



# **COCHIN MINERALS AND RUTILE LIMITED**

**AN ISO 9001:2000 COMPANY**

**ANNUAL REPORT  
2007-2008**

# COCHIN MINERALS AND RUTILE LIMITED

## BOARD OF DIRECTORS

Shri. R.K. Garg	- Chairman
Shri. Mathew M. Cherian	- Vice Chairman
Dr. A. Besant C. Raj	- Director
Shri. A.J. Pai	- Director
Shri. G.R. Warriar	- Director
Shri. Venu Nallur	- Director
Smt. Anita Venunath	- Director
Smt. Jaya S.Kartha	- Director
Smt. Jolly Cherian	- Director
Shri. S.N. Sasidharan Kartha	- Managing Director

## AUDITORS

M/s. Lazar & George,  
Chartered Accountants,  
Aluva.

## LEGAL ADVISORS

M/s. Matthai & Matthai,  
Advocates,  
Ernakulam.

## BANKERS

1. Bank of Baroda, Aluva.
2. State Bank of India, Aluva.
3. Industrial Development Bank of India Ltd.

## REGISTERED OFFICE

P.B.No. 73, VIII/224, Market Road,  
Aluva - 683 101.

## FACTORY

Edayar Industrial Development Area,  
Muppathadom P.O.,  
Aluva - 683 110.

**COCHIN MINERALS AND RUTILE LIMITED****1****NOTICE TO THE SHAREHOLDERS**

Notice is hereby given that the 19<sup>th</sup> Annual General Meeting of Cochin Minerals and Rutile Limited will be held at 10.30 A.M. on 22<sup>nd</sup> September 2008 at the Priyadarshini Municipal Town Hall, Thottakkattukara, Aluva, Ernakulam District, Kerala to transact the following business:

**AS ORDINARY BUSINESS****1. Adoption of Accounts**

To receive, consider and adopt the audited accounts of the Company for the financial year ended 31<sup>st</sup> March 2008 together with Directors' Report and Auditors' Report, thereon.

**2. Declaration of Dividend**

To consider and if thought fit to pass with or without modification, the following resolution as an ordinary resolution.

"Resolved that pursuant to the recommendation of the Board of Directors, a dividend at the rate of Rs.1.20 (One Rupee Twenty Paise Only) per equity share of Rs.10/- paid up be and is hereby declared out of the current profits for the year ended 31<sup>st</sup> March 2008 and the same be paid to the equity shareholders whose name appear in the Register of Members as on the date of book closure on 12<sup>th</sup> September 2008".

**3. Appointment of Directors**

To appoint Directors in place of Shri. Mathew M Cherian, Shri A J Pai and Dr. A Besant C Raj who retire by rotation and being eligible have offered themselves for reappointment and in this connection :

To consider and if thought fit, to pass with or without modification, the following resolutions as ordinary resolutions.

(a) "RESOLVED that the retiring Director, Shri. Mathew M Cherian be and is hereby reappointed as Director of the Company subject to retirement by rotation."

(b) "RESOLVED that the retiring Director, Shri. A J Pai be and is hereby reappointed as Director of the Company subject to retirement by rotation."

(c) "RESOLVED that the retiring Director, Dr. A Besant C Raj be and is hereby reappointed as Director of the Company subject to retirement by rotation."

**4. Appointment of Auditors**

To appoint the Auditors and to fix their remuneration and in this connection to pass, with or without modification, the following resolution as an ordinary resolution.

"RESOLVED that pursuant to the provisions of Section 224 and other applicable provisions, if any, of the Companies Act, 1956, M/s. Lazar & George, Chartered Accountants, Aluva be and are hereby appointed as Auditors of the Company to hold office from the conclusion of this Annual General Meeting of the Company to the conclusion of the next Annual General Meeting, on a remuneration to be mutually agreed upon between the Board of Directors of the Company and the Auditors."

