of Project Affected People
- Providing Scholarships to the meritorious students of the schools in the Project Affected Areas.
- Promotion of Professional Education by sponsoring PAP students for ITI/ Diploma courses..

(ii) Drinking Water Supply
- Providing water taps to villagers to full fill their daily need of water wherever the pipe line is laid for of water supply.
- Installation/ Repair of Hand Pumps/ Tube wells.
- Creating awareness towards proper utilization of waste water after treatment.
- Restoration, development/ construction of Water Tanks/ ponds.

(iii) Health Care
- Organizing Mobile Clinics/ medical camps in the villages of Project Affected Areas.
- Organizing general awareness camp for the surrounding villages to make the people realize the harmful effects of social evils like smoking, alcohol, drug abuse etc.
- Conduct Aids awareness programmes in Project affected areas.

(iv) Environment
- Organizing sensitizing programmes on Environment Management and Pollution Control.
- Green belt Development.
- Create awareness for adoption of environmental friendly technologies in everyday life.
- Supply of fly ash free of cost to brick manufactures in the Project affected areas, keeping in view the applicable rules/ regulations.
- Undertake or support afforestation, social forestry.

(v) Social Empowerment
- Support for providing training to rural youth for Self Employment such as Fitter, Welding, Fabrication, Electrician etc.
- Organizing training programmes for women in tailoring, embroidery, designs, home foods, pickles, painting, interior decoration and other such vocational Courses.

(vi) Sports and Culture
- Promotion of sports activities in nearby villages by conducting tournaments in sports such as Football, Kabaddi, Khokho, etc.
- Providing sports materials for Football, Volleyball, Hockey sticks etc to the young and talented villagers.
- Sponsorship of Sports event in the Project affected areas.
- Support for development of play grounds in Project affected areas.

(vii) Infrastructural development
- Construction / repairs of community halls, road etc.
- Providing Street lighting.
- Providing furniture & equipments to educational institutions.
- Development of public utilities and sanitation facilities.
- Tree plantation including fruits trees.
- Construction of public cremation ground /burial grounds.
- Creating common grazing land/ small distributaries for irrigation.

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This first Amendment to the Allotment Agreement ("**Amendment Agreement**") is made by and between following:

PARTIES:

1 **The President of India**, acting through the Central Government represented by the Nominated Authority appointed under Section 6 of the Coal Mines (Special Provisions) Act, 2015 (the "**Nominated Authority**").

2 **Maharashtra State Power Generation Company Limited** incorporated in India under the Companies Act, 1956 with corporate identity number U40100MH2005SGC153648, whose registered office is at "Prakashgad" Plot No G-9 Anant Kanekar Marg, Bandra (East), Mumbai, Maharashtra - 400051 , India (the "**Allottee**").

BACKGROUND:

A. The Allotment Agreement dated March 30, 2015 (the "**Original Agreement**") was entered into between the Nominated Authority and the Allottee.

B. The Nominated Authority is pleased to permit amendment of the Original Agreement.

C. Accordingly, in terms of Clause 26.8 of the Original Agreement, the Nominated Authority and the Allottee are entering into this Amendment Agreement to record certain amendments to the Original Agreement.

NOW THEREFORE, in consideration of the mutual covenants, terms and conditions and understandings set forth in this Amendment Agreement and the Original Agreement, and other good and valuable consideration (the adequacy of which are hereby mutually acknowledged), the Parties with the intent to be legally bound hereby agree as follows:

1. DEFINITIONS AND INTERPRETATION

The definitions and rules of interpretation as specified in the Original Agreement shall apply to this Amendment Agreement.

2. AMENDMENTS

2.1. The following definition be and is hereby added prior to Clause 1.1.1 of the Original Agreement:

"1.1.0 "Act" shall mean the Coal Mines (Special Provisions) Act, 2015"

2.2. All references to the expression "the Ordinance" in the Original Agreement be and are hereby substituted by the expression "the Act".

2.3. Schedule E of the Original Agreement is hereby substituted with the revised Schedule E

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as provided in the Schedule to this Amendment Agreement.

2.4. Clause 1.1.22 of the Original Agreement is hereby substituted with the revised Clause 1.1.22 as provided below:

*"**Designated Bank Account**" shall mean the following bank account of the Nominated Authority:*

Name of the bank: United Bank of India
Account number: 0276050414586
Name of the account holder: PAO, M/o Coal
IFSC Code: UTBI0CON702

2.5. Clause 3.1 (d) of the Original Agreement is hereby substituted with the revised Clause 3.1 (d) as provided below:

"the Allottee having deposited an amount equal to INR 43,48,16,953 (Indian Rupees Forty Three Crore Forty Eight Lakh Sixteen Thousand Nine Hundred and Fifty Three), being the Fixed Amount, in the Designated Bank Account; It is clarified that any upward revision in the Fixed Amount on a subsequent date by the Government or the Nominated Authority consequent to any process or on the orders of any competent court of law, shall also be payable by the Allottee on receipt of any notice to that effect from the Nominated Authority."

