Mineral Conservation and Development Rules, 1988

(As amended up to 2nd August, 2011)

Government of India
Ministry of Mines

MINERAL CONSERVATION AND DEVELOPMENT RULES, 1988

(As amended up to 2nd August, 2011)

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SCHEDULE

1 and 2 Omitted by G.S.R.75(E) dated 9.2.2011

GOVERNMENT OF INDIA
(BHARAT SARKAR)
MINISTRY OF STEEL AND MINES
(ISPAT AUR KHAN MANTRALAYA)
DEPARTMENT OF MINES
(KHAN VIBHAG)

New Delhi, the 24th October, 1988

NOTIFICATION

G.S.R.No.1023 (E). In exercise of the powers conferred by section 18 of the Mines and Minerals (Regulation and Development) Act, 1957 (67 of 1957), the Central Government hereby makes the following rules for conservation and development of minerals, namely:

CHAPTER - I

Preliminary

1. Short title and commencement : -

[1][(1) These rules may be called the Mineral Conservation and Development (Amendment) Rules, 2010.

(2) They shall come into force on the date of their publication in the Official Gazette.]

2. Application :- These rules shall apply to all minerals except : -

(i) petroleum and natural gas;

(ii) coal, lignite and sand for stowing;

(iii) any mineral declared as prescribed substance for the purpose of the Atomic Energy Act, 1962 (33 of 1962); and

(iv) minor minerals.

3. Definitions : - In these rules, unless the context otherwise requires:-

[2][(a) "abandonment of mine" means final closure of a mine either whole or part thereof when the mineral deposits within mine or part thereof, have been fully extracted or when the mining operations have become uneconomic;]

[3][(aa)] "Act" means the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957);

(b) "agent", when used in relation to a mine, means any person whether appointed as such or not, who acts as the representative of the owner in respect of the management of the mine or any part thereof;

(c) "authorised officer" means any officer of the Indian Bureau of Mines duly authorised in writing by the Controller General, Indian Bureau of Mines to perform the functions under these rules;

(d) "beneficiation" means processing of minerals or ores for the purpose of –

(i) regulating the size of a desired produce;

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1. Substituted by G. S. R. 216 (E), dated 29.3.2010. 2. Inserted by G. S. R. 330 (E), dated 10.4.2003.
3. Substituted by G. S. R. 330 (E), dated 10.4.2003.

(ii) removing unwanted constituents; and

(iii) improving quality, purity or assay grade of desired product;

(e) "boring" or "drilling" means the penetration of alluvial material, rocks or formations by holes for obtaining geological information, and for drawing samples therefrom;

(f) "Chief Controller of Mines" means the Chief Controller of Mines of the Indian Bureau of Mines;

(g) "Controller General" means the Controller General of the Indian Bureau of Mines;

(h) "Controller of Mines" means the Controller of Mines of the Indian Bureau of Mines;

(i) "development" means the driving of an opening to, or in an ore-body or seam or removing overburden or unproductive or waste materials as preparatory to mining or stoping;

(j) "environment" and "environmental pollution", shall have the same meanings, assigned respectively to these terms in the Environment (Protection) Act, 1986 (29 of 1986);

[1][(jj) "final mine closure plan" means a plan for the purpose of decommissioning, reclamation and rehabilitation in the mine or part thereof after cessation of mining and mineral processing operations that has been prepared in the manner specified in the standard format and guidelines issued by the Indian Bureau of Mines;

(jjj) "financial assurance" means the sureties furnished by the leaseholder to the competent authority so as to indemnify the authorities against the reclamation and rehabilitation cost;]

(k) "Form" means a Form set forth in Schedule to these rules;

(l) "geologist" means a person appointed in writing by the owner or agent to perform the duties of a geologist under these rules;

(m) "manager" when used in relation to a mine, means any person appointed by the

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1. Inserted by G. S. R. 330 (E), dated 10.4.2003.

owner or agent and includes the owner or the agent if he appoints himself to be such manager, under section 17 of the Mines Act, 1952 (35 of 1952);

[1][(mm) "mine closure" means steps taken for reclamation, rehabilitation measures taken in respect of a mine or part thereof commencing from cessation of mining or processing operations in a mine or part thereof;]

(n) "mining engineer" means a person appointed in writing by the owner or agent to perform the duties of a mining engineer under these rules;

(o) "mining plan" means a mining plan prepared under section 5 of the Act and the rules made thereunder ;

[2][(oo) "progressive mine closure plan" means a progressive plan, for the purpose of providing protective, reclamation and rehabilitation measures in a mine or part thereof that has been prepared in the manner specified in the standard format and guidelines issued by Indian Bureau of Mines;]

(p) "prospect" means an area where prospecting operations for minerals are being carried out and includes any area held under prospecting licence;

(q) "recognised person" means a person granted recognition by the competent authority to prepare mining plan;

(r) "Regional Controller" means the Regional Controller of Mines of the Indian Bureau of Mines;

(s) "shaft" means a vertical or inclined way or opening leading from the surface to workings below ground or from one part of the workings below ground to another, and includes an incline;

(t) "stoping" means making any underground excavation other than development working made for the purpose of winning ores or minerals and includes extraction or splitting or reduction of pillars or blocks of minerals;

[3][(tt) "temporary discontinuance" means the planned or unplanned suspension of mining operations in a mine or part thereof and where the operations are likely to be resumed after certain time;]

(u) "year" means the twelve months period beginning from the first day of April and ending on the thirty-first day of March of the following year;

(v) all other words and expressions used in these rules but not defined shall have the meanings respectively assigned to them in the Act.

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1 Inserted by G. S. R. 330 (E), dated 10.4.2003. 2. Ibid. 3. Ibid.

[1][CHAPTER - I A

Reconnaissance Operations

3A. Scheme of reconnaissance : - Every holder of a reconnaissance permit shall submit to the Controller General and the Regional Controller or the authorised officer within a period of sixty days from the date of execution of the reconnaissance permit, a scheme of reconnaissance operations indicating the manner in which he proposes to carry out reconnaissance operations in the area covered by the permit and in particular :-

(a) particulars of the area such as aerial extent, boundaries;

(b) the scale of the plan and the area of geological mapping; and

(c) the particulars of the machines and instruments to be used.

3B. Modification of scheme of reconnaissance : -

(1) A reconnaissance scheme prepared and submitted under rule 3A may be modified at any time on geological considerations by the holder of a reconnaissance permit during continuance of the reconnaissance permit.

(2) Any modification carried out under sub-rule (1) shall be intimated to the Controller General and the Regional Controller or the authorised officer by the holder of reconnaissance permit within a period of fifteen days.

3C. Reconnaissance operations to be carried out in accordance with the scheme of reconnaissance : - Every holder of the reconnaissance permit shall carry out the reconnaissance operations in accordance with the scheme of reconnaissance submitted under rule 3A or with such modifications, if any, as intimated under rule 3B, or as directed by the Controller General or Regional Controller or the authorised officer.

3D. Intimation about reconnaissance operations : - Every holder of a reconnaissance permit shall send to the Controller General, Controller of Mines and the Regional Controller, an intimation in Form -AA of the commencement of reconnaissance operations so as to reach them within a period of 15 days of such commencement.

3E. Submission of reports about reconnaissance operations : - Every holder of a reconnaissance permit shall send to the Controller General, Controller of Mines and the Regional Controller an yearly report in Form-BB along with all the aerial, photo-geological, geophysical, geochemical and such other data collected by him as per the conditions stipulated in the reconnaissance permit so as to reach them within thirty days after expiry of every year from the date of execution of the reconnaissance permit or the expiry of the reconnaissance permit or the abandonment of the reconnaissance permit or termination of reconnaissance permit, whichever is earlier.]

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1. Inserted by G.S.R. 55 (E), dated 17.1.2000.

CHAPTER – II

Prospecting Operations

4. Scheme of prospecting : -

(1) Every holder of a prospecting licence shall submit to the Controller General and the Regional Controller or the authorised officer within a period of 60 days from the date of execution of the prospecting licence, a scheme of prospecting indicating the manner in which he proposes to carry out the prospecting operations, in the area covered by the licence and in particular: -

(a) particulars of the area;
(b) the scale of the plan and the area of geological mapping;
(c) the number of pits, trenches, and bore holes which he proposes to put in the area;
(d) the particulars of the machines to be used;
(e) the details of exploratory mining, [1][if any, proposed] to be undertaken;
(f) the number of samples proposed to be drawn and analysed;
(g) the beneficiation studies proposed to be undertaken; and
(h) any other matter relevant for the preparation of a scheme of prospecting, as directed by the Controller General or the authorised officer from time to time by a general or specific order.

(2) Notwithstanding anything contained in sub-rule (1) a scheme of prospecting, shall include: -

(a) baseline information of prevailing environmental conditions before the beginning of the prospecting operations;

(b) [2][steps proposed to be taken for protection of environment which will include] prevention and control of air and water pollution, progressive reclamation and rehabilitation of the land disturbed by the prospecting operations, a scheme for the plantation of trees, and such other measures, as may be directed from time to time by the Controller General or the authorised officer for minimising the adverse effect of prospecting operations on the environment.

(3) The prospecting scheme under sub-rule (1) shall be prepared by a recognised person or a geologist or a mining engineer employed under clause (a) of sub-rule (1) of rule 42.

5. Modification of scheme of prospecting : -

(1) A prospecting scheme prepared and submitted under rule 4 may be modified at any time on geological considerations by the holder of a prospecting licence during continuance of the prospecting licence.

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1 Inserted by G.S.R. 55 (E), dated 17.1.2000.
2 Substituted by G.S.R. 55 (E), dated 17.1.2000.

(2) Any modification carried out under sub-rule (1) shall be intimated to the Controller General and the Regional Controller or the authorised officer by the holder of a prospecting licence within a period of fifteen days.

6. Prospecting operation to be carried out in accordance with scheme of prospecting :- Every holder of a prospecting licence shall carry out the prospecting operations in accordance with the scheme of prospecting submitted under rule 4 or with such modifications, if any, as intimated under rule 5 or as directed by the Controller General or the authorised officer.

7. Intimation about prospecting operations : - Every holder of a prospecting licence shall send to the Controller General, Controller of Mines and the Regional Controller, an intimation in Form-A of the commencement of prospecting operations so as to reach them within a period of fifteen days of such commencement.

8. Report of prospecting operations : -

(1) Every holder of a prospecting licence shall submit to the Controller General, Controller of Mines and the Regional Controller: -

(a) Omitted.

(b) an yearly report in Form-B so as to reach them within thirty days after the expiry of [1][twelve months] from the date of execution of the prospecting licence or the expiry of the prospecting licence whichever is earlier:

Provided that in case the prospecting operations are abandoned, the report in Form-B shall be submitted within a period of thirty days from the date of such abandonment:

Provided further that in case the prospecting operations are continued for a period exceeding one year, the report in Form-B shall be submitted once every year and a final report in Form–B within a period of three months after the completion of the prospecting operations or the expiry of the prospecting licence, whichever is earlier.

(2) Where prospecting operations are carried out by the authorities specified in the second proviso to sub-section (1) of section 4 of the Act without a prospecting licence, such authority shall submit the annual report in Form-B to the Controller General in respect of each area where prospecting operations have been undertaken by them :

Provided that this sub-rule shall not apply in a case where field operation consists of only geological mapping or geo-physical or geo-chemical investigations.

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1 Substituted by G.S.R. 22 (E), dated 11.1.2002.

CHAPTER – III

Mining Operations

9. Mining Plan : -

(1) No person shall commence mining operations in any area except in accordance with a mining plan approved under clause (b) of sub-section (2) of section 5 of the Act.

(2) The Controller General or the authorised officer [1][or the officer authorised in this behalf by the State Government, as the case may be,] may require the holder of a mining lease to make such modifications in the mining plan referred to in sub-rule (1) or impose such conditions as he may consider necessary by an order in writing if such modifications or imposition of conditions are considered necessary -

(a) in the light of the experience of operation of mining plan;

(b) in view of the change in the technological development.

10. Modification of mining plan : -

(1) A holder of a mining lease desirous of seeking modifications in the approved mining plan as are considered expedient, in the interest of safe and scientific mining, conservation of minerals, or for the protection of environment, shall apply to the Controller General, [2][or the officer authorised in this behalf by the State Government, as the case may be,] setting forth the intended modifications and explaining the reasons for such modifications.

(2) The Controller General or the authorised officer, [3][or the officer authorised in this behalf by the State Government, as the case may be,] may approve the modifications under sub-rule (1) [4][or approve with such alterations as he may consider expedient within a period of ninety days.]

11. Mining plan to be submitted by the existing lessee :-

(1) Where mining operations have been undertaken before the commencement of these rules without an approved mining plan, the holder of such mining lease shall submit a mining plan within a period of one year from the date of commencement of these rules, [5][to the Regional Controller or the authorised officer or the officer authorised in this behalf by the State Government, as the case may be, for approval.]

(2) If a holder of a mining lease has not been able to submit the mining plan within the specified time for reasons beyond his control, he may apply for extension of time giving reasons to the following authorities :

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1. Inserted by G.S.R. 55 (E), dated 17.1.2000. 2. Ibid. 3. Ibid.
4. Substituted by G.S.R. 22 (E), dated 11.1.2002. 5. Substituted by G.S.R. 55 (E), dated 17.1.2000.

(a) to the Regional Controller for extension of time up to six months;
(b) to the Controller of Mines for extension of time exceeding six months but not exceeding one year;
(c) to the Chief Controller of Mines for extension of time beyond one year;
[1][(d) to the officer authorised in this behalf by the State Government in respect of mining plan approved by the State Government.]

[2][(3) The Regional Controller, Controller of Mines, the Chief Controller of Mines or the authorised officer or the officer authorised in this behalf by the State Government, as the case may be, on receiving an application made under sub-rule (2) may, on being satisfied, extend the period for submission of the mining plan for the period mentioned in clause (a), (b), (c) or (d) of the said sub-rule.]

(4) The Regional Controller [3][or the officer authorised in this behalf by the State Government, as the case may be,] may approve the plan as submitted by the lessee under sub-rule (1) or may require modifications to be carried out in the plan and the lessee shall carry out such modifications and resubmit the modified plan for [4][omitted.] approval.

[5][(5) The Regional Controller or the officer authorised in this behalf by the State Government, as the case may be, shall, within a period of 90 days from the date of receipt of the mining plan or the modified mining plan, convey approval or disapproval to the applicant and in case of disapproval shall also convey the reasons for disapproving the said mining plan or the modified mining plan.]

(6) If no decision is conveyed within the period stipulated under sub-rule (5), the mining plan or the modified mining plan, as the case may be, shall be deemed to have been provisionally approved and such approval shall be subject to the final decision whenever communicated.

(7) The mining plan submitted under sub-rule (1) shall be prepared by a recognised person.

12. Review of mining plan : -

(1) [6][Omitted.]

(2) The owner, agent, mining engineer or manager of every mine shall review the mining plan as prescribed under sub-rule (1) and submit a scheme of mining for the next five years of the lease to the Regional Controller [7][or the officer authorised in this behalf by the State Government, as the case may be,] for approval.

1Inserted by G.S.R. 55 (E), dated 17.1.2000.
2 Substituted by G.S.R. 55 (E), dated 17.1.2000.
3 Inserted by G.S.R. 55 (E), dated 17.1.2000.
4 Omitted by G.S.R. 55 (E), dated 17.1.2000.
5 Substituted by G.S.R. 55 (E), dated 17.1.2000.
6 Omitted by G.S.R. 55 (E), dated 17.1.2000.
7 Inserted by G.S.R. 55 (E), dated 17.1.2000.

(3) The scheme of mining shall be submitted to the Regional Controller [1][or the officer authorised in this behalf by the State Government, as the case may be,] at least one hundred twenty days before the expiry of the five years period, for which it was approved on the last occasion.

(4) The Regional Controller or the authorised officer [2][or the officer authorised in this behalf by the State Government, as the case may be,] shall convey his approval or refusal to the scheme of mining within ninety days of the date of its receipt.

(5) If approval or refusal of the scheme of mining is not conveyed to the holder of the mining lease within the stipulated period the scheme of mining shall be deemed to have been provisionally approved and such approval shall be subject to final decision whenever communicated.

(6) The provisions of rules 9, 10 and 13 shall apply to the scheme of mining in the same way as they are applicable to the mining plan.

(7) Every scheme of mining submitted under sub-rule (2) shall be prepared by a recognised person or a person employed under clause (b) of sub-rule (1) of rule 42.

13. Mining operations to be in accordance with mining plans : -

(1) Every holder of a mining lease shall carry out mining operations in accordance with the approved mining plan with such conditions as may have been prescribed under sub-rule (2) of rule 9 or with such modifications, if any, as permitted under rule 10 or the mining plan or scheme approved under rule 11 or 12 as the case may be.

(2) If the mining operations are not carried out in accordance with the mining plan as referred to under sub-rule (1), the Regional Controller or the authorised officer may order suspension of all or any of the mining operations and permit continuance of only such operations as may be necessary to restore the conditions in the mine as envisaged under the said mining plan.

14. Prospecting and mining operations : - The prospecting and mining operations shall be carried out in such a manner so as to ensure systematic development of mineral deposits, conservation of minerals and protection of environment.

15. Open cast working : -

(1) In open cast workings the benches formed shall be so arranged that the benches in ore/mineral and overburden are separate so as to avoid mixing of waste with the ore/minerals.

(2) The benches in overburden shall be kept sufficiently in advance so that their workings do not interfere with the working of ore/minerals.

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1 Inserted by G.S.R. 55 (E), dated 17.1.2000. 2 Ibid.

(3) Orientation of the workings and sequence of mining operations shall be such that different grades of ore/ minerals can be obtained simultaneously for blending with a view to achieve optimum recovery of ore/minerals from the deposit.

16. Separate stacking of non-salable minerals : -

(1) The overburden and waste material obtained during mining operations shall not be allowed to be mixed with non-salable or subgrade minerals/ores. They shall be dumped and stacked separately on the ground earmarked for the purpose.

(2) The ground selected for dumping of overburden, waste material, the subgrade or non-salable ores/minerals shall be away from working pit. It shall be proved for absence or presence of underlying mineral deposits before it is brought into use for dumping.

(3) Before starting mining operations, the ultimate size of the pit shall be determined and the dumping ground shall be so selected that the dumping is not carried out within the limits of the ultimate size of the pit except in cases where concurrent back filling is proposed.

17. Underground mining operations : -

(1) Mining operations in underground shall be carried out in such a way so as to achieve optimum ore/mineral recovery.

(2) The method of underground development of the deposit shall be planned in accordance with the method of stoping which shall be selected with due consideration of the geology of the deposit and geomechanical properties of the ore and the adjoining rocks.

(3) The size of development openings, size of blocks and pillars shall be such that the workings remain stable during the development and stoping stages and between such stages.

(4) The stoping practices shall be such as to cause minimum disturbance to the surface.

(5) In case of a doubt as to the optimum ore/mineral recovery under sub-rule (1), or the method of underground development under sub-rule (2), or size of openings, blocks or pillars under sub-rule (3) or the stoping practices under sub-rule (4), it shall be referred to the Chief Controller of Mines for decision.

(6) The Chief Controller of Mines may order such investigations and tests to be carried out as are considered necessary before arriving at a decision on any matter referred to him under sub-rule (5).

18. Subgrade minerals to be brought to surface :-

(1) All the subgrade ore/minerals wherever obtained in underground workings shall be brought to the surface instead of leaving or packing them in underground.

(2) As far as practicable the complete width of the ore/ mineral body shall be worked:

Provided that the Chief Controller of Mines may permit in writing leaving of certain portions in underground if it is necessary for the support or protection to the mine workings.

19. Prohibition of reduction of blocks :- All the blocks formed in underground workings shall be regular in size and shape. Once a block is formed it shall not be split or reduced in size until the stage of commencement of stoping :

Provided that the Chief Controller of Mines may permit reduction in the size of blocks on an application in writing made by the owner, agent, mining engineer or manager giving reasons for doing the same.

20. Beneficiation studies to be carried out :-

(1) If the Controller General or the authorised officer, having due regard to the nature of mining operations and grade of ore/mineral is of the view that the sub-grade ore/mineral contains certain recoverable product, he may direct the owner, agent, mining engineer or manager of the mine to get the beneficiation investigations carried out.

(2) The report of the beneficiation investigations so carried out shall be submitted to the Controller General or the authorised officer as the case may be immediately after the investigation is over.

(3) In a mine having a beneficiation plant, feed products and tailings shall be regularly sampled and analysed at suitable intervals and records of the same maintained in a bound paged book :

Provided that the Controller General or the authorised officer may require the sampling and analysis to be done at any other interval than in practice.

21. Machinery and plant :-

(1) Where heavy earth moving machinery is used in mines, the owner, agent, mining engineer or manager of the mine shall maintain Log Books in respect of each machine showing date-wise account of hours worked, hours not worked, reasons for non-working, consumption of fuel/energy and lubricants and output of the machine during the corresponding working hours. The summary of operation of each machine shall be recorded in the Log Book at the end of each month bringing out the percentage availability and percentage utilisation of the machine, average hourly performance and average fuel/energy consumption per hour.

(2) Each page of the Log Book shall be numbered and the summary shall be signed and dated by the mining engineer.

(3) The Log Book shall be made available to the authorised officer on demand.

22. Notice for opening of mine :-

(1) The owner, agent, mining engineer or manager of every mine shall send to the Controller General, Controller of Mines and the Regional Controller an intimation in Form-C of the opening of a mine so as to reach them within fifteen days of such opening.

(2) The intimation in Form-C sent to the Regional Controller under sub-rule (1) shall be accompanied with a copy of mining plan approved under clause(b) of sub-section(2) of section 5 of the Act only when the mine is being opened after a lapse of 5 years period from the date of approval of mining plan.

23. Abandonment of mines :-

(1) The owner, agent, mining engineer, or manager of every mine shall not abandon a mine or a part of mine during the subsistence of the lease except with prior permission in writing of the Controller General or the authorised officer.

(2) The owner, agent, mining engineer, or manager of every mine shall send to the Controller General, Controller of Mines and the Regional Controller under registered cover, a notice in Form-D of his intention to abandon a mine or a part of a mine so as to reach them at least ninety days before the intended date of such abandonment.

(3) Such a notice shall be accompanied by plans and sections on a scale of not less than 1cm = 10 metres setting forth accurately the work done in the mine up to the time of submission of the notice including the measures envisaged for the protection of the abandoned mine or part thereof, the approaches thereto, and the environment :

Provided that the Controller General may require the plans and sections to be prepared on any other suitable scale.

(4) The Controller General or the authorised officer may by an order in writing made before the proposed date of abandonment, prohibit abandonment or allow it to be done with such conditions as he may specify in the order.

[1][(5) The leaseholder shall not abandon a mine or part thereof unless a final mine closure plan duly approved by the Regional Controller of Mines or the officer authorized by the State Government in this behalf, as the case may be, is implemented. For this purpose, the lessee shall be required to obtain a certificate from the Regional Controller of Mines or the officer authorized by the State Government in this behalf to the effect that protective, reclamation and rehabilitation work in accordance with the final mine closure plan or with such modifications as approved by the competent authority, have been carried out before abandonment of mine.]

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1 Substituted by G.S.R. 330 (E), dated 10.4.2003.

[1][**23A. Mine Closure Plan**.- Every mine shall have Mine Closure Plan, which shall be of two types:-

(i) a progressive mine closure plan; and

(ii) a final mine closure plan.

23B. Submission of Progressive Mine Closure Plan.- (1) The owner, agent, manager or mining engineer shall, in case of fresh grant or renewal of mining lease, submit a progressive mine closure plan as a component of mining plan to the Regional Controller of Mines or officer authorized by the State Government in this behalf as the case may be.

(2) The owner, agent, manager or mining engineer shall, in case of existing mining lease submit a progressive mine closure plan to the Regional Controller of Mines or the officer authorized by the State Government in this behalf, as the case may be, for approval [2][on or before the 31st December, 2004].

(3) The owner, agent, manager or mining engineer shall review the progressive mine closure plan every five years from the date of its approval in case of existing mine or from the date of opening of the mine in case of fresh grant or from the date of renewal of mining lease, as the case may be, and shall submit to the Regional Controller of Mines or officer authorised by the State Government in this behalf, as the case may be, for its approval.

(4) The Regional Controller of Mines or the officer authorised by the State Government in this behalf, as the case may be, shall convey his approval or refusal of the progressive mine closure plan within ninety days of the date of its receipt.

(5) If approval or refusal of the progressive mine closure plan is not conveyed to the owner, agent, manager or mining engineer of the mining lease within the period as specified in sub-rule (4), the progressive mine closure plan shall be deemed to have been provisionally approved, and such approval shall be subject to final decision whenever communicated.

23C. Submission of final mine closure plan.- (1) The owner, agent, manager or mining engineer shall submit a final mine closure plan to Regional Controller of Mines or the officer authorised by the State Government in this behalf, as the case may be, for approval one year prior to the proposed closure of the mine.

(2) The Regional Controller of Mines or the officer authorised by the State Government in this behalf, as the case may be, shall convey his approval or refusal of the final mine closure plan within ninety days of the date of its receipt to the owner, agent, manager or mining engineer.

(3) If approval or refusal of the final mine closure plan is not conveyed to the owner, agent, manager or mining engineer of the mining lease within the period as specified in sub rule (2), the final mine closure plan shall be deemed to have been provisionally approved, and such approval shall be subject to final decision whenever communicated.

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1 Inserted by G.S.R. 330 (E), dated 10.4.2003. 2. Substituted by G.S.R. (E), dated 23-12-2003.

23D. The modification of mine closure plan.- (1) The holder of a mining lease desirous of seeking modifications in the approved mine closure plan, shall submit to the Controller General or the officer authorised by the State Government in this behalf, as the case may be, for approval setting forth the intended modifications and explaining the reasons for such modifications.

(2) The Controller General or the officer authorised by the State Government in this behalf, as the case may be, may approve the modifications as submitted under clause (1) or approve with such alterations as he may consider expedient.

23E. Responsibility of the holder of mining lease.- (1) The owner, agent, manager or mining engineer shall have the responsibility to ensure that the protective measures contained in the mine closure plan referred to in this rule including reclamation and rehabilitation works have been carried out in accordance with the approved mine closure plan or with such modifications as approved by the Regional Controller or the officer authorised by the State Government in this behalf under this rule.

(2) The owner, agent, manager or mining engineer shall submit to the Regional Controller of Mines or the officer authorised by the State Government in this behalf, as the case may be, a yearly report before 1st July of every year setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved mine closure plan, and if there is any deviation, reasons thereof.

23F. Financial assurance.- (1) Financial assurance, has to be furnished by every leaseholder. The amount of financial assurance shall be rupees twenty five thousand for A category mines and rupees fifteen thousand for B category mines, per hectare of the mining lease area put to use for mining and allied activities. However, the minimum amount of financial assurance to be furnished in any of the forms referred to in clause (2) shall be rupees two lakh for A category mines and rupees one lakh for B category mines.

Provided that a leaseholder shall be required to enhance the amount of financial assurance with the increase in the area of mining and allied activities:

Provided further that where a leaseholder undertakes reclamation and rehabilitation measures as part of the progressive closure of mine, the amount so spent shall be reckoned as sum of the financial assurance already spent by the leaseholder and the total amount of financial assurance, to be furnished by the lessee, shall be reduced to that extent;

(2) The financial assurance shall be submitted in one of the following forms to Regional Controller of Mines or the officer authorised by the State Government in this behalf, as the case may be, or any amendment to it :

(a) Letter of Credit from any Scheduled Bank;
(b) Performance or surety bond;

(c) Trust fund build up through annual contributions from the revenue generated by mine and based on expected amount sum required for abandonment of mine; or

(d) Any other form of security or any other guarantees acceptable to the authority;

(3) The lessee shall submit the financial assurance to the Regional Controller of Mines or the officer authorised by the State Government in this behalf, as the case may be, before executing the mining lease deeds. In case of an existing mining lease, the lessee shall submit the financial assurance along with the progressive mine closure plan.

(4) Release of financial assurance shall be effective upon the notice given by the lessee for the satisfactory compliance of the provisions contained in the mine closure plan and certified by the Regional Controller of Mines or the officer authorised by the State Government in this behalf, as the case may be.

(5) If the Regional Controller of Mines or the officer authorised by the State Government in this behalf, has reasonable grounds for believing that the protective, reclamation and rehabilitation measures as envisaged in the approved mine closure plan in respect of which financial assurance was given has not been or will not be carried out in accordance with the mine closure plan, either fully or partially, the Regional Controller of mines or the officer authorised by the State Government in this behalf, shall give the lessee a written notice of his intention to issue the orders for forfeiting the sum assured atleast thirty days prior to the date of the order to be issued.

(6) Within thirty days of the receipt of notice referred to in sub-rule(5), if no satisfactory reply has been received in writing from the lessee, the Regional Controller of Mines or the officer authorised by the State Government in this behalf as the case may be, shall pass an order for forfeiting the surety amount and a copy of such order shall be endorsed to the concerned State Government.

(7) Upon the issuance of order by the Regional Controller of Mines or the officer authorised by the State Government in this behalf, as the case may be, the concerned State Government may realise any letter of credit or bond or any other surety, guarantee provided or obtained as financial assurance for the purpose of performance of protective, reclamation, rehabilitation measures and shall carry out those measures, or appoint an agent to do so.]

[1][**24. Notice of temporary discontinuance of work in mines and obligations of the lease holders.** –

(1) The owner, agent, mining engineer or manager of every mine shall send to Controller General, Controller of Mines and the Regional Controller of Mines a notice in Form D-1 when the mining or mineral processing operations in the mine or part thereof are discontinued for a period exceeding ninety days so as to reach them within one hundred and five days from the date of such temporary discontinuance.

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1 Substituted by G.S.R. 330 (E), dated 10.4.2003.

(2) Where the discontinuance takes place as a result of the occurrence of natural calamity beyond the control of the owner, agent, mining engineer or manager of a mine, or in compliance with any order or directions issued by any statutory authority established under any law in force or any tribunal or a court, a telegraphic intimation shall be sent to the Controller General and the Regional Controller within a period of twenty-four hours of such discontinuance, and a notice of discontinuance, under this sub rule shall be submitted to the Controller General, Controller of Mines and the Regional Controller within a period of fifteen days of such discontinuance in Form D-1.

(3) During the temporary discontinuation of mine or part thereof, it shall be the responsibility of the owner, agent, manager or mining engineer to comply with the reasonable prohibitive measures to restrict access for unauthorised entry, provide protective measures to potentially danger sources of electrical and mechanical installations, the mine openings or workings and all other structures. It shall be ensured that all contaminated effluents are controlled and all physical, chemical, biological monitoring programmes have been continued. It shall also be ensured that all rock piles, over burden piles and stock piles and tailings and other water impoundment structure have been maintained in stable and safe conditions.]

25. Intimation of reopening of a mine :- The owner, agent, mining engineer or manager of every mine shall send to the Controller General, Controller of Mines and the Regional Controller an intimation in Form-C of reopening of a mine after temporary discontinuance, so as to reach them within fifteen days from the date of such reopening.

26. Stoping of vein, etc. :- (1) No stoping shall be commenced, conducted or carried out except with prior permission in writing of the Controller General, or the authorised officer.

(2) The owner, agent, mining engineer or manager of every mine shall send to the Controller General, Controller of Mines and the Regional Controller under registered cover a notice in Form-E intimating his intention to commence the stoping of any vein, lode, reef or mineral deposit, so as to reach them at least sixty days before the date of commencement of such operations.

(3) Such notice shall be accompanied by plans and sections on a scale of not less than 1 cm = 10 metres showing the details of the block proposed to be stoped, the manner of stoping, the mineralised and barren zones indicating estimated percentages recovery from stopes :

Provided that the Controller General [1][or the Chief Controller of Mines, as the case may be,] may, by an order in writing and subject to such conditions as he may specify therein, permit or require the plans and sections to be prepared on any other suitable scale.

(4) The Controller General or the authorised officer may by an order in writing made before the proposed date of commencement of stoping operations prohibit the stoping or allow it to be done under such conditions as may be specified in the order.

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1 Inserted by G.S.R. 55 (E), dated 17.1.2000.

CHAPTER – IV

Plans and Sections

27. General requirements about plans and sections :-

(1) Every plan or section prepared or submitted in accordance with the provisions of these rules shall -

(a) show the name of the mine and of the owner and the purpose for which the plan or section is prepared;

(b) show the true north or the magnetic meridian and the date of the latter;

(c) show a scale of the plan at least twenty five centimetres long and suitably sub-divided;

(d) unless otherwise provided, be on a scale having a representative factor of –

(i) 200 : 1 in case of mica mines and other mines having small-scale workings below ground;

(ii) 2000 : 1 in case of mines having large open cast working and also in case of surface plans of large leasehold areas; and

(iii) 1000 : 1 in other cases:

Provided that the Chief Controller of Mines may, by an order in writing and subject to such conditions as he may specify therein, permit or require the plans to be prepared on any other suitable scale;

(e) be properly inked in on a durable paper or on tracing cloth or other suitable material and be kept in good condition.

(2) The conventions prescribed under the Metalliferous Mines Regulations, 1961, shall be used in preparing all plans and sections required under these rules.

(3) The plans and sections shall be accurate within such limits of error as the Controller General may specify by a general or special order.

[1][(4) The plans and sections required under these rules shall be maintained up to date within three months in case of category 'A' mines as referred to in clause (b) of sub-rule (1) of rule 42, and within twelve months in the case of any other mine.]

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1 Substituted by G.S.R. 22 (E), dated 11.1.2002.

28. Types of plans and sections :-

(1) The owner, agent, mining engineer or manager of every mine shall keep the following plans and sections -

(a) a surface plan showing every surface feature within the mining lease boundaries, such as building, telephone, telegraph or power transmission line, watermain, tramline, railway, road, river, water-course, reservoir, tank, bore-hole, shaft and incline opening, opencast working, dumps and dumping ground, the waste land, forest, sanctuaries, agricultural land and grazing land and subsidence on the surface;

(b) a surface geological plan of the area of leasehold, on a scale specified or approved by the Controller General by a general or special order in writing showing-

(i) all the lithological units exposed in the area, in the pits, trenches and in any other openings made for prospecting and mining operations showing contact between lithological units;

(ii) structural details like strike, dip, fold, fault, plunge of ore body;

(iii) location of prospecting pits, trenches, boreholes and any other openings made for prospecting and/or mining operations;

(iv) existing mine workings, dumps.

(c) a transverse section or sections of the workings through the shaft or shafts and main adits indicating clearly the strike and dip of the vein, lode, reef, or mineral bed or deposit at different points, and such sections of the strata sunk or driven through in the mine or proved by boring, as may be available;

(d) a longitudinal mine section or sections showing a vertical projection of the mine workings including outlines of all stoped out areas, where a reef, vein, lode or mineral bed/deposit or part thereof has dip exceeding thirty degrees from the horizontal plane :

Provided that, with the permission in writing of the Controller General [1][or the Chief Controller of Mines, as the case may be,] and subject to such conditions as he may specify therein, such sections may be prepared in relation to any other suitable plane.

(e) an underground plan showing -

(i) the position of the workings of the mine below ground;

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1 Inserted by G.S.R. 55 (E), dated 17.1.2000.

(ii) every borehole and shaft (with depth), drive, cross-cut, winze, raise, excavation (stoped ground) and every tunnel and air passage connected therewith;

(iii) every pillar or block of mineral left for the support of any structure on the surface; and underground magazines, if any;

(iv) the general strike of the veins, lodes, reefs and mineral beds or deposits;

(v) the position of every dyke, fault and other geological disturbance with the amount and direction of throw.

(2) Whenever the underground plan referred to in clause (e) of sub-rule (1) is brought up-to-date, the then position of the workings shall be shown by a dotted line drawn through the ends of the workings, and such dotted line shall be marked with the date of the last survey :

Provided that the Controller General [1][or the Chief Controller of Mines, as the case may be,] may, by an order in writing and subject to such conditions as he may specify therein approve any other method of showing the up-to-date position of the workings of the mine.

(3) Where different reefs, lodes, veins or mineral beds or deposits overlie or run parallel to one another, the workings of each reef, lode, vein or mineral bed or deposit shall be shown on separate plan and/or longitudinal section or sections; however if two reefs, lodes, veins or mineral beds or deposits are so situated in relation to each other that the parting between workings made therein is less than ten metres at any place, such workings shall also be shown on a combined plan and/or longitudinal section, as the case may be, in different colours.

(4) The plans kept under clauses (a) and (e) of sub-rule (1) shall also show the settled boundary of the mining lease, or where the boundary is in dispute, the boundaries claimed by the owner of the mine and by the owners of the mines adjacent to the disputed boundary :

Provided that where it is not possible to show the complete boundary of leasehold on the same plan an additional key plan on any other suitable scale showing such boundaries and the outline of the workings shall also be maintained.

(5) The owner, agent, mining engineer or manager of every mine shall keep the following :

(a) A key plan on a scale of 1: 63,000 or 1: 50,000 incorporating the following :

(i) [2][An administrative surface map showing the boundary of the mining lease, and the adjoining area lying preferably within five kilometres thereof;]

(ii) Contours at not more than [3][twenty] metres intervals;

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1 Inserted by G.S.R. 55 (E), dated 17.1.2000. 2 Substituted by G.S.R. 55 (E), dated 17.1.2000.
3 Substituted by G.S.R. 22 (E), dated 11.1.2002.

(iii) Natural drainage system such as rivers, streams, nalahs, water reservoirs, ponds, lakes, irrigation dams and canals;

(iv) Roadways and railways;

(v) Places of historical and archaeological importance, monuments, places of worship, pilgrimage and of tourist interest;

(vi) Forests with tree density, sanctuaries, wastelands, agricultural lands, grazing lands;

(vii) Boundaries of all villages and towns with their population;

(viii) Predominant wind direction;

(ix) Any other relevant features.

Provided that where topographical map is classified as restricted, the particulars referred to in items (i) to (ix) shall be incorporated in the key plan to the extent available in the administrative [1][surface] maps.

(b) An environment plan of the area of mining lease inclusive of the adjoining area within five hundred metres of the boundary of a lease area on 1 : 5000 scale incorporating the following :

(i) [2][An administrative surface map showing the boundary of the mining lease;]

(ii) Contour lines at five metres intervals;

(iii) All features indicated in sub-clauses (iii) to (ix) of clause (a) above;

(iv) Area occupied by mine workings, area deforested, area covered by dump with the height of the dump, processing plant, surface building, workshop, mining township;

(v) Area reclaimed and area afforested, location of protective barriers, check dams erected to contain solid and liquid effluents generated by prospecting, mining, beneficiation or metallurgical operations carried out in the mine;

(vi) All pumping stations and the courses of discharge of mine water.

Provided that the particulars with regard to items (ii), (iv) and (v) shall be applicable only upto sixty metres beyond the boundary of lease area.

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1 Inserted by G.S.R. 55 (E), dated 17.1.2000. 2 Substituted by G.S.R. 55 (E), dated 17.1.2000.

(6) (a) The Controller General may, by an order in writing, require such additional details to be shown on the plans and sections required to be kept under these rules or the preparation and maintenance of such plans and sections showing such details and on such scale and within such time as he may specify in the order.

(b) The Controller General or the authorised officer may, by an order in writing, require the owner, agent, mining engineer or manager of a mine to submit to him within such time, such plans and sections, or tracings thereof, as he may specify in the order.

29. Copies of plans and sections to be submitted :- The owner, agent, mining engineer or manager of every mine shall, [1][on or before the 30th day of June] every year submit to the Controller General, Controller of Mines and the Regional Controller a copy of the plans and sections maintained under rule 28.

30. Preparation of plans :-

(1) All plans, sections and tracings or copies thereof kept at the mine shall be serially numbered or suitably indexed.

(2) Every plan, section or part thereof prepared under these rules shall carry thereon a certificate for its correctness and shall be signed by the mining engineer with date :

Provided that the geological plans and sections shall be certified and signed by the geologist employed under rule 42.

(3) Every copy of a plan and section or part thereof submitted or maintained under these rules shall bear a reference to the original plan or section from which it was copied and shall be certified thereon by the owner, agent, mining engineer or manager to be a true copy of the original plan or section.

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1 Substituted by G.S.R. 22 (E), dated 11.1.2002.

CHAPTER – V

Environment

31. Protection of environment :- Every holder of a prospecting licence or a mining lease shall take all possible precautions for the protection of environment and control of pollution while conducting prospecting, mining, beneficiation or metallurgical operations in the area.

32. Removal and utilisation of top soil :-

(1) Every holder of a prospecting licence or a mining lease shall, wherever top soil exists and is to be excavated for prospecting or mining operations, remove it separately.

(2) The top soil so removed shall be utilised for restoration or rehabilitation of the land which is no longer required for prospecting or mining operations or for stabilising or landscaping the external dumps.

(3) Whenever the top soil cannot be utilised concurrently, it shall be stored separately for future use.

33. Storage of overburden, waste rock, etc. :-

(1) Every holder of a prospecting licence or a mining lease shall take steps so that the overburden, waste rock, rejects and fines generated during prospecting and mining operations or tailings, slimes and fines produced during sizing, sorting and beneficiation or metallurgical operations shall be stored in separate dumps.

(2) The dumps shall be properly secured to prevent escape of material therefrom in harmful quantities which may cause degradation of environment and to prevent causation of floods.

(3) The site for dumps, tailings or slimes shall be selected as far as possible on impervious ground to ensure minimum leaching effects due to precipitations.

(4) Wherever possible, the waste rock, overburden, etc. shall be back-filled into the mine excavations with a view to restoring the land to its original use as far as possible.

(5) Wherever back-filling of waste rock in the area excavated during mining operations is not feasible, the waste dumps shall be suitably terraced and stabilised through vegetation or otherwise.

(6) The fines, rejects or tailings from mine, beneficiation or metallurgical plants shall be deposited and disposed in a specially prepared tailings disposal area such that they are not allowed to flow away and cause land degradation or damage to agricultural field, pollution of surface water bodies and ground water or cause floods.

34. Reclamation and rehabilitation of lands :- Every holder of prospecting licence or mining lease shall undertake the phased restoration, reclamation and rehabilitation of lands affected by prospecting or mining operations and shall complete this work before the conclusion of such operations and the abandonment of prospect or mine.

35. Precaution against ground vibrations :- Whenever any damage to public buildings or monuments is apprehended due to their proximity to the mining lease area, scientific investigations shall be carried out by the holder of mining lease so as to keep the ground vibrations caused by blasting operations within safe limit.

36. Control of surface subsidence :- Stoping in underground mines shall be so carried out as to keep surface subsidence under control.

37. Precaution against air pollution :- Air pollution due to fines, dust, smoke or gaseous emissions during prospecting, mining, beneficiation or metallurgical operations and related activities shall be controlled and kept within 'Permissible Limits' specified under various environmental laws of the country including the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) and the Environment (Protection) Act, 1986 (29 of 1986) by the holder of prospecting licence or a mining lease.

38. Discharge of toxic liquid :- Every holder of prospecting licence or a mining lease shall take all possible precautions to prevent or reduce the discharge of toxic and objectionable liquid effluents from mine, workshop, beneficiation or metallurgical plants, tailing ponds, into surface water bodies, ground water aquifer and useable lands, to a minimum. These effluents shall be suitably treated, if required, to conform to the standards laid down in this regard.

39. Precaution against noise :- Noise arising out of prospecting, mining, beneficiation or metallurgical operations shall be abated or controlled by the holder of prospecting licence or a mining lease at the source so as to keep it within the permissible limit.

40. Permissible limits and standards :- The standards and permissible limits of all pollutants, toxins and noise referred to in rules 37, 38 and 39 shall be those notified by the concerned authorities under the provisions of the relevant statutes from time to time.

41. Restoration of flora :-

(1) Every holder of prospecting licence or a mining lease shall carry out prospecting or mining operations, as the case may be, in such a manner so as to cause least damage to the flora of the area held under prospecting licence or mining lease and the nearby areas.

(2) Every holder of prospecting licence or a mining lease shall -

(a) take immediate measures for planting in the same area or any other area selected by the Controller General or the authorised officer not less than twice the number of trees destroyed by reason of any prospecting or mining operations;

(b) look after them during the subsistence of the licence/lease after which these trees shall be handed over to the State Forest Department or any other authority as may be nominated by the Controller General or the authorised officer; and

(c) restore, to the extent possible, other flora destroyed by prospecting or mining operations.

