SEEPAT ROAD
P.O.: SECL
BILASPUR

साउथईस्टर्नकोलफिल्डस्लिमिटे
South Eastern Coalfields Limited
(कोलइण्डियाकाएकअंश/A subsidiary of Coal India Ltd.)
CIN U10102CT1985GOI003161
Website : www.secl-cil.in
कार्यालय: महाप्रबंधक, गेवरा क्षेत्र
OFFICE OF THE GENERAL MANAGER
GEVRA AREA

जिला: कोरबा(छत्तीसगढ़)
पिन:495452

STD :07815 275430(O)
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पो0आ0:गेवराप्रोजेक्ट
P.O. : GEVRA PROJECT
Distt.: Korba (C.G.)
Pin: 495452

क्रमांक/एस.ई.सी.एल/मप्र/गे.क्षे./ पर्यावरण/2023 / 374 दिनांक 3/ 11 /2023

TO
The DFO
Katghora Range
Katghora Korba
CG

SUB: Half Yearly Compliance of Diverted Forest land 100.898 Ha. of Gevra Opencast Mine, SECL, September 2023

REF: Forest clearance: F.NO.8-33/2005-FC DT: 05.05.2008.

Dear Sir

Please find enclosed herewith the Half Yearly Compliance of the Diverted Forest land 100.898 Ha. of Gevra Opencast Mine, SECL, September 2023.

Thanking you.

Yours Sincerely

3/11/23

General Manager
SECL Gevra Area

Copy to:
1. Additional Principal Chief Conservator of Forest(Land Management), Raipur
2. Chief Conservator of Forest, Bilaspur

Yearly Compliance of 100.898 Ha. Diverted Forest Land For Gevra OC Mining Project of M/S South Eastern Coalfields Limited (SECL) in Korba District of Chhattisgarh. MoEF&CC Clearance No:8-33/2005-FC Dtd:05.05.2008		
S.No	Condition	Status of Compliance
01	Legal status of forest land remain unchanged	• Agreed and complied
02 a	Compensatory afforestation shall be raised and maintained by the State Forest department at the project cost.	Payments made to CAMPA fund under CA is as follows: • An amount of Rs.9897892/-paid vide D.D. No.087920 dt.26.07.07. • An amount Rs.20,78,499/- paid vide D.D. No.751489, 751490,751491 Dtd: 20.11.07. • Differential Amount of Rs:1311876 /-paid vide DD No:693528 Dtd:27.12.2012. Total amount paid under CA head is Rs.13288267.00/-
b	Fencing protection and regeneration of the safety zone area (100 metres strip all along the outer boundary of the mining lease area as recommended by the State Government) shall be done at the project cost. Beside this ,afforestation on degraded forest land, to be selected elsewhere, measuring one and a half times the area under safety zone ,shall also be done at the project cost	Payment made under Regeneration cost of safety zone is as follows: • An amount of Rs.45,616.00 vide DD No.466781 dt.13.07.07.An additional amount of Rs.9579/- paid vide DD No.751488 Dtd: 20.11.2007. Payment made under CA against Safety Zone is as follows: • An amount of Rs.68,425/- paid vide DD No.466782Dtd:13.07.07.An additional amount of Rs.14,369/-paid vide DD No:751492 Dtd:20.11.07 . • For safety Zone Fencing an amount Rs.2,51,000/- paid vide DD No.468815 dt.31.08.07. Safety Zone Fencing & afforestation work has been taken up by CGRVVN vide S.No/SECL/BSP/FOREST no. 151 DT: 01.10.16 as per the guidelines issued by MoEF&CC at Project Cost. Work of safety zone along 14 KM has been completed with plantation of 28000 saplings and inspection report enclosed as Annex 1
c	Wherever possible and technically feasible, the User Agency shall undertake afforestation measures in the blanks within the lease area, as well as along the roads outside the lease area diverted under this approval, in consultation with the State Forest Department at the project cost.	• Every year extensive tree plantation is being carried out in consultation with CGRVVN. Plantation is done in both on plain and Dump areas. Till date 44.53 lakhs saplings planted since 1986 in Gevra OC including downwind direction. Details enclosed as Annex 2

<table>
<tr><td>3</td><td colspan="2">Following activities shall be undertaken by the User Agency at the project cost.</td></tr>
<tr><td>(i)</td><td>Proper mitigative measures to minimize soil erosion and choking of streams shall be prepared and implemented</td><td>• Detailed soil conservation plan has been prepared and implementation of the same is being done.(Annex 3)</td></tr>
<tr><td>(ii)</td><td>Planting of adequate drought hardy plant species and sowing of seed to arrest soil erosion</td><td>• MoU has been made with CGRVVN for carrying out plantation work. The density of plantation is 2500 plants/hectare in plain area and 3500 per hectare in slope area. The species suggested for plantation are medicinal, ornamental, timber value tress, fruit bearing species etc.
Species include: Sal, Sissoo, Bel, Bamboo, GangaImli, Bahera, Ashok, Golmohar, Satwan, CassiaGemec, Teak, Jamun, Peltaforum,CassiaGulco, Bogan vallia, Khamar, Sitaphal, Amrood, Kathal, Imli,Mango, Sisham,Kaju, etc.</td></tr>
<tr><td>(iii)</td><td>Construction of check dam retention/toe wall to arrest sliding down of the excavated material along the contour.</td><td>Dump areas have been provided with Contour trench, check dam and bund with stone bolders.
<table>
<tr><th>Year</th><th>Contour Trench (per trench)</th><th>Check Dams (per CUM)</th><th>Bunds with stone boulders (per CUM)</th></tr>
<tr><td>2022</td><td>11845</td><td>11845</td><td>11845</td></tr>
<tr><td>2021</td><td>7200</td><td>7500</td><td>7500</td></tr>
<tr><td>2018</td><td>300</td><td>20</td><td>20</td></tr>
</table>
1. A toe wall/ retaining wall & gabion wall have been provided to arrest sliding down of the excavated material along the contour
<table>
<tr><th>Structure</th><th>Location</th><th>Dimension</th></tr>
<tr><td rowspan="4">Retaing wall with Drain</td><td>Along P3 Q3 belt near W1 TRS</td><td>182m X 5m ht. 1.2mX0.9m RCC Drain</td></tr>
<tr><td>Along J3 belt</td><td>240mX 5m ht. 300mX 2m</td></tr>
<tr><td>Near Junadih Siding</td><td>2050m X 2m ht. 1.2m X 0.9m drain</td></tr>
<tr><td>External Dump no. 6 & 7</td><td>650m X 1m ht. Top width 200mm</td></tr>
</table></td></tr>
</table>

		Gabion wall	From weigh bridge W5 to LK seam coal face side	1200m length, 3 stage, 3m height
			Along toe of dump no. 4 near E2/ E1 TRS	342m, 3 stage, 3m height
(iv)	The area shall be reclaim keeping in view the international practice of stabilizing the dumps by grading /benching so that angles of repose (normally) less than 28 at any given place are maintained.	• External Dumps and Internal dumps are technically reclaimed with proper benching and it is stabilized by biological reclamation. • 7 Nos of External Dump has been reclaimed both technically and biologically. Land Reclamation status is enclosed as Annex 4		
(v)	The top soil management plan should be strictly adhered to	Top Soil Management Plan incorporated in Soil Conservation plan is followed. Top soil generated is utilized for the biological reclamation/plantation purpose.		
4	The forest land shall not be used for any propose other than that specified in the proposal.	Agreed and complied		
5	The approval under the Forest (Conservation) Act.1980 is subject to the environmental clearance under the Environmental Protection Act.1986	Agreed		
6	The user agency will make arrangement for free supply of coal to laborers and staff working on the project site so as to avoid any pressure on the adjacent forest areas	A Cooperative Society is set up in Gevra Project to facilitate the supply of LPG gas connection to the people working at the site to avoid damage / felling of trees. LPG Connection given till date is 7669.		
7	The period of permission for lease under forest (Conservation) Act.1980 will be for 20 years subject to possession of valid lease by User Agency under the MMDR Act.1957.	Agreed		
8	Demarcation of mine lease area will be done on the ground at project cost using four feet high reinforced cement concrete pillars with serial number, forward & back bearing and	Complied Demarcation has been done.		

	distance from pillar to pillar.	
9	Mining/reclamation schedule shall be implemented by the user agency at their cost as per Environmental Management plan/phased programme.	Agreed
10	The user agency shall take up afforestation and soil moisture conservation works inside the forest area in 100 M. radius from the permitted lease area in consultation with the forest department .wherever the forest density is less than 0.4,gap plantation should be taken up.	Agreed.
11	The user agency shall take up study on soil erosion / soil flow from the overburden areas with the help of GIS in consultation with the forest department	Comprehensive Catchment area treatment plan within 5 KM from Mine Lease Boundary is prepared through Chhattisgarh Council of Science & Technology, Govt. of CG, Raipur Final report has been submitted by CCOST on 17.03.2020. For the implementation of proposed structure in the report an amount of Rs. 8447900/- was estimated. Following which DFO Katghora raised a Demand note of Rs 8447900/-. Payment of the said amount has been made on 08.11.2021 in CAMPA.
12	The user agency shall take up the de-silting of the village tanks within five Km. area from the mine lease boundary as a Corporate's social responsibility so as to mitigate the impact of siltation of such tanks if any.	Desiltation scheme was prepared by identifying the water bodies located within the 5 Km of ML area and the same has been verified by DFO Katghora. A total of 41 ponds were identified, which will be carried out in phased manner. • In the 1st phase 9 ponds were considered. Work order was issued on 14.08.2020 for an amount of Rs. 53.82 lakh, which includes 9 ponds from villages : Marwadhora, Ralia, Navapara, Vijaynagar, Binjhra. The work of desiltation of 1st phase 9 ponds has been completed May 2021. • In the 2nd phase (Rs. 10135886/-), 8 nos ponds have been identified in Villages Barbhatta (1), Murianar (1), Chhindpur (2), Dipka (2), Dhurena (1), Kuchena (1) LoA issued on 31st March 2022. Work completed. • In the third Phase (Rs. 13178677), 8

		ponds have been de-silted, Bhilai Bazar (2), Khodri (2), Hardi bazaar (2), Suhabori (1) & Malgaon (1) Work order issued on dt:25.06.2023 (Annex 5)
13	In case of the underground mining the user agency shall take up plantation over the surface area wherever the forest density is less than0.4 Gap planting should be taken up in the areas where density is between 0.4 and 0.7. The user agency will protect the area till the life of the underground mining in consultation with Forest department	• Not applicable
14	Any other condition that the State Govt. or the Chief Conservator of Forest(Central)Regional office ,Bhopal may impose from time to in the interest of conservation protection or development of Forests.	• Agreed

08/11/2023

नोडल ऑफीसर (पर्यावरण/वन)
Nodal Officer (ENV/Forest)
SECL/Gevra Area
एस.ई.सी.एल./गेवरा क्षेत्र

ANNEX - 1

संयुक्त निरीक्षण प्रतिवेदन

वन विकास निगम द्वारा वर्षवार पौधों का संयुक्त निरीक्षण/गणना समिति द्वारा दिनांक 23.09.2023 को किया गया। जिसका विवरण निम्नानुसार है :–

क.	रोपण वर्ष	रोपण क्षेत्र का नाम	पौधों की संख्या	जीवित पौधों की संख्या	जीवित पौधों का प्रतिशत	रिमार्क
1	2019-20	Near Ganga Nagar	45500	42056	92.43	
		Plain area in between Ext. Dump no. 6 & 7 and laxman	7250	6690	92.28	
		Hardi Bazaar Road	10000	9222	92.22	
2	2020-21	Laxman Project Dump (Mangaon) (Slope & Dump Top)	55950	51726	92.45	
3	2021-22	Dump No. 7 Slope	52500	49424	94.14	
		Non Dump (Shramik Chowk)	5000	4726	94.52	
		Non Dump Add. (Awadh Nagar)	31998	30331	94.79	
		Vertical Greenery System	1500	1421	94.73	
4	2022-23	Dump No. 6 & 7 Back Side (Slope)	82770	79252	95.75	
		Non Dump (Magazine Side)	38200	36366	95.20	
		Bhathora Basahat Patch	5125	4914	95.88	
		Railway colony Front	5125	4815	93.95	
5	2023-24	Near Shakti Nagar Pond ND	19415	19330	99.56	
		Gevra Non-Dump	19255	19024	98.80	
		Front of Railway Colony ND	3825	3796	99.24	
		Kabristan Back Side Awadhnagar Non-Dump	56705	56195	99.10	
		Magazine Back Side ND	26792	26551	99.10	
		Sal Nursery 10.00. hact.	100000	100000	100.00	

निरीक्षण के दौरान जीवित पौधा का प्रतिशत संतोषजनक पाया गया।

Environment Officer
SECL Gevra Project

Dy. General Manager (Civil)
SECL Gevra Project

Dy. Manager (Survey)
SECL Gevra Project

PRO
Gevra Range

APRO
Gevra Range

Nodal Officer (Envt.)
SECL Gevra Area

General Manager
SECL Gevra Project

ANNEX-2

STATEMENT SHOWING DETAILS OF PLANTATION OF GEVRA PROJECT									
YEAR	PLANTATION DONE ON				Total Plantation done (in nos)	CPT (1.5mx0.9mx0.75m) (in Rmtrs)	GRASS BED (Nos.)	Area/ Ha.	Location
	On Plain area (nos)	On internal dumps (nos)	On External dumps (nos)	Total Plantation on dumps (nos).					
1	2	3	4	5=(3+4)	6=(2+3+4)	7	8	9	
1986	236000	0	0	0	236000	0	0	74.3	1. MGR Loop 2. Roadside 3. Inside colony 4. Gevra-Kusmunda Road 5. Distrbuted to employees
1987	245750	0	46000	46000	291750	0	0	82.93	1. Ext. OB Dump No. 1 near MGR 2. Around Magazine 3. Colony Road 4. Inside colony
1988	419500	0	0	0	419500	0	0	93.22	1. Near E&M workshop & Dy GM Office 2. Near CHP 3. Road side at Gevra 4. Road side at VTC/CETI 5. Gevra - Kusmunda Road 6. Bareli village 7. Near Magazine 8. Colony
1989	454000	0	0	0	454000	0	0	100.88	1. Gevra - Kusmunda Road 2. Near Bareli Village 3. Near CETI 4. Gevra Colony 5. Near CHP Bunker 6. SILO Road 7. Vacant space in colony 8. Near Magazine
1990	372883	0	0	0	372883		0	82.86	1. Near Magazine, Ganganagar 2. Laripara plot 3. Old Dipka Barrier (Planted by Dipka project at Dipka unit) 4. Vijaynagar village 5. Near Conveyor Belt - CHP 6. Near Hospital 7. Roadside 8. Boathside old Barrier (Planted by Dipka project at Dipka unit) 9. Boathside old Barrier (Planted by Dipka project at Dipka unit) 10. Conveyor Belt - Latipara 11. Mine boundry near Bareli 12. Inside Colony
1991	360000	0	0	0	360000	0	0	80	1. Bareli Bhata Village (A) 2. Bareli Bhata Village (B) 3. Helipade side

									4. D Type quarters 5. Nehru nagar (Planted by Dipka project at Dipka unit) 6. CEWS 7. Guest Houses 8. CETI 9. Dipka - Pali Road (Planted by Dipka project) 10. Kusmunda - Gevra Road
1992	64900	0	0	0	64900	0	0	14.42	1. Gevra Township 2. Railway Sising 3. Gevra Mine 4. Near Bareli Pondi Bhata Village
1993	87230	0	26970	26970	114200	0	0	27	1. Shakti Nagar Colony 2. Dipka project colony (Planted by Dipka project at Diopka unit 3. Dipka Ext. Dump no. 1 (Planted by Dipka project at Dipka unit) 4. NCH Colony 5. CEWS 6. Dipka MTK office (Planted by Dipka project at Dipka unit) 7. Gevra Ext. Dump no. 2 8. Gevra Railway siding 9. Kusmund Barrier Pond etc.
1994	0	0	0	0	0	0	0	0	
1995	77000	0	0	0	77000	0	0	17.11	1. Gevra - Kusmunda Road 2. Infront of Old GCM Office
1996	68000	0	64000	64000	132000	0	0	29.33	1. Dipka Dump no. 3 (Planted by Dipka project at Dipka unit) 2. Beltikri Dump (Planted by Dipka project at Dipka unit) 3. CGM Office 4. Boundry wall at Dipka (Planted by Dipka project at Dipka unit) 5. Dipka Border line (Planted by Dipka project at Dipka unit) 6. Magazine side
1997	50000	17500	105500	123000	173000	0	0	38.44	1. Dump no. 3 (Planted by Dipka project at Dipka unit) 2. Near Magazine 3. External Dump no. 2,3 & 4 4. External Dump no. 5 5. Internal no.1
1998	42000	52150	31850	84000	126000	0	15000	31.5	1. Internal Dump no.3 (Amrakanan) 2. Internal Dump no.1 3. External Dump no. 2,3 & 4 4. Khusrudih Road & Dump

									slope 5. Near water tank at Gevra project 6. Magazine side
1999	11950	0	65000	65000	76950	3150	18000	19.23	1. External Dump no.2,3 & 4 2. Near Helipad - Gevra 3. External Dump no.3 (Planted by Dipka project at Dipka unit) 4. Near Selting pond (Commercial)
2000	0	0	130000	130000	130000	0	15000	32.5	1.External Dump no. 2,3 & 4 2. External Dump no. 5 3. External Dump 3 (Planted by Dipka project at Dipka unit)
2001	0	0	66000	66000	66000	0	13000	16.5	1. External OB Dump No. 2,3&4 (Top) 2. External OB Dump No. 2,3&4 (Slope)
2002	10000	0	30000	30000	40000	500	4000	16	1. External Dump No 6 2. Back Filling 3. Dump No 6 (Slop)
2003	30000	81000	20000	101000	131000	1270	15000	35	1. Old Dipka Dump No. 3 2. Pragati Nagar 3. Gandhi Nagar 4. Dump No. 1&2
2004	22000	5500	78500	84000	106000	3583	36000	32	1.North side of Dump No. 2,3&4 Near Toe 2. In side Shakti nagar colony 3. Inside Centeral work shop 4. Shakti nagar Gate to DETP (road side green belt strengthening) 5. Dipka barrier to Gevra Water filter (road side green belt strengthening) 6. Kusmunda road side green belt 7. Dump No 5 8. south side Slope of Dump No. 2,3&4 9. North side Slope of Dump No. 2,3&4 10. Old Internal Dump (East Section) Toe Ince Green belt 11. Dump No. 1 Slope Internal East Section)
2005	76000	0	39500	39500	115500	4800.33	39500	38	1.Dump No.3 Dipka Unit 2. Dump No 2,3&4 North Slope) west side of Helipad 3. Along Kusmunda Road (North side of 2,3,&4 No Dump (2KM X 50 m) 4. Center Park

									(with in MGR) 5. Along Main Road both sides (From CETI to Dipka Barrier in patches) 6. Dump No 2,3& 4 western side Dump 7. Back side of Shakti Nagar Colony
2005	41500	0	0	0	41500	2000	0		
2006	75000	40000	5000	45000	120000	4500	45000	48	
2007	50000	0		0	50000	0	0	20	1. Hydro Seeding of grasses On B/F Dump No 3 & 6
2008	5000	0	20000	20000	25000	0	0	15	1. Near Magazine 2. Near DETP 3. Kusmunda road (in between MGR& railway Line 4. Dipka Barrier to Hardi Bazar road side (Near 3 no. Dump of Dipka Unit)
2009	32500	0	30000	30000	62,500	0	20000	21	1. Near Magazine 2. Kusmunda road (in between MGR& Railway Line) 3. Dipka barrier to Hardi Bazar road side (Near 3 No. Dupm of Dipka Unit) 4. Dump NO. 3 (External)Dipka Unit 5. South side Slope of Ext.Dump No 3 (Dipka Unit)
2010	2500	36500		36500	39,000	0	0	25	1. Dump No. 3 (Internal) 2. South East side Slope of Internal Dump No 3 3. Around DETP,CHP,Feeder Breaker, TA office (Urja Nagar), CTI
2011	0	27500	0	27500	27,500	0	12500	16	1.Dump No. 3 (Internal) 2. South -East side Slope of internal Dump No 3 3. On Plain Area Near Dipka Railway Track
2012	10000	20000	0	20000	30000	0	3125	12	1. Dump No. 6&7 (Internal) 2. On Plain area Behind Urja Nagar C-Type Quarter
2013	5000	0	35000	35000	40000	0	5000	14	1. On External Dump No.6&7 (Top& Slope) 2.On Plain area GOLF Ground (Near Silo)
2014	0	0	20000	20000	20000	0	0	10	1. External OB Dump No 6&7 2. Side Slope of External OB Dump No 6&7
2015	0	0	80000	80000	80000	0	10000	26	1. On External Dump No.6&7 (

									Top& Slope)
2016	0	0	50000	50000	50000	0	0	20	1. On External Dump No.6&7 (Top& Slope)
2017	0	0	100000	100000	100000	0	5000	30	1. On External Dump No 6&7 (Top & Slope)
2018	6500	0	60000	60000	66500	0	0	0	1. On External Dump 6&7 (Top) 2. on Road side (New Coal transport Road)
2019	62750	0	0	0	62750	0	0	21.1	1. Near Ganga Nagar 2. Plain Area in Between External Dump No 6&7 and Laxman Both Side
2021	31998	52500	0	52500	84498	0	18750	27.799	1. Avad Nagar (Magazine Plot). 2. Avad Nagar (Road Side)
2022	48450	0	0	0	48450	0	29613	19.38	1. Bhatora Basahat 2. Magzine side
2023	19415	0	0	0	19415	0	0	7.766	1. Near Shakti Nagar Pond
Total	3017826	332650	1103320	1435970	4453796	19803.3	304488		
Planted area (Ha)	689.465	137.6	367.2	504.8	1194.265				

GAP PLANTATION DETAILS			
Year of Gap plantation	Area in Ha.	No. of saplings Planted	Location
2020-21	17	55950	Mangaon Dump, (Laxman Project)
2021-22	2	5000	Shramil Chouk to Dipka Chouk
2022-23	23.69	82915	External Dump 6&7 (slope)
2023-24	43.405	106577	Awad Nagar Behind Kabaristhan, Between NTPC & private rail track, Behind Magazine & Infront of Railway Colony Shakti Nagar

03/11/2023

नोडल ऑफीसर (पर्यावरण/वन)
Nodal Officer (ENV/Forest)
SECL/Gevra Area
एस.ई.सी.एल./गेवरा क्षेत्र

ANNEX - 3

SOIL CONSERVATION PLAN

GEVRA OPEN CAST MINE
SOUTH EASTERN COALFIELDS LIMITED

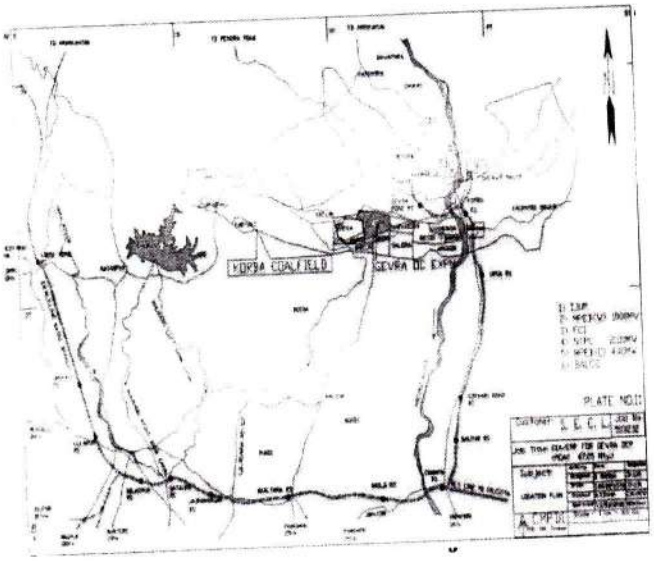
03/11/2023

नोडल ऑफीसर (पर्यावरण/वन)
Nodal Officer (ENV/Forest)
SECL/Gevra Area
एस.ई.सी.एल./गेवरा क्षेत्र

INTRODUCTION

Location & Accessibility

The Gevra OCM is an existing mega opencast project of South Eastern Coalfields Limited (SECL) with present EC capacity of 52.50 MTPA. The Block is located in the South Central Part of Korba Coalfield in Korba District of Chhattisgarh. The Gevra Mining block having an area of 20.37Sq.Km is bounded by latitudes 22°18'00" to 22°21'42" N and longitudes 82°32'00" to 82°39'30" E. It is included in the survey of India Toposheet No. 64 J/ 11. The location map of the area is as shown.