**As Special Business****5. Power to Borrow**

To consider and if thought fit to pass with or without modification, the following resolution as an ordinary resolution:

"RESOLVED that pursuant to the provisions of Section 293(1)(d) of the Companies Act, 1956 and other applicable provisions, if any, and in modification of the resolution passed in the Annual General Meeting held on 27.09.2001, consent of the Company be and is hereby granted to the Board of Directors (herein after referred to as the "Board", which expression shall also include a committee of Directors) for borrowing such sum or sums of money from time to time for the purpose of the Company as they may deem fit, notwithstanding that the amount so borrowed together with moneys already borrowed and remaining outstanding may exceed the aggregate of the paid-up capital of the Company, and its free reserves, that is to say reserves not set apart for any specific purpose, provided, however, that the total sum so borrowed by the Company and outstanding at any one time (apart from temporary loans obtained from the Company's bankers in the ordinary course of business) shall not exceed Rs.150 Crores and the Board in exercise of the borrowing powers may borrow such sums as they may deem fit and on such terms and conditions, with or without security as the Board may deem fit and proper in the best interest of the Company."

**6. Creation of Security**

To consider and if thought fit, to pass, with or without modification(s), the following resolution as an ordinary resolution:

"RESOLVED that pursuant to the provisions of Section 293(1)(a) and all other applicable provisions, if any, of the Companies Act, 1956, and in modification of the resolution passed in the Annual General Meeting held on 27.01.2001, the consent of the Company be and is hereby accorded to the Board of Directors of the Company (hereinafter referred to as "Board" which expression shall also include a Committee thereof) to create Mortgage (s)/ charge(s) and/ or Hypothecation in addition to the Mortgage (s)/ Charge (s)/ Hypothecation (s) already created by the Company, in such form and manner & with such ranking and at such time and on such terms as the Board may determine, on all or any of the movable and/ or immovable properties and assets of the Company, both present and future and/ or the whole or any part of the undertakings (s) of the Company including uncalled capital together with the power to take over the management of the business and concern of the Company in certain events of defaults in the form of first and / or second and/

or parri-passu/ subservient mortgage/ charge and/ or floating charge to secure in favour of the Financial institution(s), Bank(s), Lender(s), and Trustee(s), for securing the borrowing of the Company availed/ to be availed by way of loan(s) (in foreign currency and/ or rupee currency) and/ or securities comprising fully/ partly Convertible Debentures and/ or Non-Convertible Debentures with or without detachable or non-detachable warrants and/ or secured premia notes and/ or floating rates notes/ bonds or other debt instrument(s), issued by the Company from time to time and working capital facilities sanctioned/ to be sanctioned by the working capital bankers to the Company for an amount not exceeding in aggregate Rs.150/-Crores together with interest at the respective agreed rates, additional interest, compound interest in case of default, accumulated interest, liquidated damages, commitment charges, premium on pre-payment, remuneration of the Agent(s)/ Trustee(s), premium (if any) on redemption, all other costs, charges and expenses, including any increase as result of devaluation/ revaluation/ fluctuation in rates of Exchange and all other moneys payable by the Company to the trustees of the holders of the said debentures/ financial institutions/ banks/ other lenders and incurred in terms of Loan Agreement (s)/ Hypothecation Agreement (s)/ Debenture Trust Deed (s) or any other documents, entered into/ to be entered into between the Company and Financial Institutions/ Banks/Lender (s)/ Agent (s) and/Trustee (s) in respect of the said loan (s)/ borrowing (s)/ debenture(s) and containing such specific terms & conditions and covenants in respect of enforcement of security as may be stipulated in that behalf and agreed to between the Board of Directors or Committee thereof and Financial Institutions/ Bank(s)/ Lender(s)/ Agent(s)/ Trustee(s)."