CHAPTER – VI

Employment of Qualified persons

[1][42. Employment of geologists and mining engineer

(1) For the purpose of carrying out reconnaissance, prospecting or mining operations in accordance with these rules:

(a) Every holder of reconnaissance permit shall employ a whole-time geologist;

(b) Every holder of prospecting licence shall employ a whole-time geologist and mining engineer;

(c) every holder of a mining lease shall employ, in case of:-

(i) category 'A' mines, a whole-time mining engineer and geologist;

(ii) category 'B' mines, a part-time mining engineer and a part-time geologist:

Provided that in the case of fully mechanized category 'A' mines, the mining engineers and geologists shall have minimum ten years of professional experience of working in a supervisory capacity in the field of mining:

Provided further that in case of category 'B' mines, a person employed in terms of the provisions of sub-rule (6) may be permitted to be employed in lieu of part-time mining engineer.

(2) For the purpose of this rule -

(i) category 'A' mines means

(a) such fully mechanized mines where the work is being carried out by deployment of heavy mining machinery for deep hole drilling, excavation, loading and transport, or

(b) such mines where the number of average employment exceeds one hundred and fifty in all or seventyfive workings below ground, or mines where any of the mining operations like deep hole drilling, excavation, loading and transport is carried out with the help of heavy machinery.

(ii) category 'B' mines means mines other than category 'A' mines:

Provided that if any doubt arises as to whether any mine is a category 'A' mine, it shall be referred to the Controller General, Indian Bureau of Mines for decision.

Explanation : The expression 'average employment' means the average per day of the total employment of the mine during the preceding quarter (obtained by dividing the number of man days worked by the number of working days).

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1. substituted by G.S.R. 216(E), dated 29.3.2010

3) The part-time mining engineer and geologist can be employed up to a maximum of six prospects or mines, provided that all such prospects or mines are located within a radius of 50 kilometres.

(4) If the holder of a reconnaissance permit, prospecting licence or a mining lease is a geologist or mining engineer, he may appoint himself as the geologist or mining engineer for the purpose of sub-rule (1).

(5) A mining engineer or geologist employed by the holder of a prospecting licence or mining lease shall possess the qualifications specified below:-

Geologist : A postgraduate degree in Geology granted by a University established or incorporated by or under a Central Act, a Provincial Act or a State Act, including any institution recognized by the University Grants Commission established under section 4 of the University Grants Commission Act, 1956 or any equivalent qualification.

Mining Engineer : A degree in Mining Engineering granted by a University established or incorporated by or under a Central Act, a Provincial Act or a State Act, including any institution recognized by the University Grants Commission established under section 4 of the University Grants Commission Act, 1956 or any equivalent qualification.

(6) (a) Any person possessing the qualification and experience for the category of mines as laid down in the Table below shall be eligible to be employed in lieu of part-time mining engineers in respect of the category of mines specified.

TABLE

Qualifications	Experience	Category of Mines
(1)	(2)	(3)
(i) Diploma in Mining or Post-graduate Degree in Geology with First Class Metalliferous Mine Manager's Certificate	Nil	Category 'B' Mines
(ii) Holder of First Class Metalliferous Mine Manager's Certificate	Two years experience after obtaining the Certificate	Category 'B' Mines
(iii)Diploma in Mining or Post-graduate Degree in Geology or equivalent	3 years experience in supervisory capacity in mine	Category 'B' Mines

Qualifications	Experience	Category of Mines
(1)	(2)	(3)
(iv) Graduate in Geology or holder of Second Class Metalliferous Mine Manager's Certificate	5 years experience after graduation or one year's experience after obtaining the Certificate	Category 'B' Mines
v) Secondary School Leaving Certificate with Mines Foreman's Certificate.	5 years experience as a Mine Foreman/Mate	All open cast mines of Category 'B'

(b) The person permitted to be employed in lieu of mining engineer shall be bound by these rules in the same way as the mining engineer.

(7) Where, due to reduction in average employment in the mine, a category 'A' mines qualifies to become a category 'B' mines, the employment of a mining engineer as required for category 'B' mines may be done only with previous permission in writing of the Controller General or the authorised officer and subject to such conditions as he may specify"].

43. Duties of geologist :-

(1) It shall be the duty of the geologist to conduct prospecting operations in accordance with the provisions of these rules.

(2) He shall -

(a) prepare the necessary geological plans and sections which are required to delineate the ore body;

(b) calculate ore reserves and its grade;

(c) be responsible for providing all the necessary information required for controlling the quality of the minerals produced;

(d) maintain proper records of the prospecting operations and records of sinking of shafts and boreholes as provided under these rules;

(e) work out the appropriate method of sampling and ensure preparation of samples accordingly;

(f) maintain an assay plan in cases of underground workings;

(g) maintain all technical data for determining the shape and size of each stope block;

(h) update the reserve figures, grade-wise and category-wise at the end of every year in case of a working mine;

(i) identify the associated rocks and minerals and maintain proper records of the stacks of non-salable/sub-grade ores and minerals produced;

(j) carry out all such orders and directions as may be given in writing under these rules by the Controller General or the authorised officer and shall forward a copy of all such orders or directions to the holder of the prospecting licence or, as the case may be, the mining lease.

44. Duties of mining engineer :-

(1) It shall be the duty of the mining engineer to take all necessary steps to plan and conduct mining operations, so as to ensure conservation of minerals, systematic development of the mineral deposits and protection of environment in and around the mining lease area in accordance with these rules.

(2) He shall be responsible for the preparation and maintenance of plans, sections, reports and schemes in accordance with these rules.

(3) He shall be responsible for carrying out the study of the associated rocks and minerals, identifying them and stacking the various minerals produced separately.

(4) He shall carry out all such orders and directions as may be given in writing under these rules by the Controller General or the authorised officer and shall forward a copy of such orders or directions to the holder of prospecting licence or, as the case may be, the mining lease.

(5) Wherever the mining engineer is appointed to supervise the prospecting operations under rule 42, he shall also carry out the duties of the geologist.

(6) (a) The mining engineer shall ensure that there is sufficient provision of proper materials, appliances and facilities at all times at the mine for the purpose of carrying out the provisions of these rules and orders issued thereunder and where he is not the owner or agent of the mine, he shall make requisition in writing to the owner or agent for anything required for the aforesaid purpose. A copy of every such requisition shall be recorded in a bound paged book kept for the purpose.

(b) On receipt of a requisition under clause (a), the owner or agent shall provide as soon as possible the materials and facilities requisitioned by the mining engineer.

CHAPTER – VII

Notices and Returns

[1]["45. Monthly and annual returns-(1) The owner, agent, mining engineer or manager of every mine, or any person or company engaged in trading or storage or end-use or export of minerals mined in the country, shall cause himself to be registered with the Indian Bureau of Mines as per application specified in Form M and the registration number so allotted by the Indian Bureau of Mines shall be used for all purposes of reporting and correspondence connected therewith.

(2) For the purpose of registration under sub-rule (1), the owner, agent, mining engineer or manager of every mine, or any person or company engaged in trading or storage or end-use or export of minerals, shall apply for registration within one month from the date of commencement of these rules.

(3) The Indian Bureau of Mines shall allot and record the registration number in a register containing the details on a consecutive identity number (*in numeric form*), followed by letters 'M' and 'T', for a mine or a person or company engaged in trading or storage or end-use or export of minerals, as the case may be, the year of registration and the name of State.

(4) The Indian Bureau of Mines shall maintain a register giving details of the owner, agent, mining engineer or manager of every mine, or any person or company engaged in trading or storage or end-use or export of minerals, as the case may be, as registered under the provisions of these rules, which shall be made available to the general public for inspection on demand, and also posted on the website of the Indian Bureau of Mines.

(5) The owner, agent, mining engineer or manager of every mine, shall submit to the Regional Controller of Mines in the Indian Bureau of Mines or any other authorised official of the Indian Bureau of Mines, returns in respect of each mine, in the following manner, namely:-

(a) a monthly return which shall be submitted before the 10th of every month in respect of preceding month in the Form as indicated below:-

(i) for iron ore in Form F-1;
(ii) for manganese ore in Form F-2;
(iii) for [2][bauxite and laterite] in Form F-3;
(iv) for chromite in Form F-4;
(v) for copper, lead, zinc, pyrites, gold, tin and tungsten in Form F-5;
(vi) for mica in Form F-6
(vii) for precious and semi-precious stones in Form F-7;
(viii) for all other minerals in Form F-8;

(b) an annual return which shall be submitted before the 1st July each year for the preceding financial year in the Form as indicated below:-

(i) for iron ore in Form H-1;
(ii) for manganese ore in Form H-2;

1 Substituted by G.S.R. 75(E), dated 9.2.2011
2 Substituted by G.S.R. 330(E), dated 10.4.2003

(iii) for [1][bauxite and laterite] in Form H-3;
(iv) for chromite in Form H-4;
(v) for copper, lead, zinc, pyrite, gold, tin and tungsten in Form H-5;
(vi) for mica in Form H-6;
(vii) for precious and semi-precious stones in Form H-7;
(viii) for all other minerals in Form H-8:

Provided that in the case of abandonment of a mine, the annual return shall be submitted within one hundred and five days from the date of abandonment.

(6) Any person or company engaged in trading or storage or end-use or export of minerals, shall submit to the Indian Bureau of Mines and concerned State Government, where the said person or company is sourcing the minerals, the returns in the following manner, namely:-

(i) a monthly return which shall be submitted before the 10th of every month in respect of preceding month in Form N;

(ii) an annual return which shall be submitted before the 1st July each year for the preceding financial year in the Form O.

(7) If it is found that the owner, agent, mining engineer or manager of mine or the person or company engaged in trading or storage or end-use or export of minerals, as the case may be, has submitted incomplete or wrong or false information in monthly or special or annual returns or fails to submit a return within the date specified, -

(i) in the case of mining of minerals by the owner, agent, mining engineer or manager of mine, then the Regional Controller of Mines may,-

(a) order suspension of all mining operations in the mine and may revoke the order of suspension only after ensuring proper compliance;

(b) take action to initiate prosecution under these rules;

(c) recommend termination of the mining lease, in case such suppression or misrepresentation of information indicates abetment or connivance of illegal mining;

(ii) in the case of trading or storage or end-use or export of minerals, the State Government, where the person or company engaged in trading or storage or end-use or export of minerals is sourcing the minerals, shall order suspension of, -

(a) trading licence (by whatever name it is called);

(b) all transportation permits issued to such person or company for mineral transportation (by whatever name it is called);

[1] Substituted by G.S.R. 330 (E), dated 10.4.2003.

(c) storage licence for stocking minerals (by whatever name it is called);
(d) permits for end-use industry or carrying out export of minerals (by whatever name it is called);

as the case may be, of such person or company engaged in trading or storage or end-use or export of minerals, and may revoke the order of suspension only after ensuring proper compliance.

(8) In case of mining of minerals by the owner, agent, mining engineer or manager of mine, the ex-Mine price of mineral shall be,-

(a) where export has occurred, free-on-board (F.O.B) price of the mineral, less deductions specified below:
(i) loading charges by the miner;
(ii) transportation charges from the mine site to the rail head or port, including railway freight;
(iii) unloading and loading charges at the rail-head or domestic end-use capacity or port;
(iv) charges for sampling and analysis of ore grade;
(v) rent for the plot at the stocking yard in railway siding or port;
(vi) handling charges in port;
(vii) charges for stevedoring and trimming;
(viii) any other incidental charges levied outside the mine-site as notified by the Indian Bureau of Mines from time-to-time.

(b) where domestic sale of mineral has occurred, sale price of mineral recorded in the invoice less the actual expenditure incurred towards loading, unloading, transportation and other charges beyond mine site:

Provided that in case a sale has occurred-
(i) between any persons or associations of persons or companies and where the seller has a substantial interest in the association of persons or company buying the mineral or where the buyer has a substantial interest in the association of persons or company selling the mineral;

(ii) for the purposes of use of mineral in a end-use industry for which the mine is a captive supplier, then such sale shall not be recognised as a sale for the purpose of this rule and in such case, clause (c) of this sub-rule shall be applicable.

Explanation- For the purpose of this sub-rule, the expression "substantial interest in the association of persons or company buying or selling the mineral, as the case may be", shall mean,-

(i) a person who is member of the management board of the association or company or is entitled or eligible to a share in the profits of the association or company buying or selling the minerals, as the case may be, to an extent exceeding ten percent. of the distributed profit;

(ii) an association of persons or company, when such association of persons or company is entitled or eligible to a share in the profits of the association or company buying or selling the minerals, as the case may be, to an extent exceeding ten percent. of the distributed profits.

(c) where the sale has not occurred, the average sale price published monthly by the Indian Bureau of Mines for a particular mineral for a particular State shall be taken as the ex-mine price of the mineral for the purposes of reporting:

Provided that if for a particular mineral, the information for a State for a particular month is not published by the Indian Bureau of Mines, the last available information published for that mineral for that particular State by the Indian Bureau of Mines previous to the reporting month shall be referred, failing which the latest information for All India for the mineral shall be referred.

(9) In case of trading or storage or end-use or export of minerals, for purpose of filing of returns, the sale price per unit of the mineral shall be,-

(a) where sale of mineral has occurred, sale price of mineral recorded in the invoice in case of domestic sale, or the Free-on-Board (F.O.B) or Cost insurance and Freight (C.I.F) price of minerals,

(b) where sale has not occurred, the average sale price published monthly by the Indian Bureau of Mines for a particular mineral for a particular State shall be taken as the sale price of the mineral for the purpose of reporting:
Provided that if for a particular mineral, the information for a State for a particular month is not published by the Indian Bureau of Mines, the last available information published for that mineral for that particular State by the Indian Bureau of Mines previous to the reporting month shall be referred, failing which the latest information for All India for the mineral shall be referred.

(10) If more than one mineral is produced from the same mine, return shall be submitted in specified forms for each mineral separately.

(11) In case of temporary discontinuance of mining or suspension of mining, or temporary discontinuance or suspension of trading or storage or end-use or export of minerals, the owner, agent, mining engineer or manager of mine, or the person or company engaged in trading or storage or end-use or export of minerals, as the case may be, shall submit return in the specified form for the mineral for which return had been submitted earlier, furnishing relevant particulars, inclusive of "Nil" information.

(12) In case ownership of the mine or the trading or storage or end-use or export company changes during the reference period, separate returns have to be filled by each owner for the respective periods of ownership.

(13) For the purpose of regulation of transportation of minerals, all persons and companies owning trucks or any other motorised vehicle used for transportation of mineral by road or through water way shall be required to be registered with the Directorate of Mining and Geology or the Department handling mining matters in the State Government and the lessee shall maintain trip-sheets (either in the form of written record or on computers) of the vehicles, the nature and weight of mineral and the approximate time of the trip and its destination".]

46. Notice of certain appointments :- When any new appointment is made of an agent, mining engineer, geologist, manager or any person under sub-rule (6) of rule 42 or when the employment of any such person is terminated or any such person leaves the said employment or when any change occurs in the address of any such person, the owner of the mine or the holder of the prospecting licence shall within fifteen days from the date of such appointment, termination, leaving or change in address give a notice in Form I to the Controller General, Controller of Mines and the Regional Controller.

47. Notice of shaft sinking and boreholes :- The owner, agent, mining engineer, geologist or manager of every mine or the holder of a prospecting licence shall send intimation in Form J to the Controller General, Controller of Mines and the Regional Controller within fifteen days after the commencement of any of the following operations:

(a) the sinking of trial shaft or borehole to a depth exceeding ten metres from the surface, or
(b) the extension of an existing shaft or borehole to a depth exceeding ten metres, or
(c) the sinking of a new shaft or boreholes commencing from underground workings:

Provided that the Controller General or the authorised officer may permit such intimation to be given collectively within such extended period as may be specified by him.

48. Records of shafts and boreholes :- The owner, agent, mining engineer, geologist or manager of every mine or the holder of a prospecting licence shall keep a record in Form-K of all shafts or boreholes exceeding ten metres in depth and shall retain all records and sample of the strata passed through for a period of not less than twelve months after the completion of the work or abandonment thereof :

Provided that the records of boreholes and shafts exceeding one hundred metres length shall not be destroyed except with the prior approval of the Controller General or the Regional Controller.

49. Change in the name of mine to be notified :- The owner, agent, mining engineer or manager of every mine shall send a notice in Form-C to the Controller General, the Controller of Mines and the Regional Controller, of any change in the name of the mine within thirty days of such change.

50. Notice of transfer of prospecting licence or mining lease :- Without prejudice to the provisions of the Act or any rules made thereunder or the terms and conditions of a prospecting licence or a mining lease, prohibiting or restricting the transfer of a prospecting

licence or a mining lease, every holder of a prospecting licence or a mining lease who transfers or assigns his licence or lease or any right, title or interest thereunder to any other person, shall, within thirty days of the date of such transfer or assignment send an intimation thereof in Form-L to the Controller General, the Controller of Mines and the Regional Controller.

[1][**50A. Notice of amalgamation of mining lease** :- Without prejudice to the provisions of the Act or any rules made thereunder or the terms and conditions of a mining lease, every holder of a mining lease shall within thirty days of the date of amalgamation of mining leases carried out under rule 38 of Mineral Concession Rules, 1960, send an intimation thereof to the Controller General and the State Government.]

51. Transfer of records to transferees :- When the ownership of a prospecting licence or a mining lease is transferred, the previous owner or his agent shall make over to the new owner or his agent within a period of seven days of the transfer of the ownership, borehole cores preserved, if any, all plans, sections, reports, registers and other records maintained in pursuance of the Act, Rules or Orders made thereunder, and all correspondence relevant thereto relating to the prospecting licence or mining lease; and when the requirements of these rules have been duly complied with, both previous and the new owners or their respective agents shall forthwith send to the Controller General, Controller of Mines and the Regional Controller a detailed list of borehole cores, plans, sections, reports, registers and other records that have been transferred.

52. Copies of notices/returns to be submitted to the State Government :- The owner, agent, mining engineer or manager of every mine or a holder of a prospecting licence shall simultaneously submit a copy each of the notice/return/intimation required to be submitted under these rules to the State Government concerned in whose territory the mine or the prospecting area is situated or to such authority as that Government may specify in this behalf.

53. Copies of notices and returns to be maintained :- The owner, agent, mining engineer or manager of every mine or a holder of a prospecting licence shall maintain the labour attendance register, production and despatch register, explosives consumption register, mineral analysis reports and details of mining machinery and copies of all notices and returns, plans, sections and schemes submitted to the Controller General under these rules, at an office established in the area where mining or prospecting operations are carried on, and these shall be made available at all reasonable times to the officers of the Indian Bureau of Mines for inspection.

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1 Inserted by G.S.R. 22 (E), dated 11.1.2002.

CHAPTER – VIII

Examination of Minerals and Issue of Directives

54. Power to issue directions :-

(1) The owner, agent, mining engineer, geologist or manager of every mine shall comply with such directions being directions for purposes of providing for systematic development of mineral deposits, conservation of minerals and for the protection of the environment by preventing or controlling pollution which may be caused by prospecting, mining, beneficiation or metallurgical operations, as the Controller General may issue from time to time. A copy of the proposed directions to be issued to any particular mine will be sent by the Controller General to the owner, agent, mining engineer, geologist or manager of the mine concerned, and to the State Government concerned, and any comments received from the owner, agent, mining engineer, geologist or manager of the mine and the State Government within thirty days of the date of service of the notice, shall be duly considered by him before issuing any such directions. General directions applicable to a class of mines shall be issued by the Controller General with the previous approval of the Central Government in consultation with the State Government concerned.

(2) An order made under sub-rule (1) shall -

(a) in the case of an order of a general nature or affecting a class of persons, be notified in Official Gazette; and

(b) in the case of an order directed to a specified individual, be served on such individual - (i) by delivering or tendering it to that individual, or if it cannot be so delivered or tendered, by affixing it on the outer door or some other conspicuous part of the premises in which that individual lives, and a written report thereof shall be prepared and witnessed by two persons living in the neighbourhood.

55. Examination of mineral deposits and taking of samples :- The Controller General or any officer duly authorised by the Government to enter and inspect a mine, may examine any mineral deposit in any area under prospecting licence or mining lease and take samples therefrom at any time for the purposes of these rules.

56. Prohibition of deployment in certain cases :- If any mine or part thereof, which in the opinion of the Controller General, Chief Controller of Mines or the Controller of Mines poses a grave and immediate threat to the conservation of minerals or to environment, he may, by an order in writing to the owner, agent, mining engineer or manager, require him to take such measures as may be specified in the order and may prohibit, until the requirements as specified in the order are complied with to his satisfaction, the deployment of any person other than those required for compliance with the requirement of the order.

CHAPTER - IX

Revision and Penalty

57. Revision :-

(1) Any person aggrieved by any order made or direction issued under these rules by any officer subordinate to the Controller General,[1][or an officer of the State Government, as the case may be,] may within thirty days of the communication of such order or direction, apply to the Controller General for a revision of the order or direction, provided that any such application may be entertained after the said period of thirty days if the applicant satisfies the Controller General that he had sufficient cause for not making the application within time.

[2][Provided that if any order made or direction issued as aforesaid by an officer subordinate to the Chief Controller of Mines, the application shall be made to the Chief Controller of Mines who shall deal with the application in the manner prescribed hereunder.]

(2) Every order against which a revision application is preferred under sub-rule (1) shall be complied with pending receipt of the decision of the appellate officer :

[3][Provided that the Controller General or the Chief Controller of Mines, as the case may be, may suspend the operation of the order appealed against, pending disposal of the revision application.]

(3) On receipt of an application for revision under sub-rule (1), the Controller General [4][or the Chief Controller of Mines, as the case may be,] after giving a reasonable opportunity of being heard to the aggrieved person, may confirm, modify or set aside the order passed by an officer subordinate to him.

[5][(4) Any person aggrieved by any order made or direction issued by the Chief Controller of Mines may within thirty days of the communication of such order or direction, apply to the Controller General for a revision of the order or direction, provided that any such application may be entertained after the said period of thirty days, if the applicant satisfies the Controller General that he had sufficient cause for not making the application within time.]

[6][(5) On receipt of any such application under sub-rule (4), the Controller General may confirm, modify or set aside the order or direction made or issued by the Chief Controller of Mines or may pass such orders in relation to the applicant, as it may deem fit and such decision shall be final.]

(6) Every order against which a revision application is preferred under sub-rule (4), shall

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1 Inserted by G.S.R. 55 (E), dated 17.1.2000.
2 Ibid.
3 Substituted by G.S.R. 55 (E), dated 17.1.2000.
4 Inserted by G.S.R. 55 (E), dated 17.1.2000.
5 Substituted by G.S.R. 55 (E), dated 17.1.2000.
6 Ibid.

be complied with pending receipt of the decision of the [1][Controller General].

Provided that the [1][Controller General] may, on an application made by the applicant, suspend operation of the order appealed against pending disposal of the revision application.

(7) Every application submitted under the provisions of this rule shall be accompanied by a Treasury Receipt showing that a fee of [2][Rs. 1000/- (rupees one thousand)] has been paid into a Government Treasury or any branch of the State Bank of India doing Treasury Business to the credit of the Central Government under 'Major Head - 0853 - Non-Ferrous Mining & Metallurgical Industries, 800 - Other receipts' or by a Bank Draft on a Nationalised Bank for [2][Rs. 1000/- (rupees one thousand)] in the name of Pay & Accounts Officer, Indian Bureau of Mines payable at Nagpur.

[3][**58. Penalty** :- Whoever contravenes any of the provisions of these rules shall be punishable with imprisonment for a term which may extend up to two years, or with fine extending to fifty thousand rupees or with both, and in the case of continuing contravention with an additional fine which may extend up to five thousand rupees for every day during which such contravention continues, after conviction for the first such contravention:

Provided that for repeated contravention the punishment should be in the form of imprisonment only:

Provided further that any offence punishable under these rules may either before or after the institution of the prosecution, be compounded by the authorised officer to make a complaint to the court with respect to that offence, on payment to that officer for credit to the Government, of such sum that officer may specify:

Provided also that in case of an offence punishable with fine only, such sum shall not exceed the maximum amount of fine which may be imposed for that offence:

Provided further that where an offence is compounded under these rules, no proceeding or further proceeding, as the case may be, shall be taken against the offender in respect of the offence so compounded, and the offender, if in custody shall be released forthwith.]

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1. Substituted by G.S.R. 55 (E), dated 17.1.2000.
2. Substituted by G.S.R. 330 (E), dated 10.4.2003.
3. Substituted by G.S.R. 22 (E), dated 11.1.2002.

CHAPTER – X

Miscellaneous

59. Preservation of cores, etc. :- The owner, agent, mining engineer, geologist or manager of every mine or the holder of a prospecting licence shall preserve intact all cores and specimens of different types of rocks and minerals obtained during drilling or sinking operations and arrange for them to be laid out in a serial order with identification marks, showing the progressive depth at which they are obtained. Such specimens shall not be broken except for the purpose of analysis and testing in which case, representative samples of the specimens so broken will be preserved for a period of not less than six months from the date of completion of drilling or sinking operations. The Controller General, by an order in writing, may require the cores or specimens of rocks and minerals obtained from specific boreholes or shafts to be preserved for any specific period or relax the provisions of this rule to such an extent as he may deem fit.

60. Facilities for undertaking research or training :- Every holder of a prospecting licence or a mining lease shall afford all reasonable facilities to persons authorised by the Controller General for the purpose of undertaking research or training in matters relating to mining or geology.

61. Submission of records/reports regarding research in geology or mining :-

(1) Any person, institution or agency carrying on prospecting or mining operations related to any research in geology or mining, shall inform the Controller General and the Regional Controller, within a period of thirty days of commencement of such research related operations, indicating briefly the aspects proposed to be covered under such research together with the name and address of the person, institution, or agency carrying out such research work and the expected duration of the research related operations.

(2) (a) On completion of the said research work, a report describing the observations, analysis and conclusions reached as a result of the said research work shall be submitted to the Controller General within thirty days of its completion.

(b) The information so received will be kept confidential, if required. The Government will, however, be free to utilise the information for general studies, planning or policy making purpose.

(3) The provisions of sub-rules (1) and (2) shall also apply *mutatis mutandis* to any agency of the Central Government or State Government carrying out the research work.

62. Territorial jurisdiction of Controller of Mines/Regional Controller :- The Controller General may by a notification in the Official Gazette prescribe the limits of the territorial jurisdiction of the Controller of Mines and the Regional Controller for purposes of these rules.

[1][**63. Obligation to supply other information** :- The holder of reconnaissance permit, prospecting licence or mining lease, or his agent shall furnish such information regarding his reconnaissance or prospecting operations or mine or any matter connected therewith as the Controller General or the authorised officer may require by an order in writing and the information shall be furnished within such time as may be specified in the aforesaid order.]

64. Provisions of these rules to be applicable to Government :- The Government or its agencies carrying out mining operations without a mining lease shall be bound by all the provisions of these rules in the same manner as they are applicable to holders of mining leases.

65. Chief Controller of Mines etc. to exercise powers of the Regional Controller of Mines :- Any power granted under these rules to the Regional Controller of Mines may be exercised by the Controller of Mines or the Chief Controller of Mines.

66. Repeal and savings :- The Mineral Conservation and Development Rules, 1958 are hereby repealed :

Notwithstanding such repeal, anything done or any action taken, including any order made, direction given or notice issued under the Mineral Conservation and Development Rules, 1958 shall in so far as it is not inconsistent with the provisions of these rules, be deemed to have been done, taken, made, given or issued, as the case may be, within the corresponding provisions of these rules.

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1 Substituted by G.S.R. 22 (E), dated 11.1.2002.

" SCHEDULE "

FORM-A

(Notice of commencement of prospecting operations)
(See rule 7)

IMPORTANT

This Form, duly filled in must reach the concerned authorities within fifteen days of the commencement of prospecting operations.

To
1.The Controller General
Indian Bureau of Mines,
Nagpur-440001

*2.The Controller of Mines,
Indian Bureau of Mines,
PIN _____

*3.The Regional Controller Mines,
Indian Bureau of Mines,
PIN_____

4.State Government concerned.

1. Name of the mineral or minerals for which prospecting licence has been granted. (a)_____(c)_____

(b)_____(d)_____

2. Name and address of the licensee. _____
PIN

3. In case the licensee is a Company or Partnership Firm or Co-operative, please indicate.

(i) Name and address of the Director-in-charge _____
PIN

(ii) Address of the Registered Office _____
PIN

4. Particulars of Prospecting Licence (PL):
(i) Date of execution_____

(ii)Period____years, from _____to_____

(iii)Area under licence_____ hectares.

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* This should be sent to the Controller of Mines/Regional Controller of Mines in whose territorial jurisdiction the area/mine falls as notified from time to time by the Controller General, Indian Bureau of Mines, under rule 62 of the Mineral Conservation and Development Rules, 1988.

5. Location of the Prospecting Licensed Area:
   (i) Topo Sheet Number _____
   (ii)Cadastral Survey or Khasra Number _____
   (iii)Village _____
   (iv)(a)Post Office _____
   (b)Police Station _____

   (v)(a) Taluka _____
   (b) District _____
   (c) State _____

   (vi)(a)Nearest Railway Station _____
   (b)The distance therefrom _____
   (kilometres)

   (vii) (a) Nearest Rest House/Dak Bangalow
   (b) Its distance from
   (1)The Railway Station _____
   (kilometres)
   (2)The prospecting area _____
   (kilometres)

6. Particulars of Geologist or Mining Engineer employed for the Prospecting Licenced area:
   (i) Name and address: _____
   PIN
   (ii) Qualifications _____
   (iii) Date of appointment _____
   (iv) Nature of appointment Whole time ( ) Part time ( )
   (Please tick (3) mark one of the boxes whichever is applicable).

7. Date of commencement of prospecting operations: _____

Place:
Date:

Signature :

Name in full:
Designation : Owner/Agent/
Mining Engineer/Manager

[1][FORM-AA

(Notice of commencement of reconnaissance operations)

(See rule 3D)

IMPORTANT

This Form, duly filled in must reach the concerned authorities within fifteen days of the commencement of reconnaissance operations.

To,

1.The Controller General,
Indian Bureau of Mines,
Nagpur-440001

*2.The Controller of Mines,
Indian Bureau of Mines,

*3.The Regional Controller Mines,
Indian Bureau of Mines,

4.State Government concerned.

1. Name of the mineral or minerals for which reconnaissance permit has been granted. _____

2. Name and address of the permit holder _____

3. In case the permit holder is a Company or Partnership Firm or Co-operative, please indicate.

(i) Name and address of the Director-in- charge _____

(ii)Address of the Registered Office _____

4. Particulars of reconnaissance permit.

(i) Date of execution _____

(ii) Period ____years,
from _____to_____

(iii) Area under permit _____ hectares.

1. Inserted by G.S.R. No. 55 (E), dated 17.1.2000.

5. Location of the reconnaissance permit Area (A map showing the location on Scale 1:250,000 should be enclosed).

   (i) Topo Sheet Number (s) _____

   (ii) Co-ordinates of corner points _____

   (iii) (a) District(s) _____

   (b) State _____

6. Particulars of Geologist or Mining Engineer, if any, employed for the reconnaissance.

   _____

   (i) Name and address: _____

   (ii) Qualifications _____

   (iii) Date of appointment _____

   (iv) Nature of appointment Whole time ( ) Part time ( )
   (Please tick (3) mark one of the boxes whichever is applicable)

7. Date of commencement of reconnaissance operations _____

Signature

Place :

Name in full :

Date :

Designation : Owner/Agent/ Mining Engineer/Manager

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* This should be sent to the Controller of Mines/Regional Controller of Mines in whose territorial jurisdiction the area falls as notified from time to time by the Controller General, Indian Bureau of Mines, under rule 62 of the Mineral Conservation and Development Rules, 1988.]

FORM-B

(Yearly Report of the Prospecting Operations carried out)

[See rule 8(1)(b) and 8(2)]

IMPORTANT

This Form, duly filled in must reach the concerned authorities within thirty days after expiration of one year from the date of execution of prospecting licence or the expiry of prospecting licence or abandonment of prospecting operations, whichever is earlier.

To

1. The Controller General,
Indian Bureau of Mines,
Nagpur - 440 001

*2.The Controller of Mines,
Indian Bureau of Mines,
PIN _____

*3. The Regional Controller Mines,
Indian Bureau of Mines,
PIN_____

4. State Government concerned.

1. Name of the mineral or minerals for which prospecting licence has been granted. (a)_____(c)_____ (b)_____(d)_____

2. Name and address of the licensee _____ _____ _____

PIN

3. Particulars of Prospecting Licence (PL):

(i) Date of execution _____

(ii) Period _____ years, from _____to_____

(iii) Area under licence_____ hectares.

(iv) Number and date assigned by State Government to Prospecting Licence. (a) Number _____ (b) Date _____

4. Location of Prospecting Licensed Area:

(i) Topo Sheet Number _____

(ii) Cadastral Survey or Khasra Number _____

(iii) Village _____

*This should be sent to the Controller of Mines/Regional Controller of Mines in whose territorial jurisdiction the area/mine falls as notified from time to time by the Controller General, Indian Bureau of Mines, under rule 62 of the Mineral Conservation and Development Rules, 1988.

(iv) (a) Taluka _____

(b) District _____

(c) State _____

5. Particulars of the Geologist /Mining Engineer-in-charge of Prospecting operations :

(i) Name and address: _____
_____
_____
PIN_____

(ii) Qualifications _____

(iii) Date of appointment _____

(iv) Nature of appointment Whole time ( ) Part time ( )

(Please tick (3) mark one of the boxes whichever is applicable)

6. (i) Status of prospecting operation: In progress [ ]
Please tick (3) mark one of the boxes whichever is applicable. Completed [ ]
Abandoned [ ]

(ii) If prospecting operation is completed or abandoned, date of such completion or abandonment. _____

7. Total surface area covered by prospecting work (hectares) as on date_____

8. Completion of prospecting work during the year:

(a) Pitting

(i)Number of pits _____

(ii) Depth (metres) Average _____
Maximum _____
Minimum _____

(b) Trenching

(i)Number of trenches _____

(ii) Length (metres) Average _____
Maximum _____
Minimum _____

(c) Drilling	Surface	Underground
(i) Number of boreholes completed during the year.	_____	_____
(ii) Number of boreholes in progress, if any	_____	_____
(iii)Total annual drilling (metres)	_____	_____

(d) Particulars of drilling machines:

Type	Make	Capacity	Number of drills

(e) Exploratory mining, if any:

(1) Number of levels _____

(2) Total development (metres) _____

(3) Mode of entry _____

(4) Quantity of ore produced with grade _____

(f) Number of samples analysed:

(1) Main constituent (please specify)

(2) Complete analysis

Note: Please enclose a geological report describing the prospecting operations undertaken so far along with the detailed geological plans and sections showing locations of (a) boreholes, (b) pits, (c) trenches, (d) shafts, (e) underground exploratory workings, (f) outcrops, (g) ore zones, (h) faults, (i) folds and other geological features.

The Report shall contain in the borehole logs and interpretation and the inferences drawn as a result of the study of the geology of the area and the interpretation of the borehole cores, pits, trenches, assay data, reserves of ore and contain results of complete analysis of at least two representative samples of ore and the blocks proposed for mining operations. The report shall also contain the results of any beneficiation study carried out on the ores or minerals of the area.

Place: Signature :

Date: Name in full:

Designation : Owner/Agent/
Mining Engineer/Manager

[1][FORM-BB

[See rule 3E]

Progress report of reconnaissance survey in respect of _____[the name of the mineral(s)]_____ for the year _____

Submitted to :

1. The Controller General,
Indian Bureau of Mines,
Nagpur - 440 001

*2.The Controller of Mines,
Indian Bureau of Mines

*3. The Regional Controller Mines,
Indian Bureau of Mines

4. State Government concerned.

IMPORTANT

This Form, fully filled in must reach the concerned authorities within thirty days after expiration of one year from the date of execution of reconnaissance permit or the expiry of reconnaissance permit or abandonment of reconnaissance operations, whichever is earlier.

1. Name of the permit holder _____

2. Nature of the firm _____

3. Address of the firm _____

4. Area under permit _____ (square kms.)

5. Location:

   (i) Topo Sheet No.(s) _____

   (ii) Co-ordinates of corner points _____

   (iii) District (s) _____

   (iv) State _____

6. Date of grant of permit _____

7. Period of permit _____

8. Reconnaissance survey work done
(A brief description of the work involved along with particulars of the machines and instruments used would be given against each of the following items)

   (i) Regional Survey _____
   (ii) Aerial/photogeological work _____
   (iii) Geological Mapping including area covered and scale _____

1. Inserted by G.S.R.55 (E), dated 17.1.2000.

(iv) Geophysical _____
(v) Geochemical _____
(vi) Test drilling : Number, area of influence meterage and sampling _____

9. Nature and structure of the ore body _____

10. Analysis of the ores or minerals _____

11. If abandoned

(i) Date of abandonment _____

(ii) Reasons for abandonment _____

Signature _____
(Full name of the Signatory)
Designation _____
and
Address _____
Date of despatch _____

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* This should be sent to the Controller of Mines/Regional Controller of Mines in whose territorial jurisdiction the area falls as notified from time to time by the Controller General, Indian Bureau of Mines, under rule 62 of the Mineral Conservation and Development Rules, 1988.]

FORM-C

(Notice of intimation of opening/reopening of mine/change in the name of mine)

(See rule 22(1), 22(2), 25 & 49)

IMPORTANT

Notice in this Form shall be sent so as to reach concerned authorities within 15 days of the date of opening /reopening / change in Name of mine

To

1. The Controller General,
   Indian Bureau of Mines,
   Nagpur - 440 001

2. The Controller of Mines
   ---------- Zone
   Indian Bureau of Mines,
   PIN_____

3. The Regional Controller Mines,
   Indian Bureau of Mines,
   PIN_____

4. State Government concerned.

1. (i) Name of the mineral worked
   (ii) Name(s) of other minerals if any, for which lease has been granted:

2. (i) Name of the mine
   (ii) Change in the name of mines, if any:
   (Indicate old name and reason of change)

3. Name and address of the lessee/owner:

4. Ownership of the mine
   (a)Public Sector (b) Joint Sector (c) Private Sector

[1][4A. Date of opening/reopening of mine _____
4B. In case of reopening, date of discontinuation:] _____

5. Particulars of the Mining Lease (ML):
   (i) Date of execution:

   (ii)Period: _____ Years, from _____ to_____

   (iii) Areas under lease:_____ hectares

6. Location of the Mining Lease:
   (i) Village_____Distt._____Taluka/Tahsil_____

   (ii) Post Office _____ Police Station _____ Distt._____

   (iii)Nearest railway station _____ Distance _____

   (iv)Nearest Rest House/Dak Bangalow _____

1. Inserted by G.S.R. 55 (E), dated 17.1.2000.

7. Name and address of previous owner,
   if any and the date of abandonment:

   PIN
   Date

8. Particulars of Agent:
   Name and address:

9. Particulars of Mining Engineer employed in the
   mines:

   (i) Name and address:

   (ii) Qualification :

   (iii) Date of appointment :

   (iv) Status of employment: Whole time Part time

10. Particulars of the Manager of the mine:
    Name and address

11. Letter No. and date through which the mining
    plan was approved by the Indian Bureau of
    Mines.

    Letter No. Date:

Place:
Date:

Signature :
Name in full:
Designation: Owner/Agent/ Mining
Engineer/Manager

(Strike out the items which are not applicable)

[1][FORM – D

(Notice of intention of abandonment of mine or part of the mine)
[See rule 23(2)]

To

1. The Controller General
Indian Bureau of Mines,
Nagpur – 440 001

2. The Controller of Mines,
Indian Bureau of Mines,
_____ PIN

3. The Regional Controller of Mines,
Indian Bureau of Mines.

4. State Government Concerned

IMPORTANT

Notice in Form shall reach the concerned authorities within 90 days of the date of intention of abandonment.

1. (i) Name of the mineral worked: _____

(ii) Name of other mineral worked, if any: _____

2. Name of the mine _____

3. Name and address of the Lessee/Owner : _____

4. Particulars of Mining Lease (ML):
(i) Date of Execution:

(ii) Period_____ Years, from_____ to _____

(iii) Area under lease_____ hectares.

5. Location of Mine
(a) Village:
(b) Post Office:
(c) District:
(d) State:

6. Name and address of Agent:

7. Name and address of Mining Engineer:

8. Date of abandonment

---

1. Substituted by G.S.R. 330 (E), dated 10.4.2003

9. Reasons for abandonment: [Please tick whichever is applicable]

i) Lack of demand ☐

ii) Exhaustion of ore/mineral ☐

iii) Un-economic operations ☐

10. Reserve of Mineral(s) in Mining Lease area (in tonne):

i) Proved

ii) Probable

iii) Possible

11. Number of workers employed in the mine: Male Female

a) Company labour

b) Contract labour

Total

Place:
Date :

Signature
Name in full:
Designation:
(Owner/Agent/Mining Engineer/Manager)]

[1] [FORM D-1

(Notice of temporary discontinuance of mine)
[See rule 24]

To

1. The Controller General
Indian Bureau of Mines,
Nagpur – 440 001

2. The Controller of Mines,
Indian Bureau of Mines,
_____ PIN

3. The Regional Controller of Mines,
Indian Bureau of Mines.

4. State Government Concerned

IMPORTANT

Notice in Form shall reach the concerned authorities within one hunred and five days of temporary discontinuance of work in the mine. If the discontinuance is due to natural calamity beyond the control of the lessee or Government Orders, this notice shall be sent within fifteen days of such occurrence.

2. (i) Name of the mineral worked: _____

(ii) Name of other mineral worked, if any: _____

2. Name of the mine _____

3. Name and address of the Lessee/Owner : _____

4. Particulars of Mining Lease (ML):
(i) Date of Execution:

(ii) Period_____ Years, from_____ to _____

(iii) Area under lease_____ hectares.

5. Location of Mine
(a) Village:
(b) Post Office:
(c) District:
(d) State:

6. Name and address of Agent:

7. Name and address of Mining Engineer:

8. Date of temporary discontinuance:

---

1. Substituted by G.S.R. 330 (E), dated 10.4.2003

9. Reasons for temporary discontinuance: [Please tick whichever is applicable]

i) Lack of demand ☐

ii) Non-availability of labour ☐

iii) Rains ☐

iv) Transport bottleneck ☐

v) Strike/Lockout ☐

vi) Operations becoming un-economic ☐

vii) Other reasons (specify) ☐

10. Probable date of re-opening of the mine:

Place:
Date :

Signature
Name in full:
Designation:
(Owner/Agent/Mining Engineer/Manager)]

FORM-E

(Notice of commencement of stoping)

[See rule 26(2)]

MINE CODE_____

To

1. The Controller General,
Indian Bureau of Mines,
Nagpur - 440 001

*2. The Controller of Mines,
Indian Bureau of Mines,
PIN_____

*3. The Regional Controller of Mines
Indian Bureau of Mines,
PIN _____

4. State Government concerned.

IMPORTANT
Notice in this Form shall be sent at least sixty days before the commencement of stoping operations to the concerned authority.

1. (a) Name of mine _____

(b) Section/pit number** _____

(c) Mineral/minerals worked _____

2. Name and address of
(a) Owner _____
(b) Agent _____
(c) Manager _____
(d) Mining Engineer/Geologist employed under rule 42 _____

3. Date of expiry of lease: _____

4. Date on which it is proposed to commence stoping _____

5. Extent of development in the mine: _____

(a) Number of shafts/inclines/and its width/depth/length: _____

(b) Maximum depth and development _____

* This should be sent to the Controller of Mines/Regional Controller of Mines in whose territorial jurisdiction the area/mine falls as notified from time to time by the Controller General, Indian Bureau of Mines, under rule 62 of the Mineral Conservation and Development Rules, 1988.

