



THE SINGARENI COLLIERIES COMPANY LTD

(A Government Company)

Srirampur Area

COMPLIANCE STATUS OF THE TERMS AND CONDITIONS GIVEN IN THE AIR & WATER CONSENT ORDER (CFO) OF RAVINDRA KHANI - 6 (RK-6) INCLINE.

Consent Order No: TSPCB/RCP/NZB/CFO//HO/2016-1237, dtd.06.08.2016.

SCHEDULE - A

CFO Cond. No:	C.F.O Condition	Status of implementation
1.	The applicant shall make applications through online for renewal of consent (under Water & Air Acts) and Authorisation under HWM Rules at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts for obtaining consent & HW Authorisation of the Board. The applicant can also apply for Auto Renewal of the CFO at least 30 days before the expiry of the Order as per the procedure and eligibility stipulated in the Board Circular dtd.19.11.2015 (available in Board's Website; http://tspcb.cgq.gov.in/Pages/circulars.aspx).	Strictly following without any deviation
2.	Concealing the factual data or submission of false information / fabricated data and failure to comply with any of the conditions mentioned in this order may result in withdrawal of this order and attract action under the provisions of relevant pollution control Acts.	Industry is strictly committed to conceal the factual data without giving any scope of furnishing false/fabricated data
3.	Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules 1982, to such authority (herein after referred to as the Appellate Authority) constituted under Section 28 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air (Prevention and Control of Pollution) Act, 1981.	It will be followed for such instances.
4.	The industry may explore the possibility of tapping the solar energy for their energy requirements.	SCCL is committed to establish and maintain Solar power plants of 300 MW (by the end of the year 2021) in three phases. ➤ Under Phase I – 129 MW Among 129 MW at STPP Power plant 10 MW (Commissioned), at Manuguru – 30 MW (Commissioned), at Ramagundam III Area –

CFO Cond. No:	C.F.O Condition	Status of implementation
		<p>50 MW (will be commissioned in three months), at Yellandu - 39 MW (will be commissioned in three months).</p> <p>➤ Under phase II – 90 MW proposed. Among 90 MW, at Mandamarri – 43 MW (will be commissioned in three months), at Bhupalapalli – 10 MW (will be commissioned in two months) , at Kothagudem – 37 MW (will be commissioned in three months)</p> <p>➤ Under phase III – 80.5 MW proposed. Among 80.5 MW, at STPP Reservoir – 10 MW floating on pond, at Dorli II abandoned OC 5 MW floating on broken area pond, at Chennur 2A Incline Area 11 MW, at RG III OC-I Dump yard 22 MW, at Dorli-I OC Dump yard 10 MW and at Kothagudem - 22.5 MW. Phase III projects will be commissioned by the end of August 2021</p>
5.	All the conditions stipulated in the Schedule – A of the earlier CFO order of Consent Order No: APPCB/RCP/ NZB/19682/CFO/HO/2014– 620, dated: 16.05.2014 remains same. The industry should ensure consistent compliance of the condition of Schedule –A.	All the conditions stipulated in Schedule – A of the earlier CFO Consent Order were scrupulously following by the Industry without any deviation.
6.	The Board reserves its right to modify above conditions or stipulate any further conditions and to take action including revoke of this order in the interest of protection of public health and environment.	The Board's right to modify any of the conditions imposed and inclusion of further new conditions including revoke of this order in the interest of the public health and environment is accepted.

SCHEDULE – B

CFO Cond. No:	C.F.O Condition	Status of implementation																
1.	<p>The effluent discharged should not contain constituents in excess of the tolerance limits prescribed below.</p> <table border="1" data-bbox="357 394 1023 846"> <thead> <tr> <th data-bbox="357 394 448 465">Out-let</th> <th data-bbox="448 394 732 465">Parameter No.</th> <th data-bbox="732 394 1023 465">Limiting Standards</th> </tr> </thead> <tbody> <tr> <td data-bbox="357 465 448 846" rowspan="6">1&2</td> <td data-bbox="448 465 732 506">pH</td> <td data-bbox="732 465 1023 506">6.50 –8.50</td> </tr> <tr> <td data-bbox="448 506 732 577">Total Suspended Solids (TSS)</td> <td data-bbox="732 506 1023 577">100.0 mg/l.</td> </tr> <tr> <td data-bbox="448 577 732 618">Oil & Grease</td> <td data-bbox="732 577 1023 618">10.0 mg/l</td> </tr> <tr> <td data-bbox="448 618 732 689">BOD (3 days at 270C)</td> <td data-bbox="732 618 1023 689">100 mg /l.</td> </tr> <tr> <td data-bbox="448 689 732 761">Chemical Oxygen Demand (COD)</td> <td data-bbox="732 689 1023 761">250.0 mg/l</td> </tr> <tr> <td data-bbox="448 761 732 846">TDS</td> <td data-bbox="732 761 1023 846">2100 mg/l</td> </tr> </tbody> </table>	Out-let	Parameter No.	Limiting Standards	1&2	pH	6.50 –8.50	Total Suspended Solids (TSS)	100.0 mg/l.	Oil & Grease	10.0 mg/l	BOD (3 days at 270C)	100 mg /l.	Chemical Oxygen Demand (COD)	250.0 mg/l	TDS	2100 mg/l	<p>The discharge water is regularly monitored once in every fortnight and results thereof being submitted regularly to the RO, Nizamabad as well as MoEF&CC, Chennai. If the results, show beyond the stipulated standards adequate controlling measures would be taken to mitigate the pollution load.</p> <p>The monitoring results are enclosed as Annexure- II.</p>
Out-let	Parameter No.	Limiting Standards																
1&2	pH	6.50 –8.50																
	Total Suspended Solids (TSS)	100.0 mg/l.																
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	BOD (3 days at 270C)	100 mg /l.																
	Chemical Oxygen Demand (COD)	250.0 mg/l																
	TDS	2100 mg/l																
2.	<p>The industry should not produce beyond the permitted capacity as mentioned in this order, without obtaining prior CFE & CFO of the Board. The mining capacity of the coal should not be increased by the industry more than IBM approved capacity.</p>	<p>The company will fix yearly production targets taking in to consideration of production capacity limits imposed in EC, CFE and CFO. Company will always ensure that not to exceed the set production capacity limits at any point of time.</p> <p>Coal Production details are enclosed as Annexure- VI</p>																
3.	<p>The industry should take steps to reduce water consumption to the extent possible and consumption should NOT exceed the quantities mentioned below:</p> <table border="1" data-bbox="357 1435 1023 1733"> <thead> <tr> <th data-bbox="357 1435 448 1543">S. No</th> <th data-bbox="448 1435 868 1543">Purpose</th> <th data-bbox="868 1435 1023 1543">Quantity in KLD</th> </tr> </thead> <tbody> <tr> <td data-bbox="357 1543 448 1659">1.</td> <td data-bbox="448 1543 868 1659">Plantation, Dust suppression, Workshop, washing, Stowing, etc.,</td> <td data-bbox="868 1543 1023 1659">882</td> </tr> <tr> <td data-bbox="357 1659 448 1700">2.</td> <td data-bbox="448 1659 868 1700">Domestic</td> <td data-bbox="868 1659 1023 1700">1991</td> </tr> <tr> <td data-bbox="357 1700 448 1733"></td> <td data-bbox="448 1700 868 1733">Total</td> <td data-bbox="868 1700 1023 1733">2873</td> </tr> </tbody> </table>	S. No	Purpose	Quantity in KLD	1.	Plantation, Dust suppression, Workshop, washing, Stowing, etc.,	882	2.	Domestic	1991		Total	2873	<p>The industry is taking all possible steps to reduce water consumption to the extent possible.</p> <p>The latest water consumption details are enclosed in Annexure-IIA.</p>				
S. No	Purpose	Quantity in KLD																
1.	Plantation, Dust suppression, Workshop, washing, Stowing, etc.,	882																
2.	Domestic	1991																
	Total	2873																
4.	<p>The industry shall file the water Cess returns in Form-I as required under section (5) of Water (Prevention and Control of Pollution) Cess Act, 1977 on or before the 5th of every calendar month, showing the quantity of water consumed in the previous month along with water meter readings. The industry shall remit water Cess as per the assessment orders as and when issued by Board. The industry shall</p>	<p>Water Cess returns (Area level) in Form – I is being submitted regularly and also remitting water cess as per the assessment orders as and when issued by the Board.</p>																

CFO Cond. No:	C.F.O Condition	Status of implementation																										
	provide separate water meters with necessary pipeline for assessing the quantity of water used for each of the purposes as per Cess Form – I.																											
5.	<p>The Industry should comply with ambient air quality standards of PM₁₀ (Particulate Matter size less than 10 µm) - 100 µg/m³; PM_{2.5} (Particulate Matter size less than 2.5 µm) – 60 µg/m³; SO₂ -80 µg/m³; NO_x – 80 µg/m³, outside the Mine Lease Area at the periphery of the Mine Lease.</p> <p>Standards of other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No. B-29016/20/90/PCI-I, dated 18.11.2009.</p> <p>Noise Levels: Day time (6AM to 10PM) - 75dB(A) Night time (10PM to 6 AM) – 70dB(A)</p>	<p>The monitoring results of Ambient Air Quality data is evaluated regularly as against the standards stipulated in the condition. If any changes are found, suitable measures should be adopted to control the pollution load. The results of the monitoring (AAQ) are mentioned in Annexure-I.</p> <p>Noise level monitoring data is enclosed as Annexure – III.</p>																										
6.	<p>The industry shall comply with Ambient Air Quality Standards for the Suspended Particulate Matter (SPM), Respirable Particulate Matter (RPM), Sulphur Di-oxide (SO₂) & Oxides of Nitrogen (NO_x) concentration in downwind direction considering pre-dominant wind direction, at a distance of 500 mts from the following dust generating sources, as prescribed below:</p> <p>Dust Generating Sources: Loading or unloading, haul road, Coal Transportation Road, Coal Handling Plant (CHP), Railway Sliding, Blasting, Drilling, Overburden dumps or any other dust generating external sources like nearby road etc.</p> <table border="1" data-bbox="355 1532 1027 2042"> <thead> <tr> <th>Sl. No</th> <th>Parameters</th> <th>Time weighted average</th> <th>Standards in µg/m³</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1</td> <td rowspan="2">SPM</td> <td>Annual Average</td> <td>360</td> </tr> <tr> <td>24 Hrs</td> <td>500</td> </tr> <tr> <td rowspan="2">2</td> <td rowspan="2">RPM (Size<10 µm)</td> <td>Annual Average</td> <td>180</td> </tr> <tr> <td>24 Hrs</td> <td>250</td> </tr> <tr> <td rowspan="2">3.</td> <td rowspan="2">SO₂</td> <td>Annual Average</td> <td>80</td> </tr> <tr> <td>24 Hrs</td> <td>120</td> </tr> <tr> <td>4.</td> <td>Oxides of</td> <td>Annual</td> <td>80</td> </tr> </tbody> </table>	Sl. No	Parameters	Time weighted average	Standards in µg/m ³	1	SPM	Annual Average	360	24 Hrs	500	2	RPM (Size<10 µm)	Annual Average	180	24 Hrs	250	3.	SO ₂	Annual Average	80	24 Hrs	120	4.	Oxides of	Annual	80	It is being followed. One Ambient Air quality monitoring stations was fixed in the core zone.
Sl. No	Parameters	Time weighted average	Standards in µg/m ³																									
1	SPM	Annual Average	360																									
		24 Hrs	500																									
2	RPM (Size<10 µm)	Annual Average	180																									
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4.	Oxides of	Annual	80																									

CFO Cond. No:	C.F.O Condition			Status of implementation
		Nitrogen as NO ₂	Average 24 Hrs	120
7.	The company shall comply with the Notification No.GSR 02(E) dt.02.01.2014, issued by the Ministry of Environment & Forests, Govt. of India regarding supply of Raw or blended or beneficiated Coal to the Thermal Power plants with stipulated ash content.			The company will strictly follows the provisions of the Notification in supply of coal to Thermal power plants with stipulated Ash content after perfect analysis of Coal samples.
8.	The company shall provide water sprinkling system at Coal Yards.			The company is strictly following this provision by fixed point water sprinkling system apart from portable water sprinkling system at coal yards.
9.	The Company shall ensure continuous water sprinkling on haul roads, at the coal handling facility and at other sources of dust emissions. The industry shall increase number of mobile water sprinkling tankers and frequency of the tankers.			The company is strictly following this provision by fixed point water sprinkling system apart from portable water sprinkling system at haulage roads. Company is going to make provision for mist spraying system at the coal handling facility and at other sources of dust emissions like transfer points and unloading points etc.
10.	The company shall extend the fixed water sprinkling arrangements for the complete Haul Road.			Fixed water spraying arrangements have been provided on haulage roads, loading and unloading points and it is being constantly maintained for effective control.
11.	The Company shall construct & commission the Sewage Treatment Plant (STP) for treating sewage from the Colony / Township in a time bound manner.			One STP of 3.0 MLD capacity was constructed at Naspur Colony to treat the domestic effluents and functioning from 09.07.2004.
12.	The company shall ensure covering of coal tucks with tarpaulin to avoid spillages of coal and fugitive emissions due to transportation of coal.			Trucks transporting the coal are being covered with tarpaulin and optimally loaded.
13.	The company shall adopt eco-friendly mining practices.			The company is adopting eco-friendly mining by adopting following practices. <ul style="list-style-type: none"> • Advance block plantation programs at Safety zones and surrounding Reserve forest Areas.