The block is well connected by rail and road. Gevra Road and Korba Railway Station on Champa-Gevra Road branch line of S.E. Railway are at a distance of 10 km and 16 km respectively. Railway siding has been extended up to and beyond Gevra OCP and coal is being transported from the pit head CHP through rail/MGR to the various consumers. SECL HQ Bilaspur is at a distance of about 90 km by road.

The existing capacity of the project is 52.50 MTY. Mining of Coal from Gevra OCP is done by Open Cast method. It is characterized by the presence of four open- castable seams (Composite seam D, E&F Seam, UK Seam, LK Seam) with dip angles of 2°-6°. Seam thickness ranges from 1.10 m to 45.23m. The thickest seam is Lower Kusmunda (19.28m to 45.23 m). The Maximum width along strike is 9.1 KM and Maximum length along dip is 3.29KM.The present maximum depth of the quarry is 203 m. The mineable reserve is 265.73 MT (as on 01.04.2023) with an average stripping ratio of 1.30. The total quarry has been divided into three sections i.e Western Section, Central Section & Eastern Section. It is proposed to mine all the three identified sections simultaneously. However mining operations will be staggered between the sections.

The total Mine Lease area of the project is 4184.486 Ha. The total Forest Land involved is 1016.412 Ha out of which 904.027 Ha. has already been diverted for nonforest purpose after receiving the Stage II Forest Clearance. The remaining 112.385 Ha. of Revenues Forest land has obtained Final/Stage II approval vide MoEF&CC Clearance L.No. 8-

41/2017-FC dated 21.06.2022 (Handing over awaited from State Forest Department). The project is proposed for capacity enhancement to 70 MTPA with Mine lease area of 4781.798 Ha. Therefore diversion of Additional 94.293 ha. of Revenue Forest Land is involved in this proposed expansion.

Physiography & Drainage

The general topography of the block is gently undulating. The surface contour ranges from 288-328 m above MSL. The general slope of the terrain is towards East. Water from the mine and nearby area flows into the seasonal nalla namely Laxman Nala located on the northern side. Ahiran River located towards NE. In addition there are quite a few ponds. Ahiran and Hasdeo River control the drainage of the area and are situated towards N-E and East respectively of the area under consideration.

The climate of the area is dry to moist tropical with well-defined summer from April to June, rainy season from July to September and winter from November to February. The temperature rises to a maximum of 48^{0}Cin May and drops to a minimum of 7^{0}C in December. The annual rainfall for 2022 is 1433 mm.

MINE WATER ENVIRONMENT

Surface Water Resources

Hasdeo River, a major tributary of Mahanadi River flowing along the eastern side in North –South Direction is the master drainage of the area. The mine block is drained by Laxman nallah flowing in West- East direction and joins Ahiran Nadi, a tributary of Hasdeo river at about 4.5 KM in NE from the mine. Kholar stream which is also a tributary of Hasdeo River controls the drainage in the northern part whereas Lilager Nadi and Gangadel nallah controls the SW and SE respectively. These streams are mostly perennial and behave as constant recharge sources. The pattern of the drainage in the area is mostly dendritic in nature.

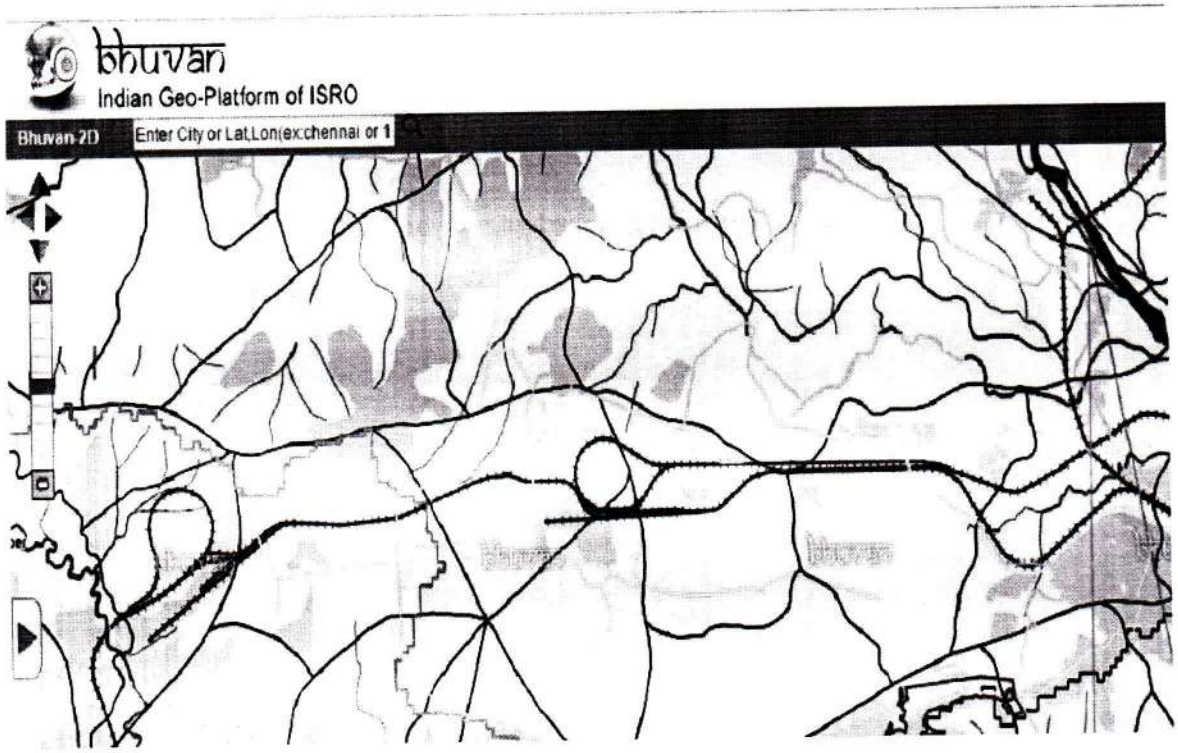
Ground Water Resources

The formations within the study area are Barakars, Talchirs and Metamorphics. Major portion of the study area is occupied by Gondwanas. Talchirs and metamorphics occupy the rest. The Project area is situated in Barakars formation

comprising sandstone of different grain sizes with shale beds and coal seams. This permeable sandstone is saturated and behaves as aquifers. Shale and coal seams act as aquicludes. Stratification and the presence of aquicludes lead the aquifer system into multi aquifer system.

The formation comprising mainly of alluvium and sandstone (average thickness 50.0 m), lying above the working seam E&F behave as unconfined aquifer. Whereas, lower formations consisting of compact sandstone mainly with secondary porosity behave as semi-confined/confined aquifer.

In the unconfined aquifer ground water moves laterally through the inter granular pore spaces in the sandstone. Whereas, in lower aquifers the groundwater movement is restricted mainly through joints and fractures (i.e. secondary porosity). With intercalation of shales and carbonaceous shale beds and reduction in permeability with depths in the lower aquifers are very poor in potential. A flat water table with a gradient of 1.8×10^{-2}, slopping towards east, was observed in the area.



Plan showing hydrological features of the area

A. PREPARATION AND IMPLEMENTATION OF A PLAN CONTAINING APPROPRIATE MITIGATIVE MEASURES TO MINIMIZE SOIL EROSION AND CHOKING OF STREAMS

Soil conservation in its widest sense includes not only control over erosion but all those measures like correction of soil defects, application of manures and fertilizers, proper crop rotations, irrigation, drainage etc. which aim at maintaining the productivity of the soil at a high level. In this sense, soil conservation is closely allied to improvement of land use in general.

In OC mines, the earth material is dug out to extract coal. The excavated over burden material consists of alluvial, top soil, sub soil and rocks. The OB is placed in the nearby areas in the form of dumps. If no measures are taken for the management of OB dumps, after precipitation, water will take away the soil particles along with itself thereby causing soil erosion. This eroded soil will flow into the nearby streams, rivers, water channels and cause choking/ contamination of the water bodies. In order to prevent this, an effective soil erosion management plan needs to be prepared and implemented.

MITIGATIVE MEASURES TO MINIMIZE SOIL EROSION AND CHOKING OF STREAMS

In order to control soil erosion, a step by step procedure needs to be adopted so that the water flows through a proper path and does not take away with it the essential soil material. The steps to be followed are:

1. Garland Drains:. To arrest the surface runoff into the quarry, garland drains with suitable dimension (4 m x 1.5m) to carry the peak discharge are constructed.

B. PLANTING OF ADEQUATE DROUGHT HARDY PLANT SPECIES AND SOWING OF SEEDS IN THE APPROPRIATE AREA WITHIN THE MINING LEASE TO ARREST SOIL EROSION

In view of importance of vegetation cover towards environment, the technical reclamation will be strengthened by biological reclamation for conserving the environment.

Plantation Technique on Overburden Dumps

To improve the environment and greenery in the area, SECL had taken up plantation on a larger scale. The improvement in vegetation cover has a direct bearing on augmentation of ground water recharge. The compensatory afforestation has been carried out through the State Forest Departments. In addition to compensatory afforestation, to improve the greenery and dust control, the project did heavy plantation both on reclaimed and at various other locations

in the project area. This greenery not only controls air pollution but also controls the soil erosion and increase groundwater recharge.

The top surface of the overburden dumps selected for plantation will be roughly levelled by dozer keeping a mild slope of about 1 in 200 for surface water drainage.

Seeds of grass legumes will be sown on beds of 1.5m x 0.5 m, alternating with slopes to be planted with tree species. Gully plugging and constructing check dams on water courses flowing through OB dumps with boulders, will also be made to arrest soil erosion.

In SECL Plantations are carried out by CGRVVN (Chhattisgarh Rajya Van Vikas Nigam Limited). Long term MoU has been signed between SECL and CGRVVN Ltd. Raipur for five consecutive years plantation works with subsequent maintenance of four years in SECL command area in Chhattisgarh State.

Various species suggested for plantation are:

- **Fruit bearing (15%) & Medicinal / Herbal (35%):** Jamun, Imli, Ganga Imli, Bel, Mango, Neem, Bahera, Amla, Mahua, Kusum, Arjuna etc.
- **Timber/ forest (48%):** Teak, Shisham, Siris, Bamboo, Babool, Ghamhar, Pipal etc.
- **Ornamental / avenue (2%):** Gulmohar, Kachnar, Gravelia, Ashok, August etc.
- **Grass Species:** StyloHemata, Dinanath on slope of OBD

TOP SOIL MANAGEMENT PLAN

Introduction

The topsoil at Gevra OC Expansion (35.0-70.0Mty) comprises of rich humus with minerals and nutrients. Proper handling and management is necessary for future vegetation growth in the mine reclaimed area. The thickness of the top soil varies between 25 cm to 35 cm.

Objectives of the Soil Stripping management plan

The objectives of Top Soil Management are to:

- Maintain a topsoil balance that achieves rehabilitation objectives during the life of Mine.
- Ensure effective topsoil removal techniques are employed to maximize volumes of suitable topsoil removed and minimize wastage.

- Maintain topsoil viability during stripping, spreading, and stockpiling, through best practice technique and effective stockpile design and treatment.

In accordance with the objective of providing sufficient stable soil material for rehabilitation and to optimize soil recovery, the following strategies will be adopted during the mining operation at Gevra opencast mines.

Stripping

Prior to the commencement of stripping, areas will be cleared of vegetation. Soil stripping will be undertaken by dozers and hydraulic backhoe excavators to maximize the preservation of the quality of the soil. The HEMM operators and supervisors should be trained and made aware for the same. This will ensure that all suitable topdressing material resources are salvaged and that the quality of the stripped top dressing material is not reduced through contamination with unsuitable soils. Care will be taken during stripping, stockpiling, and re-spreading to ensure that structural degradation of the soil is avoided and that excessive compaction does not occur during stockpiling.

Stock piling

- Where possible, top dressing material will be re-spread directly from stripped areas onto areas being rehabilitated. Where this is not possible, topdressing material will be stored in stockpiles.
- Stock piles will be dumped at places where they would not be disturbed by future mining. Sediment fences or other barriers can be used where necessary to retain sediment.
- The overall topography for the graded surface should be designed to minimize the uncontrolled flow of runoff.
- Dispersed sheet flow should be broken up by terraces or benches along the slope that also follow topographic contours.
- On a fine scale the ground surface can be roughened by the tracks of a bulldozer perpendicular to the slope. Construction of stockpiles with a "rough" surface condition will reduce erosion hazard, improve drainage and promote re-vegetation.

Stockpile preservation

Stockpiling topsoil may result in disruption & loss of beneficial soil microorganisms and nutritional values, hence needs the following amendments during preservation:-

1) Re-vegetation of the stockpile will be done as scheduled below to protect the soil from erosion, discourage weeds and maintain active populations of beneficial soil microbes.

- Temporary Seeding- To protect topsoil stockpiles by temporarily seeding as soon as possible, within 30 days after the formation of the stockpile.
- Permanent Vegetation- If stockpiles will not be used within 12 months they will be stabilized with permanent vegetation to control erosion and weeds. Likely grass species for re-vegetating top soil stock piles are green panic, Japanese millet (spring sowing), Oats (winter sowing), Dryland Lucerne,Seaton park sub-clover.

Topsoil can be mixed with organic material or manufactured soil amendments to improve the growing capability.

2) To the extent practicable, above ground vegetation, including tree litter should be mixed or otherwise incorporated into the topsoil.
3) Soil amendments: Soil amendments should be applied before seeding or planting. Common soil amendments used are bio-solids, compost, manure, lime and coal combustion byproducts.
Prior to the placement, the top 0.30cm of the stock pile material should be mixed with the remainder of stockpile to ensure that living organisms are distributed throughout the top soil material at the time of final placement. In case, the material has been stockpiled for over nine months period, used of micro organisms inoculates may be necessary to re-establish microorganisms in the top soil material. The quantity should be 200ml for one Ha. area in case of Azatobactor and Rhizobium.

Site Preparation

- Before spreading topsoil, establish erosion and sedimentation control structures such as diversions, berms, dikes, waterways and sediment basins.
- Adjust grades and elevations for receipt of topsoil.
- Roughening - Immediately prior to spreading the topsoil, loosen the sub-grade to ensure bonding of the topsoil and subsoil.
- Soil horizons will be replaced in the same order that they were removed.
- Top soil will be uniformly distributed to pre-mining thickness. Topsoil will not be spread while it is frozen or muddy.
- The topsoil will be compacted to ensure good contact with the underlying soil, but excessive compaction will be avoided, as it increases runoff and inhibits seed germination. Light compaction with roller will be done where turf is to be established.

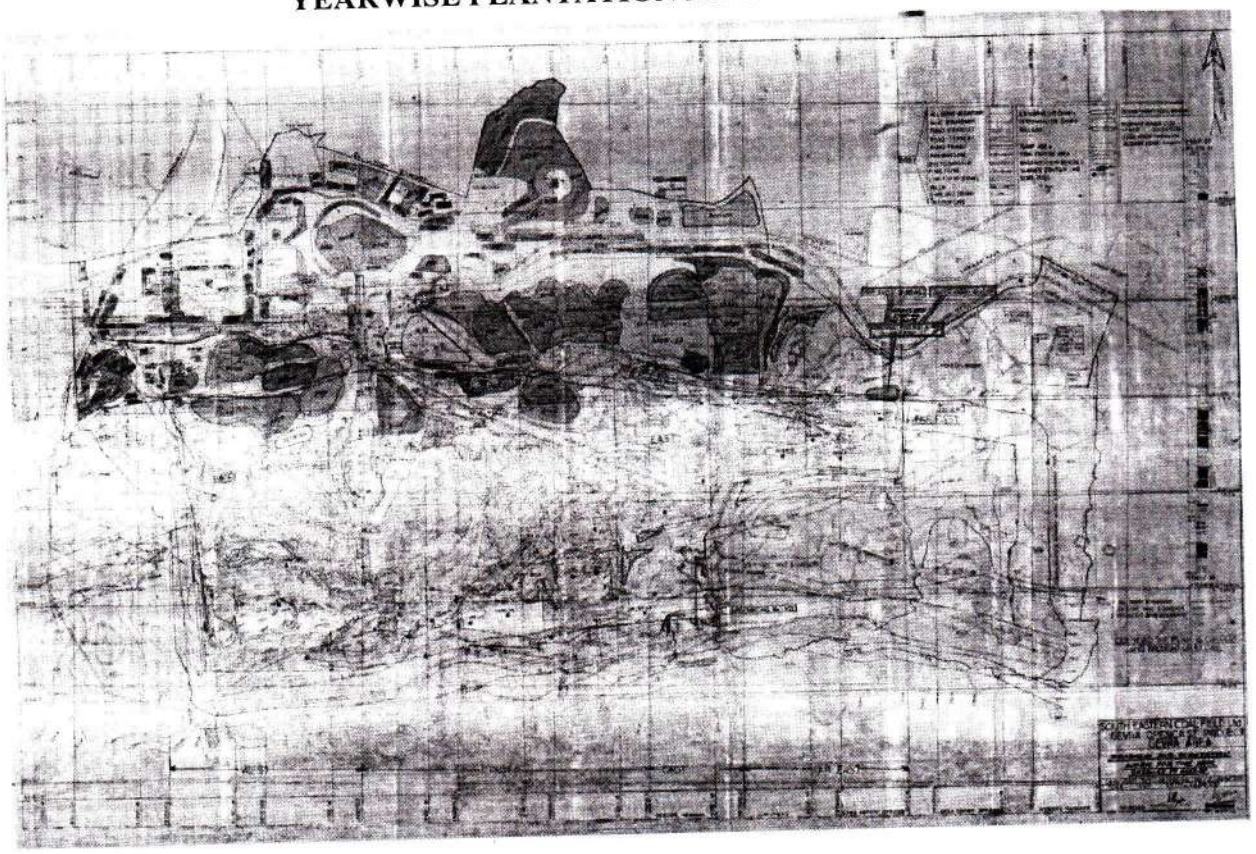
On slopes and areas that will not be mowed, the surface will be left rough after spreading topsoil.

Monitoring

Specific team / manpower is to be deployed for this most important step of topsoil management. The team will monitor the area and quantum of top soil management with the authorities of mine on quarterly basis and regularly monitor the given points of significant importance:

- Monitoring Erosion Control: This step is necessary during stock piling as well as reclamation stage of topsoil management. Take corrective measure in areas showing evidence of erosion, sedimentation or slope failure. This is a serious problem, because erosion causes fertile farmland to lose nutrients and water retention ability
- Regular monitoring of top soil management should be done until vegetation is demonstrated to be successfully established.
- Reseeding: Take appropriate measures to address evidence of invasive species or poorly established vegetation. Reseeding should be done, if germination is not uniform or poor.

