

Ref. No.PO (Ananta OCP) / Evt./F-20/2022/ **2358**

Date. /04/2022

To,

**The Additional Principal Chief Conservator of Forest, (C)  
Ministry of Environment and Forest & CC  
Eastern Regional Office,  
A/3, Chandrasekharapur,  
Bhubaneswar – 751023**

Sub Submission of **half yearly progressive report**, the compliance of the Environment Clearance Conditions in respect of Ananta OC Project, Jagannath Area, MCL, for the period from- **October 2021 to March-2022**

Ref.No- J-11015/397/2008-IA.II (M) Dated-10.12.2014

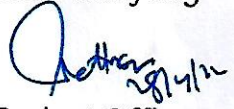
Dear Sir,

Enclosed, please find herewith the above mentioned report in hard as well soft copy for the period from **October 2021 to March-2022** in respect to Ananta OCP, Jagannath Area, M/s MCL.

This is for your kind information.

Enclosed – As above


Yours Faithfully



Project Officer  
Ananta OCP

Copy to: -

1. The Director,  
EIA monitoring cell,  
Ministry of Environment and Forest & CC  
Paryavaran Bhawan, C.G.O Complex,  
New – Delhi – 100003
2. The Divisional Forest Officer,  
Angul Division,  
District: - Angul, Odisha
3. The General Manager, (Evt. & Forest), MCL, HQ, Sambalpur.
- 4 The General Manager, Jagannath Area, - for kind information.
5. The Staff Officer, (Evt), Jagannath Area.
6. The Evt. Officer, Ananta OCP

 **Project Officer**  
Ananta Opencast Project  
Jagannath Area, MCL

ମହାନଦୀ କୋଲ୍‌ଫିଲ୍ଡସ୍ ଲିମିଟେଡ୍  
महानदी कोलफील्डस लिमिटेड  
Mahanadi Coalfields Limited  
(A subsidiary of Coal India Limited)

Office of the Project Officer  
Ananta Opencast Project  
PO-Dera Colliery, Talcher, Angul  
Odisha-759103 PH +91 (6760) 269510



Ref. No.PO (Ananta OCP) /Envt./F-20/2022/ 2359

Date. /04/2022

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EIA monitoring cell,  
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Paryavaran Bhawan, C.G.O Complex,  
New - Delhi - 100003
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**Sub:** - *Submission of Half Yearly progressive reports the compliance of the Environment Clearance Conditions in respect of Ananta OC Project, Jagannath Area, MCL, for the period from- - **October 2021 to March-2022***

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*Enclosed, please find herewith the above mentioned report in hard as well soft copy for the period from **October 2021 to March-2022** in respect to Ananta OCP, Jagannath Area, MCL.*

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*Enclosed - As above*

*Yours Faithfully*

*[Signature]*  
Project Officer  
Ananta OCP

Copy to: -

- 1. The General Manager, Jagannath Area, -for kind information*
- 2. The General Manager, (Envt. & Forest), MCL, HQ, Sambalpur..*
- 3. The Staff Officer, (Envt), Jagannath Area*
- 4. The Evt. Officer. Ananta OCP*

**PROGRESS REPORT ON THE IMPLEMENTATION OF ENVIRONMENTAL CLEARANCE  
CONDITIONS IMPOSED BY MOEF & CC (GOI), NEW DELHI IN RESPECT OF  
ANANTA OPENCAST PROJECT Phase III OF JAGANNATH AREA, MCL**

1	Status of period ending	:	<b>31.03.2022</b>
2	Name of the Project	:	Ananta OC Project Phase III
3	No. & Date of MOEF clearance letter:	:	No.J-11015/397/ 2008 - IA.II(M) dated 10.12.2014 & Amended EC-No- J-11015/397/ 2008 - IA.II(M Dt. 16.02.2018
4	Present status of the Project :		
(a)	Mining operations	:	It is an Opencast Project, the coal is extracted by using surface miner after OB is extracted by drilling and blasting, the blasted material is excavated by using shovel dumper combination. Coal transportation, by contractual Pay Loader- Tipper system is used.
(b)	Project Capacity as per EMP	:	<b>20 MTPA</b>
(c)	Coal Production (From <b>Oct-2021 to March.-2021</b> )	:	<b>81,20,358.06Te</b>
(d)	Total Coal Extracted till <b>30.09.2021</b>	:	<b>251.77 8MT.</b>
(e)	Total OB Excavated (From <b>Oct-2021 to March.-2021</b> )	:	<b>15739598.46 M<sup>3</sup></b>
(f)	Total OB removed till <b>-30.09.2021</b>	:	<b>189.829 MM<sup>3</sup></b>
(g)	Total Area of External Dump	:	<b>10.80 Ha.</b>
(h)	Total volume of External Dump	:	<b>1.96 M M<sup>3</sup></b>
(i)	Total Excavated Area/ Broken Area (Up to <b>31.03.2022</b> )	:	<b>556.95 Ha.</b>
(j)	Total Backfilled Area (Up to <b>31.03.2022</b> )	:	<b>280.00 Ha.</b>
(k)	Total De-Coaled Area (Up <b>31.03.2022</b> )	:	<b>390.89 Ha.</b>
(l)	Total Biologically reclaimed in Backfilled Area as on <b>31.03.2022</b>	:	<b>135.58 Ha.</b>
(m)	Total Biologically reclaimed in External Dump	:	<b>10.80 Ha.</b>



**COMPLIANCE STATUS OF THE ENVIRONMENTAL CLEARANCE CONDITIONS****Name of the Project: Ananta Open Cast Expansion Project Phase III****EC No. and date : No.J-11015/397/2008-IA-II (M) dated 10<sup>th</sup> Dec 2014****Period: October- 2021 to March-2022****A. Specific Conditions:-**


SN	Conditions	Compliance Status															
i	Grant of EC is only for the non- forest area plus the forest area within the mining lease for which FC is available. No mining activities will be allowed in forest area for which the FC is not available. Para (3)(b) of the guidelines of FC division dated 01.02.2013 is not being prescribed in view of the supreme court's order dated 27.1.2014	<b>Complied</b> <ul style="list-style-type: none"> <li>▪ Stage II Forest Clearance granted of area 240.672 ha. Vide No. F.No.8-37/2015-FC, Dt-18.05.2018 by MoEF&amp;CC.</li> <li>▪ The Mining activity is being carried out in mine lease hold area (1419.821 Ha.) as granted in EC.</li> </ul>															
ii	The maximum production from the mine at any given time shall not exceed the limit as prescribed in the EC.	<b>Noted &amp; Complied:-</b> Production in last 3 years <table border="1" data-bbox="831 1070 1544 1272"> <thead> <tr> <th>Year</th> <th>EC Capacity</th> <th>Production (Te)</th> </tr> </thead> <tbody> <tr> <td>2018-19</td> <td>20Mty</td> <td>8252850 Te</td> </tr> <tr> <td>2019-20</td> <td>20 Mty</td> <td>10931836 Te</td> </tr> <tr> <td>2020-21</td> <td>20 Mty</td> <td>8827676 Te.</td> </tr> <tr> <td><b>2021-22</b></td> <td><b>20 Mty</b></td> <td><b>13575965.71 Te.</b></td> </tr> </tbody> </table>	Year	EC Capacity	Production (Te)	2018-19	20Mty	8252850 Te	2019-20	20 Mty	10931836 Te	2020-21	20 Mty	8827676 Te.	<b>2021-22</b>	<b>20 Mty</b>	<b>13575965.71 Te.</b>
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iii	Mining shall be carried out as per statuette from the streams/Nallah flowing within the lease and maintaining a safe distance from Bangaru Jhor Nallah flowing along the lease boundary.	<b>Complied.</b> <ul style="list-style-type: none"> <li>▪ Mining is carried out as per statute to maintain safe distance from Bangaru Jhore Nallah.</li> <li>▪ An earthen bund embankment has been made within the ML area adjacent to the Bangaru Nallah.</li> <li>▪ As per CMR 2017 , Regulation No. 149(6)(b) any spot lying within a horizontal distance of <b>15 meters</b> from either bank of a river or canal or from the boundary of a lake, tank or other surface reservoir,</li> <li>▪ At present more than 60 meters horizontal distance from either bank of Nallah has been kept for safety.</li> </ul>															



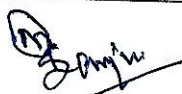
iv	Top Soil shall be stacked with proper slope at earmarked site(s) and shall be not being kept active, and shall be used for reclamation and development of green belt.	<p><b>Complied.</b></p> <ul style="list-style-type: none"> <li>As mining progress the top 1.5m (approx.) depth soil is excavated and temporarily stored at earmarked site (<b>Internal Dump no-7</b>) of an area 2.0Ha. and subsequently spread on the technically reclaimed dump before biological reclamation.</li> <li>Species include Sal, Neem, Karanj, Amala, Sissoo, Satwan, Jamun, Shisham, Platafarm, Ganga Imali, Hada, Keshave, Mango, Baheda, Lemon, Krishnachuda, Radhachuda, Gamhar, Golmohar, Bamboo, e.tc.</li> </ul>																																									
v	The OB should be re-handled and filled in the void to be filled up to ground level. Voids with 265mt depth are not permitted	<p><b>Agreed to comply.</b></p> <ul style="list-style-type: none"> <li>The mining is carried out as per EMP &amp; Approved mining plan.</li> <li>It shall be ensured the depth of void should not more than 265 m at the end of mine.</li> <li>The present depth of mining face is 110 m.</li> </ul>																																									
vi	Permission should be obtained from Water Resource Dept, State Govt. for diversion of Bangaru Jhor stream	<p><b>Agreed to comply.</b></p> <ul style="list-style-type: none"> <li>Applied for permission vide No. 1321, Dt-07.03.20</li> <li>Inspection by the Water Resource Dept. State Govt. done.</li> <li>Estimation for diversion is under preparation.</li> </ul>																																									
vii	The presence of Arsenic, Mercury (Hg), Geranium (Ge) may be investigated	<p><b>Complied:-</b></p> <p>Monitoring is done by CMPDI on monthly basis. All report are within permissible limit Monitoring of Arsenic is being carried out by CMPDIL.</p> <p>Monitoring report of arsenic (mg/L)</p> <table border="1" data-bbox="842 1200 1517 1491"> <thead> <tr> <th>Month</th> <th>Hensmul Village well water</th> <th>Dera village tube well water</th> <th>Ananta colony tap water</th> <th>Standard limit (IS-10500)2012</th> </tr> </thead> <tbody> <tr> <td>Oct-21</td> <td>&lt;0.002</td> <td>&lt;0.002</td> <td>&lt;0.002</td> <td>0.01</td> </tr> <tr> <td>Nov-21</td> <td>&lt;0.002</td> <td>&lt;0.002</td> <td>&lt;0.002</td> <td>0.01</td> </tr> <tr> <td>Dec-21</td> <td>&lt;0.002</td> <td>&lt;0.002</td> <td>&lt;0.002</td> <td>0.01</td> </tr> <tr> <td>Jan-22</td> <td>&lt;0.002</td> <td>&lt;0.002</td> <td>&lt;0.002</td> <td>0.01</td> </tr> <tr> <td>Feb-22</td> <td>&lt;0.002</td> <td>&lt;0.002</td> <td>&lt;0.002</td> <td>0.01</td> </tr> <tr> <td>March-22</td> <td>&lt;0.002</td> <td>&lt;0.002</td> <td>&lt;0.002</td> <td>0.01</td> </tr> </tbody> </table> <p>Monitoring of mercury(Hg)</p> <table border="1" data-bbox="842 1525 1517 1626"> <thead> <tr> <th>Name of Location</th> <th>Data of Mercury (Hg)</th> </tr> </thead> <tbody> <tr> <td>Near Ananta Vihar Colony</td> <td>&lt;1.0 (ng/m<sup>3</sup>)</td> </tr> <tr> <td>Near Central Nursery</td> <td>&lt;1.0 (ng/m<sup>3</sup>)</td> </tr> </tbody> </table>	Month	Hensmul Village well water	Dera village tube well water	Ananta colony tap water	Standard limit (IS-10500)2012	Oct-21	<0.002	<0.002	<0.002	0.01	Nov-21	<0.002	<0.002	<0.002	0.01	Dec-21	<0.002	<0.002	<0.002	0.01	Jan-22	<0.002	<0.002	<0.002	0.01	Feb-22	<0.002	<0.002	<0.002	0.01	March-22	<0.002	<0.002	<0.002	0.01	Name of Location	Data of Mercury (Hg)	Near Ananta Vihar Colony	<1.0 (ng/m <sup>3</sup> )	Near Central Nursery	<1.0 (ng/m <sup>3</sup> )
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viii.	Forest cover should be provided around Dera village.	<p><b>Complied:-</b></p> <ul style="list-style-type: none"> <li>20000 Nos. of sapling have been planted around Dera village to provide forest cover.</li> </ul>																																									
ix.	Investigation for effect of fluoride on human health specifically on children is done. Alternate fluoride free water is supplied to villagers.	<p><b>Complied:-</b></p> <ul style="list-style-type: none"> <li>Investigation for effect of fluoride on human health specifically on children is being done through health check-up camps.</li> <li>Drinking water is being supply to nearby village through pipe line from IRWSS Talcher which is monitored by CMPDIL on monthly basis.</li> <li>Monitoring report of fluoride in drinking water supplied to the villagers is under permissible limit.</li> </ul>																																									