CFO Cond. No:	C.F.O Condition	Status of implementation
		<ul style="list-style-type: none"> • Provision of wet drilling to all Drill machines. • Round the clock water sprinkling of all Quarry roads, Haul roads and approach roads to & from Dump yards and CHP. • Fixed water sprinkling arrangements along Haulage roads, Roads at CHP, all loading, unloading and transfer points at bunkers and along conveyor belt (Surface)
14.	The company shall take steps for using fly ash for stowing operation in the under ground mines. The Company shall comply with all the relevant provisions of the Utilization of the Fly Ash Notification issued by MoEF &CC, Govt. of India.	It is being complied, apart from sand the company is using Fly ash as well as bottom ash.
15.	The company shall take-up extensive plantation under the Haritha Haram program of the State Government.	Being complied
16.	The Company shall provide and maintain Electro-magnetic water meters for recording water consumption for the total water drawn from the river and Dust suppression, Vehicle washings at workshops, Domestic, excess mine discharge etc.	It will be complied. The procurement of the Electro-magnetic water meters are under process.
17.	Soil binding and Nitrogen fixing plants shall be planted in the Mining Lease Area, Biological reclamation shall be done in two phases, the first phase shall be plant appropriate quick growing grass & shrubs and the second phase shall grow slower growing native shrubs & trees.	It is being complied
18.	The company shall take measures to control fugitive emissions at coal Handling area.	It is being complied
19.	The company shall develop green belt around CHP and along haul roads.	Being complied
20.	The company shall obtain amendment of EC incase of water consumption exceeds permitted quantity.	Will be followed
21.	The company shall operate Sewage Treatment Plant (STP) for treatment and disposal of domestic effluents.	One STP of 3.0 MLD capacity was constructed at Naspur Colony to treat the domestic effluents and functioning from 09.07.2004.

CFO Cond. No:	C.F.O Condition	Status of implementation
22.	The company should ensure restriction of suspended solids entry into natural drains.	Being complied
23.	The company shall take adequate measures to mitigate dust generation from drilling operations.	Adequate measures to mitigate dust generation from drilling operations are being taken.
24.	The company shall adopt latest blasting techniques so as to ensure minimum impact in the surrounding areas of blasting.	Being complied
25.	All waste material should be accommodated within the Mining Lease Area.	All waste material is being accommodated within the Mining Lease Area only.
26.	The natural drainage of water should be maintained. Dump sites should not cross any streams, water flow from the Mining Lease Area, even during the monsoon, should be free of suspended matter and conform to prescribed water quality standards.	The natural drainage of water is maintaining. Dump sites are not crossing any streams, water flow from the Mining Lease Area during all seasons including monsoon, and conforming to prescribed water quality standards.
27.	Check dams and filter beds should be constructed to protect from stream runoffs	Company is maintaining filter beds
28.	The Company should undertake suitable artificial recharge measures in the project area for augmentation of ground water resources. Ground water table levels should be monitored every season. Any lowering of the ground water table in comparison to the previous season should be reported to the Board immediately. Discarded pits should be allowed to fill with water	To comply the condition 32 Nos RWHS are made in the Area. Phreatic surface in the area around the project is being monitored four times (Every season) in the year using a network of 25 existing observation wells and 6 piezometric wells in Srirampur area. The reports are being submitted to the Ministry regularly. Phreatic surface and piezometric wells monitoring data is enclosed as Annexure-IV .
29.	Vehicles should be well maintained and engine idling should be minimized. Vehicle cabs should be made dust proof.	Being complied
30.	The applicant should submit Environment statement in Form-V before 30 th September of every year as per Rule No. 14 of E(P) Rules, 1986 & amendments thereof.	Environmental statement is being submitted to TSPCB at the end of September every year. The latest Environmental Statement was submitted on 15.09.2020 vide Lr.No: SRP/ENV/ U-004/ 2020/89 for the year 2019-20.

CFO Cond. No:	C.F.O Condition	Status of implementation
31.	The company shall comply with Task Force directions issued by Board from time to time.	The industry is committed to comply with the directions issued by the Task Force from time to time scrupulously without any deviation.
32.	All the rules & regulations notified by Ministry of Law and Justice, Government of India regarding Public Liability Insurance Act, 1991, should be followed.	Agreed
33.	The conditions stipulated in this order are without any prejudice to rights and contentions of this Board in any Hon'ble court of Law.	Agreed

**MONITORING DATA OF RAVINDRA KHANI – 6 (RK-6) INCLINE FOR THE
PERIOD APRIL, 2019 TO MARCH, 2020**

List of Annexures:

Sl.No.	Description	Annexure No.
1	Ambient Air Quality Monitoring Data	I
2	Effluents, Surface & Ground Water Quality.	II
3	Water utilization details	II-A
4	Noise level Monitoring data	III
5.	Attitude of Phreatic Surface & Piezometric Levels	IV
6	Meteorological data	V
7	Coal Production details	VI

POST PROJECT AMBIENT AIR QUALITY MONITORING DATA FOR THE PERIOD FROM APRIL, 2019 TO MARCH, 2020 OF RK-6 INCLINE.

❖ Location of the Ambient Air Quality monitoring Station : Top of the Canteen, RK-6 Inc

❖ Direction (w.r.t. RK-6 Incline.) : Besides of the project.

Sl. No	Station Name	Date of Sampling	Parameters (µg/ Cu. Mtr.)			
			PM ₁₀	PM _{2.5}	SO ₂	NO ₂
1.	RK-6 Incline	08.04.2019	193	51.2	13.6	19.6
		22.04.2019	221	50.7	10.8	15.3
		08.05.2019	211	52.1	12.3	18.3
		23.05.2019	225	53.4	12.6	18.4
		07.06.2019	183	48.6	12.4	18.4
		24.06.2019	214	51.6	12.6	18.6
		08.07.2019	221	48.9	10.6	17.1
		22.07.2019	193	46.2	13.2	16.4
		08.08.2019	128	39.5	13.1	17.3
		23.08.2019	121	45.1	13.1	20.4
		09.09.2019	86	39.4	8.6	13.5
		23.09.2019	55	21.2	11.6	15.9
		11.10.2019	163	42.1	11.6	18.2
		24.10.2019	146	42.1	11.6	16.4
		08.11.2019	214	46.8	12.5	18.4
		23.11.2019	211	42.3	12.8	16.4
		09.12.2019	216	53.1	12.6	18.1
		23.12.2019	226	54.3	13.6	18.4
		08.01.2020	232	54.1	12.1	18.4
		23.01.2020	218	48.5	15.9	24.4
		07.02.2020	168	42.5	16.1	25.5
		22.02.2020	211	56.6	12.4	17.2
		07.03.2020	232	62.8	13.4	18.2
23.03.2020	216	48.3	13.2	19.7		
	Minimum	55.000	21.200	8.600	13.500	
	Maximum	232.000	62.800	16.100	25.500	
	Average	187.667	47.558	12.596	18.271	
	98% percentile	232.000	59.948	16.008	24.994	
	Coal mine standards GSR 742(E), dtd.25.09.2000 & NAAQS, Dtd.18.11.2009	250	--	120	120	

❖ Location of the Ambient Air

Quality monitoring Station : Top of the SCCCL Stores, Krishna Colony

❖ Direction (w.r.t. RK-6 Incline.): South-West of the project.

Sl. No	Station Name	Date of Sampling	Parameters (µg/ Cu. Mtr.)			
			PM ₁₀	PM _{2.5}	SO ₂	NO ₂
2.	Krishna Colony	08.04.2019	82	46.3	12.1	18.2
		22.04.2019	89	47.6	7.6	12.1
		08.05.2019	87	45.7	12.5	17.5
		23.05.2019	63	31.4	7.6	11.8
		07.06.2019	81	41.2	8.4	13.6
		24.06.2019	79	35.1	7.8	12.7
		08.07.2019	87	39.4	7.6	11.4
		22.07.2019	91	47.3	13.2	19.6
		08.08.2019	64	32.1	10.5	14.2
		23.08.2019	52	28.6	7.4	16.4
		09.09.2019	81	43.2	8.9	15.2
		23.09.2019	86	21.2	9.1	14.6
		11.10.2019	91	51.3	7.6	12.7
		24.10.2019	69	28.4	8.4	15.3
		08.11.2019	82	42.1	10.6	17.1
		23.11.2019	64	35.4	8.4	14.2
		09.12.2019	69	32.5	8.9	15.8
		23.12.2019	92	51.7	11.7	19.2
		08.01.2020	81	41.2	9.6	13.7
		23.01.2020	89	46.5	9.4	15.1
		07.02.2020	63	32.8	11.4	12.5
22.02.2020	81	45.8	9.2	16.3		
07.03.2020	91	45.2	10.2	15.4		
23.03.2020	88	42.5	12.5	17.3		
Minimum			52.000	21.200	7.400	11.400
Maximum			92.000	51.700	13.200	19.600
Average			79.250	39.771	9.608	15.079
98% tile			91.540	51.516	12.878	19.416
NAAQ Standards, CPCB dtd.18.11.2009			100	60	80	80

- ❖ Location of the Ambient Air Quality monitoring Station : Top of the Residential house, RK-8 Colony
- ❖ Direction (w.r.t. RK-6 Incline.): South -East of the project.

Sl. No.	Station Name	Date of Sampling	Parameters ($\mu\text{g/ Cu. Mtr.}$)			
			PM ₁₀	PM _{2.5}	SO ₂	NO ₂
3.	RK-8 Colony	09.04.2019	69	32.7	10.6	14.2
		23.04.2019	79	42.8	8.4	13.2
		09.05.2019	86	46.5	10.4	15.7
		24.05.2019	82	36.4	11.6	17.3
		08.06.2019	87	51.2	12.1	19.7
		25.06.2019	82	41.2	8.5	13.1
		09.07.2019	48	20.1	9.3	13.1
		23.07.2019	76	36.5	11.5	15.4
		09.08.2019	86	41.2	10.5	17.1
		24.08.2019	74	22.5	7.9	15.6
		10.09.2019	42	26.8	12.4	17.1
		24.09.2019	44	23.2	8.7	13.6
		12.10.2019	82	42.4	7.1	14.1
		25.10.2019	62	32.4	7.4	12.4
		09.11.2019	76	32.7	12.7	17.2
		25.11.2019	91	51.2	11.5	18.1
		10.12.2019	84	35.2	7.9	16.2
		24.12.2019	74	36.4	8.6	13.6
		09.01.2020	71	32.5	7.9	12.5
		24.01.2020	87	41.3	11.6	16.0
		08.02.2020	56	31.1	10.2	15.4
		24.02.2020	66	32.1	7.4	13.1
		10.03.2020	88	43.5	11.5	16.5
24.03.2020	81	47.2	8.6	14.2		
Minimum			42.000	20.100	7.100	12.400
Maximum			91.000	51.200	12.700	19.700
Average			73.875	36.629	9.763	15.183
98% tile			89.620	51.200	12.562	18.964
NAAQ Standards, CPCB dtd.18.11.2009			100	60	80	80

- ❖ Location of the Ambient Air Quality monitoring Station : Top of Residential house, Kankur village
- ❖ Direction (w.r.t. RK-6 Incline.): North East of the project.