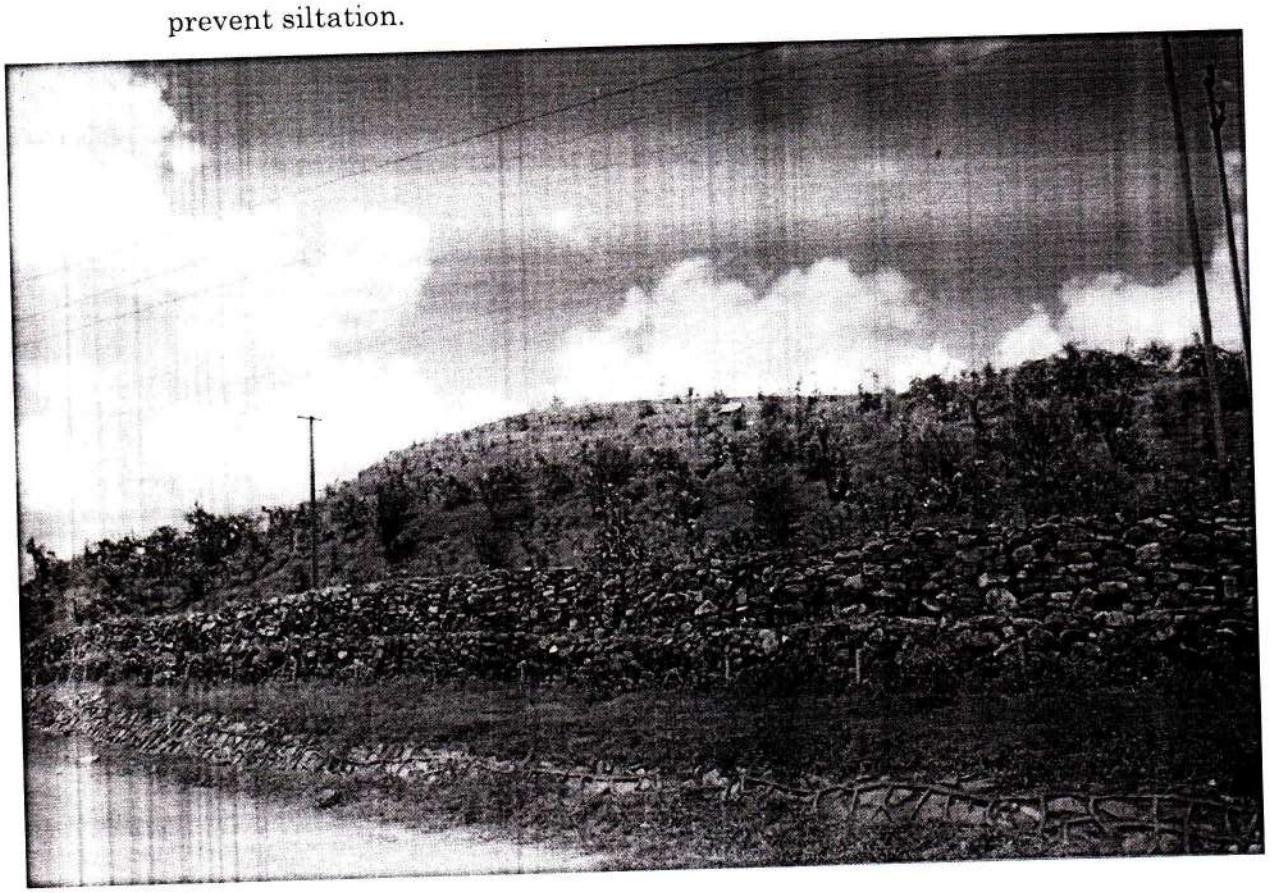
YEARWISE PLANTATION AT GEVRA AREA



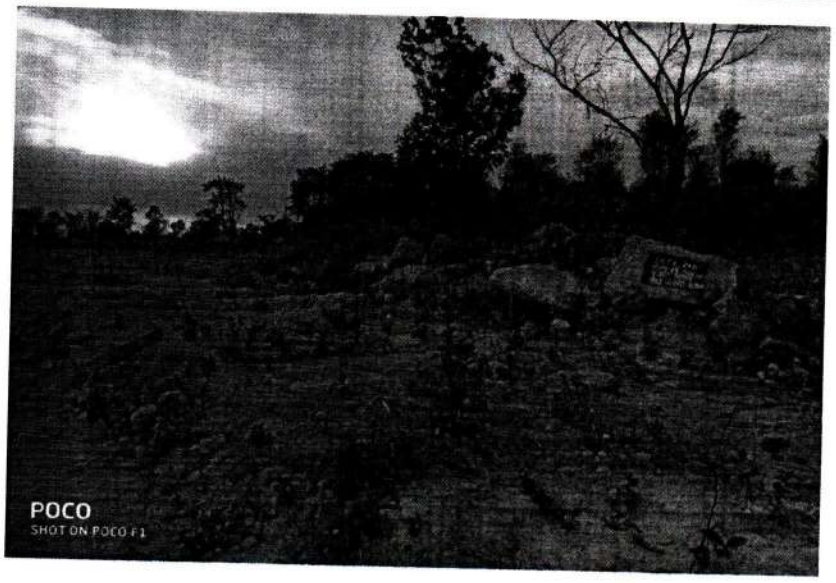
AVENUE PLANTATION

C. CONSTRUCTION OF CHECK DAMS, RETENTION/TOE WALLS ALONG THE CONTOUR TO ARREST SLIDING DOWN OF THE EXCAVATEDMATERIAL

1. Catch Drain: 2.8 KM of pucca catch drains of dimension 1.5 X 1.5 m were constructed for chanelling of surface runoff during Rainy Period.
2. Check Dams & Retaining Wall: To prevent soil Erosion & arrest sliding down of excavated material along the contour. Regular maintenance is carried out to prevent siltation.



- 2018-19 Plantation dump area have been provided with Contour trench 300 per trench, check dam 20 per cubic meter and bund with stone bolders 20 per cubic meter.



- A toe wall is constructed at External Dump no. 6 & 7 of dimensions: Length 650 meters, height above ground 1.00 meters and top width of wall 200 mm in the year 2018-19

Year	Contour Trench (per trench)	Check Dams (per CUM)	Bunds with stone boulders (per CUM)
2022	11845	11845	11845
2021	7200	7500	7500
2018	300	20	20

Structure	Location	Dimension
Retaining wall with Drain	Along P3 Q3 belt near W1 TRS	182m X 5m ht. 1.2mX0.9m RCC Drain
	Along J3 belt	240mX 5m ht. 300mX 2m
	Near Junadih Siding	2050m X 2m ht. 1.2m X 0.9m drain
	External Dump no. 6 & 7	650m X 1m ht. Top width 200mm
Gabion wall	From weigh bridge W5 to LK seam coal face side	1200m length, 3 stage, 3m height
	Along toe of dump no. 4 near E2/ E1 TRS	342m, 3 stage, 3m height

STABILIZE THE OVERBURDEN DUMPS BY APPROPRIATE GRADING/BENCHING SO AS TO ENSURE THAT THAT ANGLES OF REPOSE AT ANY GIVEN PLACE IS LESS THAN 28^0

PROGRAMME OF O.B. REMOVAL, DUMPING & PLANTATION:

Year	Coal production (MTes)	OB removal (Mcum)	Dump plan (Mcum)		Dump area available for reclamation (Ha.)		No. of plantation @ 2500 Nos / Ha.		Total plantation @ 2500 Nos / Ha.
			External	Internal	External	Internal	External	Internal	
1	40	72.69	0	72.69	0	0	0	0	0
2	41	72.67	0	72.67	0	0	0	0	0
3	41	73.8	0	73.8	0	0	0	0	0
4	45	82.12	0	82.12	0	0	0	0	0
5	49	86.92	0	86.92	0	0	0	0	0
6	61	108.62	0	108.62	0	59.13	0	147825	147825
7	70	125.06	0	125.06	0	59.13	0	147825	147825
8	70	125.53	0	125.53	0	59.13	0	147825	147825
9	70	125.51	0	125.51	0	59.12	0	147800	147800
10	70	125.17	0	125.17	0	59.12	0	147800	147800
11	70	125.09	0	125.09	0	63.36	0	158400	158400
12	70	125.51	0	125.51	0	63.36	0	158400	158400
13	70	125.54	0	125.54	0	63.36	0	158400	158400
14	70	124.82	0	124.82	0	63.36	0	158400	158400
15	70	124.95	0	124.95	0	63.36	0	158400	158400
16	70	107.8	0	107.8	0	63.36	0	158400	158400
17	70	107.66	0	107.66	0	63.36	0	158400	158400
18	70	86.34	0	86.34	0	63.36	0	158400	158400
19	70	84.96	0	84.96	0	63.36	0	158400	158400
20	70	85.18	0	85.18	0	63.36	0	158400	158400
21	50	40.8	0	40.8	0	63.36	0	158400	158400
22	30.68	29.89	0	29.89	0	63.36	0	158400	158400
MC_1	0	0	0	0	0	77.3	0	193250	193250
MC_2	0	0	0	0	0	77.3	0	193250	193250
MC_3	0	0	0	0	0	77.3	0	193250	193250
Total	**1337.68**	**2166.61**	**0**	**2166.61**	**0**	**1287.85**	**0**	**3219625**	**3219625**

The spoil dump benches in the internally backfilled OB will be in the form of benches. With the sufficient advance of coal production bench, the non-active backfilled OB will be leveled with dozer. Dumper/Tipper will transport soil/alluvium OB from the top OB bench and will dump the soil directly on the leveled backfilled OB. Otherwise; top soil will be removed and stored separately. This soil will be directly spread over the levelled graded backfilled spoil for reclamation of the quarried out land. OB dumps will be properly benched and the maximum height of the bench will be kept not more than 30m. Dump benches will have a mild gradient of 0.6% to facilitate the drainage. Wherever possible, simultaneous land reclamation will be done along with the OB dumping.

The following design criteria have been considered for waste dumps.

(i) OB in external dumps will be stacked in 30 m high benches.

(ii) OB in internal dumps will also be stacked in 30 m high benches.

(iii) Dozers to be deployed for shaping the dumps overall slope is 28^0.

(iv) Final reclamation will be achieved using the equipment provided for the purpose.

Once, the external dumping is completed, the spoil will be graded and landscaped in harmony with surrounding topography and biological reclamation carried out. Alternatively, the final void at the end of mining operations in the mine can be converted into a water reservoir.

RECLAMATION SCHEDULE

E. STRICT ADHERENCE TO THE PRESCRIBED TOP SOIL MANAGEMENT

Systematic handling of topsoil

Topsoil shall be removed before any drilling, blasting, mining, or other surface disturbance. The stock piling of top soil will be as follows:

- Top soil and other materials removed shall be stock piled only when it is impractical to promptly redistribute such materials on regarded areas.

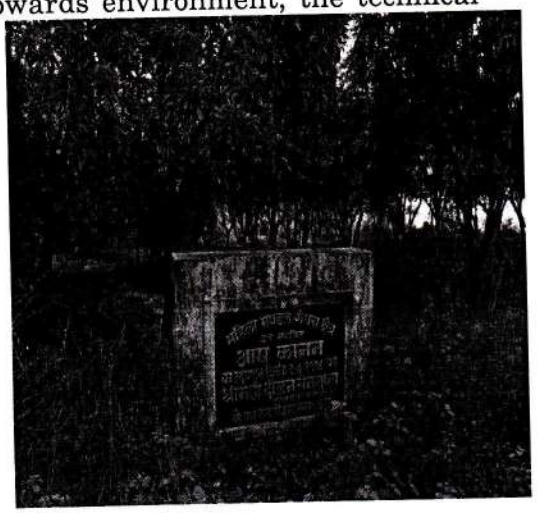
- Stock-piled materials shall be selectively placed on a stable area, not distributed, and protected from wind and water erosion, unnecessary compaction, and contaminants which lessen the capability of the materials to support vegetation when redistributed.

Top soil redistribution

After the final grading the top soil would be redistributed in a manner that achieves an approximate uniform stable thickness consistent with the post mining land uses, contours, and surface water drainage system.

Biological reclamation

In view of importance of vegetation cover towards environment, the technical



reclamation will be strengthened by biological reclamation for conserving the environment.

FINANCIAL PROVISIONS

I. Financial provision for soil erosion management

S. No.	Activity	Amount (in Rs. Lakhs)
1.	Garland Drains	30.00
2.	Arboriculture/plantation in industrial area	5.67
3	Barbed fencing/boundary walls/Toe walls/Gabion structures for the project	19.37
4.	Land Reclamation / Restoration	42.50
5	Green Belt in and around the Mine	10.00
	Total	107.54

* Subsequent additional provision will be made as and when required.

Existing Mine Closure Cost as per approved MCP

As per the guidelines of the MoC, the cost of the mine closure cost was computed based on project area of Gevra OCP i.e, 4184.486Ha. Considering the wholesale price index as 136.30, as on April 2010, the updated cost of the mine closure is estimated to be Rs. 6.312 lakhs per hectare (considering three decimal places) considering the admissible escalation over Rs. 6.00 lakh per Ha as on August 2009 when wholesale price index was 129.60.

Total Final mine closure cost (@ Rs.6.312 Lakh/Ha.): Rs.26412.48lakhs

Table-1: Existing Fund deposit & Reimbursement Schedule

Year	Fund Deposited in Escrow Fund	Fund to be Reimbursed (Maximum)	
1	1100.52	Nil	(+) accrued interest as applicable
2	1155.55	Nil	
3	1213.32	Nil	
4	1273.99	Nil	
5	1337.69	Nil	
1st phase	6081.07	4864.85	
6	1404.57	Nil	
7	1474.80	Nil	
8	1548.54	Nil	
9	1625.97	Nil	
10	1707.27	Nil	
2nd phase	7761.15	6208.92	
11	1792.63	Nil	
12	1882.26	Nil	
13	1976.38	Nil	
14	2075.19	Nil	
15	2178.95	Nil	
3rd phase	9905.42	7924.33	
16	2287.90	Nil	
17	2402.30	Nil	

18	2522.41	Nil
19	2648.53	Nil
20	2780.96	Nil
4th Phase	12642.10	10113.68
21	2920.01	Nil
22	3066.01	Nil
23	3219.31	Nil
24	3380.27	Nil
final phase	12585.60	19863.54
Total	48975.34	48975.34

REVISED MINE CLOSURE PLAN(PHASE I& 2)-

The Mine closure plan for Gevra OC 70 Mty was part of the Project report & is deemed approved along with the Project report. All MCP activities for this Mining plan will be as per mentioned in the PR.

A-REVISED ABONDONED COST & FINANCIAL ASSURANCE (As per the new Guidelines & Latest WPI)

TABLE-2: Progressive & Final cost distribution table in an OC mine as per New Mine Closure Guidelines issued by MoC on 16/12/2019

S. No.	Activity	Progressive	Final
A	Dismantling of Structure	0	8.50
	Service building		
	Residential Building		
	Industrial Structure		
B	Safety & Security	6.50	3.20
	Random rubble masonry/concrete wall		
	Toe wall around dump/Gabion wall		
	Barbered wire fencing		
	Fencing/boundary wall, fencing around water		

S. No.	Activity	Progressive	Final
	body		
	Garland drains		
C	OB Dump Reclamation		
I	Technical Reclamation	60.50	60.50
	Re-handling of OB		
	Levelling by Dozer		
	Grading		
	Levelling and grading of high wall slopes & OB Dump		
II	Biological Reclamation & Plantation		
	Top soil Management	15.00	11.70
	Grassing of OB dump		
	Plantation around virgin Area , safety zone , green belt, over external Dump and internal reclaimed area		
	Plantation post care (including manpower)		
	Plantation over cleared area obtained after dismantling		
D	Landscaping of the open space in leasehold area for improving its aesthetic. Drain, Pipe lines, Peripheral road, gates, View points, cemented steps on bank	4.00	5.50
	Development of Agriculture land		
E	Environment mitigation & management	12.00	1.50
	Air Quality (Water tanker , Sprinkler & other Control measures)		
	Water Quality (ETP & STP etc operating cost)		
	Manpower Cost and supervision		
F	Post Closure Monitoring	0.00	3.20

S. No.	Activity	Progressive	Final
	Air Quality		
	Water Quality		
	Power Cost		
	Manpower Cost and supervision		
G	Entrepreneurship Development (Vocational/skill development training for sustainable income of affected people)	1.00	0.50
H	Miscellaneous & Other measures like Golden Handshake, one time financial grant, alternative jobs, other services etc.	1.00	5.40
	Total	100.00	100.00

22.3 Financial Assurance

A- Financial Assurance

Revised Mine Closure Cost based on latest WPI and adjustment of amount already deposited in the escrow account, as per the direction of CCO office

The amount that has to be deposited in Escrow account acts as a security against the mine activities to be carried out for the closure of the mine is based on the project area.

As per para 2.6 (Escrow Account Calculation) of MOC guideline no. F. No. 34011/28/2019-CPAM, Ministry of Coal dt 16th December 2019 & 29th May 2020, in case of the mine where escrow account is already open, the annual closure cost is to be computed considering the total project area at the above mentioned rates minus the amount already deposited and dividing the same by the balance life of the mine in years and annual cost as arrived should be compounded @5% annually.

The total Land Area envisaged in the project (Phase I & 2) is 4781.798 Ha

As per the latest guidelines of MOC, the amount to be deposited in Escrow account is evaluated as per detailed below:

TABLE-3: EVALUATION OF REVISED MINE CLOSURE AMOUNT- PHASE I

A	BASE RATE/HA IN LAKH RS AS ON 1st APR 2019	9
B	WPI AS ON 01.04.2019	121.1
C	MCP LAND IN HA	4781.798
D	WPI AS ON MAR 2022*	148.9
E	ESCALATION FACTOR (D/B)	1.2295623
F	RATE/HA IN LAKH Rs (E * A)	11.066
G	CORPUS IN LAKH Rs (F * C)	52915.669
H	Balance life in years as on 01.04.2022	16
I	Amount Deposited till 31.03.2022-lakh Rs	17517.11
J	Final corpus amount in lakh Rs (G-I)	35398.559
K	First Year amount in lakh Rs(J/H)	2212.4099
L	Total amount to be deposited in balance years in Lakh Rs.	52340.070
	□ WPI of Apr 2022 & May 2022 are provisional	

Table-4: Fund deposit & Reimbursement Schedule from 2022 onwards

Year	Year No	Fund Schedule in Lakh Rs	Fund to be Reimbursed (Maximum) in lakh Rs
EXISTING MCP DEPOSIT SCHEDULE UPTO 2021-22			
2020-21		1792.630	
2021-22		1882.260	
REVISED MCP DEPOSIT SCHEDULE W.E.F 2022-23			
2022-23	1	2212.410	
2023-24	2	2323.030	
2024-25	3	2439.182	

Progressive	Phase-1	6974.622	50% of balance amount at the end of Phase-1
2025-26	4	2561.141	
2026-27	5	2689.198	
2027-28	6	2823.658	
2028-29	7	2964.841	
2029-30	8	3113.083	
Progressive	Phase-II	14151.921	
2030-31	9	3268.737	
2031-32	10	3432.174	
2032-33	11	3603.783	
2033-34	12	3783.972	
2034-35	13	3973.170	
Progressive	Phase-III	18061.836	
2035-36	14	4171.829	
2036-37	15	4380.420	
2037-38	16	4599.441	
MC1	17		
MC2	18		
MC3	19		
Final Phase		13152	100% of balance amount at the end of final Phase
GRAND TOTAL		52340	

Table-5: COST ESTIMATE FOR PROFRESSIVE & FINAL CLOSURE ACTIVITIES

COST OF ACTIVITIES TO BE TAKEN UP FOR PROGRESSIVE CLOSURE OF MINE			
Head	PARAMETERS	Unit	Amount "Rs. Cr"
Progressive closure	Water quality management	LS	9.06
	Air quality management	LS	16.31
	*Waste Management	LS	7.25
	Barbed wire fencing	LS	1.96
	Barbed wire fencing around the Pit	LS	1.96
	Filling of Void - Rehandling of Crown Dump	LS	18.27
	Top Soil management	LS	22.65
	Technical l Reclamation of Mined out of land and OB Dump	LS	155.31
	Biological Reclamation of Mined out of land and OB Dump , Plantation over virgin area including green belt	LS	20.39
	Manpower Cost and supervision	LS	18.20
	Toe Wall around the dump	LS	2.94
	Garland drain	LS	3.62
	Garland Drain around the dump	LS	2.42
	Any other Activity	LS	3.02
Dismantaling of Infrastructure & Disposal/ rehabilitation of Mining machinery	Dismantling of workshop	LS	18.82
	Rehabilitation of the dismantled Facilities	LS	
	Dismantling of pumps and Pipes/ other facilities	LS	
	Dismantling of stowing bunker, provisioning of pumps for bore well pumping arrangement	LS	
	Dismantling of UG equipment	LS	

	Rearranging water pipeline to dump top park/ Agricultural land	LS	
	Dismantling of Power lines	LS	
Safety and security	Barbed wire fencing	LS	1.96
	Barbed wire fencing around the Pit	LS	1.06
	Barbed wire fencing with masonry pillars	LS	0.35
	Concrete wall with Masonry pillars around the pit	LS	
	Securing air shaft and installation of bore well pump	LS	
	Securing of Incline	LS	
	Concrete wall fencing around the water body	LS	8.72
	Boundary wall around the water body		
	Stabilisation! viz benching, pitching etc) of side walls of the water body		
	Toe Wall around the dump	LS	3.38
	Garland drain	LS	4.87
	Garland Drain around the dump		
	MISC SAFETY WORKS	LS	2.40
Technical and Biological Reclamation of Mined out of land and OB Dump	Drainage Channel from main Ob dump	LS	4.85
	Filling of Void	LS	66.97
	Top Soil management	LS	10.36
	OB Rehandling for backfilling	LS	66.97
	Terracing, blanketing with soil and vegetation of External OB Dump	LS	7.77
	Peripheral road, gates, view point, cemented steps on bank	LS	4.24
	Expenditure on development of Agricultural land	LS	1.22
	Landscaping and Plantation	LS	9.60
Post Closure management and	Power Cost	LS	1.04
	Post Mining Water quality management	LS	2.08

supervision	Post Mining Air quality management	LS	4.16
	Subsidence monitoring for 5 years	LS	0.00
	Waste Management	LS	2.08
	Manpower Cost and supervision	LS	1.04
Others	Entrepreneurship development (vocational/skill development training for sustainable income of affected people	LS	4.13
	Golden Handshake / Retrenchment benefits to 100 employees of OC	LS	11.96
	Golden Handshake / Retrenchment benefits to 200 employees of UG	LS	
	Onetime financial grant to societies / institutions /organisations which is dependent upon the project;	LS	
	Provide jobs in other mines of the company	LS	
	Continuation of other services like running of schools etc.	LS	
Total	COST FOR THE ENTIRE LIFE (Prog & Final)		523.40
Total	TOTAL ANNUAL COST		32.71
Total	PROGRESSIVE COST FOR THE ENTIRE LIFE		302.01
Total	ANNUAL PROGRESSIVE COST		18.88

TIME SCHEDULE

The time scheduling is being provided on the basis of time interval of five year as required in the MoC guidelines. This period of 5 years is considered as one phase of five years and reclamation of one phase must be taken-up before commencement of mining activity in the subsequent phase. The action plan for progressive closure activities has been provided in the Figure below:

Sl. No.	Activities	Time Frame
1.	Preparation of Survey & Disposal Report	One month
2.	Slope Stability study for high walls and internal backfilled dumps	One month
3.	Disposal of P&M including HEMM, CHP, W/S, Siding	2 and half years
4.	Backfilling of mined out Area (OC)	2 years
5.	Dismantling of Industrial structure	2 years
6.	Grading & dozing of high walls for OC	2 years
7.	Fencing of quarry	2 years
8.	Clearing of Coal Stock and Infrastructural Area.	2 years
9.	Disposal / Dismantling of Residential colony	2 &1/2 years