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x.	Continuous monitoring in the change in ecology is carried out by ecologist, biologist, and social scientist.	<b>Complied:-</b> <ul style="list-style-type: none"> <li>▪ Continuous monitoring in change in ecology is being carried out by CMPDIL vide work order No.: MCL/HQ/Envt. &amp; Forest/2020-21/149, Dt: 15.09.2020</li> <li>▪ The study will be completed in three years (up to July 2023)</li> <li>▪ Soil sample in core and buffer zone has been taken in Nov-2020.</li> <li>▪ Team from CMPDI, &amp; ISM has been visited for Ecology study in the month of March-2022 (2/3/2022&amp; 3/03/2022)</li> </ul>
xi.	Garland drains be provided and should be de-silted regularly.	<b>Complied.</b> <ul style="list-style-type: none"> <li>▪ Garland drains are constructed all along the Mine Boundary</li> <li>▪ The sumps and drains have been designed to cater 160 mm of rain in a day.</li> <li>▪ Average rainfall in 2020-21= 80mm</li> <li>▪ Regular cleaning and de-silting of drain before monsoon and at regular interval.</li> <li>▪ Total Mine Water generated =25.77 lakh m<sup>3</sup>/year</li> <li>▪ Total capacity of sumps=45.60 lakh m<sup>3</sup></li> </ul>
xii	Sprinkling arrangement at hopper of CHP to be further improved by improving maintenance by fixing additional misters.	<b>Complied.</b> <ul style="list-style-type: none"> <li>▪ 95 % of coal production was done through surface miners.</li> <li>• Only 5% of coal produced is crushed in CHP</li> <li>• At CHP, for effective dust suppression system, 08 nos. of fixed sprinklers and 10 nos. of misters have been provided.</li> <li>• Also one number of Fog Cannon 100 meters throw is installed at CHP for effective dust Suppression</li> </ul>
xiii	Piezometer should be installed at the aquifer level for regular monitoring of underground water	<b>Complied</b> <ul style="list-style-type: none"> <li>▪ The piezometer is installed near Ananta Canteen (S.No. of Piezometer-MPT-05)</li> <li>▪ Monitoring done by CMPDIL</li> <li>▪ Ground water level monitored quarterly.</li> <li>▪ Ground water quality monitored yearly</li> </ul>
xiv	Waste water from CHP is collected in settling tank and re-circulated for use of water spraying for dust suppression and no discharge is outside the mine.	<b>Complied.</b> <ul style="list-style-type: none"> <li>▪ For treatment of waste water from CHP, Effluent Treatment Plant with Oil &amp; grease trap of 240 m<sup>3</sup> capacity have been provided</li> <li>▪ Treated water is re-used for washing of HEMM</li> <li>▪ ETP is zero discharge.</li> </ul>
xv	Monitoring of PM 2.5 shall be carried out.	<b>Complied</b> <ul style="list-style-type: none"> <li>▪ Monitoring of Ambient air quality including PM 2.5 is being carried out every fortnightly by CMPDIL.</li> </ul>



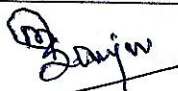
xvi	Environment management cell shall be established for reviewing the progress of implementation of environmental management in the project.	<p>Complied.</p> <p>Detail of environment cell at area/ project level is as follows.</p> <p><u>Area Level:</u></p> <ol style="list-style-type: none"> <li>1. Area General Manager</li> <li>2. Area Environment Officer</li> <li>3. Staff Officer Civil</li> <li>4. Staff Officer (E&amp;M)</li> <li>5. Area Survey Officer .</li> </ol> <p><u>Project Level:</u></p> <ol style="list-style-type: none"> <li>1. Project Officer</li> <li>2. Project Environment Officer</li> <li>3. Project Engineer (Civil)</li> <li>4. Project Engineer (E&amp;M)</li> <li>5. Survey Officer</li> </ol>
vii.	Approved mine closure plan should be submitted to RO, MoEF & CC for record.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>• The Mine Closure Plan has been approved by MCL Board on dated 09.07.2011 and submitted to Regional Office MoEF&amp;CC at Bhubaneswar.</li> </ul>
viii	Coal transportation in pit by dumpers/tippers, surface to siding by conveyor from quarry mouth to SILO and siding to loading by after construction of SILO directly in to wagon through conveyor, SILO and rapid loading system.	<p><b>Agreed to comply</b></p> <ul style="list-style-type: none"> <li>▪ Presently coal transportation from pit to siding is being done by contractual Hyva (Tippers)</li> <li>▪ After the construction of SILO/RLS, the coal will be transported through belt conveyor.</li> </ul> <p><u>Present Status of RLS/ SILO:-</u></p> <ul style="list-style-type: none"> <li>• Work Order has been issued vide no-MCL/SAMB/CIVIL/Ananta/RLS/202021 / LOA/3456, Dt.23.03.2021.</li> <li>• Excavation work started.</li> </ul>
xix	The OB shall be completely re handled at the end of the mining.	<p><b>Agreed to comply</b></p> <ul style="list-style-type: none"> <li>▪ OB will be completely re-handled at the end of the mining.</li> </ul>
xx	The void area will be converted to water body. The rest of the area will be backfilled up to the ground level and with about a meter thick top soil and put to use.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ At the end of the mine :-</li> <li>▪ Final Void/ Water Body - 32.010 Ha.</li> <li>▪ Backfilled up to ground level-959.252 Ha</li> <li>▪ Green Belt -41.150 Ha.</li> <li>▪ Safety zone Planted area-286.469</li> </ul>
xxi	Appropriate embankment shall be provided along the side of river / Nallah flowing near or adjacent to the mine.	<p><b>Complied.</b></p> <ul style="list-style-type: none"> <li>▪ An earthen bund embankment has been made within the ML area adjacent the Bangaru Nallah.</li> <li>▪ There are 03 Nos. of Sluice gates, and 05 Nos. of locking system are provided along Bangaru Nallah to prevent back flow of water.</li> </ul>



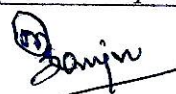
xxii	The land after mining shall be brought back for agricultural purpose.	<b>Agreed to comply</b>
	Mine water should be treated for discharge in to the lagoon. The quality of lagoon water shall be regularly monitored and mitigation measures be taken.	<b>Complied</b> <ul style="list-style-type: none"> <li>▪ Mine seepage and surface run off are channelized to mine sumps.</li> <li>▪ Sumps water is used for dust suppression, fire-fighting, washing of HEMM and plantation purpose.</li> <li>▪ Total Mine Water generated =25.77 lakh m<sup>3</sup>/year</li> <li>▪ Total capacity of sumps=45.60 lakh m<sup>3</sup></li> <li>▪ Zero discharge is implemented.</li> </ul>
xxiv	The CSR cost should be Rs 5 per Ton of coal produced which should be adjusted as per the annual inflation. As per Amended EC Vide NO-J-11015/397/2008-IA.II (M), Dt. 16.02.2018, CSR cost at least 2% of Av. Net profit of the Company.	<b>Complied.</b> CSR Expenditures of last 03 years <ul style="list-style-type: none"> <li>▪ 2018-19 = 17.75 Crores</li> <li>▪ 2019-20 = 53.34 Crores</li> <li>▪ 2020-21 = 77.29 Crores</li> </ul> <b>CSR details in Annexure- VI</b>
xxv	Everybody in the core area should be provided with mask for protection against fugitive dust emissions.	<b>Complied</b> <ul style="list-style-type: none"> <li>▪ Dust Masks distributed: 1950 nos. in 2021-22</li> <li>▪ Drills are wet operated &amp; fitted with Dust extractors</li> <li>▪ Cutting of coal by surface miners with inbuilt jet spray sprinkler system</li> <li>▪ Dept. mobile water sprinklers 28 KL - 06 nos. and contractual mobile water sprinklers 16 KL -09 nos on haul roads and coal transport roads</li> </ul>
xxvi	Dust mask to be provided to everyone working in the mining area.	<b>Complied</b> <ul style="list-style-type: none"> <li>▪ Every person working in the core area is well equipped with dust masks.</li> <li>▪ Dust mask distributed during 2020-21 is 1850 Nos.</li> <li>▪ Safety talks and motivational speeches are given prior to every shift.</li> </ul>
xxvii.	The supervisory staff should be held personally responsible for ensuring compulsory regarding wearing of dust mask in the core area.	<b>Complied</b> Team is headed by safety officer, Sr. Over man of General shift and shift In-charge of three shifts ensure compulsory wearing of dust masks in the core area.
xxviii	People working in the core area should be periodically tested for the lung diseases and the burden of cost on account of working in the coal mine area.	<b>Complied</b> <ul style="list-style-type: none"> <li>• All employees are being periodically tested for lungs diseases during PME.</li> <li>▪ 33 % of the employees are being tested for lung diseases periodically i.e. once in a year, so 100% of Employees are undergo PME test in 3 years in occupational health center of</li> </ul>

*(M) Ganjan*

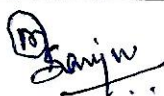
		<p>Company hospital.</p> <p>Details of PME of last 03 years.</p> <ul style="list-style-type: none"> <li>• 2019-20 = 337</li> <li>• 2020-21 = 71</li> <li>• <b>2021-22= 102</b></li> </ul>
xxix.	The mining area should be ground by green belt having thick closed thick canopy of the tree cover.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ Extensive plantation has been done in mining areas.</li> <li>▪ Internal dump-95.2 Ha- 238000 Nos.</li> <li>▪ External dump- 10.80 -2700 nos.</li> <li>▪ Block plantation-2.34 Ha.-5850 nos.</li> <li>▪ Avenue plantation-27.64 Ha.- 44224 nos.</li> </ul>
xxx.	The embankment constructed along the river boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side and stabilized with plantation so as to withstand the peak water flow and inundation	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ An earthen bund embankment has been made within the ML area adjacent to the Bangaru Nallah.</li> <li>▪ There are 03 Nos. of Sluice gates, and 05 Nos. of locking system are provided along Bangaru Nallah to prevent back flow of water.</li> <li>▪ Stone pitching on the Nallah front side of the embankment is being made to withstand the peak water flow and prevent mine inundation</li> </ul>
xxxii.	There shall be no overflow of OB in to the river and in to the agricultural fields and massive plantation of native species shall be taken up in the area between the river and the project.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ There is no overflow of OB in to the river or agricultural fields as OB is being continuously backfilled.</li> <li>▪ Backfilled area is being biologically reclaimed with native species.</li> <li>▪ Plantation of 264000 Nos. (106.00 Ha.) has been planted in Backfilled Area of Ananta OCP.</li> </ul>
xxxiii.	OB shall be stacked at three external dump sites only. The ultimate slope of the dump shall not exceed 28 degrees. Monitoring and management of existing reclaimed dumpsites shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment and Forests and its Regional office on yearly basis.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ There is one number of external dump of 10.80 Ha and has been biologically reclaimed.</li> <li>▪ OB will be appropriately stacked at the specified dump sites only with slope of the dump not exceeding 28 degrees.</li> <li>▪ Compliance Status submitted to MoEF&amp;CC every year</li> </ul>
xxxiiii.	Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilized for watering the mine area, roads, green belt development, etc. The drains shall be regularly desisted and maintained properly. Garland drains (size, gradient and length) and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ The mine water is being diverted in to mine sumps through proper drains.</li> <li>▪ The sumps and drains have been designed to cater 160 mm of rain in a day.</li> <li>▪ Regular cleaning and de-silting of drain before monsoon and at regular interval.</li> <li>▪ The settled water from the mine sumps is</li> </ul>



