



The Singareni Collieries Company Limited (A Govt Company) Mandamarri Area

Ref: No: MMR/ENV/R/003/2025/ 130

Date: 17.05.2025

To

THE DIRECTOR/Scientist 'F' Integrated Regional Office, Hyderabad, Ministry of Environment, Forest and Climate Change, Aranya Bhavan, 3<sup>rd</sup> floor, Saifabad, Hyderabad- 500004 Telangana State.

Sir,

- Sub: Half yearly Environmental Monitoring report in respect of "Shantikhani longwall underground coal mining project" of the Singareni Collieries Company Limited for the period October-2024 to March-2025 – Reg.
- Ref: MoEF (Gol), New Delhi No, J-11015/97/2004-1A.II (M), 24th January, 2006.

Reference to the above, the status of implementation of Environmental clearance conditions vis-à-vis Project progress for the period from October-2024 to March-2025 in respect of **"Shantikhani longwall underground coal mining project**" of the Singareni Collieries Company Limited, Mandamarri (PO), Mancherial –(Dist), Telangana- (State) is being furnished for your kind perusal.

Thanking You,

Yours faithfully,

General Manager

General Manager Mandamarri Area <u>The S.C.Co.Ltd</u>.

GENERAL MANAGER, MANDAMARRIAREA.

End: Half Yearly compliance report of Shantikhani longwall Underground coal mining project



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#### THE SINGARENI COLLIERIES COMPANY LIMITED (A Government Company) <u>MANDAMARRI AREA</u>

# PART-1

#### HALF YEARLY COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCE CONDITIONS FROM OCTOBER-2024 TO MARCH- 2025

#### A. SALIENT FEATURES OF THE PROJECT:

1		ne of the Project	:	SHANTIKHANI LONGWALL UNDERGROUND COAL MINING PROJECT	
2	Organization		:	The Singareni Collieries Company Limited	
3		Coalfield		Godavari Valley Coal Field	
4		e of Mine	:	Underground	
5		hnology	:	Proposed Long Wall Technology	
6	Env	ironmental Clearance	:		
	A	Letter No & date	:	J-11015/97/2004-IA.II (M), Gol, MoEF, Dated:24-01-2006	
	В	Sanction capacity	:	1.167 MTPA	
	С	Mining Lease Area	:	681.23 Ha	
	D	Date of Public Hearing	:	31-07-2004	
7	Loc	ation of the Project			
	Α	Village	:	Akenepalli	
	В	Tehasil	:	Revenue Mandal of Bellampalli	
	С	District	:	Mancherial	
	D	State	:	Telangana	
	E	Latitude	:	North : 19 <sup>0</sup> 01' 04" TO 19 <sup>0</sup> 03 58"	
	F	Longitude	:	East : 79 <sup>0</sup> 30' 39" TO 79 <sup>0</sup> 33' 06"	
	G	Topo Sheet	:	56M /12	
	H	Nearest railway station	:	Bellampalli	
	1	Nearest Airport	:	Hyderabad	
	J	Nearest town	:	Bellampalli	
8		Iress for Correspondence	:		
	A	Name	:	MOHD ABDUL KHADIR	
	В	Designation	:	AGENT	
	С	Address		THE AGENT, SK GROUP; THE SCCo. LTD., Post: Bellampally, Dist:Mancherial,TS	
	D	Pin Code	:	504 251	
	F	E-mail ID	:	ag <u>t_sk_mmr@scclmines.com</u>	
	G	Telephone No.	:	08736-250265	
	Н	Fax No.	:	08736-257033	
9		of the Project			
	A	Date of Opening	:	19.12.1954 (Shanthi Khani Mine dip side property identified as per approved FR 2006)	
	В	Total Life of the project as per EMP	:	22 Years	
	С	Balance Life	:	16 Years	
10	Sea	ms	:		
	Α	Total Seams Present	:	IA, I, II, LB, IIIB,IIIA,SJ TOP, SJ BOT,ROSS	
	В	Seams being worked	:	SJ TOP, SJ BOT	
11	Dep				
	Α	Minimum Depth (m)	:	31.68 m	
	В	Maximum Depth (m)	:	700m	
	С	Present working depth (m)	:	592m	

12	Re	serves		
	Α	Total Geological Reserves	:	68.69 MT
	В	Total Extractable Reserves	:	18.07 MT
	С	Reserves already Extracted	:	9.13 MT
	D	Balance Reserves	:	8.94 MT
	E	Coal production during last	:	0.026 MT
		six months		0.020 101
13	La	nd Requirement		
	A	Total Requirement (Mine Take		681.23 ha
		Area)		001.25 Ha
		Forest land Involved		484.94 ha
	C	Non-forestland		196.29 ha
	D	Land acquired so far		7.07 ha
		(Surface rights)		7.07 Ha
14	Sta	atutory Clearances		
	A	Ground Water Clearance	:	Lr.No.2898/Hq.III(1)/2004, Dated:06-04-2005
				As per new guidelines issued in 2020 by CGWA for
				obtaining ground water clearance, SCCL applied for
				ground water clearance vide letter no.MMR/ENV/G-
				5/2023/127 dated 03.08.2023, issue of GWC is
L				awaited.
	В	Consent for Establishment	:	APPCB/PTN/NZN/169/HQ/2004 Dated: 17-11-2004
	C	Consent for Operation	:	Consent order No:210523335393,Dt:09.11.2021
<u> </u>				valid up to 30.09.2026.
L		Forest Clearance	:	F.N.8-87/2001-FC, Dated:20-12-2005
	E	Mining Lease	:	G.O.Ms.No.99, Dated: 12-05-2009 & G.O.Ms.No.3,
				Dated: 12-01-2015.
	F	Others (Specify)	:	
15	R٤	& R Involved	:	No R&R is involved in the project

# Part – 1 Status of Implementation of MoEF conditions as on 31-03.2025

# A. Specific Conditions:

SI. No.	Specific Condition	Compliance Status	
i)	The environmental clearance is subject to approval of the State Land use Department, Government of Andhra Pradesh for diversion of agricultural land for non-agricultural use.	<b>Complied.</b> The environmental clearance is obtained with EC no. J-11015/97/2004-IA.II (M), Gol, MoEF, Dated:24-01-2006 and the non-forest land has been acquired for the project with the approval of state government.	
		Mining is being carried out with underground method and no agriculture land has been acquired for mining operation. In future if agriculture land is required for mining operations it will acquired with approval of state government.	
ii)	The environmental clearance is subject to grant of forestry clearance for diversion of forestland.	<b>Complied.</b> Total forest Land of 484.94 ha involved in the project.	
		<ul> <li>285.89 ha of forest land diverted with UG rights vide F.No.8-87/2001-FC dated 20.12.2005 coterminous with Shathi Khani Extension Mining Lease and valid upto 11.05.2039.</li> <li>198.38 ha (part of 1427.22 ha) of Forest land diverted with UG rights vide F.No.8-216/1985-FC(pt.) dated 12.12.2018 coterminous with Tanduru Mining lease and valid up to 31.12.2034.</li> <li>0.67 ha (part of 4.88 ha) of forest land with Surface rights was diverted vide F.No.8-87/2001-FC, dated 04.06.2009, coterminous with Tanduru Mining lease and valid up to 31.12.2034.</li> </ul>	
iii)	Regular monitoring of subsidence movement of the surface over working area and impact on water bodies/	FL diversions are enclosed as <b>Annexure-I</b> <b>Being complied.</b> Subsidence monitoring is being done as per	
	vegetation/ structures/ surrounding should be continued till movement ceases completely. In case of observation of any high rate of subsidence movement,	the statutory provisions envisaged in DGMS Technical circular No. 4 of 1988. There is no depillaring activity. Presently the	
	appropriate measures should be taken to avoid loss of life and material. Cracks should be effectively plugged with ballast and clayey Soil/suitable material.	development is in progress. There is no possibility of subsidence in development of workings beyond 570m. Subsidence prediction study was carried out through IIT, BHU,	

SI. No.	Specific Condition	Compliance Status
		Varanasi and the recommendations will be implemented for avoiding subsidence in future mining operations.
iv)	The Project authorities should check the	Being complied.
	possibility of existence of fault(s) before deciding about the thickness of safe barrier required to be maintained between the working face and the water body in consultation with the Director General Mines & Safety (DGMS). Depillaring should also be carried out after taking prior approval of the DGMS.	Locations of faults have been identified and the safety barriers are being maintained between workings and water bodies. Presently, development of pillars is being carried out in Salarjung seam of thickness 7m by making into two sections viz top section and bottom section. Top section workings are about 3.6m to 4.0 m height and these workings extended in SJ top & bottom seams and the present working depth is 570 meters. Commencement of Depillaring operations takes place after obtaining approvals from Director General of Mines Safety, Dhanbad and the required safe barriers will be maintained as per the Statute. i.e. Coal Mines Regulations, 2017 and other statutory guide lines circulated to the industry by Director
		General of Mines Safety.
V)	Study report on subsidence and stage wise development plan starting from 5 <sup>th</sup> year of operation till the end of the mine	<b>Being complied.</b> Presently, the development is in progress,
	at an interval of 5 years should be submitted to the Ministry within six months.	There is no depillaring activity. There is no possibility of subsidence in development of workings beyond 570m. However, subsidence prediction study was carried out through IIT, BHU, Varanasi in the year 2003 & 2019 and the recommendations will be implemented for avoiding subsidence in future mining operations.
vi)	Top soil should be stacked with proper slope at earmarked site(s) only with adequate measures and should be used for reclamation and rehabilitation of area.	<b>Complied</b> It is an underground mine.
vii)	All the mine entries should be above the	Complied.
	highest flood level to avoid any anticipated flooding of mine from surface water during rainy season.	The entries were already made 1.5 m above the highest flood level and it is being monitored regularly to safe guard against surface inundation due to run off water during rainy season.
viii)	In areas where subsidence is anticipated	Complied.
	in shallow coal occurrence, such areas to be identified and provided with garland drains to ensure draining of water and avoid ingress of the same in to the UG mine.	There is no shallow coal workings in the long wall method of extraction and no occurrence of subsidence.
ix)	Green belt should be raised in an area of	Being complied.
	4.36 ha by planting the native species around the ML area, Coal handling plant, roads etc, in consultation with the local	SCCL is regularly taking up green belt development programme in all its areas by

SI. No.	Specific Condition	Compliance Status		
	DFO/Agriculture Department. The density of the trees should be around 1500 plants per Ha.	setting up separate in house Forestry Department. As on date, 76 ha of plantation is done at SKLW mine including 4.36 ha of ML area, Coal handling plant, roads etc, with native species in consultation with the local DFO/Agriculture Department. Plantation plan was enclosed as Annexure-II		
		PLANTATION AT SURFACE OF THE MINE		
x)	The project authorities should meet the	Being complied.		
	water requirement of nearby village(s) in case the village wells go dry due to de- watering of the mine.	From the long term monitoring of Phreatic and Piezometric water levels, it is observed that, there is no considerable impact of mining on water regime in this area. However, excess water pumped out from the mine is being supplied to nearby villages for domestic purpose and diverted to near village tanks for agriculture purpose after treatment.		
xi)	The project authority should implement suitable water conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water board.	<b>Being complied.</b> About 60 no's of rainwater harvesting pits were constructed in the MM area to augment the ground water resources. Further, excess mine discharge water is being let out into nearby nallah/tank for re-charge of ground water after treatment. SCCL de-silting the tanks as per the request of		
		surrounding villages.		
xii)	Regular monitoring of ground water level and quality should be carried out by establishing a net work of existing wells and constructing new Peizometers during the mining operation. The monitoring should be carried out four times in a year – pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to MoEF, Central Ground water authority and Regional Director Central Ground Water Board.	Being complied. Regular monitoring of ground water level and quality being monitored at regular intervals by establishing a net work of existing wells and constructing new Peizometers during the mining operation The monitored data was enclosed as Annexure-III (Ground water levels) & Annexure-IV (Ground water quality) respectively.		
xiii)	Permission from the competent authority should be obtained for drawl of water for drinking/domestic use.	Complied Permission was obtained from T.S. Director		

SI. No.	Specific Condition	Compliance Status
		Ground water Department, Hyderabad for extraction of ground water, vide Ir.no. 2898/Hg.III (1)/2004, Dated 06-04-2005. A copy was enclosed as <b>Annexure-V.</b>
		As per new guidelines issued in 2020 by CGWA for obtaining ground water clearance, SCCL applied for ground water clearance vide letter no. MMR/ENV/G-5/2023/127 dated 03.08.2023 and filed studies were completed by ground water Department Authorities, issue of GWC is awaited.
		A copy of application for renewal of Ground Water Clearance was enclosed as <b>Annexure-</b> VI. Application
xiv)	Suitable rainwater harvesting measures	Complied.
	on long term basis shall be planned and implemented in consultation with Regional Director, CGWB.	Rain water harvesting measures were being implementing for long term basis, in consultation with Regional Director, CGWB.
		About 60 numbers of RWHS were constructed in MM area.
xv)	Coal handling plant should be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.	<b>Complied.</b> No crusher and CHP are provided on the surface of the mine. The coal is transported to nearby CHP for transportation by Rail mode.
		However, to arrest the fugitive emissions water spraying is being carried out in the underground faces. Water spraying is being carried out at the surface bunkers and on the unpaved roads on the surface. All the coal transportation roads and permanent internal roads on the surface of the mine area are black topped.
		Further, in the connected CHP coal is not pulverized in the crushers and is only crushed to -200 mm size. Hence, instead of bag filters, fixed as well as mobile mist spray arrangements have been provided for controlling dust emissions and the air quality parameters monitored at the CHP are well within the stipulated norms. A 12 KL capacity water sprinkler is being deployed for dust suppression at CHP and surroundings.
		SCCL has been requesting MoEF&CC to amend the condition of installing bag filters for the CHPs and this condition is not being imposed in the recent ECs issued for coal mines.

Specific Condition	Compliance Status
Sewage treatment plant should be installed for the colony. ETP should also be provided for wastewater from workshop and CHP.	Complied Sewage Treatment Plants with capacity of 100 KLD each at Pranahitha Colony Mandamarri, Nagarjuna colony Ramakrishnapur and Bharath colony Somagudem of Mandamarri area were Constructed (3 nos of) and one ETP is provided in the Area workshop.
	FTP Pranahitha colony, Mandamarri
	STP Nagarjuna colony, Ramakrishnapur
	Parking Transition of the second seco
Consent to operate should be obtained from SPCB before starting enhanced production from the mine.	STP, Bharath colony, Somagudem Complied. Consent for operation has been obtained from Member Secretary, TSCB, Hyderabad vide letter no: 210523335393, Date: 09.11.2021 and valid up to 30.09.2026.
	Sewage treatment plant should be installed for the colony. ETP should also be provided for wastewater from workshop and CHP.

SI. No.	Specific Condition	Compliance Status
xviii	Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and reports submitted to MoEF and its Regional Office.	Being complied. Satellite data based land use/land cover studies for coal mining projects was carried by the year 2016, 2019 & 2022.
		The study report for the year 2022 was submitted, vide Lr.No. MMR/ENV/G- 6/2023/230 dated 15.12.2023 to the MoEF&CC, Regional Office, Hyderabad.
xix)	Vehicular emissions should be kept under control and regularly monitored. Overloading of trucks is avoided to stop spillage. The loaded trucks to be covered with tarpaulin sheets to prevent spillage of coal.	<b>Being complied.</b> Coal transport vehicular emission tests have been obtained by authorized pollution testing centers at regular intervals.
		Overloading of trucks is avoided and also the coal laden trucks are being covered with tarpaulin sheets to prevent spillage of coal and rising of dust while in movement.
xx)	A Final mine Closure plan along with details of Corpus Fund should be submitted to the Ministry of Environment and Forests 5 years in advance of final mine closure for approval.	Agreed to comply. A final mine closure plan along with details of corpus fund will be submitted to MoEF &CC, 5 years before the mine closure.