"RESOLVED FURTHER THAT for the purpose of giving effect to this resolution, the Board of Directors of the Company or Committee thereof and/ or officer(s) of the Company approved by the Board, be and are hereby authorised to finalise, settle, alter, vary the terms and conditions in consultation with the debenture trustees, financial institutions/ banks/ other lenders and execute/ modify all necessary documents (s)/ deed(s)/ writing(s)/ paper(s)/ agreement(s) and to do all other act(s), deed(s), matter(s) and things, as it may in its absolute discretion deem necessary, proper or desirable and to settle any question, difficulty or doubt that may arise in regard to creating Mortgages/ Charges/ Hypothecation as aforesaid."

By Order of the Board

Place : Aluva  
Date : 30.07.2008

Sd/-  
S.N. Sasidharan Kartha,  
Managing Director.

#### Notes:

1. A member entitled to attend and vote at the Annual General Meeting may appoint a proxy to attend and vote on a poll on his behalf. Such a proxy need not be a member of the Company. The proxy in order to be valid should be duly completed, signed and stamped and the same must be received at the Registered office of the Company not less than 48 hours before the commencement of the meeting.
2. The Share Transfer Books and Register of members of the Company shall remain closed from 12<sup>th</sup> September 2008 To 22<sup>nd</sup> September 2008 (both days inclusive).
3. Members are requested to bring their copies of the Report and Accounts to the meeting. Members are also requested to bring the attendance slip with them duly filled in and hand over the same at the entrance of the meeting venue.
4. Members holding physical shares are requested to intimate any change in address to the Company. Members who hold dematerialised shares are requested to notify any change in their particulars like change in address, bank account particulars to their respective Depository participants immediately.
5. In terms of section 205 (c) of the Companies Act, dividend amounts that have remained unclaimed/ unpaid for a period of 7 years from the date they became due for payment shall be credited to the Investor Education and Protection Fund of the Central Government and no claim shall lie against the fund. The particulars of unclaimed/unpaid dividends declared for financial years 2000-2001 and there after are given below:

Financial Year Ended 31 <sup>st</sup> March	Date of Declaration	Last Date for claiming dividend
2001	27.09.2001	26.09.2008
2002	26.09.2002	25.09.2009
2003 to 2006	Nil	Nil
2007	24.09.2007	23.09.2014

6. Members desirous of obtaining any specific information/ clarification concerning the accounts/working of the company are requested to address their queries to the Company Secretary, so as to reach at least 3 days before the meeting to enable the company to make the information available at the meeting, to the best extent possible.
7. Corporate Members intending to send their authorized representatives to attend the meeting are requested to send a certified copy of Board resolution authorizing the representative to attend and vote at the meeting on their behalf.

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8. The relative explanatory statement pursuant to Section 173(2) of the Companies Act 1956 in respect of special business under item 5 and 6 and additional information in respect of directors reappointed are appended hereunder.

### Explanatory Statement pursuant to Section 173 (2) of the Companies Act 1956

#### **Item 5**

Section 293 (1) (d) of the Companies Act 1956, inter alia, provides that the Board of Directors of a public company shall not, except with the consent of the members in general meeting, borrow moneys where the moneys to be so borrowed together with the moneys already borrowed by the company will exceed the aggregate of the paid up capital and free reserves of the company. By a resolution passed in the Annual General Meeting held on 27.09.2001, the company authorized the Board of Directors to borrow moneys upto a limit of Rs.50 crores. The present borrowing is well within this limit. However in view of the anticipated investment requirements for the alternate technology and expansion projects, additional working capital requirements etc. this limit is required to be enhanced to Rs.150 crores. Your directors recommend the resolution set out at serial no. 5 for approval of the members.

None of the directors is concerned or interested in the resolution.