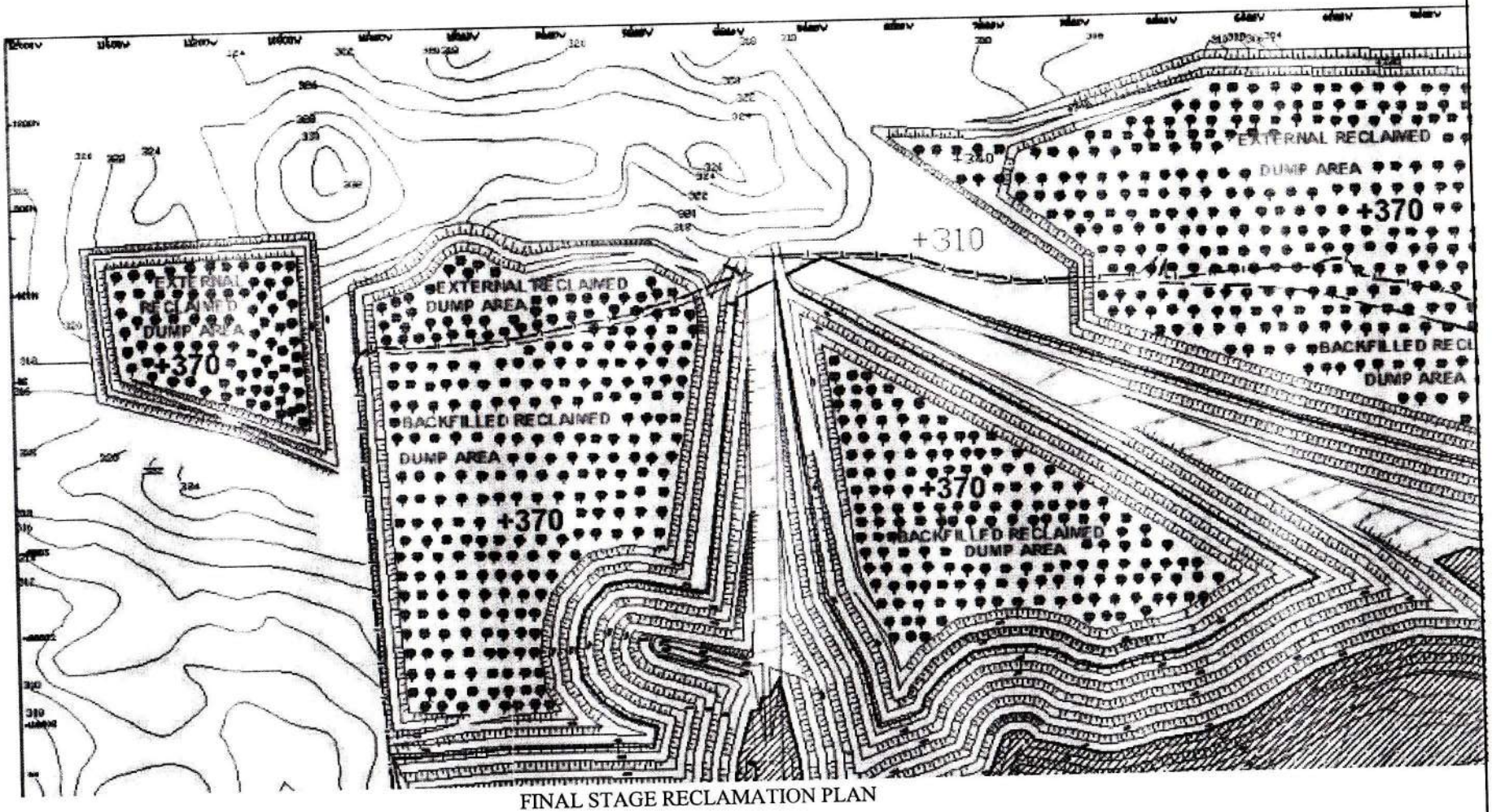
REIMBURSEMENT OF EXPENDITURE INCURRED ON PROGRESSIVE MINE CLOSURE ACTIVITIES OF GEVRA OCP

The Progressive Mine Closure Plan for Gevra OCP has been approved in the 218th meeting of SECL Board held on 28.11.2013.Accordingly, Escrow Account No: 423803800000294 is opened in Union Bank of India, Bilaspur and Annual Deposits as per the approved MCP have been made in the above account regularly since 2010-11 and the balance amount as on 31.03.2023 is Rs.1346459196/-only in the said account. As per the clause No: 6 of MoC guidelines dated 07.01.2013 and provisions of approved MCP, the reimbursement of expenditure on Mine closure activities has been received in respect

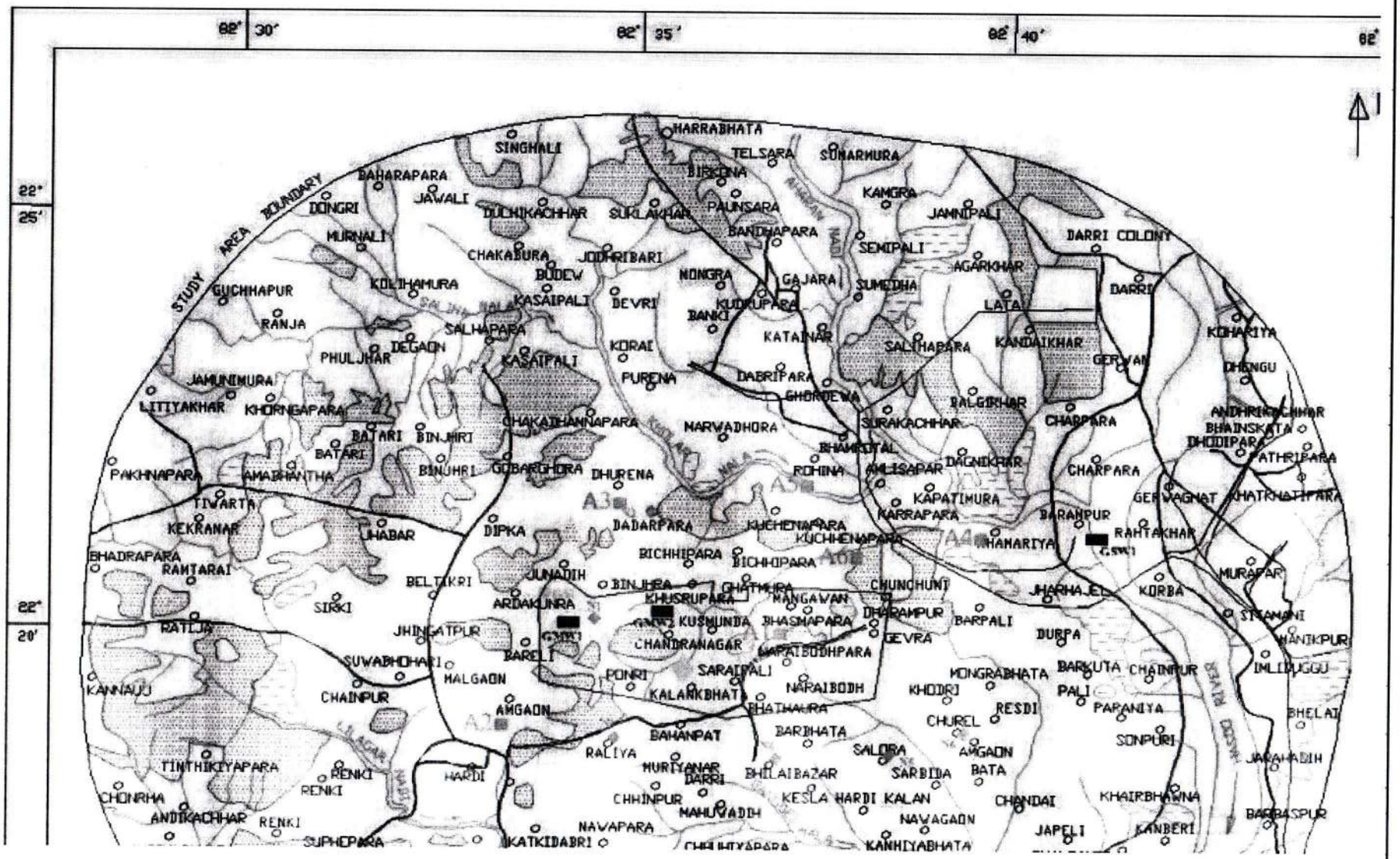
of Gevra OCP for the activities undertaken from 2010-11 to 2014-15. A total amount of Rs. 514721000/- was recommended for release by Coal Controller on 17.08.2017.

For the period from 2015-16 to 2019-20, an amount of Rs. 577323000/-has been reimbursed under Progressive Mine Closure.

APPENDIX



FINAL STAGE RECLAMATION PLAN



LOCATION PLAN OF ENVIRONMENTAL MONITORING STATIONS

SOUTH EASTERN COALFIELDS LIMITED
GEVRA AREA
STATUS OF TECHNICAL & BIOLOGICAL LAND RECLAMATION DETAILS OF GEVRA PROJECT AS ON 01.07.2023

Name of Area	Name of unit	Approved EC Capacity (MTY)	TECHNICAL & BIOLOGICAL RECLAMATION													Total Reclaimed area	
			INTERNAL DUMP / BACKFILLED AREA DETAILS (In Hact.)								EXTERNAL OB DUMPS DETAILS (In Hact.)						
			Total Quarriable area of the project as per apparoved EMP(70MTY) (Hac)	Void be left at the closure of the project as per approved EMP(70MTY) (Hac.)	Total Area excavated as on 01.07.2023 (Ha)	Prorata area not required to be Backfilled (Ha.)	Total area technichally reclaimed /backfilled as on 01.07.2023 (Hac.) (Int/Dump)	Balance area to be Technicaly reclaimed/ backdfilled at as on 01.07.2023 (Hect)	Area already biological reclaimed as on 01.07.2023 (Hact.)	Balance area to be Biologically reclaimed as on 01.07.2023 (Hect)	Total area of External OB dump as on 01.07.2023 (Hect.)	Area of Ext. OB dump technically reclaimed QE - as on 01.07.2023	Balance area ext.OB dump to be technicaly reclaimed as on 01.07.2023	Area already Boilogi- cally reclaimed as on 01.07.2023	Balance area to be biolog-ically reclamied as on 01.07.2023	Total Technicaly reclaimed as on 01.07.2023	Total Boilogically reclaimed as on 01.07.2023
A	B	C	D	E	F	G=(E-F)D	H	I=F-G-H	J	K=F-G-J	L	M	N=L-M	O	P=L-O	H+M	J+O
Gevra area	Gevra OCP	52.50 MTY	2037.250	659.260	1796.216	581.899	945.267	271.050	137.600	1078.717	374.331	374.331	0.000	367.200	7.131	**1319.598**	**504.800**

NOTE: F= 1776.553+21.663 = 1796.216
H= 936.362 + 8.906 = 945.267
J= 122.600+15.00= 137.600

GENERAL MANAGER
GEVRA PROJECT

28/07/2023
DY GM/COLLERY MANAGER
GEVRA PROJECT

ENVIRONMENT OFFICER
GEVRA PROJECT

28/7/23
DY.MANAGER(SURVEY)
GEVRA PROJECT

NODAL OFFICER (ENV/FOREST)
GEVRA AREA

30/07/23
AREA SURVEY OFFICER
GEVRA AREA

30/7
GENERAL MANAGER
GEVRA AREA

Quately Land Reclamation

ANNEX-4

ANNEX – 5

साउथ ईस्टर्न कोलफील्ड्स लिमिटेड
(एक मिनिरत्न कम्पनी)
कार्यालय, महाप्रबंधक गेवराक्षेत्र
पो.आ. –गेवरा प्रोजेक्ट,जिला –कोरबा
पिन –495452फोन : 07815-275438
फैक्स: 07815-275434

South Eastern Coalfields Limited
(A Mini Ratna Company)
Office of the General Manager Gevra Area, PO – Gevra Project, District - Korba(C.G.) Pin – 495452 ***Phone*** : 07815 - 275438***Fax*** : 07815 -275434
mail:***socgevra@gmail.com***,

Letter Number: SECL/GA/GM(C)/LOA/TA/23/ 278 Date: 25.06.2023

BY SPEED POST

To

Santosh Agrawal,
Bhairotal Surakachhar,
Korba (CG)

e-mail:- santoshagrawal.2010@rediffmail.com
PAN -AGJPA2217J
GSTIN - 22AGJPA2217J1ZY
Contact No: Mob-9329126511

विषय/Subject : **Letter of Acceptance (LOA) for the work of "Desiltation of ponds for Bhilai Bazar, Khodri, Hardibazar, Suhabori & malgaon Village at GA."**

सन्दर्भ/Reference :
I. **NIT No. : SECL/GA/GM(C)/ETN/22-23/27, DT 16/05/2023**
II. **Tender Id : 2023_SECL_279379_1**
III. **Bid Id :953264**

Dear Sir,

With reference to above, this is to communicate the approval of the Competent Authority for award of the subject work to you for an amount of ₹ **80,71,200.00 (Rupees Eighty lakh seventy one thousand two hundred)** only inclusive of Goods and Service Tax (GST) with following bifurcation:

Sl. No.	Description	Amount. (₹)
(i)	**Quoted Offer without Goods and Services Tax (GST) component [Cost To Company(CTC) being a case of ' Input Tax Credit (ITC) Not Available]**	**68,40,000.00**
(ii)	Goods and Service Tax @18% on Quoted Offer	12,31,200.00
(iii)	**Total Award Value including Goods and Service Tax (GST)** [(i) + (ii)]/Total Contract Price	**80,71,200.00**
(Rupees Eighty lakh seventy one thousand two hundred only)		

This Letter of Acceptance (LOA is subject to the following terms and conditions:

1. **PERFORMANCE SECURITY DEPOSIT (PSD):**

(a) An amount of **Rs 1,64,800.00** (Rupees One lakh sixty four thousand eight hundred)deposited ONLINE through AXIS Aggregator Bank Net banking is vide **UTR No.137278100** being adjusted as a part of Performance Security Deposit (PSD).

24/6.

You have to deposit a sum of ₹ 2,38,760.00 **(Rupees Two lakh thirty eight thousand seven hundrd sixty)** only against amount of PSD to make the total Performance Security Deposit (PSD) as 5% of the contract value [i.e. ₹ 80,71,200.00 **(Rupees Eighty lakh seventy one thousand two hundred)** only)], within **21 (Twenty-One) days** of issuance of LOA, as per Clause No.4 (Security Deposit) of General Terms & Conditions of Contract.

(b) Performance Security Deposit (PSD) as mentioned at (a) above may be deposited in any of the form given below:

- Demand Draft drawn in favour of **South Eastern Coalfields Limited, Gevra Area** on any Scheduled Bank payable at its Branch at **Gevra (C.G.).**
- Govt. Securities or FDR duly pledged in favour of **South Eastern Coalfields Limited Gevra Area.**
- Bank Guarantee in **SFMS (Structured Financial Messaging System)** mode from any Scheduled Bank in the prescribed format as given at **Annexure-V** of bid document. The BG issued from outstation Bank should be operative at its local Branch at **Bilaspur (C.G.)** or at their branch at **Kolkata** (if the issuing bank does not have any branch at **Bilaspur).**
- The Bank Guarantee (BG) issued by the issuing Bank on behalf of contractor in favour of "South Eastern Coalfields Limited" shall be in paper form as well as issued under **"Structured Financial Messaging System (SFMS)".**The details of Beneficiary Bank for issue of BG under SFMS Platform have been mentioned under Cl. No.4 of General Terms & Conditions of Bid Document. Performance Security Deposit (PSD) submitted in the form of BG shall be valid for a period of **one year or 90 days beyond the period of Contract/extended Contract period (if any), whichever is more.**

  Failure to comply with the requirement as above shall constitute sufficient ground for cancellation of the award of work and forfeiture of EMD. Additionally, you will not be allowed to participate in the re-tendering process and you also be debarred from participating in future tenders in SECL for a minimum period of **12 (Twelve)** months.

(c) That all Running on Account bills shall be paid at 95 % (ninety five percent) of the executed work value. The balance **5 % (Five Percent)** shall be treated as Retention Money and will be second part of Security Deposit.

2. GOODS & SERVICE TAX :

(i) **Applicable.**
(ii) **Input Tax Credit is Not Available to SECL.**
(iii) In the event of recovery of any claim towards LD Charges, Penalty, fee, fine or any other charges from the contractor, the same will be recovered along with the applicable GST and the amount shall be adjusted with the payment to be made to the contractor against their bill/invoice or any other dues.

3. PERIOD OF COMPLETION:

That the work should be completed within a period of 150 **(One hundrfed fifty days)** from the date of commencement which shall be reckoned from the **10th day of issue of this LOA or from 7th day of handing over of the site,** whichever is later.

4. PRICE VARIATION CLAUSE :

Price Variation Clause [Cl.No.2] of Additional Terms and Conditions of Contract is **Not APPLICABLE** for this contract.

5. ELECTRICITY:

You will arrange necessary electricity at your own cost for the work and your own establishment. However, if available and feasible the company may arrange electricity at one point near the work

site and necessary recovery of cost of energy consumed will be made at rates prescribed by the company from time to time. Energy meter for this purpose shall be provided by you.

WATER:

You will arrange necessary water for the work and your own establishment and nothing extra will be paid for the same. Such water used by you shall be fit for construction purposes. However, if available and feasible the company may arrange water, on your written request, to the extent possible, at one point near the work site for which recovery **@ 1%(One Percent)**of the contract value of work done will be made from your bills. You will make your own arrangement of water connection and laying of pipe lines from main source of supply. Department do not guarantee to maintain uninterrupted supply of water. No claim of damage or refund of water charges will be entertained on account of such break down.

7. EMPLOYMENT OF LABOUR :

(a) That you have to make payment to the labours engaged by you for this work as per Minimum Wages fixed by Central/State Govt.(higher) as per Minimum Wages R&A Act,1970or minimum wages recommended by High Power Committee of CIL(for labours engaged in mining activities), as applicable.

(b) The payment to the contractor's labourers has to be made through Bank only and necessary payment certificate shall be obtained from the authorized representative of the department.

(c) That the payment of Provident Fund for the workmen employed by you for the work as per the Laws prevailing under provision of CMPF/EPF and allied scheme valid from time to time shall be your responsibility. You will also submit statutory returns.

(d) That you have to comply with statutory requirements of various acts including Child Labour (Prohibition & Regulation) Act, 1986 as mended from time to time and all rules, regulations and schemes framed there under from time to time in addition to other applicable labour laws. If it is reported and proved that child labour is engaged by you, then you will be penalized 10% of the contract value and will be blacklisted.

(e) That you have to follow other guidelines as incorporated at Clause No.13 of General Terms & Conditions of NIT covered under Additional Responsibilities of the Contractor(s).

(f) Bonus is to be paid to the contract workers engaged by the Contractor as per the provisions of Payment of Bonus Act, 1965.

(g) The contractors shall register themselves on the Contract Labour Payment Management Portal (CLPMP) of CIL within 30 days of issue of work order and will have to enter and update periodically the following details in the portal :
(i). Work Order details
(ii). Contractor workers details and Wages payment details in respect of each Work Order.

(h) **Coal Mines Pension (Amendment) Scheme, 2018**

(A) In consideration of changes in statutory provisions, CMPF (Coal Mine Provident Fund) /EPF (Employee Provident Fund) Contribution is to be deducted **@12% (Twelve Percent)** as both Employer & Employee Share. Hence, Employers (SECL in present case) share of CMPF/EPF Contribution **@12% (Twelve Percent)** has been loaded as input in minimum wage while formulating the proposal/estimate. Hence, the contractor shall pay the employer's share i.e. **12% (Twelve Percent)** towards CMPF/EPF contribution to the labour who have been engaged in the work. No reimbursement shall be made to the contractor on this account.

(B) In consideration of changes in statutory provisions, CMPS (Coal Mine Pension Scheme) Contribution is to be deducted **@7% (Seven Percent)** as both Employer & Employee Share. Hence, Employers (SECL in present case) share of CMPS Contribution **@7% (Seven Percent)** has been loaded as input in minimum wage while formulating the proposal/estimate. Hence, the contractor shall pay the employer's share i.e. **7% (Seven Percent)** towards CMPS contribution to

24/6.

the labour who have been engaged in the work. No reimbursement shall be made to the contractor on this account.

(i) **Attendance of Contractors' Workers through Bio-metric Attendance System :**

The attendance of all the employees/workers engaged by Contractors' is to be marked through Biometric Attendance System only.

8. **ALR & AHR ITEMS:**

That in accordance to the provisions under Clause No.5.6 of *'Conditions of Contract'* of the NIT document, the rate quoted by you for the following items will be treated as **Abnormally Low Rate (ALR) and Abnormally High Rate (AHR) items** for the work as per BOQ (Bill of Quantity) in tender :

ALR ITEMS: 1.01

AHR ITEMS: NIL

That '**Additional Performance Security (APS)' Deposit** is ₹ **31,30,675.00 (Rupees Thirty one lakh thirty thousand six hundred seventy five)**, as per letter No. GM©/SECL/BSP/e-proc./Standard NIT/2020-21/990 dtd. 04.12.2020, issued by GM(C/HOD, having salient features with provision of no Earnest Money Deposit (EMD), 3% Performance Security Deposit (PSD) and no Additional Performance Security (APS).

9. **INSURANCE POLICY**:

That you have to take necessary insurance for the full contract period for **(i).Workmen Compensation & (ii).Contractors All Risk (CAR) Policy, in the joint name of South Eastern Coalfields Limited and the Contractor** as per Clause No.13 (xviii) of General Terms & Conditions of NIT. The Policies and certificates for insurance shall be delivered by you to the Engineer-in-Charge for his approval before commencement of the work.

10. **SAFETY MEASURES:**

That the Precautions shall be exercised at all times by you for the protection of persons (including employees) and property. The safety required or recommended by all applicable laws, codes, statutes and regulations shall be observed by you. In case of accident, you will be responsible for compliance with all the requirements imposed by the Workmen's Compensation Act or any other similar laws enforce and indemnify the Company against any claim on this account.

11. **WORKER'S WELFARE CESS:**

That an Amount of 1% **(one percent)** of the work value payable to you will be deducted from all Bills towards the worker's welfare under "The Building and Other Construction Worker's Welfare Cess Act,1996" and "The Building and Other Construction Worker's Welfare Cess Rules,1998" **(as applicable in the State).**

12. That all other terms and conditions as given in the tender document shall also be binding on you.

13. That matters relating to any dispute or differences arising out of this work order and subsequent contract agreement entered, based on this tender and work order shall be subject to the jurisdiction of **District Court, Korba (CG)** only.