# 2) General conditions:

SI. No.	Condition	Compliance Status	
i)	No changing in mining technology and scope of working should be made without	Complied.	
	prior approval of Environment and Forests.	There is no change in mining technology and scope of working.	
ii)	No change in the calendar plan including excavation, quantum of Mineral coal and	Complied.	
	waste should be made.	There is no change in the calendar programme of coal production.	
iii)	Conservation measures for protection of flora and fauna in the core and buffer zone should be drawn up in consultation with the local forest department and experts.	<b>Being complied.</b> WLCP (Wildlife Conservation Plan) was prepared for MM region mines including SKLW project with a fund provision of Rs.554.70 Lakhs, which is approved vide letter No. PCCF/WL14/9-2022, date, 05.02.2023. A copy was enclosed as <b>Annexure-IX.</b>	
iv)	Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RPM, SPM, SO <sub>2</sub> , Nox & CO monitoring. Location of the stations should be	<b>Being complied.</b> Five ambient air quality monitoring stations have been identified in consultation with the regional office of TSPCB and the air quality	

SI. No.	Condition	Compliance Status
	decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.	monitoring is being done in every fortnight at Shanthi Khani Long Wall Project pit office as core zone and four stations namely Bellampalli colony, Lingapur, Perkapalli and Gundla Somaram as buffer zones stations.
	Data on ambient air quality (RPM, SPM, SO <sub>2</sub> , Nox & CO) should be regularly submitted to the Ministry including its Regional office at Bangalore and the State Control Board / Central Pollution Control Board once in six months	Ambient Air Quality data was enclosed as <b>Annexure-X</b>
V)	Fugitive dust emissions from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangements on haul roads, loading and unloading points should be provided and properly maintained.	<b>Being complied.</b> The fugitive dust emission sources are identified as coal loading and unloading points and transporting road way. Regular cleaning and water spraying arrangements are being made to clear the air born dust and also the approach road way is black topped and continuous water sprinkling arrangement is being made to minimize the dust emissions.
vi)	Drills should either be operated with dust extractors or should be equipped with water injection system.	<b>Being complied.</b> As per the provisions of Regulation No.143 of CMR-2017 water spraying is being done in the underground working face before drilling and after blasting to avoid the dust generation in the working places.
vii)	Measures should be taken for control of noise levels below 85 dBA the work environment. Works engaged in operation of HEMM, etc should be provided with ear plugs/muffs.	<b>Being complied.</b> This is an underground coal mine. Ear plugs have been provided to the workmen who are likely to get exposed to noisy environment. The Noise levels was enclosed as <b>Annexure</b> -
viii)	Measures for safety should be provided for storage, handling and use of explosive	XIII Being complied.
	during the Project period.	Safety measures are implementing as per the Indian Explosives Act for Storage, handling and use of explosives during the project period.
ix)	Acid mine water, if any, has to be treated and disposed off after conforming to the standard prescribed by the competent authority.	Not applicable. There is no acid mine discharge problem in the mine.
x)	Industrial waste water (Workshop and wastewater from the mine) should be properly collected, treated so as to confirm to the standards prescribed under GSR 422 (E) dated 19 <sup>th</sup> May, 1993 and 31 <sup>st</sup> December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop	<b>Being complied.</b> An area work shop has been established along with ETP arrangement. Mine discharge water is being treated in slow sand filter beds to ensure the standards before let out into nearby water tanks.

SI. No.	Condition	Compliance Status
	effluents.	The Mine discharge water quality reports enclosed as <b>Annexure-XI.</b>
		The Workshop effluent quality is enclosed as <b>Annexure-XII</b> .
xi)	Personnel working in dust areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	<b>Being complied</b> 150 nos. dust masks have been provided to the persons who involved in dust areas and adequate training has given to the workmen. Regular periodical medical examinations are conducted on occupational diseases in addition to the normal examinations at company area hospitals by the trained SCCL doctors.
		Occupational health surveillance is being carried out periodically through Periodical Medical Examinations (PME) once in every 5 years (below 45 Years employees) and 3 years (45 Years and above employees). Every year 1/3rd and 1/5th of the total manpower is being covered under PME respectively. Corrective measures are being taken if any abnormity is found during the PME. About 81 persons of employees have under gone PME during the period from October-2024 to March- 2025.
xii)	A separate environmental management cell with suitable qualified personnel should be set-up under the control of Senior Executive who will report directly to the Head of the Organization.	Complied. A company level environment cell with qualified personnel headed by General Manager (Environment) who is reportable to the Director of the Company is established to monitor and guide in implementation of the environmental safeguards. An area level environmental cell headed by qualified environmental officer is established and functioning under the control of area General Manager to monitor and guide in implementation of the environmental safeguards. Apart from this, a unit level Environmental Management Committee with multidisciplinary team has been constituted under the chairmanship of SO to GM. The committee has been constituted with following members.
		1.SO to General ManagerChairman2.Project OfficerMember3.Area Engineer (E&M)Member

SI. No.	Condition	Compliance Status			
		4.	Area Civil Engineer	Member	
		5.	Area Forest Officer	Member	
		6.	Area Estates Officer	Member	
		7.	Project Manager	Member	
		8.	Project Engineer	Member	
		9.	Project Surveyor	Member	
		10.	Project Env. Officer	Member	
		11.	Area Env. Officer	Convener	
		12.	Sr. Hydro Geologist	Member	
		13.	Area Survey Officer	Member	
			·····		
xiii)	protection measures should kept in separate account and should not be diverted for purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Chennai. It is an operating undergro amount of Rs.50 lakhs were as capital cost for environ measures and this amount towards environmental (revenue cost) of Rs. 209.4 from the year 2008 to 2 environmental cost. Year we		n operating underground min t of Rs.50 lakhs were alread oital cost for environmental res and this amount was alre s environmental capital	y allocated protection eady spent works. A diture of were spent s recurring enditure is	
xiv)	The Regional Office of the Ministry located at Chennai shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/ monitoring reports.	The management will extend full co-operation to the officers of the Sub-regional office Hyderabad in furnishing the required data		nal office,	
xv)	A copy of clearance letter will be marked	Compl	ied.		
	to concerned panchayat / local NGO, if any, from whom and suggestion/representation has been received while processing the proposal.		Environment clearance letter was submitted to Gram panchayat and other concerned offices.		
xvi)	State Pollution Control Board should	Compl	ied.		
	display a copy of the clearance letter at Regional Office, District Industry Centre and Collector's Office/ Tahsildar's Office for 30 days.		The Environmental Clearance letter is displayed at Regional Office, District Industry Centre and Collector's Office/ Tahsildar's Office for 30 days from the date of receipt of EC.		
xvii)	The project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality .concerned, within 7 clays of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and may also be seen at web site of the ministry of Environment and Forests at	<b>Complied.</b> The paper advertisement issued. A copy of the Environmental Clearance letter was forwarded to the Regional Office of this Ministry. Eenadu (Telugu daily) on 28.01.2006			

SI. No.	Condition	Compliance Status
	http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bangalore.	ది సింగరేడి కాలరీస్ కంపెనీ లిమిటెడ్ స్టుత్తు సంస్థు అక్యుత్త సంస్థు అక్యుత్త సంస్థు అక్యుత్త సంస్థు అక్యుత్త సరియి కాలర్ సంగాతి - 507 101 నేటీమ సంధర్మంలో సార్దించిన సంగాత్రి కాలర్ సంగాత్రి సంగాత్రి సింగరేడి కాలర్ కంపెనీ లిమిటెడ్ జరియిల్లోని (198) విజందన సంగాత్రి కాలర్ కంపెనీ లిమిటెడ్ కాంతిని లాంటాల్ అందన భాంత కోలి మెరిగి (సౌకర్యం) ఉదిని చెర్చించిని రెయిపిలిన సిరుము నిజందనలకు లోజని కూడుల్లో ఉదిన్ చెర్దించిన కెలుపురిగిన సిరుము నిజందనలకు లోజని కూడుల్లో ఉదిన్ చెర్దించిన కెలుపురిగా సిరుము నిజందనలకు లోజని కుండల్లో కూడుతో కాంతిని కాంతించిన సిరుము కిందిన కార్యాలుగులు సందుత్యంగా బెయిక్కి వెళ్ళించి కిందిన కార్యంగా కార్యాలుగు నిందు లభించినని, మరియు కిండి పరిశ్రవరణ కుమత్ర రాజనా పిందుత్రంగులు లేందుని, మరియు కిండి పరిశ్రవరణ కుమత్ర రాజనా పిందుత్రంగులు కిండి పరిశ్రవరణ కార్యంగులు కారించుతరువమైనవి. కిందిని పరిశార్యంగా పిరిగాల్లు కిందినులు రాజనులు రాజన్ 28-01-2008 కిర్ణాగారు బిలిగి రాజరుత్రంగి మరియు ప్రాజెక్కు)
		Deccan Chronicle (English) daily on 28.01.2006
3	The Ministry or any other competent	The Environmental Clearance letter can also be seen on the website of MoEF&CC & Climate Change at https://parivesh.nic.in and on the website of SCCL at https://scclmines.com/env. <b>Agreed to comply.</b>
	authority may alter/modify the above conditions or stipulate any future condition in the interest of the environment protection.	SCCL will comply with the altered or modified conditions and any other additional conditions stipulated by MoEF&CC.
4	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (protection) Act, 1986.	Agreed to comply SCCL is implementing all the conditions stipulated in EC.
5	The above conditions will enforce inter- alia, under the provisions of the water (prevention & control of pollution) Act, 1974, the air (prevention & control of pollution) Act, 1981, the Environment (protection) Act, 1986, and the public Liability Insurance Act, 1991 along with their amendments and rules.	<b>Complied.</b> The above conditions are being complied as per Water (Prevention & Control of Pollution) Act 1974, The Air (Prevention & Control of Pollution) Act, 1981 The Environment (Protection) Act, 1986. <b>Complied.</b>
		CFE was obtained vide No. APPCB/PTN/NZN/169/ HQ/2004 Dated: 17-11-2004. A copy was enclosed as <b>Annexure-XIV</b>

SI. No.	Condition	Compliance Status
		CFO was obtained vide No:210523335393, Dt:09.11.2021 valid up to 30.09.2026. A copy was enclosed as <b>Annexure-VII</b>
		Public Liability Insurance Policy is taken from the New India Assurance Company Ltd under Public Liability Insurance Act, 1991 vide policy No. 550200492510000035, valid from 30.04.2025 to 29.04.2026, which will be renewed periodically. <b>A copy was enclosed as Annexure-XV</b>

#### MoEF & CC O.M.No.22-34/2018-IA.III, dated:16.01.2020.

SI No	Condition	Compliance status
6	"The mining lease holders shall, after ceasing mining operations, undertake regressing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc."	At the end of mining operations, the mining areas and other areas which were disturbed due to mining will be re-grassed and restored to the land to a condition which is fit for growth of fodder, flora,

S.K.Gr.Of Mines S.K Gr.Of Mines

#### A PERIODIC PROGRESS REPORT REGARDING ENVIRONMENTAL PROTECTION MEASURES TILL 31.03.2025

1.	Production Details:		
SI.	Year	Coal (in MTPA)	
No		As per EC	Actual
1	2008-09	1.167	0.051
2	2009-10	1.167	0.014
3	2010-11	1.167	0.041
4	2011-12	1.167	0.068
5	2012-13	1.167	0.064
6	2013-14	1.167	0.062
7	2014-15	1.167	0.084
8	2015-16	1.167	0.100
9	2016-17	1.167	0.043
10	2017-18	1.167	0.110
11	2018-19	1.167	0.090
12	2019-20	1.167	0.091
13	2020-21	1.167	0.132
14	2021-22	1.167	0.093
15	2022-23	1.167	0.068
16	2023-24	1.167	0.067
17	2024-25	1.167	0.026

#### 1. Production Details:

#### 2. Plantation:

1	No of plants planted during last six months / last year	Nil
2	Area covered in Ha	Nil
3	Expenditure incurred in Rs.lakhs	Nil
4	Total area brought under plantation so far in Ha	76.00
5	Total no of plants planted so far since inception	94200
6	Species of plants planted	Clones and mixed with native species
7	Total expenditure in Rs. lakhs -	124.76

Note: Plan along with details of year wise plantation furnished.

SI. No.	Description	Quantity in KLD
1	Average quantity of water pumped out of the mine	2950
2	Water used for drinking/bathing and other industrial requirement	300
3	Water used for washing of HEMM	
4	Water used for plantation	150
5	Water supplied for nearest township/village for domestic purpose	2070
6	Excess water let out for irrigation	430
7	Point of discharge (as per CFO)	2950

#### 3. Water Balance Statement:

# 4. Micro-meteorological Monitoring:

Micro-meteorological station was installed on the top of GM's office, Mandamarri. The summary of the monitoring from 01.10.2024 to 31.03.2025 as follows:

S.No	Parameter (s)	Min	Мах	Mean
1.	Temperature (°C)	13.3	43.6	25.7
2.	Wind Speed (m/s)	Calm 18.48%	9.0	1.5
3.	Relative Humidity (%)	8.0	99.9	38.6
4.	Predominant Wind direction for the study period	North North West (NNW) direction		
5.	Total Rainfall (mm)		41.0 mm	

## 5. Air Pollution Control Measures:

- Adequate water spraying arrangements have been made at all working coal faces and galleries. Water spraying is regularly done at loading and unloading places of tipplers and bunkers at pit head on surface
- > Water spraying is regularly done by tractor mounted water tanker exclusively engaged to serve the purpose.
- As on now 76.00 ha of Block plantation is done. Avenue plantation is also done along the coal transport road.
- > Coal trucks are being covered with tarpaulins for preventing spillage
- The underground workings of the mine are well ventilated by adequate ventilation arrangements. The requirements and standards specified in this regard by Director General of Mines Safety (DGMS)
- 6. Phreatic surface monitoring: (Range of Water Table): The summary of the monitoring from October-2024 to March-2025 is enclosed as **Annexure-III**
- Groundwater Quality Monitoring: Monitoring Data: The summary of the monitoring from 01.10.2024 to 31.03.2025 is enclosed as Annexure-IV

#### Surface Water Quality Monitoring: Monitoring Data: The summary of the monitoring from 01.10.2025 to 31.03.2025 is enclosed as Annexure-XVI

#### 9. Water Pollution Control Measures:

- The mine discharge water, which may contain coal fines, needs sedimentation, before discharge into the natural water course / open land. The treatment facilities such as sedimentation, filtration and chlorination was provided for mine discharges, so as to conform to the effluent standards as prescribed by MoEF.
- The effluents from service building is being collecting by a sewage system and treatment by means of septic tanks and soak pits. Sewage is discharging after treatment.
- Sewage is being treated in septic tank followed by soak pit for existing townships in Mandamarri Area.

#### 10. Noise Pollution Control Masures:

- The main mechanical ventilator (MV Fan) is provided with evasee which dampens the noise.
- > Height of fall has minimized at all coal transfer points and internal lining of bins and chutes were provided.
- Where the high noise intensity working areas / zones earmuffs and earplugs is being providing to the workmen.
- > Regular noise level monitoring is being carrying periodically.
- Management of manpower working in high noise level areas such that the assignment is distributed amongst more persons thereby reducing individual exploure to high nose level to fewer hours in a shift and maintaining equivalent noise level explosure a shift is being complied.
- Extensive plantation of green belt and vegetation along the roads and around the offices to create a barrier and screen between the source and the receiver noise is absorbed and the exposure level is minimized.