Sl. No	Station Name	Date of Sampling	Parameters (µg/ Cu. Mtr.)			
			PM ₁₀	PM _{2.5}	SO ₂	NO ₂
4.	Kankur village	08.04.2019	87	41.8	7.6	12.3
		22.04.2019	82	42.8	9.2	14.5
		08.05.2019	81	43.6	10.2	13.6
		23.05.2019	71	32.8	8.4	13.2
		07.06.2019	69	35.8	8.1	14.8
		24.06.2019	81	34.8	7.9	15.8
		08.07.2019	81	32.4	7.1	9.9
		22.07.2019	69	32.1	8.2	12.1
		08.08.2019	42	22.6	11.2	15.6
		23.08.2019	87	41.1	10.4	15.7
		09.09.2019	86	39.4	8.6	13.5
		23.09.2019	55	21.2	11.6	15.9
		11.10.2019	73	46.1	8.4	13.4
		24.10.2019	81	47.3	9.6	13.4
		08.11.2019	87	41.8	8.4	14.2
		23.11.2019	87	46.7	9.1	16.4
		09.12.2019	82	39.4	11.4	18.4
		23.12.2019	78	42.6	8.4	13.2
		08.01.2020	71	41.8	8.6	13.6
		23.01.2020	71	38.9	8.5	13.5
		07.02.2020	84	42.2	10.3	13.4
		22.02.2020	73	38.5	7.4	13.2
		07.03.2020	76	39.4	7.6	13.1
23.03.2020	69	34.9	7.4	12.3		
	Minimum		42.000	21.200	7.100	9.900
	Maximum		87.000	47.300	11.600	18.400
	Average		75.958	38.333	8.900	13.958
	98% percentile		87.000	47.024	11.508	17.480
	NAAQ Standards, CPCB dtd.18.11.2009		100	60	80	80

POST PROJECT WATER QUALITY MONITORING DATA FOR THE PERIOD FROM APRIL, 2019 TO MARCH, 2020 OF RK-6 INCLINE.

I) WATER QUALITY (EFFLUENTS) MONITORING.

❖ Location of the water

Quality monitoring Station : RK-6 incline mine discharge (filter bed outlet)

Sl. No.	Station name	Date of sampling	Concentration in mg/Liter (Except pH)					
			pH (at 25 ^o C)	TSS At 105 ^o C	TDS (At 180 ^o C)	COD	BOD	Oil & Grease
1.	RK-6 Incline Mine discharge	15.04.2019	7.4	26	480	10	3	<1
		30.04.2019	7.5	22	550	20	5	1.0
		15.05.2019	7.6	44	510	20	3	2.0
		30.05.2019	7.3	19	590	15	4	1.6
		15.06.2019	7.3	20	522	28	9	1.8
		30.06.2019	7.1	16	560	16	3	1.2
		15.07.2019	7.8	20	620	19	4	1.0
		31.07.2019	7.4	21	1028	12	3	<1
		15.08.2019	7.6	27	1257	17	2	1.2
		31.08.2019	7.5	22	984	12	3	<1
		15.09.2019	7.4	25	816	19	3	1.2
		30.09.2019	7.7	31	948	15	5	1.6
		15.10.2019	7.8	25	736	12	2	<1
		31.10.2019	7.6	27	624	20	6	1.6
		15.11.2019	7.5	39	570	15	3	<1
		30.11.2019	7.6	32	728	23	7	1.2
		15.12.2019	7.2	21	552	27	9	1.4
		31.12.2019	7.4	25	671	19	6	1.2
		15.01.2020	7.5	20	795	15	5	1.0
		31.01.2020	7.7	27	638	23	5	1.8
15.02.2020	7.5	18	576	12	2	<1		
29.02.2020	7.4	43	811	24	3	1.2		
15.03.2020	7.7	25	731	27	9	1.6		
31.03.2020	7.6	37	869	19	6	1.2		
	Minimum		7.200	18.000	552.000	12.000	2.000	1.000
	Maximum		7.800	43.000	869.000	27.000	9.000	1.800
	Average		7.542	28.250	691.750	19.667	5.250	1.356
	98% tile		7.778	42.120	856.240	27.000	9.000	1.768
	MoEF GSR 742(E) and GSR 801(E) Effluent standards for coal mines		5.5-9.0	100	--	250	30	--
	Test Method		4500H⁺B	2540-D	2540-C	5220-D	IS 3025	2540-C

❖ Location of the water
Quality monitoring Station

: Krishna Colony sewage effluent.

Sl. No.	Station name	Date of sampling	Concentration in mg/Liter (Except pH)					
			pH (at 25 ^o C)	TSS At 105 ^o C	TDS (At 180 ^o C)	COD	BOD	Oil & Grease
2	Krishna colony sewage effluent	15.04.2019	7.1	110	1820	130	36	3.4
		30.04.2019	7.5	90	2087	150	40	3.0
		15.05.2019	7.6	88	1971	120	32	<1
		30.05.2019	7.3	124	1571	109	28	5.2
		15.06.2019	7.8	95	1630	133	44	4.4
		30.06.2019	7.5	70	1030	102	34	3.8
		15.07.2019	7.6	85	1275	87	26	5.6
		31.07.2019	7.3	60	1069	69	23	3.2
		15.08.2019	7.9	65	840	84	22	2.8
		31.08.2019	7.6	73	1875	94	35	2.2
		15.09.2019	7.3	47	1260	78	28	4.2
		30.09.2019	7.5	89	1154	75	26	3.6
		15.10.2019	7.9	96	1042	82	26	4.0
		31.10.2019	7.8	61	1235	106	41	3.6
		15.11.2019	7.5	83	1431	125	48	4.4
		30.11.2019	7.6	66	927	114	34	5.2
		15.12.2019	7.5	78	1284	240	80	3.6
		31.12.2019	7.4	102	1625	190	68	3.2
		15.01.2020	7.5	80	1422	168	56	3.0
		31.01.2020	7.7	115	964	128	42	4.6
15.02.2020	7.9	92	1130	94	28	4.8		
29.02.2020	6.9	98	1152	104	24	3.0		
15.03.2020	7.8	70	1291	119	46	3.4		
31.03.2020	7.9	115	920	132	51	3.0		
	Minimum		6.900	47.000	840.000	69.000	22.000	2.200
	Maximum		7.900	124.000	2087.000	240.000	80.000	5.600
	Average		7.558	85.500	1333.542	118.042	38.250	3.791
	98% tile		7.900	119.860	2033.640	217.000	74.480	5.424
	MoEF GSR 742(E) and GSR 801(E) Effluent standards for coal mines		5.5-9.0	100	--	250	30	--
	Test Method		4500H⁺B	2540-D	2540-C	5220-D	IS 3025	2540-C

❖ Location of the water

Quality monitoring Station

: Naspur Colony sewage (STP out let).

Sl. No.	Station name	Date of sampling	Concentration in mg/Liter (Except pH)					
			pH (at 25 ⁰ C)	TSS At 105 ⁰ C	TDS (At 180 ⁰ C)	COD	BOD	Oil & Grease
3	Naspur colony sewage (STP Out let).	15.04.2019	8.1	64	820	64	18	2.0
		30.04.2019	7.7	55	615	80	24	2.0
		15.05.2019	8.1	65	555	45	18	<1
		30.05.2019	7.9	72	648	74	16	2.4
		15.06.2019	8.2	40	518	58	19	2.8
		30.06.2019	7.8	43	615	62	20	1.6
		15.07.2019	8.0	67	740	74	24	1.2
		31.07.2019	7.8	23	827	55	18	1.8
		15.08.2019	7.7	53	880	60	18	1.6
		31.08.2019	8.0	49	591	70	26	1.8
		15.09.2019	7.8	36	740	47	15	2.0
		30.09.2019	8.0	51	897	83	28	2.6
		15.10.2019	8.2	77	765	58	22	2.2
		31.10.2019	8.0	48	643	67	30	3.2
		15.11.2019	7.9	56	921	78	24	2.8
		30.11.2019	8.2	47	770	85	28	3.8
		15.12.2019	7.8	51	603	69	23	2.4
		31.12.2019	7.9	65	793	63	21	2.2
		15.01.2020	8.2	38	914	70	23	2.0
		31.01.2020	8.1	27	797	58	19	2.4
15.02.2020	8.0	46	933	66	22	2.0		
29.02.2020	6.6	61	895	92	24	2.2		
15.03.2020	8.2	32	758	51	24	2.6		
31.03.2020	8.1	58	643	62	38	2.2		
	Minimum		6.600	23.000	518.000	45.000	15.000	1.200
	Maximum		8.200	77.000	933.000	92.000	38.000	3.800
	Average		7.929	51.000	745.042	66.292	22.583	2.252
	98% tile		8.200	74.700	927.480	88.780	34.320	3.536
	MoEF GSR 742(E) and GSR 801(E) Effluent standards for coal mines		5.5-9.0	100	--	250	30	--
	Test Method		4500H⁺B	2540-D	2540-C	5220-D	IS 3025	2540-C

❖ Location of the water

Quality monitoring Station

: Area Workshop Effluent (Grease outlet)

Sl. No.	Station name	Date of sampling	Concentration in mg/Liter (Except pH)					
			pH (at 25 ^o C)	TSS At 105 ^o C	TDS (At 180 ^o C)	COD	BOD	Oil & Grease
4	Area Workshop Effluent (Grease trap outlet)	15.04.2019	6.8	40	1012	84	20	3.6
		30.04.2019	7.6	38	1476	100	26	4.2
		15.05.2019	7.5	53	1230	70	18	3.8
		30.05.2019	7.0	46	1185	89	24	4.8
		15.06.2019	7.3	33	1320	92	26	3.6
		30.06.2019	7.4	35	1234	70	23	4.2
		15.07.2019	7.2	42	1318	80	26	3.8
		31.07.2019	7.4	45	1038	67	22	2.6
		15.08.2019	7.8	55	1460	72	20	2.2
		31.08.2019	7.5	38	1207	90	28	2.6
		15.09.2019	7.6	54	915	70	23	3.8
		30.09.2019	7.3	42	759	95	26	4.2
		15.10.2019	7.5	48	831	74	24	3.8
		31.10.2019	7.6	52	1027	83	27	2.8
		15.11.2019	7.4	40	1150	105	25	3.2
		30.11.2019	7.5	34	1355	96	26	4.4
		15.12.2019	7.4	46	1187	108	36	3.8
		31.12.2019	7.3	58	1204	114	38	4.4
		15.01.2020	7.5	61	1480	101	22	3.6
		31.01.2020	7.6	40	1290	73	24	4.2
15.02.2020	7.4	38	1061	90	20	3.6		
29.02.2020	7.8	68	952	88	16	5.2		
15.03.2020	7.5	54	1204	79	26	4.8		
31.03.2020	7.3	41	1396	104	26	3.4		
	Minimum		6.800	33.000	759.000	67.000	16.000	2.200
	Maximum		7.800	68.000	1480.000	114.000	38.000	5.200
	Average		7.425	45.875	1178.792	87.250	24.667	3.775
	98% tile		7.800	64.780	1478.160	111.240	37.080	5.016
	MoEF GSR 742(E) and GSR 801(E) Effluent standards for coal mines		5.5-9.0	100	--	250	30	--
	Test Method		4500H⁺B	2540-D	2540-C	5220-D	IS 3025	2540-C

II) Physico-Chemical and Bacteriological Characteristics of Surface water (Tank / River water) (Quarterly basis) around RK-6 Incline.
a) Godavari upstream & Downstream, Naspur Colony Tank and Ramaraopet Tank for Pre- monsoon, 2019.