#### **Item 6**

Section 293 (1) (a) of the Companies Act 1956, provides, inter alia, that the Board of Directors of a public company shall not, without the consent of the members in general meeting, sell, lease or otherwise dispose of the whole or substantially the whole of the undertaking of the Company. The borrowings of the Company are generally required to be secured by suitable mortgage/charge/hypothecation on all or any of the movable and/ or immovable properties of the Company in favour of Banks/Financial Institutions/Debentures holders/trustees/other lenders. By a resolution passed in the Annual General Meeting held on 27.09.2001, the Company had authorized the Board of Director's to create mortgage/charge/hypothecation on all or any of the properties of the Company upto a sum not exceeding Rs.50 crores, together with interest and other charges. In view of the further borrowing requirements of the Company, this ceiling is required to be enhanced to an amount not exceeding Rs.150 crores. Your Directors recommend the resolution set out at serial no. 6 for the approval of the members. None of the directors is concerned or interested in the resolution.

### Additional Information in respect of Directors re-appointed

#### **Shri. Mathew M Cherian**

Shri. Mathew M Cherian, an NRI Businessman is the co-founder and has been the Vice-Chairman of Cochin Minerals and Rutile Limited from its inception. A Diploma holder in Hotel Management from the Institute of Hotel Management & Catering, Bombay, Mr. Cherian is engaged in Hotels, Restaurants, export, import and international trade. His dynamic leadership quality and business acumen have enabled the company to scale new heights in overall performance.

Shri. Mathew M Cherian is the Managing Director of Sach Exports Pvt. Ltd and Director of Kerala Rare Earths and Minerals Limited.

#### **Dr. A. Besant C. Raj**

Dr. A. Besant C. Raj is an MBA from the Indian Institute of Management, Ahmedabad (first batch). He also holds the doctoral degree in Business Administration from the Harvard Business School, Harvard University, USA. He has a Masters degree in Philosophy from Madras University and a Masters degree in Psychology from Banaras Hindu University.

After a distinguished teaching career, which includes being the Director of Studies at Administrative Staff College, Hyderabad, Dr. Raj founded his own Management Consultancy Company, Besant Raj International Ltd. in 1979 with his wife.

Dr. Raj is the Founder Chairman of the Institute of Chartered Financial Analysts of India. He was also the Chancellor of the ICFAI University by the Governments of Chattisgarh, Uttaranchal and Tripura. He is on several boards and till recently was on the board of Industrial Development Bank of India (IDBI). He is closely associated with several educational institutions like The Jawaharlal Nehru Institute of Development Banking of IDBI and he is the Chairman of The Madras Christian College Board.

Dr. Raj has carried out several prestigious national and international consultancy assignments, which include work with The Ford Foundation, New York, and The Commonwealth Fund for Technical Co-operation, London and The Economic Development Institute of the World Bank.

Dr. Raj was a member of the Panel of Judges to evaluate Integrated Steel Plants for Prime Minister's Award. He was also appointed on the Committee of experts to evaluate the performance of public enterprises in Tamil Nadu. He also holds directorships of M/s. Henkel India Ltd., M/s. ISPAT Industries Ltd., and M/s. Spel Semiconductors Ltd. Dr. Raj is a member of the Audit and the Remuneration Committees of the Board of Cochin Minerals and Rutile Limited.

#### **Shri. A J Pai**

Shri. A.J. Pai, a fellow member of the Institute of Chartered Accountants of India, has been in the service of KSIDC Ltd for about 25 years and retired in the year 2004 as its Executive Director. He was on your Company's Board, as KSIDC nominee from 2000 to 2004 and since then as an independent director. Presently he also holds Directorship in five other Companies viz. M/s Pigments India Limited, (Chairman) M/s Kerala Industrial Revitalisation Board, (Nominee Director) M/s Lake Shore Hospital and Research Centre Limited (Whole Time Director), M/s Lulu International Shopping Mall Private Limited and M/s Limer Properties Private Ltd. He is a member of the Audit Committee and Remuneration Committee of Cochin Minerals and Rutile Limited.

## DIRECTORS' REPORT

Your Directors are pleased to present the 19<sup>th</sup> Annual Report of your Company along with audited statements of accounts for the year ended 31<sup>st</sup> March 2008.