14. That as per Clause No.6 under General Terms & Conditions of Contract, you have to submit a detailed time and progress chart prepared based on Bar Chart/ PERT-CPM techniques on the basis of

construction schedule in consultation with the Engineer-in-Charge showing the order in which the work is proposed to be carried out within the time specified in the LOA/Work Order.

15. That as per Clause No.1 (vii) of General Terms & Conditions of Contract, the Engineer-in-Charge for this work will be **C.M.(C)/TA,GA.**

16. That the Paying Authority for this work will be the **Area Financial Manager", SECL, Gevra Area.**

17. That you have to submit the following documents and to attend this office for signing the agreement within **21 (Twenty-One)** days of issue of this LOA/Work Order:

    i. An amount of **₹ 2,38,760.00(Rupees Two lakh thirty eight thousand seven hundred sixty)** only towards Performance Security Deposit **(PSD)***[as per Cl. No.1 (a) of LOA].*
    ii. An amount of **₹ 31,30,675.00 (Rupees Thirty one lakh thirty thousand six hundred seventy five)** only towards Additional Performance Security Deposit **(APSD)***[as per Cl. No. 8 of LOA].*
    iii. Site handover and takeover certificate, jointly signed by Engineer-in-Charge and the Contractor
    iv. Labour License as per Contract Labour (Regulation & Abolition) Act, 1970.
    v. Insurance Certificates as per Clause No.13 (xviii) of General Terms & Conditions of NIT.
    vi. CMPF/EPF Registration certificate
    vii. Detail Time and Progress Chart, jointly signed by Engineer-in-Charge and the Contractor.
    viii. Mandate Form duly signed by you and the Bank Officials for e-Payment as per Clause No. 24.1 of Instruction to Bidder of NIT.
    ix. List of Technical & Supervisory Personnel to be deployed for Execution of the work.

18. **Time bound completion of work along with quality assurance to be ensured strictly. All statutory payments including Minimum Wages, Bonus and PF to be ensured as per rule/regulations.**

Note-: The date of uploading of this LOA/Work Order on e-Procurement Portal (https://coalindiatenders.nic.in) shall be treated as the date of receipt of this LOA/ Work Order by you.

For further instructions, please contact **C.M.(C)/TA,GA**

Failure to comply clause 17 within 21 days will lead to termination of contract, forfeiture of EMD, additionally the company shall ban such defaulting contractor from participating in future tenders in concerned Subsidiary/CIL HQ for a period of minimum 1 (one) year from the date of issue of such letter*. In case of JV/Partnership firm, the banning shall also be applicable to all individual partners of JV/Partnership firm.

Encl: BOQ

Yours faithfully

24/6/23

General Manager (Civil)
Gevra Area

Copy to:

1. ALC, Torwa Naka, Bilaspur, Chhattisgarh, PIN-495006.
2. AFM/GA vide BC No. GA/23-24/OCW/TA/110/32 DT 19.06.2023 For **₹ 20,00,000/-, Input Tax Credit (ITC) is Not Available to SECL for this work.**
3. C.M.(C)/TA,GA - with an advice to immediately handover the site to the Contractor with intimation to this Office.
4. APM/GA - with a request to kindly arrange for issuance of LPC of previous month latest by 10th of next month after proper verification and confirmation of records and to send a copy of the LPC to this office. LPC should be issued every month for which documents should be sought from contractor. LPC should bear the dated signature of issuing Officer & Contractor with seal.
5. O/S, GA
6. Work file

Validate | Print | Help

Item Rate BoQ

Tender inviting Authority: General Manager (Civil),SECL : Gevra Area

Name of the Work / Contract No:	Desiltation of ponds for Bhilai Bazar, Khodri, Hardibazar, Suhabori & Malgaon Village at Gevra Area.	NITNo:SECL/GA/GM(C)/ETN/23-24/27 16.05.2023	DT
Category of Services (To Be Selected by Department)		Category of Bidder (To Be Selected by Bidder)	

ITC Not Available	Works Contract	Bidder's Status (Mandatory)	Total GST(in Rs.)	GST to be Paid By Bidder (in Rs.)	GST to be Paid By CIL/Subsidiary (in Rs.)
Name of the Bidder/ Biddin		GST Registered Bidder(b	1231200.00	1231200.00	0.00

PRICE SCHEDULE

(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevent columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)

NUMB	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder in Rs. P	TOTAL AMOUNT Without Taxes in Rs. P	TOTAL AMOUNT In Words
1	2	3	4	6	7	8
1	Item Description/ Heading					
1.01	Earth work in excavation by mechanical means (Hydraulic excavator) over areas (exceeding 30 cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, with lead of 3.00 km and all lifts, disposed earth to be levelled and nearly dressed. All kind of soil. (like spillage / OB muck, slush earth etc.)	90000.00	Cum	70.00	6300000.00	INR Sixty Three Lakh Only
1.02	Extra rates for quantities of works, executed: In or under water and/or liquid mud, including pumping out water as required. **Note for this tender :- 1) Initial levels & final levels have to be taken & this shall be basis of payment. 2) Daily work done shall be photographed / videographed & digital record to be maintained (showing latitute & longitute co-ordinates).**	27000.00	metre depth	20.00	540000.00	INR Five Lakh Forty Thousand Only
2.00	Add: GST @ 18%	1.000	Nos		1231200.00	INR Twelve Lakh Thirty One Thousand Two
Total in Figures					8071200.00	INR Eighty Lakh Seventy
Quoted Rate in Words					INR Eighty Lakh Seventy One Thousand Two Hundred Only	

General Manager(Civil)
Gevra Area

24/6/23

SEEPAT ROAD
P.O.: SECL
BILASPUR

साउथईस्टर्नकोलफिल्डस्लिमिटे
South Eastern Coalfields Limited
(कोलइण्डियाकाएकअंश/A subsidiary of Coal India Ltd.)
CIN U10102CT1985GOI003161
Website : www.secl-cil.in
कार्यालय: महाप्रबंधक, गेवरा क्षेत्र
OFFICE OF THE GENERAL MANAGER
GEVRA AREA

जिला: कोरबा(छत्तीसगढ़)
पिन:495452

STD :07815 275430(O)
: 7815 275032(R)
Fax :07815 275434
email :gevraenvt@gmail.com

पो0आ0:गेवराप्रोजेक्ट
P.O. : GEVRA PROJECT
Distt.: Korba (C.G.)
Pin: 495452

क्रमांक/एस.ई.सी.एल/मप्र/गे.क्षे./ पर्यावरण/2023 / 375

दिनांक 3/ 11/2023

To
The DFO
Katghora Range
Katghora Korba
CG

SUB: Half Yearly Compliance of Diverted Forest land 192.046 Ha., 46.198 Ha., 564.885 Ha. of Gevra Opencast Mine, SECL, September 2023

REF: Forest clearance: F.NO.8-77/2006-FC DT: 20.04.2015,: F.NO.8-79/2006-FC DT: 20.04.2015: F.NO.8-81/2006-FC DT: 20.04.2015.

Dear Sir

Please find enclosed herewith the Half Yearly Compliance of the Diverted Forest land 192.046 Ha., 46.198 Ha., 564.885 Ha. of Gevra Opencast Mine, SECL, September 2023.

Thanking you.

Yours Sincerely

3/11/23

General Manager
SECL Gevra Area

Copy to:
1. Additional Principal Chief Conservator of Forest(Land Management), Raipur
2. Chief Conservator of Forest, Bilaspur

YEARLY COMPLIANCE OF 192.046 Ha. DIVERTED FOREST LAND FOR GEVRA MINING PROJECT OF M/S SOUTH EASTERN COALFIELDS LIMITED (SECL) IN KORBA DISTRICT OF CHHATTISGARH.

भारत सरकार, पर्यावरण एवं वन मंत्रालय, नई दिल्ली का पत्र क्र. / F.No. 8-77 /2006 - FC दिनांक 20.04.2015.

	MOEF&CC Condition	Compliance
1	Legal status of diverted forest land shall remain unchanged	Agreed.
2	Compensatory afforestation over the degraded forest land twice in extent to the forest land being diverted shall be raised and maintained by State Forest Department from the funds deposit by the User Agency.	Agreed. Funds deposited as per different demand note raised by DFO Katghora of Rs.33664895/-. The balance amount @ of Rs. 141105/- per Ha. as raised by DFO Katghora vide demand note no. 3815 dated 19/06/15 is deposited through RTGS vide reference UTR no. SBIN52015092420336167 Dt: 24.09.15 for Rs. 170125543/- which includes amt of Rs. 40606641/- against CA and PCA to make full and final payment as per above demand note.
3	The penal CA shall be raised and maintained over degraded forest land from the funds deposited with the Ad-hoc CAMPA by the User Agency.	Agreed. Funds deposited as per different demand note raised by DFO Katghora of Rs.33664895/-. The balance amount @ of Rs. 141105/- per Ha. as raised by DFO Katghora vide demand note no. 3815 dated 19/06/15 is deposited through RTGS vide reference UTR no. SBIN52015092420336167 Dt: 24.09.15 for Rs. 170125543/- which includes amt of Rs. 40606641/- against CA and PCA to make full and final payment as per above demand note.
4	The User Agency either himself or through the State Forest Department shall undertake fencing, protection and afforestation of the safety zone area (7.5 meter stop all along the outer boundary of the mining lease or mining cluster, as applicable, and such other areas as specified in the approved mining plan) at the project cost.	1. Safety Zone Fencing afforestation work has been awarded in favor of CGVVN vide S.No/SECL/BSP/FOREST no. 151 DT: 01.10.16. Work of safety zone along 14 KM has been completed with plantation of 28000 saplings. 2. Safety zone inspection report Enclosed as (ANNEX 1).
5	The following activities shall be undertaken by the User Agency under supervision of the State Forest Department at the project cost. i. Proper mitigative measures to minimize soil erosion and choking of streams shall be prepared and implemented.	1. There are 7 nos. of external dump & 8 nos. of internal dumps. The external dump nos. 1, 2, 3, 4, 5, 6 & 7 is already biologically reclaimed during the year 1987 to 2018. Internal Dump no 1 is biologically reclaimed. The rest Internal Dump nos. 2, 3, 4, 5, 6, 7 & 8 are running dumps, However part of Dump nos. 2, 3,

ii. Planting of adequate drought hardy plant species and sowing of seeds to arrest soil erosion.

iii. Construction of check dams, retention / toe walls to arrest sliding down of the excavated material along the contour.

4, 5 & 6 are Biologically reclaimed. Details along with the Soil Conservation Plan is enclosed (ANNEX 2). Check dams & bunds with stone boulders are provided in areas of soil erosion & stream choking.

Year	Contour Trench (per trench)	Check Dams (per CUM)	Bunds with stone boulders (per CUM)
2022	11845	11845	11845
2021	7200	7500	7500
2018	300	20	20

2. Year wise Plantation details on Plain areas & Dumps is enclosed. (ANNEX 3) Species planted include Sal, Neem, Karenj, Amla, Siras, Sissoo, Bel, Bamboo, GangaImli, Bahera, Ashok, Golmohar, Satwan, Cassia Gemec, Teak, Jamun, Peltaforum, CassiaGulco, Bogan vallia, Khamar, Sitaphal, Amrood, Kathal, Imli, Mango, Sisham jatropa etc. Dump areas have been provided with Contour trench, check dam and bund with stone bolders.
3. A toe wall/ retaining wall & gabion wall have been provided to arrest sliding down of the excavated material along the contour

Structure	Location	Dimension
Retaing wall with Drain	Along P3 Q3 belt near W1 TRS	182m X 5m ht. 1.2mX0.9m RCC Drain
	Along J3 belt	240mX 5m ht. 300mX 2m
	Near Junadih Siding	2050m X 2m ht. 1.2m X 0.9m drain
	External Dump no. 6 & 7	650m X 1m ht. Top width 200mm

		Gabion wall	From weigh bridge W5 to LK seam coal face side	1200m length, 3 stage, 3m height
			Along toe of dump no. 4 near E2/ E1 TRS	342m, 3 stage, 3m height
6	Wherever possible and technically feasible, the User Agency shall undertake by involving local community, the afforestation measures in the blank within the lease area, as well as along the roads outside the lease area diverted under this approval, in consultation with the State Forest Department at the project cost.	During the year 1986 to 2023 plantation of 3017826 nos. over an area of 689.465 Ha. in the plain area within the Mine lease have been done.		
7	The User Agency shall pay the additional NPV, if so determined, as per the final decision of Hon'ble Supreme Court of India.	Agreed. NPV has been paid. Amount for NPV Rs. 176682320/- has been deposited.		
8	The period of diversion under this approval shall be coterminous with the mining lease subject to possession of valid lease by User Agency under the MMDR Amendment Act, 2015.	Agreed.		
9	The forest land shall not be used for any purpose other than that specified in the proposal.	Agreed.		
10	No damage shall be caused to the top - soil and the user agency will follow the top soil management plan.	Agreed. No damage is caused to the top soil. Top Soil Management Plan incorporated in Soil Conservation plan is followed.		
11	No labour camp shall be set up inside the forest area.	There is no Labor camp inside Forest Area		
12	The user agency shall provided fuel wood preferably alternate fuel to the labour working at the site to avoid damage / felling of trees.	A Cooperative Society is set up in Gevra Project to facilitate the supply of LPG gas connection to the people working at the site to avoid damage / felling of trees. LPG Connection given till date is 7669.		
13	Any tree felling shall be done only when it is unavoidable under strict supervision of the State Forest Department.	Agreed.		

14	No damage to the flora and funna of the adjoining area shall be caused.	Agreed.
15	The user agency shall submit the annual self compliance report in respect of the above conditions to the State Government and to the concerned Regional Officer of the Ministry regularly.	Last Submitted Compliance Report vide no. 91 Dt. 13.05.2023
16	Any other condition that the concerned Regional Officer of this Ministry may stipulate from time to time in the interest of conservation, protection and development of forests and wildlife .	Agreed.
17	The User Agency and the State Government shall ensure compliance to provision of the all Act, Rules, Regulations and Guidelines, for the time being in force, as applicable to the project.	Agreed.

08/11/2023

नोडल ऑफीसर (पर्यावरण/वन)
Nodal Officer (ENV/Forest)
SECL/Gevra Area
एस.ई.सी.एल./गेवरा क्षेत्र

YEARLY COMPLIANCE OF 46.198 Ha. DIVERTED FOREST LAND FOR GEVRA MINING PROJECT OF M/S SOUTH EASTERN COALFIELDS LIMITED (SECL) IN KORBA DISTRICT OF CHHATTISGARH.

भारत सरकार, पर्यावरण एवं वन मंत्रालय, नई दिल्ली का पत्र क्र. / F.No. 8-81 /2006 - FC दिनांक 20.04.2015.

	MOEF Condition	Compliance
1	Legal status of diverted forest land shall remain unchanged	Agreed.
2	Compensatory afforestation over the degraded forest land twice in extent to the forest land being diverted shall be raised and maintained by State Forest Department from the funds deposit by the User Agency.	Agreed. Funds deposited as per different demand note raised by DFO Katghora of Rs.8098325/-. The balance amount @ of Rs. 141105/- per Ha. as raised by DFO Katghora vide demand note no. 3813 dated 19/06/15 is deposited through RTGS vide reference UTR no. SBIN52015092420336167 Dt: 24.09.15 for Rs. 170125543/- which includes amt of Rs. 9593544/- against CA and PCA to make full and final payment as per above demand note.
3	The penal CA shall be raised and maintained over degraded forest land from the funds deposited with the Ad-hoc CAMPA by the User Agency.	Agreed. Funds deposited as per different demand note raised by DFO Katghora of Rs.8098325/-. The balance amount @ of Rs. 141105/- per Ha. as raised by DFO Katghora vide demand note no. 3813 dated 19/06/15 is deposited through RTGS vide reference UTR no. SBIN52015092420336167 Dt: 24.09.15 for Rs. 170125543/- which includes amt of Rs. 9593544/- against CA and PCA to make full and final payment as per above demand note.
4	The User Agency either himself or through the State Forest Department shall undertake fencing, protection and afforestation of the safety zone area (7.5 meter stop all along the outer boundary of the mining lease or mining cluster, as applicable, and such other areas as specified in the approved mining plan) at the project cost.	1. Safety Zone Fencing afforestation work has been awarded in favor of CGVVN vide S.No/SECL/BSP/FOREST no. 151 DT: 01.10.16. Work of safety zone along 14 KM has been completed with plantation of 28000 saplings. 2. Safety zone inspection report Enclosed as (ANNEX 1).
5	The following activities shall be undertaken by the User Agency under supervision of the State Forest Department at the project cost. i. Proper mitigative measures to minimize soil erosion and choking of	1. There are 7 nos. of external dump & 8 nos. of internal dumps. The external dump nos. 1, 2, 3, 4, 5, 6 & 7 is already biologically reclaimed during the year 1987 to 2018. Internal Dump no 1 is biologically reclaimed. The rest Internal Dump nos. 2,

streams shall be prepared and implemented.

ii. Planting of adequate drought hardy plant species and sowing of seeds to arrest soil erosion.

iii. Construction of check dams, retention / toe walls to arrest sliding down of the excavated material along the contour.

3, 4, 5, 6, 7 & 8 are running dumps, However part of Dump nos. 2, 3, 4, 5 & 6 are Biologically reclaimed. Details along with the Soil Conservation Plan is enclosed (ANNEX 2). Check dams & bunds with stone boulders are provided in area of soil erosion & stream choking.

Year	Contour Trench (per trench)	Check Dams (per CUM)	Bunds with stone boulders (per CUM)
2022	11845	11845	11845
2021	7200	7500	7500
2018	300	20	20

2. Year wise Plantation details on Plain areas & Dumps is enclosed. (ANNEX 3) Species planted include Sal, Neem, Karenj, Amla, Siras, Sissoo, Bel, Bamboo, GangaImli, Bahera, Ashok, Golmohar, Satwan, Cassia Gemec, Teak, Jamun, Peltaforum, CassiaGulco, Bogan vallia, Khamar, Sitaphal, Amrood, Kathal, Imli, Mango, Sisham jatropa etc. Dump areas have been provided with Contour trench, check dam and bund with stone bolders.
3. A toe wall/ retaining wall & gabion wall have been provided to arrest sliding down of the excavated material along the contour

Structure	Location	Dimension
Retaing wall with Drain	Along P3 Q3 belt near W1 TRS	182m X 5m ht. 1.2mX0.9m RCC Drain
	Along J3 belt	240mX 5m ht. 300mX 2m
	Near Junadih Siding	2050m X 2m ht. 1.2m X 0.9m drain
	External Dump no. 6 & 7	650m X 1m ht. Top width 200mm

		Gabion wall	From weigh bridge W5 to LK seam coal face side	1200m length, 3 stage, 3m height
			Along toe of dump no. 4 near E2/ E1 TRS	342m, 3 stage, 3m height
6	Wherever possible and technically feasible, the User Agency shall undertake by involving local community, the afforestation measures in the blank within the lease area, as well as along the roads outside the lease area diverted under this approval, in consultation with the State Forest Department at the project cost.	During the year 1986 to 2023 plantation of 3017826 nos. over an area of 689.465 Ha. in the plain area within the Mine lease have been done..		
7	The User Agency shall pay the additional NPV, if so determined, as per the final decision of Hon'ble Supreme Court of India.	Agreed. NPV has been paid. Amount for NPV Rs. 3,9730280 has been deposited .		
8	The period of diversion under this approval shall be coterminous with the mining lease subject to possession of valid lease by User Agency under the MMDR Amendment Act, 2015.	Agreed.		
9	The forest land shall not be used for any purpose other than that specified in the proposal.	Agreed.		
10	No damage shall be caused to the top - soil and the user agency will follow the top soil management plan.	Agreed. No damage is caused to the top soil. Top Soil Management Plan incorporated in Soil Conservation plan is followed.		
11	No labour camp shall be set up inside the forest area.	There is no Labor camp inside Forest Area		
12	The user agency shall provided fuel wood preferably alternate fuel to the labourers working at the site to avoid damage / felling of trees.	A Cooperative Society is set up in Gevra Project to facilitate the supply of LPG gas connection to the people working at the site to avoid damage / felling of trees. LPG Connection given till date is 7669.		
13	Any tree felling shall be done only when it is unavoidable under strit supervision of the State Forest Department.	Agreed.		
14	No damage to the flora and funna of the	Agreed.		

	adjoining area shall be caused.	
15	The user agency shall submit the annual self compliance report in respect of the above conditions to the State Government and to the concerned Regional Officer of the Ministry regularly.	Last Submitted Compliance Report vide no.91 Dt. 13.05.2023
16	Any other condition that the concerned Regional Officer of this Ministry may stipulate from time to time in the interest of conservation, protection and development of forests and wildlife .	Agreed.
17	The User Agency and the State Government shall ensure compliance to provision of the all Act, Rules, Regulations and Guidelines, for the time being in force, as applicable to the project.	Agreed.

03/11/2023

नोडल ऑफीसर (पर्यावरण/वन)
Nodal Officer (ENV/Forest)
SECL/Gevra Area
एस.ई.सी.एल./गेवरा क्षेत्र

YEARLY COMPLIANCE OF 564.885 Ha. DIVERTED FOREST LAND FOR GEVRA MINING PROJECT OF M/S SOUTH EASTERN COALFIELDS LIMITED (SECL) IN KORBA DISTRICT OF CHHATTISGARH.

भारत सरकार, पर्यावरण एवं वन मंत्रालय, नई दिल्ली का पत्र क्र. / F.No. 8-79 /2006 - FC दिनांक 20.04.2015.