Date of sampling : 28.05.2019

S.No	Parameters	Unit	Test Method	CPCB Water quality Criteria			RESULT			
				Class A	Class B	Class C	Godavari River upstream	Godavari River downstream	Naspur Colony Tank	Ramaraopet Tank
1	pH	-	4500-H ⁺ B	6.5 -8.5	6.5 -8.5	6 - 9	8.2	7.9	7.3	7.3
2	Temperature	°C	2550. B	-	-	-	25.7	26.0	25.6	25.7
3	Turbidity	NTU	2130. B	-	-	-	3.2	4.1	2.2	3.3
4	Electrical Conductivity	µmhos/cm	2510-B	-	-	-	575	967	1490	2480
5	Total Dissolved Solids at 180° C	mg/L	2540.C	-	-	-	338	568	890	1475
6	Total Suspended Solids at 105° C	mg/L	2540. D	-	-	-	12	17	18	23
7	Dissolved Oxygen	mg/L	4500-O.C	6 mg/l or more	5 mg/l or more	4 mg/l or more	5.8	5.9	6.0	6.2
8	Bio chemical Oxygen Demand for 3 days at 27° C	mg/L	IS: 3025	2 mg/l or less	3 mg/l or less	3 mg/l or less	3	4	3	4
9	Total Coliforms	MPN/100mL	9221A & B	50 or less	500 or less	5000 or less	170	94	350	280
10	Fecal Coliforms	MPN/100mL	9221 E	-	-	-	33	14	70	49
11	<i>E. coli</i>	Presence or Absence/MPN/100 mL	9221 F	-	-	-	Absent	Absent	Present	Present
12	Chemical Oxygen Demand	mg/L	5220. D	-	-	-	20	30	20	30
13	Chlorides as Cl ⁻	mg/L	4500-Cl ⁻ .B	-	-	-	52	110	192	355
14	Nitrites as NO ₂ ⁻	mg/L	4500-NO ₂ ⁻ .B	-	-	-	0.03	BDL	BDL	0.032
15	Nitrates as NO ₃ ⁻	mg/L	4500-NO ₃ ⁻ .B	-	-	-	8	6.5	5.5	12
16	Sulphates as SO ₄ ²⁻	mg/L	4500-SO ₄ ²⁻ .E	-	-	-	40	47	77	91

S.No	Parameters	Unit	Test Method	CPCB Water quality Criteria			RESULT			
				Class A	Class B	Class C	Godavari River upstream	Godavari River downstream	Naspur Colony Tank	Ramaraopet Tank
17	Arsenic as As	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
18	Lead as Pb	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
19	Zinc as Zn	mg/L	3120. B	-	-	-	0.24	0.26	0.05	0.13
20	Cadmium as Cd	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
21	Total Chromium as Cr	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
22	Nickel as Ni	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
23	Iron as Fe	mg/L	3120. B	-	-	-	0.45	0.65	1.08	0.58
24	Copper as Cu	mg/L	3120-B	-	-	-	BDL	BDL	BDL	BDL
25	Boron as B	mg/L	3120-B	-	-	-	0.34	0.18	0.22	0.11
26	Colour	Pt-co-scale	2120. B	-	-	-	15	20	5	25
27	Odour	TON	2150. B	-	-	-	No odour observed	No odour observed	No odour observed	No odour observed
28	Ammonical Nitrogen as NH ₃ -N	mg/L	4500-NH ₃ -C	-	-	-	BDL	BDL	BDL	BDL
29	Total Phosphates	mg/L	4500-P-D	-	-	-	BDL	BDL	BDL	BDL
30	Oil & Grease	mg/L	5520. B	-	-	-	<1	<1	<1	<1

NTU – Nephelometric Turbidity Unit; TON – Threshold Odour Number; BDL – Below Detection Limit, Detection Limit – BOD – 3 mg/L; Ammonical Nitrogen – 5 mg/L;

(b) Godavari River upstream & Downstream, Naspur Colony tank and Ramaraopet Tank for Monsoon season, 2019.

Date of sampling : 20.08.2019

S.No	Parameters	Unit	Test Method	CPCB Water quality Criteria			RESULT			
				Class A	Class B	Class C	Godavari River upstream	Godavari River downstream	Naspur Colony Tank	Ramaraopet Tank
1	pH	-	4500-H ⁺ B	6.5 -8.5	6.5 -8.5	6 - 9	7.7	7.6	7.4	7.3
2	Temperature	°C	2550. B	-	-	-	25.2	25.7	25.4	25.6
3	Turbidity	NTU	2130. B	-	-	-	8.5	12	13.4	14
4	Electrical Conductivity	µmhos/cm	2510-B	-	-	-	419	484	980	1450
5	Total Dissolved Solids at 180° C	mg/L	2540.C	-	-	-	226	261	548	783
6	Total Suspended Solids at 105° C	mg/L	2540. D	-	-	-	16	18	19	24
7	Dissolved Oxygen	mg/L	4500-O.C	6 mg/l or more	5 mg/l or more	4 mg/l or more	5.9	5.8	6.0	5.9
8	Bio chemical Oxygen Demand for 3 days at 27° C	mg/L	IS: 3025	2 mg/l or less	3 mg/l or less	3 mg/l or less	3	4	3	5
9	Total Coliforms	MPN/100mL	9221A & B	50 or less	500 or less	5000 or less	79	46	140	240
10	Fecal Coliforms	MPN/100mL	9221 E	-	-	-	11	17	11	33
11	<i>E. coli</i>	Presence or Absence/MPN/100 mL	9221 F	-	-	-	Absent	Absent	Absent	Absent
12	Chemical Oxygen Demand	mg/L	5220. D	-	-	-	20	24	20	26
13	Chlorides as Cl ⁻	mg/L	4500-Cl ⁻ .B	-	-	-	35	30	73	137
14	Nitrites as NO ₂ ⁻	mg/L	4500-NO ₂ ⁻ .B	-	-	-	BDL	BDL	BDL	BDL
15	Nitrates as NO ₃ ⁻	mg/L	4500-NO ₃ ⁻ .B	-	-	-	19	17	20	25
16	Sulphates as SO ₄ ²⁻	mg/L	4500-SO ₄ ²⁻ .E	-	-	-	38	49	52	75

S.No	Parameters	Unit	Test Method	CPCB Water quality Criteria			RESULT			
				Class A	Class B	Class C	Godavari River upstream	Godavari River downstream	Naspur Colony Tank	Ramaraopet Tank
17	Arsenic as As	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
18	Lead as Pb	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
19	Zinc as Zn	mg/L	3120. B	-	-	-	0.87	0.52	1.0	0.55
20	Cadmium as Cd	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
21	Total Chromium as Cr	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
22	Nickel as Ni	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
23	Iron as Fe	mg/L	3120. B	-	-	-	1.36	0.58	0.67	0.54
24	Copper as Cu	mg/L	3120-B	-	-	-	BDL	BDL	BDL	BDL
25	Boron as B	mg/L	3120-B	-	-	-	0.45	0.70	0.09	0.08
26	Colour	Pt-co-scale	2120. B	-	-	-	15	20	25	30
27	Odour	TON	2150. B	-	-	-	No odour observed	No odour observed	No odour observed	No odour observed
28	Ammonical Nitrogen as NH ₃ -N	mg/L	4500-NH ₃ -C	-	-	-	BDL	BDL	BDL	BDL
29	Total Phosphates	mg/L	4500-P-D	-	-	-	BDL	BDL	BDL	BDL
30	Oil & Grease	mg/L	5520. B	-	-	-	<1	<1	<1	<1

NTU – Nephelometric Turbidity Unit; **TON** – Threshold Odour Number; **BDL** – Below Detection Limit, Detection Limit – BOD – 3 mg/L; Ammonical Nitrogen – 5 mg/L;

(c) Godavari River upstream & Downstream, Naspur Colony tank and Ramaraopet Tank for Post- monsoon, 2019.

Date of sampling : 29.10.2019 & 30.10.2019

S.No	Parameters	Unit	Test Method	CPCB Water quality Criteria			RESULT			
				Class A	Class B	Class C	Godavari River upstream	Godavari River downstream	Naspur Colony Tank	Ramaraopet Tank
	Date of sampling						29.10.19	30.10.19	29.10.19	29.10.19
1	pH	-	4500-H ⁺ B	6.5 -8.5	6.5 -8.5	6.0 – 9.0	7.4	7.6	7.7	7.9
2	Temperature	°C	2550. B	-	-	-	25.2	25.4	25.4	25.0
3	Turbidity	NTU	2130. B	-	-	-	3.5	4.1	4.4	3.9
4	Electrical Conductivity	µmhos/cm	2510-B	-	-	-	540	498	899	1380
5	Total Dissolved Solids at 180°C	mg/L	2540.C	-	-	-	330	305	550	845
6	Total Suspended Solids at 105°C	mg/L	2540. D	-	-	-	14	13	16	18
7	Dissolved Oxygen	mg/L	4500-O.C	6 mg/l or more	5 mg/l or more	4 mg/l or more	6.2	5.6	5.9	6.1
8	Bio chemical Oxygen Demand for 3 days at 27° C	mg/L	IS: 3025	2 mg/l or less	3 mg/l or less	3 mg/l or less	3	4	4	4
9	Total Coliforms	MPN/100mL	9221A & B	50 or less	500 or less	5000 or less	280	110	110	280
10	Fecal Coliforms	MPN/100mL	9221 E	-	-	-	20	11	11	23
11	<i>E. coli</i>	Presence or Absence/MPN/100 mL	9221 F	-	-	-	Absent	Absent	Absent	Absent
12	Chemical Oxygen Demand	mg/L	5220. D	-	-	-	24	32	28	24
13	Chlorides as Cl ⁻	mg/L	4500-Cl ⁻ .B	-	-	-	40	37	60	112
14	Nitrites as NO ₂ ⁻	mg/L	4500-NO ₂ ⁻ .B	-	-	-	BDL	BDL	BDL	BDL
15	Nitrates as NO ₃ ⁻	mg/L	4500-NO ₃ ⁻ .B	-	-	-	12	15	21	16
16	Sulphates as SO ₄ ²⁻	mg/L	4500-SO ₄ ²⁻ .E	-	-	-	18	21	13	15

S.No	Parameters	Unit	Test Method	CPCB Water quality Criteria			RESULT			
				Class A	Class B	Class C	Godavari River upstream	Godavari River downstream	Naspur Colony Tank	Ramaraopet Tank
	Date of sampling						29.10.19	30.10.19	29.10.19	29.10.19
17	Arsenic as As	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
18	Lead as Pb	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
19	Zinc as Zn	mg/L	3120. B	-	-	-	0.26	0.31	0.19	0.22
20	Cadmium as Cd	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
21	Total Chromium as Cr	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
22	Nickel as Ni	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
23	Iron as Fe	mg/L	3120. B	-	-	-	0.09	0.18	0.21	0.42
24	Copper as Cu	mg/L	3120-B	-	-	-	BDL	BDL	BDL	BDL
25	Boron as B	mg/L	3120-B	-	-	-	0.16	0.23	0.18	0.08
26	Colour	Pt-co-scale	2120. B	-	-	-	5	5	15	20
27	Odour	TON	2150. B	-	-	-	No odour observed	No odour observed	No odour observed	No odour observed
28	Ammonical Nitrogen as NH ₃ -N	mg/L	4500-NH ₃ -C	-	-	-	BDL	BDL	BDL	BDL
29	Total Phosphates	mg/L	4500-P-D	-	-	-	BDL	BDL	BDL	BDL
30	Oil & Grease	mg/L	5520. B	-	-	-	<1	<1	<1	<1
31	Fluoride	mg/L	4500-F.C	-	-	-	1.2	0.8	1.0	0.6
32	Phenolic compounds as C ₆ H ₅ OH	mg/L	5530-D	-	-	-	BDL	BDL	BDL	BDL
33	Selenium as Se	mg/L	3120-B	-	-	-	BDL	BDL	BDL	BDL

NTU – Nephelometric Turbidity Unit; **TON** – Threshold Odour Number; **BDL** – Below Detection Limit, Detection Limit – BOD – 3 mg/L; Ammonical Nitrogen – 5 mg/L;

(d) Godavari River upstream & Downstream, Naspur Colony tank and Ramaraopet Tank for Winter season, 2020.