FINANCIAL HIGHLIGHTS		
	Rs. in Lakhs	
	2008	2007
Sales and Other Income	8806.42	9714.44
Profit before Interest & Depreciation	636.59	1414.10
Interest	221.01	224.83
Depreciation	224.30	234.73
Net Profit for the year	191.27	953.83
Provision for Tax	110.88	144.30
Fringe Benefit Tax	12.48	14.75
Deferred tax asset (liability)	(97.76)	(93.93)
Profit available for appropriations/(loss)	165.68	888.71
<b>Appropriations</b>		
Proposed Dividend	93.96	93.96
Dividend Tax	15.97	15.97
Transfer to General Reserves	8.28	44.44
Balance Carried Forward	47.46	734.34

### DIVIDEND

Your Directors are pleased to recommend a dividend on the equity shares at 12 percent for the financial year ended 31<sup>st</sup> March, 2008.

### OPERATIONS

#### a) Production

The production of Synthetic Rutile during the year under review was 32660.000 MT as compared to 32691.250 MT in the previous year. Ferric Chloride production during the year was 4542.950 MT, as compared to 5680.000 MT in the previous year. Ferrous Chloride production during the year was 44755.000 MT as against 47880.000 in the previous year.

#### b) Sales

Your company sold 31937.350 MT of Synthetic Rutile during the year as compared to last year's sales of 32888.350 MT. Ferric Chloride sales amounted to 4927.025 MT during the year compared to 5498.955 MT last year. Ferrous Chloride sales this year comes to 44490.590 MT, as against 48226.895 MT in the previous year.

#### c) Foreign Exchange

Your company earned export income of USD16022927.50 (FOB) equivalent to Rs.6491.88 lakhs, compared to USD 15938707.40 equivalent to Rs.7191.90 lakhs in the previous year. The utilisation of Foreign Exchange during the year was USD 879377.69, UK pound 635.80, JPY 497000 and AED 140 and Euro 5180 equivalent to Rs.37349084/- compared to USD 807553.11, UK pound 1476.60 JPY 10000 and AUD 32440.93 (Rs.38269689/-) in the previous year. Statement in



Form 'C' is given in the Annexure - I.

**d) Profit**

Your company earned a profit of Rs.636.59 lakhs before interest, depreciation and tax and a net profit of Rs.165.68 lakhs after tax during the year as compared to Rs.1414.10 lakhs and Rs.888.71 lakhs respectively in previous year. The major reason for the decline in profitability is the appreciation in the value of Rupee.

Management Discussion and Analysis of the Working Results for the year is given as Annexure - III.

**e) Alternate Technology**

The technology transfer agreement has been signed with Regional Research Laboratory, Trivandrum (National Institute of Interdisciplinary Science and Technology-NIIST), a detailed project report has been prepared and steps are being taken for implementation of the project.

## **DIRECTORS**

As per the provisions of the Companies Act, 1956, your directors Shri.A J Pai, Shri. Mathew M Cherian and Dr. A Besant C Raj retire by rotation at the Annual General Meeting and being eligible, have offered themselves to be reappointed.

## **CORPORATE GOVERNANCE**

Your company has complied with all the conditions of corporate governance regulations, as contained in the revised clause 49 of the listing agreement. The corporate governance report and the certificate from the auditors regarding the compliances are annexed to this report as Annexure II and IV.

## **DIRECTOR'S RESPONSIBILITY STATEMENT**

Pursuant to the requirements under Section 217 (2AA) of the Companies Act, 1956, it is hereby confirmed,

- i) That in the preparation of the Annual accounts for the year ended 31st March 2008, the applicable accounting standards have been followed.
- ii) That the Directors had selected such accounting policies and applied them consistently and made judgments and estimates that were reasonable and prudent so as to give a true and fair view of the state of affairs of the Company as at the end of the financial year and of the profit/loss of the Company for the year under review.
- iii) That the Directors had taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of the Companies Act, 1956 for safeguarding against fraud and other irregularities.
- iv) That the Directors had prepared the accounts for the year ended 31st March 2008 on a going concern basis.