	MOEF Condition	Compliance
1	Legal status of diverted forest land shall remain unchanged	Agreed.
2	Compensatory afforestation over the degraded forest land twice in extent to the forest land being diverted shall be raised and maintained by State Forest Department from the funds deposit by the User Agency.	Agreed. Funds deposited as per different demand note raised by DFO Katghora of Rs.99022877/-. The balance amount @ of Rs. 141105/- per Ha. as raised by DFO Katghora vide demand note no. 3811 dated 19/06/15 is deposited through RTGS vide reference UTR no. SBIN52015092420336167 Dt: 24.09.15 for Rs. 170125543/- which includes amt of Rs. 119925358/- against CA and PCA to make full and final payment as per above demand note.
3	The penal CA shall be raised and maintained over degraded forest land from the funds deposited with the Ad-hoc CAMPA by the User Agency.	Agreed. Funds deposited as per different demand note raised by DFO Katghora of Rs.99022877/-. The balance amount @ of Rs. 141105/- per Ha. as raised by DFO Katghora vide demand note no. 3811 dated 19/06/15 is deposited through RTGS vide reference UTR no. SBIN52015092420336167 Dt: 24.09.15 for Rs. 170125543/- which includes amt of Rs. 119925358/- against CA and PCA to make full and final payment as per above demand note.
4	The User Agency either himself or through the State Forest Department shall undertake fencing, protection and afforestation of the safety zone area (7.5 meter stop all along the outer boundary of the mining lease or mining cluster, as applicable, and such other areas as specified in the approved mining plan) at the project cost.	1. Safety Zone Fencing afforestation work has been awarded in favor of CGVVN vide S.No/SECL/BSP/FOREST no. 151 DT: 01.10.16. Work of safety zone along 14 KM has been completed with plantation of 28000 saplings. 2. Safety zone inspection report Enclosed as (ANNEX 1).
5	The following activities shall be undertaken by the User Agency under supervision of the State Forest Department at the project cost. i. Proper mitigative measures to minimize	1. There are 7 nos. of external dump & 8 nos. of internal dumps. The external dump nos. 1, 2, 3, 4, 5, 6 & 7 is already biologically reclaimed

soil erosion and choking of streams shall be prepared and implemented.

ii. Planting of adequate drought hardy plant species and sowing of seeds to arrest soil erosion.

iii. Construction of check dams, retention / toe walls to arrest sliding down of the excavated material along the contour.

during the year 1987 to 2018. Internal Dump no 1 is biologically reclaimed. The rest Internal Dump nos. 2, 3, 4, 5, 6, 7 & 8 are running dumps, However part of Dump nos. 2, 3, 4, 5 & 6 are Biologically reclaimed. Details along with the Soil Conservation Plan is enclosed (ANNEX 2). Check dams & bunds with stone boulders are provided in area of soil erosion & stream choking.

Year	Contour Trench (per trench)	Check Dams (per CUM)	Bunds with stone boulders (per CUM)
2022	11845	11845	11845
2021	7200	7500	7500
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2. Year wise Plantation details on Plain areas & Dumps is enclosed. (ANNEX 3)

   Species planted include Sal, Neem, Karenj, Amla, Siras, Sissoo, Bel, Bamboo, GangaImli, Bahera, Ashok, Golmohar, Satwan, Cassia Gemec, Teak, Jamun, Peltaforum, CassiaGulco, Bogan vallia, Khamar, Sitaphal, Amrood, Kathal, Imli, Mango, Sisham jatropa etc. Dump areas have been provided with Contour trench, check dam and bund with stone bolders.

3. A toe wall/ retaining wall & gabion wall have been provided to arrest sliding down of the excavated material along the contour

Structure	Location	Dimension
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	Along J3 belt	240mX 5m ht. 300mX 2m

			Near Junadih Siding	2050m X 2m ht. 1.2m X 0.9m drain
			External Dump no. 6 & 7	650m X 1m ht. Top width 200mm
		Gabion wall	From weigh bridge W5 to LK seam coal face side	1200m length, 3 stage, 3m height
			Along toe of dump no. 4 near E2/ E1 TRS	342m, 3 stage, 3m height
6	Wherever possible and technically feasible, the User Agency shall undertake by involving local community, the afforestation measures in the blank within the lease area, as well as along the roads outside the lease area diverted under this approval, in consultation with the State Forest Department at the project cost.	During the year 1986 to 2023 plantation of 3017826 nos. over an area of 689.465 Ha. in the plain area within the Mine lease have been done.		
7	The User Agency shall pay the additional NPV, if so determined, as per the final decision of Hon'ble Supreme Court of India.	Agreed. NPV has been paid. Amount for NPV Rs. 519694200/- has been deposited.		
8	The period of diversion under this approval shall be coterminous with the mining lease subject to possession of valid lease by User Agency under the MMDR Amendment Act, 2015.	Agreed.		
9	The forest land shall not be used for any purpose other than that specified in the proposal.	Agreed.		
10	No damage shall be caused to the top - soil and the user agency will follow the top soil management plan.	Agreed. No damage is caused to the top soil. Top Soil Management Plan incorporated in Soil Conservation plan is followed.		
11	No labour camp shall be set up inside the forest area.	There is no Labor camp inside Forest Area		

12	The user agency shall provided fuel wood preferably alternate fuel to the labourers working at the site to avoid damage / felling of trees.	A Cooperative Society is set up in Gevra Project to facilitate the supply of LPG gas connection to the people working at the site to avoid damage / felling of trees. LPG Connection given till date is 7669.
13	Any tree felling shall be done only when it is unavoidable under strit supervision of the State Forest Department.	Agreed.
14	No damage to the flora and funna of the adjoining area shall be caused.	Agreed.
15	The user agency shall submit the annual self compliance report in respect of the above conditions to the State Government and to the concerned Regional Officer of the Ministry regularly.	Last Submitted Compliance Report vide no. 91 Dt. 13.05.2023
16	Any other condition that the concerned Regional Officer of this Ministry may stipulate from time to time in the interest of conservation, protection and development of forests and wildlife .	Agreed.
17	The User Agency and the State Government shall ensure compliance to provision of the all Act, Rules, Regulations and Guidelines, for the time being in force, as applicable to the project.	Agreed.

03/11/2023

नोडल ऑफीसर (पर्यावरण/वन)
Nodal Officer (ENV/Forest)
SECL/Gevra Area
एस.ई.सी.एल./गेवरा क्षेत्र

ANNEX - 1

संयुक्त निरीक्षण प्रतिवेदन

वन विकास निगम द्वारा वर्षवार पौधों का संयुक्त निरीक्षण/गणना समिति द्वारा दिनांक 23.09.2023 को किया गया। जिसका विवरण निम्नानुसार है :–

क.	रोपण वर्ष	रोपण क्षेत्र का नाम	पौधों की संख्या	जीवित पौधों की संख्या	जीवित पौधों का प्रतिशत	रिमार्क
1	2019-20	Near Ganga Nagar	45500	42056	92.43	
		Plain area in between Ext. Dump no. 6 & 7 and laxman	7250	6690	92.28	
		Hardi Bazaar Road	10000	9222	92.22	
2	2020-21	Laxman Project Dump (Mangaon) (Slope & Dump Top)	55950	51726	92.45	
3	2021-22	Dump No. 7 Slope	52500	49424	94.14	
		Non Dump (Shramik Chowk)	5000	4726	94.52	
		Non Dump Add. (Awadh Nagar)	31998	30331	94.79	
		Vertical Greenery System	1500	1421	94.73	
4	2022-23	Dump No. 6 & 7 Back Side (Slope)	82770	79252	95.75	
		Non Dump (Magazine Side)	38200	36366	95.20	
		Bhathora Basahat Patch	5125	4914	95.88	
		Railway colony Front	5125	4815	93.95	
5	2023-24	Near Shakti Nagar Pond ND	19415	19330	99.56	
		Gevra Non-Dump	19255	19024	98.80	
		Front of Railway Colony ND	3825	3796	99.24	
		Kabristan Back Side Awadhnagar Non-Dump	56705	56195	99.10	
		Magazine Back Side ND	26792	26551	99.10	
		Sal Nursery 10.00. hact.	100000	100000	100.00	

निरीक्षण के दौरान जीवित पौधा का प्रतिशत संतोषजनक पाया गया।

Environment Officer
SECL Gevra Project

Dy. General Manager (Civil)
SECL Gevra Project

Dy. Manager (Survey)
SECL Gevra Project

PRO
Gevra Range

APRO
Gevra Range

Nodal Officer (Envt.)
SECL Gevra Area

General Manager
SECL Gevra Project

ANNEX-2

SOIL CONSERVATION PLAN

GEVRA OPEN CAST MINE

SOUTH EASTERN COALFIELDS LIMITED

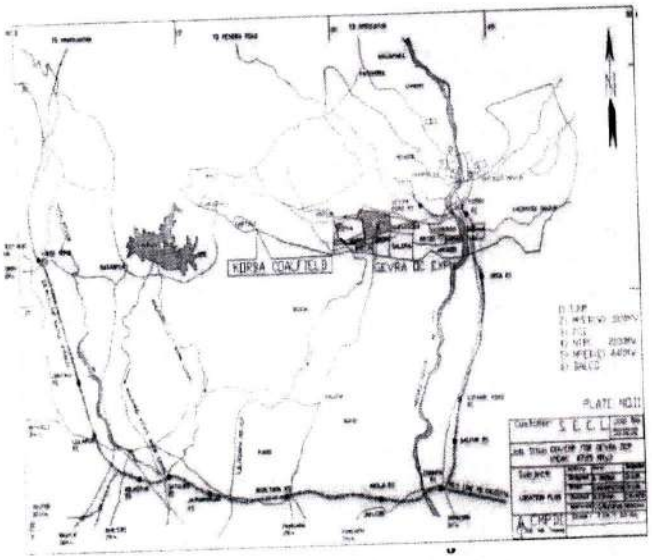
08/11/2023

नोडल ऑफीसर (पर्यावरण/वन)
Nodal Officer (ENV/Forest)
SECL/Gevra Area
एस.ई.सी.एल./गेवरा क्षेत्र

INTRODUCTION

Location & Accessibility

The Gevra OCM is an existing mega opencast project of South Eastern Coalfields Limited (SECL) with present EC capacity of 52.50 MTPA. The Block is located in the South Central Part of Korba Coalfield in Korba District of Chhattisgarh. The Gevra Mining block having an area of 20.37Sq.Km is bounded by latitudes 22°18'00" to 22°21'42" N and longitudes 82°32'00" to 82°39'30" E. It is included in the survey of India Toposheet No. 64 J/ 11. The location map of the area is as shown.



The block is well connected by rail and road. Gevra Road and Korba Railway Station on Champa-Gevra Road branch line of S.E. Railway are at a distance of 10 km and 16 km respectively. Railway siding has been extended up to and beyond Gevra OCP and coal is being transported from the pit head CHP through rail/MGR to the various consumers. SECL HQ Bilaspur is at a distance of about 90 km by road.

The existing capacity of the project is 52.50 MTY. Mining of Coal from Gevra OCP is done by Open Cast method. It is characterized by the presence of four open- castable seams (Composite seam D, E&F Seam, UK Seam, LK Seam) with dip angles of 2°-6°. Seam thickness ranges from 1.10 m to 45.23m. The thickest seam is Lower Kusmunda (19.28m to 45.23 m). The Maximum width along strike is 9.1 KM and Maximum length along dip is 3.29KM.The present maximum depth of the quarry is 203 m. The mineable reserve is 265.73 MT (as on 01.04.2023) with an average stripping ratio of 1.30. The total quarry has been divided into three sections i.e Western Section, Central Section & Eastern Section. It is proposed to mine all the three identified sections simultaneously. However mining operations will be staggered between the sections.

The total Mine Lease area of the project is 4184.486 Ha. The total Forest Land involved is 1016.412 Ha out of which 904.027 Ha. has already been diverted for nonforest purpose after receiving the Stage II Forest Clearance. The remaining 112.385 Ha. of Revenues Forest land has obtained Final/Stage II approval vide MoEF&CC Clearance L.No. 8-

41/2017-FC dated 21.06.2022 (Handing over awaited from State Forest Department). The project is proposed for capacity enhancement to 70 MTPA with Mine lease area of 4781.798 Ha. Therefore diversion of Additional 94.293 ha. of Revenue Forest Land is involved in this proposed expansion.

Physiography & Drainage

The general topography of the block is gently undulating. The surface contour ranges from 288-328 m above MSL. The general slope of the terrain is towards East. Water from the mine and nearby area flows into the seasonal nalla namely Laxman Nala located on the northern side. Ahiran River located towards NE. In addition there are quite a few ponds. Ahiran and Hasdeo River control the drainage of the area and are situated towards N-E and East respectively of the area under consideration.

The climate of the area is dry to moist tropical with well-defined summer from April to June, rainy season from July to September and winter from November to February. The temperature rises to a maximum of 48^0Cin May and drops to a minimum of 7^0C in December. The annual rainfall for 2022 is 1433 mm.

MINE WATER ENVIRONMENT

Surface Water Resources

Hasdeo River, a major tributary of Mahanadi River flowing along the eastern side in North –South Direction is the master drainage of the area. The mine block is drained by Laxman nallah flowing in West- East direction and joins Ahiran Nadi, a tributary of Hasdeo river at about 4.5 KM in NE from the mine. Kholar stream which is also a tributary of Hasdeo River controls the drainage in the northern part whereas Lilager Nadi and Gangadel nallah controls the SW and SE respectively. These streams are mostly perennial and behave as constant recharge sources. The pattern of the drainage in the area is mostly dendritic in nature.

Ground Water Resources

The formations within the study area are Barakars, Talchirs and Metamorphics. Major portion of the study area is occupied by Gondwanas. Talchirs and metamorphics occupy the rest. The Project area is situated in Barakars formation

comprising sandstone of different grain sizes with shale beds and coal seams. This permeable sandstone is saturated and behaves as aquifers. Shale and coal seams act as aquicludes. Stratification and the presence of aquicludes lead the aquifer system into multi aquifer system.

The formation comprising mainly of alluvium and sandstone (average thickness 50.0 m), lying above the working seam E&F behave as unconfined aquifer. Whereas, lower formations consisting of compact sandstone mainly with secondary porosity behave as semi-confined/confined aquifer.

In the unconfined aquifer ground water moves laterally through the inter granular pore spaces in the sandstone. Whereas, in lower aquifers the groundwater movement is restricted mainly through joints and fractures (i.e. secondary porosity). With intercalation of shales and carbonaceous shale beds and reduction in permeability with depths in the lower aquifers are very poor in potential. A flat water table with a gradient of 1.8×10^{-2}, slopping towards east, was observed in the area.

Plan showing hydrological features of the area

A. PREPARATION AND IMPLEMENTATION OF A PLAN CONTAINING APPROPRIATE MITIGATIVE MEASURES TO MINIMIZE SOIL EROSION AND CHOKING OF STREAMS

Soil conservation in its widest sense includes not only control over erosion but all those measures like correction of soil defects, application of manures and fertilizers, proper crop rotations, irrigation, drainage etc. which aim at maintaining the productivity of the soil at a high level. In this sense, soil conservation is closely allied to improvement of land use in general.

In OC mines, the earth material is dug out to extract coal. The excavated over burden material consists of alluvial, top soil, sub soil and rocks. The OB is placed in the nearby areas in the form of dumps. If no measures are taken for the management of OB dumps, after precipitation, water will take away the soil particles along with itself thereby causing soil erosion. This eroded soil will flow into the nearby streams, rivers, water channels and cause choking/ contamination of the water bodies. In order to prevent this, an effective soil erosion management plan needs to be prepared and implemented.

MITIGATIVE MEASURES TO MINIMIZE SOIL EROSION AND CHOKING OF STREAMS

In order to control soil erosion, a step by step procedure needs to be adopted so that the water flows through a proper path and does not take away with it the essential soil material. The steps to be followed are:

1. Garland Drains:. To arrest the surface runoff into the quarry, garland drains with suitable dimension (4 m x 1.5m) to carry the peak discharge are constructed.

B. PLANTING OF ADEQUATE DROUGHT HARDY PLANT SPECIES AND SOWING OF SEEDS IN THE APPROPRIATE AREA WITHIN THE MINING LEASE TO ARREST SOIL EROSION

In view of importance of vegetation cover towards environment, the technical reclamation will be strengthened by biological reclamation for conserving the environment.

Plantation Technique on Overburden Dumps

To improve the environment and greenery in the area, SECL had taken up plantation on a larger scale. The improvement in vegetation cover has a direct bearing on augmentation of ground water recharge. The compensatory afforestation has been carried out through the State Forest Departments. In addition to compensatory afforestation, to improve the greenery and dust control, the project did heavy plantation both on reclaimed and at various other locations

in the project area. This greenery not only controls air pollution but also controls the soil erosion and increase groundwater recharge.

The top surface of the overburden dumps selected for plantation will be roughly levelled by dozer keeping a mild slope of about 1 in 200 for surface water drainage.

Seeds of grass legumes will be sown on beds of 1.5m x 0.5 m, alternating with slopes to be planted with tree species. Gully plugging and constructing check dams on water courses flowing through OB dumps with boulders, will also be made to arrest soil erosion.

In SECL Plantations are carried out by CGRVVN (Chhattisgarh Rajya Van Vikas Nigam Limited). Long term MoU has been signed between SECL and CGRVVN Ltd. Raipur for five consecutive years plantation works with subsequent maintenance of four years in SECL command area in Chhattisgarh State.

Various species suggested for plantation are:

- Fruit bearing (15%) & Medicinal / Herbal (35%): Jamun, Imli, Ganga Imli, Bel, Mango, Neem, Bahera, Amla, Mahua, Kusum, Arjuna etc.
- Timber/ forest (48%): Teak, Shisham, Siris, Bamboo, Babool, Ghamhar, Pipal etc.
- Ornamental / avenue (2%): Gulmohar, Kachnar, Gravelia, Ashok, August etc.
- Grass Species: StyloHemata, Dinanath on slope of OBD

TOP SOIL MANAGEMENT PLAN

Introduction

The topsoil at Gevra OC Expansion (35.0-70.0Mty) comprises of rich humus with minerals and nutrients. Proper handling and management is necessary for future vegetation growth in the mine reclaimed area. The thickness of the top soil varies between 25 cm to 35 cm.

Objectives of the Soil Stripping management plan

The objectives of Top Soil Management are to:

- Maintain a topsoil balance that achieves rehabilitation objectives during the life of Mine.
- Ensure effective topsoil removal techniques are employed to maximize volumes of suitable topsoil removed and minimize wastage.

- Maintain topsoil viability during stripping, spreading, and stockpiling, through best practice technique and effective stockpile design and treatment.

In accordance with the objective of providing sufficient stable soil material for rehabilitation and to optimize soil recovery, the following strategies will be adopted during the mining operation at Gevra opencast mines.

Stripping

Prior to the commencement of stripping, areas will be cleared of vegetation. Soil stripping will be undertaken by dozers and hydraulic backhoe excavators to maximize the preservation of the quality of the soil. The HEMM operators and supervisors should be trained and made aware for the same. This will ensure that all suitable topdressing material resources are salvaged and that the quality of the stripped top dressing material is not reduced through contamination with unsuitable soils. Care will be taken during stripping, stockpiling, and re-spreading to ensure that structural degradation of the soil is avoided and that excessive compaction does not occur during stockpiling.

Stock piling

- Where possible, top dressing material will be re-spread directly from stripped areas onto areas being rehabilitated. Where this is not possible, topdressing material will be stored in stockpiles.
- Stock piles will be dumped at places where they would not be disturbed by future mining. Sediment fences or other barriers can be used where necessary to retain sediment.
- The overall topography for the graded surface should be designed to minimize the uncontrolled flow of runoff.
- Dispersed sheet flow should be broken up by terraces or benches along the slope that also follow topographic contours.
- On a fine scale the ground surface can be roughened by the tracks of a bulldozer perpendicular to the slope. Construction of stockpiles with a "rough" surface condition will reduce erosion hazard, improve drainage and promote re-vegetation.

Stockpile preservation

Stockpiling topsoil may result in disruption & loss of beneficial soil microorganisms and nutritional values, hence needs the following amendments during preservation:-

1) Re-vegetation of the stockpile will be done as scheduled below to protect the soil from erosion, discourage weeds and maintain active populations of beneficial soil microbes.

- Temporary Seeding- To protect topsoil stockpiles by temporarily seeding as soon as possible, within 30 days after the formation of the stockpile.
- Permanent Vegetation- If stockpiles will not be used within 12 months they will be stabilized with permanent vegetation to control erosion and weeds. Likely grass species for re-vegetating top soil stock piles are green panic, Japanese millet (spring sowing), Oats (winter sowing), Dryland Lucerne,Seaton park sub-clover.

Topsoil can be mixed with organic material or manufactured soil amendments to improve the growing capability.

2) To the extent practicable, above ground vegetation, including tree litter should be mixed or otherwise incorporated into the topsoil.
3) Soil amendments: Soil amendments should be applied before seeding or planting. Common soil amendments used are bio-solids, compost, manure, lime and coal combustion byproducts.
Prior to the placement, the top 0.30cm of the stock pile material should be mixed with the remainder of stockpile to ensure that living organisms are distributed throughout the top soil material at the time of final placement. In case, the material has been stockpiled for over nine months period, used of micro organisms inoculates may be necessary to re-establish microorganisms in the top soil material. The quantity should be 200ml for one Ha. area in case of Azatobactor and Rhizobium.

Site Preparation

- Before spreading topsoil, establish erosion and sedimentation control structures such as diversions, berms, dikes, waterways and sediment basins.
- Adjust grades and elevations for receipt of topsoil.
- Roughening - Immediately prior to spreading the topsoil, loosen the sub-grade to ensure bonding of the topsoil and subsoil.
- Soil horizons will be replaced in the same order that they were removed.
- Top soil will be uniformly distributed to pre-mining thickness. Topsoil will not be spread while it is frozen or muddy.
- The topsoil will be compacted to ensure good contact with the underlying soil, but excessive compaction will be avoided, as it increases runoff and inhibits seed germination. Light compaction with roller will be done where turf is to be established.