** This is applicable in cases where the main mine is divided into more than one district/section/pit.

(c) Number of levels with their extent _____

(d) Total meterage of development _____

(e) Total number of blocks developed including the total tonnage and grade (excluding blocks already stoped out and already permitted for stoping) _____

6. Details of the blocks applied for stoping
   (a) Number and size of each block, their levels tonnage and grade _____
   (b) Method of stoping to be adopted -
      (i) A description of the method with appropriate drawings to illustrate the stope preparation sequence of operation and extraction _____

      (ii)Rate of stoping contemplated in each block (monthly) _____

      (iii)Estimated recovery from each block _____

      (iv) Estimated dilution _____

      (v) Estimated tonnage and grade of ore to be extracted _____

7. Is this a first application for stoping for this mine?
   If not, the following details may be furnished.
   (i) Date of previous application(s) for stoping: _____
   (ii) Date and reference of permission or refusal by this department (mention blocks and their levels) _____
   (iii) Have all the blocks for which stoping permission was granted, been stoped out? If not, mention the specific blocks that are remaining to be stoped out, indicating the state of stoping operations therein: _____

8. Rate of development and programme of forming additional stope blocks simultaneously with the proposed stoping. _____

9. List of enclosures _____

Place:
Date:

Signature
Name in full:
Designation: Owner/Agent/
Mining Engineer/Manager

Note: Information in respect of items 5 and 6 (a) should be accompanied by (i) underground composite plan, (ii) longitudinal section, (iii) geological/assay plan of the levels at which stoping is proposed including one level above and below, and (iv) transverse sections at reasonable intervals for the portion covered under (iii) above.

[1][FORM F-1

For the month of _____20

MONTHLY RETURN

[See rule 45(5) (a) (i)]

(Read the instructions carefully before filling the particulars)

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(ii) The State Government

PART – I
(General and Labour)

1. Details of the Mine:		
(a) Registration number allotted by Indian Bureau of Mines (*to give registration number of the mine owner/ agent/ mining engineer/ manager signing the return*)		
b) **Mine Code**		
c) Name of the Mineral	**IRON ORE**	
d) Name of Mine		
e) Name(s) of other mineral(s), if any, produced from the same mine		
f) **Location of the Mine :**		
Village		
Post Office		
Tahsil/Taluk		
District		
State and PIN Code		
Fax no:	E-mail:	
Phone no:		
2. Name and Address(s) of Lessee/Owner (along with fax no. and e-mail):		
Name of Person		
Street/Village		
Post Office		
Tahsil/Taluk		
District		
State and PIN Code		
Fax no:	E-mail:	
Phone No:		
3. Details of Rent/ Royalty / Dead Rent paid in the month		
(i) Rent paid for the period (Rs.)		
(ii) Royalty paid for the period (Rs.)		
(iii) Dead Rent paid for the period (in Rs)		
4. Details on working of mine:		
(i) Number of days the mine worked:		
(ii) Reasons for work stoppage in the mine during the month (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each reason separately	Reasons	No of days

[1] Substituted by G.S.R. 75(E), dated 9.2.2011.

5. (i) Average Daily Employment and Wages paid:

Work place	Direct		Contract		Wages (Rs.)	
	Male	Female	Male	Female	Direct	Contract
Below ground						
Opencast						
Above ground						
Total						

5.(ii) Total number of technical and supervisory staff employed in the mine during the month :_____
(iii) Total salaries paid to technical and supervisory staff employed in the mine during the month in Rs._____

PART-II (PRODUCTION, DESPATCHES AND STOCKS)
(Unit of Quantity in Tonnes)

1. Type of ore produced:
(Tick mark, whichever is applicable)
(a) Hematite
(b) Magnetite

2. Production and Stocks of ROM ore at Mine-head

Category	Opening stock	Production	Closing stock
(a) Open Cast workings			
(b) Dump workings			

3.Grade-wise Production, Despatches ,Stocks and Ex-mine prices of Processed ore:

Grades(% of Fe content)	Opening stock at mine head	Production	Despatches from mine head	Closing stock at mine-head	Ex-mine price (Rs./ MT)
i) Lumps:-					
(a) Below 55%					
(b) 55% to below 58%					
(c) 58% to below 60%					
(d) 60% to below 62%					
(e) 62% to below 65%					
(f) 65% and above					
ii) Fines:-					
(a) Below 55%					
(b) 55% to below 58%					
(c) 58% to below 60%					
(d) 60% to below 62%					
(e) 62% to below 65%					
(f) 65% and above					
iii) Concentrates					

4. Details of Deductions used for computation of Sale price (Ex-Mine)(Rs/Tonne)

Deduction claimed	Unit (in Rs/Tonne)	Remarks
a) Cost of transportation (indicate Loading station and Distance from mine in remarks)		
b) Loading and Unloading charges		
c) Railway freight ,if applicable (indicate destination and distance)		
d) Port Handling charges/export duty(indicate name of port)		
e) Charges for Sampling and Analysis		
f) Rent for the plot at Stocking yard		
g) Other charges(specify clearly)		
Total (a) to (g)		

5. Sales/ Despatches effected for Domestic Consumption and for Exports:

Grade	Nature of Despatch (*indicate whether [1][Sale] or Captive consumption or Export)*	For Domestic Consumption			For export		
		Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Quantity	Sale value	Country	Quantity	F.O.B Value (Rs.)

Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer
(to indicate *separately if more than one buyer) for the top five despatches in terms of Quantity for the remaining consolidated figure shall be reported with details of despatches as annexure.*

NOTE:- Mine owners are required to substantiate domestic sale value/ FOB value for each grade of ore quoted above with copy of invoices.

6. Give reasons for increase/decrease in production/nil production (of primary or associate mineral), if any, during the month compared to the previous month.

a)
b)
c)

7. Give reasons for increase/decrease in grade wise ex-mine price (of primary or associate Mineral),if any, during the month compared to the previous month.

a)
b)
c)

I certify that the information furnished above is correct and complete in all respects.

Place: Signature
Date: Name in full:

Designation: Owner/Agent/Mining Engineer/Manager

1. Inserted by G.S.R. 55(E), dated 17.1.2000

FORM F-2

For the month of _____20

MONTHLY RETURN

[See rule 45(5) (a) (ii)]

(Read the instructions carefully before filling the particulars)

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(ii) The State Government

PART – I
(General and Labour)

1. Details of the Mine:		
(a) Registration number allotted by Indian Bureau of Mines (*to give registration number of the mine owner/ agent/ mining engineer/ manager signing the return*)		
b) **Mine Code**		
c) Name of the Mineral	**MANGANESE ORE**	
d) Name of Mine		
e) Name(s) of other mineral(s), if any, produced from the same mine		
f) **Location of the Mine :**		
Village		
Post Office		
Tahsil/Taluk		
District		
State and PIN Code		
Fax no:	E-mail:	
Phone no:		
2. Name and Address(s) of Lessee/Owner (along with fax no. and e-mail):		
Name of Person		
Street/Village		
Post Office		
Tahsil/Taluk		
District		
State and PIN Code		
Fax no:	E-mail:	
Phone No:		
3. Details of Rent/ Royalty / Dead Rent paid in the month		
(i) Rent paid for the period (Rs.)		
(ii) Royalty paid for the period (Rs.)		
(iii) Dead Rent paid for the period (in Rs)		
4. Details on working of mine:		
(i) Number of days the mine worked:		
(ii) Reasons for work stoppage in the mine during the month (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each reason separately	Reasons	No of days

5. (i) Average Daily Employment and Wages paid:

Work place	Direct		Contract		Wages (Rs.)	
	Male	Female	Male	Female	Direct	Contract
Below ground						
Opencast						
Above ground						
Total						

5.(ii) Total number of technical and supervisory staff employed in the mine during the month :_____
(iii) Total salaries paid to technical and supervisory staff employed in the mine during the month in Rs._____

PART-II (PRODUCTION, DESPATCHES AND STOCKS)
(Unit of Quantity in Tonnes)

1. Production and Stocks of ROM ore at Mine-head

Category	**Opening stock**	**Production**	**Closing stock**
(a) Open Cast workings			
(b) Underground workings			
(b) Dump workings			

2.Grade-wise Production, Despatches ,Stocks and Ex-mine prices of Processed ore:

Grades(% of Mn content)	**Opening stock at mine head**	**Production**	**Despatches from mine head**	**Closing stock at mine-head**	**Ex-mine price (Rs./ Metric Tonne)**
(a) Below 25%					
(b) 25% to below 35%					
(c) [1][35% to below 46%]					
(d) 46% and above					
(e) Dioxide ore					
[2][(f) Concentrates]					

3. Details of Deductions used for computation of Ex-Mine Price(Rs/Metric Tonne)

Deduction claimed	Unit (in Rs/Metric Tonne)	Remarks
a) Cost of transportation (indicate Loading station and Distance from mine in remarks)		
b) Loading and Unloading charges		
c) Railway freight ,if applicable (indicate destination and distance)		
d) Port Handling charges/export duty(indicate name of port)		
e) Charges for Sampling and Analysis		
f) Rent for the plot at Stocking yard		
g) Other charges(specify clearly)		
Total (a) to (g)		

4. Sales/ Despatches effected for Domestic Consumption and for Exports:

Grade	Nature of Despatch (*indicate whether for [3][Sale] or Captive consumption or Export)*	For Domestic Consumption			For export		
		Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Quantity	Sale value	Country	Quantity	F.O.B Value (Rs.)

Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer
(to indicate *separately if more than one buyer) for the top five despatches in terms of Quantity, for the remaining consolidated figure shall be reported with details of despatches as annexure.*

NOTE:- Mine owners are required to substantiate domestic sale value/ FOB value for each grade of ore quoted above with copy of invoices.

1. Substituted by G.S.R. 330(E), dated 10.4.2003
2. Inserted by G.S.R. 330(E), dated 10.4.2003
3. Inserted by G.S.R. 55(E), dated 11.1.2000

5. Give reasons for increase/decrease in production/nil production (of primary or associate mineral), if any, during the month compared to the previous month.

a)
b)
c)

6. Give reasons for increase/decrease in grade wise ex-mine price (of primary or associate Mineral), if any, during the month compared to the previous month.

a)
b)
c)

I certify that the information furnished above is correct and complete in all respects.

Place: Signature
Date: Name in full:
Designation: Owner/Agent/Mining Engineer/Manager

FORM F-3

For the month of _____20

MONTHLY RETURN

[See rule 45(5) (a) (iii)]

(Read the instructions carefully before filling the particulars)

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(ii) The State Government

PART – I
(General and Labour)

1. Details of the Mine:		
(a) Registration number allotted by Indian Bureau of Mines (*to give registration number of the mine owner/ agent/ mining engineer/ manager signing the return*)		
b) **Mine Code**		
c) Name of the Mineral	[1]**[Bauxite/Laterite]**	
d) Name of Mine		
e) Name(s) of other mineral(s), if any, produced from the same mine		
f) **Location of the Mine :**		
Village		
Post Office		
Tahsil/Taluk		
District		
State and PIN Code		
Fax no:	E-mail:	
Phone no:		
2. Name and Address(s) of Lessee/Owner (along with fax no. and e-mail):		
Name of Person		
Street/Village		
Post Office		
Tahsil/Taluk		
District		
State and PIN Code		
Fax no:	E-mail:	
Phone No:		
3. Details of Rent/ Royalty / Dead Rent paid in the month		
(i) Rent paid for the period (Rs.)		
(ii) Royalty paid for the period (Rs.)		
(iii) Dead Rent paid for the period (in Rs)		
4. Details on working of mine:		
(i) Number of days the mine worked:		
(ii) Reasons for work stoppage in the mine during the month (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each reason separately	Reasons	No of days

1. Substituted by GSR 330(E) dated 10.4.2003.

5. (i) Average Daily Employment and Wages paid:

Work place	Direct		Contract		Wages (Rs.)	
	Male	Female	Male	Female	Direct	Contract
Below ground						
Opencast						
Above ground						
Total						

5.(ii) Total number of technical and supervisory staff employed in the mine during the month :_____
(iii) Total salaries paid to technical and supervisory staff employed in the mine during the month in Rs._____

PART-II (PRODUCTION, DESPATCHES AND STOCKS)
(Unit of Quantity in Tonnes)

1.Production and Stocks of ROM ore at Mine-head

Category	**Opening stock**	**Production**	**Closing stock**
(a) Open Cast workings			
(b) From Underground workings			
(c) Dump workings			

2.Grade-wise Production, Despatches ,Stocks and Ex-mine prices of Processed ore:

[1][Grades (% of Al_2O_3 content)	**Opening stock at mine head**	**Production**	**Despatches from mine head**	**Closing stock at mine-head**	**Ex-mine price (Rs./ Metric Tonne)**
(A) For use in alumina and aluminium extraction:- (Please furnish averages of the following ranges of grades):					
(a) Below 40%					
(b) 40% to below 45%					
(c) 45% to below 50%					
(d) 50% to below 55%					
(e) 55% to below 60%					
(f) 60% and above					
(B) For use other than alumina and aluminium metal extraction:					
(a) Cement					
(b) Abrasive					
(c) Refractory					
(d) Chemical]					

3. Details of Deductions used for computation of Ex-Mine price (Rs/ Metric Tonne):

Deduction claimed	Unit (in Rs/Metric Tonne)	Remarks
a) Cost of transportation (indicate Loading station and Distance from mine in remarks)		
b) Loading and Unloading charges		
c) Railway freight ,if applicable (indicate destination and distance)		
d) Port Handling charges/export duty(indicate name of port)		
e) Charges for Sampling and Analysis		
f) Rent for the plot at Stocking yard		
g) Other charges(specify clearly)		
Total (a) to (g)		

1.Substituted by G.S.R. 330(E), dated 10.4.2003

4. Sales/ Despatches effected for Domestic Consumption and for Exports:

Grade	Nature of Despatch (*indicate whether for* [1]*[Sale] or Captive consumption or Export)*	For Domestic Consumption			For export		
		Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Quantity	Sale value	Country	Quantity	F.O.B Value(Rs.)

Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer
(to indicate *separately if more than one buyer) for the top five despaches in terms of Quantity, for the remaining consolidated figure shall be reported with details of despatches as annexure.*

NOTE:- Mine owners are required to substantiate domestic sale value/ FOB value for each grade of ore quoted above with copy of invoices.

5. Give reasons for increase/decrease in production/nil production (of primary or associate mineral), if any, during the month compared to the previous month.

a)
b)
c)

6. Give reasons for increase/decrease in grade wise ex-mine price (of primary or associate Mineral),if any, during the month compared to the previous month.

a)
b)
c)

I certify that the information furnished above is correct and complete in all respects.

Place: Signature
Date: Name in full:

Designation: Owner/Agent/Mining Engineer/Manager

1. Inserted by G.S.R. 55(E), dated 17.1.2000

FORM F-4

For the month of _____20

MONTHLY RETURN

[See rule 45(5) (a) (iv)]

(Read the instructions carefully before filling the particulars)

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(ii) The State Government

PART – I
(General and Labour)

1. Details of the Mine:		
(a) Registration number allotted by Indian Bureau of Mines (*to give registration number of the mine owner/ agent/ mining engineer/ manager signing the return*)		
b) **Mine Code**		
c) Name of the Mineral	**Chromite**	
d) Name of Mine		
e) Name(s) of other mineral(s), if any, produced from the same mine		
f) **Location of the Mine :**		
Village		
Post Office		
Tahsil/Taluk		
District		
State and PIN Code		
Fax no:	E-mail:	
Phone no:		
2. Name and Address(s) of Lessee/Owner (along with fax no. and e-mail):		
Name of Person		
Street/Village		
Post Office		
Tahsil/Taluk		
District		
State and PIN Code		
Fax no:	E-mail:	
Phone No:		
3. Details of Rent/ Royalty / Dead Rent paid in the month		
(i) Rent paid for the period (Rs.)		
(ii) Royalty paid for the period (Rs.)		
(iii) Dead Rent paid for the period (in Rs)		
4. Details on working of mine:		
(i) Number of days the mine worked:		
(ii) Reasons for work stoppage in the mine during the month (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each reason separately	Reasons	No of days

5. (i) Average Daily Employment and Wages paid:

Work place	Direct		Contract		Wages (Rs.)	
	Male	Female	Male	Female	Direct	Contract
Below ground						
Opencast						
Above ground						
Total						

5.(ii) Total number of technical and supervisory staff employed in the mine during the month :_____

(iii) Total salaries paid to technical and supervisory staff employed in the mine during the month in Rs._____

PART-II (PRODUCTION, DESPATCHES AND STOCKS)

(Unit of Quantity in Tonnes)

1.Production and Stocks of ROM ore at Mine-head

Category	Opening stock	Production	Closing stock
(a) Open Cast workings			
(b) From Underground workings			
(c) Dump workings			

2.Grade-wise Production, Despatches ,Stocks and Ex-mine prices of Processed ore:

[1][Grades(% of Cr_2O_3 content)	Opening stock at mine head	Production	Despatches from mine head	Closing stock at mine-head	Ex-mine price (Rs./ Metric Tonne)
A. Lumps:-					
(a) Below 40% Cr_2O_3					
(b) 40% to below 52 % Cr_2O_3					
(c) 52% Cr_2O_3 and above					
B. Fines:-					
(a) Below 40% Cr_2O_3					
(b) 40% to below 52 % Cr_2O_3					
(c) 52% Cr_2O_3 and above					
C. Concentrates]					

3. Details of Deductions used for computation of Ex-Mine price (Rs/Metric Tonne):

Deduction claimed	Unit (in Rs/Metric Tonne)	Remarks
a) Cost of transportation (indicate Loading station and Distance from mine in remarks)		
b) Loading and Unloading charges		
c) Railway freight ,if applicable (indicate destination and distance)		
d) Port Handling charges/export duty(indicate name of port)		
e) Charges for Sampling and Analysis		
f) Rent for the plot at Stocking yard		
g) Other charges(specify clearly)		
Total (a) to (g)		

4. Sales/ Despatches effected for Domestic Consumption and for Exports:

GRADE	Nature of Despatch (*indicate whether for* [2]*[Sale] or Captive consumption or Export)*	For Domestic Consumption			For export		
		Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Quantity	Sale value	Country	Quantity	F.O.B Value (in Rs.)

Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer
(to indicate *separately if more than one buyer) for the top five despatches in terms of Quantity, for the remaining consolidated figure shall be reported with details of despatches as annexure.*

NOTE:- Mine owners are required to substantiate domestic sale value/ FOB value for each grade of ore quoted above with copy of invoices.

[1].Substituted by G.S.R. 330(E), dated 10.4.2003.
[2] Inserted by GSR 55(E), dt.17.1.2000.

5. Give reasons for increase/decrease in production/nil production (of primary or associate mineral), if any, during the month compared to the previous month.

a)
b)
c)

6. Give reasons for increase/decrease in grade wise ex-mine price (of primary or associate Mineral),if any, during the month compared to the previous month.

a)
b)
c)

I certify that the information furnished above is correct and complete in all respects.

Place: Signature
Date: Name in full:

Designation: Owner/Agent/Mining Engineer/Manager

FORM F-5

For the month of _____20

MONTHLY RETURN

[See rule 45(5) (a) (v)]

(Read the instructions carefully before filling the particulars)

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(ii) The State Government

PART – I
(General and Labour)

1. Details of the Mine:		
(a) Registration number allotted by Indian Bureau of Mines (*to give registration number of the mine owner/ agent/ mining engineer/ manager signing the return*)		
b) **Mine Code**		
c) Name of the Mineral	**Copper/Gold/Lead/Pyrites/Tin/Tungsten/Zinc**	
d) Name of Mine		
e) Name(s) of other mineral(s), if any, produced from the same mine		
f) **Location of the Mine :**		
Village		
Post Office		
Tahsil/Taluk		
District		
State and PIN Code		
Fax no:	E-mail:	
Phone no:		
2. Name and Address(s) of Lessee/Owner (along with fax no. and e-mail):		
Name of Person		
Street/Village		
Post Office		
Tahsil/Taluk		
District		
State and PIN Code		
Fax no:	E-mail:	
Phone No:		
3. Details of Rent/ Royalty / Dead Rent paid in the month		
(i) Rent paid for the period (Rs.)		
(ii) Royalty paid for the period (Rs.)		
(iii) Dead Rent paid for the period (in Rs)		
4. Details on working of mine:		
(i) Number of days the mine worked:		
(ii) Reasons for work stoppage in the mine during the month (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each reason separately	Reasons	No of days

5. (i) Average Daily Employment and Wages paid:

Work place	Direct		Contract		Wages (Rs.)	
	Male	Female	Male	Female	Direct	Contract
Below ground						
Opencast						
Above ground						
Total						

5.(ii) Total number of technical and supervisory staff employed in the mine during the month :_____
(iii) Total salaries paid to technical and supervisory staff employed in the mine during the month in Rs._____

PART-II (PRODUCTION, DESPATCHES AND STOCKS)
(Unit of Quantity in Tonnes; indicate unit of quantity if not in tonnes.)

1. Production and Stocks of R.O.M. ore

	Opening stocks		**Production**		**Closing stocks**	
	Quantity	Metal content/ grade	Quantity	Metal content/ grade	Quantity	Metal content/ grade
A. From Underground workings						
i) From development						
ii) From Stoping						
B. From Opencast workings						
Total						

2. Ex-mine price of the ore produced (Rs. per unit):

3. Recoveries at Concentrator/Mill/Plant: (Quantity in tonnes & Value in Rs.)

Opening stocks of the Ore at concentrator/Plant		**Ore received from the mine**		**Ore treated**	
Quantity	Metal content/grade	Quantity	Metal content/grade	Quantity	Metal content/grade

Concentrates * Obtained			**Tailings**		**Closing stocks of concentrates the concentrator/Plant**	
Quantity	Value	Metal content/grade	Quantity	Metal content/grade	Quantity	Metal content/grade

*In case of any leaching method adopted, give quantity recovered and grade contained separately.

4. Recovery at the Smelter/Mill/Plant:-

Opening Stocks of the concentrates at the smelter /Plant		**Concentrates received from concentrator/Plant**		**Concentrates received from other sources (specify)**		**Concentrates sold (if any)**	
Quantity	Metal content/ grade	Quantity	Metal content/ grade	Quantity	Metal content/ grade	Quantity	Metal content/ grade

Concentrates treated		**Metals(*) recovered(specify)**			**Other by-products ,if any, recovered**			**Closing stocks of concentrate at the Smelter/Plant**	
Quantity	Metal content/ grade	Quantity	Value	Grade	Quantity	Value	Grade	Quantity	Value

5. Sales during the month:-

Opening stocks of metals/Products		**[1][Place of Sale]**	**Metals/Products sold(@)**			**Closing stocks of Metals/Products**	
Quantity	Grade		Quantity	Grade	Value(#)	Quantity	Value

Note:

(*) Please give category-wise break-up viz. blister, fire refined copper, cathodes, electrolytic copper wire bars, lead ingots, zinc cathodes, zinc dross, gold, tungsten etc.

(#) Please give ex-plant sale value including excise duty but excluding other taxes.

(@) Please give category-wide break-up of metals and other products sold.

6. Details of Deductions used for computation of Ex_mine price of ore (Rs/unit)

Deduction claimed	Unit (in Rs/unit)	Remarks
a) Cost of transportation (indicate Loading station and Distance from mine in remarks)		
b) Loading and Unloading charges		
c) Railway freight ,if applicable (indicate destination and distance)		
d) Port Handling charges/export duty(indicate name of port)		
e) Charges for Sampling and Analysis		
f) Rent for the plot at Stocking yard		
g) Other charges(specify clearly)		
Total (a) to (g)		

7. Sales/ Despatches effected for Domestic Consumption and for Exports:

Grade*	Nature of Despatch (*indicate whether for [1][Sale] or Captive consumption or Export)*	For Domestic Consumption			For export		
		Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Quantity	Sale value	Country	Quantity	F.O.B Value (Rs.)

*This includes ore as well as concentrates.

Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer
(to indicate *separately if more than one buyer) for the top five despaches in terms of Quantity,for the remaining consolidated figure shall be reported with details of despatches as annexure.*

NOTE:- Mine owners are required to substantiate domestic sale value/ FOB value for each grade of ore quoted above with copy of invoices.

8. Give reasons for increase/decrease in production/nil production (of primary or associate mineral), if any, during the month compared to the previous month.

a)
b)
c)

9. Give reasons for increase/decrease in grade wise ex-mine price (of primary or associate Mineral),if any, during the month compared to the previous month.

a)
b)
c)

I certify that the information furnished above is correct and complete in all respects.

Place: Signature
Date: Name in full:

Designation: Owner/Agent/Mining Engineer/Manager

1 Inserted by G.S.R. 55(E), dated 17.1.2000

FORM F-6

For the month of _____20

MONTHLY RETURN

[See rule 45(5) (a) (vi)]

(Read the instructions carefully before filling the particulars)

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(ii) The State Government

PART – I
(General and Labour)

1. Details of the Mine:		
(a) Registration number allotted by Indian Bureau of Mines (*to give registration number of the mine owner/ agent/ mining engineer/ manager signing the return*)		
b) **Mine Code**		
c) Name of the Mineral	**MICA**	
d) Name of Mine		
e) Name(s) of other mineral(s), if any, produced from the same mine		
f) **Location of the Mine :**		
Village		
Post Office		
Tahsil/Taluk		
District		
State and PIN Code		
Fax no:	E-mail:	
Phone no:		
2. Name and Address(s) of Lessee/Owner (along with fax no. and e-mail):		
Name of Person		
Street/Village		
Post Office		
Tahsil/Taluk		
District		
State and PIN Code		
Fax no:	E-mail:	
Phone No:		
3. Details of Rent/ Royalty / Dead Rent paid in the month		
(i) Rent paid for the period (Rs.)		
(ii) Royalty paid for the period (Rs.)		
(iii) Dead Rent paid for the period (in Rs)		
4. Details on working of mine:		
(i) Number of days the mine worked:		
(ii) Reasons for work stoppage in the mine during the month (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each reason separately	Reasons	No of days

5. (i) Average Daily Employment and Wages paid:

Work place	Direct		Contract		Wages (Rs.)	
	Male	Female	Male	Female	Direct	Contract
Below ground						
Opencast						
Above ground						
Total						

5.(ii) Total number of technical and supervisory staff employed in the mine during the month :_____
(iii) Total salaries paid to technical and supervisory staff employed in the mine during the month in Rs._____

PART-II (PRODUCTION, DESPATCHES AND STOCKS)

[1][1. Production, despatches and stocks of crude and dressed mica. (in kilograms)

	Crude (r.o.m)	Waste/scrap mica obtained incidental to mining	Waste/ mica obtained after preliminary dressing (at mine site)
A. OPENING STOCKS			
(at the Beginning of the month)			
i) at Mine			
ii) at Dressing unit			
iii) at any Other point(Please specify)			
Total (Opening Stock)			
B. Production			
i)From underground mining			
ii)From opencast mining			
iii) From dump working			
Total (Production)			
C. DESPATCHES			
i)for dressing			
ii)for Sale			
Total (Despatches)			
D.CLOSING STOCKS			
i)At mine			
(ii)At dressing unit			
(iii)At any other point (Please specify)			
Total (Closing Stocks)			
E. Ex-mine price(#) (Rs. Per kg)			

(#)This should be estimated for all crude mica/ waste mica produced whether sold or not on the basis of the average sale price obtainable for crude/ waste mica in the market. To arrive at the ex-mine price from this notional sale price, the cost of transport from the mine head to the market or factory and any other incidental charges may be deducted .

2. Details of Deductions used for computation of Ex-Mine price (Rs/kg):

Deduction claimed	Unit (in Rs/kg)	Remarks
a) Cost of transportation (indicate Loading station and Distance from mine in remarks)		
b) Loading and Unloading charges		
c) Railway freight ,if applicable (indicate destination and distance)		
d) Port Handling charges/export duty(indicate name of port)		
e) Charges for Sampling and Analysis		
f) Rent for the plot at Stocking yard		
g) Other charges(specify clearly)		
Total (a) to (g)		

1. Substrituted by GSR 330(E), dated 10.4.2003

3. Sales/ Despatches effected for Domestic Consumption and for Exports:

Grade	Nature of Despatch (*indicate whether for Sale or Captive consumption or Export)*	For Domestic Consumption			For export		
		Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Quantity	Sale value	Country	Quantity	F.O.B Value (Rs.)

Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer
(to indicate *separately if more than one buyer) for the top five despatches in terms of Quantity for the remaining consolidated figure shall be reported with details of despatches as annexure.*
NOTE:- Mine owners are required to substantiate domestic sale value/ FOB value for each grade of ore quoted above with copy of invoices.

4. Give reasons for increase/decrease in production/nil production (of primary or associate mineral), if any, during the month compared to the previous month.
a)
b)
c)

5. Give reasons for increase/decrease in grade wise ex-mine price (of primary or associate Mineral),if any, during the month compared to the previous month.
a)
b)
c)

I certify that the information furnished above is correct and complete in all respects.

Place: Signature
Date: Name in full:
Designation: Owner/Agent/Mining Engineer/Manager

FORM F-7

For the month of _____20

MONTHLY RETURN

[See rule 45(5) (a) (vii)]

(Read the instructions carefully before filling the particulars)

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(ii) The State Government

PART – I
(General and Labour)

1. Details of the Mine:		
(a) Registration number allotted by Indian Bureau of Mines (*to give registration number of the mine owner/ agent/ mining engineer/ manager signing the return*)		
b) **Mine Code**		
c) Name of the Mineral		
d) Name of Mine		
e) Name(s) of other mineral(s), if any, produced from the same mine		
f) **Location of the Mine :**		
Village		
Post Office		
Tahsil/Taluk		
District		
State and PIN Code		
Fax no:	E-mail:	
Phone no:		
2. Name and Address(s) of Lessee/Owner (along with fax no. and e-mail):		
Name of Person		
Street/Village		
Post Office		
Tahsil/Taluk		
District		
State and PIN Code		
Fax no:	E-mail:	
Phone No:		
3. Details of Rent/ Royalty / Dead Rent paid in the month		
(i) Rent paid for the period (Rs.)		
(ii) Royalty paid for the period (Rs.)		
(iii) Dead Rent paid for the period (in Rs)		
4. Details on working of mine:		
(i) Number of days the mine worked:		
(ii) Reasons for work stoppage in the mine during the month (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each reason separately	Reasons	No of days

5. (i) Average Daily Employment and Wages paid:

Work place	Direct		Contract		Wages (Rs.)	
	Male	Female	Male	Female	Direct	Contract
Below ground						
Opencast						
Above ground						
Total						

5.(ii) Total number of technical and supervisory staff employed in the mine during the month :_____
(iii) Total salaries paid to technical and supervisory staff employed in the mine during the month in Rs._____

PART-II (PRODUCTION, DESPATCHES AND STOCKS)

1.R.O.M production:-

Category	Unit of quantity	Quantity
i)Opencast		
ii)Underground		

(If there are different types of R.O.M. production, separate figures should be furnished for each type of R.O.M indicating in each case the appropriate unit of quantity.)

2. Production, stocks and despatches:-

	Gem Variety				**Industrial**		**Others**	
	Rough and uncut stones		**Cut and Polished Stones**					
	No of stones	Qty @	No of stones	Qty @	No of stones	Qty @	No of stones	Qty @
A .Opening stocks								
i)From Opencast Working								
ii)From underground working								
TOTAL (Production)								
C.Despatches								
D.Closing Stocks								
E.Ex_mine Price*								

(@The Unit of quantity viz. Carats/Grams/Kilogram etc. as the case may be should be indicated under quantity.)

*This should be estimated for all the stones produced during the month whether sold or not on the basis of average sale price obtained for sales made during the month. In case no sales are made Ex-pit-head, the ex-mine price should be arrived at after deducting the actual expenses incurred from the pit-head to the point of sale, from the sale price realised.

3. Details of Deductions used for computation of Ex-Mine price (Rs/unit):

Deduction claimed	(in Rs/ unit)	Remarks
a) Cost of transportation (indicate Loading station and Distance from mine in remarks)		
b) Loading and Unloading charges		
c) Railway freight ,if applicable (indicate destination and distance)		
d) Port Handling charges/export duty(indicate name of port)		
e) Charges for Sampling and Analysis		
f) Rent for the plot at Stocking yard		
g) Other charges(specify clearly)		
Total (a) to (g)		

4. Sales/ Despatches effected for Domestic Consumption and for Exports:

Grade#	Nature of Despatch (*indicate whether for Sale or Captive consumption or Export)*	For Domestic Consumption			For export		
		Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Quantity	Sale value	Country	Quantity	F.O.B Value (Rs.)

#Grades:- i)Gem Variety a) Rough and uncut stones b) Cut and Polished Stones; ii) Industrial iii)Others
Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer
(to indicate *separately if more than one buyer) for the top five despaches in terms of Quantity for the remaining consolidated figure shall be reported with details of despatches as annexure.*
NOTE:- Mine owners are required to substantiate domestic sale value/ FOB value for each grade of ore quoted above with copy of invoices

5. Give reasons for increase/decrease in production/nil production (of primary or associate mineral), if any, during the month compared to the previous month.

a)
b)
c)

6. Give reasons for increase/decrease in grade wise ex-mine price (of primary or associate Mineral), if any, during the month compared to the previous month.

a)
b)
c)

I certify that the information furnished above is correct and complete in all respects.

Place: Signature
Date: Name in full:
Designation: Owner/Agent/Mining Engineer/Manager

FORM F-8

For the month of _____20

MONTHLY RETURN

[See rule 45(5) (a) (viii)]

(Read the instructions carefully before filling the particulars)

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(ii) The State Government

PART – I
(General and Labour)

1. Details of the Mine:			
(a) Registration number allotted by Indian Bureau of Mines (*to give registration number of the mine owner/ agent/ mining engineer/ manager signing the return*)			
b) **Mine Code**			
c) Name of the Mineral			
d) Name of Mine			
e) Name(s) of other mineral(s), if any, produced from the same mine			
f) **Location of the Mine :**			
Village			
Post Office			
Tahsil/Taluk			
District			
State and PIN Code			
Fax no:	E-mail:		
Phone no:			
2. Name and Address(s) of Lessee/Owner (along with fax no. and e-mail):			
Name of Person			
Street/Village			
Post Office			
Tahsil/Taluk			
District			
State and PIN Code			
Fax no:	E-mail:		
Phone No:			
3. Details of Rent/ Royalty / Dead Rent paid in the month			
(i) Rent paid for the period (Rs.)			
(ii) Royalty paid for the period (Rs.)			
(iii) Dead Rent paid for the period (in Rs)			
4. Details on working of mine:			
(i) Number of days the mine worked:			
(ii) Reasons for work stoppage in the mine during the month (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each reason separately	Reasons	No of days	

5. (i) Average Daily Employment and Wages paid:

Work place	Direct		Contract		Wages (Rs.)	
	Male	Female	Male	Female	Direct	Contract
Below ground						
Opencast						
Above ground						
Total						

5.(ii) Total number of technical and supervisory staff employed in the mine during the month :_____
(iii) Total salaries paid to technical and supervisory staff employed in the mine during the month in Rs._____

PART-II (PRODUCTION, DESPATCHES AND STOCKS)
(Unit of Quantity in Tonnes)

1.Production and Stocks of ROM ore at Mine-head

Category	Opening stock	Production	Closing stock
(a) Open Cast workings			
(b) From Underground workings			
(c) Dump workings			

2.Grade-wise Production, Despatches ,Stocks and Ex-mine price of Processed/Sorted ore:

Grades*	Opening stock at mine head	Production	Despatches from mine head	Closing stock at mine-head	Ex-mine price (Rs./Metric Tonne)

[1][* The grades are as below:-

MINERAL	GRADES
Asbestos	a)Amphibole
	B)Chrysotile
Barytes	(a) White (including snow-white)
	(b) Off colour
Fluorite/Fluorspar	(a) 85% CaF_2 and above
	(b) 70 to below85% CaF_2
	(c) 30 to below 70% CaF_2
	(d) Below 30% CaF_2
Graphite	(a) with 80 per cent or more fixed carbon
	b) with 40 per cent or more but less than 80 per cent fixed carbon
	c)with less than 40% fixed carbon
Kaolin/China clay, Ball clay, White shale, White clay	a) Crude (Natural)
	b) Processed
Kyanite	(a) 40% Al_2O_3 & above
	(b) Below 40% Al_2O_3
Limestone	a) LD, and
	(b) SMS/Chemical
	(c) BF/Cement
Rock Phosphate/ Phosphorite	a)30- 35% P_2O_5
	b) 25- 30 % P_2O_5
	c) 20-25% P_2O_5
	d) 15-20% P_2O_5
Talc/Steatite/Soapstone	(a) Insecticide (filler) grade
	(b) Other than insecticide (filler) grade]

3(i) In case the mineral is being pulverized in own factory, please give the following particulars:-

Grade	Total quantity of mineral Pulverized(in tonnes)	Total quantity of pulverized mineral produced (for each mesh size)		Total Quantity of pulverized mineral sold during the year		
		Mesh size	Quantity (tonne)	Mesh size	Quantity (tonne)	Ex-factory Sale value(Rs.)

3(ii) Average cost of pulverization : Rs _____ per tonne.

1. Substituted by GSR 330(E), dated 10.4.2003.

4. Details of Deductions used for computation of Ex-Mine price (Rs/Metric Tonne):

Deduction claimed	Unit (in Rs/Tonne)	Remarks
a) Cost of transportation (indicate Loading station and Distance from mine in remarks)		
b) Loading and Unloading charges		
c) Railway freight ,if applicable (indicate destination and distance)		
d) Port Handling charges/export duty(indicate name of port)		
e) Charges for Sampling and Analysis		
f) Rent for the plot at Stocking yard		
g) Other charges(specify clearly)		
Total (a) to (g)		

5. Sales/ Despatches effected for Domestic Consumption and for Exports:

Grade	Nature of Despatch (*indicate whether for [1][Sale] or Captive consumption or Export)*	For Domestic Consumption			For export		
		Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Quantity	Sale value	Country	Quantity	F.O.B Value(Rs.)

Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer
(to indicate *separately if more than one buyer) for the top five despaches in terms of Quantity, for the remaining consolidated figure shall be reported with details of despatches as annexure.*

NOTE:- Mine owners are required to substantiate domestic sale value/ FOB value for each grade of ore quoted above with copy of invoices.

6. Give reasons for increase/decrease in production/nil production (of primary or associate mineral), if any, during the month compared to the previous month.

a)
b)
c)

7. Give reasons for increase/decrease in grade wise ex-mine price (of primary or associate Mineral), if any, during the month compared to the previous month.

a)
b)
c)

I certify that the information furnished above is correct and complete in all respects.

Place: Signature
Date: Name in full:

Designation: Owner/Agent/Mining Engineer/Manager]

1. Inserted by GSR 55(E), dated 17.1.2000

[1][FORM H-1

For the financial year 1st April, 20__ to 31st March,20____

ANNUAL RETURN

[See rule 45(5) (b)(i)]

(Read the instructions carefully before filling the particulars)

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(ii) The State Government

PART – I (General)

1. Details of Mine:	
(a) Registration number allotted by Indian Bureau of Mines (*to give registration number of the mine owner/ agent/ mining engineer/ manager signing the return*)	
(b) Mine Code	
(c) Name of the Mineral	**IRON ORE**
(d) Name of Mine	
(e) Name(s) of other mineral(s), if any, produced from the same mine	
2. Location of the Mine :	
Village	
Post Office	
Tahsil/Taluk	
District	
State and PIN Code	
Fax no:	E-mail:
Phone no:	
3. Name and Address(s) of Lessee/Owner (along with fax no. and e-mail):	
Name of Person	
Street/Village	
Post Office	
Tahsil/Taluk	
District	
State and PIN Code	
Fax no:	E-mail:
Phone No:	
4.Registered Office of the Lessee	
5. Director in charge :	
6. Agent :	
7. Manager :	
8.Mining Engineer in charge:	
9. Geologist in charge :	
10. Transferer (previous owner) if any, and date of transfer:	
11. Particulars of area operated/Lease **(Furnish information on items (i) to (v) lease-wise in case mine workings cover more than one lease)**	
(i) Area under lease (hectares):	
Under Forest	
Outside Forest	
Total	
(ii) Date of execution of mining lease deed	
(iii) Period of lease	
(iv) Area for which surface rights are held (hectares)	
(v) Date and period of renewal (if applicable)	
(vi) In case there is more than one mine in the same lease area, indicate name of mine and mineral produced	

1Substituted by G.S.R.75(E) dated 9.2.2011

12. Lease area (surface area) utilisation as at the end of year (hectares):	Under forest	Outside forest	Total
(i) Already exploited & abandoned by opencast (O/C) mining			
(ii) Covered under current (O/C) Workings			
(iii) Reclaimed/rehabilitated			
(iv) Used for waste disposal			
(v) Occupied by plant, buildings, residential, welfare buildings & roads			
(vi) Used for any other purpose (specify)			
(vii) Work done under progressive mine closure plan during the year			
13. Ownership/exploiting Agency of the mine: (Public Sector/Private Sector/Joint Sector)			

PART - II (Employment & Wages)

1.Number of technical and supervisory staff employed at the mine								
Description				Wholly employed			Partly employed	
(i) Graduate Mining Engineer								
(ii) Diploma Mining Engineer								
(iii) Geologist								
(iv) Surveyor								
(v) Other administrative clerical and technical supervisory staff								
Total:-								
2.(i) Number of days the mine worked:								
(ii) No.of shifts per day:								
(iii) Indicate reasons for work stoppage in the mine during the year (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each of the factors separately .				Reasons			No of days	
3.(i) Employment of Labour and wages paid:-								
Maximum number of persons employed on any one day during the year: (i)In workings below ground on .....(a)..... (ii)In all in the mine on .....(a).....								
Classification	Total number of man days worked during the year			No. of days worked during the year	Average daily number of persons employed			Total Wages /Salary bills for the year
	Direct	Contract	Total		Male	Female	Total	
(1)	(2A)	2(B)	2(C)	(3)	4(A)	4(B)	4(C)	(5)
A. Below Ground								
i) Foreman and mining mates								
ii) Face workers and Loaders								
iii) Others								
B. Opencast workings :								
i) Foreman and mining mates								
ii) Face workers and Loaders								
iii) Others								
C. Above ground :								
(i) Clerical & Supervisory Staff. (excluding the superior supervisory staff.)								
(ii) Workers in any Attached factory, Workshop or mineral dressing plant.								
(iii) Others								
Total:								

3. (ii) Total salaries paid to technical and supervisory staff employed in the mine during the year (in Rs.)_____

[1][PART-II A (Capital Structure)

1.Value of Fixed Assets* (Rs.'000)……
(in respect of the mine, beneficiation plant, mine, work-shop, power and water installation)

Description	As at the beginning of the year	Additions during the Year	Sold or discarded during the year	Depreciation during the year	Net closing Balance (2+3)-(4+5)	Estimated market value**
1	2	3	4	5	6	7
(i) Land***						
(ii) Building:						
Industrial						
Residential						
(iii) Plant and Machinery including transport equipment						
iv) Capitalised Expenditure such as pre-production exploration, development, major overhaul and repair to machinery etc.(As prescribed under Income Tax Act)						
Total						

* In case the fixed assets are common to more than one mine, furnish combined information for all such mines together in any one of the mines return and also indicate the names of other mines in which the information relates in the form provided above. In the returns for other mines, give only a cross reference to the particular mine's return where-in the information is included.

** Optional and may be furnished in respect of items (i),(ii) and (iii) if the mine owner desires.

*** Including any non recurring expenditure incurred on the acquisition of land.

2. Source of Finance (as at the end of the year) :-	
(i) Paid up Share Capital (Rs.'000)	
(ii)Own Capital (Rs.'000)	
(iii)Reserve & Surplus (All Types)	
(iv)Long Term loans outstanding	

Indicate the names of the leading institutions such as State Finance Corporation, Industrial Development and other Public Corporations, Co-operative Banks, Nationalised Banks and other sources along with the amount of loan from each source and the rate of interest at which loan has been taken.