## **ISO CERTIFICATION**

Your Company continues to be ISO 9001 : 2000 certified by the prestigious agency, Bureau Veritas Quality International, with accreditation from UKAS London, ANSI-RAB, USA and NABCB, India.

## **AWARDS**

Your directors are pleased to report that your Company won for the 2<sup>nd</sup> consecutive year, the Award for Excellence in implementing pollution control measures from Govt. of Kerala.

## **AUDITORS**

M/s. Lazar & George, Chartered Accountants, Aluva who were appointed as Auditors

of the Company for the year under review, retire at the Annual General Meeting and being eligible, offer themselves for reappointment.

### **STATUTORY APPROVALS & LICENCES**

The Company has renewed all statutory approvals and licences from various Departments/ Authorities for carrying on its normal business. The licenced capacity of Synthetic Rutile production remains at 36,000 MT per annum.

### **INDUSTRIAL RELATIONS**

The Labour - Management relations have been cordial and a long term agreement with Trade Unions of the Employees, valid till 2011 is in force. The employee morale is quite high as can be observed from the performance.

### **ENERGY CONSERVATION**

The statements in Form A for Energy Conservation and Form B on Technology upgradation are given in the Annexure - I. Improved practices and installation of additional equipment have resulted in better quality of product.

### **PARTICULARS OF EMPLOYEES**

No employee in the service of the Company draws annual remuneration of Rs.24,00,000 or more per year or Rs.2,00,000 or more per month for any part of the reporting year as per Section 217 (2A) of the Companies Act, 1956.

### **FIXED DEPOSITS**

The Company has not accepted any deposit during the year within the meaning of Section 58A of the Companies Act 1956 and the rules made there under.

### **DEMATERIALISATION**

The shares of your Company are compulsorily dematerialised for trading. The ISIN number of the shares is INE105D01013.

### **LISTINGS**

The shares of your Company are listed with Mumbai Stock Exchange. The listing fees as required has already been paid upto and including the year 2008-2009.

### **ACKNOWLEDGEMENTS**

Your Directors wish to place on record their deep sense of gratitude to the Banks and Financial Institutions, Central and State Government Departments and local authorities for their co-operation and support. Your directors are also grateful to the customers, suppliers and business associates for their co-operation. Your directors also like to place on record their appreciation of the valuable contributions put in by the employees of the company at all levels. Finally, your directors are deeply grateful to the members for their continued confidence and faith in the management of the company.

For and on behalf of the Board,  
Sd/-

R.K. Garg,  
Chairman.

Place: Aluva,  
Date : 30.07.2008



**COCHIN MINERALS AND RUTILE LIMITED****7****Annexure -I to the Directors' Report.**

Statement containing particulars, pursuant to Companies (disclosure of particulars in the report of Board of Directors) Rules 1988 and forming part of the Directors Report.

**FORM A**  
**(See Rule 2)**

Form for Disclosure of Particulars with respect to Conservation of Energy.

**A. Power and fuel consumption****1. Electricity**

(a) Purchased	Current Year	Previous Year
Unit	50,29,265 KWH	45,76,194 KWH
Total Amount	Rs.1,85,63,227.00	Rs.1,78,58,500.00
Rate/Unit	Rs.3/KWH + Rs.270/KVA + 0.10/KWH+ Surcharge @0.025 Ps per KWH or part thereof	Rs.3/KWH + Rs.270/KVA + 10 ps/ KWH + surcharge @0.025 per KWH or part thereof
(b) Own generation		
Through diesel Generator		
Units	1,70,436 KWH	64,620 KWH
Units per ltr. ) of diesel oil. )	3.43 units/ltr	3.70 units/ltr
Cost/unit	Rs.10.26/unit	Rs. 10.15/unit
Through steam turbine/ Generator Units	Nil	Nil
Units per ltr. of fuel oil/gas	Nil	Nil
Cost/units		
2. Coal (specify quality and where used)	Low ash coal- in kiln for reduction.	
Total cost	Rs. 1,67,29,444.00	Rs.1,53,78,981.00
Average rate	Rs. 4376.94	Rs. 4518.05
3. Furnace Oil		
Quantity (k.ltrs.)	4410.8266 KL	4593.0738 KL
Total amount	Rs.7,75,20,888.12	Rs. 7,29,91,793.50
4. Others/internal generation (please give details)		
Quantity		
Total cost	Nil	Nil
Rate/unit		