# 11. Revenue Expenditure incurred on Environment Management and Pollution Control Measures:

SI. No	Description	Expenditure (In Rs:)
1	Air Pollution Prevention & Control measures (including free Gas supply of workers)	616,498
2	Water Pollution Prevention & Control measures	1,678,498
3	Plantation	710,868
4	Water spraying arrangements	234,981
5	Water Cess	-
6	CFO fee	-
	Total:	3,240,846

## The Expenditure incurred from October-2024 to March-2025 as follows

#### 12. Socio-economic Measures:

- i). A common central township is provided on a non coal bearing area and it is maintained with such facilities like dispensary, schools, drinking water supply, market place, recreation clubs, Parks, well lighted approach roads and play ground, dust bins etc., at various places in the colony and it is away from mining activity. Sulabh Complexes are constructed in and around mining colonies in addition to individual toilets provided in quarters.
- ii). Existing no of quarters in Mandamarri Area: 8098
- iii). Workers are being educated about the importance of family planning and an incentive of Rupees 220.00 for ladies & Rs: 150.00 for gents along with 6 days leave is being given as encouragement.
- iv). Arrangements are being made for giving vaccination to children and adults to protect from diseases and steps are taken to eliminate / control Malaria under effective supervision of Health Officer.
- v). All necessary steps are being taken for improving general sanitation of Township/Colony under effective supervision of Health Officer.
- vi). Sports and games are being conducted for workmen and also in the surrounding villages regularly.
- vii). Greenery is being developed in the existing colonies and also avenue plantation along the roads of surrounding villages.
- viii) a). Planting has been done in 70.00 ha with 165700 number of seedlings.
  - b). 84500 fruit bearing plants were disturbed to surrounding villages and to other departments during 2021 monsoon season.

#### ix) Similarly as part of Haritha haram:

- > 500 nos saplings are planted at Muthyampalli village, Kasipet Mandal.
- 201463 nos of fruit bearing saplings are planted on 26.09.2020 and 17.02.2021 at monkeys food court at KK-5 mine premises.
- 2 nos solar power plants has been installed at Mandamarri area. 1 no 15MW capacity solar power plant (MMR-II) synchronized with TS Transco at Muthyampalli village, Kasipet Mandal, Mancherial district near Kasipet mine on 08.04.2021.
  - 1 no 28 MW capacity solar power plant (MMR-I) synchronized with TS Transco at Mandamarri town, Mancherial district near Kalyan khani no.5 incline on 17.04.2021. **Welfare measures:** New canteens constructed and inaugurated during the year at Shantikhani Longwall project and Kasipeta-2 Underground Mine Project.
  - Further 63MW solar power plants erection works under progress in surrounding places of Bellamapalli, Mandamarri towns of Mancherial district.
  - Installed RO plants at all the mines and departments for supply of purified and hygienic mineral water to all employees.

- Ayurvedic medical camps conducted for benefit of the employees and their family members.
- CPRMS-NE: Health cards issued to Ex Employees -5731.
- HBLIRS availed by 872 employees.
- Swachta Maha & Swachta hi seva 2021, "Swatchatah Pakhwada," "Swachta hi seva" "Haritha Haram" programmes conducted.
- 2257 persons were donated BLOOD at MVTC, Mandamarri area since 2019.
- Conducted World Yoga Day programme at SCH grounds and other schools of Mandamarri on 21.06.2019 with involvement of 12,141 persons.
- Conducted CIL Athletic meet wherein 10 companies participated in the event.
- SEVA ACTIVITIES; Training given to 9000 persons in various works like Tailoring, Beautician, Maggam works, DCA course, motor driving, Security guard training, Army Training, Volvo driving training etc since starting of seva activities in the company.
- As in the part of welfare measures civil repairs are being taken up regularly for the benefit of employees, as well to the common public.
- Avenue plantation done in KKOC mine premises (2.5 km) -1000 nos and Kasipet-2 approach road (2.5km) -1733 nos.
- As per Govt. of India, circular Bharath Ka Amruth Mahotsav programmes were conducted on the following topics.
  - a). Fruit bearing plants were distributed to the neighbouring villages Yerraguntapalli and Mamidigudem.
  - b). 500 nos Jute bags were distributed to the employees on 20.01.2022.
  - c). General awareness programme was conducted on "Plastic waste Management" on 10.02.2022

a). Various training programmes have conducted for unemployed surrounding village				
people and the details as follow:-				

SI No	Course	Location	Centre	No of persons
1	Computer DCA course	Mandamarri	Maya computer centre	20
2	Motor Driving (LMV)	SRR Motors, Mandamarri	Jendavenkatapur	40
		Dubbagudem	Dubbagudem	
		Mamidigattu	Mamidigattu	
		Sravanpalli	Sravanpalli	
		Adilpet	Adilpet	
		Sarangapalli	Sarangapalli	
		Erraguntapalli	Erraguntapalli	
		Dubbagudem	Dubbagudem	
3	Tailoring	Ramakrishnapur	Ramakrishnapur	25
		Mandamarri	Mandamarri	28
		Yapal	Yapal	34
		Kasipet & Somagudem	Kasipet & Somagudem	25
4	Beautician	Ramakrishnapur	Ramakrishnapur	25
		Mandamarri	Mandamarri	25
		Yapal	Yapal	25
		Bellampalli	Bellampalli	20
5	Fashion designing course	Ramakrishnapur	Ramakrishnapur	20
		Mandamarri	Mandamarri	25
		Yapal	Yapal	25
		Bellampalli	Bellampalli	25
6	Meggam work course	Ramakrishnapur	Ramakrishnapur	28
		Mandamarri	Mandamarri	28
		Yapal	Yapal	40
		Bellampalli	Bellampalli	25
	•	•	Total:	473

# b). Training given to project affected people:

S. No	Project affected peoples	Vocational course	No of students
1	Adilpet village (Sravanpalli OCP)	Tailoring course	22
2	Amarawadi, Sheshapelli, Doragaripalli & Kyatanpalli (RKPOCP)	Tailoring course	60
3	Lambadi thanda, Dubbagudem	Tailoring course	25
4	Akenapalli (KKOCP)	Tailoring course	25
5	Mamidigattu (Sravanpalli OCP)	Fashion designing	30
6	Mamidigattu,Kasipet & Muthyampalli (KKOCP)	Beautician	60
7	Mamidigattu, Dubbagudem, Amaravadi & RK-4 gadda (KKOCP, RKOCP & Sravanpalli OCP)	Computer DCA	40
8	Jendavenkatapur, Dubbagudem, Mamidigattu, Sravanpalli, Adilpet, Sarangaplli & Erraguntapalli.	LMV (Driving)	60
9	All Mining Projects, Mandamarri	Army training	51
Total:			373

**c).** Bags were distributed in the colonies for collecting paper and plastic waste which is being sent for recycling regularly.

# d). To encourage unemployed youth on Entrepreneurs Development Programme for establishment of Ancillary units and from which the products are being utilized in mines and departments and the details are as follow:

Presently, 13 new entrepreneurs were selected for establish new ancillary units i.e. BPA-3, MM-5 and SRP- 05

Entrepreneur Development Programme was conducted to these 14 candidates from 4th June to 14th June 2012 at Yellandu Club, Mandamarri jointly by the Centurion University, Khadi Gramodyog Vidyalay and Officials from Singareni collieries Co Ltd.,

The units proposed are: Roof bolts – 4 persons, motor winding works – 1, House wiring – 3, GI Canisters – 1, Dog nails, bolts & nuts – 1, Fish plates – 1, Fabrication – 2, GI Wire items – 1

Out of these 14 persons, 13 have applied for loan through Prime Minister's Employment Generation Programme as detailed Below:

For Rs 25 lakh	:	4 persons
For Rs 20 lakh	:	1 person
For Rs 10 lakh	:	2 persons
For Rs 7 lakh	:	1 person
For Rs 1 lakh	:	5 persons

All the above 13 candidates obtained Vendor codes from SCCo.Ltd., and got their proposed firms registration. SCCL had given tenders of order value of Rs.13.43 crores to the Ancillary units during 2017-18.

SI.No	Name of course	Location	Strength
TAILOF	RING		
01		PH colony	25
02		RKP	25
03		Yapal	25
04		Somagudem	25
BEAUT	ICIAN		
01		RKP	25
02		MM (Yoga hall)	25
FASHIC	DN DESIGNING		
01		RKP	25
02		Yapal	25
03		SCHS ground, MM	25
MAGGA	M WORK		
01		RKP	20
02		Adilpet	26
03		Yapal	25
04		Peddanapalli	25
	·	Total:	321

#### Singareni Sewa Samithi training particulars for the year 2022-23

SI.No	Name of Course	Location of Centre	No of persons
	TAILORING		
01		PH colony	49
02		RKP	41
03		Yapal, MM	26
04		Somagudem	24
05		SCHS ground MM	26
	BEAUTICIAN		
01		RKP	49
02		SCHS MM (Yoga hall)	40
FA	SHION DESIGNING		
01		RKP	20
02		Yapal, MM	40
03		SCHS ground, MM	20
04		Sarangapalli village	27
	MAGGAM WORK		
01		RKP	20
02		Adilpet	24
03		Yapal, MM	17
04		Peddanapelli	25
05		SCHS ground, MM	19
06		Somagudem	21
CO	MPUTER COURSE		
01		Maya computer center, Mandamarri Market	20
	1	Total:	508

# Singareni Sewa Samithi training particulars for the year 2023-24

SI. No	Name of Course	Location of Centre	No of persons
TAILORING COURSE			
01	Tailoring	RKP (Sewa room)	50
		Adilpet (village)	24
02	Tailoring	SCHS ground MM, (Sewa room)	46
03	Tailoring	Turuka palli ,Village (Sewa room)	25
			145
В	EAUTICIAN COURSE		
01	Beautician course	RKP (Sewa room)	27
02	Beautician course	SCHS ground MM. (Sewa room)	55
			82
FASH	ION DESIGNING COURSE		
01	Fashion designing	Ph colony ,MM	17
02	Fashion designing	SCHS ground MM. (Sewa room)	47
			64
MA	GGAM WORK COURSE		
01	Maggam work	RKP (Sewa room)	19
02	Maggam work	SCHS ground (Sewa room), MM	18
03	Maggam work	SCHS ground MM. (Sewa room)	19
			56
C	OMPUTER CLASSES		
01	COMPUTER	MAYA COMPUTER CENTER, MM	20
			20
		TOTAL	367

# Singareni Sewa Samithi training particulars for the year 2024-25

# 13. Development activities (CSR) under SHAPE Programme in the surrounding villages from 2003-04 to 2008-09:

a). Towards school building and compo	bund	:	21.80 lakhs
b). Towards drinking water in the surro (namely Mandamarri, Amaravadi, k and Muthyam palli etc) for bore hole and pipe lines	urmapalli, Kasipet	:	24.50 Lakhs
c).Towards BT, CC roads, drainages, b	ridges & street lighting		498.25 Lakhs
C). Towards DT, CC Toads, drainages, c	indges & sireer lighting	•	490.23 Lakiis
	Total	:	<u>544.55 Lakhs</u>

#### S. **Description of the work** Amount in Lakhs No. Miscellaneous civil works to police station 2.90 1 building to accommodate CI office room 2 Drilling of bore holes including fixing of hand 2.77 pumps under CSR at MM area 3 White washing and coloring works to police 1.60 station building at MM area 4 M&R works to police station building at RKP 1.10 5 Providing dust bins and iron gates to project 2.86 affected villages of KKOC and sravanapalli OC at Mandamarri area Providing pipe culvert at Mamidigattu 6 2.94 Mandamarri area **Total Amount:** 14.17

# CSR works for the year 2014-15

# CSR works for the year 2015-16 to 16-17

	Total:	228.04
4	Construction of overhead tank	30.00
3	Drilling of bore holes	45.74
2	Towards CC drains	41.00
1	Towards CC road and metal road	111.30
S. No	Description of the work	Amount in Lakhs

# CSR activities taken up during 2017-18

- 1) Similarly, during the year 2017-18 the following works are being taken up:
  - An amount of Rs.189.64 lakhs for CC Drains & development of roads
  - An amount of Rs.60 Lakhs allotted for widening of roads & Central lighting system.
  - Hand Pumps worth Rs.17 Lakhs
  - Construction of Public Toilets worth Rs.19.37 Lakhs and in Bellampalli Town
  - An amount of Rs.162.90 lakhs for CC Drains & Roads
  - An amount of Rs.100.00 Lakhs for construction of Ambedkar Building

- 2) On 04.02.2018, a mega medical camp was organized at Saranga Palli Village with medical specialists and medical tests were conducted for nearly 1200 persons and necessary treatment was extended for identified persons. In the coming days also, medical camps will be organized in the project affected villages. 81 persons were identified for cataract surgery which will be done at free of cost.
- 3) Rs.14.55 & Rs.13.44 Crores valuable orders were given to the ancillary units set up by 13 unemployed youth during the years 2016-17 and 2017-18 respectively.
- 4) Company has supplied 55 nos. benches to the schools of nearby villages.
- 5) 14 Unemployed youth were given training in Volvo Truck driving at Bengaluru.
- 6) 87 persons were given training for Army Recruitment.
- 7) Specialized training session has been given to 25 Female & 30 Male unemployed youth so far for police recruitment.
- SCCL authorities have already deposited with District Collector, Mancherial around Rs.215 Crores (from January, 2016 to March, 2018under D.M.F (District Mineral Foundation) Trust, which will be spent for developments and upliftment of surrounding villages.

# CSR works for the year 2018-19

1)	Providing second toilet complex at Shanthinagar colony, RK-4 –gadda, RKP, MM area	
2)	Drilling of 8 nos bore wells wih hand pumps to surrounding villages of proposed Kalyanikhani-6 inc project, MM Area.	: 2.79
3)	Development works in surrounding habitations of SCCL areas of Bellampalli and Mm area under SHAPE-11-12 programme	: 6.71
4)	Providing development works at Mandamarri and it surrounding Villages under CSR programme	: 13.827
	5) Infrastructure development works (laying of Roads and construction of Drains etc.) in the surrounding areas of Mandamarri area, Mancherial District	: 50.876
6)	laying of CC roads and Drains at Kasipet GP in Mancherial District Works sanctioned under CSR <b>Under Corporate</b> <b>Social Responsibility activities (CSR)</b>	: 56.39
7)	Providing infrastructure to Central Nursery at Patha Bellampally, Mancherial district	: 15.50
8)	Infrastructure development woks in Urban areas such as Development of KCR park at Mandamarri town (orregadda) of Mandamarri Mandal –Mancherial dist.	: 200.00

Shantikhani Longwall Coal Mining Project HYMR Report from October-2024 to March-2025 <u>CSR works for the year 2019-20:</u>

1)	Development works such as laying CC/BT roads construction of open GYM, providing Hy-mast solar light planting trees Bellampalli Assembly constituency.	: 200.00		
2)	Construction of integrated market at Chennur Muncipality of Chennur Assembly constituency.	: 150.00		
	CSR works for the year 2021-22:			
Construction of class rooms and toilet blocks at ZPS School at Orregadda, Mandamarri of Chennur constituency, certain balance works to park at Bellampalli Muncipal limits. : 100.00				

#### CSR works for the year 2022-23:

Insall CCTV camers in Mandamarri Area for the safety and Security of	:	10.00
women/public in Mancherial-Dist.		
Note no MMR/GMO/G/006/2022/983/5 dt 21.11.2022		

#### CSR works for the year 2023-24:

1.