	site. Sump capacity shall also provide adequate retention period to allow proper setting of the silt material.	<p>being used for dust suppression, roads, green belt development and firefighting purposes.</p> <ul style="list-style-type: none"> <li>▪ Average rainfall in 2020-21= 80mm</li> <li>▪ Total Mine Water generated =25.77 lakh m<sup>3</sup>/year</li> <li>▪ Total capacity of sumps=45.60 lakh m<sup>3</sup></li> </ul>
xxxiv.	Dimensions of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ Rock filled wall have been at the toe of the dump to check run-off.</li> <li>▪ Length= 3000 meter,</li> <li>▪ Height= 1.5 meter.</li> <li>▪ Width is 1.0 meter.</li> </ul>
xxxv.	Crushers at the CHP of adequate capacity shall be operated with high efficiency bags filters, water sprinkling system should be provided to check fugitive emissions from crushing operation, conveyor system, haulage roads, transfer points etc.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>• High efficiency bags filter at CHP is not applicable.</li> <li>▪ 95 % of coal production was done through surface miners.</li> <li>• Only 5% of coal production is crushing in CHP</li> <li>• At CHP for effective dust suppression system including 08 nos. of fixed sprinklers and 10 nos. of mist spray have been provided.</li> <li>• Also one number of Fog Cannon 100 meters throw are installed at CHP for effective dust Suppression</li> </ul>
xxxvi	Drills shall be wet operated.	<p><b>Complied</b></p> <p>All drill are equipped with wet drilling and dust extractor arrangement.</p>
xxxvii.	The project authorities shall undertake regular repairing and tarring of roads used for mineral transportation. A 3-tier green belt comprising of a mix of native species shall be developed all along the major approach roads	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ Dedicated concrete coal corridor has been constructed bypassing the residential area and other habitation.</li> <li>▪ Length of Coal corridor road = 3.2 km</li> <li>▪ All permanent coal transportation roads within mine are concreted.</li> <li>▪ Regular maintenance of road is carried out.</li> <li>▪ Green belt has been developed along the roads</li> <li>▪ Total length of approach road is 15 km</li> <li>▪ Total nos. of plant planted- 24000 Nos.</li> </ul>
xxxviii	Controlled blasting shall be practiced with use of delay detonators and only during day time. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ 95 % of coal are extracted by Surface Miners</li> <li>▪ It eliminated conventional drilling &amp; blasting in coal</li> <li>▪ In Overburden Controlled blasting with Electronic detonators are being used.</li> <li>▪ Blasting is being done in day time only</li> <li>▪ Blast monitoring is being done on a regular basis.</li> <li>▪ Value of blast measured in PPV for the period April 2020 to March-21 lies between 1.35</li> </ul>



		<p>mm/sec to 3.2 mm/sec.</p> <ul style="list-style-type: none"> <li>▪ Threshold vibration =10 PPV</li> <li>▪ Maximum reading =3.2 PPV</li> </ul>
xxxix.	<p>A progressive afforestation plan shall be implemented covering an area of 831.97 ha at the end of mining, which includes reclaimed internal OB dump area (705.58ha) and green belt (831.970ha) and in township located outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. Massive plantation shall be carried out in open species in and around the mine and a 3-tier avenue plantation along the main approach roads to the mine.</p>	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ Progressive afforestation plan is being carried out.</li> <li>▪ Internal dump-95.2 Ha- 238000 Nos.</li> <li>▪ External dump- 10.80 -2700 nos.</li> <li>▪ Block plantation-2.34 Ha.-5850 nos.</li> <li>▪ Avenueplantation-27.64 Ha.- 44224 nos.</li> <li>▪ The density of the trees -2500/Ha.</li> <li>▪ Species planted are Bel, karanj, krishnachuda, Neem, Amala, Rakatachandan, kaju, Saguan, chakunda, Bombo etc.)</li> </ul>
xl.	<p>An estimated total 791.61 Mm<sup>3</sup> of OB will be generated during the entire life of mine. There will be no external OB dump. 791.67 Mm<sup>3</sup> of will be one internal OB dump in covering an area of 732.852 ha. The maximum height of external OB dump for hard OB will not exceed 90 m and that for soft OB shall not exceed 60 m. The maximum slope of the dump shall not exceed 28 degrees. Monitoring and management of reclaimed dump sites shall continue till the vegetation becomes self-sustaining and compliance status shall be submitted to the MOEF&amp;CC and its regional office on yearly basis.</p>	<p><b>Agreed to comply.</b></p>
xli.	<p>The proponent should prepare restoration and reclamation plan for the degraded area. The land be used in a productive and sustainable manner</p>	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ Restoration and reclamation plan for the degraded area is already a part of our mining plan.</li> <li>▪ Degraded area is being technically reclaimed and will be biologically reclaimed with native species</li> </ul> <p>.Total nos of plants has been planted =314047 nos</p>
xlii.	<p>Compensatory Ecological &amp; Restoration of waste land, other degraded land and OB dumps in lieu of breaking open the land be carried out.</p>	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ Compensatory Ecological &amp; Restoration of waste land, other degraded land a part of our mining plan.</li> <li>▪ Degraded area is being technically reclaimed and will be biologically reclaimed with native species</li> <li>▪ .Total nos of plants has been planted =314047 nos</li> </ul>

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xliii.	The mining should be phased out in sustainable manner. No extra over burdens are permitted.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ Mining is carried out as per Approved Mining plan</li> <li>▪ 95 % of coal production is done through Surface Miners.</li> <li>▪ Surface Miner has inbuilt jet spray sprinkler system.</li> <li>▪ Control blasting with electronic detonator</li> <li>▪ Construction of new Rapid loading System is under progress.</li> <li>▪ OB removal is used to backfilled of mine Voids.</li> <li>▪ .There is no any extra over burden dump.</li> </ul>																		
xliv	Of the total quarry area of 968.062 ha the backfilled quarry area of 732.852 ha shall be reclaimed with plantation and a void of 235.21 ha at a depth of 20-40 m which is proposed to be converted in to a water body shall be gently sloped and the upper benches shall be terraced and stabilized with plantation/ afforestation by planting native plant species in consultation with the local DFO/agricultural department. The density of the trees shall be around 2500 plants per ha.	<p>Plantation details are enclosed in ANNEXTURE –V. The density of the trees is maintained at 2500 plants per ha. Avenue plantation along the coal transportation road of 27.64 RKM is done and the plantation is being maintained till they become self-sustaining.</p> <p>Expenditure of plantation</p> <table border="1" data-bbox="821 936 1533 1205"> <thead> <tr> <th>Year</th> <th>No. of plantation</th> <th>Expenditure in (Rs)</th> </tr> </thead> <tbody> <tr> <td>2014-15</td> <td>13000</td> <td>1042210.00</td> </tr> <tr> <td>2015-16</td> <td>49500</td> <td>4322261.00</td> </tr> <tr> <td>2016-17</td> <td>12500</td> <td>801795.00</td> </tr> <tr> <td>2017-18</td> <td>12250</td> <td>1134511.00</td> </tr> <tr> <td>2019-20</td> <td>2014-15to 2017-18 Scheme</td> <td>1106785.18</td> </tr> </tbody> </table>	Year	No. of plantation	Expenditure in (Rs)	2014-15	13000	1042210.00	2015-16	49500	4322261.00	2016-17	12500	801795.00	2017-18	12250	1134511.00	2019-20	2014-15to 2017-18 Scheme	1106785.18
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xlv.	Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and construction of new piezometer. The monitoring for quantity shall be done four times a year in pre-monsoon (May), Monsoon (August), Post-monsoon (November) and Winter (January) Season and for quality in May. Data thus collected should be submitted to the ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ One number of piezometer in Ananta OCP and 07 nos. of adjacent mines have been constructed and also established a network of existing wells.</li> <li>▪ Ground water level is monitored quarterly.</li> <li>▪ Quality of Ground water monitored in yearly by CMPDIL.</li> </ul> <p>Monitoring data is being submitted to MoEF&amp;CC and SPCB regularly</p>																		
xlvi.	The company shall put up artificial ground water recharge measures for augmentation of ground water resource in case monitoring indicates a decline in water table. The project authorities shall meet water requirement of nearby villages in case the village wells go dry due to dewatering of mine.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ Mine water, obtained during extraction of coal &amp; Rainwater (runoff) accumulated is utilized for industrial purposes.</li> <li>▪ Rainwater harvesting structures have been provided 13 locations with rooftop area of 45600 m<sup>2</sup></li> <li>▪ Six sumps of cumulative capacity of 4560000 cum exist in the mine for ground water</li> </ul>																		

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		<p>recharge.</p> <ul style="list-style-type: none"> <li>▪ In other part of mine lease area, water from precipitation is collected in to the ponds located at various places.</li> <li>▪ Monitoring of ground water level is being done quarterly by CMPDIL.</li> <li>▪ Drinking water supply in nearby villages is being done through pipeline.</li> </ul>						
xlvi.	Sewage treatment plant shall be installed in the existing colony. ETP shall also be provided for workshop and CHP waste water.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ Sewage treatment plant of capacity 0.51 MLD at Ananta Vihar Colony.</li> <li>▪ ETP of capacity 240 cum at workshop.</li> <li>▪ Treated water is reused for washing of HEMMs</li> <li>▪ . ETP is zero discharge type.</li> </ul>						
xlvi.	Besides carrying out regular periodic health checkup of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health checkup for occupational deceases and hearing impairment, if any through a specialized agency / institution within the district/state and the results reported to this Ministry and to DGMS.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ An Occupational health checkup center has been established at Company hospital Dera having qualified medical officer designated for Occupational health checkup.</li> <li>▪ Health checkup for occupational deceases and hearing impairment is being undertaken once in every 03 years.</li> </ul> <p>Health checkup report is submitted to DGMS in quarterly.</p>						
xlvi.	Land oustees shall be compensated as per the norms laid out R&R policy of CIL or the national R&R policy or R&R policy of the state Govt. whichever is higher.	<p>Land oustees are being compensated as per the R&amp;R policy of Odisha state Govt. which is higher than the rest.</p> <table border="1"> <thead> <tr> <th>Total oustees</th> <th>Employment</th> <th>Resettlement</th> </tr> </thead> <tbody> <tr> <td>964</td> <td>562</td> <td>339</td> </tr> </tbody> </table>	Total oustees	Employment	Resettlement	964	562	339
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1.	For monitoring land use pattern and for post mining land use, a time series of land use maps, based on satellite imagery (on a scale of 1:5000) of the core zone and buffer zone, from the start of the project until the end of the mine shall be prepared once in 3 years (for any particular season which is consistent in the time series), and the report submitted to MOEF&CC and its concerned regional office.	<p>Monitoring of land use pattern based on satellite imagery is being done by CMPDIL, Bhubaneswar. Annual Land use/land cover details of Ananta OCP have also been published on the website of Mahanadi Coalfields Limited. (<a href="http://www.mcl.gov.in/Environment/">http://www.mcl.gov.in/Environment/</a>).</p> <p>The details of land use and changes observed from the satellite maps of the year 2020 are as follows.</p> <table border="1" data-bbox="821 414 1284 817"> <thead> <tr> <th>SL. No</th> <th>Land Use class</th> <th>Area (Km<sup>2</sup>)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Forest Area</td> <td>2.22</td> </tr> <tr> <td>2</td> <td>Scrubs</td> <td>2.07</td> </tr> <tr> <td>3</td> <td>Pfplantation</td> <td>1.37</td> </tr> <tr> <td>4</td> <td>Agriculture</td> <td>2.25</td> </tr> <tr> <td>5</td> <td>Waste land</td> <td>1.81</td> </tr> <tr> <td>6</td> <td>Mining Area</td> <td>4.03</td> </tr> <tr> <td>7</td> <td>Settlements</td> <td>0.27</td> </tr> <tr> <td>8</td> <td>Water body</td> <td>0.18</td> </tr> <tr> <td colspan="2">TOTAL</td> <td>14.20</td> </tr> </tbody> </table>	SL. No	Land Use class	Area (Km <sup>2</sup> )	1	Forest Area	2.22	2	Scrubs	2.07	3	Pfplantation	1.37	4	Agriculture	2.25	5	Waste land	1.81	6	Mining Area	4.03	7	Settlements	0.27	8	Water body	0.18	TOTAL		14.20
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li.	A detailed Final Mine Closure plan along with the details of the corpus fund shall be submitted to the Ministry of Environment & Forests & Climate Change within 6 months of grant of Environmental Clearance.	<b>Complied</b>																														
lii.	The project authorities shall in consultation with the Panchayat of the local villages and administration identify socio-economic and welfare measures under CSR to be carried out over the balance life of the mine.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>• Regularly the socio-economic and welfare concerns are being identified and measures are being taken and will be continued under CSR.</li> <li>• CSR Expenditures of last 03 years:-</li> <li>• 2018-19 = 17.15 Crs</li> <li>• 2019-20 = 53.34 Crs</li> <li>• 2020-21 = 77.29 Crs</li> </ul>																														
liii.	The commitment made by the proponent to the issue raised during public hearing shall be implemented by the proponent	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ Public Hearing conducted on dt-15.09.2005</li> <li>▪ Memo of PH Report no.39504 dt-05.11.2005</li> </ul> <p>The issue raised during Public Hearing:-</p> <ul style="list-style-type: none"> <li>• Portable water supply to nearby village.</li> <li>• Free medical facility</li> <li>• Adequate plantation on waste land</li> <li>• Water sprinkling on haul roads.</li> <li>• Road sale trucks are covered with tarpaulin</li> <li>• Mine drainage water shall be completely re-used for mining &amp; plantation purpose</li> </ul>																														
liv	Corporate Environment Responsibility a) The company shall have a well laid down Environment policy approved by the Board of Directors.																															