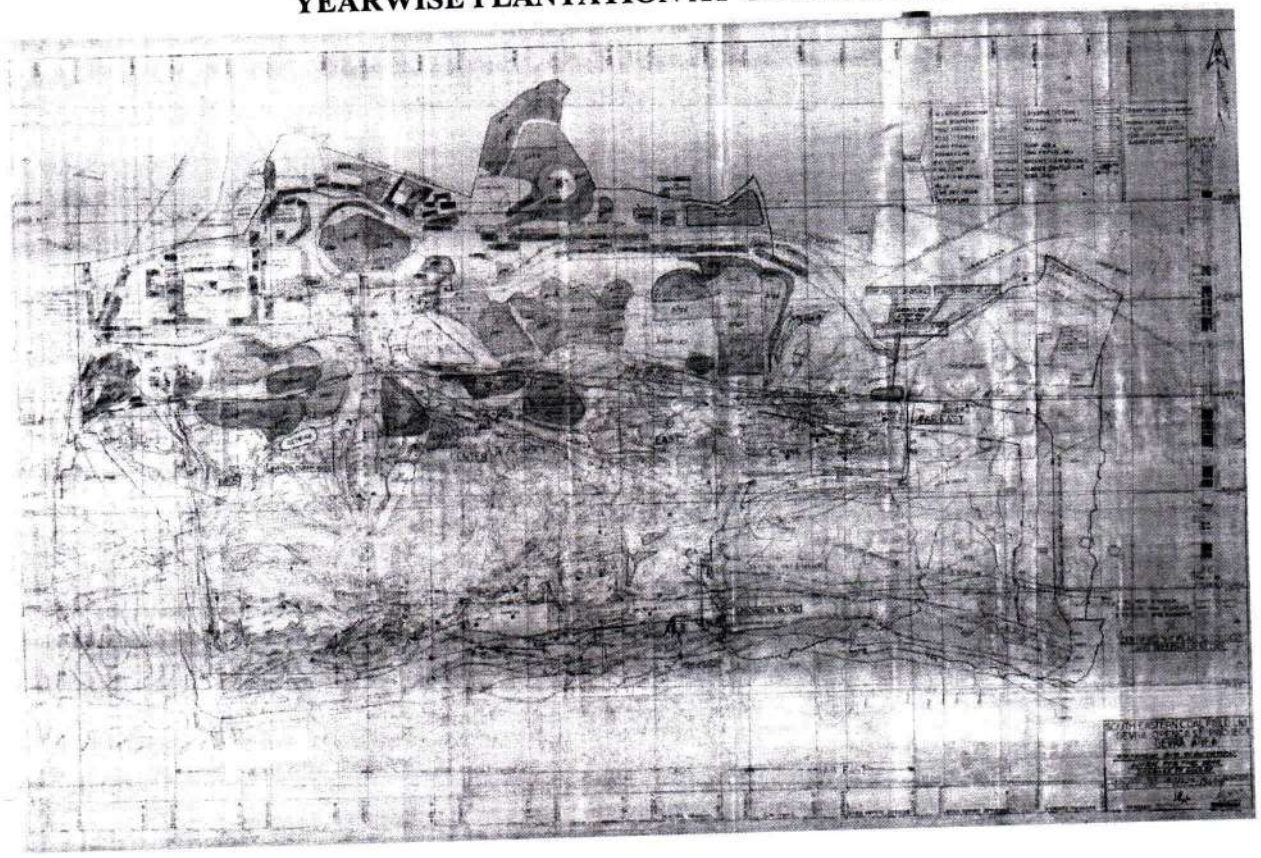
On slopes and areas that will not be mowed, the surface will be left rough after spreading topsoil.

Monitoring

Specific team / manpower is to be deployed for this most important step of topsoil management. The team will monitor the area and quantum of top soil management with the authorities of mine on quarterly basis and regularly monitor the given points of significant importance:

- Monitoring Erosion Control: This step is necessary during stock piling as well as reclamation stage of topsoil management. Take corrective measure in areas showing evidence of erosion, sedimentation or slope failure. This is a serious problem, because erosion causes fertile farmland to lose nutrients and water retention ability
- Regular monitoring of top soil management should be done until vegetation is demonstrated to be successfully established.
- Reseeding: Take appropriate measures to address evidence of invasive species or poorly established vegetation. Reseeding should be done, if germination is not uniform or poor.

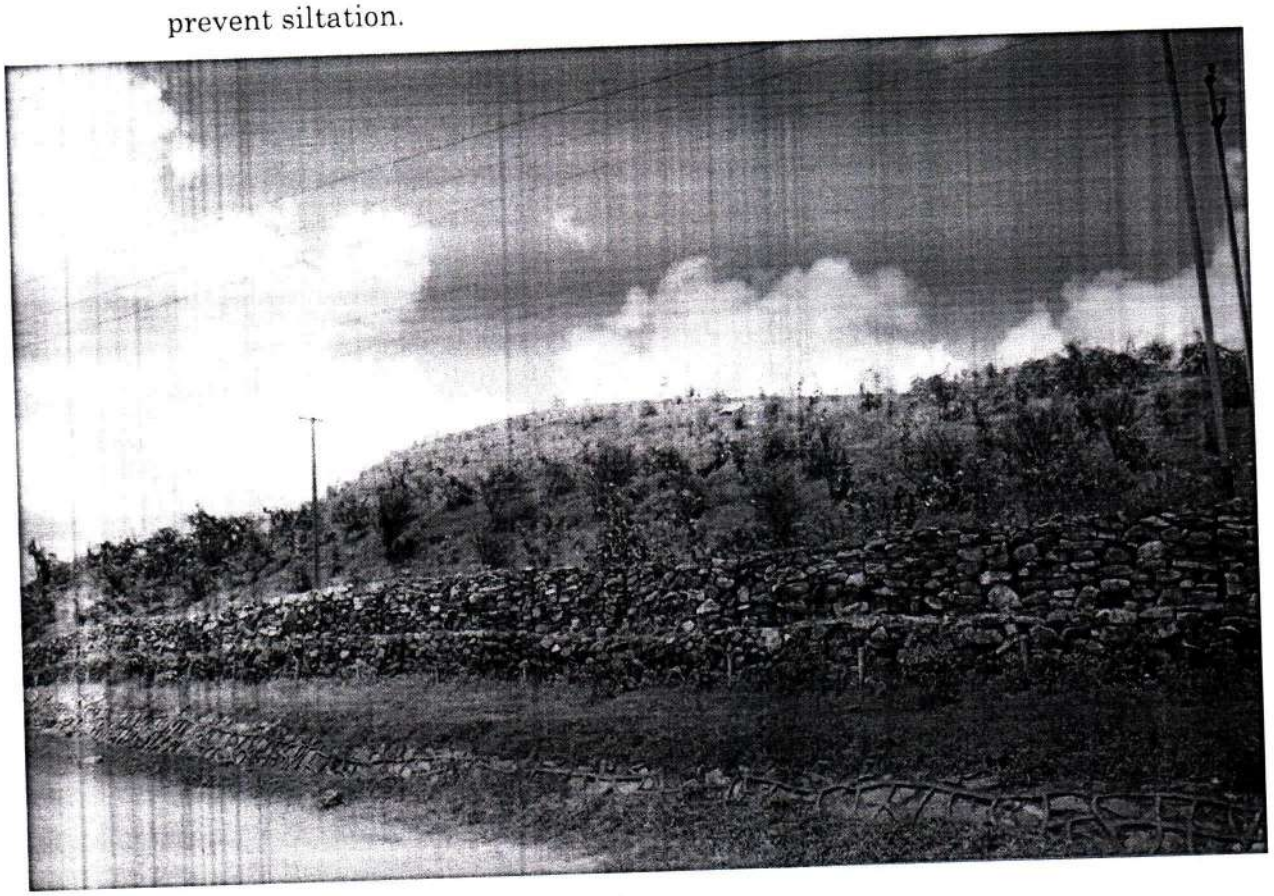
YEARWISE PLANTATION AT GEVRA AREA



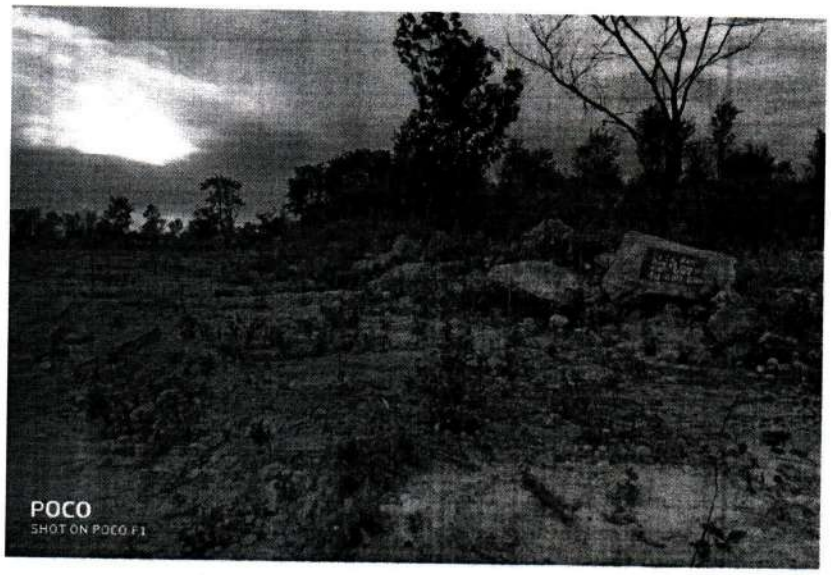
AVENUE PLANTATION

C. CONSTRUCTION OF CHECK DAMS, RETENTION/TOE WALLS ALONG THE CONTOUR TO ARREST SLIDING DOWN OF THE EXCAVATEDMATERIAL

1. Catch Drain: 2.8 KM of pucca catch drains of dimension 1.5 X 1.5 m were constructed for chanelling of surface runoff during Rainy Period.
2. Check Dams & Retaining Wall: To prevent soil Erosion & arrest sliding down of excavated material along the contour. Regular maintenance is carried out to prevent siltation.



- 2018-19 Plantation dump area have been provided with Contour trench 300 per trench, check dam 20 per cubic meter and bund with stone bolders 20 per cubic meter.



- A toe wall is constructed at External Dump no. 6 & 7 of dimensions: Length 650 meters, height above ground 1.00 meters and top width of wall 200 mm in the year 2018-19

Year	Contour Trench (per trench)	Check Dams (per CUM)	Bunds with stone boulders (per CUM)
2022	11845	11845	11845
2021	7200	7500	7500
2018	300	20	20

Structure	Location	Dimension
Retaining wall with Drain	Along P3 Q3 belt near W1 TRS	182m X 5m ht. 1.2mX0.9m RCC Drain
	Along J3 belt	240mX 5m ht. 300mX 2m
	Near Junadih Siding	2050m X 2m ht. 1.2m X 0.9m drain
	External Dump no. 6 & 7	650m X 1m ht. Top width 200mm
Gabion wall	From weigh bridge W5 to LK seam coal face side	1200m length, 3 stage, 3m height
	Along toe of dump no. 4 near E2/ E1 TRS	342m, 3 stage, 3m height

STABILIZE THE OVERBURDEN DUMPS BY APPROPRIATE GRADING/BENCHING SO AS TO ENSURE THAT THAT ANGLES OF REPOSE AT ANY GIVEN PLACE IS LESS THAN 28^0

PROGRAMME OF O.B. REMOVAL, DUMPING & PLANTATION:

Year	Coal production (MTes)	OB removal (Mcum)	Dump plan (Mcum)		Dump area available for reclamation (Ha.)		No. of plantation @ 2500 Nos / Ha.		Total plantation @ 2500 Nos / Ha.
			External	Internal	External	Internal	External	Internal	
1	40	72.69	0	72.69	0	0	0	0	0
2	41	72.67	0	72.67	0	0	0	0	0
3	41	73.8	0	73.8	0	0	0	0	0
4	45	82.12	0	82.12	0	0	0	0	0
5	49	86.92	0	86.92	0	0	0	0	0
6	61	108.62	0	108.62	0	59.13	0	147825	147825
7	70	125.06	0	125.06	0	59.13	0	147825	147825
8	70	125.53	0	125.53	0	59.13	0	147825	147825
9	70	125.51	0	125.51	0	59.12	0	147800	147800
10	70	125.17	0	125.17	0	59.12	0	147800	147800
11	70	125.09	0	125.09	0	63.36	0	158400	158400
12	70	125.51	0	125.51	0	63.36	0	158400	158400
13	70	125.54	0	125.54	0	63.36	0	158400	158400
14	70	124.82	0	124.82	0	63.36	0	158400	158400
15	70	124.95	0	124.95	0	63.36	0	158400	158400
16	70	107.8	0	107.8	0	63.36	0	158400	158400
17	70	107.66	0	107.66	0	63.36	0	158400	158400
18	70	86.34	0	86.34	0	63.36	0	158400	158400
19	70	84.96	0	84.96	0	63.36	0	158400	158400
20	70	85.18	0	85.18	0	63.36	0	158400	158400
21	50	40.8	0	40.8	0	63.36	0	158400	158400
22	30.68	29.89	0	29.89	0	63.36	0	158400	158400
MC_1	0	0	0	0	0	77.3	0	193250	193250
MC_2	0	0	0	0	0	77.3	0	193250	193250
MC_3	0	0	0	0	0	77.3	0	193250	193250
Total	**1337.68**	**2166.61**	**0**	**2166.61**	**0**	**1287.85**	**0**	**3219625**	**3219625**

The spoil dump benches in the internally backfilled OB will be in the form of benches. With the sufficient advance of coal production bench, the non-active backfilled OB will be leveled with dozer. Dumper/Tipper will transport soil/alluvium OB from the top OB bench and will dump the soil directly on the leveled backfilled OB. Otherwise; top soil will be removed and stored separately. This soil will be directly spread over the levelled graded backfilled spoil for reclamation of the quarried out land. OB dumps will be properly benched and the maximum height of the bench will be kept not more than 30m. Dump benches will have a mild gradient of 0.6% to facilitate the drainage. Wherever possible, simultaneous land reclamation will be done along with the OB dumping.

The following design criteria have been considered for waste dumps.

(i) OB in external dumps will be stacked in 30 m high benches.

(ii) OB in internal dumps will also be stacked in 30 m high benches.

(iii) Dozers to be deployed for shaping the dumps overall slope is 28^0.

(iv) Final reclamation will be achieved using the equipment provided for the purpose.

Once, the external dumping is completed, the spoil will be graded and landscaped in harmony with surrounding topography and biological reclamation carried out. Alternatively, the final void at the end of mining operations in the mine can be converted into a water reservoir.

RECLAMATION SCHEDULE

E. STRICT ADHERENCE TO THE PRESCRIBED TOP SOIL MANAGEMENT

Systematic handling of topsoil

Topsoil shall be removed before any drilling, blasting, mining, or other surface disturbance. The stock piling of top soil will be as follows:

- Top soil and other materials removed shall be stock piled only when it is impractical to promptly redistribute such materials on regarded areas.

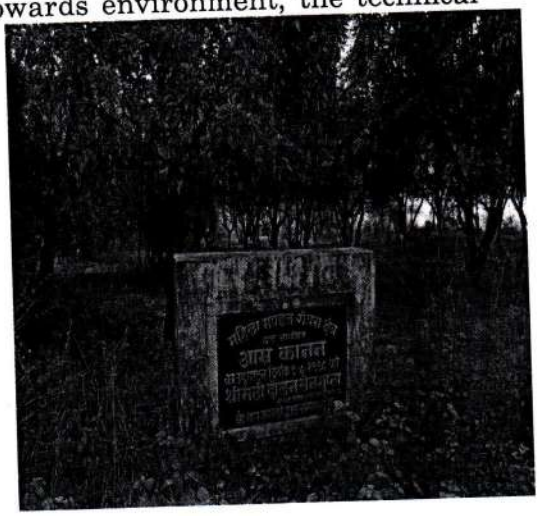
- Stock-piled materials shall be selectively placed on a stable area, not distributed, and protected from wind and water erosion, unnecessary compaction, and contaminants which lessen the capability of the materials to support vegetation when redistributed.

Top soil redistribution

After the final grading the top soil would be redistributed in a manner that achieves an approximate uniform stable thickness consistent with the post mining land uses, contours, and surface water drainage system.

Biological reclamation

In view of importance of vegetation cover towards environment, the technical



reclamation will be strengthened by biological reclamation for conserving the environment.

FINANCIAL PROVISIONS

I. Financial provision for soil erosion management

S. No.	Activity	Amount (in Rs. Lakhs)
1.	Garland Drains	30.00
2.	Arboriculture/plantation in industrial area	5.67
3	Barbed fencing/boundary walls/Toe walls/Gabion structures for the project	19.37
4.	Land Reclamation / Restoration	42.50
5	Green Belt in and around the Mine	10.00
	Total	107.54

* Subsequent additional provision will be made as and when required.

Existing Mine Closure Cost as per approved MCP

As per the guidelines of the MoC, the cost of the mine closure cost was computed based on project area of Gevra OCP i.e, 4184.486Ha. Considering the wholesale price index as 136.30, as on April 2010, the updated cost of the mine closure is estimated to be Rs. 6.312 lakhs per hectare (considering three decimal places) considering the admissible escalation over Rs. 6.00 lakh per Ha as on August 2009 when wholesale price index was 129.60.

Total Final mine closure cost (@ Rs.6.312 Lakh/Ha.): Rs.26412.48lakhs

Table-1: Existing Fund deposit & Reimbursement Schedule

Year	Fund Deposited in Escrow Fund	Fund to be Reimbursed (Maximum)	
1	1100.52	Nil	(+) accrued interest as applicable
2	1155.55	Nil	
3	1213.32	Nil	
4	1273.99	Nil	
5	1337.69	Nil	
1st phase	**6081.07**	**4864.85**	
6	1404.57	Nil	
7	1474.80	Nil	
8	1548.54	Nil	
9	1625.97	Nil	
10	1707.27	Nil	
2nd phase	7761.15	6208.92	
11	1792.63	Nil	
12	1882.26	Nil	
13	1976.38	Nil	
14	2075.19	Nil	
15	2178.95	Nil	
3rd phase	9905.42	7924.33	
16	2287.90	Nil	
17	2402.30	Nil	

18	2522.41	Nil
19	2648.53	Nil
20	2780.96	Nil
4th Phase	12642.10	10113.68
21	2920.01	Nil
22	3066.01	Nil
23	3219.31	Nil
24	3380.27	Nil
final phase	12585.60	19863.54
Total	48975.34	48975.34

REVISED MINE CLOSURE PLAN(PHASE I& 2)-

The Mine closure plan for Gevra OC 70 Mty was part of the Project report & is deemed approved along with the Project report. All MCP activities for this Mining plan will be as per mentioned in the PR.

A-REVISED ABONDONED COST & FINANCIAL ASSURANCE (As per the new Guidelines & Latest WPI)

TABLE-2: Progressive & Final cost distribution table in an OC mine as per New Mine Closure Guidelines issued by MoC on 16/12/2019

S. No.	Activity	Progressive	Final
A	Dismantling of Structure	0	8.50
	Service building		
	Residential Building		
	Industrial Structure		
B	Safety & Security	6.50	3.20
	Random rubble masonry/concrete wall		
	Toe wall around dump/Gabion wall		
	Barbered wire fencing		
	Fencing/boundary wall, fencing around water		

S. No.	Activity	Progressive	Final
	body		
	Garland drains		
C	**OB Dump Reclamation**		
I	Technical Reclamation	60.50	60.50
	Re-handling of OB		
	Levelling by Dozer		
	Grading		
	Levelling and grading of high wall slopes & OB Dump		
II	**Biological Reclamation & Plantation**		
	Top soil Management	15.00	11.70
	Grassing of OB dump		
	Plantation around virgin Area , safety zone , green belt, over external Dump and internal reclaimed area		
	Plantation post care (including manpower)		
	Plantation over cleared area obtained after dismantling		
D	**Landscaping of the open space in leasehold area for improving its aesthetic. Drain, Pipe lines, Peripheral road, gates, View points, cemented steps on bank**	4.00	5.50
	Development of Agriculture land		
E	**Environment mitigation & management**	12.00	1.50
	Air Quality (Water tanker , Sprinkler & other Control measures)		
	Water Quality (ETP & STP etc operating cost)		
	Manpower Cost and supervision		
F	Post Closure Monitoring	0.00	3.20

S. No.	Activity	Progressive	Final
	Air Quality		
	Water Quality		
	Power Cost		
	Manpower Cost and supervision		
G	Entrepreneurship Development (Vocational/skill development training for sustainable income of affected people)	1.00	0.50
H	Miscellaneous & Other measures like Golden Handshake, one time financial grant, alternative jobs, other services etc.	1.00	5.40
	Total	100.00	100.00

22.3 Financial Assurance

A- Financial Assurance

Revised Mine Closure Cost based on latest WPI and adjustment of amount already deposited in the escrow account, as per the direction of CCO office

The amount that has to be deposited in Escrow account acts as a security against the mine activities to be carried out for the closure of the mine is based on the project area.

As per para 2.6 (Escrow Account Calculation) of MOC guideline no. F. No. 34011/28/2019-CPAM, Ministry of Coal dt 16th December 2019 & 29th May 2020, in case of the mine where escrow account is already open, the annual closure cost is to be computed considering the total project area at the above mentioned rates minus the amount already deposited and dividing the same by the balance life of the mine in years and annual cost as arrived should be compounded @5% annually.