1)	Financial support for poor ST students towards School fee and tutor Fees- Ramji gond student home (ST Home) at Bellampalli	:	3.00
2)	Providing Rural development works in the Chennur (SC) constituency	:	200.00
3)	Providing Rural development works in the Bellampalli (SC) constituency	:	200.00

#### CSR works for the year 2024-25:

1)	Providing Rural development works in the Chennur (SC) constituency	:	200.00
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2) Providing Rural development works in the Bellampalli (SC) constituency : 200.00

#### Mobile medical camps conducted in nearby villages and the details are as below:

Medical camps/programmes	No of Programmes	No of Beneficiaries
Medical Camps	2	1300
Mobile Medical Services	2	246
School Health Programmes	7	750
Health Awareness Programmes	16	1746

## 14. <u>MINUTES OF THE ENVIRONMENTAL COMMITTEE MEETING</u>

Environmental committee meeting of SKLW Mine held on 13.03.2025 under the Chairmanship of Shri R.Vijaya Prasad, SO to GM, Mandamarri Area and the following executives were attended.

SI. No.	Name S/Sri	Designation	Administrative set up
1	R.Vijaya Prasad	SO To GM	Chairman
2	Md Abdul khadir	Project Officer	Member
3	Sanjay Kumar Sinha	Project Manager	Member
4	Y. Venkata Ramana	Area Engineer(E&M)	Member
5	B.Ramu	Area Engineer(Civil)	Member
6	Ujjwal Bandopadyaya	Area survey officer	Member
7	K.Venkata Reddy	Area Environmental officer	Convener
8	R.V.Ramana Reddy	Area Forest officer	Member
9	O Navaneetha	Area Estates Officer	Member

At outset, Area Environmental Officer briefed about each condition imposed in Environmental Clearance and for every condition present status reviewed and the ATR vs responsibility of the executive is being furnished as under.

# Minutes of the Meeting

#### Specific conditions:

S.No	EC condition	Action to be taken	Responsibility			
1	(iv) The Project authorities should check the possibility of existence of fault(s) before deciding about the thickness of safe barrier required to be maintained between the working face and the water body in consultation with the Director General Mines & Safety (DGMS). Depillaring should also be carried out after taking prior approval of the DGMS.	The precautions, regarding the underground inundation to be strictly implemented. The faults near to be identified and the safe barrier to be left against the water body as per CMR, 2017 and the DMGS circulars.	Sri.Sanjay Kumar Sinha Project Manager Sri.U.Ramesh Project Survey Officer			
2	(xi) The project authority should implement suitable water conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water board.	The existing Rain Water Harvesting structures should be checked and kept in good condition.	Sri B.Ramu Area Civil Engineer			
3	Regular monitoring of ground water level and quality should be carried out by establishing a net work of existing wells and constructing new Peizometers during the	Ground water levels and quality should be regularly monitored and the monitoring reports should be submitted to the	,			

		2	
	mining operation. The monitoring should be carried out four times in a year – pre-monsoon (April-May), monsoon (August), post- monsoon (November) and winter (January) and the data thus collected may be sent regularly to MoEF, Central Ground water authority and Regional Director Central Ground Water Board.		
4	(xv) Coal handling plant should be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.	The dust suppression arrangement at the mine and at RKP CHP to be maintained properly.	Sri A.Chandramouli SE (E&M), RKP CHP Sri P Vidyasagar Project Engineer
5	(xvi) Sewage treatment plant should be installed for the colony. ETP should also be provided for wastewater from workshop and CHP.	Sewage treatment plant (100 KLD Capacity) at Bharath Colony, Somagudem to be maintained properly.	

## **General Conditions:**

S.No	EC condition	Actual to be taken	Responsibility				
1	(i) No changing in mining technology and scope of working should be made without prior approval of Environment and Forests.	The mining technology and the scope of work should not be changed without prior approval of MoEF & CC.	Sr.Sanjay Kumar Sinha Project Manager				
2	(xi) Personnel working in dust areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Dust masks to be provided to all the workmen working at the active working places. Training should be given on the safety and health issues.	Sr.Sanjay Kumar Sinha Project Manager				

The above meeting was concluded by expressing thanks to the participants.

# 15. Environmental Public Hearing Minutes Vs Response/Commitment of Project Proponents

# And Present Status

# Date of Public Hearing Conducted: 31-07-2004 (11.00 AM) Venue: Gram Panchayath Office, Batwanpalli Village, Bellampalli (Mandal), Mancherial (District), Telangana State

<ul> <li>Akenepalli While welcoming the project brought the issue of subsidence of land due to old SK-II mine. He alleged that depillaring below the village and the Lingapur tank affected the land that resulted in depletion of water due to seepage. He expressed similar apprehensions over the new project proposed in the vicinity of Akenepalli and three other villages. He suggested that the SCCL to divert the water pumped out from the proposed project to the near by Lingapur &amp; Batwanpalli irrigation tanks. He also requested that the SCCL to lay 10 KM BT road from Akenepalli to Mandamarri for use of SCCL employees and others to reach their work places.</li> <li>Sri Bolisetti Shanker, Sarpanch, Perkapalli, expressed apprehension due to project of SCCL in the area especially with regard to the proposed mining operation. He requested the SCCL to lay BT roads in the villages. While welcoming the proposed new project, he requested the SCCL to lay BT roads in the villages. While welcoming the proposed new project, the agriculture poptrunities to sell the agriculture product to the people employeed who were transferred to other areas due to closure of mines. This would also help in increasing their opportunities to sell the agriculture product to the people employeed in the mines.</li> <li>Sri Singati Peddanna, Sr.Citizen, resident of Batwanpalli Village expressed apprehensions over depletion of water table which would affect the agricultural operations in the surrounding villages. He wanted drilling of bore wells per every 10 acres of cultivated land to overcome the impact due to mining operations. He sought provision for</li> </ul>	SI. No.	Issue raised by the public	Present status				
<ul> <li>expressed apprehension due to project of SCCL in the area especially with regard to the Mango Orchards and Paddy fields. He sought compensation for any damage resulted due to the proposed mining operation. He requested the SCCL to lay BT roads in the villages. While welcoming the proposed new project, he requested the SCCL to open some more new mines in the area to bring back the employees who were transferred to other areas due to closure of mines. This would also help in increasing their opportunities to sell the agriculture product to the people employed in the mines.</li> <li>3 Sri Singati Peddanna, Sr.Citizen, resident of Batwanpalli Village expressed apprehensions over depletion of water table which would affect the agricultural operations in the surrounding villages. He wanted drilling of bore wells per every 10 acres of cultivated land to overcome the impact due to mining operations. He sought provision for</li> </ul>	1	Akenepalli While welcoming the project brought the issue of subsidence of land due to old SK-II mine. He alleged that depillaring below the village and the Lingapur tank affected the land that resulted in depletion of water due to seepage. He expressed similar apprehensions over the new project proposed in the vicinity of Akenepalli and three other villages. He suggested that the SCCL to divert the water pumped out from the proposed project to the near by Lingapur & Batwanpalli irrigation tanks. He also requested that the SCCL to lay 10 KM BT road from Akenepalli to Mandamarri for use of SCCL employees and others to reach their work places.	<ul> <li>activity and regular monitoring of surface area is being done.</li> <li>Mine discharge water of 1250 KLD is being diverted to Lingapur tank for agriculture purpose.</li> <li>6000 KLD for drinking water for colony and Bellampalli township</li> <li>Remaining 1300 KLD discharge water is also diverted to nallah No. 2 for agriculture purpose by near villages.</li> <li>10 KM BT road from Akenapalli to Mandamarri for use of SCCL employees and others to reach their work places.</li> </ul>				
<ul> <li>3 Sri Singati Peddanna, Sr.Citizen, resident of Batwanpalli Village expressed apprehensions over depletion of water table which would affect the agricultural operations in the surrounding villages. He wanted drilling of bore wells per every 10 acres of cultivated land to overcome the impact due to mining operations. He sought provision for</li> <li>3 Sri Singati Peddanna, Sr.Citizen, resident of Batwanpalli Village expressed apprehensions over depletion of water table which would affect the agricultural operations in the surrounding villages. He wanted drilling of bore wells per every 10 acres of cultivated land to overcome the impact due to mining operations. He sought provision for</li> <li>4 SC colony : 2</li> <li>Pochamma temple : 1</li> </ul>	2	expressed apprehension due to project of SCCL in the area especially with regard to the Mango Orchards and Paddy fields. He sought compensation for any damage resulted due to the proposed mining operation. He requested the SCCL to lay BT roads in the villages. While welcoming the proposed new project, he requested the SCCL to open some more new mines in the area to bring back the employees who were transferred to other areas due to closure of mines. This would also help in increasing their opportunities to sell the agriculture product to the people employed in	<ul> <li>mango orchards and paddy fields. 8 km length of BT road laid from Bellampalli to Perkapalli with SHAPE funds.</li> <li>SCCL is opened Kasipeta -2 Incline new mine and posted with local</li> </ul>				
		Sri Singati Peddanna, Sr.Citizen, resident of Batwanpalli Village expressed apprehensions over depletion of water table which would affect the agricultural operations in the surrounding villages. He wanted drilling of bore wells per every 10 acres of cultivated land to overcome the impact due to mining operations. He sought provision for infrastructure in the villages.	<ul> <li>Batwanpalli: 2</li> <li>Perkapalli : 3</li> <li>Lingapur : 3</li> <li>Akenapalli : 4</li> <li>SC colony : 2</li> </ul>				

SI. No.	Issue raised by the public	Present status					
	Bellampalli, while welcoming the project, enumerated the advantages and disadvantages of the project. He stated that local people would be benefited by the proposed project as the project would generate direct and indirect employment to the local people. He sought provision of water for agricultural purposes. He also pleaded for compensation to the affected persons of Chopparipalli village whose houses were affected due to subsidence. He also requested the SCCL to lay CC road and drains in all the villages which would be affected.	road at Akenapalli. • Employment provided in shaft sinking operations for nearby villagers by M/s Teknomin Construction Ltd. <u>Batwanpalli</u> 8 <u>Perkapalli</u> 16 <u>Lingapur</u> 33 <u>Akenapalli</u> 12					
5	<b>Smt. A Sridevi, MLA, Asifabad</b> , welcomed the project and requested the SCCL management to provide the following-	• Mine discharge water of 1360 KLD from is being diverted to Lingapur tank for agriculture purpose.					
	Funds for drinking water and agriculture in the village	5450 KLD for drinking water for colony and Bellampalli township					
	<ul> <li>Water tank for Akenepalli</li> <li>Water from Shanti Khani Longwall Project to Batwanpalli and Lingapur tanks</li> </ul>	<ul> <li>Remaining 2000 KLD discharge water is also diverted to nallah No. 2 for agriculture purpose by near villages.</li> </ul>					
	<ul> <li>Shanthikhani to Lingapur BT road</li> <li>B T road from Mandamarri to Batwanpalli via Akenepalli village.</li> <li>Agriculture and drinking for Batwanpalli,</li> </ul>	<ul> <li>10 KM BT road laid from Akenapalli to Mandamarri for use of SCCL employees and others to reach their work places.</li> </ul>					
	Akenepalli, Gurijala and Perkapalli.						
6	<b>Sri Jangapalli Ramaswamy, Sarpanch</b> Patha Bellampalli pleaded for the rehabilitation of Choparripalli village and compensation to the inhabitants affected due to mining operations of Mandamarri mines under operation in the Patha Bellampalli Village. He sought provision of drinking water facilities to the resident of the village.	Twenty two bore wells were provided for drinking water to nearby villages.					
7	<b>Sri B. Ankulu</b> , Thala Gurajala welcomed the proposed project and requested the de-silting of tanks in their villages to increase the water holding capacity.	<ul> <li>De silting of Thala Gurajala Tank was done in 2016.</li> </ul>					
8	<ul> <li>Sri Ch.Venkata Ramana, R/o Batwanpalli while welcoming the project requested SCCL Management to take up the following works in the four villages i.e., Akenepalli, Patha Bellampalli, Batwanpalli and Perkapalli</li> <li>Repair of irrigation tanks.</li> </ul>	<ul> <li>Twenty two bore wells were provided for drinking water to nearby villages.</li> <li>10 KM BT roads laid from Akenapalli to Mandamarri for use of SCCL employees and others to reach their work places and mine water diverted to nearby village tanks.</li> </ul>					
	<ul> <li>Supply of filtered mine water to Batwanpalli and Lingapur villages</li> </ul>						

SI. No.	Issue raised by the public	Present status
	Power, street lights ,Library, dispensary ,play ground ,community hall	
	1. Compensation at the rate of Rs.2 Lakhs per acre in case of damage of land due to the proposed mining operations.	

gent S.K.Gr.Of Mines S.K.Gr.Of Mines

Annexure –I

Appendix-1

#### FOREST LAND DIVERSION ORDER COPY

F.No. 8-87/2001-FC Government of India Ministry of Environment and Forests (FC Division)

> Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi – 110003 Date: 20.12.2005

Ta

The Secretary (Forests) Government of Andhra Pradesh, Hyderabad.

Sub: Diversion of 285.89 ha of forest land for Shanti Khani Extension Block underground mining in favour of M/s S.C.C.L. in Adilabad District of Andhra Pradesh – reg.

Sir,

I am directed to refer to your letter No.8803/For.I(1)/2001-1 Dated 26.9.2001 and No.8803/For.I(1)/2001-3 Dated 17.01.2004 whereunder the above proposal was forwarded to this Office seeking prior approval of the Central Government in accordance with the Section-2 of the Forest (Conservation) Act, 1980, and to say that the above proposal was examined by the Forest Advisory Committee constituted under Section-3 of the Forest (Conservation) Act, 1980.

After careful consideration of the proposal of the State Government and on the basis of the recommendation of the above mentioned Advisory Committee, the Central Government granted in-principle approval vide letter of even number dated 22.8.2004 subject to certain conditions. The compliance of these conditions was submitted by the State Government vide letter No. No.8803/For.(1)/2001 Dated 11.11.2005. After consideration of the proposal and compliance of various conditions by the State Government, the Central Government hereby conveys its approval under Section-2 of the Forest (Conservation) Act, 1980 for diversion of 285.89 ha of forest land for Shanti Khani Extension Block underground mining in favour of M/s S.C.C.L. in Adilabad District of Andhra Pradesh subject to fulfilment of following conditions: -

- 1. Legal status of the forest land shall remain unchanged.
- This diversion will be co-terminus with the current lease granted under MMRD Act. 1957.
- 3. The User Agency shall deposit NPV and all other funds with Compensatory Afforestation Fund Management and Planning Authority (CAMPA), which has already been constituted and notified by the Central Government on 23.04.2004. Till such time, the CAMPA intimates the Head of Accounts for deposition of funds, the funds will be maintained in the form of fixed deposits in the name of Nodal Officer or concerned Divisional Forest Officer of the State Government. The funds realized towards the NPV shall not be utilized by the State Government.