**B. Consumption per unit of production**

	Standards (if any)	Current Year	Previous Year
		1	2
Particulars of Energy			
Electricity		159.47 Units	141.96 Units
Furnace Oil		135.68 Ltrs	140.50 Ltrs
Coal		0.117 MT	0.10 MT

## FORM B

(See rule 2).

**FORM FOR DISCLOSURE OF PARTICULARS WITH RESPECT TO TECHNOLOGY.****Research and development ( R & D)**

- |   |  |             |              |             |             |  |              |   |      |
|---|--|-------------|--------------|-------------|-------------|--|--------------|---|------|
| 1. Specific areas in which R&D carried out by the Company     | <p>(a) Continued studies on diversified products of SR and micronised Rutile as coating additive and ceramic colours.</p> <p>(b) Continued studies and plant level trials of usage of Ferric Chloride and Ferrous Chloride in effluent treatment and sewage treatment and studies on metallisation and rusting of Ilmenite.</p> <p>(c) Studies on utilization of ETP sludge in bricks and tile manufacture.</p>  |             |              |             |             |  |              |   |      |
| 2. Benefits derived as a result of the above R & D            | <p>(a) There is potential for sale of value added Products.</p> <p>(b) Resulted in increase in sale of by- products.</p> <p>(c) Feasibility of technology upgradation by adopting metallization and rusting process established.</p>   |             |              |             |             |  |              |   |      |
| 3. Future plan of action                                      | <p>(a) As part of commercialisation of the metallisation and rusting process for manufacture of Synthetic Rutile, CMRL received Technology documents from National Institute of Interdisciplinary Science and Technology (NIIST) (Regional Research Laboratory, Trivandrum). Detailed engineering and design activities are in progress.</p> <p>(b) R &amp; D studies to be continued for utilisation of Iron Hydroxide ETP sludge for bricks and tiles manufacture and in ceramic colour application.</p> <p>(c) Collaboration agreement signed with Indian Paper Research Institute, Saharanpur and CMRL for promotion of the usage of Ferrous Chloride with Hydrated Titania as catalyst for treatment of paper mill effluents for colour COD and BOD reduction. Further studies to be continued based on findings of CPPRI work.</p> |             |              |             |             |  |              |   |      |
| 4. Expenditure on R & D                                       | <p>:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">(a) Capital</td> <td style="width: 50%; text-align: right;">130.73 lakhs</td> </tr> <tr> <td>(b) Revenue</td> <td style="text-align: right;">40.23 lakhs</td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">170.96 lakhs</td> </tr> <tr> <td>(c) Total R &amp; D expenditure as a Percentage of total turnover</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">1.95</td> </tr> </table>   | (a) Capital | 130.73 lakhs | (b) Revenue | 40.23 lakhs |  | 170.96 lakhs | (c) Total R & D expenditure as a Percentage of total turnover | 1.95 |
| (a) Capital   | 130.73 lakhs   |             |              |             |             |  |              |   |      |
| (b) Revenue   | 40.23 lakhs  |             |              |             |             |  |              |   |      |
|   | 170.96 lakhs   |             |              |             |             |  |              |   |      |
| (c) Total R & D expenditure as a Percentage of total turnover | 1.95   |             |              |             |             |  |              |   |      |