The total Land Area envisaged in the project (Phase I & 2) is 4781.798 Ha

As per the latest guidelines of MOC, the amount to be deposited in Escrow account is evaluated as per detailed below:

TABLE-3: EVALUATION OF REVISED MINE CLOSURE AMOUNT- PHASE I

A	BASE RATE/HA IN LAKH RS AS ON 1st APR 2019	9
B	WPI AS ON 01.04.2019	121.1
C	MCP LAND IN HA	4781.798
D	WPI AS ON MAR 2022*	148.9
E	ESCALATION FACTOR (D/B)	1.2295623
F	RATE/HA IN LAKH Rs (E * A)	11.066
G	CORPUS IN LAKH Rs (F * C)	52915.669
H	Balance life in years as on 01.04.2022	16
I	Amount Deposited till 31.03.2022-lakh Rs	17517.11
J	Final corpus amount in lakh Rs (G-I)	35398.559
K	First Year amount in lakh Rs(J/H)	2212.4099
L	Total amount to be deposited in balance years in Lakh Rs.	52340.070
	□ WPI of Apr 2022 & May 2022 are provisional	

Table-4: Fund deposit & Reimbursement Schedule from 2022 onwards

Year	Year No	Fund Schedule in Lakh Rs	Fund to be Reimbursed (Maximum) in lakh Rs
EXISTING MCP DEPOSIT SCHEDULE UPTO 2021-22			
2020-21		1792.630	
2021-22		1882.260	
REVISED MCP DEPOSIT SCHEDULE W.E.F 2022-23			
2022-23	1	2212.410	
2023-24	2	2323.030	
2024-25	3	2439.182	

Progressive	Phase-1	6974.622	50% of balance amount at the end of Phase-1
2025-26	4	2561.141	
2026-27	5	2689.198	
2027-28	6	2823.658	
2028-29	7	2964.841	
2029-30	8	3113.083	
Progressive	Phase-II	14151.921	
2030-31	9	3268.737	
2031-32	10	3432.174	
2032-33	11	3603.783	
2033-34	12	3783.972	
2034-35	13	3973.170	
Progressive	Phase-III	18061.836	
2035-36	14	4171.829	
2036-37	15	4380.420	
2037-38	16	4599.441	
MC1	17		
MC2	18		
MC3	19		
Final Phase		13152	100% of balance amount at the end of final Phase
GRAND TOTAL		52340	

Table-5: COST ESTIMATE FOR PROFRESSIVE & FINAL CLOSURE ACTIVITIES

COST OF ACTIVITIES TO BE TAKEN UP FOR PROGRESSIVE CLOSURE OF MINE			
Head	PARAMETERS	Unit	Amount "Rs. Cr"
Progressive closure	Water quality management	LS	9.06
	Air quality management	LS	16.31
	*Waste Management	LS	7.25
	Barbed wire fencing	LS	1.96
	Barbed wire fencing around the Pit	LS	1.96
	Filling of Void - Rehandling of Crown Dump	LS	18.27
	Top Soil management	LS	22.65
	Technical l Reclamation of Mined out of land and OB Dump	LS	155.31
	Biological Reclamation of Mined out of land and OB Dump , Plantation over virgin area including green belt	LS	20.39
	Manpower Cost and supervision	LS	18.20
	Toe Wall around the dump	LS	2.94
	Garland drain	LS	3.62
	Garland Drain around the dump	LS	2.42
	Any other Activity	LS	3.02
Dismantaling of Infrastructure & Disposal/ rehabilitation of Mining machinery	Dismantling of workshop	LS	18.82
	Rehabilitation of the dismantled Facilities	LS	
	Dismantling of pumps and Pipes/ other facilities	LS	
	Dismantling of stowing bunker, provisioning of pumps for bore well pumping arrangement	LS	
	Dismantling of UG equipment	LS	

	Rearranging water pipeline to dump top park/ Agricultural land	LS	
	Dismantling of Power lines	LS	
Safety and security	Barbed wire fencing	LS	1.96
	Barbed wire fencing around the Pit	LS	1.06
	Barbed wire fencing with masonry pillars	LS	0.35
	Concrete wall with Masonry pillars around the pit	LS	
	Securing air shaft and installation of bore well pump	LS	
	Securing of Incline	LS	
	Concrete wall fencing around the water body	LS	8.72
	Boundary wall around the water body		
	Stabilisation! viz benching, pitching etc) of side walls of the water body		
	Toe Wall around the dump	LS	3.38
	Garland drain	LS	4.87
	Garland Drain around the dump		
	MISC SAFETY WORKS	LS	2.40
Technical and Biological Reclamation of Mined out of land and OB Dump	Drainage Channel from main Ob dump	LS	4.85
	Filling of Void	LS	66.97
	Top Soil management	LS	10.36
	OB Rehandling for backfilling	LS	66.97
	Terracing, blanketing with soil and vegetation of External OB Dump	LS	7.77
	Peripheral road, gates, view point, cemented steps on bank	LS	4.24
	Expenditure on development of Agricultural land	LS	1.22
	Landscaping and Plantation	LS	9.60
Post Closure management and	Power Cost	LS	1.04
	Post Mining Water quality management	LS	2.08

supervision	Post Mining Air quality management	LS	4.16
	Subsidence monitoring for 5 years	LS	0.00
	Waste Management	LS	2.08
	Manpower Cost and supervision	LS	1.04
Others	Entrepreneurship development (vocational/skill development training for sustainable income of affected people	LS	4.13
	Golden Handshake / Retrenchment benefits to 100 employees of OC	LS	11.96
	Golden Handshake / Retrenchment benefits to 200 employees of UG	LS	
	Onetime financial grant to societies / institutions /organisations which is dependent upon the project;	LS	
	Provide jobs in other mines of the company	LS	
	Continuation of other services like running of schools etc.	LS	
Total	COST FOR THE ENTIRE LIFE (Prog & Final)		523.40
Total	TOTAL ANNUAL COST		32.71
Total	PROGRESSIVE COST FOR THE ENTIRE LIFE		302.01
Total	ANNUAL PROGRESSIVE COST		18.88

TIME SCHEDULE

The time scheduling is being provided on the basis of time interval of five year as required in the MoC guidelines. This period of 5 years is considered as one phase of five years and reclamation of one phase must be taken-up before commencement of mining activity in the subsequent phase. The action plan for progressive closure activities has been provided in the Figure below:

Sl. No.	Activities	Time Frame
1.	Preparation of Survey & Disposal Report	One month
2.	Slope Stability study for high walls and internal backfilled dumps	One month
3.	Disposal of P&M including HEMM, CHP, W/S, Siding	2 and half years
4.	Backfilling of mined out Area (OC)	2 years
5.	Dismantling of Industrial structure	2 years
6.	Grading & dozing of high walls for OC	2 years
7.	Fencing of quarry	2 years
8.	Clearing of Coal Stock and Infrastructural Area.	2 years
9.	Disposal / Dismantling of Residential colony	2 &1/2 years

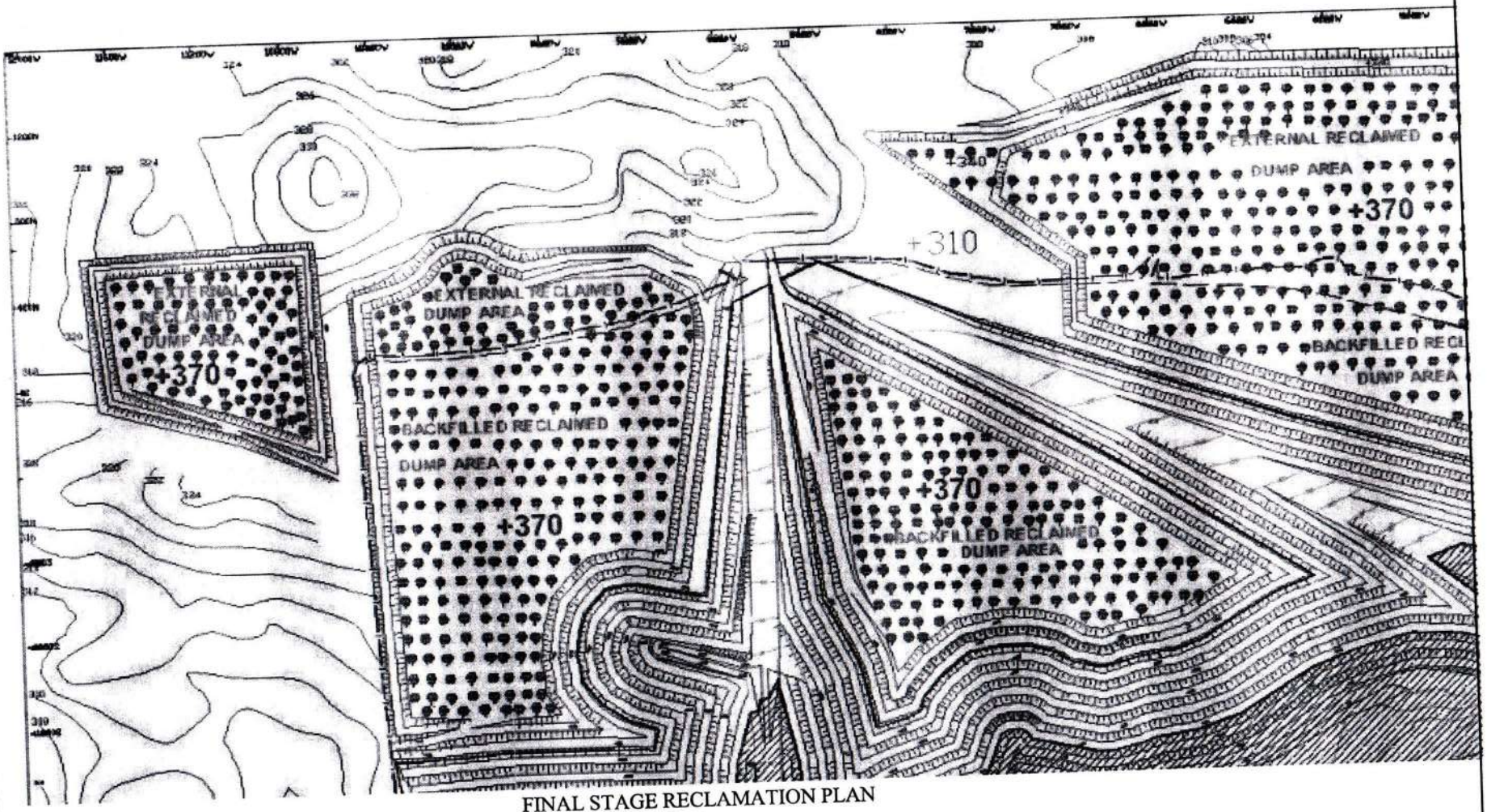
REIMBURSEMENT OF EXPENDITURE INCURRED ON PROGRESSIVE MINE CLOSURE ACTIVITIES OF GEVRA OCP

The Progressive Mine Closure Plan for Gevra OCP has been approved in the 218th meeting of SECL Board held on 28.11.2013.Accordingly, Escrow Account No: 423803800000294 is opened in Union Bank of India, Bilaspur and Annual Deposits as per the approved MCP have been made in the above account regularly since 2010-11 and the balance amount as on 31.03.2023 is Rs.1346459196/-only in the said account. As per the clause No: 6 of MoC guidelines dated 07.01.2013 and provisions of approved MCP, the reimbursement of expenditure on Mine closure activities has been received in respect

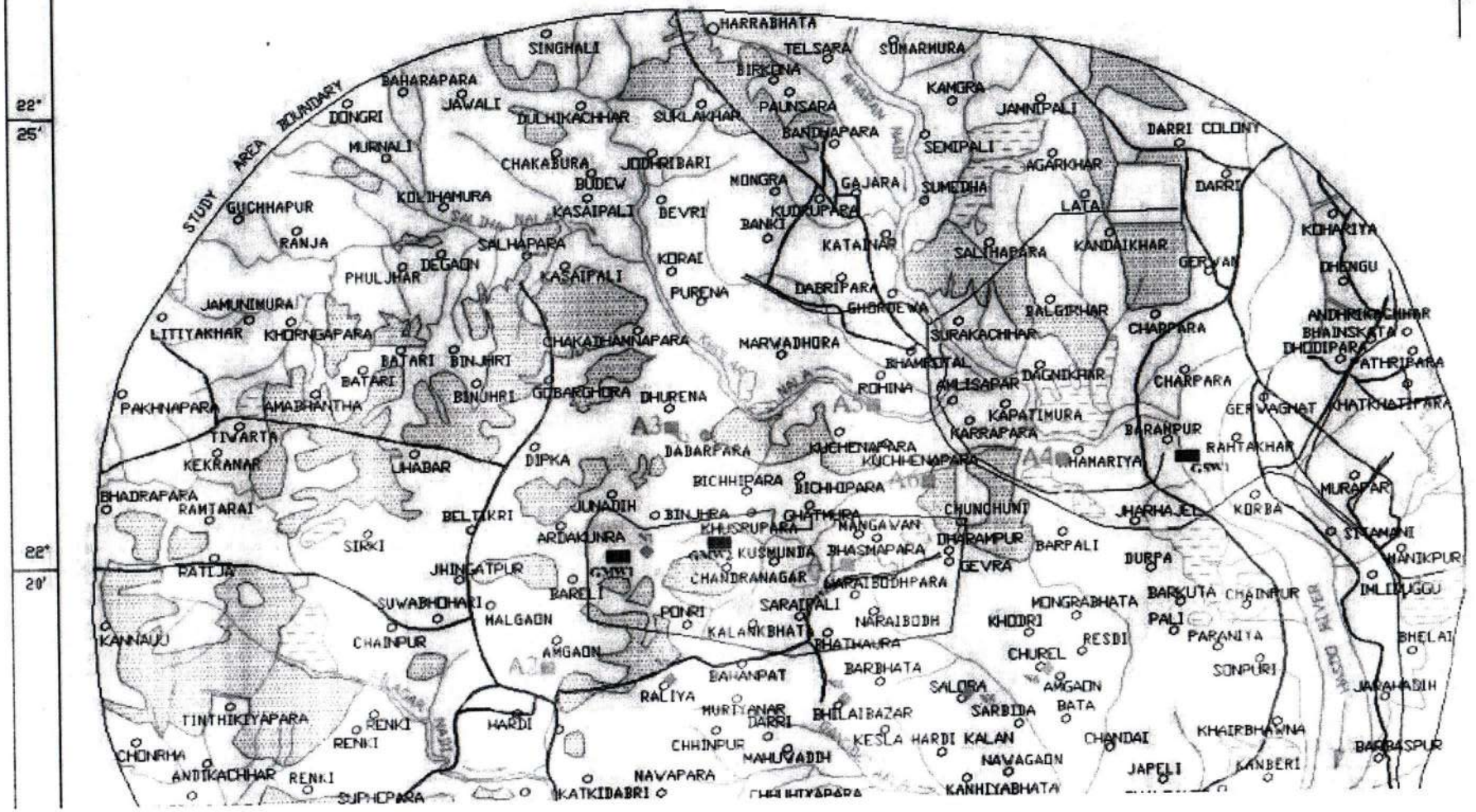
of Gevra OCP for the activities undertaken from 2010-11 to 2014-15. A total amount of Rs. 514721000/- was recommended for release by Coal Controller on 17.08.2017.

For the period from 2015-16 to 2019-20, an amount of Rs. 577323000/-has been reimbursed under Progressive Mine Closure.

APPENDIX



FINAL STAGE RECLAMATION PLAN



LOCATION PLAN OF ENVIRONMENTAL MONITORING STATIONS

ANNEX - 3

STATEMENT SHOWING DETAILS OF PLANTATION OF GEVRA PROJECT									
YEAR	PLANTATION DONE ON				Total Plantation done (in nos)	CPT (1.5mx0.9mx0.75m) (in Rmtrs)	GRASS BED (Nos.)	Area/ Ha.	Location
	On Plain area (nos)	On internal dumps (nos)	On External dumps (nos)	Total Plantation on dumps (nos).					
1	2	3	4	5=(3+4)	6=(2+3+4)	7	8	9	
1986	236000	0	0	0	236000	0	0	74.3	1. MGR Loop 2. Roadside 3. Inside colony 4. Gevra-Kusmunda Road 5. Distrbuted to employees
1987	245750	0	46000	46000	291750	0	0	82.93	1. Ext. OB Dump No. 1 near MGR 2. Around Magazine 3. Colony Road 4. Inside colony
1988	419500	0	0	0	419500	0	0	93.22	1. Near E&M workshop & Dy GM Office 2. Near CHP 3. Road side at Gevra 4. Road side at VTC/CETI 5. Gevra - Kusmunda Road 6. Bareli village 7. Near Magazine 8. Colony
1989	454000	0	0	0	454000	0	0	100.88	1. Gevra Kusmunda Road 2. Near Bareli Village 3. Near CETI 4. Gevra Colony 5. Near CHP Bunker 6. SILO Road 7. Vacant space in colony 8. Near Magazine
1990	372883	0	0	0	372883		0	82.86	1. Near Magazine, Ganganagar 2. Laripara plot 3. Old Dipka Barrier (Planted by Dipka project at Dipka unit) 4. Vijaynagar village 5. Near Conveyor Belt - CHP 6. Near Hospital 7. Roadside 8. Boathside old Barrier (Planted by Dipka project at Dipka unit) 9. Boathside old Barrier (Planted by Dipka project at Dipka unit) 10. Conveyor Belt - Latipara 11. Mine boundry near Bareli 12. Inside Colony
1991	360000	0	0	0	360000	0	0	80	1. Bareli Bhata Village (A) 2. Bareli Bhata Village (B) 3. Helipade side

									4. D Type quarters 5. Nehru nagar (Planted by Dipka project at Dipka unit) 6. CEWS 7. Guest Houses 8. CETI 9. Dipka - Pali Road (Planted by Dipka project) 10. Kusmunda - Gevra Road
1992	64900	0	0	0	64900	0	0	14.42	1. Gevra Township 2. Railway Sising 3. Gevra Mine 4. Near Bareli Pondi Bhata Village
1993	87230	0	26970	26970	114200	0	0	27	1. Shakti Nagar Colony 2. Dipka project colony (Planted by Dipka project at Diopka unit 3. Dipka Ext. Dump no. 1 (Planted by Dipka project at Dipka unit) 4. NCH Colony 5. CEWS 6. Dipka MTK office (Planted by Dipka project at Dipka unit) 7. Gevra Ext. Dump no. 2 8. Gevra Railway siding 9. Kusmund Barrier Pond etc.
1994	0	0	0	0	0	0	0	0	
1995	77000	0	0	0	77000	0	0	17.11	1. Gevra - Kusmunda Road 2. Infront of Old GCM Office
1996	68000	0	64000	64000	132000	0	0	29.33	1. Dipka Dump no. 3 (Planted by Dipka project at Dipka unit) 2. Beltikri Dump (Planted by Dipka project at Dipka unit) 3. CGM Office 4. Boundry wall at Dipka (Planted by Dipka project at Dipka unit) 5. Dipka Border line (Planted by Dipka project at Dipka unit) 6. Magazine side
1997	50000	17500	105500	123000	173000	0	0	38.44	1. Dump no. 3 (Planted by Dipka project at Dipka unit) 2. Near Magazine 3. External Dump no. 2,3 & 4 4. External Dump no. 5 5. Internal no.1
1998	42000	52150	31850	84000	126000	0	15000	31.5	1. Internal Dump no.3 (Amrakanan) 2. Internal Dump no.1 3. External Dump no. 2,3 & 4 4. Khusrudih Road & Dump

									slope 5. Near water tank at Gevra project 6. Magazine side
1999	11950	0	65000	65000	76950	3150	18000	19.23	1. External Dump no.2,3 & 4 2. Near Helipad - Gevra 3. External Dump no.3 (Planted by Dipka project at Dipka unit) 4. Near Selting pond (Commercial)
2000	0	0	130000	130000	130000	0	15000	32.5	1.External Dump no. 2,3 & 4 2. External Dump no. 5 3. External Dump 3 (Planted by Dipka project at Dipka unit)
2001	0	0	66000	66000	66000	0	13000	16.5	1. External OB Dump No. 2,3&4 (Top) 2. External OB Dump No. 2,3&4 (Slope)
2002	10000	0	30000	30000	40000	500	4000	16	1. External Dump No 6 2. Back Filling 3. Dump No 6 (Slop)
2003	30000	81000	20000	101000	131000	1270	15000	35	1. Old Dipka Dump No. 3 2. Pragati Nagar 3. Gandhi Nagar 4. Dump No. 1&2
2004	22000	5500	78500	84000	106000	3583	36000	32	1.North side of Dump No. 2,3&4 Near Toe 2. In side Shakti nagar colony 3. Inside Centeral work shop 4. Shakti nagar Gate to DETP (road side green belt strengthening) 5. Dipka barrier to Gevra Water filter (road side green belt strengthening) 6. Kusmunda road side green belt 7. Dump No 5 8. south side Slope of Dump No. 2,3&4 9. North side Slope of Dump No. 2,3&4 10. Old Internal Dump (East Section) Toe Ince Green belt 11. Dump No. 1 Slope Internal East Section)
2005	76000	0	39500	39500	115500	4800.33	39500	38	1.Dump No.3 Dipka Unit 2. Dump No 2,3&4 North Slope) west side of Helipad 3. Along Kusmunda Road (North side of 2,3,&4 No Dump (2KM X 50 m) 4. Center Park

									(with in MGR) 5. Along Main Road both sides (From CETI to Dipka Barrier in patches) 6. Dump No 2,3& 4 western side Dump 7. Back side of Shakti Nagar Colony
2005	41500	0	0	0	41500	2000	0		
2006	75000	40000	5000	45000	120000	4500	45000	48	
2007	50000	0		0	50000	0	0	20	1. Hydro Seeding of grasses On B/F Dump No 3 & 6
2008	5000	0	20000	20000	25000	0	0	15	1. Near Magazine 2. Near DETP 3. Kusmunda road (in between MGR& railway Line 4. Dipka Barrier to Hardi Bazar road side (Near 3 no. Dump of Dipka Unit)
2009	32500	0	30000	30000	62,500	0	20000	21	1. Near Magazine 2. Kusmunda road (in between MGR& Railway Line) 3. Dipka barrier to Hardi Bazar road side (Near 3 No. Dupm of Dipka Unit) 4. Dump NO. 3 (External)Dipka Unit 5. South side Slope of Ext.Dump No 3 (Dipka Unit)
2010	2500	36500		36500	39,000	0	0	25	1. Dump No. 3 (Internal) 2. South East side Slope of Internal Dump No 3 3. Around DETP,CHP,Feeder Breaker, TA office (Urja Nagar), CTI
2011	0	27500	0	27500	27,500	0	12500	16	1.Dump No. 3 (Internal) 2. South -East side Slope of internal Dump No 3 3. On Plain Area Near Dipka Railway Track
2012	10000	20000	0	20000	30000	0	3125	12	1. Dump No. 6&7 (Internal) 2. On Plain area Behind Urja Nagar C-Type Quarter
2013	5000	0	35000	35000	40000	0	5000	14	1. On External Dump No.6&7 (Top& Slope) 2.On Plain area GOLF Ground (Near Silo)
2014	0	0	20000	20000	20000	0	0	10	1. External OB Dump No 6&7 2. Side Slope of External OB Dump No 6&7
2015	0	0	80000	80000	80000	0	10000	26	1. On External Dump No.6&7 (

									Top& Slope)
2016	0	0	50000	50000	50000	0	0	20	1. On External Dump No.6&7 (Top& Slope)
2017	0	0	100000	100000	100000	0	5000	30	1. On External Dump No 6&7 (Top & Slope)
2018	6500	0	60000	60000	66500	0	0	0	1. On External Dump 6&7 (Top) 2. on Road side (New Coal transport Road)
2019	62750	0	0	0	62750	0	0	21.1	1. Near Ganga Nagar 2. Plain Area in Between External Dump No 6&7 and Laxman Both Side
2021	31998	52500	0	52500	84498	0	18750	27.799	1. Avad Nagar (Magazine Plot). 2. Avad Nagar (Road Side)
2022	48450	0	0	0	48450	0	29613	19.38	1. Bhatora Basahat 2. Magzine side
2023	19415	0	0	0	19415	0	0	7.766	1. Near Shakti Nagar Pond
Total	3017826	332650	1103320	1435970	4453796	19803.3	30448		
Planted area (Ha)	689.465	137.6	367.2	504.8	1194.265				

GAP PLANTATION DETAILS			
Year of Gap plantation	Area in Ha.	No. of saplings Planted	Location
2020-21	17	55950	Mangaon Dump, (Laxman Project)
2021-22	2	5000	Shramil Chouk to Dipka Chouk
2022-23	23.69	82915	External Dump 6&7 (slope)
2023-24	43.405	106577	Awad Nagar Behind Kabaristhan, Between NTPC & private rail track, Behind Magazine & Infront of Railway Colony Shakti Nagar

03/11/2023

नोडल ऑफीसर (पर्यावरण/वन)
Nodal Officer (ENV/Forest)
SECL/Gevra Area
एस.ई.सी.एल./गेवरा क्षेत्र