3.Interest and Rent (in Rs.'000)	
(i) Interest paid during the year	
(ii) Rents (excluding surface rent) paid during the year	

PART - III (Consumption of Materials)

1. Quantity and cost of material consumed during the year

Description	Unit	Quantity	Value (Rs.)
(i) Fuel			
(a) Coal	Tonnes		
(b) Diesel Oil	Ltrs.		
(c) Petrol	Ltrs.		
(d) Kerosene	Ltrs.		
(e) Gas	Cu.M.		
(ii) Lubricant			
(a) Lubricant oil	Ltrs.		
(b) Grease	kgs.		
(iii) Electricity			
(a) Consumed	Kwh		
(b) Generated	Kwh		
(c) Sold	Kwh		
(iv) Explosives (furnish full details in Part IV)			
(v) Tyres	Nos.		
(vi) Timber & Supports			
(vii)Drill roads & kits	Nos.		
(viii)Other spares & stores			

1. Inserted by GSR 55(E). dated 17.1.2000

2. Royalty and Rents (in' 000 Rs.):		
X	Paid for current year	Paid towards past arrears
(a) Royalty		
(b) Dead rent		
(c) Surface rent		
3. Compensation paid for felling trees during the year (in Rs)		
4. Depreciation on fixed assets Rs		
5. Taxes and cesses		
X	Amount in Rs. paid during the year to:	
X	Central Govt.	State Govt.
(i) Sales Tax		
(ii) Welfare cess		
(iii) Other taxes & cesses:-		
(a) Mineral cess		
(b) Cess on dead rent		
(c) Others (please specify)		
[1][**6**. Other expenses:		
(i) Overheads		
(ii) Maintenance		
(iii) Money value of other benefits paid to workmen		
(iv) Payment made to professional agencies]		

Part –IV (Consumption of Explosives)

1. Licensed capacity of magazine: (specify unit separately in kg/tonne, numbers, metres)	**Item**	**Unit**	**Capacity**
2. Total production during the year (Tonne):			
3. Overburden removed:			

Classification of Explosives	Unit	Quantity consumed during the year		Esitmated requirement during the next year	
		Small dia. (upto 32 mm)	Large dia. (above 32 mm)	Small dia. (upto 32 mm)	Large dia. (above 32 mm)
1.Gun Powder	kg.				
2.Nitrate Mixture	kg.	**X**	**X**	**X**	**X**
a.Loose ammonium nitrate					
b.Ammonium nitrate in cartridged form					
3.Nitro compound	Kg.				
4.Liquid Oxygen soaked cartridges	Kg.				
5.Slurry explosives (Mention different trade names)	Kg.				
6.Detonators	Nos	**X**	**X**	**X**	**X**
i) Ordinary					
ii) Electrical		**X**	**X**	**X**	**X**
(a) Ordinary					
(b) Delay					
7.Fuse	Mts	**X**	**X**	**X**	**X**
(a)Safety Fuse					
(b)Detonating Fuse					
8.Plastic ignition cord	Mts				
9.Others (specify)	(Mention the unit)				

Different sizes of soaked liquid oxygen cartridges to be equivalent kg. as per manufacturer's instruction.

1 Substituted by GSR 55(E), dated 17.1.2000

PART – V (General Geology & Mining)
(Details on items 1, 2, 6 & 7(i) may be given once in 5 years)

1. Mineral(s) worked and their characteristics : (In case more than one mineral is worked, the information asked for under (a) to (d) in respect of the remaining mineral(s) may be furnished in a separate sheet and attached with the return)

(a) Name of mineral :

[1][(b)…(c)]

[(b) Type of ore (Tick mark whichever is applicable)

(i) Lump
(ii) Fines
(iii) Friable
(iv) Granular
(v) Platy
(vi) Fibrous
(vii) Any other (specify), Powdery etc.

(c) Quality:

Chemical Analysis of Typical Grades Produced

Constituent	Grade			
	1	2	3	4
(i) Size Range				
(ii) Principal constituents				
(iii) Subsidiary Constituents				

2.(a) Name of rock/mineral excavated and disposed as waste:

(b) Name(s) of the ore/mineral excavated but not sold i.e., mineral reject:

(c) Typical analysis of mineral reject(s)

Item	1.	2.	3.	4.
Mineral reject				

[2][3. Reserves and Resources estimated at the end of the year.

Classification	Code	Quantity	Grade (as per NMI grades as indicated in the mining plan)
(1)	(2)	(3)	(4)
Total Mineral Resources (A + B)			
A. Mineral Reserve			
1. Proved Mineral Reserve	111		
2. Probable Mineral Reserve	121 and 122		
B. Remaining Resources			
1. Feasibility Mineral Resource	211		
2.Prefeasibility Mineral Resource	221 and 222		
3. Measured Mineral Resource	331		
4. Indicated Mineral Resource	332		
5. Inferred Mineral Resource	333		
6.Reconnaissance Mineral Resource	334		

Note.- For the removal of doubts, the classification terms and codes mentioned in this Form shall have the same meaning as assigned to them in the Guidelines issued by Indian Bureau of Mines in this regard.]

4. Mining Operations during the year:

4.1. Exploration

Item	Number	Meterage	Grid/Dimension (as applicable)
Drilling			
Trenching			
Pitting			

1 Omitted by GSR No.75(E), dated 9.2.2011
2 Substituted by GSR 338(E), dated 17.4.2003

4.2 Opencast

(A) Details of Benches (Separately for mechanised and manual sections)

	In ore	In OB/Waste
(i) Number of Benches		
(ii) Average height (metres)		
(iiii) Depth of the deepest working from adjacent ground (M):		

(B) (i) Total ROM Ore production (tonnes):

(ii) Mineral Rejects generated with grades (tonnes):

(C) Total quantity of Overburden/Waste removed during the year (tonnes)

	During the year	Cumulative so far
(i) Quantity back filled		
(ii) Quantity disposed of in external dumps		

4.3 Underground:

(a) Driving (metres) in ore:
(b) Cross Cutting/Footwall Drives (in barren) (Metres) :
(c) Winzing (metres):
(d) Raising (metres):
(e) Shaft sinking (metres):
(f) Stope preparation (metres):
(g) Tonnage of ore blocked for stoping (tonnes):
(h) Quantity of waste removed (tonnes):
(i) Quantity of mineral rejects generated with grade (tonnes):

Within lease area	Outside lease area

4.4 i) Number of trees planted during the year

ii) Survival rate in percentage

5. Type and aggregate Horse Power of Machinery: Give the following information for the types of machinery in use such as hoist, fans, drills, loaders, excavators, dumpers, haulages, conveyors, pumps, etc. Details of any new machinery added during the year may be furnished with cost.

Type of machinery	Capacity of each unit	No.of units	H.P. of each unit	Electrical/non electrical (specify)	Used in opencast/ underground(specify)

6.(i) Give details of future plans, if any, of exploration and development, production schedule, replacements and expansion of machinery and equipment etc.

(ii) If you have laboratory facilities for R & D and if so, give a brief description:

7.(i) Details of mineral Treatment Plant, if any. Give a brief description of the process capacity of the machinery deployed and its availability. (Enclose Flow Sheet and Material Balance of the Plant).

(ii) Furnish following information every year:

Item	Tonnage	Average Grade
Feed:		
Concentrates :		
By-products/Co-products:		
Tailings:		

8. Furnish surface and/or underground plans and sections as prepared and brought uptodate (as required under rule 28 of MCDR)

9. Please indicate the salient features which affected mining operations during the year.

PART-VI (PRODUCTION, DESPATCHES AND STOCKS)

(Unit of Quantity in Tonnes)

1. Type of ore produced:

(Tick mark, whichever is applicable)

(a) Hematite

(b) Magnetite

2. Production and Stocks of ROM ore at Mine-head

Category	Opening stock	Production	Closing stock
(a) Open Cast workings			
(b) Dump workings			

3.Grade-wise Production, Despatches ,Stocks and Ex-mine prices of Processed ore:

Grades(% of Fe content)	Opening stock at mine head	Production	Despatches from mine head	Closing stock at mine-head	Ex-mine price (Rs./ MT)
i) Lumps:-					
(a) Below 55%					
(b) 55% to below 58%					
(c) 58% to below 60%					
(d) 60% to below 62%					
(e) 62% to below 65%					
(f) 65% and above					
ii) Fines:-					
(a) Below 55%					
(b) 55% to below 58%					
(c) 58% to below 60%					
(d) 60% to below 62%					
(e) 62% to below 65%					
(f) 65% and above					
iii) Concentrates					

4. Details of Deductions used for computation of Sale price (Ex-Mine)(Rs/Tonne)

Deduction claimed	Unit (in Rs/Tonne)	Remarks
a) Cost of transportation (indicate Loading station and Distance from mine in remarks)		
b) Loading and Unloading charges		
c) Railway freight ,if applicable (indicate destination and distance)		
d) Port Handling charges/export duty(indicate name of port)		
e) Charges for Sampling and Analysis		
f) Rent for the plot at Stocking yard		
g) Other charges(specify clearly)		
Total (a) to (g)		

5. Sales/ Despatches effected for Domestic Consumption and for Exports:

Grade	Nature of Despatch (*indicate whether for [1][Sale] or Captive consumption or Export)*	For Domestic Consumption			For export		
		Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Quantity	Sale value	Country	Quantity	F.O.B Value (Rs.)

1 Inserted by GSR 55(E), dated 17.1.2000

Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer
(to indicate *separately if more than one buyer) for the top five despaches in terms of Quantity for the remaining consolidated figure shall be reported with details of despatches as annexure.*

NOTE:- Mine owners are required to substantiate domestic sale value/ FOB value for each grade of ore quoted above with copy of invoices.

6. Give reasons for increase/decrease in production/nil production (of primary or associate mineral), if any, during the month compared to the previous month.
a)
b)
c)

7. Give reasons for increase/decrease in grade wise ex-mine price (of primary or associate Mineral), if any, during the month compared to the previous month.
a)
b)
c)

PART-VII: COST OF PRODUCTION

Cost of production per tonne of ore/mineral produced

	Item	Cost Per metric tonne
(i)	Direct Cost	
	(a) Exploration	
	(b) Mining	
	(c) Beneficiation(Mechanical Only)	
(ii)	Over-head cost	
(iii)	Depreciation	
(iv)	Interest	
(v)	Royalty	
(vi)	Taxes	
(vii)	Dead Rent	
(viii)	Others (specify)	
	Total	

Note: Information given under Part VI will be kept confidential, if required. The Government, however, will be free to utilize the information for general studies without revealing the identity or working cost of the firm.

VERIFICATION

I certify that the information furnished above is correct and complete in all respects.

Place:
Date:

Signature
Name in full:
Designation: Owner/Agent/
Mining Engineer/Manager

FORM H-2

For the financial year 1st April, 20__ to 31st March,20____

ANNUAL RETURN

[See rule 45(5) (b)(ii)]

(Read the instructions carefully before filling the particulars)

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(ii) The State Government

PART – I (General)

1. Details of Mine:	
(a) Registration number allotted by Indian Bureau of Mines (*to give registration number of the mine owner/ agent/ mining engineer/ manager signing the return*)	
(b) Mine Code	
(c) Name of the Mineral	**Manganese Ore**
(d) Name of Mine	
(e) Name(s) of other mineral(s), if any, produced from the same mine	
2. Location of the Mine :	
Village	
Post Office	
Tahsil/Taluk	
District	
State and PIN Code	
Fax no:	E-mail:
Phone no:	
3. Name and Address(s) of Lessee/Owner (along with fax no. and e-mail):	
Name of Person	
Street/Village	
Post Office	
Tahsil/Taluk	
District	
State and PIN Code	
Fax no:	E-mail:
Phone No:	
4.Registered Office of the Lessee	
5. Director in charge :	
6. Agent :	
7. Manager :	
8.Mining Engineer in charge:	
9. Geologist in charge :	
10. Transferer (previous owner) if any, and date of transfer:	
11. Particulars of area operated/Lease **(Furnish information on items (i) to (v) lease-wise in case mine workings cover more than one lease)**	
(i) Area under lease (hectares):	
Under Forest	
Outside Forest	
Total	
(ii) Date of execution of mining lease deed	
(iii) Period of lease	
(iv) Area for which surface rights are held (hectares)	
(v) Date and period of renewal (if applicable)	
(vi) In case there is more than one mine in the same lease area, indicate name of mine and mineral produced	

12. Lease area (surface area) utilisation as at the end of year (hectares):	Under forest	Outside forest	Total
(i) Already exploited & abandoned by opencast (O/C) mining			
(ii) Covered under current (O/C) Workings			
(iii) Reclaimed/rehabilitated			
(iv) Used for waste disposal			
(v) Occupied by plant, buildings, residential, welfare buildings & roads			
(vi) Used for any other purpose (specify)			
(vii) Work done under progressive mine closure plan during the year			
13. Ownership/exploiting Agency of the mine: (Public Sector/Private Sector/Joint Sector)			

PART - II (Employment & Wages)

1.Number of technical and supervisory staff employed at the mine		
Description	Wholly employed	Partly employed
(i) Graduate Mining Engineer		
(ii) Diploma Mining Engineer		
(iii) Geologist		
(iv) Surveyor		
(v) Other administrative clerical and technical supervisory staff		
Total:-		
2.(i) Number of days the mine worked:		
(ii) No.of shifts per day:		
(iii) Indicate reasons for work stoppage in the mine during the year (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each of the factors separately .	Reasons	No of days

3.(i) Employment of Labour and wages paid:-

Maximum number of persons employed on any one day during the year:
(i)In workings below ground on .....(a).....
(ii)In all in the mine on .....(a).....

Classification	Total number of man days worked during the year			No. of days worked during the year	Average daily number of persons employed			Total Wages /Salary bills for the year
	Direct	Contract	Total		Male	Female	Total	
(1)	(2A)	2(B)	2(C)	(3)	4(A)	4(B)	4(C)	(5)
A. Below Ground								
i) Foreman and mining mates								
ii) Face workers and Loaders								
iii) Others								
B. Opencast workings :								
i) Foreman and mining mates								
ii) Face workers and Loaders								
iii) Others								
C. Above ground :								
(i) Clerical & Supervisory Staff. (excluding the superior supervisory staff.)								
(ii) Workers in any Attached factory, Workshop or mineral dressing plant.								
(iii) Others								
Total:								

3. (ii) Total salaries paid to technical and supervisory staff employed in the mine during the year (in Rs.)_____

PART-II A (Capital Structure)

1.Value of Fixed Assets* (Rs.'000)…….
(in respect of the mine, beneficiation plant, mine, work-shop, power and water installation)

Description	As at the beginning of the year	Additions during the Year	Sold or discarded during the year	Depreciation during the year	Net closing Balance (2+3)-(4+5)	Estimated market value**
1	2	3	4	5	6	7
(ii) Land***						
(ii) Building:						
Industrial						
Residential						
(iii) Plant and Machinery including transport equipment						
iv) Capitalised Expenditure such as pre-production exploration, development, major overhaul and repair to machinery etc.(As prescribed under Income Tax Act)						
Total						

* In case the fixed assets are common to more than one mine, furnish combined information for all such mines together in any one of the mines return and also indicate the names of other mines in which the information relates in the form provided above. In the returns for other mines, give only a cross reference to the particular mine's return where-in the information is included.

** Optional and may be furnished in respect of items (i),(ii) and (iii) if the mine owner desires.

*** Including any non recurring expenditure incurred on the acquisition of land.

2. Source of Finance (as at the end of the year) :-	
(i) Paid up Share Capital (Rs.'000)	
(ii)Own Capital (Rs.'000)	
(iii)Reserve & Surplus (All Types)	
(iv)Long Term loans outstanding	

Indicate the names of the leading institutions such as State Finance Corporation, Industrial Development and other Public Corporations, Co-operative Banks, Nationalised Banks and other sources along with the amount of loan from each source and the rate of interest at which loan has been taken.

3.Interest and Rent (in Rs.'000)	
(i) Interest paid during the year	
(ii) Rents (excluding surface rent) paid during the year	

PART - III (Consumption of Materials)

1. Quantity and cost of material consumed during the year

Description	Unit	Quantity	Value (Rs.)
(i) Fuel			
(a) Coal	Tonnes		
(b) Diesel Oil	Ltrs.		
(c) Petrol	Ltrs.		
(d) Kerosene	Ltrs.		
(e) Gas	Cu.M.		
(ii) Lubricant			
(a) Lubricant oil	Ltrs.		
(b) Grease	kgs.		
(iii) Electricity			
(a) Consumed	Kwh		
(b) Generated	Kwh		
(c) Sold	Kwh		
(iv) Explosives (furnish full details in Part IV)			
(v) Tyres	Nos.		
(vi) Timber & Supports			
(vii)Drill roads & kits	Nos.		
(viii)Other spares & stores			

2. Royalty and Rents (in' 000 Rs.):		
X	Paid for current year	Paid towards past arrears
(a) Royalty		
(b) Dead rent		
(c) Surface rent		
3. Compensation paid for felling trees during the year (in Rs)		
4. Depreciation on fixed assets Rs		

5. Taxes and cesses		
X	Amount in Rs. paid during the year to:	
X	Central Govt.	State Govt.
(i) Sales Tax		
(ii) Welfare cess		
(iii) Other taxes & cesses:-		
(a) Mineral cess		
(b) Cess on dead rent		
(c) Others (please specify)		

6. Other expenses:	
(i) Overheads	
(ii) Maintenance	
(iii) Money value of other benefits paid to workmen	
(iv) Payment made to professional agencies	

Part –IV (Consumption of Explosives)

1. Licensed capacity of magazine: (specify unit separately in kg/tonne, numbers, metres)	**Item**	**Unit**	**Capacity**
2. Total production during the year (Tonne):			
3. Overburden removed:			

Classification of Explosives	Unit	Quantity consumed during the year		Estimated requirement during the next year	
		Small dia. (upto 32 mm)	Large dia. (above 32 mm)	Small dia. (upto 32 mm)	Large dia. (above 32 mm)
1.Gun Powder	kg.				
2.Nitrate Mixture	kg.	**X**	**X**	**X**	**X**
a.Loose ammonium nitrate					
b.Ammonium nitrate in cartridged form					
3.Nitro compound	Kg.				
4.Liquid Oxygen soaked cartridges	Kg.				
5.Slurry explosives (Mention different trade names)	Kg.				
6.Detonators	Nos	**X**	**X**	**X**	**X**
i) Ordinary					
ii) Electrical		**X**	**X**	**X**	**X**
(a) Ordinary					
(b) Delay					
7.Fuse	Mts	**X**	**X**	**X**	**X**
(a)Safety Fuse					
(b)Detonating Fuse					
8.Plastic ignition cord	Mts				
9.Others (specify)	(Mention the unit)				

Different sizes of soaked liquid oxygen cartridges to be equivalent kg. as per manufacturer's instruction.

PART – V (General Geology & Mining)
(Details on items 1,2,6 & 7(i) may be given once in 5 years)

1. Mineral(s) worked and their characteristics : (In case more than one mineral is worked, the information asked for under (a) to (d) in respect of the remaining mineral(s) may be furnished in a separate sheet and attached with the return)
(a) Name of mineral :

(b) Type of ore (Tick mark whichever is applicable)

(i) Lump
(ii) Fines
(iii) Friable
(iv) Granular
(v) Platy
(vi) Fibrous
(vii) Any other (specify), Powdery etc.

(c) Quality:

Chemical Analysis of Typical Grades Produced

Constituent	Grade			
	1	2	3	4
(i) Size Range				
(ii) Principal constituents				
(iii) Subsidiary Constituents				

2.(a) Name of rock/mineral excavated and disposed as waste:

(b) Name(s) of the ore/mineral excavated but not sold i.e., mineral reject:

(c) Typical analysis of mineral reject(s)

Item	1.	2.	3.	4.
Mineral reject				

3. Reserves and Resources estimated at the end of the year.

Classification	Code	Quantity	Grade (as per NMI grades as indicated in the mining plan)
(1)	(2)	(3)	(4)
Total Mineral Resources (A + B)			
A. Mineral Reserve			
1. Proved Mineral Reserve	111		
2. Probable Mineral Reserve	121 and 122		
B. Remaining Resources			
1. Feasibility Mineral Resource	211		
2. Prefeasibility Mineral Resource	221 and 222		
3. Measured Mineral Resource	331		
4. Indicated Mineral Resource	332		
5. Inferred Mineral Resource	333		
6.Reconnaissance Mineral Resource	334		

Note.- For the removal of doubts, the classification terms and codes mentioned in this Form shall have the same meaning as assigned to them in the Guidelines issued by Indian Bureau of Mines in this regard.

4. Mining Operations during the year:

4.1. Exploration

Item	Number	Meterage	Grid/Dimension (as applicable)
Drilling			
Trenching			
Pitting			

4.2 Opencast

(A) Details of Benches (Separately for mechanised and manual sections)

	In ore	In OB/Waste
(i) Number of Benches		
(ii) Average height (metres)		
(iiii) Depth of the deepest working from adjacent ground (M):		

(B) (i) Total ROM Ore production (tonnes):

(ii) Mineral Rejects generated with grades (tonnes):

(C) Total quantity of Overburden/Waste removed during the year (tonnes)

	During the year	Cumulative so far
(i)	Quantity back filled	
(ii)	Quantity disposed of in external dumps	

4.3 Underground:

(a) Driving (metres) in ore:
(b) Cross Cutting/Footwall Drives (in barren) (Metres) :
(c) Winzing (metres):
(d) Raising (metres):
(e) Shaft sinking (metres):
(f) Stope preparation (metres):
(g) Tonnage of ore blocked for stoping (tonnes):
(h) Quantity of waste removed (tonnes):
(i) Quantity of mineral rejects generated with grade (tonnes):

Within lease area Outside lease area

4.4 i) Number of trees planted during the year
ii) Survival rate in percentage

5. Type and aggregate Horse Power of Machinery: Give the following information for the types of machinery in use such as hoist, fans, drills, loaders, excavators, dumpers, haulages, conveyors, pumps, etc. Details of any new machinery added during the year may be furnished with cost.

Type of machinery	Capacity of each unit	No.of units	H.P. of each unit	Electrical/non electrical (specify)	Used in opencast/ underground(specify)

6.(i) Give details of future plans, if any, of exploration and development, production schedule, replacements and expansion of machinery and equipment etc.
(ii) If you have laboratory facilities for R & D and if so, give a brief description:

7.(i) Details of mineral Treatment Plant, if any. Give a brief description of the process capacity of the machinery deployed and its availability. (Enclose Flow Sheet and Material Balance of the Plant).

(ii) Furnish following information every year:

Item	Tonnage	Average Grade
Feed:		
Concentrates :		
By-products/Co-products:		
Tailings:		

8. Furnish surface and/or underground plans and sections as prepared and brought uptodate (as required under rule 28 of MCDR)

9. Please indicate the salient features which affected mining operations during the year.

PART-VI (PRODUCTION, DESPATCHES AND STOCKS)

(Unit of Quantity in Tonnes)

1. Production and Stocks of ROM ore at Mine-head

Category	Opening stock	Production	Closing stock
(a) Open Cast workings			
(b) Underground workings			
(b) Dump workings			

2.Grade-wise Production, Despatches ,Stocks and Ex-mine prices of Processed ore:

Grades (% of Mn content)	**Opening stock at mine head**	**Production**	**Despatches from mine head**	**Closing stock at mine-head**	**Ex-mine price (Rs./ Metric Tonne)**
(a) Below 25%					
(b) 25% to below 35%					
(c) 35% to below 46%					
(d) 46% and above					
(e) Dioxide ore					
[1][(f) Concentrates]					

3. Details of Deductions used for computation of Ex_mine price (Rs/Metric Tonne)

Deduction claimed	Unit (in Rs/Metric tonne)	Remarks
a) Cost of transportation (indicate Loading station and Distance from mine in remarks)		
b) Loading and Unloading charges		
c) Railway freight ,if applicable (indicate destination and distance)		
d) Port Handling charges/export duty(indicate name of port)		
e) Charges for Sampling and Analysis		
f) Rent for the plot at Stocking yard		
g) Other charges(specify clearly)		
Total (a) to (g)		

4. Sales/ Despatches effected for Domestic Consumption and for Exports:

Grade	Nature of Despatch (*indicate whether for Sale or Captive consumption or Export)*	For Domestic Consumption			For export		
		Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Quantity	Sale value	Country	Quantity	F.O.B Value (Rs.)

Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer
(to indicate *separately if more than one buyer) for the top five despaches in terms of Quantity for the remaining consolidated figure shall be reported with details of despatches as annexure.*

NOTE:- Mine owners are required to substantiate domestic sale value/ FOB value for each grade of ore quoted above with copy of invoices.

5. Give reasons for increase/decrease in production/nil production (of primary or associate mineral), if any, during the month compared to the previous month.

a)
b)
c)

6. Give reasons for increase/decrease in grade wise ex-mine price (of primary or associate Mineral),if any, during the month compared to the previous month.

a)
b)
c)

1 Inserted by G.S.R.330(E) dt.10.4.2003

PART-VII: COST OF PRODUCTION

Cost of production per tonne of ore/mineral produced

	Item	Cost Per metric tonne
(i)	Direct Cost	
	(a) Exploration	
	(b) Mining	
	(c) Beneficiation(Mechanical Only)	
(ii)	Over-head cost	
(iii)	Depreciation	
(iv)	Interest	
(v)	Royalty	
(vi)	Taxes	
(vii)	Dead Rent	
(viii)	Others (specify)	
	Total	

Note: Information given under Part VI will be kept confidential, if required. The Government, however, will be free to utilize the information for general studies without revealing the identity or working cost of the firm.

VERIFICATION

I certify that the information furnished above is correct and complete in all respects.

Place: Signature
Date: Name in full:

Designation: Owner/Agent/
Mining Engineer/Manager

FORM H-3

For the financial year 1st April, 20__ to 31st March, 20____

ANNUAL RETURN
[See rule 45(5) (b)(iii)]

(Read the instructions carefully before filling the particulars)

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(ii) The State Government

PART – I (General)

1. Details of Mine:	
(a) Registration number allotted by Indian Bureau of Mines (*to give registration number of the mine owner/ agent/ mining engineer/ manager signing the return*)	
(b) Mine Code	
(c) Name of the Mineral	[1]**[Bauxite/Laterite]**
(d) Name of Mine	
(e) Name(s) of other mineral(s), if any, produced from the same mine	
2. Location of the Mine :	
Village	
Post Office	
Tahsil/Taluk	
District	
State and PIN Code	
Fax no:	E-mail:
Phone no:	
3. Name and Address(s) of Lessee/Owner (along with fax no. and e-mail):	
Name of Person	
Street/Village	
Post Office	
Tahsil/Taluk	
District	
State and PIN Code	
Fax no:	E-mail:
Phone No:	
4.Registered Office of the Lessee	
5. Director in charge :	
6. Agent :	
7. Manager :	
8.Mining Engineer in charge:	
9. Geologist in charge :	
10. Transferer (previous owner) if any, and date of transfer:	
11. Particulars of area operated/Lease **(Furnish information on items (i) to (v) lease-wise in case mine workings cover more than one lease)**	
(i) Area under lease (hectares):	
Under Forest	
Outside Forest	

1 Substituted by G.S.R. 330(E), dated 10.4.2003

Total			
(ii) Date of execution of mining lease deed			
(iii) Period of lease			
(iv) Area for which surface rights are held (hectares)			
(v) Date and period of renewal (if applicable)			
(vi) In case there is more than one mine in the same lease area, indicate name of mine and mineral produced			
12. Lease area (surface area) utilisation as at the end of year (hectares):	Under forest	Outside forest	Total
(i) Already exploited & abandoned by opencast (O/C) mining			
(ii) Covered under current (O/C) Workings			
(iii) Reclaimed/rehabilitated			
(iv) Used for waste disposal			
(v) Occupied by plant, buildings, residential, welfare buildings & roads			
(vi) Used for any other purpose (specify)			
(vii) Work done under progressive mine closure plan during the year			
13. Ownership/exploiting Agency of the mine: (Public Sector/Private Sector/Joint Sector)			

PART - II (Employment & Wages)

1.Number of technical and supervisory staff employed at the mine		
Description	Wholly employed	Partly employed
(i) Graduate Mining Engineer		
(ii) Diploma Mining Engineer		
(iii) Geologist		
(iv) Surveyor		
(v) Other administrative clerical and technical supervisory staff		
Total:-		
2.(i) Number of days the mine worked:		
(ii) No.of shifts per day:		
(iii) Indicate reasons for work stoppage in the mine during the year (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each of the factors separately .	Reasons	No of days

3.(i) Employment of Labour and wages paid:-

Maximum number of persons employed on any one day during the year:
(i)In workings below ground on .....(a).....
(ii)In all in the mine on .....(a).....

Classification	Total number of man days worked during the year			No. of days worked during the year	Average daily number of persons employed		Total Wages /Salary bills for the year	
	Direct	Contract	Total		Male	Female	Total	
(1)	(2A)	2(B)	2(C)	(3)	4(A)	4(B)	4(C)	(5)
A. Below Ground								
i) Foreman and mining mates								
ii) Face workers and Loaders								
iii) Others								
B. Opencast workings :								
i) Foreman and mining mates								
ii) Face workers and Loaders								
iii) Others								
C. Above ground :								
(i) Clerical & Supervisory Staff. (excluding the superior supervisory staff.)								
(ii) Workers in any Attached factory, Workshop or mineral dressing plant.								
(iii) Others								
Total:								

3. (ii) Total salaries paid to technical and supervisory staff employed in the mine during the year (in Rs.)_____

PART-II A (Capital Structure)

1.Value of Fixed Assets* (Rs.'000)……
(in respect of the mine, beneficiation plant, mine, work-shop, power and water installation)

Description	As at the beginning of the year	Additions during the Year	Sold or discarded during the year	Depreciation during the year	Net closing Balance (2+3)-(4+5)	Estimated market value**
1	2	3	4	5	6	7
(iii) Land***						
(ii) Building:						
Industrial						
Residential						
(iii) Plant and Machinery including transport equipment						
iv) Capitalised Expenditure such as pre-production exploration, development, major overhaul and repair to machinery etc.(As prescribed under Income Tax Act)						
Total						

* In case the fixed assets are common to more than one mine, furnish combined information for all such mines together in any one of the mines return and also indicate the names of other mines in which the information relates in the form provided above. In the returns for other mines, give only a cross reference to the particular mine's return where-in the information is included.

** Optional and may be furnished in respect of items (i),(ii) and (iii) if the mine owner desires.

*** Including any non recurring expenditure incurred on the acquisition of land.

2. Source of Finance (as at the end of the year) :-	
(i) Paid up Share Capital (Rs.'000)	
(ii)Own Capital (Rs.'000)	
(iii)Reserve & Surplus (All Types)	
(iv)Long Term loans outstanding	

Indicate the names of the leading institutions such as State Finance Corporation, Industrial Development and other Public Corporations, Co-operative Banks, Nationalised Banks and other sources along with the amount of loan from each source and the rate of interest at which loan has been taken.

3.Interest and Rent (in Rs.'000)	
(i) Interest paid during the year	
(ii) Rents (excluding surface rent) paid during the year	

PART - III (Consumption of Materials)

1. Quantity and cost of material consumed during the year

Description	Unit	Quantity	Value (Rs.)
(i) Fuel			
(a) Coal	Tonnes		
(b) Diesel Oil	*l*		
(c) Petrol	*l*		
(d) Kerosene	*l*		
(e) Gas	Cu m		
(ii) Lubricant			
(a) Lubricant oil	*l*		
(b) Grease	kg		
(iii) Electricity			
(a) Consumed	kWh		
(b) Generated	kWh		
(c) Sold	kWh		
(iv) Explosives (furnish full details in Part IV)			
(v) Tyres	Nos.		
(vi) Timber & Supports			
(vii)Drill roads & kits	Nos.		
(viii)Other spares & stores			

2. Royalty and Rents (in' 000 Rs.):

X	Paid for current year	Paid towards past arrears
(a) Royalty		
(b) Dead rent		
(c) Surface rent		
3. Compensation paid for felling trees during the year (in Rs)		
4. Depreciation on fixed assets Rs		

5. Taxes and cesses		
X	Amount in Rs. paid during the year to:	
X	Central Govt.	State Govt.
(i) Sales Tax		
(ii) Welfare cess		
(iii) Other taxes & cesses:-		
(a) Mineral cess		
(b) Cess on dead rent		
(c) Others (please specify)		
6. Other expenses:		
(i) Overheads		
(ii) Maintenance		
(iii) Money value of other benefits paid to workmen		
(iv) Payment made to professional agencies		

Part –IV (Consumption of Explosives)

1. Licensed capacity of magazine: (specify unit separately in kg/tonne, numbers, metres)	**Item**	**Unit**	**Capacity**
2. Total production during the year (Tonne):			
3. Overburden removed:			

Classification of Explosives	Unit	Quantity consumed during the year		Estimated requirement during the next year	
		Small dia. (upto 32 mm)	Large dia. (above 32 mm)	Small dia. (upto 32 mm)	Large dia. (above 32 mm)
1.Gun Powder	kg				
2.Nitrate Mixture	kg	**X**	**X**	**X**	**X**
a.Loose ammonium nitrate					
b.Ammonium nitrate in cartridged form					
3.Nitro compound	kg				
4.Liquid Oxygen soaked cartridges	kg				
5.Slurry explosives (Mention different trade names)	kg				
6.Detonators	Nos.	**X**	**X**	**X**	**X**
i) Ordinary					
ii) Electrical		**X**	**X**	**X**	**X**
(a) Ordinary					
(b) Delay					
7.Fuse	Mts	**X**	**X**	**X**	**X**
(a)Safety Fuse					
(b)Detonating Fuse					
8.Plastic ignition cord	Mts				
9.Others (specify)	(Mention the unit)				

Different sizes of soaked liquid oxygen cartridges to be equivalent kg. as per manufacturer's instruction.

PART – V (General Geology & Mining)
(Details on items 1, 2, 6 & 7(i) may be given once in 5 years)

1. Mineral(s) worked and their characteristics : (In case more than one mineral is worked, the information asked for under (a) to (d) in respect of the remaining mineral(s) may be furnished in a separate sheet and attached with the return)

(a) Name of mineral :

(b) Type of ore (Tick mark whichever is applicable)

(i) Lump

(ii) Fines

(iii) Friable
(iv) Granular
(v) Platy
(vi) Fibrous
(vii) Any other (specify), Powdery etc.

(c) Quality:

Chemical Analysis of Typical Grades Produced

Constituent	Grade			
	1	2	3	4
(i) Size Range				
(ii) Principal constituents				
(iii) Subsidiary Constituents				

2.(a) Name of rock/mineral excavated and disposed as waste:
(b) Name(s) of the ore/mineral excavated but not sold i.e., mineral reject:
(c) Typical analysis of mineral reject(s)

Item	1.	2.	3.	4.
Mineral reject				

3. Reserves and Resources estimated at the end of the year.

Classification	Code	Quantity	Grade (as per NMI grades as indicated in the mining plan)
(1)	(2)	(3)	(4)
Total Mineral Resources (A + B)			
A. Mineral Reserve			
1. Proved Mineral Reserve	111		
2. Probable Mineral Reserve	121 and 122		
B. Remaining Resources			
1. Feasibility Mineral Resource	211		
2. Prefeasibility Mineral Resource	221 and 222		
3. Measured Mineral Resource	331		
4. Indicated Mineral Resource	332		
5. Inferred Mineral Resource	333		
6.Reconnaissance Mineral Resource	334		

Note.- For the removal of doubts, the classification terms and codes mentioned in this Form shall have the same meaning as assigned to them in the Guidelines issued by Indian Bureau of Mines in this regard.

4. Mining Operations during the year:

4.1. Exploration

Item	Number	Meterage	Grid/Dimension (as applicable)
Drilling			
Trenching			
Pitting			

4.2 Opencast

(A) Details of Benches (Separately for mechanised and manual sections)

	In ore	In OB/Waste
(i) Number of Benches		
(ii) Average height (metres)		
(iii) Depth of the deepest working from adjacent ground (M):		

(B) (i) Total ROM Ore production (tonnes):
(ii) Mineral Rejects generated with grades (tonnes):

(C) Total quantity of Overburden/Waste removed during the year (tonnes)

	During the year	Cumulative so far
(i)	Quantity back filled	
(ii)	Quantity disposed of in external dumps	

4.3 Underground:

(a) Driving (metres) in ore:
(b) Cross Cutting/Footwall Drives (in barren) (Metres) :
(c) Winzing (metres):
(d) Raising (metres):
(e) Shaft sinking (metres):
(f) Stope preparation (metres):
(g) Tonnage of ore blocked for stoping (tonnes):
(h) Quantity of waste removed (tonnes):
(i) Quantity of mineral rejects generated with grade (tonnes):

Within lease area Outside lease area

4.4 i) Number of trees planted during the year
ii) Survival rate in percentage

5. Type and aggregate Horse Power of Machinery: Give the following information for the types of machinery in use such as hoist, fans, drills, loaders, excavators, dumpers, haulages, conveyors, pumps, etc. Details of any new machinery added during the year may be furnished with cost.

Type of machinery	Capacity of each unit	No.of units	H.P. of each unit	Electrical/non electrical (specify)	Used in opencast/ underground(specify)

6.(i) Give details of future plans, if any, of exploration and development, production schedule, replacements and expansion of machinery and equipment etc.
(ii) If you have laboratory facilities for R & D and if so, give a brief description:

7.(i) Details of mineral Treatment Plant, if any. Give a brief description of the process capacity of the machinery deployed and its availability. (Enclose Flow Sheet and Material Balance of the Plant).

(ii) Furnish following information every year:

Item	Tonnage	Average Grade
Feed:		
Concentrates :		
By-products/Co-products:		
Tailings:		

8. Furnish surface and/or underground plans and sections as prepared and brought uptodate (as required under rule 28 of MCDR)

9. Please indicate the salient features which affected mining operations during the year.

PART-VI (PRODUCTION, DESPATCHES AND STOCKS)

(Unit of Quantity in Tonnes)

1. Production and Stocks of ROM ore at Mine-head

Category	Opening stock	Production	Closing stock
(a) Open Cast workings			
(b) Underground workings			
(b) Dump workings			

2.Grade-wise Production, Despatches, Stocks and Ex-mine prices of Processed ore:

[1][Grades (% of Al_2O_3 content)	Opening stock at mine head	Production	Despatches from mine head	Closing stock at mine-head	Ex-mine price (Rs./ Metric Tonne)
(B) For use in alumina and aluminium extraction:- (Please furnish averages of the following ranges of grades):					
(a) Below 40%					
(b) 40% to below 45%					
(c) 45% to below 50%					
(d) 50% to below 55%					
(e) 55% to below 60%					
(f) 60% and above					
(B) For use other than alumina and aluminium metal extraction					
(a) Cement					
(b) Abrasive					
(c) Refractory					
(d) Chemical]					

3. Details of Deductions used for computation of Ex_mine price (Rs/Metric Tonne)

Deduction claimed	Unit (in Rs/Metric Tonne)	Remarks
a) Cost of transportation (indicate Loading station and Distance from mine in remarks)		
b) Loading and Unloading charges		
c) Railway freight ,if applicable (indicate destination and distance)		
d) Port Handling charges/export duty(indicate name of port)		
e) Charges for Sampling and Analysis		
f) Rent for the plot at Stocking yard		
g) Other charges(specify clearly)		
Total (a) to (g)		

4. Sales/ Despatches effected for Domestic Consumption and for Exports:

Grade	Nature of Despatch (indicate whether for [2][Sale] or Captive consumption or Export)	For Domestic Consumption			For export		
		Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Quantity	Sale value	Country	Quantity	F.O.B Value (Rs.)

Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer (to indicate *separately if more than one buyer) for the top five despaches in terms of Quantity ,for the remaining consolidated figure shall be reported with details of despatches as annexure.*

NOTE:- Mine owners are required to substantiate domestic sale value/ FOB value for each grade of ore quoted above with copy of invoices.

1. Substituted by GSR 330(E), dated 10.4.2003 2. Inserted by G.S.R. 55(E), dated 17.1.2000.

5. Give reasons for increase/decrease in production/nil production (of primary or associate mineral), if any, during the month compared to the previous month.
a)
b)

6. Give reasons for increase/decrease in grade wise ex-mine price (of primary or associate Mineral),if any, during the month compared to the previous month.
a)
b)

PART-VII: COST OF PRODUCTION

Cost of production per tonne of ore/mineral produced

	Item	Cost Per metric tonne
(i)	Direct Cost	
	(a) Exploration	
	(b) Mining	
	(c) Beneficiation(Mechanical Only)	
(ii)	Over-head cost	
(iii)	Depreciation	
(iv)	Interest	
(v)	Royalty	
(vi)	Taxes	
(vii)	Dead Rent	
(viii)	Others (specify)	
	Total	

Note: Information given under Part VI will be kept confidential, if required. The Government, however, will be free to utilize the information for general studies without revealing the identity or working cost of the firm.

VERIFICATION

I certify that the information furnished above is correct and complete in all respects.

Place:
Date:

Signature
Name in full:
Designation: Owner/Agent/
Mining Engineer/Manager

FORM H-4

For the financial year 1st April, 20__ to 31st March, 20____

ANNUAL RETURN
[See rule 45(5) (b)(iv)]

(Read the instructions carefully before filling the particulars)

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(ii) The State Government

PART – I (General)

1. Details of Mine:	
(a) Registration number allotted by Indian Bureau of Mines (*to give registration number of the mine owner/ agent/ mining engineer/ manager signing the return*)	
(b) Mine Code	
(c) Name of the Mineral	**Chromite**
(d) Name of Mine	
(e) Name(s) of other mineral(s), if any, produced from the same mine	
2. Location of the Mine :	
Village	
Post Office	
Tahsil/Taluk	
District	
State and PIN Code	
Fax no:	E-mail:
Phone no:	
3. Name and Address(s) of Lessee/Owner (along with fax no. and e-mail):	
Name of Person	
Street/Village	
Post Office	
Tahsil/Taluk	
District	
State and PIN Code	
Fax no:	E-mail:
Phone No:	
4.Registered Office of the Lessee	
5. Director in charge :	
6. Agent :	
7. Manager :	
8.Mining Engineer in charge:	
9. Geologist in charge :	
10. Transferer (previous owner) if any, and date of transfer:	
11. Particulars of area operated/Lease **(Furnish information on items (i) to (v) lease-wise in case mine workings cover more than one lease)**	
(i) Area under lease (hectares):	
Under Forest	
Outside Forest	
Total	
(ii) Date of execution of mining lease deed	
(iii) Period of lease	
(iv) Area for which surface rights are held (hectares)	
(v) Date and period of renewal (if applicable)	

(vi) In case there is more than one mine in the same lease area, indicate name of mine and mineral produced			
12. Lease area (surface area) utilisation as at the end of year (hectares):	Under forest	Outside forest	Total
(i) Already exploited & abandoned by opencast (O/C) mining			
(ii) Covered under current (O/C) Workings			
(iii) Reclaimed/rehabilitated			
(iv) Used for waste disposal			
(v) Occupied by plant, buildings, residential, welfare buildings & roads			
(vi) Used for any other purpose (specify)			
(vii) Work done under progressive mine closure plan during the year			
13. Ownership/exploiting Agency of the mine: (Public Sector/Private Sector/Joint Sector)			

PART - II (Employment & Wages)

1.Number of technical and supervisory staff employed at the mine		
Description	Wholly employed	Partly employed
(i) Graduate Mining Engineer		
(ii) Diploma Mining Engineer		
(iii) Geologist		
(iv) Surveyor		
(v) Other administrative clerical and technical supervisory staff		
Total:-		
2.(i) Number of days the mine worked:		
(ii) No.of shifts per day:		
(iii) Indicate reasons for work stoppage in the mine during the year (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each of the factors separately .	Reasons	No of days

3.(i) Employment of Labour and wages paid:-

Maximum number of persons employed on any one day during the year:
(i)In workings below ground on .....(a).....
(ii)In all in the mine on .....(a).....

Classification	Total number of man days worked during the year			No. of days worked during the year	Average daily number of persons employed			Total Wages / Salary bills for the year
	Direct	Contract	Total		Male	Female	Total	
(1)	(2A)	2(B)	2(C)	(3)	4(A)	4(B)	4(C)	(5)
A. Below Ground								
i) Foreman and mining mates								
ii) Face workers and Loaders								
iii) Others								
B. Opencast workings :								
i) Foreman and mining mates								
ii) Face workers and Loaders								
iii) Others								
C. Above ground :								
(i) Clerical & Supervisory Staff. (excluding the superior supervisory staff.)								
(ii) Workers in any Attached factory, Workshop or mineral dressing plant.								
(iii) Others								
Total:								

3. (ii) Total salaries paid to technical and supervisory staff employed in the mine during the year (in Rs.)_____

PART-II A (Capital Structure)

1.Value of Fixed Assets* (Rs.'000)……
(in respect of the mine, beneficiation plant, mine, work-shop, power and water installation)

Description	As at the beginning of the year	Additions during the Year	Sold or discarded during the year	Depreciation during the year	Net closing Balance (2+3)-(4+5)	Estimated market value**
1	2	3	4	5	6	7
(iv) Land***						
(ii) Building:						
Industrial						
Residential						
(iii) Plant and Machinery including transport equipment						
iv) Capitalised Expenditure such as pre-production exploration, development, major overhaul and repair to machinery etc.(As prescribed under Income Tax Act)						
Total						

* In case the fixed assets are common to more than one mine, furnish combined information for all such mines together in any one of the mines return and also indicate the names of other mines in which the information relates in the form provided above. In the returns for other mines, give only a cross reference to the particular mine's return where-in the information is included.