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EXTRAYES BEPT. 3385 ware 27/12/2/8/



#### Annexure-III

# Peizometric & Phreatic monitoring data of Mandamarri Area, SCCL

# ATTITUDE OF PHREATIC SURFACE IN GODAVARI VALLEY COAL FIELD

	Name of village	Location	Type of well	Dimensions (m)	Total depth (m)	Geology	Measuring point (m)	Period	Years					
Well No.									2021	2022	2023	2024	2025	Nearest mine & dist. (km)
								Winter	6.89	3.41	4.89	4.71	6.00	SK-2
1	Tologurijal	Near Bus stop	Domestic	2.1 x 2.1	10.0	Komthi Em	0.50	Pre- monsoon	6.89	7.02	6.57	8.44		
	Talagurijal	Near bus stop	Domestic			Kamthi Fm.	0.50	Monsoon	2.90	1.20	3.80	3.84		4.5
								Post- monsoon	3.16	2.83	4.47	5.80		
								Winter	4.68	2.11	3.55	3.10		SK-2
2	Batwanpalli	In village Dom	Domestic	2.0	9.0	Kamthi Fm.	0.20	Pre- monsoon	4.68	4.54	6.92	5.90		
2			Domestic	2.0	9.0			Monsoon	0.77	0.63	0.88	1.30*		3.5
								Post- monsoon	1.56	1.90	1.84	2.90		
								Winter	8.00	6.79	8.16	8.10		SK-2
_	Lingapur	Near to nala Domest		nestic 2.0	9.0	Barren 9.0 Measures Fm	Aeasures 0.20	Pre- monsoon	Dry	7.84	9.97			
5			Domestic					Monsoon	4.75	4.40	6.32	6.80		2.0
								Post- monsoon	6.49	5.75	6.98	7.45		
								Winter	4.84	3.28	4.67	4.61		SK-2 Inc.
								Pre- monsoon	7.49	6.45	6.30			
6	Akenapalli	Before village	age Agri. well	2.0	8/10.0	Kamthi Fm.	0.40	Monsoon	2.27	1.72	2.30	3.50		2.3
								Post- monsoon	2.92	3.50	3.48	7.00		

Mandamarri Area
					Total depth (m)						Years			
Well No.	Name of village	Location	Type of well	Dimensions (m)		Geology	Measuring point (m)	Period	2021	2022	2023	2024	2025	Nearest mine & dist. (km)
								Winter	4.80	2.11	1.33	1.12		SK-2 Inc.
7	Akananalli	towards S.C. Colony	Agriculture	5.2	8.5	Kamthi Fm.	0.20	Pre- monsoon	4.61	4.22	1.40			
'	Akenapalli							Monsoon	0.20	0.48	0.65	0.30		2.3
								Post- monsoon	0.40	0.79	1.20	AB		
								Winter	6.20	3.28	AB	AB		SK-2 Inc.
	8 Akenapalli	Towards			9.5	Kamthi Fm.		Pre- monsoon	6.20	6.45	AB			
o		Buchayapalli	Domestic	2.1	9.5	Kamuni Fm.	0.30	Monsoon	6.29	1.72	AB	AB		
								Post- monsoon	3.15	3.50	AB	AB		2.3

Note: * indicates new well started adjacent to the previous existing well							
NA : Not approachable							
NR : Not Recorded							

## ATTITUDE OF PIEZOMETRIC SURFACE IN GODAVARI VALLEY COAL FIELD

#### Area:Mandamarri

Piezometric	Location	Depth	Diameter	Measuring	Deried		I	Depth to v	vater (m)		
well no	Location	(m)	(m)	point (m)	Period	2020	2021	2022	2023	2024	2025
					Winter	49.78	49.81	49.54	49.46	49.08	AB
	Road to Shanthi khani Mine				Pre-monsoon	Dry	Dry	48.91	Dry	Dry	
1	shaft. (Workings Area) 19° 02'43.90"N,	50	0.10	0.20	Monsoon	49.47	49.01	49.10	48.13	Upto 48 Dry	
	79°31'06.16"E				Post- monsoon	49.52	49.13	49.32	49.24	WD/AB	
					Winter	17.71	17.74	17.52	13.92	14.00	16.48
	Near to SKLW Man winding shaft(In front of Main gate). 19° 02'45.85"N,	50	0.10		Pre-monsoon	17.87	18.08	18.25	14.05	14.61	
2				0.20	Monsoon	16.37	14.43	12.43	13.97	15.10	
	79°31'36.66"E				Post- monsoon	16.83	14.71	12.54	14.83	16.33	
					Winter	7.00	7.08	7.94	7.99	8.20	8.40
	Dubbapalli village, 19°				Pre-monsoon	7.48	8.38	8.51	9.00	9.67	
3	3'39.61"N, 79°31'48.58"E	50	0.10	0.20	Monsoon	4.21	7.24	4.18	5.78	9.36	
	,				Post- monsoon	4.32	7.57	4.55	7.70	8.25	
					Winter	7.15	7.21	6.03	7.19	7.08	6.93
	Near Pochamma temple,				Pre-monsoon	7.29	9.76	7.87	9.00	10.55	
4	Dubbagupalli village., 19°	50	0.10	0.20	Monsoon	1.97	4.25	4.00	4.32	6.30	
	3'36.32"N, 79°31'54.45"E				Post- monsoon	2.31	5.97	4.37	5.08	5.48	

Note:- Piezometric well No. SKLWP-PW-1 was Abandoned.

# Annexure-IV

# Ground water quality monitoring data

# Groundwater Sampling Locations

SI. No.		Date of S	Sampling	Sampling		
	Sampling code	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	Location	Latitude	Longitude
1	GW-9	26.09.2024	30.12.2024	Bellampalli	N 19°03'50.1"	E 79°29'21.5"
2	GW-10	26.09.2024	30.12.2024	Lingapur	N 19° 01' 46.4"	E 79° 31' 54.1"

# Physico-Chemical, Bacteriological Characteristics of Groundwater Collected within the Study Area

# **Organoleptic and Physical Parameters**

				IS: 10500	IS: 10500	RESULT					
S. No.	Parameters	Unit	Test Method	Requirement (Acceptable	Permissible Limit in the absence of	<b>GV</b> Bellar	<b>V-9</b> npalli	GW-10 Lingapur			
10.			method	Limit)	alternate source	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter		
1.	Colour	Hazen	2120. B	5	15	<5	5	<5	5		
2.	Odour	TON	2150. B	Agreeable	Agreeable	Agree.	Agree.	Agree.	Agree.		
3.	рН	-	4500-H⁺B	6.5 to 8.5	No relaxation	7.4	7.8	7.9	8.1		
4.	Taste	FTN	2160. B	Agreeable	Agreeable	Agree.	Agree.	Agree.	Agree.		
5.	Turbidity	NTU	2130. B	1	5	0.2	0.36	0.1	0.38		
6.	Total Dissolved Solids at 180° C	mg/L	2540.C	500	2000	747	736	335	605		

# General Parameters Concerning Substances Undesirable in Excessive Amounts

				10. 40500	10. 40500		RES	SULT	
			Test	IS: 10500 Requirement	IS: 10500 Permissible Limit	GW	/-9	GW	/-10
<b>S</b> .	Parameters	Unit	Method	(Acceptable	in the absence of	Bellar			apur
No.			wiethod	Limit)	alternate source	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>
				,		Quarter	Quarter	Quarter	Quarter
1.	Calcium as Ca	mg/L	3500-Ca.B	75	200	95	88	54	93
2.	Magnesium as Mg	mg/L	3500-Mg.B	30	100	49	54	26	45
3.	Chlorides as Cl-	mg/L	4500-CIB	250	1000	119	125	37	105
4.	Sulphates as SO42-	mg/L	4500-SO42E	200	400	143	107	45	39
5.	Fluoride as F-	mg/L	4500-FC	1.0	1.5	0.31	0.44	1.1	1.2
6.	Nitrates as NO3	mg/L	4500-NO3B	45	No relaxation	20	30	5	42
7.	Total Alkalinity as CaCO3	mg/L	2320. B	200	600	370	388	230	365
8.	Total Hardness as CaCO3	mg/L	2340. C	200	600	439	440	242	418
9.	Sulphide as H <sub>2</sub> S	mg/L	4500-S2-F&D	0.05	No relaxation	BDL	BDL	BDL	BDL
10.	Total Ammonia-N	mg/L	IS 3025 (Part 34)	0.5	No relaxation	BDL	BDL	BDL	BDL
11.	Phenolic compounds as C6H5OH	mg/L	5530-D	0.001	0.002	BDL	BDL	BDL	BDL
12.	Residual free chlorine	mg/L	4500-CIB	0.2	1.0	BDL	BDL	BDL	BDL
13.	Mineral oil	mg/L	IS:3025 (part 39)	0.5	No relaxation	absent	absent	absent	absent
14.	Anionic Detergents (as MBAS)	mg/L	IS:13428:2005K	0.2	1.0	<0.2	<0.2	<0.2	<0.2
15.	Aluminium as Al	mg/L	3120-B	0.03	0.2	0.06	0.08	BDL	0.09
16.	Barium as Ba	mg/L	3120. B	0.7	No relaxation	0.2	0.19	0.17	0.23
17.	Boron as B	mg/L	3120-B	0.5	2.4	0.09	0.11	BDL	0.16
18.	Iron as Fe	mg/L	3120-B	1.0	No relaxation	0.66	0.46	0.49	0.53
19.	Zinc as Zn	mg/L	3120-B	5	15	0.08	0.14	0.15	0.12
20.	Copper as Cu	mg/L	3120-B	0.05	1.5	BDL	BDL	BDL	BDL
21.	Manganese as Mn	mg/L	3120-B	0.1	0.3	BDL	BDL	BDL	BDL
22.	Selenium as Se	mg/L	3120-B	0.01	No relaxation	BDL	BDL	BDL	BDL
23.	Silver as Ag	mg/L	3120. B	0.1	No relaxation	BDL	BDL	BDL	BDL

			Test Method	IS: 10500	IS: 10500	RESULT				
C No	Parameters	l lució		Requirement	Permissible Limit	GV	-		/-10	
S.No	Parameters	Unit		(Acceptable	in the absence of	Bellampalli 1 <sup>st</sup> 2 <sup>nd</sup>		Ling 1 <sup>st</sup>	apur 2 <sup>nd</sup>	
				Limit)	alternate source	Quarter	Quarter	Quarter	Quarter	
1.	Cadmium as Cd	mg/L	3120-B	0.003	No relaxation	BDL	BDL	BDL	BDL	
2.	Cyanide as CN-	mg/L	4500-CNF	0.05	No relaxation	BDL	BDL	BDL	BDL	
3.	Lead as Pb	mg/L	3120-B	0.01	No relaxation	BDL	BDL	BDL	BDL	
4.	Molybdenum as Mo	mg/L	3120. B	0.07	No relaxation	BDL	BDL	BDL	BDL	
5.	Nickel as Ni	mg/L	3120-B	0.02	No relaxation	BDL	BDL	BDL	BDL	
6.	Total Arsenic as As	mg/L	3120-B	0.01	0.05	BDL	BDL	BDL	BDL	
7.	Total Chromium as Cr	mg/L	3120-B	0.05	No relaxation	BDL	BDL	BDL	BDL	
8.	Mercury as Hg	µg/L	3500-Hg.B	0.001	No relaxation	BDL	BDL	BDL	BDL	
9.	<b>Pesticides:</b> α–BHC, β-BHC, γ- BHC, δ-BHC, ο, p-DDT, p, p' – DDT, Endosulfan, β- Endosulfan, Aldrin, Dieldrin	µg/L	6630. D	Absent	0.001	ND	ND	ND	ND	
	2,4-D, Carboryl (Carbonate) Malathion Methyl Parathion Anilophos, Chloropyriphos	Qualitative analysis	6630. D	Absent	0.001	ND	ND	ND	ND	
10.	Polyaromatic Hydrocarbons (PAH's): Acenaphthene, Acenaphthylene, Anthracene, B(a)A, B(a)P, B(b)F, B(k)F, Pyrene, Dibenz (a,h) anthracene, Fluoranthene, Fluorene, Indeno (1,2,3-(d) Pyrene, Naphthalene, Phenanthrene, Pyrene, Methyl Naphthalene	µg/L	6440.C			ND	ND	ND	ND	

# Parameters Concerning Toxic Substances

Mandamarri Area

# **Bacteriological Quality of Drinking Water**

					IS: 10500	RESULT					
S. No.	Parameters	Unit	Test	IS: 10500 Requirement	Permissible Limit in the	<b>GW-9</b> Bellampalli		<b>GW-10</b> Lingapur			
	T drameters		Method	(Acceptable Limit)	absence of alternate source	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter		
1	Total Coliforms	MPN/100 mL	9221B	-	-	<1.8	<1.8	<1.8	<1.8		
2	Fecal Coliforms	MPN/100 mL	9221 E	-	-	<1.8	<1.8	<1.8	<1.8		

## NTU – Nephelometric Turbidity Unit; BDL – Below Detection Limit

Detection Limits of Aluminium (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Boron (B), Cadmium (Cd), Chromium (Cr)/Total Chromium, Cobalt (Co), Copper (Cu), Iron (Fe), Lead (Pb), Magnesium (Mg), Manganese (Mn), Molybdenum (Mo), Nickel (Ni), Nickel (Ni), Selenium (Se), Silver (Ag), Vanadium (V), Zinc (Zn), Phenols is 0.01mg/L. Detection Limit of Mercury (Hg), Phosphates/Total Phosphates, Nitrites NO2, Free Ammonia, Total Ammonia is 0.02mg/L. Detection Limits of Potassium (K), Sodium (Na) is 0.03mg/L. Detection Limits of Cyanide (CN), Sulfide (S2), Hexavalent Chromium Cr+6 is 0.05mg/L. Detection Limits of Nitrates as NO3, Fluoride is 0.1mg/L. Detection Limits of Residual Free chlorine, Free Available chlorine, O&G is 1mg/L. Detection Limits of Sulfate SO<sub>4</sub><sup>-2</sup>, Ammonical Nitrogen, Total Kjeldhl Nitrogen (TKN), COD, Total Nitrogen (TN) is 5mg/L. BOD-3mg/L. ND-Not Detected; Detection Limit: Pesticides– 0.1 ppm; PAHs – 1 ppm.

#### Annexure-V

#### **GROUND WATER CLEARANCE**

GOVERNMENT OF ANDHRA PRADESH GROUND WATER DEPARTMENT From: Dr.B.N.Prasad, Ph.D., The Director [Planning and Projects] Director, The Singareni Collieries Company Ltd. Kothagudem Collieries-507 101, Ground Water Department, 8th floor, B Block, Ehadrachalam Road Pailway Station, BRKR Govt.Offices Complex, KHAMMAM DISTRICT. Hyderabad-500 063. Fax: 040-3225602. E-Mail: apsgwd@ap.nic.in apsgwd@sify.com 出现 () () () () Lr.No.2898/Hg.III[1]/2004, dated. 6.4.2005 Sir, 1. I Think they Ground Water Department - Clearance to tap groundwater for proposed Sub:-Shanthikhani Longwall Coal Mining Project, Singarani Collieries Company Ltd., Bellampally area near Akhepally village, Bellampally Mandal, 行手等的 0 Adilabad district-Regarding. Ref:-[1] The General Manager [Planning and Projects], The SCCL., Kothagudem Collieries, Khammam district Lr.No. CRP/PP/A/487/109, dt.20.3.2004. [2] This office Lr.No.2898/Hg.2/2004, dt.20.3.2004. [3] Deputy Director, GWD., Nirmal Lr.No.312/T/2004, dt.30.9.2004. er allem [4] This office Lr.No.2898/Hg.2/2004, dt.29.12.2004. @@@ mental de la traise With reference to subject and letters cited, I am to inform that groundwater Investigations were taken up to study the possible effects of coal mining on the groundwater regime at Shanthi Khani Long wall Coal Mining Project area. Based on the integrated groundwater surveys conducted in and around the proposed project area, it is concluded that the project is cleared from the groundwater point of view with the following precautionary measures in order to maintain the groundwater regime in the area and to protect the rights and interests of the local existing habitations. 0 Periodical monitoring of groundwater levels [every month] and quality (twice a year [ie.,] during pre and post monsoon periods] should be under taken by constructing plezometers and through existing observation wells and report sent to the Deputy Director, Groundwater Department, Nirmal. 2. Rain water harvesting structures should be taken up in all the villages with in a radius of 10 kms. of the project area. 3. Provisions should be made to maintain the present use/supply of groundwater in and around the Project Area and also it's restoration due to any adverse effects as a result of mining in future. Afforestation should be taken up in surrounding areas. CRP PP I.W.No. G Yours faithfully, Date 181

#### Annexure-VI

#### APPLICATION FOR GROUND WATER CLEARANCE



#### THE SINGARENI COLLIERIES COMPANY LIMITED (A Government company) ENVIRONMENT DEPARTMENT : : MANDAMARRI AREA

MMR/ENV /G-5/2023/ 127

Date: 03.08.2023

To The Deputy Director, Ground water Department, H.No: 5-243, Sahakar Bhavan, Opposite: Bus Stand, Mancherial - 504 208 Mancherial District, T.S.