Date of Sampling : 25.02.2020 & 26.02.2020

S.No	Parameters	Unit	Test Method	CPCB Water quality Criteria			RESULT			
				Class A	Class B	Class C	Godavari River upstream	Godavari River downstream	Naspur Colony Tank	Ramaraopet Tank
	Date of sampling						25.02.20	26.02.20	25.02.20	25.02.20
1	pH	-	4500-H ⁺ B	6.5 -8.5	6.5 -8.5	6.0 – 9.0	6.8	7.1	7.1	6.7
2	Temperature	°C	2550. B	-	-	-	25.5	25.2	25.6	25.0
3	Turbidity	NTU	2130. B	-	-	-	5	6.2	8.6	6
4	Electrical Conductivity	µmhos/cm	2510-B	-	-	-	568	630	1010	970
5	Total Dissolved Solids at 180° C	mg/L	2540.C	-	-	-	334	384	580	540
6	Total Suspended Solids at 105° C	mg/L	2540. D	-	-	-	18	22	34	30
7	Dissolved Oxygen	mg/L	4500-O.C	6 mg/l or more	5 mg/l or more	4 mg/l or more	6.0	6.2	5.7	5.5
8	Bio chemical Oxygen Demand for 3 days at 27° C	mg/L	IS: 3025	2 mg/l or less	3 mg/l or less	3 mg/l or less	2	3	4	4
9	Total Coliforms	MPN/100mL	9221A & B	50 or less	500 or less	5000 or less	180	210	120	240
10	Fecal Coliforms	MPN/100mL	9221 E	-	-	-	14	20	16	28
11	<i>E. coli</i>	Presence or Absence/MPN/100 mL	9221 F	-	-	-	Absent	Absent	Absent	Absent
12	Chemical Oxygen Demand	mg/L	5220. D	-	-	-	18	22	26	24
13	Chlorides as Cl ⁻	mg/L	4500-Cl ⁻ .B	-	-	-	46	50	70	90
14	Nitrites as NO ₂ ⁻	mg/L	4500-NO ₂ ⁻ .B	-	-	-	BDL	BDL	BDL	BDL
15	Nitrates as NO ₃ ⁻	mg/L	4500-NO ₃ ⁻ .B	-	-	-	10	18	24	14
16	Sulphates as SO ₄ ²⁻	mg/L	4500-SO ₄ ²⁻ .E	-	-	-	20	28	26	21

S.No	Parameters	Unit	Test Method	CPCB Water quality Criteria			RESULT			
				Class A	Class B	Class C	Godavari River upstream	Godavari River downstream	Naspur Colony Tank	Ramaraopet Tank
	Date of sampling						25.02.20	26.02.20	25.02.20	25.02.20
17	Arsenic as As	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
18	Lead as Pb	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
19	Zinc as Zn	mg/L	3120. B	-	-	-	0.34	0.42	0.26	0.32
20	Cadmium as Cd	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
21	Total Chromium as Cr	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
22	Nickel as Ni	mg/L	3120. B	-	-	-	BDL	BDL	BDL	BDL
23	Iron as Fe	mg/L	3120. B	-	-	-	0.14	0.28	0.28	0.32
24	Copper as Cu	mg/L	3120-B	-	-	-	BDL	BDL	BDL	BDL
25	Boron as B	mg/L	3120-B	-	-	-	0.22	0.3	0.34	0.12
26	Colour	Pt-co-scale	2120. B	-	-	-	10	15	15	20
27	Odour	TON	2150. B	-	-	-	No odour observed	No odour observed	No odour observed	No odour observed
28	Ammonical Nitrogen as NH ₃ -N	mg/L	4500-NH ₃ -C	-	-	-	BDL	BDL	BDL	BDL
29	Total Phosphates	mg/L	4500-P-D	-	-	-	BDL	BDL	BDL	BDL
30	Oil & Grease	mg/L	5520. B	-	-	-	<1	<1	<1	<1
31.	Fluoride	mg/L	4500-F.C	-	-	-	0.92	0.98	0.92	0.42
32.	Phenolic compounds as C ₆ H ₅ OH	mg/L	5530-D	-	-	-	BDL	BDL	BDL	BDL
33.	Selenium as Se	mg/L	3120-B	-	-	-	BDL	BDL	BDL	BDL

NTU – Nephelometric Turbidity Unit; **TON** – Threshold Odour Number; **BDL** – Below Detection Limit, Detection Limit – BOD – 3 mg/L; Ammonical Nitrogen – 5 mg/L;

III. Physico-Chemical and Bacteriological Characteristics of Ground water (Bore well water) (Quarterly basis) around RK-6 Incline:

(a) for -Monsoon, 2019:

Date of sampling : 28.05.2019

S.NO	Parameters	Unit	Test Method	IS: 10500 Desirable Limits	IS: 10500 Permissible Limits	Result			
						GW-9 (Rasulpalli)	GW-13 (Kankur)	GW-15 (Krishna Colony)	GW-16 (Doragaripalli)
Organoleptic and Physical Parameters									
1	Colour	Pt-co-	2120. B	5	15	5	<5	5	5
2	Odour	TON	2150. B	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	pH	-	4500-H ⁺ B	6.5 to 8.5	No relaxation	7.7	7.4	7.6	7.6
4	Taste	FTN	2160. B	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	2130. B	1	5	0.95	1.2	1.3	0.82
6	Total Dissolved Solids at 180° C	mg/L	2540.C	500	2000	831	760	1400	496
General Parameters Concerning Substances Undesirable in Excessive Amounts									
1	Aluminium as Al	mg/L	3120-B	0.03	0.2	0.06	BDL	BDL	BDL
2	Barium as Ba	mg/L	3120. B	0.7	No relaxation	0.16	0.12	0.09	0.19
3	Boron as B	mg/L	3120-B	0.5	1.0	0.18	0.10	0.12	0.08
4	Calcium as Ca	mg/L	3500-Ca.B	75	200	64	78	110	82
5	Chlorides as Cl ⁻	mg/L	4500-Cl ⁻ .B	250	1000	155	140	305	50
6	Copper as Cu	mg/L	3120-B	0.05	1.5	BDL	BDL	BDL	BDL
7	Fluoride as F ⁻	mg/L	4500-F ⁻ .C	1.0	1.5	0.67	0.73	0.715	0.655
8	Residual free chlorine	mg/L	4500-Cl ⁻ .B	0.2	1.0	BDL	BDL	BDL	BDL
9	Iron as Fe	mg/L	3120-B	0.3	No relaxation	0.45	0.48	0.59	0.40
10	Magnesium as Mg	mg/L	3500-Mg.B	30	100	53	56	79	42
11	Manganese as Mn	mg/L	3120-B	0.1	0.3	BDL	0.05	0.08	BDL
12	Nitrates as NO ₃	mg/L	4500-NO ₃ ⁻ .B	45	No relaxation	9	4	26	6
13	Phenolic compounds as C ₆ H ₅ OH	mg/L	5530-D	0.001	0.002	BDL	BDL	BDL	BDL
14	Selenium as Se	mg/L	3120-B	0.01	No relaxation	BDL	BDL	BDL	BDL
15	Silver as Ag	mg/L	3120. B	0.1	No relaxation	BDL	BDL	BDL	BDL
16	Sulphates as SO ₄ ²⁻	mg/L	4500-SO ₄ ²⁻ .E	200	400	66	36	102	40
17	Sulfide as S ²⁻	mg/L	4500. S ²⁻ - G	-	-	BDL	BDL	BDL	BDL
18	Total Alkalinity as CaCO ₃	mg/L	2320. B	200	600	346	420	630	362
19	Total Hardness as CaCO ₃	mg/L	2340. C	200	600	380	425	600	380
20	Zinc as Zn	mg/L	3120-B	5	15	0.24	0.06	0.04	0.18

S.NO	Parameters	Unit	Test Method	IS: 10500 Desirable Limits	IS: 10500 Permissible Limits	Result			
						GW-9 (Rasulpalli)	GW-13 (Kankur)	GW-15 (Krishna Colony)	GW-16 (Doragaripalli)
Parameters Concerning Toxic Substances									
1	Cadmium as Cd	mg/L	3120-B	0.003	No relaxation	BDL	BDL	BDL	BDL
2	Cyanide as CN-	mg/L	4500-CN.F	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	Mercury as Hg	µg/L	3500-Hg.B	0.001	No relaxation	BDL	BDL	BDL	BDL
5	Molybdenum as Mo	mg/L	3120. B	0.07	No relaxation	BDL	BDL	BDL	BDL
6	Nickel as Ni	mg/L	3120-B	0.02	No relaxation	BDL	BDL	BDL	BDL
7	Pesticides: α-BHC, β-BHC, γ-BHC, δ-BHC, o,p-DDT, p,p'-DDT, Endosulfan, β- Endosulfan, Aldrin, Dieldrin	µg/L	6630. D	Absent	0.001	ND	ND	ND	ND
	2,4-D, Carbaryl (Carbonate) Malathion Methyl Parathion Anilophos, Chloropyriphos	Qualitative analysis	6630. D	Absent	0.001	ND	ND	ND	ND
8	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
9	Total Arsenic as As	mg/L	3120-B	0.01	0.05	BDL	BDL	BDL	BDL
10	Total Chromium as Cr	mg/L	3120-B	0.05	No relaxation	BDL	BDL	BDL	BDL
Bacteriological Quality of Drinking water									
1	<i>E. coli</i>	Presence or Absence/ 100mL	9221 F	-	-	Absent	Absent	Absent	Absent
2	Total Coliforms	MPN/100 mL	9221A & B	-	-	<1.8	<1.8	<1.8	<1.8
3	Fecal Coliforms	MPN/100 mL	9221 E	-	-	<1.8	<1.8	<1.8	<1.8

(b) for Monsoon season, 2019:**Date of sampling : 20.08.2019**

S.NO	Parameters	Unit	Test Method	IS: 10500 Desirable Limits	IS: 10500 Permissible Limits	Result			
						GW-9 (Rasulpalli)	GW-13 (Kankur)	GW-15 (Krishna Colony)	GW-16 (Doragaripalli)
						20.02.19	20.02.19	20.02.19	20.02.19
Organoleptic and Physical Parameters									
1	Colour	Pt-co-	2120. B	5	15	<5	<5	<5	<5
2	Odour	TON	2150. B	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	pH	-	4500-H ⁺ B	6.5 to 8.5	No relaxation	7.7	7.2	7.4	7.3
4	Taste	FTN	2160. B	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	2130. B	1	5	0.90	1.10	0.92	0.64
6	Total Dissolved Solids at 180° C	mg/L	2540.C	500	2000	680	630	844	525
General Parameters Concerning Substances Undesirable in Excessive Amounts									
1	Aluminium as Al	mg/L	3120-B	0.03	0.2	BDL	BDL	BDL	BDL
2	Barium as Ba	mg/L	3120. B	0.7	No relaxation	0.59	0.65	0.26	0.30
3	Boron as B	mg/L	3120-B	0.5	1.0	0.6	0.41	0.64	0.42
4	Calcium as Ca	mg/L	3500-Ca.B	75	200	60	78	81	62
5	Chlorides as Cl ⁻	mg/L	4500-Cl ⁻ .B	250	1000	157	147	240	55
6	Copper as Cu	mg/L	3120-B	0.05	1.5	BDL	BDL	BDL	BDL
7	Fluoride as F ⁻	mg/L	4500-F ⁻ .C	1.0	1.5	0.42	0.48	0.47	0.41
8	Residual free chlorine	mg/L	4500-Cl ⁻ .B	0.2	1.0	BDL	BDL	BDL	BDL
9	Iron as Fe	mg/L	3120-B	0.3	No relaxation	0.24	0.29	0.53	0.08
10	Magnesium as Mg	mg/L	3500-Mg.B	30	100	51	29	64	46
11	Manganese as Mn	mg/L	3120-B	0.1	0.3	BDL	BDL	BDL	BDL
12	Nitrates as NO ₃	mg/L	4500-NO ₃ ⁻ .B	45	No relaxation	26	30	28	26
13	Phenolic compounds as C ₆ H ₅ OH	mg/L	5530-D	0.001	0.002	BDL	BDL	BDL	BDL
14	Selenium as Se	mg/L	3120-B	0.01	No relaxation	BDL	BDL	BDL	BDL
15	Silver as Ag	mg/L	3120. B	0.1	No relaxation	BDL	BDL	BDL	BDL
16	Sulphates as SO ₄ ²⁻	mg/L	4500-SO ₄ ²⁻ .E	200	400	50	56	47	36
17	Total Alkalinity as CaCO ₃	mg/L	2320. B	200	600	330	306	341	306
18	Total Hardness as CaCO ₃	mg/L	2340. C	200	600	360	315	465	345
19	Zinc as Zn	mg/L	3120-B	5	15	0.18	0.24	0.19	0.06