** Optional and may be furnished in respect of items (i),(ii) and (iii) if the mine owner desires.

*** Including any non recurring expenditure incurred on the acquisition of land.

2. Source of Finance (as at the end of the year) :-	
(i) Paid up Share Capital (Rs.'000)	
(ii)Own Capital (Rs.'000)	
(iii)Reserve & Surplus (All Types)	
(iv)Long Term loans outstanding	

Indicate the names of the leading institutions such as State Finance Corporation, Industrial Development and other Public Corporations, Co-operative Banks, Nationalised Banks and other sources along with the amount of loan from each source and the rate of interest at which loan has been taken.

3.Interest and Rent (in Rs.'000)	
(i) Interest paid during the year	
(ii) Rents (excluding surface rent) paid during the year	

PART - III (Consumption of Materials)

1. Quantity and cost of material consumed during the year

Description	Unit	Quantity	Value (Rs.)
(i) Fuel			
(a) Coal	Tonnes		
(b) Diesel Oil	Ltrs.		
(c) Petrol	Ltrs.		
(d) Kerosene	Ltrs.		
(e) Gas	Cu.M.		
(ii) Lubricant			
(a) Lubricant oil	Ltrs.		
(b) Grease	kgs.		
(iii) Electricity			
(a) Consumed	Kwh		
(b) Generated	Kwh		
(c) Sold	Kwh		
(iv) Explosives (furnish full details in Part IV)			
(v) Tyres	Nos.		
(vi) Timber & Supports			
(vii)Drill roads & kits	Nos.		
(viii)Other spares & stores			

2. Royalty and Rents (in' 000 Rs.):		
X	Paid for current year	Paid towards past arrears
(a) Royalty		
(b) Dead rent		
(c) Surface rent		
3. Compensation paid for felling trees during the year (in Rs)		
4. Depreciation on fixed assets Rs		

5. Taxes and cesses		
X	Amount in Rs. paid during the year to:	
X	Central Govt.	State Govt.
(i) Sales Tax		
(ii) Welfare cess		
(iii) Other taxes & cesses:-		
(a) Mineral cess		
(b) Cess on dead rent		
(c) Others (please specify)		

6. Other expenses:	
(i) Overheads	
(ii) Maintenance	
(iii) Money value of other benefits paid to workmen	
(iv) Payment made to professional agencies	

Part –IV (Consumption of Explosives)

1. Licensed capacity of magazine: (specify unit separately in kg/tonne, numbers, metres)	**Item**	**Unit**	**Capacity**
2. Total production during the year (Tonne):			
3. Overburden removed:			

Classification of Explosives	Unit	Quantity consumed during the year		Esitmated requirement during the next year	
		Small dia. (upto 32 mm)	Large dia. (above 32 mm)	Small dia. (upto 32 mm)	Large dia. (above 32 mm)
1.Gun Powder	kg.				
2.Nitrate Mixture	kg.	**X**	**X**	**X**	**X**
a.Loose ammonium nitrate					
b.Ammonium nitrate in cartridged form					
3.Nitro compound	Kg.				
4.Liquid Oxygen soaked cartridges	Kg.				
5.Slurry explosives (Mention different trade names)	Kg.				
6.Detonators	Nos	**X**	**X**	**X**	**X**
i) Ordinary					
ii) Electrical		**X**	**X**	**X**	**X**
(a) Ordinary					
(b) Delay					
7.Fuse	Mts	**X**	**X**	**X**	**X**
(a)Safety Fuse					
(b)Detonating Fuse					
8.Plastic ignition cord	Mts				
9.Others (specify)	(Mention the unit)				

Different sizes of soaked liquid oxygen cartridges to be equivalent kg. as per manufacturer's instruction.

PART – V (General Geology & Mining)
(Details on items 1,2,6 & 7(i) may be given once in 5 years)

1. Mineral(s) worked and their characteristics : (In case more than one mineral is worked, the information asked for under (a) to (d) in respect of the remaining mineral(s) may be furnished in a separate sheet and attached with the return)
(a) Name of mineral :
(b) Type of ore (Tick mark whichever is applicable)

(i) Lump
(ii) Fines
(iii) Friable
(iv) Granular
(v) Platy
(vi) Fibrous
(vii) Any other (specify), Powdery etc.

(c) Quality:

Chemical Analysis of Typical Grades Produced

Constituent	Grade			
	1	2	3	4
(i) Size Range				
(ii) Principal constituents				
(iii) Subsidiary Constituents				

2.(a) Name of rock/mineral excavated and disposed as waste:
(b) Name(s) of the ore/mineral excavated but not sold i.e., mineral reject:
(c) Typical analysis of mineral reject(s)

Item	1.	2.	3.	4.
Mineral reject				

3. Reserves and Resources estimated at the end of the year.

Classification	Code	Quantity	Grade (as per NMI grades as indicated in the mining plan)
(1)	(2)	(3)	(4)
Total Mineral Resources (A + B)			
A. Mineral Reserve			
1. Proved Mineral Reserve	111		
2. Probable Mineral Reserve	121 and 122		
B. Remaining Resources			
1. Feasibility Mineral Resource	211		
2. Prefeasibility Mineral Resource	221 and 222		
3. Measured Mineral Resource	331		
4. Indicated Mineral Resource	332		
5. Inferred Mineral Resource	333		
6.Reconnaissance Mineral Resource	334		

Note.- For the removal of doubts, the classification terms and codes mentioned in this Form shall have the same meaning as assigned to them in the Guidelines issued by Indian Bureau of Mines in this regard.

4. Mining Operations during the year:

4.1. Exploration

Item	Number	Meterage	Grid/Dimension (as applicable)
Drilling			
Trenching			
Pitting			

4.2 Opencast

(A) Details of Benches (Separately for mechanised and manual sections)

	In ore	In OB/Waste
(i) Number of Benches		
(ii) Average height (metres)		
(iiii) Depth of the deepest working from adjacent ground (M):		

(B) (i) Total ROM Ore production (tonnes):
(ii) Mineral Rejects generated with grades (tonnes):

(C) Total quantity of Overburden/Waste removed during the year (tonnes)

		During the year	Cumulative so far
(i)	Quantity back filled		
(ii)	Quantity disposed of in external dumps		

4.3 Underground:

(a) Driving (metres) in ore:
(b) Cross Cutting/Footwall Drives (in barren) (Metres) :
(c) Winzing (metres):
(d) Raising (metres):
(e) Shaft sinking (metres):
(f) Stope preparation (metres):
(g) Tonnage of ore blocked for stoping (tonnes):
(h) Quantity of waste removed (tonnes):
(i) Quantity of mineral rejects generated with grade (tonnes):

	Within lease area	Outside lease area
4.4 i) Number of trees planted during the year		
ii) Survival rate in percentage		

5. Type and aggregate Horse Power of Machinery: Give the following information for the types of machinery in use such as hoist, fans, drills, loaders, excavators, dumpers, haulages, conveyors, pumps, etc. Details of any new machinery added during the year may be furnished with cost.

Type of machinery	Capacity of each unit	No.of units	H.P. of each unit	Electrical/non electrical (specify)	Used in opencast/ underground(specify)

6.(i) Give details of future plans, if any, of exploration and development, production schedule, replacements and expansion of machinery and equipment etc.
(ii) If you have laboratory facilities for R & D and if so, give a brief description:

7.(i) Details of mineral Treatment Plant, if any. Give a brief description of the process capacity of the machinery deployed and its availability. (Enclose Flow Sheet and Material Balance of the Plant).

(ii) Furnish following information every year:

Item	Tonnage	Average Grade
Feed:		
Concentrates :		
By-products/Co-products:		
Tailings:		

8. Furnish surface and/or underground plans and sections as prepared and brought uptodate (as required under rule 28 of MCDR)

9. Please indicate the salient features which affected mining operations during the year.

PART-VI (PRODUCTION, DESPATCHES AND STOCKS)

(Unit of Quantity in Tonnes)

1. Production and Stocks of ROM ore at Mine-head

Category	**Opening stock**	**Production**	**Closing stock**
(a) Open Cast workings			
(b) Underground workings			
(b) Dump workings			

2.Grade-wise Production, Despatches ,Stocks and Ex-mine prices of Processed ore:

1[Grades(% of Cr_2O_3 content)	**Opening stock at mine head**	**Production**	**Despatches from mine head**	**Closing stock at mine-head**	**Ex-mine price (Rs./ Metric Tonne)**
A. Lumps:-					

1 Substituted by G.S.R. 330 (E), dated 10.4.2003.

(a) Below 40% Cr_2O_3					
(b) 40% to below 52 % Cr_2O_3					
(c) 52% Cr_2O_3 and above					
B. Fines:-					
(a) Below 40% Cr_2O_3					
(b) 40% to below 52 % Cr_2O_3					
(c) 52% Cr_2O_3 and above					
C. Concentrates]					

3. Details of Deductions used for computation of Ex_mine price (Rs/Metric Tonne)

Deduction claimed	Unit (in Rs/Metric Tonne)	Remarks
a) Cost of transportation (indicate Loading station and Distance from mine in remarks)		
b) Loading and Unloading charges		
c) Railway freight ,if applicable (indicate destination and distance)		
d) Port Handling charges/export duty(indicate name of port)		
e) Charges for Sampling and Analysis		
f) Rent for the plot at Stocking yard		
g) Other charges(specify clearly)		
Total (a) to (g)		

4. Sales/ Despatches effected for Domestic Consumption and for Exports:

Grade	Nature of Despatch (indicate whether for 1[Sale] or Captive consumption or Export)	For Domestic Consumption			For export		
		Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Quantity	Sale value	Country	Quantity	F.O.B Value (Rs.)

Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer (to indicate *separately if more than one buyer) for the top five despaches in terms of Quantity, for the remaining consolidated figure shall be reported with details of despatches as annexure.*

NOTE:- Mine owners are required to substantiate domestic sale value/ FOB value for each grade of ore quoted above with copy of invoices.

5. Give reasons for increase/decrease in production/nil production (of primary or associate mineral), if any, during the month compared to the previous month.

a)

b)

6. Give reasons for increase/decrease in grade wise ex-mine price (of primary or associate Mineral),if any, during the month compared to the previous month.

a)

b)

PART-VII: COST OF PRODUCTION

Cost of production per tonne of ore/mineral produced

	Item	Cost Per metric tonne
(i)	Direct Cost	
	(a) Exploration	
	(b) Mining	
	(c) Beneficiation(Mechanical Only)	
(ii)	Over-head cost	
(iii)	Depreciation	
(iv)	Interest	
(v)	Royalty	

1. Insterted by G.S.R. 55(E), dated 17.1.2000

(vi)	Taxes	
(vii)	Dead Rent	
(viii)	Others (specify)	
	Total	

Note: Information given under Part VI will be kept confidential, if required. The Government, however, will be free to utilize the information for general studies without revealing the identity or working cost of the firm.

VERIFICATION

I certify that the information furnished above is correct and complete in all respects.

Place: Signature
Date: Name in full:

Designation: Owner/Agent/
Mining Engineer/Manager";

FORM H-5

For the financial year 1st April, 20__ to 31st March, 20____

ANNUAL RETURN

[See rule 45(5) (b)(v)]

(Read the instructions carefully before filling the particulars)

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(ii) The State Government

PART – I (General)

1. Details of Mine:	
(a) Registration number allotted by Indian Bureau of Mines (*to give registration number of the mine owner/ agent/ mining engineer/ manager signing the return*)	
(b) Mine Code	
(c) Name of the Mineral	**Copper/Gold/Lead/Pyrites/Tin/Tungsten/Zinc**
(d) Name of Mine	
(e) Name(s) of other mineral(s), if any, produced from the same mine	
2. Location of the Mine :	
Village	
Post Office	
Tahsil/Taluk	
District	
State and PIN Code	
Fax no:	E-mail:
Phone no:	
3. Name and Address(s) of Lessee/Owner (along with fax no. and e-mail):	
Name of Person	
Street/Village	
Post Office	
Tahsil/Taluk	
District	
State and PIN Code	
Fax no:	E-mail:
Phone No:	
4.Registered Office of the Lessee	
5. Director in charge :	
6. Agent :	
7. Manager :	
8.Mining Engineer in charge:	
9. Geologist in charge :	
10. Transferer (previous owner) if any, and date of transfer:	
11. Particulars of area operated/Lease **(Furnish information on items (i) to (v) lease-wise in case mine workings cover more than one lease)**	
(i) Area under lease (hectares):	
Under Forest	
Outside Forest	
Total	
(ii) Date of execution of mining lease deed	
(iii) Period of lease	
(iv) Area for which surface rights are held (hectares)	

(v) Date and period of renewal (if applicable)			
(vi) In case there is more than one mine in the same lease area, indicate name of mine and mineral produced			
12. Lease area (surface area) utilisation as at the end of year (hectares):	Under forest	Outside forest	Total
(i) Already exploited & abandoned by opencast (O/C) mining			
(ii) Covered under current (O/C) Workings			
(iii) Reclaimed/rehabilitated			
(iv) Used for waste disposal			
(v) Occupied by plant, buildings, residential, welfare buildings & roads			
(vi) Used for any other purpose (specify)			
(vii) Work done under progressive mine closure plan during the year			
13. Ownership/exploiting Agency of the mine: (Public Sector/Private Sector/Joint Sector)			

PART - II (Employment & Wages)

1.Number of technical and supervisory staff employed at the mine		
Description	Wholly employed	Partly employed
(i) Graduate Mining Engineer		
(ii) Diploma Mining Engineer		
(iii) Geologist		
(iv) Surveyor		
(v) Other administrative clerical and technical supervisory staff		
Total:-		
2.(i) Number of days the mine worked:		
(ii) No.of shifts per day:		
(iii) Indicate reasons for work stoppage in the mine during the year (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each of the factors separately .	Reasons	No of days

3.(i) Employment of Labour and wages paid:-

Maximum number of persons employed on any one day during the year:
(i)In workings below ground on .....(a).....
(ii)In all in the mine on .....(a).....

Classification	Total number of man days worked during the year			No. of days worked during the year	Average daily number of persons employed			Total Wages /Salary bills for the year
	Direct	Contract	Total		Male	Female	Total	
(1)	(2A)	2(B)	2(C)	(3)	4(A)	4(B)	4(C)	(5)
A. Below Ground								
i) Foreman and mining mates								
ii) Face workers and Loaders								
iii) Others								
B. Opencast workings :								
i) Foreman and mining mates								
ii) Face workers and Loaders								
iii) Others								
C. Above ground :								
(i) Clerical & Supervisory Staff. (excluding the superior supervisory staff.)								

(ii) Workers in any Attached factory, Workshop or mineral dressing plant.								
(iii) Others								
Total:								

3. (ii) Total salaries paid to technical and supervisory staff employed in the mine during the year (in Rs.)_____

PART-II A (Capital Structure)

1.Value of Fixed Assets* (Rs.'000)……
(in respect of the mine, beneficiation plant, mine, work-shop, power and water installation)

Description	As at the beginning of the year	Additions during the Year	Sold or discarded during the year	Depreciation during the year	Net closing Balance (2+3)-(4+5)	Estimated market value**
1	2	3	4	5	6	7
(v) Land***						
(ii) Building:						
Industrial						
Residential						
(iii) Plant and Machinery including transport equipment						
iv) Capitalised Expenditure such as pre-production exploration, development, major overhaul and repair to machinery etc.(As prescribed under Income Tax Act)						
Total						

* In case the fixed assets are common to more than one mine, furnish combined information for all such mines together in any one of the mines return and also indicate the names of other mines in which the information relates in the form provided above. In the returns for other mines, give only a cross reference to the particular mine's return where-in the information is included.

** Optional and may be furnished in respect of items (i),(ii) and (iii) if the mine owner desires.

*** Including any non recurring expenditure incurred on the acquisition of land.

2. Source of Finance (as at the end of the year) :-	
(i) Paid up Share Capital (Rs.'000)	
(ii)Own Capital (Rs.'000)	
(iii)Reserve & Surplus (All Types)	
(iv)Long Term loans outstanding	

Indicate the names of the leading institutions such as State Finance Corporation, Industrial Development and other Public Corporations, Co-operative Banks, Nationalised Banks and other sources along with the amount of loan from each source and the rate of interest at which loan has been taken.

3.Interest and Rent (in Rs.'000)	
(i) Interest paid during the year	
(ii) Rents (excluding surface rent) paid during the year	

PART - III (Consumption of Materials)

1. Quantity and cost of material consumed during the year

Description	Unit	Quantity	Value (Rs.)
(i) Fuel			
(a) Coal	Tonnes		
(b) Diesel Oil	Ltrs.		
(c) Petrol	Ltrs.		
(d) Kerosene	Ltrs.		
(e) Gas	Cu.M.		
(ii) Lubricant			
(a) Lubricant oil	Ltrs.		
(b) Grease	kgs.		
(iii) Electricity			
(a) Consumed	Kwh		
(b) Generated	Kwh		
(c) Sold	Kwh		
(iv) Explosives (furnish full details in Part IV)			

(v) Tyres	Nos.		
(vi) Timber & Supports			
(vii)Drill roads & kits	Nos.		
(viii)Other spares & stores			

2. Royalty and Rents (in' 000 Rs.):		
X	Paid for current year	Paid towards past arrears
(a) Royalty		
(b) Dead rent		
(c) Surface rent		
3. Compensation paid for felling trees during the year (in Rs)		
4. Depreciation on fixed assets Rs		

5. Taxes and cesses		
X	Amount in Rs. paid during the year to:	
X	Central Govt.	State Govt.
(i) Sales Tax		
(ii) Welfare cess		
(iii) Other taxes & cesses:-		
(a) Mineral cess		
(b) Cess on dead rent		
(c) Others (please specify)		
6. Other expenses:		
(i) Overheads		
(ii) Maintenance		
(iii) Money value of other benefits paid to workmen		
(iv) Payment made to professional agencies		

Part –IV (Consumption of Explosives)

1. Licensed capacity of magazine: (specify unit separately in kg/tonne, numbers, metres)	**Item**	**Unit**	**Capacity**
2. Total production during the year (Tonne):			
3. Overburden removed:			

Classification of Explosives	Unit	Quantity consumed during the year		Esitmated requirement during the next year	
		Small dia. (upto 32 mm)	Large dia. (above 32 mm)	Small dia. (upto 32 mm)	Large dia. (above 32 mm)
1.Gun Powder	kg.				
2.Nitrate Mixture	kg.	**X**	**X**	**X**	**X**
a.Loose ammonium nitrate					
b.Ammonium nitrate in cartridged form					
3.Nitro compound	Kg.				
4.Liquid Oxygen soaked cartridges	Kg.				
5.Slurry explosives (Mention different trade names)	Kg.				
6.Detonators	Nos	**X**	**X**	**X**	**X**
i) Ordinary					
ii) Electrical		**X**	**X**	**X**	**X**
(a) Ordinary					
(b) Delay					
7.Fuse	Mts	**X**	**X**	**X**	**X**
(a)Safety Fuse					
(b)Detonating Fuse					
8.Plastic ignition cord	Mts				
9.Others (specify)	(Mention the unit)				

Different sizes of soaked liquid oxygen cartridges to be equivalent kg. as per manufacturer's instruction.

PART – V (General Geology & Mining)
(Details on items 1,2,6 & 7(i) may be given once in 5 years)

1. Mineral(s) worked and their characteristics : (In case more than one mineral is worked, the information asked for under (a) to (d) in respect of the remaining mineral(s) may be furnished in a separate sheet and attached with the return)

(a) Name of mineral :

(b) Type of ore (Tick mark whichever is applicable)

(i) Lump
(ii) Fines
(iii) Friable
(iv) Granular
(v) Platy
(vi) Fibrous
(vii) Any other (specify), Powdery etc.

(c) Quality:

Chemical Analysis of Typical Grades Produced

Constituent	Grade			
	1	2	3	4
(i) Size Range				
(ii) Principal constituents				
(iii) Subsidiary Constituents				

2.(a) Name of rock/mineral excavated and disposed as waste:

(b) Name(s) of the ore/mineral excavated but not sold i.e., mineral reject:

(c) Typical analysis of mineral reject(s)

Item	1.	2.	3.	4.
Mineral reject				

3. Reserves and Resources estimated at the end of the year.

Classification	Code	Quantity	Grade (as per NMI grades as indicated in the mining plan)
(1)	(2)	(3)	(4)
Total Mineral Resources (A + B)			
A. Mineral Reserve			
1. Proved Mineral Reserve	111		
2. Probable Mineral Reserve	121 and 122		
B. Remaining Resources			
1. Feasibility Mineral Resource	211		
2. Prefeasibility Mineral Resource	221 and 222		
3. Measured Mineral Resource	331		
4. Indicated Mineral Resource	332		
5. Inferred Mineral Resource	333		
6.Reconnaissance Mineral Resource	334		

Note.- For the removal of doubts, the classification terms and codes mentioned in this Form shall have the same meaning as assigned to them in the Guidelines issued by Indian Bureau of Mines in this regard.

4. Mining Operations during the year:

4.1. Exploration

Item	Number	Meterage	Grid/Dimension (as applicable)
Drilling			
Trenching			
Pitting			

4.2 Opencast

(A) Details of Benches (Separately for mechanised and manual sections)

	In ore	In OB/Waste
(i) Number of Benches		

(ii) Average height (metres)
(iii) Depth of the deepest working from adjacent ground (M):

(B) (i) Total ROM Ore production (tonnes):
(ii) Mineral Rejects generated with grades (tonnes):

(C) Total quantity of Overburden/Waste removed during the year (tonnes)

	During the year	Cumulative so far
(i)	Quantity back filled	
(ii)	Quantity disposed of in external dumps	

4.3 Underground:
(a) Driving (metres) in ore:
(b) Cross Cutting/Footwall Drives (in barren) (Metres) :
(c) Winzing (metres):
(d) Raising (metres):
(e) Shaft sinking (metres):
(f) Stope preparation (metres):
(g) Tonnage of ore blocked for stoping (tonnes):
(h) Quantity of waste removed (tonnes):
(i) Quantity of mineral rejects generated with grade (tonnes):

Within lease area Outside lease area

4.4 i) Number of trees planted during the year
ii) Survival rate in percentage

5. Type and aggregate Horse Power of Machinery: Give the following information for the types of machinery in use such as hoist, fans, drills, loaders, excavators, dumpers, haulages, conveyors, pumps, etc. Details of any new machinery added during the year may be furnished with cost.

Type of machinery	Capacity of each unit	No.of units	H.P. of each unit	Electrical/non electrical (specify)	Used in opencast/ underground(specify)

6.(i) Give details of future plans, if any, of exploration and development, production schedule, replacements and expansion of machinery and equipment etc.
(ii) If you have laboratory facilities for R & D and if so, give a brief description:

7.(i) Details of mineral Treatment Plant, if any. Give a brief description of the process capacity of the machinery deployed and its availability. (Enclose Flow Sheet and Material Balance of the Plant).

(ii) Furnish following information every year:

Item	Tonnage	Average Grade
Feed:		
Concentrates :		
By-products/Co-products:		
Tailings:		

8. Furnish surface and/or underground plans and sections as prepared and brought uptodate (as required under rule 28 of MCDR)

9. Please indicate the salient features which affected mining operations during the year.

PART-VI (PRODUCTION, DESPATCHES AND STOCKS)
(Unit of Quantity in Tonnes; indicate unit of quantity if not in tonnes.)

2. Production and Stocks of R.O.M. ore

	Opening stocks		**Production**		**Closing stocks**	
	Quantity	Metal content/grade	Quantity	Metal content/grade	Quantity	Metal content/grade
A. From Underground workings						

i) From development						
ii) From Stoping						
B. From Opencast workings						
Total						

3. Ex-mine price of the ore produced (Rs. per unit):
4. Recoveries at Concentrator/Mill/Plant: (Quantity@ in tonnes & Value in Rs.)

Opening stocks of the Ore at concentrator/Plant		**Ore received from the mine**		**Ore treated**	
Quantity	Metal content/grade	Quantity	Metal content/grade	Quantity	Metal content/grade

Concentrates * Obtained			**Tailings**		**Closing stocks of concentrates the concentrator/Plant**	
Quantity	Value	Metal content/grade	Quantity	Metal content/grade	Quantity	Metal content/grade

*In case of any leaching method adopted, give quantity recovered and grade contained separately.

.Recovery at the Smelter/Mill/Plant:-

Opening Stocks of the concentrates at the smelter /Plant		**Concentrates received from concentrator/Plant**		**Concentrates received from other sources (specify)**		**Concentrates sold (if any)**	
Quantity	Metal content/grade	Quantity	Metal content/grade	Quantity	Metal content/grade	Quantity	Metal content/grade

Concentrates treated		**Metals(*) recovered(specify)**			**Other by-products ,if any, recovered**			**Closing stocks of concentrate at the Smelter/Plant**	
Quantity	Metal content/grade	Quantity	Value	Grade	Quantity	Value	Grade	Quantity	Value

5. Sales during the month:-

Opening stocks of metals/Products		**[1][Place of Sale]**	**Metals/Products sold(@)**			**Closing stocks of Metals/Products**	
Quantity	Grade		Quantity	Grade	Value(#)	Quantity	Value

Note:

(*) Please give category-wise break-up viz. blister, fire refined copper, cathodes, electrolytic copper wire bars, lead ingots, zinc cathodes, zinc dross, gold, tungsten etc.

(#) Please give ex-plant sale value including excise duty but excluding other taxes.

(@) Please give category-wide break-up of metals and other products sold.

1. Inserted by G.S.R. 55(E), dated 17.1.2000

6. Details of Deductions used for computation of Ex_mine price of ore (Rs/unit)

Deduction claimed	Unit (in Rs/unit)	Remarks
a) Cost of transportation (indicate Loading station and Distance from mine in remarks)		
b) Loading and Unloading charges		
c) Railway freight ,if applicable (indicate destination and distance)		
d) Port Handling charges/export duty(indicate name of port)		
e) Charges for Sampling and Analysis		
f) Rent for the plot at Stocking yard		
g) Other charges(specify clearly)		
Total (a) to (g)		

7. Sales/ Despatches effected for Domestic Consumption and for Exports:

Grade*	Nature of Despatch (*indicate whether for Sale or Captive consumption or Export)*	For Domestic Consumption			For export		
		Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Quantity	Sale value	Country	Quantity	F.O.B Value (Rs.)

*This includes ore as well as concentrates.

Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer
(to indicate *separately if more than one buyer) for the top five despaches in terms of Quantity,for the remaining consolidated figure shall be reported with details of despatches as annexure.*

NOTE:- Mine owners are required to substantiate domestic sale value/ FOB value for each grade of ore quoted above with copy of invoices.

8. Give reasons for increase/decrease in production/nil production (of primary or associate mineral), if any, during the month compared to the previous month.

a)
b)
c)

9. Give reasons for increase/decrease in grade wise ex-mine price (of primary or associate Mineral),if any, during the month compared to the previous month.

a)
b)
c)

PART-VII: COST OF PRODUCTION

Cost of production per tonne of ore/mineral produced

	Item	Cost Per metric tonne
(i)	Direct Cost	
	(a) Exploration	
	(b) Mining	
	(c) Beneficiation(Mechanical Only)	
(ii)	Over-head cost	
(iii)	Depreciation	
(iv)	Interest	
(v)	Royalty	
(vi)	Taxes	
(vii)	Dead Rent	
(viii)	Others (specify)	
	Total	

Note: Information given under Part VI will be kept confidential, if required. The Government, however, will be free to utilize the information for general studies without revealing the identity or working cost of the firm.

VERIFICATION

I certify that the information furnished above is correct and complete in all respects.

Place:
Date:

Signature
Name in full:

Designation: Owner/Agent/
Mining Engineer/Manager

FORM H-6

For the financial year 1st April, 20__ to 31st March, 20____

ANNUAL RETURN

[See rule 45(5) (b)(vi)]

(Read the instructions carefully before filling the particulars)

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(ii) The State Government

PART – I (General)

1. Details of Mine:	
(a) Registration number allotted by Indian Bureau of Mines (*to give registration number of the mine owner/ agent/ mining engineer/ manager signing the return*)	
(b) Mine Code	
(c) Name of the Mineral	**Mica**
(d) Name of Mine	
(e) Name(s) of other mineral(s), if any, produced from the same mine	
2. Location of the Mine :	
Village	
Post Office	
Tahsil/Taluk	
District	
State and PIN Code	
Fax no:	E-mail:
Phone no:	
3. Name and Address(s) of Lessee/Owner (along with fax no. and e-mail):	
Name of Person	
Street/Village	
Post Office	
Tahsil/Taluk	
District	
State and PIN Code	
Fax no:	E-mail:
Phone No:	
4.Registered Office of the Lessee	
5. Director in charge :	
6. Agent :	
7. Manager :	
8.Mining Engineer in charge:	
9. Geologist in charge :	
10. Transferer (previous owner) if any, and date of transfer:	
11. Particulars of area operated/Lease **(Furnish information on items (i) to (v) lease-wise in case mine workings cover more than one lease)**	
(i) Area under lease (hectares):	
Under Forest	
Outside Forest	
Total	
(ii) Date of execution of mining lease deed	
(iii) Period of lease	
(iv) Area for which surface rights are held (hectares)	
(v) Date and period of renewal (if applicable)	
(vi) In case there is more than one mine in the same lease area, indicate name of mine and mineral produced	

12. Lease area (surface area) utilisation as at the end of year (hectares):	Under forest	Outside forest	Total
(i) Already exploited & abandoned by opencast (O/C) mining			
(ii) Covered under current (O/C) Workings			
(iii) Reclaimed/rehabilitated			
(iv) Used for waste disposal			
(v) Occupied by plant, buildings, residential, welfare buildings & roads			
(vi) Used for any other purpose (specify)			
(vii) Work done under progressive mine closure plan during the year			
13. Ownership/exploiting Agency of the mine: (Public Sector/Private Sector/Joint Sector)			

PART - II (Employment & Wages)

1.Number of technical and supervisory staff employed at the mine		
Description	Wholly employed	Partly employed
(i) Graduate Mining Engineer		
(ii) Diploma Mining Engineer		
(iii) Geologist		
(iv) Surveyor		
(v) Other administrative clerical and technical supervisory staff		
Total:-		
2.(i) Number of days the mine worked:		
(ii) No.of shifts per day:		
(iii) Indicate reasons for work stoppage in the mine during the year (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each of the factors separately .	Reasons	No of days

3.(i) Employment of Labour and wages paid:-

Maximum number of persons employed on any one day during the year:
(i)In workings below ground on .....(a).....
(ii)In all in the mine on .....(a).....

Classification	Total number of man days worked during the year			No. of days worked during the year	Average daily number of persons employed			Total Wages /Salary bills for the year
	Direct	Contract	Total		Male	Female	Total	
(1)	(2A)	2(B)	2(C)	(3)	4(A)	4(B)	4(C)	(5)
A. Below Ground								
i) Foreman and mining mates								
ii) Face workers and Loaders								
iii) Others								
B. Opencast workings :								
i) Foreman and mining mates								
ii) Face workers and Loaders								
iii) Others								
C. Above ground :								
(i) Clerical & Supervisory Staff. (excluding the superior supervisory staff.)								
(ii) Workers in any Attached factory, Workshop or mineral dressing plant.								
(iii) Others								
Total:								

3. (ii) Total salaries paid to technical and supervisory staff employed in the mine during the year (in Rs.)_____

PART-II A (Capital Structure)

1.Value of Fixed Assets* (Rs.'000)……
(in respect of the mine, beneficiation plant, mine, work-shop, power and water installation)

Description	As at the beginning of the year	Additions during the Year	Sold or discarded during the year	Depreciation during the year	Net closing Balance (2+3)-(4+5)	Estimated market value**
1	2	3	4	5	6	7
(vi) Land***						
(ii) Building:						
Industrial						
Residential						
(iii) Plant and Machinery including transport equipment						
iv) Capitalised Expenditure such as pre-production exploration, development, major overhaul and repair to machinery etc.(As prescribed under Income Tax Act)						
Total						

* In case the fixed assets are common to more than one mine, furnish combined information for all such mines together in any one of the mines return and also indicate the names of other mines in which the information relates in the form provided above. In the returns for other mines, give only a cross reference to the particular mine's return where-in the information is included.

** Optional and may be furnished in respect of items (i),(ii) and (iii) if the mine owner desires.

*** Including any non recurring expenditure incurred on the acquisition of land.

2. Source of Finance (as at the end of the year) :-	
(i) Paid up Share Capital (Rs.'000)	
(ii)Own Capital (Rs.'000)	
(iii)Reserve & Surplus (All Types)	
(iv)Long Term loans outstanding	

Indicate the names of the leading institutions such as State Finance Corporation, Industrial Development and other Public Corporations, Co-operative Banks, Nationalised Banks and other sources along with the amount of loan from each source and the rate of interest at which loan has been taken.

3.Interest and Rent (in Rs.'000)	
(i) Interest paid during the year	
(ii) Rents (excluding surface rent) paid during the year	

PART - III (Consumption of Materials)

1. Quantity and cost of material consumed during the year

Description	Unit	Quantity	Value (Rs.)
(i) Fuel			
(a) Coal	Tonnes		
(b) Diesel Oil	*l*		
(c) Petrol	*l*		
(d) Kerosene	*l*		
(e) Gas	Cu m		
(ii) Lubricant			
(a) Lubricant oil	*l*		
(b) Grease	kg		
(iii) Electricity			
(a) Consumed	kWh		
(b) Generated	kWh		
(c) Sold	kWh		
(iv) Explosives (furnish full details in Part IV)			
(v) Tyres	Nos.		
(vi) Timber & Supports			
(vii)Drill roads & kits	Nos.		
(viii)Other spares & stores			

2. Royalty and Rents (in' 000 Rs.):		
X	Paid for current year	Paid towards past arrears
(a) Royalty		
(b) Dead rent		
(c) Surface rent		
3. Compensation paid for felling trees during the year (in Rs)		
4. Depreciation on fixed assets Rs		
5. Taxes and cesses		
X	Amount in Rs. paid during the year to:	
X	Central Govt.	State Govt.
(i) Sales Tax		
(ii) Welfare cess		
(iii) Other taxes & cesses:-		
(a) Mineral cess		
(b) Cess on dead rent		
(c) Others (please specify)		
6. Other expenses:		
(i) Overheads		
(ii) Maintenance		
(iii) Money value of other benefits paid to workmen		
(iv) Payment made to professional agencies		

Part –IV (Consumption of Explosives)

1. Licensed capacity of magazine: (specify unit separately in kg/tonne, numbers, metres)	**Item**	**Unit**	**Capacity**
2. Total production during the year (Tonne):			
3. Overburden removed:			

Classification of Explosives	Unit	Quantity consumed during the year		Estimated requirement during the next year	
		Small dia. (upto 32 mm)	Large dia. (above 32 mm)	Small dia. (upto 32 mm)	Large dia. (above 32 mm)
1.Gun Powder	kg				
2.Nitrate Mixture	kg	**X**	**X**	**X**	**X**
a.Loose ammonium nitrate					
b.Ammonium nitrate in cartridged form					
3.Nitro compound	kg				
4.Liquid Oxygen soaked cartridges	kg				
5.Slurry explosives (Mention different trade names)	kg				
6.Detonators	Nos.	**X**	**X**	**X**	**X**
i) Ordinary					
ii) Electrical		**X**	**X**	**X**	**X**
(a) Ordinary					
(b) Delay					
7.Fuse	Mts	**X**	**X**	**X**	**X**
(a)Safety Fuse					
(b)Detonating Fuse					
8.Plastic ignition cord	Mts				
9.Others (specify)	(Mention the unit)				

Different sizes of soaked liquid oxygen cartridges to be equivalent kg. as per manufacturer's instruction.

PART – V (General Geology & Mining)
(Details on items 1, 2, 6 & 7(i) may be given once in 5 years)

1. Mineral(s) worked and their characteristics : (In case more than one mineral is worked, the information asked for under (a) to (d) in respect of the remaining mineral(s) may be furnished in a separate sheet and attached with the return)
(a) Name of mineral :
(b) Type of ore (Tick mark whichever is applicable)

(i) Lump
(ii) Fines
(iii) Friable
(iv) Granular
(v) Platy
(vi) Fibrous
(vii) Any other (specify), Powdery etc.

(c) Quality:

Chemical Analysis of Typical Grades Produced

Constituent	Grade			
	1	2	3	4
(i) Size Range				
(ii) Principal constituents				
(iii) Subsidiary Constituents				

2.(a) Name of rock/mineral excavated and disposed as waste:
(b) Name(s) of the ore/mineral excavated but not sold i.e., mineral reject:
(c) Typical analysis of mineral reject(s)

Item	1.	2.	3.	4.
Mineral reject				

3. Reserves and Resources estimated at the end of the year.

Classification	Code	Quantity	Grade (as per NMI grades as indicated in the mining plan)
(1)	(2)	(3)	(4)
Total Mineral Resources (A + B)			
A. Mineral Reserve			
1. Proved Mineral Reserve	111		
2. Probable Mineral Reserve	121 and 122		
B. Remaining Resources			
1. Feasibility Mineral Resource	211		
2. Prefeasibility Mineral Resource	221 and 222		
3. Measured Mineral Resource	331		
4. Indicated Mineral Resource	332		
5. Inferred Mineral Resource	333		
6.Reconnaissance Mineral Resource	334		

Note.- For the removal of doubts, the classification terms and codes mentioned in this Form shall have the same meaning as assigned to them in the Guidelines issued by Indian Bureau of Mines in this regard.

4. Mining Operations during the year:

4.1. Exploration

Item	Number	Meterage	Grid/Dimension (as applicable)
Drilling			
Trenching			
Pitting			

4.2 Opencast

(A) Details of Benches (Separately for mechanised and manual sections)

	In ore	In OB/Waste
(i) Number of Benches		
(ii) Average height (metres)		
(iii) Depth of the deepest working from adjacent ground (M):		

(B) (i) Total ROM Ore production (tonnes):
(ii) Mineral Rejects generated with grades (tonnes):

(C) Total quantity of Overburden/Waste removed during the year (tonnes)

	During the year	Cumulative so far
(i)	Quantity back filled	
(ii)	Quantity disposed of in external dumps	

4.3 Underground:

(a) Driving (metres) in ore:
(b) Cross Cutting/Footwall Drives (in barren) (Metres) :
(c) Winzing (metres):
(d) Raising (metres):
(e) Shaft sinking (metres):
(f) Stope preparation (metres):
(g) Tonnage of ore blocked for stoping (tonnes):
(h) Quantity of waste removed (tonnes):
(i) Quantity of mineral rejects generated with grade (tonnes):

Within lease area Outside lease area

4.4 i) Number of trees planted during the year
ii) Survival rate in percentage

5. Type and aggregate Horse Power of Machinery: Give the following information for the types of machinery in use such as hoist, fans, drills, loaders, excavators, dumpers, haulages, conveyors, pumps, etc. Details of any new machinery added during the year may be furnished with cost.

Type of machinery	Capacity of each unit	No.of units	H.P. of each unit	Electrical/non electrical (specify)	Used in opencast/ underground(specify)

6.(i) Give details of future plans, if any, of exploration and development, production schedule, replacements and expansion of machinery and equipment etc.
(ii) If you have laboratory facilities for R & D and if so, give a brief description:

7.(i) Details of mineral Treatment Plant, if any. Give a brief description of the process capacity of the machinery deployed and its availability. (Enclose Flow Sheet and Material Balance of the Plant).

(ii) Furnish following information every year:

Item	Tonnage	Average Grade
Feed:		
Concentrates :		
By-products/Co-products:		
Tailings:		

8. Furnish surface and/or underground plans and sections as prepared and brought uptodate (as required under rule 28 of MCDR)
9. Please indicate the salient features which affected mining operations during the year.

PART-VI (PRODUCTION, DESPATCHES AND STOCKS)

[1][**1. Production, despatches and stocks of crude and dressed mica (in kilograms)**

	Crude (r.o.m)	Waste/scrap mica obtained incidental to mining	Waste/ mica obtained after preliminary dressing (at mine site)
1	2	3	4]
A. OPENING STOCKS			
(at the Beginning of the month)			
i) at Mine			
ii) at Dressing unit			
iii) at any Other point(Please specify)			
Total (Opening Stock)			
B. Production			
i)From underground mining			

1. Substituted by GSR 330(E), dated 10.4.2003

ii)From opencast mining			
iii) From dump working			
Total (Production)			
C. DESPATCHES			
i)for dressing			
ii)for Sale			
Total (Despatches)			
D.CLOSING STOCKS			
i)At mine			
(ii)At dressing unit			
(iii)At any other point (Please specify)			
Total (Closing Stocks)			
E. Ex-mine price(#) (Rs. Per kg)			

(#)This should be estimated for all crude mica/ waste mica produced whether sold or not on the basis of the average sale price obtainable for crude/ waste mica in the market. To arrive at the ex-mine price from this notional sale price, the cost of transport from the mine head to the market or factory and any other incidental charges may be deducted .

2. Details of Deductions used for computation of Ex-Mine price (Rs/kg):

Deduction claimed	Unit (in Rs/kg)	Remarks
a) Cost of transportation (indicate Loading station and Distance from mine in remarks)		
b) Loading and Unloading charges		
c) Railway freight ,if applicable (indicate destination and distance)		
d) Port Handling charges/export duty(indicate name of port)		
e) Charges for Sampling and Analysis		
f) Rent for the plot at Stocking yard		
g) Other charges(specify clearly)		
Total (a) to (g)		

3. Sales/ Despatches effected for Domestic Consumption and for Exports:

Grade	Nature of Despatch (*indicate whether for Sale or Captive consumption or Export)*	For Domestic Consumption			For export		
		Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Quantity	Sale value	Country	Quantity	F.O.B Value(Rs.)

Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer
(to indicate *separately if more than one buyer) for the top five despaches in terms of Quantity for the remaining consolidated figure shall be reported with details of despatches as annexure.*

NOTE:- Mine owners are required to substantiate domestic sale value/ FOB value for each grade of ore quoted above with copy of invoices.

5. Give reasons for increase/decrease in production/nil production (of primary or associate mineral), if any, during the month compared to the previous month.

a)
b)
c)

6. Give reasons for increase/decrease in grade wise ex-mine price (of primary or associate Mineral),if any, during the month compared to the previous month.

a)
b)
c)

PART-VII: COST OF PRODUCTION

Cost of production per kilogram of ore/mineral produced

	Item	Cost per kilogram
(i)	Direct Cost	
	(a) Exploration	
	(b) Mining	
	(c) Beneficiation(Mechanical Only)	
(ii)	Over-head cost	
(iii)	Depreciation	
(iv)	Interest	
(v)	Royalty	
(vi)	Taxes	
(vii)	Dead Rent	
(viii)	Others (specify)	
	Total	

Note: Information given under Part VI will be kept confidential, if required. The Government, however, will be free to utilize the information for general studies without revealing the identity or working cost of the firm.

VERIFICATION

I certify that the information furnished above is correct and complete in all respects.