Sir,

Sub: Request for Ground Water Clearance in respect of expansion of Extension Block (Shanthikhani Longwall Project) UG Coal Mine from 1.167 MTPA to 1.80 MTPA (normative)/2.36 MTPA (Peak) in an area of 1697.70 Ha of M/s The Singareni Collieries Company Limited – Reg -o0o-

SCCL is intending to obtain Environmental Clearance from Ministry of Environment Forests & Climate Change (MoEF&CC), Gol for proposed enhancement of production capacity from 1.167 MTPA to 1.60 MTPA and increase in lease area from 681.23 Ha to 1697.70 Ha for existing Shanthikhani Longwall Underground coal mining project. Bellampalli Mandal, Mancherial District (Telangana).

In this connection as per the EIA Notification, an approval in the form of Ground Water Clearance is required from Telangana State Ground Water Department for drawing water for the mine is necessary. As the mine discharge (which is incidental in coal mining operations) a part of which is proposed to be utilized for meeting various requirements of the Mines.

Hence, it is requested to Kindly accord clearance for the above Shanthikhani Longwall Underground coal mining project from Ground Water point of view and also kindly arrange to estimate for fee payment and field investigations.

District Ground Water Office Ground Water Department MANCHERIAL

2025

CC to: GM (Env), Corporate. Project Officer, SK Longwall project AGM(Geo), Rg, Rgn. Yours faithfully,

General Manager,

The S.C.Co. Ltd., Mandamarri Area

General Manager The Singareni Collieries Co. Ltd MANDAMARRI AREA P.O. KALYANI KHANI- 504 721 Mancherial (Dist), Telangatum

#### Annexure-VII

#### **CONSENT FOR ORDER**



TELANGANA STATE POLLUTION CONTROL BOARD PARYAVARAN BHAVAN, A - 3, INDUSTRIAL ESTATE, SANATHNAGAR, HYDERABAD - 500 018 Phone: 23887500 Fax: 040 – 23815631 Website: tspcb.cgg.gov.in

#### CONSENT ORDER (RENEWAL) RED CATEGORY

#### Consent Order No : 210523335393

#### Date: 09 .11.2021

(Consent Order for Existing/New or altered discharge of sewage and/or trade effluents/outlet under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and amendments thereof, Operation of the plant under section 21/22 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof.

CONSENT is hereby granted under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974, under section 21/22 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof, (hereinafter referred to as 'the Acts', 'the Rules' and the rules and orders made there under to M/s. The Singareni Collieries Co. Ltd., Shanthikhani Long wall Under Ground Coal Mining Project, Mandamarri area, Akenapalli (V), Bellampally (M), Mancherial District (hereinafter referred to as 'the Applicant /Industry') and the mine is authorized to operate the industrial plant to discharge the Effluents from the outlets and the quantity of Emissions per hour from the chimneys, by operating pollution control equipment, as detailed below,

i) Out lets for discharge of Effluents :

Outlet No.	Outlet Description	Max Daily Discharge (KLD)	Point of Disposal		
1	Excess mine water discharge	1700	Shall be used for on land for plantation / Dust suppression after meeting the standards stipulated at Schedule - B		
2	Domestic	2268	After treatment in STP, shall be used for on land for plantation / Dust suppression after meeting the standards stipulated at Schedule - B		

This consent order is valid for Mining of Coal in Mine lease area of 681.23 Ha. for the following capacity only.

S. No.	Name of the Product	Capacity	
1	Coal (underground mining)	1.167 MTPA	

This order is subject to the provisions of 'the Acts' and the Rules' and amendments made thereunder and further subject to the terms and conditions incorporated in the schedule A and B enclosed to this order.

This order of Consents is valid for a period upto 30th September, 2026.

Sd/-MEMBER SECRETARY

To M/s. The Singareni Collieries Co. Ltd., Shanthikhani Long wall Under Ground Coal Mining Project, Mandamarri area, Akenapalli (V), Bellampally (M), Mancherial District

///T.C.F.B.O/// BUBGirish SENIOR ENVIRONMENTAL ENGINEER (FAC) 1

Annexure-VIII

LAND USE LAND COVER



Shantikhani Longwall Coal Mining Project HYMR Report from October-2024 to March-2025 Land Use and Land Cover report was attached

#### Wildlife Conservation Plan

#### Annexure-IX

#### File No.PCCF-WL1/WL14/9/2022-WILD LIFE SECTION

#### GOVERNMENT OF TELANGANA FOREST DEPARTMENT

Ref:-PCCF -WL1/WL14/9-2022 Dated:- 05/02/2023 Office of the Prl. Chief Conservator of Forests(Head of Forest Force) Aranya Bhavan,Saifabad, Hyderabad

#### Sri. R.M.Dobriyal, I.F.S.,

#### Prl.Chief Conservator of Forests (HOFF) Chief Wildlife Warden(FAC)

Sub: TSFD- WL - TOR /Environmental clearance, approval of Wildlife Mitigation Plan for Scheduled-I species for existing & proposed expansion mines in Mandamarri Area in Mancherial District of Mancherial forest division - Wildlife Conservation & Mitigation Plan - Approved and Communicated– Reg.

#### Ref: CCF FDPT KTR Mancherial Rc.no. 7516/2022-D2 dated 22.12.2022

#### -000-

In the reference cited, the CCF/ FDPT KTR Mancherial has submitted a revised Wildlife Conservation & Mitigation Plan for Mandamarri group of mines i.e Kalyanikhani OCP, Ravindra Khani OCP, Kasipet-1 Incline, Kasipet - 2 Incline, Kalyankhani-1 Incline, Kalyankhani-5 Incline Mine ,Ravinia Khani - 1A Incline & Shantikhani Longwall Underground Mine duly revising the TOR/ Environmental clearance approval for existing & proposed expansion mines in Mandamarri Area in Mancherial District of Mancherial Forest division for an amount of Rs 554.70 lakhs.

The Wildlife Conservation & Mitigation Plan submitted by FD, KTR is approved for an amount of Rs 554.70 lakhs and is enclosed herewith for further necessary action. The amount of Rs.554.70 lakhs for implementing the wildlife mitigation plan is to be deposited into the BIOSOT account of the Chief Wildlife Warden bearing account no. No.110310100030284, IFSC Code UBIN0811033 in Union Bank of India, Secretariat Bank. A copy of the transaction of the deposit shall to be sent to this office.



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#### <u>Annexure –X</u>

### Air quality monitoring data

The summary of the Air quality monitoring from October-2024 to March-2025 as follows:

### **Air Monitoring Locations**

Station Code	Name of the Stations	Latitude	Longitude									
	Core Zone											
CA4	SKLW Incline Site Office	N 19° 02' 41.6"	E 79° 30' 46.6"									
	Buffe	r Zone										
BA8	Bellampalli Colony	N 19º 04' 12.9"	E 79° 29' 35.6"									
BA9	Lingapur	N 19° 01' 46.4"	E 79° 31' 54.1"									
BA10	Perkapalli	N 19° 03' 49.1"	E 79° 32' 07.6"									
BA11	Gundla Somaram	N 19° 02' 04.4"	E 79° 34' 33.4"									

Area Period of Monitoring	: Mandamarri : October 2024 – March 2025	S	Nature of Are Sampling Duration		ore Zone 4hrs period
S.No.	Date of Sampling	ΡΜ <sub>10</sub> (μg/m³)	ΡΜ <sub>2.5</sub> (μg/m <sup>3</sup> )	SO₂ (µg/m³)	NO₂ (μg/m³)
	al mine standards, ł2(E), Dated 25.09.2000	250	-	120	120
1.	01.10.2024	159	61.0	14.9	17.0
2.	16.10.2024	154	59.5	14.2	17.5
3.	01.11.2024	158	61.5	14.7	18.0
4.	16.11.2024	162	65.5	15.0	18.6
5.	02.12.2024	172	71.2	15.5	19.0
6.	16.12.2024	157	60.0	14.8	18.1
7.	02.01.2025	153	54.5	14.1	17.7
8.	16.01.2025	149	50.4	13.9	17.1
9.	01.02.2025	145	49.6	13.3	16.5
10.	17.02.2025	140	48.4	12.9	16.0
11.	01.03.2025	144	49.2	13.1	16.7
12.	17.03.2025	148	50.1	13.6	16.9
	Min		48.4	12.9	16.0
	Max	172.0	71.2	15.5	19.0
	Average	153.4	56.7	14.2	17.4
	98 Percentile	169.8	69.9	15.4	18.9

#### Ambient Air Quality at SKLW Incline Site Office (CA4)

- No standard was specified for PM2.5 in core zone

Ρ	rea eriod of Ionitorin		– Sa	ture of Area Impling Iration		fer Zone rs period
	S.No.	Date of Sampling	ΡΜ <sub>10</sub> (μg/m³)	ΡΜ <sub>2.5</sub> (μg/m <sup>3</sup> )	SO₂ (µg/m³)	NO₂ (μg/m³)
		Q Standards, CPCB ated : 18.11.2009	100	60	80	80
	1.	01.10.2024	57	27.3	11.8	14.9
	2.	16.10.2024	53	26.5	11.0	14.2
	3.	01.11.2024	60	28.8	11.6	14.7
	4.	16.11.2024	64	32.1	12.0	15.1
	5.	02.12.2024	70	33.3	12.4	15.7
	6.	16.12.2024	63	29.4	11.7	14.9
	7.	02.01.2025	58	28.6	11.0	14.1
	8.	16.01.2025	54	27.5	11.5	13.8
	9.	01.02.2025	52	26.5	10.0	13.1
	10.	17.02.2025	50	25.3	9.6	12.7
	11.	01.03.2025	53	26.8	10.1	13.2
	12.	17.03.2025	56	27.3	10.6	13.8
		Min	50.0	25.3	9.6	12.7
		Max	70.0	33.3	12.4	15.7
		Average	57.5 28.3		11.1	14.2
ĺ		98 Percentile	68.7	33.0	12.3	15.6

### Ambient Air Quality at Bellampalli Colony (BA8)

			in Quanty at	Elligapai (B		
Ar	ea	: Mandamarri		ature of Are	а:В	uffer Zone
Pe	eriod of	: October 2024 -	- S	ampling	: 24	4hrs period
Mo	onitoring	March 2025	D	uration		
	S.No.	Date of Sampling	ΡΜ <sub>10</sub> (μg/m <sup>3</sup> )	ΡΜ <sub>2.5</sub> (μg/m <sup>3</sup> )	SO₂ (µg/m³)	NO₂ (µg/m³)
	ΝΔΔΟ	Standards, CPCB				
		ted : 18.11.2009	100	60	80	80
	1.	01.10.2024	44	22.6	8.0	11.1
	2.	16.10.2024	40	21.6	7.8	10.8
	3.	01.11.2024	43	21.4	8.3	11.3
	4.	16.11.2024	48	23.5	8.7	11.8
	5.	02.12.2024	52	24.0	9.2	12.3
	6.	16.12.2024	45 42	22.9	8.5	11.9
	7.	02.01.2025		21.6 20.0	7.9 7.6	10.7
	8.	16.01.2025	38			10.4
	9.	01.02.2025	40	20.5	7.2	10.0
	10.	17.02.2025	36	19.8	7.7	10.8
	11.	01.03.2025	39	19.4	8.0	11.2
	12.	17.03.2025	41	20.2	8.4	11.7
	Min		36.0	19.4	7.2	10.0
		Мах	52.0	24.0	9.2	12.3
		Average	42.3 21.5		8.1	11.2
		98 Percentile	51.1	23.9	9.1	12.2

#### Ambient Air Quality at Lingapur (BA9)

#### Ambient Air Quality at Perkapalli (BA10)

a od of litoring	: Mandamarri : October 2024 - March 2025	Nature of A Sampling Duration	Buffer Zone 24hrs period		
S.No.	Date of Sampling	PM₁₀ (μg/m³)	ΡΜ <sub>2.5</sub> (μg/m <sup>3</sup> )	SO₂ (µg/m³)	NO <sub>2</sub> (µg/m <sup>3</sup> )
	Q Standards, CPCB ated : 18.11.2009	100	60	80	80
1.	01.10.2024	43	22.0	9.1	12.0
2.	16.10.2024	39	20.9	8.8	11.3
3.	01.11.2024	43	21.4	8.3	11.3
4.	16.11.2024	46	22.6	9.8	12.7
5.	02.12.2024	50	24.6	10.1	13.2
6.	16.12.2024	48	23.8	9.5	12.4
7.	02.01.2025	44	22.4	8.7	11.9
8.	16.01.2025	41	20.7	8.0	11.5
9.	01.02.2025	39	19.8	8.5	11.0
10.	17.02.2025	35	19.2	7.9	10.5
11.	01.03.2025	42	21.8	8.2	11.3
12.	17.03.2025	45	22.2	8.8	11.9
	Min	35.0	19.2	7.9	10.5
	Мах	50.0	24.6	10.1	13.2
	Average	42.9	21.8	8.8	11.8
	98 Percentile	49.6	24.4	10.0	13.1

od of toring	: Mandamarri : October 2024 - March 2025	_	Nature of A Sampling Duration	Area : :	24hrs period	
S.No.	Date of Sampling	ΡΜ <sub>10</sub> (μg/m³)	ΡΜ <sub>2.5</sub> (μg/m³)	SO₂ (µg/m³)	ΝΟ <sub>2</sub> (μg/m <sup>3</sup> )	
	Standards, CPCB ed : 18.11.2009	100	60	80	80	
1.	01.10.2024	49	23.8	8.5	11.6	
2.	16.10.2024	45	22.9	7.9	10.5	
3.	01.11.2024	48	24.0	8.4	11.1	
4.	16.11.2024	52	25.9	8.8	11.7	
5.	02.12.2024	55	27.0	9.1	12.2	
6.	16.12.2024	50	24.2	8.6	11.8	
7.	02.01.2025	41	21.8	8.0	11.0	
8.	16.01.2025	37	19.7	7.5	10.5	
9.	01.02.2025	35	18.0	7.1	10.9	
10.	17.02.2025	33	17.3	7.6	10.3	
11.	01.03.2025	38	19.1	8.3	11.5	
12.	17.03.2025	40	19.8	8.7	12.4	
	Min	33.0	17.3	7.1	10.3	
	Max	55.0	27.0	9.1	12.4	
	Average	43.6	22.0	8.2	11.3	
	98 Percentile	54.3	26.8	9.0	12.4	