2.6. Clause 3.2.2 of the Original Agreement is hereby substituted with the revised Clause 3.2.2 as provided below:

"In the event the Allottee does not provide a Completion Notice with respect to each of the Allotment Conditions listed in Clauses 3.1(a); 3.1(b); 3.1(c); 3.1(d); 3.1(e)(in cases where the Allottee is a Prior Allottee for the Coal Mine or any other Schedule I coal mine (as defined in the Act)) and Clause3.1(f), within 154 Days of the Agreement Date, then the Nominated Authority may terminate this Agreement without incurring any liability whatsoever by providing a written notice to the Allottee. It is clarified that in such event the Allottee shall not be entitled to receive the Allotment Order and the Nominated Authority shall be entitled to dispose the Coal Mine in the manner provided in the Act and the Rules, including through re-auction/re-allotment or through appointment of a designated custodian."

2.7. Clause 3.2.3 of the Original Agreement is hereby substituted with the revised Clause 3.2.3 as provided below:

"If the Allottee does not provide a Completion Notice with respect to 3.1(f) and fails to provide a written intimation in substantially the same form as provided in SCHEDULE C within 154 Days of the Agreement Date, then it shall be deemed that the

I.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

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Allottee is not desirous of owning or utilising any movable property or continuing any contract. In such cases, without prejudice to Clause 3.2.2, the Nominated Authority may elect to issue the Allotment Order without including aforementioned particulars in the Allotment Order; if all other Allotment Conditions have been satisfied by the Allottee and corresponding Completion Notice have been provided to the Nominated Authority."

2.8. In Clause 18.2, Sub-clause (g) is hereby added after Sub-clause (f) as provided below:

"*(g) Any claim made to or against the Indemnified Party hereinafter for any amount admissible as Fixed Amount in terms of the Allotment Document and the Act.*"

3. CONTINUING OBLIGATIONS

The Original Agreement and all terms and conditions of the Original Agreement shall continue to remain valid, operative, binding, subsisting, enforceable and in full force and effect save and except to the extent amended by this Amendment Agreement, and the Original Agreement shall always be read in conjunction with this Amendment Agreement.

4. MISCELLANEOUS

4.1. The provisions of Clause 25 of the Original Agreement (*Governing Law and Dispute Resolution*), and Clause 26 of the Original Agreement (*Miscellaneous*), shall *mutatis mutandis* apply to this Amendment Agreement and shall be deemed to be incorporated by reference.

4.2. This Amendment Agreement shall become effective on the date on which execution of this Amendment Agreement by both the Allottee and the Nominated Authority is completed.

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SCHEDULE E – EFFICIENCY PARAMETERS

S. No.	Milestone	Time Limit in Months (From the date of the Allotment Order/ zero date)	Weightage for calculating deduction of Performance Security (in case of failure/ delay in achieving milestone)
1	Prospecting License	0	5
2	Completion of Exploration and Preparation of Geological Report (GR)	0	
	Events after preparation of GR		
3	Mining Lease Application	3	7
4	Submission of Mining Plan	6	8
5	Mining Plan Approval	11	8
6	Previous Approval Application	12	6
7	Previous Approval	13	5
8	Forest Clearance Application	11	8
9	Forest Clearance	21	5
10	Environment Clearance Application	11	8
11	Environment Clearance	21	5
12	Grant of Mining Lease	24	5
13	Land Acquisition (To reach rated capacity)	36/42(in case of forest land)	5
14	Opening of Escrow Account	37/43(in case of forest land)	8
15	Application for Opening Permission	37/43(in case of forest land)	2
16	Grant of Opening Permission	38/44(in case of forest land)	2
17	Schedule of Production/ Reaching Rated Capacity	As per approved Mining Plan	8
18	EUP Synchronisation	As per approved Mining Plan	5

(a) The percentage for appropriation of Performance Security shall be calculated in proportion to the failure/ delay in compliance with the timelines mentioned for achievement of Efficiency Parameters which shall be broadly based on the abovementioned weightages.

(b) In case of non-compliance with the Efficiency Parameters mentioned above, the Allottee shall be required to rectify the same within such time as may be prescribed by the competent authority after examination on a case to case basis.

Govt. of India Nominated Authority

Power Generation Co. Pvt. Ltd. Maharashtra State Office Mumbai

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IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorised representatives on the date and year written below, at New Delhi:

The Nominated Authority

Vivek Bharadwaj

Name: Vivek Bharadwaj
Date: August 31, 2015

Maharashtra State Power Generation Company Limited

.....

Name: Jayant Hanumantrao Bodde
Designation: Chief Engineer
Date: August 31, 2015
Duly authorized to execute this Agreement pursuant to resolution passed by the Board of Directors of Maharashtra State Power Generation Company Limited.

U.P. NAGPAL
Under Secretary
Govt. of India
Ministry of Coal
Shastri Bhawan
New Delhi

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