Place: Signature
Date: Name in full:
Designation: Owner/Agent/
Mining Engineer/Manager

FORM H-7

For the financial year 1st April, 20__ to 31st March, 20____

ANNUAL RETURN
[See rule 45(5) (b)(vii)]

(Read the instructions carefully before filling the particulars)

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(ii) The State Government

PART – I (General)

1. Details of Mine:	
(a) Registration number allotted by Indian Bureau of Mines (*to give registration number of the mine owner/ agent/ mining engineer/ manager signing the return*)	
(b) Mine Code	
(c) Name of the Mineral	
(d) Name of Mine	
(e) Name(s) of other mineral(s), if any, produced from the same mine	
2. Location of the Mine :	
Village	
Post Office	
Tahsil/Taluk	
District	
State and PIN Code	
Fax no:	E-mail:
Phone no:	
3. Name and Address(s) of Lessee/Owner (along with fax no. and e-mail):	
Name of Person	
Street/Village	
Post Office	
Tahsil/Taluk	
District	
State and PIN Code	
Fax no:	E-mail:
Phone No:	
4.Registered Office of the Lessee	
5. Director in charge :	
6. Agent :	
7. Manager :	
8.Mining Engineer in charge:	
9. Geologist in charge :	
10. Transferer (previous owner) if any, and date of transfer:	
11. Particulars of area operated/Lease **(Furnish information on items (i) to (v) lease-wise in case mine workings cover more than one lease)**	
(i) Area under lease (hectares):	
Under Forest	
Outside Forest	
Total	
(ii) Date of execution of mining lease deed	
(iii) Period of lease	
(iv) Area for which surface rights are held (hectares)	
(v) Date and period of renewal (if applicable)	
(vi) In case there is more than one mine in the same lease area, indicate name of mine and mineral produced	

12. Lease area (surface area) utilisation as at the end of year (hectares):	Under forest	Outside forest	Total
(i) Already exploited & abandoned by opencast (O/C) mining			
(ii) Covered under current (O/C) Workings			
(iii) Reclaimed/rehabilitated			
(iv) Used for waste disposal			
(v) Occupied by plant, buildings, residential, welfare buildings & roads			
(vi) Used for any other purpose (specify)			
(vii) Work done under progressive mine closure plan during the year			
13. Ownership/exploiting Agency of the mine: (Public Sector/Private Sector/Joint Sector)			

PART - II (Employment & Wages)

1.Number of technical and supervisory staff employed at the mine		
Description	Wholly employed	Partly employed
(i) Graduate Mining Engineer		
(ii) Diploma Mining Engineer		
(iii) Geologist		
(iv) Surveyor		
(v) Other administrative clerical and technical supervisory staff		
Total:-		
2.(i) Number of days the mine worked:		
(ii) No.of shifts per day:		
(iii) Indicate reasons for work stoppage in the mine during the year (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each of the factors separately .	Reasons	No of days

3.(i) Employment of Labour and wages paid:-

Maximum number of persons employed on any one day during the year:
(i)In workings below ground on .....(a).....
(ii)In all in the mine on .....(a).....

Classification	Total number of man days worked during the year			No. of days worked during the year	Average daily number of persons employed			Total Wages /Salary bills for the year
	Direct	Contract	Total		Male	Female	Total	
(1)	(2A)	2(B)	2(C)	(3)	4(A)	4(B)	4(C)	(5)
A. Below Ground								
i) Foreman and mining mates								
ii) Face workers and Loaders								
iii) Others								
B. Opencast workings :								
i) Foreman and mining mates								
ii) Face workers and Loaders								
iii) Others								
C. Above ground :								

(i) Clerical & Supervisory Staff. (excluding the superior supervisory staff.)								
(ii) Workers in any Attached factory, Workshop or mineral dressing plant.								
(iii) Others								
Total:								

3. (ii) Total salaries paid to technical and supervisory staff employed in the mine during the year (in Rs.)_____

PART-II A (Capital Structure)

1.Value of Fixed Assets* (Rs.'000)……
(in respect of the mine, beneficiation plant, mine, work-shop, power and water installation)

Description	As at the beginning of the year	Additions during the Year	Sold or discarded during the year	Depreciation during the year	Net closing Balance (2+3)-(4+5)	Estimated market value**
1	2	3	4	5	6	7
(vii) Land***						
(ii) Building:						
Industrial						
Residential						
(iii) Plant and Machinery including transport equipment						
iv) Capitalised Expenditure such as pre-production exploration, development, major overhaul and repair to machinery etc.(As prescribed under Income Tax Act)						
Total						

* In case the fixed assets are common to more than one mine, furnish combined information for all such mines together in any one of the mines return and also indicate the names of other mines in which the information relates in the form provided above. In the returns for other mines, give only a cross reference to the particular mine's return where-in the information is included.

** Optional and may be furnished in respect of items (i),(ii) and (iii) if the mine owner desires.

*** Including any non recurring expenditure incurred on the acquisition of land.

2. Source of Finance (as at the end of the year) :-	
(i) Paid up Share Capital (Rs.'000)	
(ii)Own Capital (Rs.'000)	
(iii)Reserve & Surplus (All Types)	
(iv)Long Term loans outstanding	

Indicate the names of the leading institutions such as State Finance Corporation, Industrial Development and other Public Corporations, Co-operative Banks, Nationalised Banks and other sources along with the amount of loan from each source and the rate of interest at which loan has been taken.

3.Interest and Rent (in Rs.'000)	
(i) Interest paid during the year	
(ii) Rents (excluding surface rent) paid during the year	

PART - III (Consumption of Materials)

1. Quantity and cost of material consumed during the year

Description	Unit	Quantity	Value (Rs.)
(i) Fuel			
(a) Coal	Tonnes		
(b) Diesel Oil	*l*		
(c) Petrol	*l*		
(d) Kerosene	*l*		
(e) Gas	Cu m		
(ii) Lubricant			
(a) Lubricant oil	*l*		
(b) Grease	kg		

(iii) Electricity			
(a) Consumed	kWh		
(b) Generated	kWh		
(c) Sold	kWh		
(iv) Explosives (furnish full details in Part IV)			
(v) Tyres	Nos.		
(vi) Timber & Supports			
(vii)Drill roads & kits	Nos.		
(viii)Other spares & stores			

2. Royalty and Rents (in' 000 Rs.):		
X	Paid for current year	Paid towards past arrears
(a) Royalty		
(b) Dead rent		
(c) Surface rent		
3. Compensation paid for felling trees during the year (in Rs)		
4. Depreciation on fixed assets Rs		

5. Taxes and cesses		
X	Amount in Rs. paid during the year to:	
X	Central Govt.	State Govt.
(i) Sales Tax		
(ii) Welfare cess		
(iii) Other taxes & cesses:-		
(a) Mineral cess		
(b) Cess on dead rent		
(c) Others (please specify)		

6. Other expenses:	
(i) Overheads	
(ii) Maintenance	
(iii) Money value of other benefits paid to workmen	
(iv) Payment made to professional agencies	

Part –IV (Consumption of Explosives)

1. Licensed capacity of magazine: (specify unit separately in kg/tonne, numbers, metres)	**Item**	**Unit**	**Capacity**
2. Total production during the year (Tonne):			
3. Overburden removed:			

Classification of Explosives	Unit	Quantity consumed during the year		Estimated requirement during the next year	
		Small dia. (upto 32 mm)	Large dia. (above 32 mm)	Small dia. (upto 32 mm)	Large dia. (above 32 mm)
1.Gun Powder	kg				
2.Nitrate Mixture	kg	**X**	**X**	**X**	**X**
a.Loose ammonium nitrate					
b.Ammonium nitrate in cartridged form					
3.Nitro compound	kg				
4.Liquid Oxygen soaked cartridges	kg				
5.Slurry explosives (Mention different trade names)	kg				
6.Detonators	Nos.	**X**	**X**	**X**	**X**
i) Ordinary					
ii) Electrical		**X**	**X**	**X**	**X**
(a) Ordinary					
(b) Delay					
7.Fuse	Mts	**X**	**X**	**X**	**X**
(a)Safety Fuse					
(b)Detonating Fuse					
8.Plastic ignition cord	Mts				

9.Others (specify)	(Mention the unit)				

Different sizes of soaked liquid oxygen cartridges to be equivalent kg. as per manufacturer's instruction.

PART – V (General Geology & Mining)
(Details on items 1,2,6 & 7(i) may be given once in 5 years)

1. Mineral(s) worked and their characteristics : (In case more than one mineral is worked, the information asked for under (a) to (d) in respect of the remaining mineral(s) may be furnished in a separate sheet and attached with the return)

(a) Name of mineral :

(b) Type of ore (Tick mark whichever is applicable)
- (i) Lump
- (ii) Fines
- (iii) Friable
- (iv) Granular
- (v) Platy
- (vi) Fibrous
- (vii) Any other (specify), Powdery etc.

(c) Quality:

Chemical Analysis of Typical Grades Produced

Constituent	Grade			
	1	2	3	4
(i) Size Range				
(ii) Principal constituents				
(iii) Subsidiary Constituents				

2.(a) Name of rock/mineral excavated and disposed as waste:
(b) Name(s) of the ore/mineral excavated but not sold i.e., mineral reject:
(c) Typical analysis of mineral reject(s)

Item	1.	2.	3.	4.
Mineral reject				

3. Reserves and Resources estimated at the end of the year.

Classification	Code	Quantity	Grade (as per NMI grades as indicated in the mining plan)
(1)	(2)	(3)	(4)
Total Mineral Resources (A + B)			
A. Mineral Reserve			
1. Proved Mineral Reserve	111		
2. Probable Mineral Reserve	121 and 122		
B. Remaining Resources			
1. Feasibility Mineral Resource	211		
2. Prefeasibility Mineral Resource	221 and 222		
3. Measured Mineral Resource	331		
4. Indicated Mineral Resource	332		
5. Inferred Mineral Resource	333		
6.Reconnaissance Mineral Resource	334		

Note.- For the removal of doubts, the classification terms and codes mentioned in this Form shall have the same meaning as assigned to them in the Guidelines issued by Indian Bureau of Mines in this regard.

4. Mining Operations during the year:

4.1. Exploration

Item	Number	Meterage	Grid/Dimension (as applicable)
Drilling			
Trenching			
Pitting			

4.2 Opencast

(A) Details of Benches (Separately for mechanised and manual sections)

	In ore	In OB/Waste
(i) Number of Benches		
(ii) Average height (metres)		
(iiii) Depth of the deepest working from adjacent ground (M):		

(B) (i) Total ROM Ore production (tonnes):
(ii) Mineral Rejects generated with grades (tonnes):

(C) Total quantity of Overburden/Waste removed during the year (tonnes)

	During the year	Cumulative so far
(i) Quantity back filled		
(ii) Quantity disposed of in external dumps		

4.3 Underground:

(a) Driving (metres) in ore:
(b) Cross Cutting/Footwall Drives (in barren) (Metres) :
(c) Winzing (metres):
(d) Raising (metres):
(e) Shaft sinking (metres):
(f) Stope preparation (metres):
(g) Tonnage of ore blocked for stoping (tonnes):
(h) Quantity of waste removed (tonnes):
(i) Quantity of mineral rejects generated with grade (tonnes):

Within lease area	Outside lease area

4.4 i) Number of trees planted during the year
ii) Survival rate in percentage

5. Type and aggregate Horse Power of Machinery: Give the following information for the types of machinery in use such as hoist, fans, drills, loaders, excavators, dumpers, haulages, conveyors, pumps, etc. Details of any new machinery added during the year may be furnished with cost.

Type of machinery	Capacity of each unit	No.of units	H.P. of each unit	Electrical/non electrical (specify)	Used in opencast/ underground(specify)

6.(i) Give details of future plans, if any, of exploration and development, production schedule, replacements and expansion of machinery and equipment etc.
(ii) If you have laboratory facilities for R & D and if so, give a brief description:

7.(i) Details of mineral Treatment Plant, if any. Give a brief description of the process capacity of the machinery deployed and its availability. (Enclose Flow Sheet and Material Balance of the Plant).

(ii) Furnish following information every year:

Item	Tonnage	Average Grade
Feed:		
Concentrates :		
By-products/Co-products:		
Tailings:		

8. Furnish surface and/or underground plans and sections as prepared and brought uptodate (as required under rule 28 of MCDR)

9. Please indicate the salient features which affected mining operations during the year.

PART-VI (PRODUCTION, DESPATCHES AND STOCKS)

1.R.O.M production:-

Category	Unit of quantity	Quantity
i)Opencast		
ii)Underground		

(If there are different types of R.O.M. production, separate figures should be furnished for each type of R.O.M indicating in each case the appropriate unit of quantity.)

2. Production, stocks and despatches:-

	Gem Variety				**Industrial**		**Others**	
	Rough and uncut stones		**Cut and Polished Stones**					
	No of stones	Qty @	No of stones	Qty @	No of stones	Qty @	No of stones	Qty @
A .Opening stocks								
i)From Opencast Working								
ii)From underground working								
TOTAL (Production)								
C.Despatches								
D.Closing Stocks								
E.Ex_mine Price*								

(@The Unit of quantity viz. Carats/Grams/Kilogram etc. as the case may be should be indicated under quantity.)

*This should be estimated for all the stones produced during the month whether sold or not on the basis of average sale price obtained for sales made during the month. In case no sales are made Ex-pit-head, the ex-mine price should be arrived at after deducting the actual expenses incurred from the pit-head to the point of sale, from the sale price realised.

3. Details of Deductions used for computation of Ex-Mine price (Rs/unit):

Deduction claimed	(in Rs/ unit)	Remarks
a) Cost of transportation (indicate Loading station and Distance from mine in remarks)		
b) Loading and Unloading charges		
c) Railway freight ,if applicable (indicate destination and distance)		
d) Port Handling charges/export duty(indicate name of port)		
e) Charges for Sampling and Analysis		
f) Rent for the plot at Stocking yard		
g) Other charges(specify clearly)		
Total (a) to (g)		

4. Sales/ Despatches effected for Domestic Consumption and for Exports:

Grade#	Nature of Despatch (*indicate whether for Sale or Captive consumption or Export)*	For Domestic Consumption			For export		
		Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Quantity	Sale value	Country	Quantity	F.O.B Value(Rs.)

#Grades:- i)Gem Variety a) Rough and uncut stones b) Cut and Polished Stones; ii) Industrial iii)Others

Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer
(to indicate *separately if more than one buyer) for the top five despaches in terms of Quantity, for the remaining consolidated figure shall be reported with details of despatches as annexure.*

NOTE:- Mine owners are required to substantiate domestic sale value/ FOB value for each grade of ore quoted above with copy of invoices

5. Give reasons for increase/decrease in production/nil production (of primary or associate mineral), if any, during the month compared to the previous month.

a)
b)
c)

6. Give reasons for increase/decrease in grade wise ex-mine price (of primary or associate Mineral),if any, during the month compared to the previous month.

a)
b)
c)

PART-VII: COST OF PRODUCTION

Cost of production per unit of ore/mineral produced;unit of quantity as reported in Part VI

	Item	Cost per unit
(i)	Direct Cost	
	(a) Exploration	
	(b) Mining	
	(c) Beneficiation(Mechanical Only)	
(ii)	Over-head cost	
(iii)	Depreciation	
(iv)	Interest	
(v)	Royalty	
(vi)	Taxes	
(vii)	Dead Rent	
(viii)	Others (specify)	
	Total	

Note: Information given under Part VI will be kept confidential, if required. The Government, however, will be free to utilize the information for general studies without revealing the identity or working cost of the firm.

VERIFICATION

I certify that the information furnished above is correct and complete in all respects.

Place: Signature
Date: Name in full:

Designation: Owner/Agent/
Mining Engineer/Manager

FORM H-8

For the financial year 1st April, 20__ to 31st March, 20____

ANNUAL RETURN
[See rule 45(5) (b)(viii)]

(Read the instructions carefully before filling the particulars)

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(ii) The State Government

PART – I (General)

1. Details of Mine:	
(a) Registration number allotted by Indian Bureau of Mines (*to give registration number of the mine owner/ agent/ mining engineer/ manager signing the return*)	
(b) Mine Code	
(c) Name of the Mineral	
(d) Name of Mine	
(e) Name(s) of other mineral(s), if any, produced from the same mine	
2. Location of the Mine :	
Village	
Post Office	
Tahsil/Taluk	
District	
State and PIN Code	
Fax no:	E-mail:
Phone no:	
3. Name and Address(s) of Lessee/Owner (along with fax no. and e-mail):	
Name of Person	
Street/Village	
Post Office	
Tahsil/Taluk	
District	
State and PIN Code	
Fax no:	E-mail:
Phone No:	
4.Registered Office of the Lessee	
5. Director in charge :	
6. Agent :	
7. Manager :	
8.Mining Engineer in charge:	
9. Geologist in charge :	
10. Transferer (previous owner) if any, and date of transfer:	
11. Particulars of area operated/Lease **(Furnish information on items (i) to (v) lease-wise in case mine workings cover more than one lease)**	
(i) Area under lease (hectares):	
Under Forest	
Outside Forest	
Total	
(ii) Date of execution of mining lease deed	
(iii) Period of lease	
(iv) Area for which surface rights are held (hectares)	
(v) Date and period of renewal (if applicable)	

(vi) In case there is more than one mine in the same lease area, indicate name of mine and mineral produced			
12. Lease area (surface area) utilisation as at the end of year (hectares):	Under forest	Outside forest	Total
(i) Already exploited & abandoned by opencast (O/C) mining			
(ii) Covered under current (O/C) Workings			
(iii) Reclaimed/rehabilitated			
(iv) Used for waste disposal			
(v) Occupied by plant, buildings, residential, welfare buildings & roads			
(vi) Used for any other purpose (specify)			
(vii) Work done under progressive mine closure plan during the year			
13. Ownership/exploiting Agency of the mine: (Public Sector/Private Sector/Joint Sector)			

PART - II (Employment & Wages)

1.Number of technical and supervisory staff employed at the mine			
Description		Wholly employed	Partly employed
(i)	Graduate Mining Engineer		
(ii)	Diploma Mining Engineer		
(iii)	Geologist		
(iv)	Surveyor		
(v)	Other administrative clerical and technical supervisory staff		
	Total:-		
2.(i) Number of days the mine worked:			
(ii) No.of shifts per day:			
(iii) Indicate reasons for work stoppage in the mine during the year (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each of the factors separately .		Reasons	No of days

3.(i) Employment of Labour and wages paid:-

Maximum number of persons employed on any one day during the year:
(i)In workings below ground on .....(a).....
(ii)In all in the mine on .....(a).....

Classification	Total number of man days worked during the year			No. of days worked during the year	Average daily number of persons employed			Total Wages /Salary bills for the year
	Direct	Contract	Total		Male	Female	Total	
(1)	(2A)	2(B)	2(C)	(3)	4(A)	4(B)	4(C)	(5)
A. Below Ground								
i) Foreman and mining mates								
ii) Face workers and Loaders								
iii) Others								
B. Opencast workings :								
i) Foreman and mining mates								
ii) Face workers and Loaders								

iii) Others								
C. Above ground :								
(i) Clerical & Supervisory Staff. (excluding the superior supervisory staff.)								
(ii) Workers in any Attached factory, Workshop or mineral dressing plant.								
(iii) Others								
Total:								

3. (ii) Total salaries paid to technical and supervisory staff employed in the mine during the year (in Rs.)_____

PART-II A (Capital Structure)

1.Value of Fixed Assets* (Rs.'000)……
(in respect of the mine, beneficiation plant, mine, work-shop, power and water installation)

Description	As at the beginning of the year	Additions during the Year	Sold or discarded during the year	Depreciation during the year	Net closing Balance (2+3)-(4+5)	Estimated market value**
1	2	3	4	5	6	7
(viii) Land***						
(ii) Building:						
Industrial						
Residential						
(iii) Plant and Machinery including transport equipment						
iv) Capitalised Expenditure such as pre-production exploration, development, major overhaul and repair to machinery etc.(As prescribed under Income Tax Act)						
Total						

* In case the fixed assets are common to more than one mine, furnish combined information for all such mines together in any one of the mines return and also indicate the names of other mines in which the information relates in the form provided above. In the returns for other mines, give only a cross reference to the particular mine's return where-in the information is included.

** Optional and may be furnished in respect of items (i),(ii) and (iii) if the mine owner desires.

*** Including any non recurring expenditure incurred on the acquisition of land.

2. Source of Finance (as at the end of the year) :-	
(i) Paid up Share Capital (Rs.'000)	
(ii)Own Capital (Rs.'000)	
(iii)Reserve & Surplus (All Types)	
(iv)Long Term loans outstanding	

Indicate the names of the leading institutions such as State Finance Corporation, Industrial Development and other Public Corporations, Co-operative Banks, Nationalised Banks and other sources along with the amount of loan from each source and the rate of interest at which loan has been taken.

3.Interest and Rent (in Rs.'000)	
(i) Interest paid during the year	
(ii) Rents (excluding surface rent) paid during the year	

PART - III (Consumption of Materials)

1. Quantity and cost of material consumed during the year

Description	Unit	Quantity	Value (Rs.)
(i) Fuel			
(a) Coal	Tonnes		
(b) Diesel Oil	Ltrs.		
(c) Petrol	Ltrs.		
(d) Kerosene	Ltrs.		

(e) Gas	Cu m		
(ii) Lubricant			
(a) Lubricant oil	*l*		
(b) Grease	kg		
(iii) Electricity			
(a) Consumed	kWh		
(b) Generated	kWh		
(c) Sold	kWh		
(iv) Explosives (furnish full details in Part IV)			
(v) Tyres	Nos.		
(vi) Timber & Supports			
(vii)Drill roads & kits	Nos.		
(viii)Other spares & stores			

2. Royalty and Rents (in' 000 Rs.):		
X	Paid for current year	Paid towards past arrears
(a) Royalty		
(b) Dead rent		
(c) Surface rent		
3. Compensation paid for felling trees during the year (in Rs)		
4. Depreciation on fixed assets Rs		

5. Taxes and cesses		
X	Amount in Rs. paid during the year to:	
X	Central Govt.	State Govt.
(i) Sales Tax		
(ii) Welfare cess		
(iii) Other taxes & cesses:-		
(a) Mineral cess		
(b) Cess on dead rent		
(c) Others (please specify)		
6. Other expenses:		
(i) Overheads		
(ii) Maintenance		
(iii) Money value of other benefits paid to workmen		
(iv) Payment made to professional agencies		

Part –IV (Consumption of Explosives)

1. Licensed capacity of magazine: (specify unit separately in kg/tonne, numbers, metres)	**Item**	**Unit**	**Capacity**
2. Total production during the year (Tonne):			
3. Overburden removed:			

Classification of Explosives	Unit	Quantity consumed during the year		Estimated requirement during the next year	
		Small dia. (upto 32 mm)	Large dia. (above 32 mm)	Small dia. (upto 32 mm)	Large dia. (above 32 mm)
1.Gun Powder	kg				
2.Nitrate Mixture	kg	**X**	**X**	**X**	**X**
a.Loose ammonium nitrate					
b.Ammonium nitrate in cartridged form					
3.Nitro compound	kg				
4.Liquid Oxygen soaked cartridges	kg				
5.Slurry explosives (Mention different trade names)	kg				
6.Detonators	Nos.	**X**	**X**	**X**	**X**
i) Ordinary					
ii) Electrical		**X**	**X**	**X**	**X**
(a) Ordinary					
(b) Delay					

7.Fuse	Mts	**X**	**X**	**X**	**X**
(a)Safety Fuse					
(b)Detonating Fuse					
8.Plastic ignition cord	Mts				
9.Others (specify)	(Mention the unit)				

Different sizes of soaked liquid oxygen cartridges to be equivalent kg. as per manufacturer's instruction.

PART – V (General Geology & Mining)
(Details on items 1,2,6 & 7(i) may be given once in 5 years)

1. Mineral(s) worked and their characteristics : (In case more than one mineral is worked, the information asked for under (a) to (d) in respect of the remaining mineral(s) may be furnished in a separate sheet and attached with the return)

(a) Name of mineral :

(b) Type of ore (Tick mark whichever is applicable)
- (i) Lump
- (ii) Fines
- (iii) Friable
- (iv) Granular
- (v) Platy
- (vi) Fibrous
- (vii) Any other (specify), Powdery etc.

(c) Quality:

Chemical Analysis of Typical Grades Produced

Constituent	Grade			
	1	2	3	4
(i) Size Range				
(ii) Principal constituents				
(iii) Subsidiary Constituents				

2.(a) Name of rock/mineral excavated and disposed as waste:

(b) Name(s) of the ore/mineral excavated but not sold i.e., mineral reject:

(c) Typical analysis of mineral reject(s)

Item	1.	2.	3.	4.
Mineral reject				

3. Reserves and Resources estimated at the end of the year.

Classification	Code	Quantity	Grade (as per NMI grades as indicated in the mining plan)
(1)	(2)	(3)	(4)
Total Mineral Resources (A + B)			
A. Mineral Reserve			
1. Proved Mineral Reserve	111		
2. Probable Mineral Reserve	121 and 122		
B. Remaining Resources			
1. Feasibility Mineral Resource	211		
2. Prefeasibility Mineral Resource	221 and 222		
3. Measured Mineral Resource	331		
4. Indicated Mineral Resource	332		
5. Inferred Mineral Resource	333		
6.Reconnaissance Mineral Resource	334		

Note.- For the removal of doubts, the classification terms and codes mentioned in this Form shall have the same meaning as assigned to them in the Guidelines issued by Indian Bureau of Mines in this regard.

4. Mining Operations during the year:

4.1. Exploration

Item	Number	Meterage (as applicable)	Grid/Dimension
Drilling			
Trenching			
Pitting			

4.2 Opencast

(A) Details of Benches (Separately for mechanised and manual sections)

	In ore	In OB/Waste
(i) Number of Benches		
(ii) Average height (metres)		
(iiii) Depth of the deepest working from adjacent ground (M):		

(B) (i) Total ROM Ore production (tonnes):

(ii) Mineral Rejects generated with grades (tonnes):

(C) Total quantity of Overburden/Waste removed during the year (tonnes)

	During the year	Cumulative so far
(i) Quantity back filled		
(ii) Quantity disposed of in external dumps		

4.3 Underground:

(a) Driving (metres) in ore:
(b) Cross Cutting/Footwall Drives (in barren) (Metres) :
(c) Winzing (metres):
(d) Raising (metres):
(e) Shaft sinking (metres):
(f) Stope preparation (metres):
(g) Tonnage of ore blocked for stoping (tonnes):
(h) Quantity of waste removed (tonnes):
(i) Quantity of mineral rejects generated with grade (tonnes):

	Within lease area	Outside lease area
4.4 i) Number of trees planted during the year		
ii) Survival rate in percentage		

5. Type and aggregate Horse Power of Machinery: Give the following information for the types of machinery in use such as hoist, fans, drills, loaders, excavators, dumpers, haulages, conveyors, pumps, etc. Details of any new machinery added during the year may be furnished with cost.

Type of machinery	Capacity of each unit	No.of units	H.P. of each unit	Electrical/non electrical (specify)	Used in opencast/ underground(specify)

6.(i) Give details of future plans, if any, of exploration and development, production schedule, replacements and expansion of machinery and equipment etc.

(ii) If you have laboratory facilities for R & D and if so, give a brief description:

7.(i) Details of mineral Treatment Plant, if any. Give a brief description of the process capacity of the machinery deployed and its availability. (Enclose Flow Sheet and Material Balance of the Plant).

(ii) Furnish following information every year:

Item	Tonnage	Average Grade
Feed:		
Concentrates :		
By-products/Co-products:		
Tailings:		

8. Furnish surface and/or underground plans and sections as prepared and brought uptodate (as required under rule 28 of MCDR)

9. Please indicate the salient features which affected mining operations during the year.

PART-VI (PRODUCTION, DESPATCHES AND STOCKS)

(Unit of Quantity in Tonnes)

1. Production and Stocks of ROM ore at Mine-head

Category	Opening stock	Production	Closing stock
(a) Open Cast workings			
(b) Underground workings			
(b) Dump workings			

2.Grade-wise Production, Despatches ,Stocks and Ex-mine price of Processed/Sorted ore:

Grades*	Opening stock at mine head	Production	Despatches from mine head	Closing stock at mine-head	Ex-mine price (Rs./Metric Tonne)

[1][* The grades are as below:-

MINERAL	GRADES
Asbestos	a)Amphibole
	B)Chrysotile
Barytes	(a) White (including snow-white)
	(b) Off colour
Fluorite/Fluorspar	(a) 85% CaF_2 and above
	(b) 70 to below85% CaF_2
	(c) 30 to below 70% CaF_2
	(d) Below 30% CaF_2
Graphite	(a) with 80 per cent or more fixed carbon
	b) with 40 per cent or more but less than 80 per cent fixed carbon
	c)with less than 40% fixed carbon
Kaolin/China clay, Ball clay, White shale, White clay	a) Crude (Natural)
	b) Processed
Kyanite	(a) 40% Al_2O_3 & above
	(b) Below 40% Al_2O_3
Limestone	a) LD, and
	(b) SMS/Chemical
	(c) BF/Cement
Rock Phosphate/ Phosphorite	a)30- 35% P_2O_5
	b) 25- 30 % P_2O_5
	c) 20-25% P_2O_5
	d) 15-20% P_2O_5
Talc/Steatite/Soapstone	(a) Insecticide (filler) grade
	(b) Other than insecticide (filler) grade]

1. substituted by G.S.R. 330(E), dated 10.4.2003

3(i) In case the mineral is being pulverized in own factory, please give the following particulars:-

Grade	**Total quantity of mineral Pulverized(in tonnes)**	**Total quantity of pulverized mineral produced (for each mesh size)**		**Total Quantity of pulverized mineral sold during the year**		
		Mesh size	Quantity (tonne)	Mesh size	Quantity (tonne)	Ex-factory Sale value (Rs.)

3(ii) Average cost of pulverization :Rs _____ per tonne.

4. Details of Deductions used for computation of Ex_mine price (Rs/Metric Tonne)

Deduction claimed	Unit (in Rs/Metric Tonne)	Remarks
a) Cost of transportation (indicate Loading station and Distance from mine in remarks)		
b) Loading and Unloading charges		
c) Railway freight ,if applicable (indicate destination and distance)		
d) Port Handling charges/export duty(indicate name of port)		
e) Charges for Sampling and Analysis		
f) Rent for the plot at Stocking yard		
g) Other charges(specify clearly)		
Total (a) to (g)		

5. Sales/ Despatches effected for Domestic Consumption and for Exports:

Grade	Nature of Despatch (indicate whether for [1][Sale] or Captive consumption or Export)	For Domestic Consumption			For export		
		Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Quantity	Sale value	Country	Quantity	F.O.B Value (Rs.)

Consignee name and Registration number as allotted by the Indian Bureau of Mines to the buyer
(to indicate *separately if more than one buyer) for the top five despaches in terms of Quantity, for the remaining consolidated figure shall be reported with details of despatches as annexure.*

NOTE:- Mine owners are required to substantiate domestic sale value/ FOB value for each grade of ore quoted above with copy of invoices.

6. Give reasons for increase/decrease in production/nil production (of primary or associate mineral), if any, during the month compared to the previous month.

a)
b)
c)

7. Give reasons for increase/decrease in grade wise ex-mine price (of primary or associate Mineral),if any, during the month compared to the previous month.

a)
b)
c)

1. Inserted by G.S.R. 55(E), dated 17.1.2000

PART-VII: COST OF PRODUCTION

Cost of production per tonne of ore/mineral produced

	Item	Cost Per metric tonne
(i)	Direct Cost	
	(a) Exploration	
	(b) Mining	
	(c) Beneficiation(Mechanical Only)	
(ii)	Over-head cost	
(iii)	Depreciation	
(iv)	Interest	
(v)	Royalty	
(vi)	Taxes	
(vii)	Dead Rent	
(viii)	Others (specify)	
	Total	

Note: Information given under Part VI will be kept confidential, if required. The Government, however, will be free to utilize the information for general studies without revealing the identity or working cost of the firm.

VERIFICATION

I certify that the information furnished above is correct and complete in all respects.

Place: Signature
Date: Name in full:

Designation: Owner/Agent/
Mining Engineer/Manager".

4. In the Schedule in the principle rules, Form F-9, Form G and Form H-9 shall stand omitted.

5. In the principle rules, in the Schedule, after Form L the following Forms shall be inserted,-]

FORM-I

(Notice of certain appointment/resignation/termination/change of address)
(See rule 46)

MINE CODE_____

To

1. The Controller General,
Indian Bureau of Mines,
Nagpur-440 001.

*2 The Controller of Mines,
Indian Bureau of Mines,
PIN_____

*3. The Regional Controller of Mines,
Indian Bureau of Mines,
PIN_____

4. State Government concerned.

IMPORTANT
Notice in this form shall reach the concerned authorities within fifteen days of new appointment or termination from employment or change in address of Agent, Mining Engineer, Geologist or Manager

1. Name and address of the holder of Mining Lease or Prospecting Licence.

2. Name of mineral/minerals for which Mining Lease/ Prospecting Licence is granted. (a)_____(b)_____ (c)_____(d) _____

3. Name of mine/Prospecting Licensed area.

4. Location of mine/Prospecting Licensed area.
   (i) Topo-sheet Number
   (ii) Cadastral Survey or Khasra Number
   (iii) Village
      (a) Taluka
      (b) District
      (c) State

5. Particulars of Mining Lease/Prospecting Licence:
   (i) Date of execution
   (ii) Period.....years, from.....to.....
   (iii) Area under Mining Lease/Prospecting Licence

6. Please indicate whether notice is given in respect of:
   (i) New appointment
   (ii) Resignation/termination of employment
   (iii) Change of address:
   (Strike out whichever is not applicable)

---

* This should be sent to the Controller of Mines/Regional Controller of Mines in whose territorial jurisdiction the area/mine falls as notified from time to time by the Controller General, Indian Bureau of Mines, under rule 62 of the Mineral Conservation and Development Rules, 1988.

7. In case of appointment of Agent/Mining Engineer/Geologist/Manager, please indicate:
   (i) Name:
   (ii) Designation:
   (iii) Address:
   (iv) Qualifications:
   (v) University/Institution from which passed:
   (vi) Date of appointment:

8. If the appointment is that of a Mining Engineer or a Geologist, please indicate:

   (i) Whether appointment is: Whole time _____

   Part time _____

   (Please tick (3) mark whichever is applicable)

   (ii) Names, locations and ownership of all other mines/ Prospecting Licence which he will supervise:

9. In case of resignation/termination of employment of Agent/Mining Engineer /Geologist/Manager, please indicate:
   (i) Name:
   (ii) Designation:
   (iii) Date of resignation/ termination of employment :

(In case the vacancy so created has been filled in, please furnish the particulars of the same in columns 6 & 7)

10. In case of change of address of the Lessee/Agent/Mining Engineer/Geologist/Manager, please indicate:
   (i) Name:
   (ii) Designation:
   (iii) Present address:
   (iv) Date of change of address:

Place: Signature :
Date: Name in full :
Designation : Owner/Licensee

FORM-J

(Notice of sinking shafts and boreholes)
(See rule 47)

MINE CODE_____

To

1. The Controller General,
   Indian Bureau of Mines,
   Nagpur-440 001.

*2. The Controller of Mines,
   Indian Bureau of Mines,
   PIN_____

*3. The Regional Controller of Mines,
   Indian Bureau of Mines,
   PIN_____

4. State Government concerned.

IMPORTANT
Notice in this form shall be sent to the concerned authorities within fifteen days after the comencement of sinking shafts/boreholes.

1. Name of prospect/mine and mineral worked/prospected.
2. Name and address of Licensee/Lessee
3. Location
   (i) Toposheet Number
   (ii) Village
   (iii) Taluka
   (iv) District
   (v) State

4. Number of shafts/boreholes intended to be sunk or extended (Attach a plan on a scale not less than 1 centimetre = 40 metres indicating the precise location of the shaft/borehole).
5. Purpose for which each of the shafts/boreholes is intended to be sunk or extended.
6. Type of shaft(s)/contemplated and its/their dimension(s).
7. Type of drill used and size of core to be obtained.
8. Intended depth upto which shaft/boreholes is to be extended.
9. If the shaft/borehole commences from underground the depth of the level at which the shaft/borehole is sunk.
10. Name and qualification of the geologist or mining engineer in charge of the operation.
11. Date of commencement of proposed shaft sinking/drilling operation.

Place:
Date:

Signature:
Name in full:
Designation: Owner/
Agent/Mining Engineer/
Geologist/Manager

* This should be sent to the Controller of Mines and Regional Controller of Mines in whose territorial jurisdiction the area/mine falls as notified from time to time by the Controller General, Indian Bureau of Mines, under rule 62 of the Mineral Conservation and Development Rules, 1988.

FORM-K

(Particulars to be recorded in a durable bound paged book in respect of each bore-hole/pit/shaft).
(See rule 48)

MINE CODE_____

1. Name of the Mineral or Minerals for which the licence or lease is granted:
2. Name and address of the licensee or lessee:
3. Name of prospect/mine:
4. Location:
   (i) Toposheet Number :
   (ii) Cadastral Survey or Khasra number :
   (iii) Village :
   (iv) Taluka :
   (v) District :
   (vi) State :
5. Type and make of the drill and size of core.
6. Bore hole/pit number its location :
   (a) Reduced levels at the collar of the borehole/pit.
   (b) Inclination and bearing of the hole
   (c) Altitude of the formation.

7. Duration of drilling/pitting :
   (a) Date of commencement
   (b) Date of completion

8. Total length of the hole/pit/shaft :
9. Purpose of drilling/pitting :
10. Total operating expenditure incurred :
11. Details of intersection (as given below) :

Sr.No.	RUN DETAILS				Size of core/ pit/shaft	Percentage recovery of core	Lithology	Analysis details(Major Radicals a b c d)	Remarks
	From in metres	To in metres	Width in metres	True width in metres					
1	2	3	4	5	6	7	8	9	10
1.									
2.									
3.									

Place:
Date:

Signature:
Name in full:
Designation: Owner/Agent/Mining Engineer/Geologist/Manager

FORM-L

(Notice of transfer of Prospecting Licence or Mining Lease)

(See Rule 50) MINE CODE_____

To

1. The Controller General,
Indian Bureau of Mines,
Nagpur-440 001.

*2. The Controller of Mines,
Indian Bureau of Mines,
PIN_____

*3. The Regional Controller of Mines,
Indian Bureau of Mines,
PIN_____

4. State Government concerned.

IMPORTANT
Notice in this form shall reach the concerned authorities within thirty days of the date of such transfer.

1. Name(s) of mineral(s) worked.
2. Name and address of the Licensee/Lessee.....PIN.....
3. Particulars of the Prospecting Licence/Mining Lease
   (i) Date of execution
   (ii) Period_____years, from_____to_____
   (iii) Area under Licence/Lease_____hectares.
4. Location of the prospecting area/mining lease area:
   (i) Topo sheet number
   (ii) Cadastral map or khasra number
   (iii) Village
   (iv) (a) Taluka
   (b) District
   (c) State
   (v) (a) Nearest Railway Station
   (b) The distance therefrom_____kilometres
   (vi) (a) Nearest Rest house/Dak bungalow
   (b) Its distance from
   (1) the Railway Station.....kilometres
   (2) the prospecting licence area/mine.....kilometres
5. Name and address of the Transferee or Assignee _____
_____
_____PIN_____

Place:
Date:

Signature:
Name in full:
Designation: Lessee/Licensee

---

* This should be sent to the Controller of Mines/Regional Controller of Mines in whose territorial jurisdiction the area/mine falls as notified from time to time by the Controller-General, Indian Bureau of Mines, under rule 62 of the Mineral Conservation and Development Rules, 1988.

Foot Note : The Principal Rules were notified in the Official Gazette under G.S.R. 1023(E), dated the 24.10.1988. These rules were amended vide Notification No. G.S.R. 227 (E), dated 22.4.1991, No. G.S.R. 580 (E), dated 4.8.1995 and No. G.S.R. 55 (E), dated 17.1.2000, No. G.S.R. 744 (E), dated 25.9.2000, No. G.S.R. 22 (E), dated 11.1.2002, No. G.S.R. 330 (E), dated 10.4.2003 and No. G.S.R. 338 (E), dated 17.4.2003.

[1][FORM-M

(Application for registration under Rule 45 of MCDR for undertaking mining or prospecting or reconnaissance operations, or trading or storage or end use or export of minerals)

Note:-If there is any change after registration in any of the fields, the form may be updated accordingly and informed to the Controller General, Indian Bureau of Mines

To,

The Controller General
Indian Bureau of Mines
Nagpur- 440001

(Application to be filed through the respective Regional Office of Indian Bureau of Mines under whose jurisdiction the State or Union Territory in which the mining or prospecting or reconnaissance operations, or trading or storage or end use or export of minerals is being undertaken, falls)

1. ***Category of applicant**: (*Please tick mark below*)
   - o Individual
   - o Association of individuals
   - o Firm
   - o Company registered under Companies Act.

2. ***Type of business/activity**: (*Please tick mark options given below, multiple options permitted*)
   - o Mining
   - o Trading of minerals
   - o Storage of minerals
   - o End-user of minerals (including consumption from captive mines)
   - o Export of minerals

3. **Details of the applicant:**

(a) In case of individual applicant *(includes owner, agent, mining engineer or manager of every mine)**:***

(i)	**Name**	Shri / Smt. *(First name) / (Middle name) / (Last name)*
(ii)	**Position in mine** (please tick mark the option)	o Owner o Agent o Mining engineer o Manager
(iii)	**Address**	(*Door number/ building number/ plot number)*
	Block	(*street number / block number*)
	Taluka	
	District	
	State / U.T	
	Pin code	
(iv)	**Telephone**	Office : Fax : Residence : Mobile :
(v)	**PAN number**	
(vi)	**Voter ID number**	
(vii)	**Passport number / driving licence number**	

(b) In case of association of individuals:

(i)	**Name of Association, or name of the Signing authority of association**	
(ii)	**Address**	(*Door number/ building number/ plot number)*
	Block	(*street number / block number*)
	Taluka	
	District	
	State / U.T	
	Pin code	
(iii)	**Telephone**	Office : Fax : Residence : Mobile :

1 Inserted by G.S.R. 75(E) dated 9.2.2011

(iv)	**Details of Associates**	Name	Pan number	Voter ID number	Citizenship	Passport number / driving licence number (if available)

(c) In case of a Firm:

(i)	**Name of Firm**					
(ii)	**Address**	(*Door number/ building number/ plot number)*				
	Block	(*street number / block number*)				
	Taluka					
	District					
	State / U.T					
	Pin code					
(iii)	**Telephone**	Office : Fax : Residence : Mobile :				
(iv)	**Details of partners in the Firm**	Name of partner	Pan number	Voter ID number	Citizenship	Passport number / driving licence number (if available)
(v)	**Registration number of Firm** (*as registered under Indian Partnership Act, 1932)*					
(vi)	**Name of the State where registered**					
(vii)	**Date of registration**	*(dd/mm/yyyy)*				

(d) In case of a company:

(i)	**Name of Company**					
(ii)	**Corporate Address**					
	State / U.T					
	Pin code					
(iii)	**Telephone**	Office : Fax :				
(iv)	**Details of Directors in the Company**	Name	Pan number	Voter ID number	Citizenship	Passport number / driving licence number (if available)
(v)	**Registration number of Company** (*as registered under Indian Companies Act, 1956)*					
(vi)	**Name of the State where registered**					
(vii)	**Date of registration**	*(dd/mm/yyyy)*				

(viii)	**Details of Officer responsible for conduct of business of the Company**	Name	
		Designation	
		Address	
		Phone no	Office: Residence: Mobile:
		PAN no.	
		Voter ID no.	
		Passport no. / Driving licence no.	

4. Please give details of mines held at the time of applying for registration, if any, by the Individual/ Association of Individuals / Firms or Company.

Sl. No.	Name of the mine	Mine code assigned by IBM

(Attach extra sheet, if required)

5. Please give details of prospecting licence held at the time of applying for registration, if any, by the Individual/ Association of Individuals / Firms or Company.

Sr. No	Location of PL area						Area held under PL (in ha.)	Name of Minerals	Date of grant	Period	Date of execution of licence
	Village	Taluka	District	State	Lati-tude (ddmm ss)	Long-itude (dd mm ss)					

(Attach extra sheet, if required)

6. Please give details of reconnaissance licence held at the time of applying for registration, if any, by the Individual/ Association of Individuals / Firms or Company.

Sr. No	Location of RP						Area held under RP (in ha)	Name of Minerals	Date of grant	Period	Date of execution of licence
	Villages	Talukas	Districts	State	Lati-tude (ddmm ss)	Long-itude (dd mm ss)					

(Attach extra sheet, if required)

7. If engaged in mineral trading/ storage and export, please give details of storage facilities owned at the time of applying for registration.