S.NO	Parameters	Unit	Test Method	IS: 10500 Desirable Limits	IS: 10500 Permissible Limits	Result			
						Rasulpalli	Kankur	Krishna Colony	Doragaripalli
Parameters Concerning Toxic Substances									
1	Cadmium as Cd	mg/L	3120-B	0.003	No relaxation	BDL	BDL	BDL	BDL
2	Cyanide as CN-	mg/L	4500-CN.F	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	Pesticides: α-BHC, β-BHC, γ-BHC, δ-BHC, o,p-DDT, p,p'-DDT, Endosulfan, β- Endosulfan, Aldrin, Dieldrin	µg/L	6630. D	Absent	0.001	ND	ND	ND	ND
	2,4-D, Carbaryl (Carbonate) Malathion Methyl Parathion Anilophos, Chloropyriphos	Qualitative analysis	6630. D	Absent	0.001	ND	ND	ND	ND
7	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
8	Total Arsenic as As	mg/L	3120-B	0.01	0.05	BDL	BDL	BDL	BDL
9	Total Chromium as Cr	mg/L	3120-B	0.05	No relaxation	BDL	BDL	BDL	BDL
Bacteriological Quality of Drinking water									
1	<i>E. coli</i>	Presence or Absence/ 100mL	9221 F	-	-	Absent	Absent	Absent	Absent
2	Total Coliforms	MPN/100 mL	9221A & B	-	-	<1.8	<1.8	<1.8	<1.8
3	Fecal Coliforms	MPN/100 mL	9221 E	-	-	<1.8	<1.8	<1.8	<1.8

NTU – Nephelometric Turbidity Unit; TON – Threshold Odour Number; FTN – Flavor Threshold Number; BDL – Below Detection Limit, Detection Limit –Cyanide – 0.05 mg/L; Hex. Chromium – 0.05 mg/L; Boron – 0.01 mg/L; Copper – 0.02 mg/L; Manganese – 0.01 mg/L; Cadmium – 0.01 mg/L; Selenium – 0.04 mg/L; Arsenic – 0.02 mg/L; Aluminum as Al – 0.03 mg/L; Iron as Fe – 0.02 mg/L; Lead – 0.04 mg/L; Zinc as Zn-0.01 mg/L ; Mercury as Hg – 0.02 mg/L; Phenolic Compounds as C₆H₅OH – 0.1 mg/L; Chromium – 0.02 mg/L; Nickel – 0.02 mg/L; Residual free chlorine – 1 mg/L; Orthophosphates – 0.02 mg/L; Iron-0.02 mg/L; ND-Not Detected Detection Limit : Pesticides– 0.1 ppm; PAHs – 1 ppm.*Not Performed –PCBs, Trihalomethanes, Radioactive materials, Alachlor, Atrazine, Butachlor, Ethion, Monocrotophos

(c) for Post-Monsoon, 2019:

Date of sampling : 29.10.2019 & 30.10.2019.

S.NO	Parameters	Unit	Test Method	IS: 10500 Desirable Limits	IS: 10500 Permissible Limits	Result			
						Rasulpalli	Kankur	Krishna Colony	Doragaripalli
	Date of sampling					30.10.19	29.10.19	29.10.19	29.10.19
Organoleptic and Physical Parameters									
1	Colour	Pt-co-	2120. B	5	15	<5	<5	<5	<5
2	Odour	TON	2150. B	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	pH	-	4500-H ⁺ B	6.5 to 8.5	No relaxation	7.1	7.3	7.1	6.9
4	Taste	FTN	2160. B	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	2130. B	1	5	1.6	1.3	1.2	0.9
6	Total Dissolved Solids at 180° C	mg/L	2540.C	500	2000	740	820	710	435
General Parameters Concerning Substances Undesirable in Excessive Amounts									
1	Aluminium as Al	mg/L	3120-B	0.03	0.2	BDL	0.08	BDL	0.06
2	Barium as Ba	mg/L	3120. B	0.7	No relaxation	0.29	0.21	0.42	0.61
3	Boron as B	mg/L	3120-B	0.5	1.0	0.18	0.28	0.14	0.09
4	Calcium as Ca	mg/L	3500-Ca.B	75	200	66	68	68	64
5	Chlorides as Cl ⁻	mg/L	4500-Cl ⁻ .B	250	1000	155	202	147	67
6	Copper as Cu	mg/L	3120-B	0.05	1.5	BDL	BDL	BDL	BDL
7	Fluoride as F ⁻	mg/L	4500-F ⁻ .C	1.0	1.5	0.68	0.72	0.81	0.71
8	Residual free chlorine	mg/L	4500-Cl ⁻ .B	0.2	1.0	BDL	BDL	BDL	BDL
9	Iron as Fe	mg/L	3120-B	0.3	No relaxation	0.29	0.19	0.29	0.21
10	Magnesium as Mg	mg/L	3500-Mg.B	30	100	52	51	40	34
11	Manganese as Mn	mg/L	3120-B	0.1	0.3	BDL	BDL	BDL	BDL
12	Nitrates as NO ₃	mg/L	4500-NO ₃ ⁻ .B	45	No relaxation	18	33	35	21
13	Phenolic compounds as C ₆ H ₅ OH	mg/L	5530-D	0.001	0.002	BDL	BDL	BDL	BDL
14	Selenium as Se	mg/L	3120-B	0.01	No relaxation	BDL	BDL	BDL	BDL
15	Silver as Ag	mg/L	3120. B	0.1	No relaxation	BDL	BDL	BDL	BDL
16	Sulphates as SO ₄ ²⁻	mg/L	4500-SO ₄ ²⁻ .E	200	400	55	69	46	18
17	Total Alkalinity as CaCO ₃	mg/L	2320. B	200	600	215	247	241	205
18	Total Hardness as CaCO ₃	mg/L	2340. C	200	600	380	380	335	300
19	Zinc as Zn	mg/L	3120-B	5	15	0.38	0.21	0.09	0.18

S.NO	Parameters	Unit	Test Method	IS: 10500 Desirable Limits	IS: 10500 Permissible Limits	Result			
						Rasulpalli	Kankur	Krishna Colony	Doragaripalli
	Date of sampling					30.10.19	29.10.19	29.10.19	29.10.19
Parameters Concerning Toxic Substances									
1	Cadmium as Cd	mg/L	3120-B	0.003	No relaxation	BDL	BDL	BDL	BDL
2	Cyanide as CN-	mg/L	4500-CN.F	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	Pesticides: α-BHC, β-BHC, γ-BHC, δ-BHC, o,p-DDT, p,p'-DDT, Endosulfan, β- Endosulfan, Aldrin, Dieldrin	µg/L	6630. D	Absent	0.001	ND	ND	ND	ND
	2,4-D, Carbaryl (Carbonate) Malathion Methyl Parathion Anilophos, Chloropyrifos	Qualitative analysis	6630. D	Absent	0.001	ND	ND	ND	ND
7	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
8	Total Arsenic as As	mg/L	3120-B	0.01	0.05	BDL	BDL	BDL	BDL
9	Total Chromium as Cr	mg/L	3120-B	0.05	No relaxation	BDL	BDL	BDL	BDL
Bacteriological Quality of Drinking water									
1	<i>E. coli</i>	Presence or Absence/ 100mL	9221 F	-	-	Absent	Absent	Absent	Absent
2	Total Coliforms	MPN/100 mL	9221A & B	-	-	<1.8	<1.8	<1.8	<1.8
3	Fecal Coliforms	MPN/100 mL	9221 E	-	-	<1.8	<1.8	<1.8	<1.8

(d) for Winter season, 2020.**Date of sampling : 25.02.2020 & 26.02.2020**

S.NO	Parameters	Unit	Test Method	IS: 10500 Desirable Limits	IS: 10500 Permissible Limits	Result			
						Rasulpalli	Kankur	Krishna Colony	Doragaripalli
	Date of sampling					26.02.20	26.02.20	25.02.20	25.02.20
	Organoleptic and Physical Parameters								
1	Colour	Pt-co-	2120. B	5	15	<5	<5	<5	<5
2	Odour	TON	2150. B	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	pH	-	4500-H*B	6.5 to 8.5	No relaxation	6.5	7.8	7.8	6.2
4	Taste	FTN	2160. B	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	2130. B	1	5	0.9	0.72	0.34	0.25
6	Total Dissolved Solids at 180° C	mg/L	2540.C	500	2000	706	780	710	480
	General Parameters Concerning Substances Undesirable in Excessive Amounts								
1	Aluminium as Al	mg/L	3120-B	0.03	0.2	BDL	BDL	BDL	BDL
2	Barium as Ba	mg/L	3120. B	0.7	No relaxation	0.45	0.2	0.6	0.52
3	Boron as B	mg/L	3120-B	0.5	1.0	0.38	0.28	0.14	0.18
4	Calcium as Ca	mg/L	3500-Ca.B	75	200	99	87	83	58
5	Chlorides as Cl ⁻	mg/L	4500-Cl ⁻ .B	250	1000	125	210	165	80
6	Copper as Cu	mg/L	3120-B	0.05	1.5	BDL	BDL	BDL	BDL
7	Fluoride as F ⁻	mg/L	4500-F ⁻ .C	1.0	1.5	0.48	0.54	0.9	0.62
8	Residual free chlorine	mg/L	4500-Cl ⁻ .B	0.2	1.0	BDL	BDL	BDL	BDL
9	Iron as Fe	mg/L	3120-B	0.3	No relaxation	0.20	0.16	0.48	0.12
10	Magnesium as Mg	mg/L	3500-Mg.B	30	100	28	38	45	34
11	Manganese as Mn	mg/L	3120-B	0.1	0.3	BDL	BDL	BDL	BDL
12	Nitrates as NO ₃	mg/L	4500-NO ₃ ⁻ .B	45	No relaxation	28	22	42	28
13	Phenolic compounds as C ₆ H ₅ OH	mg/L	5530-D	0.001	0.002	BDL	BDL	BDL	BDL
14	Selenium as Se	mg/L	3120-B	0.01	No relaxation	BDL	BDL	BDL	BDL
15	Silver as Ag	mg/L	3120. B	0.1	No relaxation	BDL	BDL	BDL	BDL
16	Sulphates as SO ₄ ²⁻	mg/L	4500-SO ₄ ²⁻ .E	200	400	58	85	72	26
17	Total Alkalinity as CaCO ₃	mg/L	2320. B	200	600	190	240	210	220
18	Total Hardness as CaCO ₃	mg/L	2340. C	200	600	355	365	385	280
19	Zinc as Zn	mg/L	3120-B	5	15	0.44	0.62	0.4	0.1

S.NO	Parameters	Unit	Test Method	IS: 10500 Desirable Limits	IS: 10500 Permissible Limits	Result			
						Rasulpalli	Kankur	Krishna Colony	Doragaripalli
	Date of sampling					26.02.20	26.02.20	25.02.20	25.02.20
Parameters Concerning Toxic Substances									
1	Cadmium as Cd	mg/L	3120-B	0.003	No relaxation	BDL	BDL	BDL	BDL
2	Cyanide as CN-	mg/L	4500-CN.F	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	Pesticides: α-BHC, β-BHC, γ-BHC, δ-BHC, o,p-DDT, p,p'-DDT, Endosulfan, β- Endosulfan, Aldrin, Dieldrin	µg/L	6630. D	Absent	0.001	ND	ND	ND	ND
	2,4-D, Carbaryl (Carbonate) Malathion Methyl Parathion Anilophos, Chloropyriphos	Qualitative analysis	6630. D	Absent	0.001	ND	ND	ND	ND
7	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
8	Total Arsenic as As	mg/L	3120-B	0.01	0.05	BDL	BDL	BDL	BDL
9	Total Chromium as Cr	mg/L	3120-B	0.05	No relaxation	BDL	BDL	BDL	BDL
Bacteriological Quality of Drinking water									
1	<i>E. coli</i>	Presence or Absence/ 100mL	9221 F	-	-	Absent	Absent	Absent	Absent
2	Total Coliforms	MPN/100 mL	9221A & B	-	-	<1.8	<1.8	<1.8	<1.8
3	Fecal Coliforms	MPN/100 mL	9221 E	-	-	<1.8	<1.8	<1.8	<1.8

NTU – Nephelometric Turbidity Unit; TON – Threshold Odour Number; FTN – Flavor Threshold Number; BDL – Below Detection Limit, Detection Limit – Phenols – 0.1 mg/L; Mercury – 20 µg/L; Cyanide – 0.05 mg/L Hex. Chromium – 0.05 mg/L; Copper – 0.02 mg/L; Manganese – 0.01 mg/L; Cadmium – 0.01 mg/L; Selenium – 0.04 mg/L; Arsenic – 0.04 mg/L; Lead – 0.04 mg/L; Aluminum – 0.04 mg/L; Chromium – 0.03 mg/L; Nickel – 0.03 mg/L; Residual free chlorine – 1 mg/L; Nitrites – 0.01 mg/L; Orthophosphates – 0.05 mg/L; ND-Not Detected; Detection Limit : Pesticides– 0.1 ppm; PAHs – 1 ppm.