# Ambient Air Quality at Pedda Gundla Somaram (BA11)

## Summary of Ambient Air Quality

Location code	Name of the location		PM <sub>10</sub> (mg/m <sup>3</sup> )		PI	PM <sub>2.5</sub> (mg/m <sup>3</sup> )		SO <sub>2</sub> (mg/m <sup>3</sup> )			NO <sub>2</sub> (mg/m <sup>3</sup> )		
prior to 25.	standards (commenced 09.2000), GSR 742(E), 9.2000Dated 25.09.2000	250		-		120			120				
CA4	CA4 SKLW Incline Site Office		172.0	153.4	48.4	71.2	56.7	12.9	15.5	14.2	16.0	19.0	17.4

#### Summary of Ambient Air Quality

Location code	Name of the location		Ρ <b>Μ</b> 10 (μg/m³)		PI	ΡM <sub>2.5</sub> (μg/m³)			SO₂ (μg/m³)			NO₂ (μg/m³)		
NAAQ Standards, CPCB Dated: 18.11.2009		100			60			80			80			
Buffer Zor	ne	Min	Мах	Avg	Min	Мах	Avg	Min	Мах	Avg	Min	Max	Avg	
BA8	Bellampalli Colony	50.0	70.0	57.5	25.3	33.3	28.3	9.6	12.4	11.1	12.7	15.7	14.2	
BA9	Lingapur	36.0	52.0	42.3	19.4	24.0	21.5	7.2	9.2	8.1	10.0	12.3	11.2	
BA10	Perkapalli	35.0	50.0	42.9	19.2	24.6	21.8	7.9	10.1	8.8	10.5	13.2	11.8	
BA11	Gundla Somaram	33.0	55.0	43.6	17.3	27.0	22.0	7.1	9.1	8.2	10.3	12.4	11.3	

## <u>Annexure-XI</u>

# Effluents monitoring data

#### Effluents sampling locations

SI.No.	Sample code	Name of the Location	Latitude	Longitude
1.	EW13	SK Mine Discharge	N 19° 02' 41.6"	E 79° 30' 47.1"

#### Characteristics of Effluents – SK Mine Discharge (EW13)

SI. No.	Date of Sampling	рН	TSS at 105⁰C	TDS at 180⁰C	COD	BOD	Oil & Grease
	Unit		mg/L	mg/L	mg/L	mg/l	mg/L
	Test Method	4500-H <sup>+</sup> B	2540-D	2540-C	5220-D	IS 3025	5520-B
	EF GSR 742 (E) and GSR 801(E) Effluent Standards for coal mines	5.5 to 9.0	100		250	30	10
1.	15.10.2024	7.2	21	912	27	3.2	<1
2.	31.10.2024	7.8	30	856	20	2.2	<1
3.	15.11.2024	7.6	22	571	31	3.6	<1
4.	30.11.2024	7.8	28	853	24	2.6	<1
5.	13.12.2024	7.7	36	634	36	4.2	<1
6.	31.12.2024	7.4	29	569	27	3.4	<1
7.	12.01.2025	7.7	21	718	32	4.1	<1
8.	31.01.2025	7.6	25	511	24	3.4	<1
9.	15.02.2025	7.7	37	642	20	2.8	<1
10.	28.02.2025	7.8	22	716	28	3.2	<1
11.	13.03.2025	7.5	31	583	36	4.4	<1
12.	29.03.2025	7.3	25	679	24	3.6	<1

#### Annexure-XII

SI. No.	Date of Sampling	рН	TSS at 105⁰C	TDS at 180⁰C	COD	BOD	Oil & Grease
	Unit		mg/L	mg/L	mg/L	mg/l	mg/L
	Test Method	4500-H <sup>⁺</sup> B	2540-D	2540-C	5220-D	IS 3025	5520-B
	DEF GSR 742 (E) and GSR 801(E) Effluent dards for coal mines	5.5 to 9.0	100		250	30	10
1.	15.10.2024	8.1	73	968	67	15.5	2
2.	31.10.2024	7.7	69	1150	56	16.2	2.2
3.	15.11.2024	7.9	58	1006	49	10.5	2
4.	30.11.2024	7.6	75	1232	64	15.6	2.8
5.	13.12.2024	7.8	69	1192	56	13.2	1.2
6.	31.12.2024	7.7	52	1319	47	11.8	<1
7.	12.01.2025	7.8	64	1085	60	15.4	2.4
8.	31.01.2025	7.2	59	1244	51	12.2	2.8
9.	15.02.2025	7.7	70	1012	68	15.4	2
10.	28.02.2025	7.2	52	1354	40	9.4	2.4
11.	13.03.2025	7.5	43	1169	56	13.3	2.6
12.	29.03.2025	7.8	69	1029	48	12.6	1.8

#### Characteristics of Effluents – Area Workshop ETP Outlet (EW16)

### Annexure-XIII

#### Noise levels monitoring data

# Noise Monitoring Locations

Station Code	Name of the Stations	Latitude	Longitude
	Core Z	one	
CN11	Area Workshop & Stores	N 18° 59' 33"	E 79° 28' 39"
CN12	Area Hospital, RKP	N 18° 55' 33"	E 79° 28' 34"

#### Summary of Noise Levels

		-									
			ndard	October '	1 <sup>st</sup> For	tnight	October 2	2 <sup>nd</sup> For	tnight		
Location	Monitoring stations	limits of Noise		limits of Noise Noise levels in dB (A)							
Code	Stations	Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling	Leq Day	Leq Night		
			C	ore Zone							
CN11	N11 Area Workshop & 75 7 Stores		70	03.10.2024	57.3	46.6	17.10.2024	56.6	46.3		
CN12	Area Hospital, RKP 75		70	08.10.2024	55.1	45.0	22.10.2024	54.8	44.6		

	Acation Monitoring		ndard nits	November	1 <sup>st</sup> Fo	rtnight		November 2 <sup>nd</sup> Fortnight		
Location Code	Monitoring stations	of N	of Noise Noise levels in dB (A)							
Oue	Stations	Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling	Leq Day	Leq Night	
			C	Core Zone						
CN11	Area Workshop & Stores	75	70	06.11.2024	56.0	46.0	21.11.2024	55.7	45.8	
CN12	Area Hospital, RKP	75	70	07.11.2024	54.2	44.1	22.11.2024	53.8	43.6	

			ndard	December '	1 <sup>st</sup> For	night	December 2	end For	tnight
Location	Monitoring stations	1	nits Ioise		No	ise level	ls in dB (A)		
Code	Stations	Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling	Leq Day	Leq Night
	Core Zone								
CN11	Area Workshop & Stores	75	70	06.12.2024	56.3	46.1	20.12.2024	56.9	46.5
CN12	Area Hospital, RKP	75	70	07.12.2024	54.1	44.0	21.12.2024	53.6	43.7

			ndard	January '	1 <sup>st</sup> For	tnight	January 2	2 <sup>nd</sup> Fortnight	
Location	Monitoring stations		nits Ioise		Noi	se leve	ls in dB (A)		
Code	Stations	Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling	Leq Day	Leq Night
			C	ore Zone					
CN11	Area Workshop & Stores	75	70	20.12.2024	56.9	46.5	21.01.2025	55.9	45.3
CN12	Area Hospital, RKP	75	70	21.12.2024	53.6	43.7	22.01.2025	52.7	42.8

			ndard nits	February	1 <sup>st</sup> For	tnight	February	February 2 <sup>nd</sup> Fortnight			
Location Code	Monitoring stations		loise		Noi	ise level	s in dB (A)				
Code	Stations	Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling	Leq Day	Leq Night		
			C	ore Zone							
CN11	Area Workshop & Stores	75	70	06.02.2025	56.1	45.7	20.02.2025	56.6	46.2		
CN12	Area Hospital, RKP	75	70	07.02.2025	53.1	43.2	21.02.2025	53.7	43.8		

			ndard nits	March 1	<sup>st</sup> Fortı	night	March 2	2 <sup>nd</sup> Fortnight		
Location	Monitoring		loise		Noi	se level	s in dB (A)			
Code	stations	Day time	Night time	Date of Sampling	Leq Day	Leq Night	Date of Sampling	Leq Day	Leq Night	
			C	ore Zone						
CN11	Area Workshop & Stores	75	70	06.03.2025	57.0	46.6	21.03.2025	57.5	47.0	
CN12	Area Hospital, RKP	75	70	07.03.2025	54.0	44.2	22.03.2025	54.5	44.6	

#### Annexure-XIV

#### **CONSENT FOR ESTABLISHMENT**

		-	
-			Const
	ANDIRA PRADESH POLLUTION CUATRO PARYAVARAN BRAVAN, A. J. INDESTRIA SANATHNAGAR, HYDERABAD - 509	H. BIARDA L.RSTATUS DIR Workin rewords and the second seco	
	REGD.POST WITH ACK	BUE	
	CONSENT ORDER FOR ESTAN	LISHMENT	
Order.No. A	APPCB/PTN/NZB/169/110/2904/	D1.37 .11.2004	
Seclar	PCB - CPE - M/a, Singaroni Collissies Co Project (Under Ground Mine).Adi Eatabliahmens of the bound under Sice 25 of under Soc. 21 of Air (PAC of P) Act 1941 - 1	Water (P&C of P) Act, 1974 and	
Stef:	<ol> <li>Industry's application through SWCC dt. 278, OV inspection rupon df 9.5, 2004</li> <li>Public Isening conducted on 317.23 Batavanpality (V), Bellamynlly, (M), Adil 4, T,O. Ledd 89, 2004</li> <li>Yowit Ledd 90, 2004</li> </ol>		
the state		and the Martin and an address Property Sec.	
12.atabili	reference 1st cited, an application was submit latement (CFE) for Shamhikhani Long Wall Pr g to the capacity as mentioned below with an in	bject (Under Ground Mine) for Coal	
Produ	121		
Coal (	(under ground mining) - 1,167 Million TPA.		
OARR.	Detalisi		
Longed	requirement for the project on surface - 7.	R17 8244	
	Take Area - 581 Hs		
2 As per	y the application, the above activity is to be hom		
81,7975	Akenspally (V). Baliampelly		
	<ol> <li>Sy No. 280- old, 178-new, Bi</li> </ol>	atwanpally (V), Beilampally (M)	
	iii) 5y,5i0.280,281,283 = 001.3 Itelianipally (54)	78,377,375 - NOW, Porkapally (W),	
	(c) Sy 550 283 - ald, 375 - report	Sturbupally (V). Newral (Nt)	
	<ul> <li>Sy No. 283 - nid., 375 - new.</li> </ul>	Guripila (V), Normal (N4)	
b).Priv	unic innid: 1) Sy No 125, 281 Akenepaliy	(N), Bellarousilly (N)	
	iii Sy No. 109, 280, Perkapally	(V), Bollampelly (N)	
	iii) Sy No.220, Corijala (V), Ne	nnal (Nt)	
3 The a English July 2	above site was inspected by the Environment seer, Regional office, Nalgonda, A.P. Poliur 2004	al Engineer and Aset Environmental ion Centrol Board on 30 <sup>th</sup> 8, 31 <sup>rd</sup>	1.77
	15		

#### Annexure-XV

#### PUBLIC LIABILITY INSURANCE ORDER COPY

पॉलिसी संख्या / Policy Number:				And a second second	Pruched Myloe Tircle		
550200492510000035		व्यवसाय स्रोत/Busi	ness Source: 550200				
जारीकर्ता कार्यालय/Issuing Office कार्यालय कोढ/ Office Code: 550200 कार्यालय पता/ Office Address: HYDER BUSINESS OFFICE II CSR Plaza,[		विक्रय चैनल विवरण/ Sales Channel Do कोड/ Code: 550200 नाम/ Name: Hyder संपर्क संख्या/Contact I	9 rabad Division II		1		
347/9/4,,2nd Floor,Dwarakapuri Colony,Punjagutta, - 500082. राज्य कोड/State Code: 36, Telangana बीएसटीएन।/GSTIN: 36AAACN99667E6ZZ संपर्क संख्या/Contact Number: 40 2340 मोबाइल संख्या/Mobile Number: 0	1398	1800	e Toll Free Numbe 0 345 0330 er.support@nic.co.		ä		
ग्रहक का नाम/Customer Name: MS T CO LTD	HE SINGA	RENI COLLIERIES	ग्राहक आईडी/ Custom 9510115064	er ID:	पैन/ PAN: ******3F		
तता/ Address: CORPORATE FINANC			फोन/ Phone: ******	11			
DEPARTMENT, PO. KOTHAGUDEI BHADRACHALAM ROAD RLY STN KOTHAGUDEM DISTRICT, TELAN( KOTHAGUDEM, जिला/District: KHAN	(S C RLY), GANA, शहर/	BHADRADRI City:	ई-मेल/ E-Mail: *******	***rp@scclmi	nes.com		
TELANGANA, पिन/ PIN: 507101. सेल/Cell: *******11							
पोंलिसी प्रभावी समय घंटे को Policy Ef	fective fro	om 00:00 hours,o	n 30/04/2025 की मध	ग रात्रि तक प्रभा	बो/to midnight of 29/04/2026		
प्रीमियम /Premium	₹ 48,981	1.88 कवर नोट संख्या	तथा तिथि/ Cover Note Number and Date	NA			
सीजीएसटी/CGST	₹ 4,408	1.00					
एसजीएसटी/यूटीजीएसटी SGST/UTGST	₹ 4,408	प्रस्ताब संख	या और तिथि /Proposal Number and Date	880024050	6182484 दिनांक/Dt. 03/03/2025		
आईजीएसटी।GST बम:जीएसरी_रीडीएस / Less:GST TDS		.00	Number and Date				
वसूली योग्य स्टाम्प शुल्क /	₹0.	00	रसीद संख्या और तिथि/	550200812	550200812510000273 देनांक/Dt. 29/04/2025		
Recoverable Stamp Duty			ipt Number and Date गंख्या तथा समाप्ति तिथि/	550200492410000034 and Dt.29/04/2025			
কুল যমি/ Total Amount*	₹1,06,781	61 m	Policy Number and	5502004924	410000034 and Dt.29/04/2025		
কুল ধয়ি/ Total Amount*	and the set of the set	.00 Previous	Policy Number and Expiry Date	5502004924	410000034 and Dt.29/04/2025		
ক্তুল থটা/ Total Amount*	d Seven Hu	.00 Previous	Policy Number and Expiry Date	5502004924	410000034 and Dt.29/04/2025		
चुल थंबे/ Total Amount* लपए /Rupees One Lakh Six Thousan * पर्यावरण राहत कोष /*Environment Relief Fund: urance Details:	d Seven Hu 2	.00 Previous Indred Eighty One ক	Policy Number and Expiry Date রন্ন/Only.)	5502004924	410000034 and Dt.29/04/2025		
चुल थंबे/ Total Amount* लपए /Rupees One Lakh Six Thousan * पर्यावरण राहत कोष /*Environment Relief Fund: urance Details: olicy Effective from 00:00 hours, o	d Seven Hu 2 n 30/04/202	.00 Previous Indred Eighty One 놓 25 to midnight of 29	Policy Number and Expiry Date রন্ন/Only.)	5502004924	410000034 and Dt.29/04/2025		
चुल श्री/ Total Amount* स्पए /Rupees One Lakh Six Thousan * पर्यावरण राहत कोष /*Environment Relief ₹ 48,982.1 Fund: urance Details: olicy Effective from 00:00 hours, o LI act Premium	d Seven Hu 2 n 30/04/202	.00 Previous undred Eighty One 斋 25 to midnight of 29 3,63,356.20	Policy Number and Expiry Date রন্ন/Only.)	5502004924	410000034 and Dt.29/04/2025		
चुल श्री/ Total Amount* स्पए /Rupees One Lakh Six Thousan * पर्यावरण राहत कोष /*Environment Relief Fund: urance Details: olicy Effective from 00:00 hours, o LI act Premium ervice tax	d Seven Hu 2 on 30/04/202	.00 Previous undred Eighty One 斋 25 to midnight of 29 3,63,356.20 0.00	Policy Number and Expiry Date রন্ন/Only.)	5502004924	410000034 and Dt.29/04/2025		
कुल शीं/ Total Amount* त्रपए /Rupees One Lakh Six Thousan * पर्यावरण राहत कोष /*Environment Relief Fund: urance Details: olicy Effective from 00:00 hours, o LI act Premium ervice tax ecoverable stamp duty	d Seven Hu 2 on 30/04/20; ( 0 0	.00 Previous indred Eighty One के 25 to midnight of 29 3,63,356.20 0.00	Policy Number and Expiry Date রন্ন/Only.)	5502004924	410000034 and Dt.29/04/2025		
ভুল থঝি/ Total Amount* মুদ থমি/ Rupees One Lakh Six Thousan * पर्यावरण राहत कोष /*Environment Relief Fund: urance Details: olicy Effective from 00:00 hours, o LI act Premium ervice tax ecoverable stamp duty RF premium	d Seven Hu 2 0n 30/04/202 4 0 0 0 0 0 0 0	.00 Previous undred Eighty One 斋 25 to midnight of 29 3,63,356.20 0.00	Policy Number and Expiry Date রন্ন/Only.)	5502004924	410000034 and Dt.29/04/2025		
जुल शीम / Total Amount* स्पर् /Rupees One Lakh Six Thousan * पर्यावरण सहत कोम /*Environment Relief Fund: urance Details: olicy Effective from 00:00 hours, o LI act Premium ervice tax ecoverable stamp duty RF premium otal amount	d Seven Hu 2 01 30/04/20: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	.00 Previous indred Elghty One 新 25 to midnight of 29 3,63,356.20 0.00 9,63,356.20 ,26,712.40	Policy Number and Expiry Date রন্ন/Only.)	5502004924	410000034 and Dt.29/04/2025		
जुल श्री/ Total Amount* ब्लग् /Rupees One Lakh Six Thousan * पर्यावरण राहत कोष /*Environment Relief	d Seven Hu 2 in 30/04/20) 0 0 0 7 7 7 7 6 date: 3 7 7 7 6 date: 3 7 7 7 9 0 7 7	.00         Previous           undred Elghty One %	Policy Number and Expiry Date बल/Only.) /04/2026	ICES HANDL	410000034 and Dt.29/04/2025		
जुल शीम / Total Amount* अपए /Rupees One Lakh Six Thousan * पर्यावरण सहत कोम /*Environment Relief Fund: urance Details: olicy Effective from 00:00 hours, o LI act Premium ervice tax ecoverable stamp duty RF premium otal amount Retroactiv	d Seven Hu 2 9n 30/04/20: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	.00         Previous           undred Eighty One and	Policy Number and Expiry Date बल/Only.) /04/2026	ICES HANDL	ED & GROUP SUCH AS		
कुल शॉश/ Total Amount* ब्यष् /Rupees One Lakh Six Thousan * पर्यावरण राहत कोष /*Environment Relief Fund: urance Details: olicy Effective from 00:00 hours, o LI act Premium ervice tax ecoverable stamp duty RF premium otal amount Retroactiv	d Seven Hu 2 9n 30/04/20 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	.00         Previous           undred Eighty One के           25 to midnight of 29           3,63,356.20           0.00           3,63,356.20           0,00           3,63,356.20           -,26,712.40           0/04/2023           2LI ACT POLICY -HA           XPLOSIVES, OIL, L           MATERIAL.	Policy Number and Expiry Date बल/Only.) /04/2026	ICES HANDL	ED & GROUP SUCH AS		