*Mr. Sanjay*

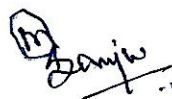
a.	The company shall have a well laid down Environment policy approved by the Board of Directors.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ The company has a well laid down Environment policy approved by the Board of Directors.</li> <li>▪ Corporate Environment Policy 2018 of CIL was approved in the 377<sup>th</sup> CIL Board meet held on 20-12-2018</li> <li>▪ MCL was approved in the 214<sup>th</sup> MCL Board meet held on 18-04-2019.</li> </ul>
b.	The Environment policy shall prescribe for standard operating process/procedures to bring in to focus any infringements/deviation/violation of the environment or forest norms/conditions.	<p><b>Complied</b></p> <p>The company has well down environment policy which states that "Mahanadi Coalfields Limited(MCL) is committed to promote sustainable development by protecting the environment through integrated project planning &amp; design, prevention / mitigation of pollution, conservation of natural resources, restoration of ecology &amp; biodiversity, recycling/ proper disposal of wastes, addressing climate change and inclusive growth. It also aims to bringing awareness amongst its stakeholders for continual improvement in environmental performances following best practices" and has been approved by Board of Directors. The company also review the non-compliance of environmental conditions are regular intervals.</p> <p>The policy is available online at <a href="http://www.mahanadicoal.in/Environment">http://www.mahanadicoal.in/Environment</a>.</p>
c.	The hierarchical system or Administrative order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.	<p><b>Complied</b></p> <p>Well-qualified personnel are included in the hierarchical system who deals with environmental issues and ensures compliance with the environmental clearance conditions.</p>
d.	To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.	<p><b>Complied</b></p> <p>A multidisciplinary committee has been formed at MCL under the chairmanship of Director (Technical/ P&amp;P), MCL vide letter no.556 dt.28.06.2019. Similar multidisciplinary committee has also been formed at Area level for reviewing compliance of EC and FC conditions on quarterly basis and reporting the non-compliance/violations of environmental norms. The audit report is submitted to HQ, which is subsequently submitted to MCL Board for review of compliance of conditions.</p>

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<b>B. GENERAL CONDITIONS:-</b>		
<b>SN</b>	<b>Conditions</b>	<b>Compliance Status</b>
i	No change in Mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests & Climate change.	<b>Complied</b> The project proponent is strictly following the condition
ii.	No Change in the calendar plan of production for quantum of mineral coal shall be made.	<b>Complied</b>
iii.	Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for PM10, PM2.5, SO2, NOx & monitoring. Location of the stations should be decided based on the meteorological data, topographical features, and environmentally and ecologically sensitive targets in consultation with the state pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc be carried out at least once in six months.	<b>Complied</b> <ul style="list-style-type: none"> <li>• Four Nos. ambient air quality-monitoring stations have been established in the core zone as well as in the buffer zone in consultation with the state pollution Control Board.</li> <li>• Monitoring of PM10, PM2.5,SO2,NOx is being carried out fortnightly by CMPDIL</li> <li>• Monitoring of heavy metals such as Hg, As,Ni,Cd, Cr is carried out once in six month by CMPDIL</li> </ul>
iv.	Data on ambient air quality (PM10, PM2.5, SO2&NOx) and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly submitted to the Ministry including its Regional office at Bhubaneswar and to the State pollution Control Board and the Central Pollution Control board once in six months. Random verification of samples through analysis from independent laboratories recognized under the EPA rules, 1986 shall be furnished as part of compliance report.	<b>Complied</b> <ul style="list-style-type: none"> <li>• The ambient air quality such as PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> &amp; NO<sub>x</sub> and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data is being submitted in every six month to the Regional office MoEF&amp;CC Bhubaneswar and the State pollution Control Board / Central Pollution Control board .</li> </ul>
v.	Adequate measures should be taken for control of noise levels below 85 db in the work environment. Workers engaged in blasting and drilling operations, operations of HEMM, etc should be provided with ear plugs/muffs	<b>Complied</b> Adequate measures are taken for control of noise levels are well within the limits. The workers engaged in drilling as well as blasting operations, operations of HEMM etc. have been provided with Dust Mask. During 2021-22 Ear Muff = 30 Nos. Dust Mask = 1950 Nos. Noise quality is also monitored at the same locations of AAQ. Noise level at other locations is also with the limits of 75 dBA.
vi.	Industrial waste water (workshop and waste water from the mine) shall be properly collected, treated so as to confirm to the standards prescribed under GSR 422 (E) dated 19th May,	<b>Complied</b> <ul style="list-style-type: none"> <li>• ETP with oil &amp; grease of capacity 240 m<sup>3</sup> have been provided.</li> <li>• Treated water is re-used for washing of HEMM.</li> </ul>



	1993 and 31st December, 1993 or as amended from time to time before discharge. Oil and grease trap should be installed before discharge of effluents from workshop.	<ul style="list-style-type: none"> <li>• It is Zero discharge</li> <li>• The waste water from the mine through garland drains is channelized to mine sumps and the treated water after settling is being used for dust suppression, firefighting and plantation purpose and firefighting.</li> <li>• Monitoring of sump water is done by CMPDIL quarterly and it's under permissible limit.</li> </ul>
vii.	Vehicular emissions should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>• Pollution under control certificate for all heavy and light commercial vehicles is secured.</li> <li>• Vehicle emissions are periodically (Six Monthly) monitored and a certificate to this effect is being issued to each vehicle by the authorized agency of Transport Department Government of Odisha.</li> <li>• Trucks are optimally loaded and vehicle used for transportation of coal outside the mine area are being covered with Tarpaulins.</li> </ul>
viii.	Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State pollution control board and data got analyzed through a laboratory recognized under EPA Rules, 1986.	<p><b>Complied</b></p> <p>An Environmental laboratory has already been established centrally at South Balanda for whole of Talcher Coal Fields by CMPDIL, Bhubaneswar Region.</p>
ix.	Personnel working in dusty areas should wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.	<p>Personnel working in dusty areas have been provided with dust mask and they are also being provided with adequate training and information on safety and health aspects.</p> <p>During 2020-21 = 1950 nos. of dust masks were provided to employees.</p>
x	Occupational health surveillance program of the workers shall be undertaken periodically to observe any contra indications due to exposure to coal dust and take corrective measures if needed, and records maintained thereof. The quality of environment due to outsourcing and the health and safety issues of the outsourced manpower should be addressed by the company while outsourcing.	<p><b>Complied</b></p> <ul style="list-style-type: none"> <li>▪ An Occupational health checkup center has been established at Company hospital Dera having qualified medical officer designated for Occupational health checkup.</li> <li>▪ Health checkup for occupational deceases and hearing impairment is being undertaken once in every 03 years.</li> <li>▪ Health checkup detail of last three years: <ul style="list-style-type: none"> <li>▪ 2018-19 -331</li> <li>▪ 2019-20- 337</li> <li>▪ 2020-21- 71</li> <li>▪ 2021-22-102</li> </ul> </li> </ul>




xi	A separate Environmental Management Cell with suitable qualified personnel shall be set-up under the control of a senior Executive, who will report directly to the Head of the Company.	<p><b>Complied</b> Detail of environment cell at area/ project level is as follows: <u>Area Level:</u></p> <ol style="list-style-type: none"> <li>1. Area General Manager</li> <li>2. Area Environment Officer</li> <li>3. Staff Officer Civil</li> <li>4. Staff Officer (E&amp;M)</li> <li>5. Area Survey Officer .</li> </ol> <p><u>Project Level:</u></p> <ol style="list-style-type: none"> <li>1. Project Officer</li> <li>2. Project Environment Officer</li> <li>3. Project Engineer (Civil)</li> <li>4. Project Engineer (E&amp;M)</li> <li>5. Survey Officer.</li> </ol>																														
xii.	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office.	<p>The funds earmarked for environmental protection measures are being kept in separate account and is not being diverted for other purpose. Year wise expenditure is reported to the Ministry and its Regional Office located at Bhubaneswar. Details of Env. Expenditure(Lakhs)</p> <table border="1" data-bbox="810 943 1528 1256"> <thead> <tr> <th>S N</th> <th>Heads</th> <th>18-19</th> <th>19-20</th> <th>20-21</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>R&amp;R</td> <td>4.64</td> <td>84.00</td> <td>11.60</td> </tr> <tr> <td>2</td> <td>Dust suppression</td> <td>171.29</td> <td>286.08</td> <td>293.35</td> </tr> <tr> <td>3</td> <td>plantation</td> <td>8.017</td> <td>00</td> <td>14.50</td> </tr> <tr> <td>4</td> <td>CSR activity</td> <td>17.75</td> <td>53.34</td> <td>77.29</td> </tr> <tr> <td>5</td> <td>Other Env. expense</td> <td>105.3</td> <td>109.85</td> <td>203.50</td> </tr> </tbody> </table>	S N	Heads	18-19	19-20	20-21	1	R&R	4.64	84.00	11.60	2	Dust suppression	171.29	286.08	293.35	3	plantation	8.017	00	14.50	4	CSR activity	17.75	53.34	77.29	5	Other Env. expense	105.3	109.85	203.50
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xiii.	The project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the 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 & Forest at <a href="https://Envt.or.nic.in">https:// Envt. or. nic.in</a> .	<p><b>Complied</b> The Environmental clearance letter has been published in two local Newspapers. 1.Sambad(Odia)on 19.12.2014 2.Dharitri(English)on19.12.2014 Also the Clearance letter has been reflected in Company website and E.C copy has sent to the Regional Office.</p>																														
xiv.	A copy of the environment clearance letter shall be marked to concerned Panchayat / Zillaparishad, Municipal corporation or urban local body and local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.	<p><b>Complied</b> A copy of the environment clearance letter has been marked to all concerned Panchayat Office. A copy of the clearance letter has been displayed on company's website. <a href="http://www.mcl.gov.in">www.mcl.gov.in</a>.</p>																														

(15)  
Dwij

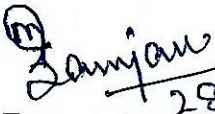
	A copy of the clearance letter shall also be displayed on company's website.	
xv.	A copy of the environmental clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Center & Collector's Office /Tehsildar's Office for 30 days	<b>Complied</b> A copy of the environment clearance letter has been sent to State Pollution Control Board, District Industry Center & Collector's Office / Tehsildar's Office for display.
xvi.	The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated environmental clearance conditions shall also be uploaded by the project authorities on their website and updated once in every six months so as to bring the same in public domain.	<b>Complied</b> The clearance letter is uploaded on the company's website ( <a href="http://www.mcl.gov.in">www.mcl.gov.in</a> ) and the compliance status of the stipulated environmental clearance conditions is being uploaded regularly
xvii.	The project proponent shall submit six monthly compliance reports on status of compliance of the stipulated environmental clearance conditions (both hard copy and in e-mail) to the respective Regional office of the Ministry, respective zonal offices of CPCB and SPCB.	<b>Complied</b> The six monthly compliance reports are being submitted regularly to MoEF&CC New Delhi,RO,MoEF&CC Bhubaneswar and OSPCB
xviii.	The Regional office of this Ministry located in the region shall monitor compliance of the stipulated conditions. The project authorities shall extend full cooperation to the office (s) of the Regional office by furnishing the requisite data information / monitoring report.	<b>Complied</b> The project authorities will always extend full cooperation regarding by furnishing the requisite data information / monitoring report to the office (s) of the Regional office.
xix.	The Environmental Statement for each financial year ending 31 <sup>st</sup> March in FORM-V is mandated to be submitted by the Project proponent for the concerned State pollution control Board as prescribed under the Environment (Protection) Rules- 1986, as amended subsequently, shall also be up loaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MOEF &CC by e-mail.	<b>Complied</b> The Environmental Statement in FORM -V ending 31 <sup>st</sup> March is being submitted every year to SPCB and RO MoEF &CC. In hard & soft copy by Email