Sr. No.	Location(s) of area used for storage						Area Owned/ held under rent (In hectres)	Mineral Name	Remarks
	Village	Taluka	District	Sta-te	Lati-tude (ddmm ss)	Longi-tude (ddmms s)			

8. If engaged in production or manufacturing through a mineral based industry, please give details of mineral consumption:

Sr. No.	Location(s) of plant where mineral is used						Name of the plant	Mineral consumed	Average consump-tion per year	Remarks
	Village	Taluka	District	State	Lati-tude (ddmm ss)	Longi-tude (ddmms s)				

VERIFICATION

I, ----------S/o / D/o / W/o---------- age ------ occupation---------- resident of ---------- village/town/city post office---------- police station ---------- taluka---------- district---------- state---------- certify that the information furnished above is complete and correct in all respects.

Place: Signature:

Date: Name in full:

Not to be filled by the applicant
(For internal use of the Indian Bureau of Mines)

Registration Number assigned by IBM:

Random Number

FORM N

For the month of _____20

MONTHLY RETURN

[See Rule 45(6)(i)]

To,

(i) The State Government

(ii) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the area/mine falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

INSTRUCTIONS FOR FILLING UP THE FORM

1. Quantity to be reported in tonnes.
2. Value to be reported in rupees only.
3. Registration number means the registration number allotted by Indian Bureau of Mines to the mine owner/ agent/ mining engineer/ manager of a mine or to a trader/ stockist / end-use mineral based industry / exporter.
4. Ore grade for various minerals, as given in the form, to be strictly used while reporting.

GENERAL PARTICULARS

Registration No (allotted by IBM)			
Name of activity(s) reported (*Tick whichever is/are applicable*)	(a)	Trading	
	(b)	Export	
	(c)	End-use	
	(d)	Storage	

DETAILS OF THE ACTIVITY

(a) Trading Activity

Grade-wise ore/mineral/ metal/scrap	Opening stock	Ore purchased during the month (within the country)			Ore imported during the month		Ore despatched during the month			Closing stock
	Quantity (in tonnes)	Registration number as allotted by the Indian Bureau of Mines to the supplier (*to indicate separately if more than one supplier*)	Quantity (in tonnes)	Value (in Rs.)	Quantity (in tonnes)	Value (in Rs.)	Registration number as allotted by the Indian Bureau of Mines to the buyer (*to indicate separately if more than one buyer*)	Quantity (in tonnes)	Value (in Rs.)	Quantity (in tonnes)

(b) Export of ore

Grade-wise ore/mineral/metal/scrap	Opening stock	Ore procured during the month for export (from within the country)			Ore imported during the month		Ore despatched for exports during the month			Closing stock
	Quantity (in tonnes)	Registration number as allotted by the Indian Bureau of Mines to the	Quantity (in tonnes)	Value (in Rs.)	Quantity (in tonnes)	Value (in Rs.)	Registration number as allotted by the Indian Bureau of Mines to	Quantity (in tonnes)	Value (in Rs.)	Quantity (in tonnes)

		supplier (*to indicate separately if more than one supplier*)					the buyer (*to indicate separately if more than one buyer*)			

(c) End-use mineral based activity

Grade-wise ore/mineral/metal/ scrap	Opening stock	Ore purchased during the month (within the country)			Ore imported during the month		Ore consumed during the month		Ore sold during the month			Closing stock
	Quantity (in tonnes)	Registration number as allotted by the Indian Bureau of Mines to the supplier (*to indicate separately if more than one supplier*)	Quantity (in tonnes)	Value (in Rs.)	Quantity (in tonnes)	Value (in Rs.)	Quan-tity (in tonnes)	Value (in Rs.)	Registration number as allotted by the Indian Bureau of Mines to the buyer (*to indicate separately if more than one buyer*)	Quan-tity (in tonnes)	Value (in Rs.)	Quan-tity (in tonnes)

(d) Storage Activity

Grade-wise ore/mineral/metal/scrap	Opening stock	Ore received during the month (within the country)			Ore imported during the month		Ore despatched during the month			Closing stock
	Quantity (in tonnes)	Registration number as allotted by the Indian Bureau of Mines to the supplier (*to indicate separately if more than one supplier)*	Quantity (in tonnes)	Value (in Rs.)	Quantity (in tonnes)	Value (in Rs.)	Registration number as allotted by the Indian Bureau of Mines to the person/company to whom ore despatched (*to indicate separately if more than one person/company*)	Quantity (in tonnes)	Value (in Rs.)	Quantity (in tonnes)

VERIFICATION

I, ----------S/o / D/o / W/o---------- age ------ occupation---------- resident of ---------- village/town/city post office---------- police station ---------- taluka---------- district---------- state---------- certify that the information furnished above is complete and correct in all respects.

Place:

Date:

Signature:

Name in full:

Grades of ore to be used for the purpose of reporting in Form N

Sl no.	Mineral grade
1	**Iron ore**
	(a) Below 55%-Lumps
	(b) 55% to below 58%-Lumps
	(c) 58% to below 60%-Lumps
	(d) 60% to below 62%-Lumps
	(e) 62% to below 65%-Lumps
	(f) 65% and above-Lumps
	(g) Below 55%-Fines
	(h) 55% to below 58% -Fines
	(i) 58% to below 60%-Fines
	(j) 60% to below 62%-Fines
	(k) 62% to below 65%-Fines
	(l) 65% and above-Fines
	(m)concentrates
2	**Manganese (as a percent. of manganese content in ore)**
	(a) Below 25%
	(b) 25% to below 35%
	(c) 35% to below 46%
	(d) 45% and above
	(e) Dioxide ore
	(f) Concentrates
3	**Bauxite (for use in alumina and aluminium extraction)**
	(a) Below 40%
	(b) 40% to below 45%
	(c) 45% to below 50%
	(d) 50% to below 55%
	(e) 55% to below 60%
	(f) 60% and above
	Bauxite (for use in other than alumina and aluminium extraction)
	(a) Cement
	(b) Abrasive
	(c) Refractory
	(d) Chemical
4	**Chromite**
	(a) Below 40% Cr2O3 - Lumps
	(b) 40% to below 52 % Cr2O3 - Lumps
	(c) 52% Cr2O3 and above - Lumps
	(d) Below 40% Cr2O3 - Fines
	(e) 40% to below 52 % Cr2O3 - Fines
	(f) 52% Cr2O3 and above - Fines
	(g) Chemical grade
	(h) Concentrates
5	**Copper/Gold/Lead/Tin/Tungsten/Zinc**
	(a) In case of Ore - Grade based on the percent. of metal in ore
	(b) In case of concentrate - Grade based on the percent. of metal in concentrate
	(c) Metal
6	**Mica**
	(a) Crude Mica
	(b) Dressed Mica
7	**Gem and precious stones**
	(a) Rough and uncut stones
	(b) Cut and polished stones
	(c) Industrial grade
	(d) Others

8	**Asbestos**
	a)Amphibole
	b)Chrysotile
9.	**Phosphorite**
	a)30- 35% P_2O_5
	b) 25- 30 % P_2O_5
	c) 20-25% P_2O_5
	d) 15-20% P_2O_5
10	**Barytes**
	(a) White (including snow-white)
	(b) Off colour
11	**Fluorite/Fluorspar**
	(a) 85% CaF_2 and above
	(b) 70 to below85% CaF_2
	(c) 30 to below 70% CaF_2
	(d) Below 30% CaF_2
12	**Graphite**
	(a) with 80 per cent or more fixed carbon
	(b) with 40 per cent or more but less than 80 per cent fixed carbon
	(c)with less than 40% fixed carbon
13	**Kaolin/China clay, Ball clay, White shale, White clay**
	a) Crude (Natural)
	b) Processed
14	**Kyanite**
	(a) 40% Al_2O_3 & above
	(b) Below 40% Al_2O_3
15	**Limestone**
	a) LD, and
	(b) SMS/Chemical
	(c) BF/Cement
16	**Talc/Steatite/Soapstone**
	(a) Insecticide (filler) grade
	(b) Other than insecticide (filler)

Note: In case of minerals, not mentioned above, the grades as occurring may be reported.

FORM O

For the month of _____20

ANNUAL RETURN

[See Rule 45(6)(ii)]

To,

(i) The State Government

(ii) The Regional Controller of Mines
Indian Bureau of Mines
_____Region,
PIN:
(*Please address to Regional Controller of Mines in whose territorial jurisdiction the area falls as notified from time to time by the Controller General, Indian Bureau of Mines under Rule 62 of the Mineral Conservation and Development rules, 1988)*

(iii) The Chief Mineral Economist

INSTRUCTIONS FOR FILLING UP THE FORM

5. Quantity to be reported in tonnes.
6. Value to be reported in rupees only.
7. Registration number means the registration number allotted by Indian Bureau of Mines to the mine owner/ agent/ mining engineer/ manager of a mine or to a trader/ stockist / end-use mineral based industry / exporter.
8. Ore grade for various minerals, as given in the form, to be strictly used while reporting.

(e) Item 5 related to raw materials consumed may be filled up by all end use industry and iron& steel industry also.

1. GENERAL PARTICULARS

Registration No (allotted by IBM)			
Name of activity(s) reported (*Tick whichever is/are applicable*)	(a)	Trading	
	(b)	Export	
	(c)	End-use	
	(d)	Storage	

2. STATEMENT ON DETAILS OF THE ACTIVITY UNDERTAKEN IN THE FINANCIAL YEAR ENDING 20 _

(a) Trading Activity:

Grade-wise ore/mineral/metal/scrap	Opening stock	Ore purchased during the year (within the country)			Ore imported during the year		Ore despatched during the year			Closing stock
	Quantity (in tonnes)	Registration number as allotted by the Indian Bureau of Mines to the supplier (*to indicate separately if more than one supplier*)	Quantity (in tonnes)	Value (in Rs.)	Quantity (in tonnes)	Value (in Rs.)	Registration number as allotted by the Indian Bureau of Mines to the buyer (*to indicate separately if more than one buyer*)	Quantity (in tonnes)	Value (in Rs.)	Quantity (in tonnes)

(b) Export of ore:

Grade-wise ore/mineral/metal/scrap	Opening stock	Ore procured during the year (within the country)			Ore imported during the year		Ore exported during the year			Closing stock
	Quantity (in tonnes)	Registration number as allotted by the Indian Bureau of Mines to the supplier (*to indicate separately if more than one*	Quantity (in tonnes)	Value (in Rs.)	Quantity (in tonnes)	Value (in Rs.)	Registration number as allotted by the Indian Bureau of Mines to the buyer (*to indicate separately if more than one buyer*)	Quantity (in tonnes)	Value (in Rs.)	Quantity (in tonnes)

		supplier)								

(c) End-use mineral based activity:

Grade-wise ore/mineral/metal/ scrap	Opening stock	Ore purchased during the month (within the country)			Ore imported during the month		Ore consumed during the month		Ore sold during the month			Closing stock
	Quantity (in tonnes)	Registration number as allotted by the Indian Bureau of Mines to the supplier (*to indicate separately if more than one supplier*)	Quantity (in tonnes)	Value (in Rs.)	Quantity (in tonnes)	Value (in Rs.)	Quantity (in tonnes)	Value (in Rs.)	Registration number as allotted by the Indian Bureau of Mines to the buyer (*to indicate separately if more than one buyer*)	Quantity (in tonnes)	Value (in Rs.)	Quantity (in tonnes)

(d) Storage activity:

Grade-wise ore/mineral/metal/scrap	Opening stock	Ore received during the year			Ore imported during the year		Ore despatched during the year			Closing stock
	Quantity (in tonnes)	Registration number as allotted by the Indian Bureau of Mines to the supplier (*to indicate separately if more than one supplier*)	Quantity (in tonnes)	Value (in Rs.)	Quantity (in tonnes)	Value (in Rs.)	Registration number as allotted by the Indian Bureau of Mines to the person/company to whom ore despatched (*to indicate separately if more than one person/company*)	Quantity (in tonnes)	Value (in Rs.)	Quantity (in tonnes)

3. INFORMATION REGARDING END-USE MINERAL BASED INDUSTRIES (OTHER THAN IRON AND STEEL INDUSTRY)

NOTE:
(a) ***ONLY END-USE MINERAL BASED INDUSTRY TO RESPOND TO THIS SECTION***
(b) ***INFORMATION TO BE GIVEN SEPARATELY FOR EACH INDUSTRY AND EACH UNIT***

(i) Name of Industry :
(ii) (a) Location : (b) District : (c) State :
(iii) Details on products manufactured with their capacities and production :

Products	Annual installed capacity during the year 20___ (in Metric tonnes)	Production	
		Previous financial year (in Metric tonnes)	Present financial year (in Metric tonnes)
(1)	(2)	(3)	(4)
FINISHED PRODUCTS			
i)			
ii)			
iii)			
INTERMEDIATE PRODUCTS			
i)			
ii)			
BY-PRODUCTS			
(i)			
(ii)			

(iv) Expansion programme undertaken and progress made during the year :

(v) Expansion programme/Plan envisaged for future :

(vi) Research & Development programme carried out during the year (give details) :

4. INFORMATION REGARDING IRON & STEEL INDUSTRY

(All data to be given on Financial year basis)

(i) Name of Company

(ii) Name of Plant :

(iii) Location :

(iv) Products manufactured with their licenced capacity and production:

Products	Installed capacity in present financial year (in tonnes per annum)	Production		Remarks
		Previous financial year	Present financial year	
(a) Sinter i)Self fluxing ii)Ordinary				
(b) Pellets				
(c) i)Clean coal ii)Coke (own production)				
(d) Pig iron i)Hot metal (total) ii)Hot metal for own consumption. iii)Pig iron for sale				
(e) i) Sponge Iron ii) Hot Briquetted Iron				
(f) Steel i) Liquid Steel/ Crude Steel ii) Total Saleable Steel a) Semi-finished Steel b) Finished Steel				
(g) Tin plates				
(h) Sulphuric acid				
(i) Refractories/bricks (specify details)				
(j) Fertilizers (please specify)				
(k) Any other product/by-product				

Coke purchased for previous year and present year:
Expansion programme undertaken and progress made during the year :
Expansion programme/Plan envisaged for future :
Research & Development programme carried out during the year (give details) :

5. DETAILS OF RAW MATERIALS CONSUMED IN PRODUCTION (*including Electricity, Coal, and Petroleum products)*

Raw material	Actual Consumption (In metric tonnes)		Estimated requirement (In metric tonnes)	
	Previous financial year	Present financial year	Next financial year	Next to Next financial year
(1)	(2)	(3)	(4)	(5)
a.				
b.				
c.				
d.				
e.				
f.				
g.				
h.				
i.				
j.				
k.				
l.				

6 Source of supply

Mineral/ Ore/Metal/Ferro-alloy	Indigenous/Imported								
	Name & address of supplier	Source of supply (mine/ area)	Indicate the distance of mine/rail to plant (in km.)	Transport-ation cost per tonne Rail/Road	Quantity (metric tonnes.)	Price per metric tonnes.at factory site	Name & complete address of supplier (country wise)	Quantity purchased (metric tonnes)	Cost per metric tonne at factory site
a.									
b.									
c.									
d.									

VERIFICATION

I, ----------S/o / D/o / W/o---------- age ------ occupation---------- resident of ---------- village/town/city post office---------- police station ---------- taluka---------- district---------- state---------- certify that the information furnished above is complete and correct in all respects.

Place: Signature:

Date: Name in full:

Grades of ore to be used for the purpose of reporting in Form O

Sl no.	Mineral grade
1	**Iron ore**
	(a) Below 55%-Lumps
	(b) 55% to below 58%-Lumps
	(c) 58% to below 60%-Lumps
	(d) 60% to below 62%-Lumps
	(e) 62% to below 65%-Lumps
	(f) 65% and above-Lumps
	(g) Below 55%-Fines
	(h) 55% to below 58% -Fines
	(i) 58% to below 60%-Fines
	(j) 60% to below 62%-Fines
	(k) 62% to below 65%-Fines
	(l) 65% and above-Fines
	(m)concentrates
2	**Manganese (as a percent. of manganese content in ore)**
	(a) Below 25%
	(b) 25% to below 35%
	(c) 35% to below 46%
	(d) 45% and above
	(e) Dioxide ore
	(f) Concentrates
3	**Bauxite (for use in alumina and aluminium extraction)**
	(a) Below 40%
	(b) 40% to below 45%
	(c) 45% to below 50%
	(d) 50% to below 55%
	(e) 55% to below 60%
	(f) 60% and above
	Bauxite (for use in other than alumina and aluminium extraction)
	(a) Cement
	(b) Abrasive
	(c) Refractory
	(d) Chemical
4	**Chromite**
	(a) Below 40% Cr2O3 - Lumps
	(b) 40% to below 52 % Cr2O3 - Lumps
	(c) 52% Cr2O3 and above - Lumps
	(d) Below 40% Cr2O3 - Fines
	(e) 40% to below 52 % Cr2O3 - Fines
	(f) 52% Cr2O3 and above - Fines
	(g) Chemical grade
	(h) Concentrates
5	**Copper/Gold/Lead/Tin/Tungsten/Zinc**
	(a) In case of Ore - Grade based on the percent. of metal in ore
	(b) In case of concentrate - Grade based on the percent. of metal in concentrate
	(c) Metal
6	**Mica**
	(a) Crude Mica
	(b) Dressed Mica
7	**Gem and precious stones**
	(a) Rough and uncut stones
	(b) Cut and polished stones
	(c) Industrial grade
	(d) Others

8	**Asbestos**
	a)Amphibole
	b)Chrysotile
9	**Phosphorite**
	a)30- 35% P_2O_5
	b) 25- 30 % P_2O_5
	c) 20-25% P_2O_5
	d) 15-20% P_2O_5
10	**Barytes**
	(a) White (including snow-white)
	(b) Off colour
11	**Fluorite/Fluorspar**
	(a) 85% CaF_2 and above
	(b) 70 to below 85% CaF_2
	(c) 30 to below 70% CaF_2
	(d) Below 30% CaF_2
12	**Graphite**
	(a) with 80 per cent or more fixed carbon
	(b) with 40 per cent or more but less than 80 per cent fixed carbon
	(c)with less than 40% fixed carbon
13	**Kaolin/China clay, Ball clay, White shale, White clay**
	a) Crude (Natural)
	b) Processed
14	**Kyanite**
	(a) 40% Al_2O_3 & above
	(b) Below 40% Al_2O_3
15	**Limestone**
	a) LD, and
	(b) SMS/Chemical
	(c) BF/Cement
16	**Talc/Steatite/Soapstone**
	(a) Insecticide (filler) grade
	(b) Other than insecticide (filler)

Note: In case of minerals, not mentioned above, the grades as occurring may be reported."]

GUIDELINES FOR SUBMISSION OF RETURNS

A. Authority to whom to be sent:

The Owner, Agent, Manager or Mining Engineer shall submit to the (i) Controller General, Indian Bureau of Mines, Nagpur, (ii) the concerned Controller of Mines and the Regional Controller of Mines, as notified from time to time under Rule 62 of Mineral Conservation and Development Rules,1988 and (iii) the State Government concerned:

(a) Monthly Return in Form-F-1 to F-8

(b) Annual Return in Form-H-1 to H-8

B. Time Schedule:

1. Monthly Returns in Form-F-1 to F-8: Before the 10^{th} day of every month in respect of preceding month.

2. Annual Return in Form- H-1 to H-8: Before 1st July each year for the preceding financial year.

C. General Instructions:

1. Do not leave any column blank. In case information is 'Nil' in respect of any item(s) or certain item(s) are'Not applicable' the same should be indicated against all such items. For any clarification/instructions, consult the Controller General,Indian Bureau of Mines, Nagpur.

2. If more than one mineral is produced from the same mine, indicate the names of all the minerals produced.

3. The return is to be submitted even during the period of discontinuance, furnishing necessary information inclusive of 'NIL' information.

4. In case ownership of the mine changed during the reference period, separate returns have to be filled by each for the respective periods of ownership.

D. Lease Details:

1. Where any State Government itself is the owner of the mine, the name of the State Government as well as the name and address of the exploiting agency should be indicated.

2. Where any State Government itself is the owner of the mine, indicate the area of operation.

3. In case the lease is expired and not renewed, clarify whether mine is working under Working Permit.

E. Employment of Labour and Wages Paid: Part-II (Annual Return)

1.(a) Give day of the week and the date and month on the day of maximum employment.

2.(b) Total number of Mandays worked is obtained by adding the daily attendance for the whole period.

3(c) Average daily employment is obtained by dividing the number of man days worked by the number of working days. The total shown in column (4C) should agree with the quotient obtained by dividing the total shown in column (2C) by the number of working days shown in column(3).

4.(d) Wage includes all cash payments including bonuses. Employers' contributions to provident funds, welfare activities etc. Concessions in kind should not be included in wages.

5.(e) Persons employed in the removal of overburden should be included among 'Others' and not among 'Miners and Loaders' or 'Face workers and Loaders'.

F. Pit's Mouth Value:

1. The Pit's Mouth Value should represent the sale value of the mineral at the pit head. In case of sales effected on F.O.R. or F.O.B. or any other basis, pit head sale value should be arrived at after deducting all the expenses incurred from mine to railway station or port or other point of sale, as the case may be (such as expenses on transportation, loading and unloading charges, railway freight, sampling and analysis, port handling, export duty, cess, etc.)

2. In case of captive mines, cost of production may be considered to represent the Pit's Mouth Value.

3. The Pit's Mouth Value may be indicated in respect of each grade of ore sold in accordance with definition. In case, there is no sale of a particular grade or grades produced during the period, the sale value of each grade in any of the immediate earlier period may be indicated.

G. Production:

1. In case of mines producing more than one mineral from the same mine, a combined return (except production part) may be submitted for all such minerals. However, production part of the return may be submitted separately for each mineral in the prescribed formats.

2. Give complete chemical analysis of a representative sample of each grade of ore sold/despatched during the period in a separate sheet and attach with the return. (Give the analysis in respect of the sale/despatch grades which are different from the production grades already covered.)

H. Abbreviations used in the above Form:

Govt.	Government	Ltd Co.	Limited Company
&	and	No.	Number
Rs.	Rupees	Col.	Column
l	Litres	Cu m	Cubic Metres
kg	Kilograms	kWh	Kilo Watt Hour
R.O.M.	Run-of-Mine	F.O.R.	Free on Rail
km	Kilometre	%	Percentage
F.O.B.	Free on board	mcu m	Million Cubic Metre
mm	Millimetre		

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GUIDELINES UNDER MCDR FOR UNITED NATIONS FRAMEWORK CLASSIFICATION OF MINERAL RESERVES / RESOURCES

(See Rule 45 (5) (b) and Forms H-1 to H-8)

I. UNFC classification of reserves :-

A. DEFINITION OF TERMS AND CODES ON RESERVES AND RESOURCES UNDER UNITED NATIONS FRAMEWORK CLASSIFICATION (UNFC) OF MINERAL RESOURCES

The UNFC consists of a three dimensional system with the following three axes: Geological Assessment, Feasibility Assessment and Economic viability. The process of geological assessment is generally conducted in stages of increasing details. The typical successive stages of geological investigation i.e. reconnaissance, prospecting, general exploration and detailed exploration, generate resource data with a clearly defined degrees of geological assurance. These four stages are therefore used as geological assessment categories in the classification. Feasibility assessment studies form an essential part of the process of assessing a mining project. The typical successive stages of feasibility assessment i.e. geological study as initial stage followed by prefeasibility study and feasibility study/mining report are well defined. The degree of economic viability (economic or subeconomic) is assessed in the course of prefeasibility and feasibility studies. A prefeasibility study provides a preliminary assessment with a lower level of accuracy than that of a feasibility study, by which economic viability is assessed in detail.

It is a three digit code based system, the economic viability axis representing the first digit, the feasibility axis the second digit and the geologic axis the third digit. The three categories of economic viability have codes 1,2 and 3 in decreasing order, similarly the three categories of feasibility study have also codes 1,2 and 3 while the four stages of geological assessment are represented by 4 codes i.e. 1 (detailed exploration), 2 (general exploration), 3 (prospecting) and 4 (reconnaissance). Thus the highest category of resources under UNFC system will have the code (111) and lowest category the code (334). The various terms used in this classification and their definitions are as follows:

1. Total Mineral Resource

- A concentration (or occurrence) of material of intrinsic economic interest.
- Reasonable prospects for eventual economic extraction.
- Location, grade, quantity, geological characteristic known, estimated or interpreted from specific geological evidence and knowledge.

(i) Measured Mineral Resource (331)

- That part of mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence i.e. based on detailed exploration.

(ii) Indicated Mineral Resource (332)
- Tonnage, densities, shape, physical characteristic, grade and mineral content can be estimated with reasonable level of confidence based on exploration, sampling and testing information, location of borehole, pits etc. too widely spaced.

(iii) Inferred Mineral Resource (333)
- Tonnage, grade and mineral content can be estimated with low level of confidence. Inferred from geological evidence.

2. Mineral Reserve
- Economically mineable part of measured and/or indicated mineral resource.

(i) Proved Mineral Reserves (111)
- Economically mineable part of Measured Mineral Resource.

(ii) Probable Mineral Reserves (121 & 122)
- Economically mineable part of indicated or in some cases a measured mineral resource.

3. Reconnaissance Mineral Resource (334)
- Estimates based on regional geological studies and mapping, airborne and indirect Methods, preliminary field inspections as well as geological inference and extrapolation

4. Prefeasibility Mineral Resource (221 and 222)
- That part of an indicated and in some circumstances measured mineral resource that has been shown by prefeasibility study to be not economically mineable.
- Possibly economically viable subject to changes in technological, economic, environmental and/or other relevant condition.

5. Feasibility Mineral Resource (211)
- That part of measured mineral resource, which after feasibility study has been found to be economically not mineable.
- Possibly economically viable subject to changes in technological, economic, environmental and/or other relevant condition.

<u>Definition of Uneconomic Occurrence</u>

Materials of estimated quantity, that are too low in grade or for other reasons are not considered potentially economic. Thus, Uneconomic Occurrence is not pat of a Mineral Resource. If quantity and quality are considered worthy of reporting, it should be recognized that an Uneconomic Occurrence cannot be exploited without major technological and/or economic changes, which are not currently predictable.

<u>Mineral Occurrence:</u>

A Mineral Occurrence is an indication of mineralisation, that is worthy of further investigation. The term Mineral Occurrence does not imply any measure of volume/tonnage or grade/quality and is thus not part of a Mineral Resource.

B. Definitions of Terms to be used in the United Nations International Framework Classification for Reserves/Resources

Solid Fuels and Mineral Commodities –

Definitions of Stages of Feasibility Assessment

Mining Report	A **Mining Report** is understood as the current documentation of the state of development and exploitation of a deposit during its economic life including current mining plans. It is generally made by the operator of the mine. The study takes into consideration the quantity and quality of the minerals extracted during the reporting time, changes in Economic Viability categories due to changes in prices and costs, development of relevant technology, newly imposed environmental or other regulations, and data on exploration conducted concurrently with mining. It presents the current status of the deposits, providing a detailed and accurate, up-to-date statement on the reserves and the remaining resources.
Feasibility Study	A **Feasibility Study** assesses in detail the technical soundness and Economic Viability of a mining project, and serves as the basis for the investment decision and as a bankable document for project financing. The study constitutes an audit of all geological, engineering, environmental, legal and economic information accumulated on the project. Generally, a separate environmental impact study is required. Cost data must be reasonably accurate (usually within ± 10%), and no further investigations should be necessary to make the investment decision. The information basis associated with this level of accuracy comprises the reserve figures based on the results of Detailed Exploration, technological, pilot tests and capital and operating cost calculations such as quotations of equipment suppliers. A detailed list of the important items addressed in a Feasibility Study is given below :

List of the more important items to be addressed in a Feasibility Study

Geographical conditions	**Operating**
Infrastructure Þ public utilities Þ road, railways and other Þ manpower **Geology** Þ structure, size, shape Þ Mineral content, grade, density Þ reserve/resource quantity and quality Þ other relevant geological features **Legal Matters** Þ Rights and ownership Þ Socioeconomic impact studies Þ Public acceptance Þ Land requirements Þ Government factors	Þ rock mechanics Þ mining equipment Þ mining method Þ construction plan and schedule Þ appropriate technological pilot tests Þ mill and processing plant Þ tailings disposal Þ water management Þ transportation Þ power supply Þ manpower/labour relations Þ auxiliary facilities and services Þ closure design **Environment** (if not dealt with in a separate study) **Market analysis** **Financial Analysis** Þ Capital cost Þ Cashflow forecast Þ Investment cost Þ Inflation forecast Þ Operating cost Þ Sensitivity studies Þ Closure cost Þ Rehabilitation cost **Risk Assessment**

A sensitivity study may require independent verification in certain circumstances.

Definition of Stages of Feasibility Assessment (Contd.)

Prefeasibility Study	A **Prefeasibility Study** provides a preliminary assessment of the Economic Viability of a deposit and forms the basis for justifying further investigations (Detailed Exploration and Feasibility Study). It usually follows a successful exploration campaign, and summarizes all geological, engineering, environmental, legal and economic information accumulated to date on the project. In projects that have reached a relatively advanced stage, the Prefeasibility Study should have error limits of ± 25%. In less advanced projects higher errors are to be expected. Various terms are in use internationally for Prefeasibility Studies reflecting the actual accuracy level. The data required to achieve this level of accuracy are reserves/resources figures based on Detailed and General Exploration, technological tests at laboratory scale and cost estimates e.g. from catalogues or based on comparable mining operations. The Prefeasibility Study addresses the items listed under the Feasibility Study, although not in as much details.
Geological Study	A **Geological Study** is an initial evaluation of Economic Viability. This is obtained by applying meaningful cut-off values for grade, thickness, depth and costs estimated from comparable mining operations. Economic Viability categories, however, cannot in general be defined from the Geological Study because of the lack of detail necessary for an Economic Viability evaluation. The resource quantities estimated may indicate that the deposit is of intrinsic economic interest, i.e. in the range of economic to potentially economic. A Geological Study is generally carried out in the following four main stages: Reconnaissance, Prospecting, General Exploration and Detailed Exploration (for definition of each stage see below). The purpose of the Geological Study is to identify mineralization, to establish continuity, quantity, and quality of a mineral deposit, and thereby define an investment opportunity.

Definitions of Stages of Geological Study

Reconnaissance	A **Reconnaissance** study identifies areas of enhanced mineral potential on a regional scale based primarily on results of regional geological studies, regional geological mapping, airborne and indirect methods, preliminary field inspection, as well as geological inference and extrapolation. The objective is to identify mineralised areas worthy of further investigation towards deposit identification. Estimates of quantities should only be made if sufficient data are available and when an analogy with known deposits of similar geological character is possible, and then only within an order of magnitude.
Prospecting	**Prospecting** is the systematic process of searching for a mineral deposit by narrowing down areas of promising enhanced mineral potential. The methods utilised are outcrop identification, geological mapping, and indirect methods such as geophysical and geochemical studies. Limited trenching, drilling, and sampling may be carried out. The objective is to identify a deposit which will be the target for further exploration. Estimates of quantities are inferred, based on interpretation of geological, geophysical and geochemical results.
General Exploration	**General Exploration** involves the initial delineation of an identified deposit. Methods used include surface mapping, widely spaced sampling, trenching and drilling for preliminary evaluation of mineral quantity and quality (including mineralogical tests on laboratory scale if required), and limited interpolation based on indirect methods of investigation. The objectivce is to establish the main geological features of a deposit, giving a reasonable indication of continuity and providing an initial estimate of size, shape, structure and grade. The degree of accuracy should be sufficient for deciding whether a Prefeasibility Study and Detailed Exploration are warranted.
Detailed Exploration	**Detailed Exploration** involves the detailed three-dimensional delineation of a known deposit achieved through sampling, such as from outcrops, trenches, boreholes, shafts and tunnels. Sampling grids are closely spaced such that size, shape, structure, grade, and other relevant characteristics of the deposit are established with a high degree of accuracy. Processing tests involving bulk sampling may be required. A decision whether to conduct a Feasibility Study can be made from the information provided by Detailed Exploration.

Definition of Economic Viability Categories

Economic	Quantities, reported in tonnes/volume with grade/quality, demonstrated by means of a Prefeasibility Study, Feasibility Study or Mining Report, in order of increasing accuracy, that justify extraction under the technological, economic, environmental and other relevant conditions, realistically assumed at the time of the determination. The term economic comprises both normal economic and exceptional economic as defined below. These two subcategories are for optional use on a national level.
Normal Economic	Normal economic reserves are reserves that justify extraction under competitive market conditions. Thus, the average value of the commodity mined per year must be such as to satisfy the required return on investment.
Exceptional Economic (Conditional economic)	Exceptional (conditional) economic reserves are reserves which at present are not economic under competitive market conditions. Their exploitation is made possible through government subsidies and/or other supportive measurees.
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Potentially Economic	Quantities, reported in tonnes/volume with grade/quality, demonstrated by means of a Prefeasibility Study, Feasibility Study or Mining Report, in order of increasing accuracy, not justifying extraction under the technological economic, environmental and other relevant conditions, realistically assumed at the time of the determination, but possibly so in the future. The term potentially economic comprises both marginal and submarginal as defined below. These two subcategories are for optional use on a national level.
Marginal Economic	Marginal economic resources are resources which at the time of determination are not economic, but border on being so. They may become economic in the near future as a result of changes in technological, economic, environmental and/or other relevant conditions.
Submarginal Economic	Submarginal economic resources are resources that would require a substantially higher commodity price or a major cost-reducing advance in technology to render them economic.
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Economic to Potentially Economic (intrinsically economic)	Quantities, reported in tonnes/volume with grade/quality, estimated by means of a Geological Study to be of intrinsic economic interest. Since the Geological Study includes only a preliminary evaluation of Economic Viability, no distinction can be made between economic and potentially economic[1/]. These Resources are therefore said to lie in the range of economic to potentially economic.

1/ Except in the case of low investment mineral commodities like sand, gravel and common clay, where a distinction between economic and potential economic can be made.

C. FIELD GUIDELINES FOR ADOPTION OF UNITED NATIONS FRAMEWORK CLASSIFICATION

I . Stratiform, Stratabound and Tabular Deposits of Regular Habit

Characteristics of deposits

Of regular habit with predictable change in trend with sharp to moderate physical contrast with bounded surfaces, low dipping to moderately steep, simply folded and faulted. Also as blanket cappings and surficial tabular bodies.

Principal kinds of minerals

Coal seams, lignite beds, iron ore formation and cappings, manganese horizons in sedimentary and meta-sedimentary sequences, thick bauxite cappings, regional chromite lodes in large ultramafics; limestone, dolomite, barytes, gypsum, evaporites (including potash and salt beds), chalk and fireclay, fuller's earth.

GEOLOGICAL AXIS

G4 (Reconnaissance)	G3 (Prospecting)	G2(General Exploration)	G1(Detailed Exploration)
1.Aerial reconnaissance: Remote sensing, airborne geophysical survey etc. **2.Geological survey:** Mapping on 1: 50,000 or smaller scales. **3.Geochemical survey**: (i)Grab/chip sampling of rocks or weathered profiles (Nil for coal/lignite); (ii)Recording of broad geomorphology, drainage, etc. **4. Geophysical survey:** Ground geophysical survey. **5. Technological :** (i)Trenching - One or two to expose mineralised zone at ideal locations only; (ii)Pitting/drilling: Up to 5 test pits/boreholes per 100 sq.km. area; (iii)Scout drilling – A few to know the existence of coal/lignite; (iv)Sampling -Regional and random grab/chip sampling.	1.**Geological survey:** (i) Mapping on 1:50,000 to 1:25,000 scale (for coal, lignite exploration-mapping on 1:10,000); (ii)Linking of maps so prepared with topo-grids; (iii)Assessment of lithology, structure, surface mineralisation, analysis of old history of mining. **2.Geochemical survey**: Geochemical sampling, rock type-wise and if necessary, rock type-cum-skeletal soil-domain-wise (for all metallic mineral exploration). **3.Geophysical survey:** Detailed ground geophysical work; bore-hole geophysical logging, if possible. **4)Technological**: (a)Pitting/trenching to explore bed rock/mineralised zone; (b)Drilling:Preliminary drilling (dry drilling for bauxite and in formation vulnerable to wash). Bore-hole spacing -	**1.Geological survey :** (i)Mapping on 1:25,000 to 1:5,000 or larger scale with triangulation points, benchmarks, if any shown For coal, mapping on 1:10,000 scale (ii) Linking of maps so prepared with topogrid; (iii)Assessment of lithology, structure, surface mineralisation, analysis of old history of mining. **2. Geochemical survey:** (i)Detailed litho-geochemical channel sampling from fresh rock exposures, trenches, pits; (ii)Recording of deleterious elements, likely by-product elements (e.g. Ga in bauxite, Ni, PGE etc. in chromite, Au in Fe ore, etc. (Nil for coal/lignite exploration); (iii)In coal/ lignite exploration, geo-chemical sampling of coal and water to be done for environmental study. **3.Geophysical survey:** (i)Borehole geophysical survey;	**1.Geological survey:** (i)Mapping-For coal, mapping 1:5000;for other minerals 1:1000 (ii)Preparation of detailed topographical-cum-geological map including all surface geological features, extent of deposit, structure, location of boreholes, assay plan and sections of exploratory mine development and borehole data; (iii)Topogrid/triangu-lation stations/identified fiducials linking in the maps. **2.Geochemical survey:** Detailed grid pattern sampling and analysis. **3.Geophysical survey:** Detailed and specific borehole geophysical survey. **4.Technological:** (i)Pitting - 2 to 5 per sq. km. for simple deposits; (ii)Trenching - At spacing of 200-300m;

6. Petrographic and mineragraphic studies: Determination of principal rock types, mineral assemblage, identification of minerals of interest (especially of metallic minerals and gangues). **7.** Synthesis of all available data/concepts. **8**.The activities as above or less than that required for **G3.**	(i)Coal, gypsum, near surface potash and salt-beds- 1000 to 2000 meters; (ii) Iron and manganese ore - 200 to 400 m; (iii) Limestone and dolomite - 400 to 500 m; (iv)Bauxite of thick capping - 300 to 400 m. (v) Chromite as regional lode - 300 m; (vi) Barytes formations - 400 to 500 m. (c) Sampling: Sampling at well-defined locations at surface and also from pits/trenches, boreholes and existing mine openings. **5.Petrographic/mineragr-aphic studies:** (i)Petrographic study of rocks of the deposit and its surroundings, alterations (if any) connected with mineralisation; (ii)Determination of phase in which mineral of interest occur; (iii)Mineralogical studies including paragenesis, identification of zones of oxidation and primary zones, grain size distribution, overall characteristics of useful minerals.	(ii)Special geophysical traverses for problem solving, if required . **4**.**Technological**: (a)Pitting/trenching: systematic pitting/trenching for deciphering extent of mineralisation at surface. (b)Drilling: grid reduction needed: spacing (i) for coal, gypsum near surface potash and salt beds-400 to 1000m; (ii) Iron and manganese ore-100 to 200m. (iii) limestone and dolomite and barytes- 200 to 400m up to a depth of at least 30 m; (iv) bauxite of thick cappings and chromite as regional lode-100 to 300m. (c) Sampling: (i) Systematic pit and trench sampling, deep pitting if necessary; (ii) Core sampling: lithology and strength of mineralisation wise (check sampling -10%). (d) Laboratory scale scanning/chemical analysis, (e) Bulk sampling if necessary for testing processing technology. (f) Collection of abiotic geo-environmental parameters. **5.Petrographic:**Study of petrographic character of rocks including grain size, texture etc.	(iii)Drilling- closer spaced (with definite grid pattern) than that for G2 category; For coal, i)Density of boreholes to be 12 to 15 per sq.km. depending on the complexities for geostructural proving. ii) For opencast project grid spacing may be 100m x 50m depending on the geology, weather mantle cover , burning nature of coal seams. (iv)Exploratory mining and check drilling results if possible ; (v)Sampling- systematic pit and trench sampling, core and sludge sampling for laboratory scale and bulk sample for the pilot plant scale beneficiation studies. **5.Petrographic and mineragraphic study:** Refining of data on the petrographic character of rocks of the deposit and its surroundings, alterations (if any), including study of grain size texture gangue and its liberation characteristics for further refining of data **6)Geostatistical analysis** of borehole data thickness of ore : waste encountered in holes, assay values of samples if considered neccesarry.

FEASIBILITY AXIS

F3 (Geological Study)	F2 (Pre-feasibility Study)	F1 (Feasibility Study)
1.Geological and related study: (i) Geological, mineralogical and chemical analysis data; (ii) Topographical setting and nature of land; (iii) Infrastructure; (iv) Meteorological and preliminary ecology data if possible. **2**. The activities as above or less than that required for **F 2.**	**1. Geology:** Local geology, mineralogy, identification of ore types and geometry. **2. Mining:** Methods, pre-production plan, development plan, manpower (rough estimate). **3. Environment:** Base line data on environment. **4. Processing:** Proven laboratory scale/pilot scale beneficiation, investigation data,likely establishment, **5.Infrastructure and services, construction activities**: Brief details **6. Costing**: Capital and operating cost - rough estimates based on comparable mining operations. **7.Marketing**: Overview like industrial structure, demand supply relation, pricing, etc. **8. Economic viability:**Preliminary study of cash flow forecasts. **9. Other factors**: Statutory provisions relating to labour, land, mining, taxation, etc.	**1. Geology:** Geology of area and project, detailed exploration, closed spaced drilling, ore body modelling, bulk samples for beneficiation, geotechnical and ground water &surface waters studies.However for coal, beneficiation studies to be carried out depending upon coal qualities. **2. Mining:** Mining plan, mine recoveries and efficiencies, equipment selection, manpower requirement. **3.Environment:** EIA studies and EMP including socio-economic impact, rehabilitation of project affected persons, waste disposal/reclamation.,detailed land use data. **4. Processing**: Pilot scale/industrial scale investigation data, list of equipment, manpower and environmental considerations like waste disposal of tailing, etc. **5. Infrastructure and services, construction activities:** Full details **6. Costing:** Detailed break-up of capital cost, operating cost, details of working capital. **7.Marketing:** Overview, specific market aspects. **8. Economic viability**: Cash flow forecast, inflation effects, sensitivity studies. **9. Other factors:** Statutory provisions relating to labour, land, mining, taxation etc.

ECONOMIC AXIS

E3(Intrinsically Economic)	E2 (Potentially Economic)	E1(Economic)
1.Reconnaissance to detailed geological study, rough estimates of grades (may be below economic cut-off), general idea about forest /non –forest and land use status. 2. The activities as above or less than that required for **E 2.**	1.General and detailed exploration 2 .Specific end-use grades of reserves (above /marginally below economic cut-off grade). 3. General knowledge of forest/non-forest and other land use data.	1.Detailed exploration. 2.Mining report /mining plan / working mines. 3.Specific end-use grades of reserves (above economic cut-off grade). 4. Specific knowledge of forest/non-forest and other land use data.

II.Stratiform, Stratabound and Tabular Deposits of Irregular Habit

Characteristics of deposits

Of irregular habit and /or with faults of large measures, shear zones, solution cavities, irregular erosion and weathering (oxidation) features, partings and bifurcations, igneous intrusives, facies changes, etc.

Principal kinds of minerals

Coal seams, lignite belt, iron ore formations and cappings, manganese horizons in sedimentary and meta-sedimentary sequences, thick bauxite cappings, regional chromite lodes in large ultramafics, limestone, dolomite, barytes, gypsum, evaporites including potash and saltbelts, chalk and fireclay, fullers earth, gold in banded iron formation, platinum group of elements in chromite or in chromite bearing rocks and molybdenum in shear - controlled zones.