दिनॉक को मुद्रित/Printed on 02/05/2025 आईडी द्वारा/by ID: 56187, AID : 56214

पृष्ठ स.Page no: 1

पॉलिसी संख्या / Policy Number: 550200492510000035	व्यवसाय स्रोत/ Business Source: 550200	
जारीकर्ता कार्यालय/ <b>Issuing Office</b> कार्यालय कोढ/ Office Code: 550200 कार्यालय पत्ता/ Office Address: HYDERABAD BUSINESS OFFICE II CSR Plaza,D No. 6-3-	<u> বিদ্রার খীনল ৰিবংম//</u> <u>Sales Channel Details</u> কীৰ/ Code: 550200 नाम/ Name: Hyderabad Division II संपर्क्त संस्था/Contact Number:	
347/9/4,,2nd Floor,Dwarakapuri Colony,Punjagutta, - 500082. राज्य कोड/ <b>State Code:</b> 36, Telangana बाएसरोएन <b>।GSTIN:</b> 36AAACN9967E6ZZ संपर्क संख्या/Contact Number: 40 23401398 मोबाइस संख्या /Mobile Number: 0	Customer Care Toll Free Number: 1800 345 0330 email:customer.support@nic.co.in	
Ratio of AOA:AOY:	1:3	
. Sum Insured:	5,00,00,000.00	
Annual turn over:	3,54,25,20,00,000.00	
		per Annexure.I
Clauses	AS	per Annexure.

NUMBER OF WORKMEN EMPLOYEES :40762

ESTIMATED ANNUAL TURNOVER PROPOSED : R8.35425.20 CRORES PREVIOUS YEAR TURNOVER : RS.31800.73 CRORES AOA: 5 CRORES

AOY : 15 CRORES ( 1:3) जिसकी गवाही में 02/May/2025 को उपरोक्त उल्लिखित कार्यालय पते पर अधोहस्ताक्षरी को विधिवत अधिकृत किया जा रहा है उसके हाथ निर्धारित किए जाएं। यह अनुसूची, संतग्न पॉलिसी, खण्ड, पृष्ठांकन और पॉलिसी अब्दों, जो कंपनी वेबसाईंट <u>https://nationalinsurance.nic.co.in</u> पर उपलब्ध है, को एक अनुबंध के रुप में

एक साथ पढ़ा जाए तथा कोई भी शब्द या अभिव्यक्ति जिसके लिए यह विशिष्ट अर्थ पॉलिसी या अनुसूची के किसी भी हिस्से में संलग्न किया गया हो, एक ही अर्थ वहन

करेगा चाहे जहाँ भी उल्लिखित हो। यह आधासन दिया जाता है कि प्रीमियम चेक की अस्वीकृति के मामले में, यह दस्तावेज स्वतः आरंभ से ही निरस्त मानी जाएगी । //N WITNESS WHEREOF, the undersigned being duly authorized hereunto set his/ her hand at the office address mentioned above, this 02/May/2025.This schedule, the attached policy, the clauses, the endorsements and policy wordings as available in the website <u>https://nationalinsurance.nic.co.in</u> shall be read together as one contract and any word or expression to which the specific meaning has been attached in any part of this policy or of the schedule shall bear the same meaning wherever it may appear. It is warranted that IN CASE OF DISHONOUR OF THE PREMIUM CHEQUE, THIS DOCUMENT STANDS AUTOMATICALLY CANCELLED 'AB-INITIO'

स्टांप डचूटी

Stamp

Duty: (₹ 0.25 )

इंश्वोरेनसईडियासिमिटेड ओम्बर्ड्समैन का विवरण/Ombudsman Details: Office of the Insurance Ombudsman,6-2-46, 1st floor, Moin Court, Lane Opp. Hyundai Showroom, A. C. Guards, Lakdi-Ka-Pool, Hyderabad - 500 004. Tel.: 040 - 23312122 / 23376991/23376599 / 23328709/23325325 Email: bimalokpal.hyderabad @cioins.co.in. कृते नेशनल इन्श्योरेन्स कंपनी लिमिटेड/ For and on behalf of National Insurance Company Limited अधिकृत हस्तात्क्षरकर्ता/ Authorized Signatory

दिनांक को मुद्रित/Printed on 02/05/2025 आईडी द्वारा/by ID: 56187, AID : 56214

पुष्ठ स.Page no: 2

टैक्स इनवॉयस/<u>TAX INVOICE</u> इनवॉक्स क.सं./Invoice Serial No: 30602L5PE0000035 इनवॉयस ि तिश/Invoice Date: 02/05/2025 আদুর্নিকর্না কা যিবলো/Details of Supplier: ल्ल इन्ध्योरेन्स कंपनी लिग्टिड/National Insurance Company Limited., HYDERABAD BUSINESS OFFICE II CSR Plaza, D No. 6-3-347/9/4,,2nd Floor, Dwarakapuri Colony, Punjagutta, - 500082 राज्य/State : 36 , Telangana जीएसटीआएन नंबर/ 36AAACN9967F677 GSTIN No : प्राप्तकर्ता का विवरण/Details Of Receiver : MS THE SINGARENI COLLIERIES CO LTD CORPORATE FINANCE & ACCOUNTS DEPARTMENT, PO, KOTHAGUDEM COLLIERIES, BHADRACHALAM ROAD RLY STN(S C RLY), BHADRADRI KOTHAGUDEM DISTRICT, TELANGANA KOTHAGUDEM, पना/Address : age/City : जिना/District: KHAMMAM, राज्य/State: TELANGANA. মিন/PIN: 507101. आपूर्ति का स्थान/Place Of Telangana Supply State : सन्य मोत/State Code : जीएसटीआइंपन नंबर/GSTIN No : 38 36AAACT8873F1Z1 यूआयएन =.UIN No : NA एसजीएसटी/यूटीजीएसटी Kerala Flood Cess सीजीएसटी की त्तजि/ टैबस योग्य/ आईजीएसटी/IGST सेवा का विनरण/ রুহ/ CGST /SGST/UTGST सैक कोड/SAC मुल्प/ कुल/Total(₹) Description of Code Disco Taxable 27/ राशि राजि/ 7157/ रासि/Amount( Service unt **दर/** nount( ₹) **दर**/ Value(₹) Rat Amount( Amount( Rate ₹) Rate Other non-life insurance services (excluding reinsurance services) ₹) ₹) e 0 997139 48,982 0% 48,982 9% 4,408 9% 4,408 0% 0 services) TOTAL 48,982 48,982 4,408 4,408 0 0 कुल इनवॉयस मूल्य (अंकों में )Total Invoice Value (In figures) : ₹ 1,06,781 कुल इनयॉयस मूल्य (शब्दों में)Total Invoice Value (In words) : रूपए/Rupees One Lakh Six Thousand Seven Hundred Eighty One केवल/Only. रिवर्स चार्ज के अधीन टेक्स की राशि/ Amount of Tax Subject to Reverse Charge : No E.&.O.E

> कृते नेशनल इन्श्योरेन्स कंपनी लिमिटेड/ For and on behalf of National Insurance Company Limited

> > अधिकृत हस्तात्क्षरकर्ता/ Authorized Signatory



दिनांक को मुद्रित/Printed on 02/05/2025 आईडी द्वारा/by ID: 56187, AID : 56214

पृष्ठ स.Page no: 3

Annexure-XVI

### Surface water quality monitoring data

### Surface Water Sampling Locations

SI. No.	Sampling code	Date of S	Sampling	Sampling	Latitude	Longitudo
31. NO.	Sampling code	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	Location		Longitude
1	SW-9	26.09.2024	30.12.2024	Lingapur Tank	N 19°01'47.1"	E 79°31'51.0"

### Physico-Chemical and Bacteriological Characteristics of Surface Water at Selected Locations in the Study Area

			Test		CPCB \	Nater Quali	ty Criteria	-	RES	ULT
SI.No	Parameters	Unit	Method	Class A	Class B	Class C	Class D	Class E		<b>V-9</b> ur Tank
	1	1	1	1			1		1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter
1	рН	-	4500-H <sup>+</sup> B	6.5-8.5	6.5-8.5	6.0–9.0	6.5-8.5	6.0-8.5	8.0	7.9
2	Electrical Conductivity	µmhos/ cm	2510-B	-	-	-	-	2250 µmhos/cm	425	372
3	Dissolved Oxygen (DO)	mg/L	4500-O.C	6 mg/l or more	5 mg/l or more	4 mg/l or more	4 mg/l or more	-	5.6	5.2
4	Bio chemical Oxygen Demand (3 days 27° C)	mg/L	IS: 3025	2 mg/l or less	3 mg/l or less	3 mg/l or less	-	-	2.8	2.9
5	Total Coliforms	MPN/ 100mL	9221 B	50 or less	500 or less	5000 or less	-	-	170	140
6	Free Ammonia (as N)	mg/L	4500-NH₃− F	-	-	-	1.2 mg/L or less	-	BDL	BDL
7	Boron as B	mg/L	3120-В	-	-	-	-	Less than 2 mg/L	0.19	0.08
8	SAR	-	-	-	-	-	-	Less than 26	0.59	0.43

S. No	Parameters	Unit	Test Method	Lingap	<b>V-9</b> ur Tank
		i	i	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter
1	Colour	Hazen	2120. B	5	10
2	Odour	TON	2150. B	No odour observed	No odour observed
3	Temperature	°C	2550. B	26.0	25.8
4	Turbidity	NTU	2130. B	5.6	2.28
5	Total Dissolved Solids at 180° C	mg/L	2540.C	254	372
6	Total Suspended Solids at 105° C	mg/L	2540. D	15	12
7	Chemical Oxygen Demand	mg/L	5220. D	20	16
8	Calcium as Ca	mg/L	3500-Ca.B	34	54
9	Magnesium as Mg	mg/L	3500-Mg.B	22	38
10	Sodium as Na	mg/L	3500-Na.B	18	17
11	Potassium as K	mg/L	3500-K.B	2.8	5.65
12	Chlorides as Cl <sup>-</sup>	mg/L	4500-Cl <sup>-</sup> .B	25	18
13	Sulphates as SO <sub>4</sub> <sup>2-</sup>	mg/L	4500-SO <sub>4</sub> <sup>2-</sup> .E	38	42
14	Fluoride as F <sup>-</sup>	mg/L	4500-F <sup>-</sup> .C	0.23	0.43
15	Nitrates as NO <sub>3</sub>	mg/L	4500-NO3 <sup>-</sup> .B	2.4	4
16	Nitrites as NO <sub>2</sub>	mg/L	4500-NO2 <sup>-</sup> .B	BDL	BDL
17	Total Phosphates	mg/L	4500-P-D	BDL	BDL
18	Ammonical Nitrogen as NH <sub>3</sub> -N	mg/L	4500-NH <sub>3</sub> -C	BDL	BDL
19	Phenolic compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/L	5530-D	BDL	BDL
20	Oil & Grease	mg/L	5520. B	<1	<1
21	Carbonates as CO <sub>3</sub>	mg/L	2320. B	Nil	Nil
22	Bi-carbonates as HCO <sub>3</sub>	mg/L	2320. B	170	315
23	Fecal Coliforms	MPN/100mL	9221 E	11	11
24	Zinc as Zn	mg/L	3120. B	0.17	0.13
25	Iron as Fe	mg/L	3120. B	0.71	0.54

#### Physico-Chemical Characteristics of Surface Water at Selected Locations in the Study Area

SCCL, Mandamarri Area

S. No	Parameters	Unit	Test Method		<b>V-9</b> ur Tank
				1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter
26	Arsenic as As	mg/L	3120. B	BDL	BDL
27	Lead as Pb	mg/L	3120. B	BDL	BDL
28	Cadmium as Cd	mg/L	3120. B	BDL	BDL
29	Total Chromium as Cr	mg/L	3120. B	BDL	BDL
30	Nickel as Ni	mg/L	3120. B	BDL	BDL
31	Copper as Cu	mg/L	3120-B	BDL	BDL
32	Selenium as Se	mg/L	3120-B	BDL	BDL