*[Handwritten Signature]*

7.	The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report so also during their presentation to the EAC.	<b>Agreed &amp; Complied</b>
8.	The proponent is required to obtain all necessary clearances/ approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection.	<b>Obtained &amp; Complied</b>
9.	The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition for environmental protection.	<b>Agreed &amp; Complied</b>
10.	The proponent shall setup an Environment Audit cell with responsibility and accountability to ensure implementation of all the EC Conditions.	<b>Complied</b> <b>A Environment Audit cell set up to ensure implementation of all the EC Conditions.</b>
11.	The EC supersedes the earlier EC, vide letter no. J-11015/83/2005-IA.II (M) dated 14.07.2006, for an expansion in production from 8 MTPA to 12 MTPA.	<b>Noted &amp; Complied</b>
12.	Concealing factual data or submission of false/fabricated data and 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.	<b>Agreed &amp; Complied</b>
13.	The above conditions will be enforced inter-alia, under the provision of the Water (Prevention & Control of Pollution) Act, 1947, 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. And also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of Law relating to the subject matter. The proponent shall ensure to undertake and provide for the	<b>Agreed &amp; Complied</b>



	costs incurred for taking up remedial measures in case of soil contamination, contamination of groundwater and surface water, and occupational and other diseases due to the mining operations.	
14.	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	<b>Agreed &amp; Complied</b>
15.	The EC is subject to the outcome of the case field in the SDJM's Court, Talcher and the outcome of the Supreme Court case.	<b>Agreed &amp; Complied</b>

  
 28/4/22  
 Evt. Officer  
 Ananta OCP

  
 Project Officer  
 Ananta OCP  
 Project Officer  
 Ananta Opencast Project  
 Jagannath Area, MCL

**REPORT - I**  
**MINISTRY OF ENVIRONMENT FOREST & CC**  
**REGIONAL OFFICE BHUBNESWAR**  
**MONITORING PROFORMA PART-I (DATA SHEET)**

1.	Project type: River-Valley/Mining Industry/ Thermal/Nuclear/Other (Specify)	: MINING INDUSTRY
2.	Name of the Project	: Ananta Expansion Project Phase III
3.	Clearance letter(s) OM No.& Dated	: No.J-11015/397/2008-IA.II(M) dated 10.12.2014 & Amended EC Dt.16.02.2018
4.	Location: a) District(s), State(s)	: Dist: Angul, State: Odisha.
5.	Name & Address of concerned Project Officer, (with Pin Code & Telephone /Telex/Fax Nos.)	: <b>Sri- Uren Pattnaik</b> Project Officer, Ananta Opencast Project PO- Dera Colliery, Talcher Dist: Angul, Odisha, Pin : 759103 Phone- 06760-269510 (O)
	b) Address of Executive Project Engineer manager (with Pin Code and Telephone/Telex /Fax Nos.).	
6.	Salient Features of the Project;	<i>It is an Opencast Project; Coal is extracted by using Surface Miner. OB is extracted by drilling and blasting, blasted material is extracted by using shovel dumper combination. Coal is transported by contractual tipper.</i>
	(b) Of the Environment Management plans	NO-J-11015/397/2008-IA(M) Dt.18.11.2008
7.	Breakup of the Project Area	Total Area = 1419.821 Ha : Forest- =331.543 Ha
	a) Submergence area (forest & non-forest)	: None Forest = 1088.278 Ha
	b) Others	: Nil
8.	Breakup of the Project affected population With enumeration of those losing houses/ Dwelling units only, agricultural land only, Both dwelling units and agricultural land and less laborers/artisans. a) SC/ST Advises b) Others	: Village Hensmul (Baidyasahi) is affected. Total Nos of land oustees= 322 Nos Nos. of employment provided= 308 Nos Cash in lieu of Employment= 09 Nos Nos. of LO not eligible =05 Nos.
9.	Financial Details	
	a) Project cost as originally planned and subsequent the years of price reference	: Rs. 207.28 Crore (As per revised estimates and Expansion Project
	b) Allocation made for environmental management Plans, with item wise and Year wise break-up.	: Rs. 2907.89 lakhs
	c) Benefit cost ratio/internal rate of return and the year of assessment.	-
	d) Whether(c) includes the cost of Environmental Management as Shown in (b) above.	: YES
	e) Actual expenditure incurred on the Project so far as on <b>31.03.2022</b>	: Rs .6260158375.68
f) Actual expenditure incurred on the Env't. Management plans	: Rs. 823.74 lakhs	

*Uren Pattnaik*

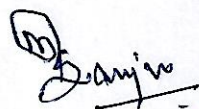
10.	Forest land requirements:	
	a) The status of approval for a diversion of forest land for non-forestry use	Phase- I (31.02 ha.) vide No. 144/89-Fc, 20 Sep. 1990 Phase - II (62.67 ha.)- vide No. 8-43/2004Fc, 6/9 <sup>th</sup> Nov. 2004 Phase-III- 240.672 Ha Vide- No-F.NO-8-37/2015-FC, Dt. 18.05.2018
	b) The status of clear felling in forest and non-forest lands	Clear trees felling of forest land= 231.50 Ha out of 240.672 Ha. of total forest land in Phase III. Tress felling in balance area 9.17 Ha is under progress.
	c) Comments on the viability and	Sustainability of compensatory afforestation programme in the light of actual field experience so far.
11.	Status of construction: Date of commencement (actual and / or planned).	: 10th October 1988
	b) Date of completion (actual and/or planned)	Ongoing project
12.	Reason for the delay if the project is yet to start	NA
13.	Date of site visits: a) The dated on which the Project was Monitored by the Regional Officer on Previous occasions if	24.12.2020
	b) Date of site visit for this monitoring Report. (RO SPCB Angul)	06.01.2022
14.	Details of correspondence with Project Authorities for obtaining action plans, Information & status of compliance to Safeguards.	NR

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(M) Sanjay

**REPORT-II**  
**PROFORMA FOR PROVIDING INFORMATION ON REHABILITATION**

1. No. of village affected. : 10 nos. of villages affected by Ananta OCP.
  2. Families affected (PAF's) : Rehabilitation- 562 persons have been sponsored for employment.
  3. Compensation package offered : As per the norms of Orissa Govt. & Land & structure compensation as per CBA Guide lines.
- As per State Government R& R Policy.
4. Budget estimate for rehabilitation :
    - a) Total Outlay : 216.52 Lakhs (As per 15MTY EMP includes cost estimate for Resettlement and Rehabilitation Including land)
    - b) Amount paid/used. : 7, 16, 50,295.10(Approx.)
  5. Employment details. :
    - a) Total employment to be provided : 964 Nos
    - b) Employment given so far : 562 nos.
  6. Rehabilitation & Resettlement Details :
    - a) No. families rehabilitated : 339 nos.
      - i) Name of the Site : Baghamara R&R Site.
      - ii) Families rehabilitated : 339 Nos.
    - b) Families yet to be rehabilitated : 168 Nos
      - i) Name of Sites(s) : Baghamara R&R Site
  7. Any other information. : NA



**MINISTRY OF ENVIRONMENT ,FOREST & CC**  
**EASTERN REGIONAL OFFICE**  
**A/3 Chandrasekharpur, Bhubaneswar -751 023**

FORMAT FOR PROVIDING PARTICULARS ON GREEN BELT/  
 PLANTATION UNDER FC ACT 1980 AND E (P) ACT 1986.

1(a)	Name of the Organization	Mahanadi Coalfields Limited, A Subsidiary of Coal India Limited			
(b)	Envt. /Forest clearance Order No.	<i>EC-No.J-11015/397/2008-IA.II(M)dated 10.12.2014 &amp; Amended EC Dt.16.02.2018</i> <i>Forest Clearance:-</i> <table border="1" style="width: 100%;"> <tr> <td>Phase- I (31.02 ha.) vide No. 144/89-FC,20Sep.1990</td> </tr> <tr> <td>Phase - II (62.67 ha.)- vide No.8-43/2004FC,6/9<sup>th</sup> Nov.2004</td> </tr> <tr> <td>Phase-III- 240.672 Ha Vide-No-F.NO-8-37/2015-FC, Dt.18.05.2018</td> </tr> </table>	Phase- I (31.02 ha.) vide No. 144/89-FC,20Sep.1990	Phase - II (62.67 ha.)- vide No.8-43/2004FC,6/9 <sup>th</sup> Nov.2004	Phase-III- 240.672 Ha Vide-No-F.NO-8-37/2015-FC, Dt.18.05.2018
Phase- I (31.02 ha.) vide No. 144/89-FC,20Sep.1990					
Phase - II (62.67 ha.)- vide No.8-43/2004FC,6/9 <sup>th</sup> Nov.2004					
Phase-III- 240.672 Ha Vide-No-F.NO-8-37/2015-FC, Dt.18.05.2018					
2.	Location, Block/Sub Divn. /Dist./State	Dist: Angul, Block: Talcher, Odisha			
3.	Address for communication	Ananta Opencast Project, PO- Dera Colliery, Talcher Dist- Angul, Odisha, 759103			
4.	Existing vegetation in the area/region	Mango, Sal, Bamboo, Mahul ,Jamun			
(a)	Major prevalent species of each type	Mango, Sal, Bamboo, Mahul, Jamun			
5.	Land coverage by the Project.	<i>1419.821 Ha</i>			
(a)	Total area under the Project				
(b)	Area covered for basic infrastructure: (Roads)/building /factory etc.)	<i>117.59 Ha</i>			
6.	Details about natural vegetation	<i>Trees and shrubs are available</i>			
(a)	Name and number of plant species :	Mango, Sal, Bamboo, Mahul ,Jamun etc			
(b)	By protecting the area will Indigenous stock comes up?	----			
(c)	Extent of green belt developed as on 30.09.2021	<i>Green belt has already developed along the mine boundary (Safety Zone 7.5 mtrs) and also in internal dumps total nos of trees planted =314047 nos. for development of green belt</i>			
7.	Plantations required to be carried out As per. Conditions of Environmental Clearance / in Ha. / Nos	2500 Nos. /Ha.			
(a)	A conditions of Forest Act for afforestation	<i>Double the area of forest land used for non-forestry purposes.</i>			
(b)	Voluntarily in ha. /nos	<i>2500 nos. per Ha.</i>			

*M. Jain*

8. Details about Plantation

(a) Total area available for plantation in each category.

Green Belt	Dumps (Ext.)	Backfilled Area	Road Sides	Block Plantation	Remarks slope Plantation
NIL	NIL	NIL	NIL	NIL	NIL.

(b) *Plantation details. (Category wise and Methodology used):*

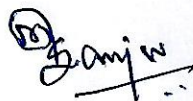
Year of Plantation	Species planted	Spacing	Total area covered			Remarks
			OB Dump in Ha	RKM	Vacant in Ha	
1991-92	Acacia, Sisso etc	2X2 mtrs	5.8	-	-	5.08 Includes Ext. Dump
1993-94	Mixed Plantation	2X2 mtrs	7.6	-	-	5.0 Includes Ext. Dump
1995-96	Mixed Plantation	2X2 mtrs	5.0	-	-	Internal OB dump
1996-97	Mixed plantation	2X2 mtrs	8.0	-	-	-do-
1997-98	Mixed plantation	2X2 mtrs	10.6	3	-	Internal OB dump & Road side
1998-99	Mixed plantation	2X2 mtrs	1.8	5	-	Internal OB dump & Colony
1999-2000	Mixed plantation	2X2 mtrs	0.6	12	-	Internal OB dump & Road side
2000-01	Mixed Plantation	2X2 mtrs	2.5	2.64	-	-do-
2001-2002	do	2X2 mtrs	4.1	-	-	Internal OB dump
2002-2003	do	2X2 mtrs	3.0	-	-	-do-
2004-2005	do	2X2 mtrs	3.0	-	-	-do-
2005-2006	do	2X2 mtrs	8.0	-	0.84	-do-
2006-2007	do	2X2 mtrs	6.0	-	-	-do-
2008-2009	Mixed Plantation	2X2 mtrs	1.0	-	-	-do-
2009-2010	do	2X2 mtrs	2.0	-	1.5	-do-
2011-2012	Mixed Plantation	2X2 mtrs	2.1	-	-	-do-
2014-2015	Mixed Plantation	2X2 mtrs	5.2	-	-	-do-
2015-2016	Mixed Plantation	2X2 mtrs	19.8	-	-	-do-
2016-2017	Mixed Plantation	2X2 mtrs	5.0	-	-	Backfilled Area
2017-18	Mixed Plantation	2X2 mtrs	4.5	-	-	OB Dumps



(c) Survival % of Plantation:

Sl. No.	Year	Total Plantation (Nos.)	Total Nos. of Survival (Approx)	Total % of Survival (Approx)
1 <sup>st</sup> year	1991-1992	14500	11600	80
2 <sup>nd</sup> Year	1992-1993	0		
3 <sup>rd</sup> year	1993-1994	27000	22410	83
4 <sup>th</sup> year	1994-1995	0	--	-
5 <sup>th</sup> year	1995-1996	12500	10250	82
6 <sup>th</sup> year	1996-1997	20000	16200	81
7 <sup>th</sup> year	1997-1998	31300	25040	80
8 <sup>th</sup> year	1998-1999	12500	9375	75
9 <sup>th</sup> year	1999-2000	20700	16146	78
10 <sup>th</sup> year	2000-2001	10474	8902	85
11 <sup>th</sup> year	2001-2002	10250	8610	84
12 <sup>th</sup> year	2002-2003	7500	6225	83
13 <sup>th</sup> year	2003-2004	0	-	-
14 <sup>th</sup> year	2004-2005	7500	6000	80
15 <sup>th</sup> year	2005-2006	22100	18785	85
16 <sup>th</sup> year	2006-2007	15000	11850	79
17 <sup>th</sup> year	2007-2008	0	-	-
18 <sup>th</sup> year	2008-2009	2500	2000	80
19 <sup>th</sup> year	2009-2010	8750	7437	85
20 <sup>th</sup> year	2010-2011	0	-	-
21 <sup>st</sup> year	2011-2012	5250	4004	76.24
22 <sup>nd</sup> year	2012-2013	0	-	-
23 <sup>rd</sup> year	2013-2014	0	-	-
24 <sup>th</sup> year	2014-2015	13000	10460	80.46
25 <sup>th</sup> year	2015-2016	49500	-	-
26 <sup>th</sup> Year	2016-17	12500	11600	92.8
27 <sup>th</sup> Year	2017-18	12250	10625	85.0

9. Agency carrying out Plantation : Orissa Forest Development Corporation & and  
CGRVVNL, Bilaspur, Chhattisgarh



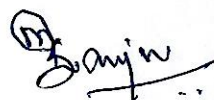
10. Financial details (year wise), Plantation wise and item wise.

Sl.No	Year	Total Expenditure Made (Rs.)	Remarks
1	1996-97	4,75,919.64	
2	1997-98	39,78,828.78	
3	198-99	7,39,783.40	
4	1999-00	14,42,786.45	
5	2000-01	62,53,3935	
6	2001-02	4,11,788.50	
7	2002-03	2,57,928.00	
8	2004-05	8,49,261.60	Scheme not completed, 3 <sup>rd</sup> year continuing
9.	2005-06	8,93,930.52	Scheme not completed, 2 <sup>nd</sup> year continuing
10.	2006-07	2,07,719.00,	Scheme just started 40% of 1 <sup>st</sup> year cost released.
11	2008-09	97,787.84	
12	2009-10	735196.77	
13	2010-11	54902.00	Ongoing scheme
14	2011-12	713597.55	Ongoing scheme
15	2012-13	82897.00	Against 2011-12 plantation scheme
16	2014-15	1042210.00	50% installment of first year
17	2015-16	4322261.00	Ongoing scheme
18	2016-17	801795.00	50% Installment of 1 <sup>st</sup> Year
19.	2017-18	1134511.00	50% Installment of 1 <sup>st</sup> Year
20.	2018-19	964922.52	(JULY 2017 TO JUNE 2018) For 2014-15-, 2015-16,2016-17,2017-18
21.	2018-19	1129560.00	40% Advance bill for 2014-15-,2015-16,2016-17& 2017-18
22	2019-20	1106785.18	1 <sup>st</sup> year, 2 <sup>nd</sup> year 3 <sup>rd</sup> year of 2014-15-,2015-16,2016-17& 2017-18

11. Inspection of plantation by field Experts and their comments and Follow up action. : By OFDC and CGRVVNL
12. Remarks/any other information : NA

*ENVIRONMENTAL EXPENDITURE AT ANANTA OC PROJECT*

Sl.No	YEAR	Expenditure in Lakhs (Approx.)
1.	2014-15	375.00
2.	2015-16	414.95
3.	2016-17	450.00
4.	2017-18	452.00
5.	2018-19	525.00
6.	2019-20	721.77
7.	2020-21	823.74



**ANNEXURE - I****WELL WATER LEVEL MONITORING DATA**

St. No.	Monitoring Station	Date of Monitoring	Depth from water level (in m.bgl)
1.	Dera Village Well	27.11.2021	3.06
		22.01.2022	3.05

**ANNEXURE -II****EFFLUENT QUALITY DATA**

SL/ No.	Monitoring Stations	All dimensions in mg/l unless otherwise stated except pH									
		pH		O&G		TSS		COD		BOD	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.	Mine Sump	6.84	6.87	--	--	--	--	--	--	--	--
2.	STP Inlet	6.93	7.09	-	-	44	52	-	-	<2.0	<2.0
3.	STP Outlet	6.48	7.60	-	-	20	56	--	--	<2.0	<2.0
4.	ETP Inlet	6.35	6.95	<4.0	<4.0	88	94	75	80	--	--
5.	ETP Outlet	6.68	7.01	<4.0	<4.0	79	82	76	80	--	--

**ANNEXURE -III****AIR MONITRING DATA (Oct-2021 to March -2022)**

Station	Date	SPM	PM10	PM2.5	SO2	NOX
<b>North East of Mine (A1)</b>	07.10.2021	251	166	64	11.46	27.01
	21.10.2021	291	187	67	8.50	34.59
	09.11.2021	359	216	66	12.54	21.68
	23.11.2021	374	222	69	12.13	23.88
	01.12.2021	329	240	50	20.67	34.33
	21.12.2021	260	191	69	14.08	28.89
	05.01.2022	250	170	56	16.64	27.76
	19.01.2022	207	144	46	14.64	17.61
	07.02.2022	165	107	40	19.28	25.71
	21.02.2022	169	109	46	9.98	28.08
	07.03.2022	184	109	44	15.65	31.91
	21.03.2022	135	102	39	15.03	26.39

**AIR MONITRING DATA (Oct-2021 to March -2022)**

Station	Date	SPM	PM10	PM2.5	SO2	NOX
<b>Near Gutha Shahi (A2)</b>	01.10.2021	104	63	33	14.14	36.31
	29.10.2021	133	73	40	9.91	26.42
	05.11.2021	177	92	51	12.59	30.10
	27.11.2021	157	84	51	17.79	23.71
	03.12.2021	156	88	45	20.63	37.85
	30.12.2021	182	88	42	17.24	39.04
	07.01.2022	150	80	32	19.59	24.00
	29.01.2022	148	85	32	20.29	23.99
	04.02.2022	155	87	40	16.65	32.51
	25.02.2022	110	70	30	16.31	28.68
	05.03.2022	133	60	30	16.33	29.20
	25.03.2022	107	63	27	17.28	28.39

*Sanjay*

AIR MONITRING DATA (Oct-2021 to March -2022)						
Station	Date	SPM	PM10	PM2.5	SO2	NOX
Near NBVL Station (A-3)	07.10.2021	284	173	63	19.10	35.17
	21.10.2021	297	189	69	10.44	29.63
	09.11.2021	302	196	67	17.18	22.76
	23.11.2021	343	212	70	11.53	24.32
	07.12.2021	205	165	98	18.92	31.06
	21.12.2021	150	97	56	17.11	34.86
	05.01.2022	220	150	55	18.11	33.10
	19.01.2022	210	145	50	18.48	25.27
	07.02.2022	166	132	46	19.94	35.66
	21.02.2022	176	123	42	11.16	30.84
	07.03.2022	189	123	49	17.62	31.80
21.03.2022	165	96	36	11.23	19.63	

AIR MONITRING DATA (Oct-2021 to March -2022)						
Station	Date	SPM	PM10	PM2.5	SO2	NOX
Central Nursery (A-4)	07.10.2021	206	128	39	19.17	25.35
	21.10.2021	239	153	46	9.74	28.13
	09.11.2021	234	138	45	17.95	23.89
	23.11.2021	264	157	50	12.76	21.49
	07.12.2021	160	72	40	16.96	44.68
	21.12.2021	240	173	85	13.67	26.84
	05.01.2022	152	88	41	16.34	32.59
	19.01.2022	144	79	36	15.80	29.17
	07.02.2022	190	133	56	12.62	35.4
	21.02.2022	176	115	50	10.54	28.37
	07.03.2022	177	100	41	18.07	22.13
	21.03.2022	126	95	36	17.26	25.36

### ANNEXURE -IV

#### NOISE LEVEL MEASUREMENT IN dBA (Oct-2021 to March -2022)

Stn. No.	Monitoring Station	DAY		NIGHT	
		Min.	Max.	Min.	Max.
1	North East of Mine (A1)	61.0	72.3	54.1	66.3
2	Guthasahi Village (A2)	55.3	58.8	50.0	56.6
3	Near NBVL St-A3	51.5	74.3	55.5	67.7
4	Central Nursery A-4	57.4	72.1	52.8	65.8

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ANNEXURE - V**SITE-WISE PLANTATION IN ANANTA OCP SINCE INCEPTION OF MCL**

Year	OB / BF		Block/Vacant		Avenue		TOTAL	
	Area in Ha.	Nos planted	Area in Ha.	Nos planted	RKM	Nos planted	Area in Ha.	Nos planted
1991-92	5.8	14500		0		0	5.8	14500
1992-93		0		0		0	0	0
1993-94	7.6	19000		0	5	8000	12.6	27000
1994-95		0		0		0	0	0
1995-96	5.0	12500		0		0	5	12500
1996-97	8.0	20000		0		0	8	20000
1997-98	10.6	26500		0	3	4800	13.6	31300
1998-99	1.8	4500		0	5	8000	6.8	12500
1999-2000	0.6	1500		0	12	19200	12.6	20700
2000-01	2.5	6250		0	2.60	4224	5.14	10474
2001-02	4.1	10250		0		0	4.1	10250
2002-03	3.0	7500		0		0	3	7500
2003-04		0		0		0	0	0
2004-05	3.0	7500		0		0	3	7500
2005-06	8.0	20000	0.84	2100		0	8.84	22100
2006-07	6.0	15000		0		0	6	15000
2007-08	0	0		0		0	0	0
2008-09	1.0	2500		0		0	1	2500
2009-10	2.0	5000	1.5	3750		0	3.5	8750
2010-11		0		0		0	0	0
2011-12	2.1	5250		0		0	2.1	5250
2012-13	0	0		0		0	0	0
2013-14	0	0		0		0	0	0
2014-15	5.2	13000		0		0	5.2	13000
2015-16	19.8	49500		0		0	19.8	49500
2016-17	5.0	12500	-	-	-	-	5.0	12500
2017-18	4.5	11250	-	-	-	-	4.5	11250
TOTAL	106.0	264000	2.34	5850	27.60	44224	135.58	314047

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ANNEXURE- VI**CSR EXPENDITURE (ACTIVITY WISE) FOR THE PERIOD 2018-2019**

Sl No.	Description Of Job/Activity	Village	District	Total Expenditure
1	Digging of open well at Brajanathpur village	Brajanthpur	Angul	547785.19
2	Operation of Pumps and Water supply network in Baghamara Resettlement colony for a period of 2 years	Baghamara	Angul	210472.20
3	Temporary supply of water through mobile water to the villages Diajharana, Tentulei, Bhanja colony and Gurudwar Adivasi Sahi under Jagannath Area for the year 2017 (PKG-6)	Tentulei	Angul	1229165.17
4	Repair and renovation of CC road from Harizan Sahi (Chalgarh) to Sanatan Dhir House at Ghantapada under CSR Programme of Jagannath Area	Ghantapada	Angul	785764.11
5	Various development works undertaken by Ananya Mahila Mandal, Jagannath Area	Talcher	Angul	96769.92
6	Expenditure towards MMET	Talcher	Angul	3743169.05
7	Construction of concrete road from Nua Sahi to Nanda Sahi through Maniak Banda at Gurujang of BBSR OCP	Gurujang	Angul	5026526.50
8	Construction of toilet at Aurobindo Integral High School at Dera under CSR Programme of Jagannath Area	Dera	Angul	486232.38
9	Procurement of medicines and lab test kits for Mega Health Camp at Gurujang village	Gurujang	Angul	42700.00
10	Black topping of road from Radharamanpur village to Jillinda chhak & Arakhapal to Biraramchanderpur under CSR scheme of BBSRI OCP,JA	Arakhapal and Jillinda	Angul	19569132.90
11	Construction of Concrete road from NH-23 to Bangaru Nala via Baidyamunda at Gurujang under CSR programmme of BBSRI OCP, JA	Gurujang	Angul	7938929.27