WATER UTILIZATION DETAILS OF RK-6 INCLINE FOR THE YEAR 2019-20

Sl. No	Description	Quantity in KLD
1	Average quantity of water pumped out of the mine	3400.00
2.	Water consumption :	
A	Domestic:	
	a) Water used for drinking/bathing and other industrial requirement	40.00
	b) Water supplied for nearest township/village for domestic purpose	NIL
	Sub - Total	40.00
B.	Industrial :	
	a) Water used for plantation	100.00
	b) Water used for dust suppression	50.00
	c) Water used for stowing	NIL
	Sub - Total	150.00
3.	Excess water let out	1000.00

WASTE WATER GENERATION DETAILS:

Sl. No.	Particulars	Quantity in KLD	Point of disposal
1.	Excess mine discharge water	182.00	Excess Mine Water: After treatment for agriculture use / gardening.
2.	Domestic and others	1592.00	STP followed by onland use / gardening
	Total	1774.00	

NOISE LEVEL MONITORING DATA FOR THE PERIOD FROM APRIL, 2019 TO MARCH, 2020 AROUND RK- 6 INCLINE.

Fortnight	RK-6 Incline			RK-8 Colony			Kankur Village			Sangamallaiiah palli			Krishna Colony		
	Date	L _{day}	L _{night}	Date	L _{day}	L _{night}	Date	L _{day}	L _{night}	Date	L _{day}	L _{night}	Date	L _{day}	L _{night}
Apr-I	09.04.2019	68.4	56.4	10.04.2019	48.9	36.4	09.04.2019	42.1	32.7	11.04.2019	51.6	39.4	09.04.2019	48.9	35.7
Apr-II	23.04.2019	69.2	61.2	23.04.2019	43.1	32.6	23.04.2019	46.2	32.5	25.04.2019	50.8	38.4	23.04.2019	49.3	40.2
May-I	09.05.2019	69.4	55.6	10.05.2019	46.8	38.4	09.05.2019	46.1	36.6	11.05.2019	52.1	32.8	09.05.2019	47.3	40.2
May-II	24.05.2019	69.4	61.5	25.05.2019	49.8	41.6	24.05.2019	41.2	33.9	26.05.2019	51.6	41.2	24.05.2019	45.2	35.6
Jun-I	08.06.2019	63.5	52.9	09.06.2019	48.6	41.2	08.06.2019	47.9	38.4	11.06.2019	49.8	41.7	08.06.2019	42.5	30.5
Jun-II	25.06.2019	69.8	62.3	26.06.2019	49.1	39.6	25.06.2019	49.7	41.2	27.06.2019	45.9	39.5	25.06.2019	44.1	32.4
Jul-I	09.07.2019	69.3	63.3	10.07.2019	50.8	38.4	09.07.2019	47.3	40.6	11.07.2019	48.1	41.6	09.07.2019	49.6	38.4
Jul-II	23.07.2019	64.1	56.6	24.07.2019	49.3	40.8	23.07.2019	49.2	37.4	25.07.2019	46.3	38.1	23.07.2019	51.2	39.4
Aug-I	09.08.2019	68.4	63.7	10.08.2019	48.9	39.5	09.08.2019	51.2	39.6	11.08.2019	48.3	39.4	09.08.2019	49.6	32.5
Aug-II	24.08.2019	64.6	56.1	25.08.2019	43.2	36.4	24.08.2019	42.8	34.1	26.08.2019	51.2	41.6	24.08.2019	46.3	38.4
Sep-I	10.09.2019	71.2	65.4	11.09.2019	50.6	40.1	10.09.2019	43.7	39.4	12.09.2019	49.2	38.1	10.09.2019	42.7	36.6
Sep-II	24.09.2019	68.3	57.6	25.09.2019	43.8	36.1	24.09.2019	49.2	39.4	26.09.2019	50.4	41.2	24.09.2019	48.6	40.5
Oct -I	12.10.2019	69.8	59.4	13.10.2019	49.3	35.4	12.10.2019	51.4	38.8	14.10.2019	49.2	39.4	12.10.2019	47.6	40.2
Oct -II	25.10.2019	62.7	53.4	26.10.2019	43.4	37.9	25.10.2019	49.4	40.4	27.10.2019	51.3	35.4	25.10.2019	48.6	40.8
Nov -I	09.11.2019	65.4	54.6	10.11.2019	51.2	38.4	09.11.2019	49.1	36.8	12.11.2019	51.2	40.5	09.11.2019	46.3	35.9
Nov-II	24.11.2019	61.8	56.4	26.11.2019	47.5	40.6	24.11.2019	47.7	34.8	27.11.2019	48.3	40.5	24.11.2019	46.6	39.8
Dec -I	10.12.2019	69.5	56.4	11.12.2019	46.7	40.5	10.12.2019	49.2	39.4	12.12.2019	51.2	41.6	10.12.2019	48.8	40.5
Dec-II	24.12.2019	66.8	56.2	26.12.2019	49.1	38.6	24.12.2019	49.1	40.8	27.12.2019	43.3	39.4	24.12.2019	48.1	40.5
Jan-I	09.01.2020	69.5	62.7	10.01.2020	46.3	36.8	09.01.2020	48.6	39.4	11.01.2020	51.7	42.1	09.01.2020	46.6	39.5
Jan -II	24.01.2020	65.3	56.8	25.01.2020	47.3	34.2	24.01.2020	45.5	36.4	27.01.2020	49.8	39.4	24.01.2020	44.3	35.7
Feb-I	08.02.2020	66.9	53.4	09.02.2020	46.9	35.8	08.02.2020	41.5	30.8	11.02.2020	51.4	39.4	08.02.2020	47.5	40.2
Feb-II	23.02.2020	68.6	53.4	25.02.2020	51.6	42.1	23.02.2020	42.5	31.5	26.02.2020	46.9	36.8	23.02.2020	47.3	40.2
Mar-I	08.03.2020	65.4	58.4	11.03.2020	52.1	40.8	08.03.2020	47.2	32.5	12.03.2020	51.2	36.6	08.03.2020	42.6	34.1
Mar-II	24.03.2020	69.4	56.4	26.03.2020	52.6	35.4	24.03.2020	42.5	32.8	27.03.2020	51.6	38.4	24.03.2020	52.3	41.6
	Average	67.36	57.92		48.20	38.23		46.68	36.67		49.68	39.27		47.16	37.89
Limits		75	70		55	45		55	45		55	45		55	45

ATTITUDE OF PHREATIC SURFACE IN SRIRAMPUR AREA

Sl. No	Name of village	Owner's Name	Type of Well	Dimensions (M)	Total Depth (M)	Geology	Measuring point(MA GL)	Period	Depth to Water (M)				
									2016	2017	2018	2019	2020
1	Arunakkana gar near GM office	N.Lingaiah	Domestic	1.00	9.40	Barren Measur es Fm	0.30	Winter	4.08	3.58	4.99	5.09	5.01
								Pre-Monsoon	6.18	4.85	5.30	5.15	
								Monsoon	2.82	3.50	3.14	2.89	
								Post- Monsoon	2.89	3.73	3.52	3.68	
2	RK-6 Colony	Q.No.SA-13	Domestic	1.20	10.00	Barkar Fm	0.30	Winter	2.52	1.58	2.04	2.13	2.07
								Pre-Monsoon	3.39	4.20	2.45	2.51	
								Monsoon	1.10	1.83	1.34	1.14	
								Post- Monsoon	1.40	1.94	1.96	1.94	
3	RK-6 Colony/Kur mawada	Karre Posham	Domestic	1.00	6.50	Barkar Fm	GL	Winter	2.59	2.28	2.47	2.53	3.05
								Pre-Monsoon	3.33	2.78	3.14	3.07	
								Monsoon	2.05	2.28	2.84	2.88	
								Post- Monsoon	2.12	2.41	3.18	3.01	
4	RK-6 Colony/Kur mawada	Eshwaraiah	Domestic	1.00	6.50	Barkar Fm	GL	Winter	2.56	2.35	2.37	2.51	2.44
								Pre-Monsoon	3.25	2.73	2.48	2.67	
								Monsoon	1.98	2.10	2.03	2.09	
								Post- Monsoon	2.05	2.32	2.73	2.41	
5	S.R.Puram Naspur X Road	Aasami Rajamallamma	Domestic	1.2	13.50	Talchir	0.6	Winter	4.50	4.21	6.32	6.47	6.35
								Pre-Monsoon	5.22	5.50	6.41	6.71	
								Monsoon	4.10	5.18	4.38	4.29	
								Post- Monsoon	4.15	5.48	4.97	5.11	
6	Sitharampalli / on the way to intake well	Surimilla Lachanna	Domestic	2.5x3.5	6.90	Sullavai	0.60	Winter	3.91	3.75	7.34	7.43	7.38
								Pre-Monsoon	5.13	4.28	8.10	7.51	
								Monsoon	3.43	4.49	6.11	6.18	
								Post- Monsoon	3.71	4.61	7.08	7.21	
7	Sitharampalli / on the way to Thallapalli	M.Gopaiah	Domestic	1.20	11.50	Sullavai	GL	Winter	10.54	10.35	12.77	12.84	12.64
								Pre-Monsoon	14.91	13.60	12.81	12.98	
								Monsoon	7.48	8.10	10.14	10.16	
								Post- Monsoon	7.46	8.68	11.07	11.15	
8	Tallapalli/On the way to Intake well	Rukum. Ramaiah	Domestic	2.40	9.10	Sullavai	0.70	Winter	4.90	2.13	2.42	2.49	2.19
								Pre-Monsoon	5.10	2.60	2.66	2.70	
								Monsoon	1.50	1.84	1.18	1.13	
								Post- Monsoon	1.63	1.96	1.29	1.31	
9	Tallapalli/end of the village towards OC	B.Rajaiah	Domestic	1.20	10.50	Sullavai	1.10	Winter	8.69	4.34	7.83	7.89	7.56
								Pre-Monsoon	10.17	9.60	8.94	8.98	
								Monsoon	3.87	6.39	6.73	3.1	
								Post- Monsoon	3.92	6.85	6.84	6.94	
10	Singapuram /opp.panchayat office	Nammala Srinivasu	Domestic	2.40	7.40	Sullavai FM	0.30	Winter	4.14	4.10	3.85	3.94	4.07
								Pre-Monsoon	4.96	5.25	3.97	4.61	
								Monsoon	1.84	2.93	2.18	2.13	
								Post- Monsoon	3.92	2.99	2.31	2.44	
11	Singapuram /near teak plantation	Aggu Sailu	Agriculture	4.00	10.50	Sullavai	GL	Winter	2.24	AB	AB	AB	AB
								Pre-Monsoon	AB	AB	AB	AB	
								Monsoon	AB	AB	AB	AB	
								Post- Monsoon	AB	AB	AB	AB	
12	Ramaraopet /Near bridge	Gunta. Chandraiah	Domestic	1.30	5.20	Talchir FM	0.60	Winter	4.11	3.90	6.24	6.31	5.29
								Pre-Monsoon	5.79	5.21	Dry	5.38	
								Monsoon	2.63	5.37	2.83	2.71	
								Post- Monsoon	2.71	5.39	5.74	5.24	
13	Guttedarpalli /Near RWS tank	R.Venkati	Domestic	2.50	8.50	Barkar Fm	0.50	Winter	10.82	8.10	Dry	Dry	Dry
								Pre-Monsoon	Dry	Dry	Dry	Dry	
								Monsoon	7.35	7.80	Dry	Dry	
								Post- Monsoon	7.84	Dry	Dry	Dry	