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12	Construction of bitumen road from Handidhua main road to Dera Shiva Mandir Chhak via Rodhasar under Jagannath Area	Rodhasar	Angul	6374257.14
13	Development of Playground at Naraharipur village under CSR programme of BBSRI OCP, JA	Naraharipur	Angul	296116.65
14	Deepening of Sani Mandira Pond at Radharamanpur and making bathing steps at Arakhpal Padiabandha Pond under CSR Programme of BBSRI OCP, JA	Arakhpal	Angul	348262.50
15	Construction of Road over bridge (ROB) at the level crossing near Ghantapada village before NTPC conveyor on the road from Handidhua chowk to NALCO chowk in Talcher Coalfields under CSR programme of MCL Jagannath Area	Ghantapada	Angul	91870473.63
16	Project Supervision of Construction of Road over Bridge (ROB) at the level crossing near Ghantapada village under CSR programme of MCL Jagannath Area	Ghantapada	Angul	5430870.68
17	Construction of School boundary and cycle stand at Panchayat High School, Tentulei	Tentulei	Angul	1855555.61
18	Repairing, strengthening and heightening of boundary wall and arcade of Nilakantheswar Mahavidyalaya, South Balanda	South Balanda	Angul	666463.26
19	Temporary supply of water through water tanker to the villages Chatei Hutting, South Balanda, Bagadhar Mundasahi and Khandualbahal under Jagannath Area for the year 2018 <b>(PKG-5)</b>	South Balanda	Angul	850000.00
20	Providing Street Light Facilities at Ghantapada village under Jagannath Area	Ghantapada	Angul	330226.30
21	Domestic water supply through water tanker to Naik Sahi, New Hensmul, Dera Harijan Sahi, hensmul High School, Ragdi Sahi under CSR programme of Ananta OCP, JA	Hensmul, Dera	Angul	199469.60
22	Providing water supply facility to Manikamara village near PMIT by providing borewell at BBSRI OCP, JA	Manikamara	Angul	767545.36

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23	Making bathing steps at village pond of Brajanathpur village (Brajasagar & Kata Bandha)	Brajanthpur	Angul	656320.84
24	Supply of water through water tanker to the village Hensmul including Sahar Sahi and Naraharipur for period of 365 dyas under BBSRI OCP, JA	Naraharipur	Angul	1439167.20
25	Making display board of repairing of existing old works of CSR works under Jagannath Area	Talcher	Angul	227803.85
26	Construction of CC road along with RCC retaining wall on both sides at Baibandha of Ghantapada village under CSR programme of Jagannath Area	Ghantapada	Angul	708344.07
27	Temporary supply of water through water tanker to the villages Hariharpur (Kaniha Block), Dumuduma, Sadashivpur and Godibandha hospital under Jagannath Area for the year 2018 <b>(PKG-4)</b>	Godibandha	Angul	860000.00
28	Supply of 100 pairs of Chair and Benches for School children at Chalagarh Primary School and Chalagarh U.P. School	Chalagarh	Angul	286150.00
29	Construction of 2 Nos. of Toilets for students and staffs for Panchayat High School, Tentulei under CSR Programme of Jagannath Area	Tentulei	Angul	456252.91
30	Expenditure for organising Mega Health Camp at Gurujang village	Gurujang	Angul	30480.00
31	Annual domestic water supply through tanker at Naik sahi, Hensmul High School, Hensmul Rehabilitation Site, Dera Harizan Sahi and Ragada Sahi under CSR scheme of Ananta OCP	Hensmul, Dera	Angul	870923.00
32	Temporary supply of water through mobile water to the villages Diajharana, Tentulei, Bhanja colony and Gurudwar Adivasi Sahi under Jagannath Area for the year 2018 <b>(PKG-6)</b>	Diajharana, Tentulei	Angul	1600000.00
33	Domestic water supply through water tanker to Naik Sahi, New Hensmul, Dera Harijan Sahi, hensmul High School, Ragdi Sahi under CSR programme of Ananta OCP, JA	Hensmul, Dera	Angul	220216.00

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34	Construction of cultural pendal shed at Ghantapada High School under CSR programme of Jagannath Area	Ghantapada	Angul	563930.94
35	Construction of road to plots of Manikamara village under CSR programme of BBSRI OCP, JA	Manikamara	Angul	2002229.44
36	Construction of community center at New Naraharipur under CSR programme	Naraharipur	Angul	786157.40
37	Construction of boundary wall of school playground of Gurujang High School, Gurujang under CSR Programme of BBSRI OPC, JA	Gurujang	Angul	1307780.91
38	Development of WBM Road from Harizan Sahi to Bangalatoila at New Naraharipur under CSR Programme of BBSRI OCP	Naraharipur	Angul	1401446.59
39	Heightening of boundary wall around Kishore Club with new entrance gate near Talcher Palace under CSR programme of Jagannath Area	Talcher	Angul	912847.37
40	Renovation of fittings with roofing arrangement for boys and maintenance of girls toilet at Neelakantha Vidyalaya	South Balanda	Angul	
41	Construction of 01 No Deep Bore well and pipeline of village Baleswar under CSR Scheme	Baleswar	Angul	1313107.58
42	Renovation of Bituminous road from Dera to Kandhaberani	Dera	Angul	5065800.00
43	Deposit works of Urban Plantation & Nursery Raising in and around Angul	Talcher	Angul	8129900.00
		<b>TOTAL</b>		<b>177504745.52</b>

*D. Sanju*

**CSR EXPENDITURE (ACTIVITY WISE) FOR THE PERIOD 2019-2020**

Sl No.	Description Of Job/Activity	Village	District	Total Expenditure
1	Strengthening of bituminous road including both sides cement concrete drain from Gurudwara to FCI gate as a CSR initiative of MCL under Jagannath Area	South Balanda, FCI	Angul	4089700.00
2	Construction of meditation hall at New Naraharipur under CSR prog of BBSRI OCP	New Naraharipur	Angul	1091058.73
3	Installation of Overhead tank with pipeline around Narayan Sewashram under CSR Programme of Jagannath Area	Kukudang	Angul	988000.00
4	Construction of Sabhaghar at Ghantapada village under Jagannath Area	Ghantapada	Angul	846891.52
5	Making bathing steps at Brajanathpur pond under Brajanathpur GP under CSR Programme of BBSRI OCP, JA	Brajanathpur	Angul	332416.82
6	Repairing of existing steps and providing new steps at bathing ghats in deulbandha pond of Ghantapada Village under CSR Programme	Ghantapada	Angul	596032.90
7	Organising of Swachata Pakhwada from 16.06.2019 to 30.06.2019 under CSR Programme	Various villages-Talcher	Angul	95288.00
8	Deposit works of Urban Plantation & Nursery Raising in and around Angul	Dera, Kaniha & Angul	Angul	4145504.00
9	Supply and installation of Inverter along with battery to Sri Sainath Vridhaashram (Old age home) at village Dera	Dera	Angul	25900.00
10	Providing water supply facility to Manikamara village near PMIT by providing borewell at BBSRI OCP, JA	Manikamara	Angul	83667.00
11	Construction of Library cum Meeting hall at Narayan Sewashram under CSR Programme of Jagannath Area	Kukudang	Angul	795289.38
12	Renovation of Toilet at Nilakatheswar Mahabidyalaya, South Balanda under CSR programme	South Balanda	Angul	825592.71
13	Construction of 2 nos. of room at Godibandha CHC of Brajanathpur GP under CSR prog of BBSRI OCP	Godibandha	Angul	968309.46
14	Supply of water through water tanker to the village Hensmul including Sahar Sahi and Naraharipur for period of 365 dyas under BBSRI OCP, JA	Hensmul, Naraharipur	Angul	252515.23
15	Construction of Community center at Chalagarh, Ghantapada GP under CSR programme of Jagannath Area	Chalagarh	Angul	1289154.75

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16	Black topping of road from Radharamanpur village to Jillinda chhak & Arakhapal to Biraramchanderpur under CSR scheme of BBSRI OCP,JA	Radharamanpur, Jillinda, Arakhapal & Biraramchanderpur	Angul	1073545.10
17	Construction of Road over bridge (ROB) at the level crossing near Ghantapada village before NTPC conveyor on the road from Handidhua chowk to NALCO chowk in Talcher Coalfields under CSR programme of MCL Jagannath Area	Ghantapada	Angul	19396740.61
18	Development of WBM road from Naraharipur R&R site to MCL diversion road of BBSRI OCP,JA	New Naraharipur	Angul	3175291.97
19	Construction of community hall at Samanta sahi, Ghantapada under CSR programme of JA	Ghantapada	Angul	855080.30
20	Project Supervision of Construction of Road over Bridge (ROB) at the level crossing near Ghantapada village under CSR programme of MCL Jagannath Area	Ghantapada	Angul	875257.49
21	Renovation of BT road from Dera to Kandhabereni under CSR Programme of Jagannath Area	Dera, Kandhabereni	Angul	3948700.00
22	Heightening of boundary wall around Kishore Club with new entrance gate near Talcher Palace under CSR programme of Jagannath Area	Talcher	Angul	86041.37
23	Supply of 5 Nos. of Dustbin to be distributed in nearby vilages of JA under CSR	Dera	Angul	18585.00
24	Supply of blankets, dari (mat) saari & dhoti to be distributed among poor & needy people of nearby vilages by ananya mahila mandal under CSR Programme of Jagannath Area	Various vilages- Talcher	Angul	125000.00
25	Temporary supply of water through mobile water to vilages Diajharana, Tentuli, Bhanja colony and Gurudwar Adivasi sahi under CSR Programme of Jagannath Area	Diajharana, Tentulei	Angul	1830854.96
26	Temporary supply of water through mobile water to vilages Chatei Hutting, South Balanda, Bagadhar Mundasahi under CSR Programme of Jagannath Area	Chatei Hutting, South Balanda, Bagadhar	Angul	1153332.00
27	Construction of Cement Concreate Road from main Road to Narayan Shvashram under CSR Programme of Jagannath Area	Kukudang	Angul	891705.27
28	Temporary supply of water through mobile water to vilages Hariharapur, Pabitrapur, Dumuduma, Sadashivpur and Godibandha under CSR Programme of Jagannath Area	Hariharapur, Pabitrapur, Dumuduma, Sadashivpur and Godibandha	Angul	1569352.80
29	Annual domestic water supply through tanker at Naik sahi, Hensmul High School, Hensmul Rehabilitation Site, Dera Harizan Sahi and Ragada Sahi for the year 2018-19 under CSR scheme of Ananta OCP	Hensmul, Dera	Angul	284392.48

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30	Annual domestic water supply through tanker at Naik sahi, Hensmul High School, Hensmul Rehabilitation Site, Dera Harizan Sahi and Ragada Sahi for 2 years (2019-2021) under CSR scheme of Ananta OCP	Hensmul, Dera	Angul	1603799.94
31	Organizing of "AIDS DAY" on 2019.	Talcher	Angul	9000.00
32	Organise Two Health Camps under CSR Programme	Talcher	Angul	3800.00
33	Organizing of AIDS Awareness	Talcher	Angul	15000.00
34	Supply of 2500 nos. Tarpaulin for Fani affected families at Puri under CSR Programme	Puri	Puri	1666750.00
35	Supply of Relief materials to FANI affected in Puri, JA	Puri	Puri	99687.00
36	Supply of 1000 nos. Asbestos sheet for Fani affected families at Puri	Puri	Puri	480000.00
				<b>53340799.79</b>

*D. Sanjiv*

<b>CSR EXPENDITURE (ACTIVITY WISE) FOR THE PERIOD 2020-2021</b>				
<b>Sl No</b>	<b>Name of Activity</b>	<b>Village</b>	<b>District</b>	<b>Total Expenditure (Rs)</b>
1	Strengthening of bituminous road including both sides cement concrete drain from Gurudwara to FCI gate as a CSR initiative of MCL under Jagannath Area	Gurudwara, FCI	Angul	21820299.70
2	Drinking water arrangements for Covid hospital at NSCH	Talcher	Angul	37080.00
3	Arrangement of vehicles for COVID-19 Hospital at NSCH	Talcher	Angul	55639.31
4	Supply of essential items for COVID-19 patients	Talcher	Angul	2738243.00
5	Organizing workshop for Girl Child & 31st virtual National meet of Wips & AIDS Awareness Program	Talcher	Angul	74584.00
6	Expenditure related to bedsheets, towels, sanitizing etc for COVID-19 Hospital at NSCH	Talcher	Angul	15603851.24
7	Installation of Overhead tank with pipeline around narayan sewashram under csr	Kukudang	Angul	0.12
8	Supply of 5000 (Five thousand) nos. of double layer cloth facemask to be distributed in the peripheral villages as preventive measures against COVID-19 under CSR Programme	Talcher	Angul	190000.00
9	Operation of new sub-station/DG set of COVID-19 Hospital at NSCH	Talcher	Angul	185142.00
10	Temporary supply of water through mobile water to the villages Diajharana, Tentulei, Bhanja colony and Gurudwar Adivasi Sahi under Jagannath Area for the year 2017 (PKG-6)	Diajharana, Tentulei, Bhanja colony	Angul	0.23
11	Temporary supply of water through mobile water to the villages Rodashar, Chalagarh, Baghmara sahi, Baghamara Nua Sahi, Station Basti, Ghantapada Harijan Sahi Ward No. 1 & 4 under Jagannath Area for the year 2017 (PKG-3)	Rodashar, Chalagarh,	Angul	0.35
12	Construction of balance CC road from FCI main road to railway station under CSR programme of Jagannath Area	Ghantapada	Angul	15295.43
13	Temporary supply of water through water tanker to the villages Hariharpur (Kaniha Block), Pabitrapur, Dumuduma, Sadashivpur, Godibandha hospital and Pabitrapur (New Balanda) under Jagannath Area for the year 2020	Hariharpur (Kaniha Block),	Angul	2231616.00
14	Sinking of 01 no. Deepborewell with submersible pump at Narayan Sevashram, Kukudang under CSR Programme of JA	Kukudang	Angul	683258.00
15	Repairing of existing steps and providing new steps at bathing ghats in deulbandha pond of Ghantapada Village	Ghantapada	Angul	384.28



16	Power supply and connection to various instrument of Gas plant at COVID-19 hospital at NSCH	Talcher	Angul	343267.42
17	Operation of new sub-station/DG set installed at MIMS periphery for electrification of PG Hostel	Talcher	Angul	202488.00
18	Expenditure for New medical college (MIMSR) at NSCH	Talcher	Angul	2069531.97
19	Supply of 10000 (Ten thousand) nos. of double layer cloth facemask to be distributed in the peripheral villages as preventive measures against COVID-19 under CSR Programme of Jagannath Area	Talcher	Angul	380000.00
20	Project Supervision of Construction of Road over Bridge (ROB) at the level crossing near Ghantapada village under CSR programme of MCL Jagannath Area	Ghantapada	Angul	4757500.11
21	Supply of medicine for relief health camp by NSCH	Talcher	Angul	59438.81
22	Engagement of 01 (one) no. of Truck bearing registration no. OD355798 for mounting of Fog Cannon Mist Blower and DG set for 24 hours duty (with 2 drivers & 2 helper) for sanitization purpose of Talcher Coalfields under the control of Jagannath Area	Talcher	Angul	840494.44
23	Engagement of 25 (Twenty-five) nos. of Bolero or equivalent vehicles for 24 hours duty during lockdown to contain the spread of COVID-19 in Angul	Talcher	Angul	3239512.50
24	Supply of 5000 (Five thousand) nos. of double layer cloth facemask to be distributed in the peripheral villages as preventive measures against COVID-19 under CSR Programme	Talcher	Angul	95000.00
25	Supply of 5000 (Five thousand) nos. of double layer cloth facemask to be distributed in the peripheral villages as preventive measures against COVID-19 under CSR Programme	Talcher	Angul	95000.00
26	Supply of 10000 (Ten thousand) nos. of double layer cloth facemask to be distributed in the peripheral villages as preventive measures against COVID-19 under CSR Programme of Jagannath Area	Talcher	Angul	190000.00
27	Deposit works of Urban Plantation & Nursery Raising in and around Angul	Talcher	Angul	2542668.00
28	Supply of 20000 (Twenty thousand) nos. of double layer cloth facemask to be distributed in the peripheral villages as preventive measures against COVID-19 under CSR Programme of Jagannath Area	Talcher	Angul	380000.00
29	Supply of 20000 (Twenty thousand) nos. of double layer cloth facemask to be distributed in the peripheral villages as preventive measures against COVID-19 under CSR Programme	Talcher	Angul	395000.00
30	Supply of 10000 (Ten thousand) nos. of double layer cloth facemask to be distributed in the peripheral villages as preventive measures against COVID-19 under CSR Programme of Jagannath Area	Talcher	Angul	190000.00

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31	Hiring of DG set including operation for running of Fog cannon towards sanitization of in and around area of Talcher Coalfields	Talcher	Angul	265500.00
32	Supply of 10000 (Ten thousand five hundred) nos. of Hand sanitizer (alcohol based 500 ml) for distribution among villagers of peripheral villages as preventive measures against COVID-19 under CSR Programme of Jagannath Area	Talcher	Angul	2767548.00
33	Supply of saree, dhoti etc by Ananya Mahila Mandal under CSR Programme of JA.	Talcher	Angul	185115.00
34	Construction of Road over bridge (ROB) at the level crossing near Ghantapada village before NTPC conveyor on the road from Handidhua chowk to NALCO chowk in Talcher Coalfields under CSR programme of MCL Jagannath Area	Ghantapada	Angul	5141742.99
35	Development of WBM road from Naraharipur R&R site to MCL diversion road of BBSRI OCP,JA	Naraharipur	Angul	4379.22
36	Making display board of repairing of existing old works of CSR works under Jagannath Area	Talcher	Angul	31306.19
37	Project Supervision of Construction of Road over Bridge (ROB) at the level crossing near Ghantapada village under CSR programme of MCL Jagannath Area	Ghantapada	Angul	455330.89
38	Renovation of BT road from Dera to Kandhabereni under CSR Programme of Jagannath Area	Dera, Kandhabereni	Angul	791149.61
39	Construction of cultural pendal shed at Ghantapada High School under CSR programme of Jagannath Area	Ghantapada	Angul	22351.80
40	Construction of 01 No Deep Bore well and pipeline of village Baleswar under CSR Scheme	Baleswar	Angul	22176.00
41	Construction of 01 No Deep Bore well and pipeline etc at Behera sahi of Hilloi village under CSR Scheme	Hilloi	Angul	16501.68
42	Supply of N -95 Mask to COVID-19 hospital at NSCH	Talcher	Angul	292493.26
43	Supply of Digital Thermometer & Pulse Oximeter to COVID-19 hospital at NSCH	Talcher	Angul	42240.00
44	Up-Keeping of Residential houses for Personnel engaged for COVID-19 purpose at newly constructed Medical College by NBCC (For 45 days)	Talcher	Angul	168469.92
45	Temporary supply of water through water tanker to the villages Chatei Hutting, South Balanda, Bagadhar Mundasahi and Khandualbahal under Jagannath Area for the year 2020	Chatei Hutting, South	Angul	1663683.53

*M. Sanjay*

46	Temporary supply of water through water tanker to the villages Hariharapur (Kaniha Block), Dumuduma, Sadashivpur and Godibandha hospital under Jagannath Area for the year 2017 <b>(PKG-4)</b>	Hariharapur (Kaniha Block),	Angul	0.42
47	Temporary supply of water through water tanker to the villages Hariharapur (Kaniha Block), Dumuduma, Sadashivpur and Godibandha hospital under Jagannath Area for the year 2018 <b>(PKG-4)</b>	Hariharapur (Kaniha Block),	Angul	11971.68
48	Temporary supply of water through water tanker to the villages Hariharapur (Kaniha Block), Pabitrapur, Dumuduma, Sadashivpur and Godibandha hospital under Jagannath Area for the year 2019	Hariharapur (Kaniha Block),	Angul	0.04
49	Annual Drinking Water Supply through tanker for Naik Sahi, Hensmul High School, hensmul Rehabilitation site, Dera Harizan Sahi and Ragada Sahi for 2 years under CSR Scheme of AOCF	Naik Sahi, Hensmul High School, hensmul Rehabilitation site, Dera Harizan Sahi and Ragada Sahi	Angul	1764200.00
50	Supply of 12000nos. Face mask & sodium hypochlorite 5 Ltr for the villagers against COVID-19 under CSR of JA	Talcher	Angul	1326128.00
51	Supply of 10000 (Ten thousand) nos. of double layer cloth facemask to be distributed in the peripheral villages as preventive measures against COVID-19 under CSR Programme	Talcher	Angul	190000.00
52	Temporary supply of water through mobile water to the villages Diajharana, Tentulei, Bhanja colony and Gurudwar Adivasi Sahi under Jagannath Area for the year 2020	Diajharana, Tentulei, Bhanja colony and Gurudwar Adivasi Sahi	Angul	2530448.64
53	Supply of 10000 (Ten thousand) nos. of double layer cloth facemask to be distributed in the peripheral villages as preventive measures against COVID-19 under CSR Programme of Jagannath Area	Talcher	Angul	190000.00
<b>TOTAL</b>				<b>77298031.78</b>

**ANNEXURE- VII****Drinking Water Quality (Oct-2021 to March -2022)****Ananta Colony Tap Water (Indian Drinking Standards:IS-10500):2012**

Month	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	March-22	Acceptable	Permissible
Colour	2	1	1	2	1	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity	1	1	2	1	1	1	1(NTU)	5 (NTU)
pH	7.04	7.25	7.43	7.57	7.39	7.48	6.5-8.5	No relaxation
Total Alkalinity	84	60	60	65.4	63.9	59.6	200 mg/L	600 mg/L
Total Hardness	100	64	56	64	68	64	200 mg/L	600 mg/L
Iron	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3 Mg/L	No relaxation
Chloride	17	6	17	6	35	8	250 mg/L	1000 mg/L
Total Dis.Solid	186	98	180	110	128	120	500 mg/L	2000 mg/L
Calcium	17.64	16	13	14.4	12.8	20.8	75mg/L	200 mg/L
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.04	0.05 mg/L	1.5 mg/L
Manganese	<0.04	<0.04	<0.1	<0.04	<0.04	<0.07	0.1 mg/L	0.3 mg/L
Sulphate	24.50	14.13	7.83	8.54	10.14	7.86	200 mg/L	400 mg/L
Nitrate	<0.5	<0.5	<0.5	0.81	1.02	<0.92	45 mg/L	No relaxation
Fluoride	<0.30	<0.30	<0.30	0.37	<0.40	0.33	1 mg/L	1.5 mg/L
Arsenic	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01 mg/L	0.05 mg/L
Lead	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01 mg/L	No relaxation
Zinc	<0.04	<0.04	<0.1	<0.04	<0.04	2.09	5 mg/L	15 mg/L
Total Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 mg/L	No relaxation
Boron	<0.10	<0.20	<0.2	<0.10	<0.10	<0.2	0.5 mg/L	1.0 mg/L
Cadmium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003 mg/L	No relaxation

**Drinking Water Quality (Oct-2021 to March -2022)****Dera village tube- well Water (Indian Drinking Standards:IS-10500):2012**

Month	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	March-22	Acceptable	Permissible
Colour	1	2	1	2	1	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity	3	1	2	2	1	1	1(NTU)	5 (NTU)
pH	7.18	7.41	6.50	7.78	7.62	7.63	6.5-8.5	No relaxat
Total Alkalinity	76	80	60	139.5	144.8	93.7	200 mg/L	600 mg/L
Total Hardness	244	108	156	212	200	116	200 mg/L	600 mg/L
Iron	<0.10	<0.10	<0.16	<0.10	<0.10	<0.1	0.3 Mg/L	No relaxa
Chloride	21	6	10	48	30	14	250 mg/L	1000 mg/L
Total Dis.Solid	364	184	363	436	470	206	500 mg/L	2000 mg/L
Calcium	57.72	28.8	36.8	62.4	56	24	75mg/L	200 mg/L
Copper	<0.03	<0.03	<0.03	<0.03	<0.03	<0.04	0.05 mg/L	1.5 mg/L
Manganese	<0.04	<0.04	<0.31	<0.08	<0.04	<0.07	0.1 mg/L	0.3 mg/L
Sulphate	110.70	37.98	43.19	56.86	58.57	5.57	200 mg/L	400 mg/L
Nitrate	2.44	<0.5	42.93	66.6	44.1	2.91	45 mg/L	No relaxant
Fluoride	<0.36	<0.36	0.30	0.30	0.3	0.41	1 mg/L	1.5 mg/L
Arsenic	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01 mg/L	0.05 mg/L
Lead	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01 mg/L	No relax
Zinc	0.04	<0.04	1.76	<0.38	<0.14	<0.04	5 mg/L	15 mg/L
Total Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05 mg/L	No relax
Boran	<0.1	<0.2	<0.2	<0.1	<0.1	<0.2	0.5 mg/L	1.0 mg/L
Cadmium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003 mg/L	No relaxat

**ANNEXTURE -VII****PIEZOMETER WATER LEVEL DATA MONITORING BY CMPDIL**

Piezometer ID	Location	Date of Monitoring	Piezometer ground water level (m bgl)
MPT -05	Outside Ananta OCP Canteen	27.11.2021	24.60
		31.01.2022	25.44