Sl. No	Name of village	Owner's Name	Type of Well	Dimensions (M)	Total Depth (M)	Geology	Measuring point(M AGL)	Period	Depth to Water (M)				
									2016	2017	2018	2019	2020
14	Indaram	A.Rajamalu/opp.BP bunk	Domestic	3x4	11.50	Barren Measur es Fm	0.40	Winter	6.88	5.55	6.14	6.17	6.13
								Pre-Monsoon	7.31	6.23	7.45	6.89	
								Monsoon	3.45	4.95	3.10	3.51	
								Post- Monsoon	3.43	5.17	3.68	3.96	
15	Indram/ opp. Garden	M.Sankar/ Podusani Bhaskar reddy	Domestic	1.00	13.00	Barren Measur es Fm	0.90	Winter	AB	AB	AB	AB	AB
								Pre-Monsoon	AB	AB	AB	AB	
								Monsoon	AB	AB	AB	AB	
								Post- Monsoon	AB	AB	AB	AB	
16	Indaram/IK-1&1A X-roads	Rajanna	Agricultur e	6.50	8.50	Barren Measur es Fm	0.70	Winter	AB	AB	AB	AB	AB
								Pre-Monsoon	AB	AB	AB	AB	
								Monsoon	AB	AB	AB	AB	
								Post- Monsoon	AB	AB	AB	AB	
17	Tekumatla	Rice mill/ Kamalakar	Domestic	1.60	10.50	Barren Measur es Fm	0.60	Winter	11.32	9.10	9.70	9.70	9.67
								Pre-Monsoon	Dry	Dry	Dry	Dry	
								Monsoon	8.45	9.20	9.35	9.21	
								Post- Monsoon	8.49	9.38	10.00	9.63	
18	Tekumatla /behind Panchayat office	V.Ramireddy	Domestic	1.00	11.00	Barren Measur es Fm	GL	Winter	3.33	4.01	2.09	2.13	3.66
								Pre-Monsoon	5.75	5.30	2.28	5.32	
								Monsoon	0.82	1.50	1.80	1.66	
								Post- Monsoon	2.69	1.78	2.38	3.64	
19	Indaram	Govt. Well	Domestic	2.00	9.00	Barren Measur es Fm	0.50	Winter	6.72	5.25	6.72	6.79	6.68
								Pre-Monsoon	Dry	5.90	6.91	Dry	
								Monsoon	4.70	5.25	4.31	Dry	
								Post- Monsoon	4.80	5.39	5.18	5.44	
20	Indaram/side of HP Petrol bunk	M. Uppalaiah	Domestic	1.20	7.00	Barren Measur es Fm	0.60	Winter	4.00	3.91	6.18	6.24	6.18
								Pre-Monsoon	7.93	5.35	6.54	6.61	
								Monsoon	3.35	4.92	4.18	4.74	
								Post- Monsoon	3.48	5.12	4.78	4.81	
21	Rasulpalli	Madhukar	Domestic	1.00	8.00	Barren Measur es Fm	0.70	Winter	3.41	2.35	3.62	3.71	3.62
								Pre-Monsoon	3.89	3.62	3.84	5.14	
								Monsoon	1.22	2.33	1.89	1.96	
								Post- Monsoon	1.85	2.45	2.12	3.22	
22	Mudikunta	G.Rajaiah	Domestic	1.00	11.40	Barren Measur es Fm	0.40	Winter	4.63	1.75	5.84	5.90	5.89
								Pre-Monsoon	5.14	5.10	6.07	5.95	
								Monsoon	1.44	4.77	4.35	4.54	
								Post- Monsoon	1.57	4.92	4.94	4.97	
23	Mudikunta	Ellamma temple	Domestic	1.00	4.50	Barren Measur es Fm	0.40	Winter	1.46	1.58	2.91	2.98	AB
								Pre-Monsoon	2.81	3.13	3.04	AB	
								Monsoon	1.35	2.32	1.50	AB	
								Post- Monsoon	1.39	2.48	1.63	AB	
24	Kankur/near school	Govt. Well	Domestic	4.00	9.00	Barren Measur es Fm	0.40	Winter	7.93	6.27	Dry	Dry	6.55
								Pre-Monsoon	8.08	7.65	Dry	Dry	
								Monsoon	3.92	7.25	7.39	7.39	
								Post- Monsoon	4.00	7.48	7.73	7.84	
25	Jaipur	Behind AE Off. Near bus stop	Domestic	1.50	12.00	Kamthi FM	0.80	Winter	4.97	3.25	3.84	3.93	3.84
								Pre-Monsoon	4.97	5.05	3.94	4.05	
								Monsoon	1.25	2.90	2.15	2.34	
								Post- Monsoon	1.95	3.05	2.58	2.66	

PIEZOMETRIC LEVEL DATA OF SRIRAMPUR AREA.

Well No.	Location	Depth (m)	Dia (m)	Measuring point (m above ground level)	Period	Depth to Water (m)						
						2014	2015	2016	2017	2018	2019	2020
SRP_OCP.I PW-5	About 500 m south of the quarry and 150m north of Indaram Tank (N18°49'35.43" – E 79°30'57.60")	208	0.10	0.30	Winter	2.57	3.65	4.11	3.98	3.97	4.04	4.98
					Pre-Monsoon	4.47	4.56	4.48	4.05	4.82	4.88	
					Monsoon	4.30	2.52	3.30	3.72	3.11	3.75	
					Post-Monsoon	5.26	4.86	3.87	3.91	3.16	3.56	
SRP_OCP.I PW-6	Adjacent to the OB dump contractor Camp office (N18°50'8.05" – E 79°29'57.97")	50	0.10	0.20	Winter	3.41	5.08	4.94	AB	AB	AB	AB
					Pre-Monsoon	5.94	5.91	5.81	AB	AB	AB	
					Monsoon	5.06	2.21	OB covered	AB	AB	AB	
					Post-Monsoon	5.44	3.71	AB	AB	AB	AB	
SRP_OCP.I PW-7	Near Singapur village (N18°49'46.47" – E 79°30'25.52")	50	0.10	0.20	Winter	3.39	3.82	8.50	5.71	9.82	9.97	9.91
					Pre-Monsoon	7.55	7.61	9.69	8.15	9.94	10.01	
					Monsoon	8.28	5.84	4.35	7.87	6.68	7.53	
					Post-Monsoon	4.72	6.28	4.57	7.91	6.74	7.84	
SRP_OCP.I PW-8	Near Project Office sub-station. About 125m from N side of quarry surface limit. (N18°51'4.12" – E 79°29'39.90")	50	0.10	0.40	Winter	21.94	22.71	22.61	22.07	22.90	23.35	21.72
					Pre-Monsoon	21.96	23.20	23.28	23.08	23.41	23.43	
					Monsoon	21.78	21.26	18.27	20.83	19.13	19.67	
					Post-Monsoon	22.07	21.85	18.43	21.36	21.48	21.33	
SRP_OCP.I PW-9	Near plantation and about 70m from Eastern side of quarry surface limit (N18°50'45.86" – E 79°30'55.24")	50	0.10	0.40	Winter	4.96	6.79	--	--	7.92	7.98	Soil coverd
					Pre-Monsoon	7.18	8.17	--	4.25	8.76	8.81	
					Monsoon	6.88	7.21	--	7.65	7.23	7.71	
					Post-Monsoon	6.08	--	--	3.91	7.54	7.44	
SRP_OCP.I PW-10	Road to SRP bus stand, about 300m from N side of quarry surface limit (N18°51'7.10" – E 79°30'11.26")	50	0.1	0.50	Winter	8.40	13.89	16.64	17.57	20.90	21.07	20.94
					Pre-Monsoon	11.55	13.96	17.90	18.90	20.98	21.17	
					Monsoon	10.64	12.55	17.40	19.91	20.21	19.44	
					Post-Monsoon	10.04	14.54	17.48	19.93	20.28	20.19	
*SRP_CSIR O PW-11	West side External dump area, Near to Thallapalli village. (N18°49'54.731" – E 79°29'11.085	50	0.1	0.2	Winter		--	1.99	1.56	1.97	2.32	2.38
					Pre-Monsoon		--	2.15	2.25	2.38	2.53	
					Monsoon		1.32	0.99	1.85	1.05	NA	
					Post-Monsoon		1.98	1.18	7.69	2.00	2.07	
*SRP_CSIR O PW-12	West side External dump area. Near to Thallapalli village (N18°49'50.573" - E 79°29'06.202")	50	0.1	0.2	Winter		--	2.24	1.94	2.07	2.87	2.84
					Pre-Monsoon		--	2.29	2.23	2.28	2.91	
					Monsoon		1.93	1.19	2.10	2.08	2.12	
					Post-Monsoon		2.18	1.92	1.91	2.14	2.35	
*SRP_CSIR O PW-13	West side External dump area. Road to Godavari river (N18°49'45.286" – E 79°29'06.811")	50	0.1	0.2	Winter		--	3.81	2.33	2.99	3.05	3.17
					Pre-Monsoon		--	3.83	2.82	3.28	3.76	
					Monsoon		2.76	2.00	2.22	3.11	2.98	
					Post-Monsoon		3.81	2.17	2.24	3.06	3.11	
*SRP_CSIR O PW-14	West side External dump area. Road to Godavari River (N18°49'32.305" – E 79°28'50.154")	50	0.1	0.2	Winter		--	4.37	4.23	4.73	4.77	4.68
					Pre-Monsoon		--	4.65	5.15	5.25	4.82	
					Monsoon		4.05	3.76	3.92	4.12	4.18	
					Post-Monsoon		4.37	4.21	4.38	4.19	4.24	

MICRO-METEOROLOGICAL DATA OF SRIRAMPUR AREA FROM APRIL, 2019 TO MARCH, 2020.

Month	Predominant Wind direction blowing from	Wind Speed (m/s)			Temperature (°C)			Relative Humidity (%)			Rainfall (mm)	
		Mean	Max	Calm %	Mean	Max	Min	Mean	Max	Min	Total	Hourly Highest
Apr, 19	WNW	1.4	7.8	27.08	33.8	45.0	24.8	32.8	69.1	8.5	4.5	4.5
May, 19	WSW	1.5	7.8	33.74	37.0	48.0	27.4	26.6	66.2	7.7	61.6	8.8
Jun, 19	WNW	1.69	6.9	23.61	34.0	45.6	23.8	45.1	99.7	18.2	57.0	9.9
Jul, 19	NW	2.06	5.6	9.95	29.4	37.2	23.8	64.7	99.8	30.8	182.7	12.5
Aug, 19	SE	1.9	5.0	17.74	25.4	44.9	13.1	81.5	99.8	25.2	213.7	22.0
Sept, 19	WSW	1.10	6.9	37.64	29.2	41.3	18.6	69.7	99.8	26.0	57.7	13.2
Oct, 19	WSW	2.1	6.0	9.0	27.7	35.1	20.1	78.4	99.7	40.1	74.3	28.0
Nov, 19	NNE	1.1	4.7	19.7	26.6	36.1	17.4	56.5	91.8	19.0	105.5	10.6
Dec, 19	NE	1.8	5.5	8.6	23.6	32.5	11.4	65.7	98.9	20.8	2.6	1.5
Jan, 20	SE	2.0	5.0	11.6	23.7	33.8	12.5	62.0	97.0	10.1	3.9	2.0
Feb, 20	ESE	1.8	6.2	10.2	25.4	34.0	16.5	53.8	99.8	11.5	21.2	5.6
Mar, 20	E	1.8	5.8	12.5	29.6	39.5	22.1	47.9	86.1	18.0	2.7	1.0
Total:											787.4	

PRODUCTION DETAILS OF RK-6 INCLINE.

Sl. No	Year	Coal (in MT)	
		As per EC	Actual
1.	2018-19	0.50	0.387
2.	2019-20	0.50	0.342
3.	2020-21	0.50	0.101 (Apr- Sept, 20)