GEOLOGICAL AXIS

G4 (Reconnaissance)	G3 (Prospecting)	G2 (General Exploration)	G1(Detailed Exploration)
1.Aerial reconnaissance: Remote sensing, airborne geophysical survey, etc. **2.Geological survey:** Mapping on 1:50,000 or smaller scales. **3. Geochemical survey:** (i) Grab/chip sampling of rocks or weathered profiles (Nil for coal/lignite exploration); (ii)Recording of broad geomorphology, drainage etc. **4.Geophysical survey :** Ground geophysical survey. **5.Technological :** (i)Trenching - One or two to expose mineralised zones at ideal locations only; (ii)Pitting /drilling- Upto 5 test pits / boreholes per 100 sq.km area; (iii)Scout drilling - a few to know existence of coal /lignite; (iv)Sampling – Regional and random grab/chip sampling. **6. Petrographic and mineragraphic studies**: (i)Determination of principal rock types,	**1.Geological survey**: (i) Mapping on 1:50,000 to 1:25,000 scale (for coal, lignite exploration-mapping on 1:10,000); (ii) Linking of maps so prepared with topogrids; (iii) Assessment of detailed statigraphy, lithology, structure, surface mineralisation, analysis of old history of mining. **2.Geochemical survey:** Grid geochemical sampling- rock type wise and if necessary, soil-domain-wise (for all metallic mineral exploration). **3.Geophysical survey:** Detailed ground geophysical work. **4.Technological:** (i)Pitting/trenching/ drilling depending on variability; (ii) Selection of drilling sites best suited to unravel the lithological/ structural complexities. **5.Petrographic/miner-agraphic studies:** (i)Petrographic study of rocks of the deposit and	**1.Geological survey:** (i) Mapping on 1:25000 to 1:1000 or larger scale with triangulation points, benchmarks, if any;For coal, mapping on1:10,000 scale (ii) Linking of maps so prepared with topo- grids. **2.Geochemical survey:** (i)Detailed litho-chemical channel samplling from fresh rock exposures, trenches, pits; (ii)Recording of deleterious elements,likely by-product elements (e.g. Ga in bauxite, Ni, PGE etc. in chromite, Au in Fe ore, etc. (Nil for coal/ lignite exploration). **3. Geophysical survey:** (i)Borehole geophysical survey; (ii)Special geophysical traverses for problem solving if required; (iii)Concurrent synthesis of multi-disciplinary data, Bore-hole geophysical logging, if possible. **4. Technological:** (i)Pitting/trenching-pitting/trenching for helping surface and subsurface correlation of mineralised zones; (ii)Drilling - Close spaced at 200 x 200m grid to decipher the ore -shoot behaviour	**1.Geological survey:** (i)Mapping a)Coal –1:5000 b) For other minerals-1:1000 or larger scale; (ii)Preparation of detailed topographical -cum-geological map including all surface geological features, extent of deposit, structure, location of boreholes, assay plan and sections of exploratory mine development and borehole data. **2.Geochemical survey:** Detailed lithogeochemical analysis **3.Geophysical survey:** Detailed borehole geogphysical survey **4. Technological:** (i)Pitting: 3 to5 nos. for every mass body or at 100-200 meter grid interval; (ii)Trenching- At spacing of 50 to 200 meters; (iii)Drilling- Closer spaced than that for G-2 at 3-4 levels down to a workable depth;(iv)Sampling- Core and sludge, pits samples for grade analysis or beneficiation, bulk samples for laboratory scale / pilot plant investigation; (v)Collection of abiotic geo-

mineral assemblage; (ii)Identification of minerals of interest (especially of metallic minerals and gangues); **7**. Synthesis of all available data / concepts. **8.**The activities as above or less than that required for **G-3**.	its surroundings, alterations (if any), connected with mineralisation; (ii)Determination of phase in which mineral of interest occur; (iii)Mineralogical studies including paragenesis, identification of zones of oxidation and primary zones, grain size distribution, overall characteristics of useful minerals.	atleast at two level. In general, spacing of probe points along strike may be 100m but in specific cases depending on the necessity it may be brought down to 50 m. especially for precious metals. A few probe points for deeper intersections; (iii)Detailed core sampling, bulk sampling for testing of processing technology ; (iv)Collection of abiotic geo-environmental parameters. **5. Petrographic**: Refining of data on the petrographic character of rocks including study of grain size,texture and liberation characteristics.	environmental data - its further refining and analysis. **5. Petrographi**c: Study of petrographic characters of rock and study of useful minerals. **6. Geostatistical analysis** of borehole data, thickness of ore : waste encountered in holes, assay values of samples if considered neccesarry.

FEASIBILITY AXIS

F3 (Geological Study)	F2 (Pre-feasibility Study)	F1 (Feasibility Study)
1.Geological and related study: (i) Geological study encompassing reconnaissance to prospecting, general/ detailed exploration; (ii) Geological map depicting extent of mineralisation lithology/host rocks, mineralogical and chemical data and its interpretions, studies on amenability to beneficiation, recoveries and their estimates; (iii)Infrastructure; (iv)Environmental: Meteorological and preliminary ecological data of area if possible. **2**.The activities as above or less than that required for F-2.	**1.Geology**:General/ detailed exploration ,moderate to close spaced drilling, trench/pit/ bore hole sampling to delineate complexity of ore body/ mineralisation, bulk sampling for processing/ beneficiation (bench scale/pilot scale). **2. Mining:** Methods with geotechnical considerations,preproduction plan, likely mine recoveries. **3. Environmental**: Base line data on environment of the area. **4. Processing:** Proven laboratory scale/pilot plant scale ore dressing investigations on bulk samples, likely establishment of plant and cost estimates thereof. **5. Infrastructure and services and constructions activities:** Brief details. **6. Costing:** Capital cost with estimates based on comparable mining operations **7. Marketing:** Over view on demand supply relations, industry structure, pricing etc. **8**. **Economic viability**: Preliminary study of cash flow forecast. **9. Other factors:** Statutory provisions relating to labour , land , mining, taxation etc.	**1.Geology**: Geology of area and project, detailed exploration, closed spaced drilling,ore body modelling, bulk samples for beneficiation, geotechnical and ground water&surface water studies. **2.Mining:** Methods with special emphasis on detailed geotechnical test work/ site characterisation studies, safety measures; mining plan, mine recoveries and efficiency with variability due to structural complexeties like close folds and faults; detailed estimates of manpower. **3. Environmental**: (i)Environmental impact assessment (EIA) studies/environmental management plan (EMP) including socio-economic impacts; (ii)Rehabilitation of project affected persons, and waste disposal/ reclaimation ; detailed land use data. **4. Processing** : Details of proven pilot plant scale/ industrial scale investigations appended with layout design ,equipment list fuel/power consumption, specification for product/ by-product, disposal of tailings, effluent and future remedial measures. **5. Infrastructure and services and constructions activities:** Full details. **6. Costing**: Detailed breakup of capital and operating costs and details of working capital . **7. Marketing:** Marketing overview, specific market aspects. **8. Economic viability** : Cash flow forecast inflation effects and sensitivity studies **9. Other factors :** Statutory provisions (labour , land , mining, taxation, etc.)

ECONOMIC AXIS

E3(Intrinsically Economic)	**E2** (**Potentially Economic)**	**E1**(**Economic)**
1.Reconnaissance to detailed geological study, rough estimates of grades (may be below economic cutoff), general idea about forest/ non- forest and land use status. **2.** The activities as above or less than that required for **E 2.**	**1**.General and detailed exploration. **2**.Specific end-use grades of reserves (above economic cut-off grade). **3**. General knowledge of forest/non-forest and other land use data	**1**.Detailed exploration. **2.** Mining report/mining plan/ working mine. **3**. Specific end-use grades of reserves (above economic cut-off grade). **4**. Specific knowledge of forest/non-forest and other land use data.

III. Lenticular Bodies of All Dimensions Including Bodies Occurring en echelon, Silicified Linear Zones of Composite Veins

Characteristics of Deposits

Gradual and abrupt change in thickness and grade along strike and dip direction; bounding surfaces of mineralized bodies often, but in sulphides mostly, defined by assay contacts:

(a) massive bodies with irregular shape and grade-homogeneous to inhomogeneous distribution of metal values as in replacement and disseminated type bodies - shapes interpretative;
(b) steeply dipping narrow bodies with or without pitch, pinch and swell type, with or with out bi-furcations, partings etc.

Principal kinds of minerals

Base metal sulphides, supergene iron and manganese ore bodies in lateritoid country, pockety bauxite and nickel-cobalt lateritoids,auriferous quartz reefs, PGM in association with sulphides , graphite lenses, porphyry deposits of copper, molybdenum, and tin, pyrite, pyrrhotite bodies .

GEOLOGICAL AXIS

G4 (Reconnaissance)	**G3 (Prospecting)**	**G2 (General Exploration)**	**G1 (Detailed Exploration)**
1. Aerial Recconnaissance: Remote sensing, airborne geophysical survey etc. **2. Geological survey:** Mapping on 1:50,000 or smaller scales. **3.Geochemical survey:** (i)Stream sediment, soil overburden, rocks, chips, grabs, groundwater and any other soluble media (decided on the basis of orientation survey) sampling, identification of ore significant zones; (ii)Delineation of predominently forest area, geomorphology, landforms and vegetable developments etc. **4.Geophysical survey :** Ground geophysical survey. **5.Technological :** (i)Widely spaced pitting/trenching to expose mineralised zones; (ii)Sampling - a)Regional and random	**1.Geological survey:** : (i)Mapping on 1:50,000 to 1:5000 scale depending on geology of area; (ii)Linking of maps so prepared with topogrids; (iii)Assessment of lithology, structure, surface mineralisation and analysis of old history of mining. **2.Geochemical survey:** (i)Study of detailed and primary and secondary geochemical parameters(close grid sampling) of prospects and their processing rock type-wise and rock type-cum-overburden wise for identification of ore significant anomaly zones; (ii)Recording of deleterious elements, likely by-product elements. **3.Geophysical survey:** (i)Detailed ground geophysical work; (ii)Bore-hole geophysical survey.	**1.Geological survey:** (i)Mapping on 1:5,000 to 1:1,000 or larger scale with triangulation stations, benchmarks, if any; (ii)Linking of maps so prepared with topo- grids, (iii)Assessment of lithology, structure, surface mineralisation, analysis of old history of mining. **2. Geochemical survey:** (i)Detailed litho-geo-chemical channel sampling from fresh rock exposures, trenches, pits for further refinement of data; (ii)Recording of deleterious elements and likely by-product elements. **3.Geophysical survey**: (i) Borehole geophysical survey ; (ii)Special geophysical traverses for problem solving if required. **4. Technological** (i) Pitting/trenching for helping surface and subsurface, correlation of mineralised zones;	**1. Geological survey:** (i)Mapping-1:1000 or larger scale; (ii)Preparation of detailed topographical -cum-geological map including all surface geological features, extent of deposit, structure, location of pits/trenches/boreholes, assay plan and sections of exploratory mine development and borehole data. **2. Geochemical survey:** (i)Detailed litho-geo-chemical channel sampling from fresh rock exposures/ trenches, pits; (ii)Analysis of geo-chemical data for potential utilisation. **3. Geophysical survey:** (i) Borehole geophysical survey ; (ii)Special geophysical traverses for problem solving , if required. **4. Technological:** (i)Pitting/trenching for helping surface and subsurface correlation of

grab/chip sampling, b)Channel sampling for exposures in trenches. **6.Petrographic and mineragraphic studies**: (i)Determination of principal rock types, mineral assemblages; (ii) Identification of minerals of interest (especially of metallic minerals and gangues). **7.**Synthesis of all available data/concepts **8**. The activities as above or less than that required for G-3.	**4**.**Technological**: (i)Pitting/trenching to explore mineralised zones to decipher surface manifestation of mineralisation - moderately spaced preferably at 500 - 400m interval; (ii)Preliminary drilling - (a) Spacing will be guided by the structural complexity or nature of discontinuity, (b)Spacing of probe points along strike generally between 100and 200m; (iii)Further drilling to be planned to intersect ore-shoot,ore body at least at two levels with only few deeper level intersections; (iv)Exploration planning to be guided by the result of ground geochemical and geophysical studies, pit sampling/ trench/core sampling (5% check sampling). **5.Petrographic/minera graphic studies:** (i)Petrographic study of rocks of the deposit and its surroundings, alterations (if any), connected with mineralisation; (ii)Determination of phase in which mineral of interest occurs; (iii)Mineralogical studies including paragenesis, identification of zones of oxidation and primary zones, grain size distribution, overall characteristics of useful minerals.	(ii)Drilling- close –spaced drilling to decipher the ore -shoot behaviour atleast upto two levels; in general, spacing of probe points along strike may be 100m but in specific cases, depending on the necessity, it may be brought down to 50 m. especially for precious metals; a few probe points for deeper intersections; (iii)Detailed core sampling, bulk sampling for testing of processing technology; (iv)Collection of abiotic geo-environmental parameters. (10% check sampling). **5. Petrographic**; Detailed study of data on the petrographic character of rocks including study of grain size ,texture, liberation characteristics.	mineralised zones; (ii)Drilling: closer–spaced than that for G-2 and upto the depth of 100-50 m. below the oxidation zone - depending on the necessity it may be brought down to 50 m. or less especially for precious metals; a few probe points for deeper intersections; (iii)Sampling- detailed core sampling, bulk sampling for testing of processing technology on laboratory/pilot plant scale; (iv)Collection of abiotic geo-environmental parameters. **5. Petrographic:** Detailed study of data on the petrographic character of rocks including study of grain size ,texture, liberation characteristics and further refining of data. **6. Geostatistical analysis** of borehole data (thickness of ore :waste encountered in holes, assay values) if considered necesarry.

FEASIBILITY AXIS

F3 (Geological Study)	F2 (Pre-feasibility Study)	F1 (Feasibility Study)
1. Geological and related study: Geology of area, reconnaissance and prospecting by geo-chemical and geo-physical surveys/general exploration/detailed exploration, core and sludge samples, for beneficiation; geological maps depicting extent and dimension of mineralisation lithology of host rocks, controls and guides for mineralisation, amenability to beneficiation; infrastructure; environmental base line data. **2.** The activities as above or less than that required for F-2.	**1. Geology**: Geology of area, detailed exploration/general exploration guided by geo-chemical and geo-physical surveys, moderate to close - spaced drilling, different mineralised zones at viable cut off grades, core and sludge sampling for exploratory stage beneficiation studies/laboratory scale investigations. **2.Mining** : Methods, pre-production plan, development plan, manpower requirements. **3.Environment :** EIA/EMP with details of waste disposal and likely unavoidable effects of projects. **4.Processing**: Proven laboratory scale/pilot plant scale ore dressing investigations on bulk samples and likely establishment, cost estimates for processing plant. **5.Infrastructure and services and construction activities**: Brief details. **6. Costing** :Capital and operating costs-rough estimates based on comparable mining operations. **7. Marketing**: An overview, demand supply relations, industry structure. **8. Economic viability**: Preliminary study of cash flow forecasts. **9. Other factors:** Statutory provisions relating to land, labour, mining, taxation, etc.	**1.Geology:** Geology of area and project, detailed exploration, closed spaced drilling, exploratory mining upto 2^{nd} level and undeground boreholes, channel/groove sampling (50-100 cm), ore body modelling, bulk samples for beneficiation, geotechnical and ground & surface waters studies. However for coal beneficiation studies to be carried out depending upon coal qualities. **2.Mining:** Mining plan, mine recoveries and efficiencies, man power requirements. **3.Environment:** EIA/EMP including socio economic impact, rehabilitation of project affected persons, waste disposal/ reclamation;.detailed land use data. **4.Processing:** Details of proven pilot plant /industrial scale investigations, appended with plant layout, design, equipment list, manpower, fuel/power consumption, environmental considerations, disposal of tailings, effluents and future/present remedial measures. **5. Infrastructure and services and construction activities**: Full details. **6. Costing:** Details of break up of capital and operating costs and working capital. **7.Marketing:** Overview, specific marketing aspects. **8. Economic viability**: Cash flow forecasts, inflation effects, sensitivity studies. **9. Other factors:** Statutory provisions relating to land, labour, mining, taxation, etc.

ECONOMIC AXIS

E3(Intrinsically Economic)	**E2 (Potentially Economic)**	**E1(Economic)**
1.Reconnaissance to detailed geological study, rough estimates of grades (may be below economic cut -off), general idea about forest / non - forest and land use status. **2.**The activities as above or less than that required for E-2.	**1.**General and detailed exploration. **2.** Specific end-use grades of reserves (above/ marginally below economic cut-off grade). **3.** General knowledge of forest/non-forest and other land use data .	**1**.Detailed exploration. **2.** Mining report/mining plan/ working mines. **3**. Specific end-use grades of reserves (above economic cut-off grade). **4.** Specific knowledge of forest/non-forest and other land use data.

IV. Lenses, Veins and Pockets; Stock-works, Irregular Shaped, Modest to Small size Bodies

Characteristics of deposits

Bodies distributed in space lacking estimable regular patterns; structural control less than lithologic, if any; small cluster of multi-shaped bodies, of volcanic origin pipes and chimneys, of magmatic origin, plugs and pots, clots and seggregations of hydrothermal origin – vein and replacement. Bodies in stockwork, metaporphic and meta-somatic in skarn and tektites, in griesens and in thermal aureole around intrusives.

Principal kinds of minerals

Small multimetal complex sulphide bodies of Cu-Pb-Zn-Sb-Hg, podiform chromite, Sn-Ag chimneys and pipes; tektite mineral bodies, skarn bodies of scheelite, powellite, wollastonite, fluorite etc. and semi-precious minerals, network of apatite, baryte, asbestos veins, vermiculite bodies, magnesite lenses and mica in pegmatites, pyrophyllite lenses and veins, high grade bauxite in clay pockets, clay, ochre and bentonite lenses, diamond pipes.

GEOLOGICAL AXIS

G4 (Reconnaissance)	G3 (Prospecting)	G2(General Exploration)	G1(Detailed Exploration)
1.Aerial reconnaissance:Re-mote sensing, airborne geophysical survey etc. **2.Geological survey:** Mapping on 1:50,000 scale or smaller scales. **3.Geochemical survey:** (i)Sampling of stream, sediment, soil over burden, rock chips, grabs, ground water or any other soluble media; (ii)Delineation of predominantly forest areas, geomorphology, landforms and vegetable development. **4. Geophysical survey:**Ground geophysical work. **5.Technological:** (i)Pitting and drilling: Upto 5 test pits/bore boles per 100 sq km area; (ii)Sampling : Regional and random sampling;	**1.Geological survey:** (i) Mapping on 1:5,000 scale and larger scale; (ii) Linking of the geological maps with topo-grids; (iii)Assessment of stratigraphy, lithology, structure surface shows of mineralisation and analysis of metallogeny. **2.Geochemical survey:** (i)Study of detailed primary and secondary geochemical parameters based on closed grid sampling, identification of ore significant anomaly zones; (ii)Recording of deleterious and byproduct elements. **3.Geophysical survey:** (i)Detailed ground geophysical work; (ii)Borehole geophys-ical survey.	**1.Geological survey:** Mapping on 1:5,000 to 1:1,000 scales with triangular stations, bench marks if any and fiducials plotted. **2.Geochemical survey:** Detailed lithogeochemical sampling for further refining of data. **3.Geophysical survey:** Borehole geophysical surveys, special geophysical surveys for problems solving if required. **4.Technological:** (i)Closed spaced trenching and extensive sampling for exploring irregularly shaped zones of mineralization; (ii)Close space drilling (50m-30m); (iii)Bore hole deviation surveys; (iv)Beneficiation tests; (v)Exploration preferably with exploratory mining, systematic core sampling, check analysis 10%, deep pitting.	**1. Geological survey:** (i)Mapping on 1:1000 scale; (ii)Preparation of topographical-cum-geological map including all surface geological features,extent of deposit, trenches,pits,borehole locations, level-wise assay plan and exploratory mine development. **2. Geochemical survey**: Detailed litho-geochemical channel sampling from fresh rock exposures, pits /trenches. **3.Geophysical survey:** Wherever necessary. **4**.**Technological:** (i)Pitting /trenching- as necessary; (ii)Drilling - 30 to 15 m or less strike interval upto a depth of 100m; (iii)Exploratory mining: 2-3 levels at 20-30m interval wherever necessary; (iv)Core sludge, channel, bulk samples for beneficiation studies on bench/ pilot scale. **5. Petrographic:** Further refining of data.

(iii)Collection of sample for deciphering the mineralised zones. **6.Petrographic and mineragraphic study**: (i)Determination of principal rock types and mineral assembleges; (ii)Identification of minerals of interest and gangues and determination of useful minerals. **7**. Synthesis of all available data/concepts. **8.** The activities as above or less than that required for G-3.	**4.Technological :** (i) Sampling at well defined locations, extensive pit, trench and surface sampling to decipher the extent and grade of mineralisation at surface; (ii)Core sampling; (iii)Laboratory studies of samples; (iv)Check samples-10%; (v)Deep pitting to decipher grade variation of irregularly shape mineralisation; (vi)Drilling - 100m to 50 m. interval; borehole deviation survey. **5.Petrographic and mineragraphic** : (i)Petrographic studies of rocks of deposits and its surrounding, alteration connected with mineralisation; (ii)Mineralogical studies including identification of zones of oxidation and primary zones, grain size analysis, overall chracteristics of useful and deleterious minerals.	**5.Petrographic:** Further refining of data.	**6. Geostatistical analysis** of borehole data (thickness of ore :waste encountered in holes, assay values), if considered neccesarry.

FEASIBILITY AXIS

F3 (Geological Study)	F2 (Pre-feasibility Study)	F1 (Feasibility Study)
1.Geological and related study: (i)Reconnaissance prospecting by geochemical, geophysical, scout drilling to understand controls of mineralisations/ general and detailed exploration; (ii)Geological maps showing extent and persistence of mineralisations, guides, controls, hostrock, lithology etc; (iii)Infrastructure; (iv)Preliminary ecological and meteorological data, if possible. **2.** The activities as above or less than that required for **F-2.**	**1. Geology:** (i)Geology of area; (ii)General and detailed exploration guided by surface and sub-surface geochemical and geophysical data, exploratory mining details. **2. Mining:** mine recoveries estimates, man power details, pre-production plan . **3. Environment:** Baseline data, potential constraints on project. **4. Processing:** Proven laboratory scale /pilot scale investigations on bulk samples; likely establishment of plant; possibilities of cost estimates. **5.Infrastructure, construction, services etc:**Brief details . **6. Costing**: Capital and operating cost estimates based on comparable mining operations . **7. Marketing**:An overview, demand and supply relations, industry structure, pricing. **8.Economic viability:** Preliminary studies of cash flow forecasts. **9. Other factors:** Statutory provisions relating to land, labour, mining, taxation, etc.	**1.Geology**: Geology of project, detailed exploration with larger inputs of exploratory mining, deep pitting, trenching /benching, underground boreholes, closed spaced drilling. **2.Mining:** Mining plan, meticulous methods with special emphasis on geotechnical, production aspects; safety measures, mine recoveries, efficiency variability due to various controls. **3. Environment:** EIA/EMP including socio- economic impact rehabilitation of project affected persons and waste disposal/ reclamation ;detailed land use data. **4.Processing:** Proven details of pilot plant scale investigation, appended with layout, plant design, manpower requirements, fuel/power consumption, disposal of effulents and present/future remedial measures. **5. Infrastructure, constructions and service:** Full details. **6. Costing:** Detailed break up of capital and operating cost and details of working capitals. **7. Marketing:** An overview, specific market aspects. **8. Economic viability:** Cash flow forecast, inflation effects, sensitivity studies. **9. Other factors**: Statutory provisions relating to land, labour, mining, taxation, etc.

ECONOMIC AXIS

E3(Intrinsically Economic)	E2 (Potentially Economic)	E1(Economic)
1.Reconnaissance to detailed geological study, rough estimates of grades (may be below economic cutoff), general idea about forest / non - forest and land use status. **2.**The activities as above or less than that required for E-2.	**1**. General and detailed exploration. **2** . Specific end-use grades of reserves (above/marginally below economic cut-off grade). **3.** General knowledge of forest/non-forest and other land use data.	**1**. Detailed exploration. **2**. Mining report/mining plan/working mines. **3.** Specific end-use grades of reserves (above economic cut-off grade). **4**. Specific knowledge of forest/non-forest and other land use data.

V. Gem- Stones and Rare Metal Pegmatites, Reefs and Veins

Characteristics of Deposit
Highly erratic distribution of minerals and metals. No trend in grade and thickness, no assured continuity, cluster of high values in barren zones, structural and lithologic controls undeterminate.

Principal kinds of Minerals
Tin-tungstun-tantalum-molybdenum veins and pegmatites, beryl, topaz, emerald, cesium deposits, mineralisation associated with alkaline rocks, complexes and veins and plugs of carbonatites.

GEOLOGICAL AXIS

G4 (Reconnaissance)	G3 (Prospecting)	G2(General Exploration)	G1(Detailed Exploration)
1.Aerial reconnaissance: Remote sensing, airborne geophysical survey etc. **2.Geological survey:** Mapping on 1:50,000 scale or smaller scales. **3.Geochemical survey**: (i)Grab/chip sampling of rocks or weathered profiles; (ii)Recording of broad geomorphology, drainage etc. **4. Geophysical survey:** Ground geophysical work. **5.Technological:** (i)Trenching- One or two random pits or trenches; (ii)Pitting/drilling: Upto 5 test pits per100sq. km area; (iii)Sampling- Regional and random grab sampling, stream sediment sampling after orientation survey for narrowing down target areas. **6. Petrography and minerography:** (i)Determination of main rock types and mineral assemblages; (ii)Identification of minerals of interest and gangues. **7.** Synthesis of all available data/concepts.	**1.Geological survey:** (i)Mapping: 1:50,000 to 1:25000 scale; (ii)Linking of geological maps with topogrids; (iii)Assessment of stratigraphy, lithology, structure, surface shows of mineralisation, analysis of old history of mining. **2.Geochemical survey:** (i)Closed -grid geoche-mical sampling , rocktype wise and if necessary rock type-cum –skeletal soil - domain-wise; (ii)Geochemical specialization with respect to element of interest of pegmatite rock to be deciphered and identification of path finder and trace elements. **3.Geophysical survey:** Detailed ground geophysical work to delimit the potential host rock. **4.Technological:** (i)Pitting and trenching in colluvial zones, residual overburden and on primary host rocks; randomly distributed; (ii)Drilling-only to broadly test the continuity of host rock at 100 m to 200m strike spacing; (iii)Sampling- At surface across zones of	**1.Geological survey:** (i)Mapping on 1:5000 or larger scales with triangulation stations, bench marks, if any and fiducials shown; (ii)Linking of geological maps with topogrids. **2. Geochemical survey:** (i)Detailed litho-geochemical channel sampling from fresh rock exposures, trenches, pits etc; (ii)Recording of deleterious and likely by -product elements. **3. Geophysical:** Detailed and specialised geophysical studies (e.g. missalamasse, borehole geophysical study etc.) to unravel the three dimensional configuration of host rock. **4.Technological**: (i)Pitting/trenching- pits on regular grid pattern (preferably at 50 m. sq.grid) in colluvial zones and residual overburdens; trenches across host rocks of mineralisation; (ii)Drilling-testing at two levels; Strike spacing of boreholes to be 50-100m up to depth of 100-150m; (iii)Sampling- systematic pits sampling (over burden horizon wise) and trench	**1.Geological survey:** (i)Mapping on 1:2000 scale or larger scale; (ii)Preparation of detailed topographical cum geological map, including all surface geological features ,extent of deposit,location of trenches, pits, boreholes, geological plan andsections of exploratory mining. **2.Geochemical:** Detailed litho-geochemical analysis. **3.Geophysical** : Detailed survey if necessary and specific borehole geophysical studies. **4.Technological :** (i) Drilling-surface drilling at 50-10m section intervals in3 -4 levels, 30-60m x 90m vertically apart to trace and intersect mineralised zones; under ground drilling as and when necessary; (ii)Sampling - core and sludge ,bulk and channel samples for processing technology bulk samples for pilot plant/bench scale investigation; (iii)Exploratory mining - 3 or more levels over the entire or part strike length of ore body at 30m level interval and along dip at suitable intervals.

8. The activities as above or less than that required for **G-3.**	mineralisation; also from pits and trenches on the basis of lithological homogenity; closer spaced stream sediments sampling (2-3 samples per sq. km) for further narrowing down target areas; (iv)Core sampling. **5. Petrographic and mineragraphic:** (i)Petrographic study of rocks of the deposit and its surrounding, alterations (if any) associated with mineralisation; (ii)Determination of phase in which the mineral of interest occurs; (iii)Mineralogical studies including paragenesis, identification of zones of oxidation if any, and primary zones, grain size distribution, over all characteristics of useful minerals.	sampling (lithological domain wise), core sampling. **5. Petrographic**: (i)Refining of data on the petrographic characters of rocks, including study of grain size, texture, gangues etc; (ii)Further refining of data.	**5. Petrographic:** (i)Refining of data on the petrographic characters of rocks, including study of grain size, texture, gangues and its liberation etc; (ii)Further refining of data.

FEASIBILITY AXIS

F 3(Geological Study)	F 2(Prefeasibility Study)	F1(Feasibility Study)
1.Geological and related study: (i)Geology of area, reconnaissance phase to detailed phase exploration guided by geochemical, geophysical survey; geological maps dealineating mineralised zones and its extent, lithology, controls, guides, mineralogical, chemical analytical data; (ii)Studies on amenability to beneficiation; (iii)Infrastructure; (iv)Environmental- meteorological and preliminary ecological data, if possible. **2.** The activities as above or less than that required for **F 2.**	**1.Geology:** Geology of area, detailed exploration, closed spaced drilling in prospect in 2-3 levels for delineation of host rock body ; boreholes, channel, bulk samples for beneficiation test. **2. Mining**- Viable methods-details of exploratory mining data, recoveries estimates, manpower details. **3. Environment**- Baseline data, potential constraints and analysis of possible impacts /hazards. **4. Processing**- Proven pilot plant investigations, further follow up for viability.	**1.Geology:** Geology of area, detailed exploration, closed space drilling in prospect in 2-3 levels for delineation of host rock body, ore body modelling; boreholes channel bulk samples for beneficiation, geotechnical and ground water &surface water studies. **2.Mining**- methods of mining, mine plan, mine recoveries and its milling characteristics; exploitation plan preferably with exploratory mining scheme, manpower details. **3.Environmental**- EIA/EMP, including socio-economic impact, rehabilitation of project affected persons ,waste disposal/reclamation.

	5.Infrastructure, services and construction activities: Brief details. **6.Costing**- Capital and operating cost estimates with likely break-up. **7.Marketing-** An overview, demand supply relations, industry structure. **8. Economic viability:** Preliminary study of cash flow forecast. **9. Other factors**: Statutory provisions relating to labour , land , mining ,taxation, etc.	**4.Processing-** a) For tin- tungsten, molybdenum -details of proven pilot plant scale investigations on bulk samples, choosing of suitable processing treatment by industrial scale testing, tailings and effluent disposal plans, plant layout, equipment list; b) For gemstones- studies on amenability to cutting, polishing etc **5.Infrastructure, utilities and construction activities**: Full details. **6. Costing**- Detailed capital and operating cost, along with break up. **7. Marketing**- An overview , specific market aspects. **8. Economic viability**- Cash flow forecast, inflation effects, sensitivity studies. **9. Other factors**: : Statutory provisions relating to labour, land , mining , taxation, etc.

ECONOMIC AXIS

E3(Intrinsically Economic)	**E2 (Potentially Economic)**	**E1(Economic)**
1.Reconnaissance to detailed geological study, rough estimates of grades (may be below economic cut-off), general idea about forest /non - forest and land use status. **2.**The activities as above or less than that required for E-2.	**1**.General and detailed exploration. **2**. Specific end-use grades of reserves (above/marginally below economic cut-off grade). **3**. General knowledge of forest/non-forest and other land use data.	**1**.Detailed exploration. **2**.Mining report/mining plan/working mines. **3.** Specific end-use grades of reserves (above economic cut-off grade). **4**. Specific knowledge of forest/non-forest and other land use data.

VI. Placer and Residual Mineral Deposits of Hill and Valley Wash

Characteristics of Deposit
Eluvial, colluvial and alluvial placer concentration of heavy metals and minerals, pebble and cobble, boulder beds, gravel beds in alluvium and colluvium, conglomerates, foothills fan deposits, grain size from extremely fine striated material to rough to polished boulders.

Principal kinds of Minerals
Placer tin and gold deposits, monazite, garnet, ilmenite, rutile, diamonds in conglomerate, floats and gravel beds of corundum, kyanite, sillimanite, floats and talus deposits of magnetite.

GEOLOGICAL AXIS

G4 (Reconnaissance)	G3 (Prospecting)	G2(General Exploration)	G1(Detailed Exploration)
1.Aerial reconnaissance: Remote sensing, airborne geophysical survey, etc. **2.Geological survey:** Mapping on 1: 25,000 or smaller scales. **3.Geo-chemical survey:** (i)Stream sediment or over burden sampling after selection of sites and media of sampling; (ii)Recording of geomorphology, land form etc. in a broad way. **4.Geophysical survey:** Ground geophysical survey . **5. Technological**- (i)Trenching - not essential; (ii)Pitting/drilling-upto 5 test pits /boreholes per 100 sq. km area; (iii)Sampling – stream sediment or placer sediment sampling and analysis; panning at random /heavy mineral studies. **6. Petrographic and mineragraphic studies:** Preliminary identification of economic minerals**.** **7**. Synthesis of all	**1.Geological survey:** (i)Mapping on 1:25,000 to 1:5,000 scale depending on the extent of potential zone; (ii)Tracing of coarse sediments (e.g.boulders etc.) exposures in eluvial and colluvial terrains; (iii)Geomorphic analysis of terrain; (iv)Analysis of history of mining, etc. **2.Geo-chemical survey:** Representative pit sampling, horizon or layer wise, large diameter bore holes (or auger sampling) one or two sets of samples for each demarcated potential zone. **3.Geo-physical survey:** Geo- physical survey in identified mineralised areas. **4. Technological** : (i)Pitting/trenching - one or two per prospect; (ii)Drilling - large diameter or auger drilling one or two per prospect if necessary; (iii)Sampling and analysis-systematic stream sediments/placer sampling (two to three samples per sq.km) and analysis.	**1. Geological survey**: (i)Mapping on 1:5,000 to 1: 1,000 or larger scales with triangulation stations, bench marks, if any, and fiducials shown; (ii)Tracing of favourable sediment horizons in detail; (iii)Detailed analysis of geo-morphology and land use; (iv)Linking of map so prepared with topo grids; (v)Synthesis and regional correlation and analogy. **2. Geo-chemical:** Representative layer wise sampling from pits, bore holes and auger drills. **3. Geo-physical:** Geo-physical survey for bringing out the depth of weathering or thickness of over burden if required. **4**.**Technological :** (i)Pitting: On grid pattern of 400 m. x 400 m. to 50 m. x 50 m.; occasional deep pits (upto 6 m.); (ii)Trenching- as per requirement; (iii)Drilling : systematic large diameter drilling at 400 m. x 400 m. grid or augering at 200 m. x 200 m. to 50 m. x 50 m. grid.	**1. Geological survey:** (i)Mapping on 1:1000 scale; (ii)Preparation of geological base map including all geological features, extent of deposit, structure and location of pits and trenches and of auger-drill-holes, assay plan. **2**.**Geo-chemical:** Systematic grid pattern sampling and analysis. **3**.**Geo-physical survey:** if necessary. **4.Technological :** (i)Pitting at smaller than 50 m grid; (ii)Trenching - as necessary; (iii)Drilling - (a) auger drilling at 50 m grid, (b) for buried placer deposits deep drilling necessary; (iv)Sampling - closed grid pattern placer sampling in identified prospects at 50x50 m or smaller grid;However for beach sand minerals, sampling by auger or improvised version of drilling equipment at 200m x50m to 100m x25m in grid pattern. (v)Collection of abiotic geo-environmental parameters.

available data/concepts. **8**. The activities as above or less than that required for G-3.	**5) Petrographic and minerographic studies:** Mineral phases and deleterious constituents identification, grain size analysis.	However for beach sand minerals, augering at 400mx100m grid and sampling along grid profile over total width . Depthwise sampling of boreholes at 1m interval. (iv)Sampling and analysis: Placer sampling in identified prospects, hydraulicking , sluicing, panning and follow-up laboratory scale separation and testing and analysis of concentrates from bulk samples. **5.Petrographic and mineragraphic studies**: Further refinement of petrographic and mineragraphic data, laboratory scale studies on recoverability.	**5. Petrogrpahic and mine-ragraphic studies**: Refining of data on petrographic character of rocks including study of grain size textures, associated gangues and concentrate recoveries.

FEASIBILITY AXIS

F 3 (Geological Study)	F2 (Pre-feasiblity Study)	F1(Feasiblity Study)
1. Geological and related study: (i)Geological map delineating boulder zones,eluvial/ colluvial terrain placers and recognition of geo-morphological structure and its analysis; (ii)Surface soil testing; (iii)Pit and trench sampling at various grid intervals; (iv)Delineation of pay zones through pit/auger sampling and its analytical data; concentrate recoveries through panning, other physical separation methods; (v)Infrastructure; (vi)Environmental :Meteorological and preliminary ecological data of the area, if possible. **2**.The activities as above or less than that required for **F-2.**	**1. Geology:** Geology of area, general to detailed exploration by pitting in grids in moderate to close spaced intervals; recoveries through physical separation e.g. panning and its analytical data on concentrate recoveries. **2.Mining** : Methods of mining, pre-production plan, manpower requirements through rough estimates. **3.Environmenta**l : EMP with special emphasis on geo-hydrology and hydrology. **4. Processing** - Pilot plant/laboratory scale investigations, possibilities of setting up of plant. **5. Infrastructure, construction** etc - Brief details. **6.Costing** – Capital and operating costs-rough estimates based on	**1.Geology:** Geology of area; detailed/general exploration by pitting and auger drilling in grid pattern at closed intervals; panning ,concentrate recoveries from the beneficiation test on pilot plant scale/laboratory scale of bulk samples, geotechnical and ground &surface waters studies. **2.Mining -** Methods of mining, mining plan,detail of manpower,equipment list. **3.Environmenta**l: EIA/EMP including socio- econmic impact,rehabilitation of project affected persons with details of waste disposal/reclamation, detailed land use data. **4.Processing** - Proven, pilot plant/industrial scale level investigations, plant layout, environmental considerations - disposal of placer material/handling

	comparable mining operations. **7. Marketing** - An overview on marketing aspects, demand supply relations, and industry structure. **8.Economic viability** -Preliminary study of cash flow forecast. **9. Other factors**: Statutory provisions relating to labour, land , mining, taxation, etc.	plan, effluent treatment etc; details of equipment required. **5.Infrastructure, construction, etc:** Full details **6. Costing** - Capital costs with break up details of capital and operating costs, working capital. **7. Marketing** - An overview, industry structure and specific market studies. **8. Economic viability** - Cash flow forecasts, inflation effects and sensitivity studies. **9. Other factors**- Statutory provisions relating to labour, land , mining, taxation etc.

ECONOMIC AXIS

E3(Intrinsically Economic)	**E2 (Potentially Economic)**	**E1(Economic)**
1.Reconnaissance to detailed geological study, rough estimates of grades (may be below economic cut -off), general idea about forest /non - forest and land use status. **2**. The activities as above or less than that required for **E2.**	**1**.General and detailed exploration. **2.** Specific end-use grades of reserves (above marginally below economic cut-off grade). **3.** General knowledge of forest/non-forest and other land use data.	**1**. Detailed exploration. **2**. Mining report/ mining plan/working mines. **3**. Specific end-use grades of reserves (above economic cut-off grade). **4**. Specific knowledge of forest/non-forest and other land use data.

VII. Dimension Stones

Characteristics of Deposit
Surficial, occasionally bouldery or tabular, partly weathered, jointed/fractured, recoverability dependant on block size chosen vis-à-vis joint spacing etc, marketable at buyer's choice, amenable to good polish with aesthetic colour or colour combination.

Principal kinds of minerals
Coloured varieties, including granites, syenites, schists, marbles, slates and sandstone, migmatities, etc; black varieties including dyke rocks, e.g; diorite, dolerite, gabbro, etc.; sills, plugs, batholiths etc. e.g., anorthosites, gabbro, etc.

GEOLOGICAL AXIS

G4 (Reconnaissance)	G3 (Prospecting)	G2 (General Exploration)	G1(Detailed Exploration)
1.Aerial reconnaissance: Remote sensing, airborne geophysical survey etc. **2. Geological survey:** Mapping on 1:50,000 or smaller scales. **3.Geo-chemical survey:** Not required. **4. Geophysical survey:**Ground geophysical survey. **5. Technological :** (i)Pitting and trenching: not required; (ii)Sampling -Random grabs of fresh rock, one or two samples per 5 sq. km; (iii)Geo-technical work - joints/fractures density and preliminary assessment of blockability. **6.Petrographic and other studies** : (i)Petrographic studies - not required; (ii)Meausrement of ground water table – not required; (iii)Measurement of geo-environmental parameters – not required. **7**. Synthesis of all available data/concepts. **8.**The activities as above or less than that required for **G3.**	**1.Geological survey:** (i) Mapping on 1:50,000 to 1:25,000 scale; (ii)Photogeology on 1:25,000 or equivalent scale. **2.Geo-chemical survey:** Identification of deleterious constituents of one or two samples drawn from each prospect. **3.Geophysical survey:** Not required. **4.Technological:-** (i)Pitting /trenching/drilling -not required. (ii)Sampling - One grab of fresh rock per prospect of premium variety; (iii)Geo-technical - measurement of at least one sample per prospect for determination of specific gravity, porosity, water absorption, compressive strength and tensile strength. **5. Petrographic and other studies** : (i)Petrographic studies-mineralogical composition, texture and micro -texture study of each variety; (ii)Measurement of ground water table: not required.	**1.Geological survey:** Mapping on 1:25,000 to 1:10,000 scale. **2.Geo-chemical :** Identification of deleterious constituents of one or two samples drawn from each prospect; measurement of abiotic geoenvironmental parameters. **3.Geophysical survey :** not required. **4.Technological:** (i)Pitting/trenching :one or two per prospect; (ii)Drilling - One or two per prospect (scout drilling); (iii)Sampling - Sample density two to three grabs per prospect; (iv)Geo-technical - further refinement of blockability data and polishing index measurement. **5.Petrographic and other studies** : (i)Petrographic studies-mineralogical composition, texture and micro structure study of each variant in a prospect; (ii)Ground water table: measurement at each prospect.	**1.Geological survey:** (i) Mapping on 1:10000 or larger scale; (ii)Preperation of detailed topographical- cum – geological map, including all surface geological features, joint patterns, fracture density etc.; (iii)Delineation of blockable dimension stone zones/ areas. **2.Geochemical :** Identification of deleterious constituents; measurement of abiotic geoenvironmental parameters. **3.Geophysical :** Not required **4.Technological:** (i)Pitting/trenching – not required; (ii)Drilling- One or two per prospect; (iii)Geo-technical – measurement of compressive strength, tensile strength, traverse strength, abrasion test, specific gravity,density, porosity, absorption, polishing index. **5.Petrographic and other studies** : (i)Colour, granularity, inclusions, texture and microstructure study. (ii)Ground water table: measurement at each prospect.

FEASIBILITY AXIS

F3 (Geological Study)	F2 (Pre-feasibility Study)	F1 (Feasibility Study)
1. Geological and related study: (i)Geological mapping, delineating weathered and boulder zone, blockable areas and recognition of geomorphological structure and its analysis,prospectwise grab sampling at grid intervals; (ii)Delineation of probable productive zones through grab sampling and its analytical data; (iii)Infrastructure; (iv)Environmental: meteorological and preliminary ecological data, if possible. **2.** The activities as above or less than that required for **F 2**.	**1.Geology** : Geology of area; detailed / general exploration; geological map delineating blockable areas and identification of productive zones with recovery factors based on gotechnical studies conducted. **2.Mining** : Methods of mining, pre-production plan, manpower requirements through rough estimates**.** **3. Environmental:** EMP with particular reference to geo-hydrology and hydrological aspects, bulk material handling management plan. **4. Processing:** Physical characteristics data,detailsof petro-fabric studies generated through laboratory investigations, possibilities of setting up of cutting,polishing plant. **5. Infrastructure, construction etc.:** Brief details. **6. Costing :**Capital and operating costs - rough estimates based on comparable mining operations. **7. Marketing:** An overview on marketing aspects, demand supply relations and industry structure. **8. Economic viability:** Preliminary study of cash flow forecast. **9. Other Factors:** Statutory provisions relating to labour, land , mining, taxation, etc.	**1**. **Geology:** Detailed exploration; geological map delineating blockable areas and identification of productive zones with recovery factors based on gotechnical studies conducted. **2.Mining:** Mining plan, block recoveries and efficiencies, heavy machineries,equipment selection, manpower requirement. **3.Environment:** EIA studies with particular refernce to geo-hydrology and hydrological aspects, bulk material, and EMP including socio-economic impact, rehabilitation of project affected persons, waste disposal, detailed land use data. **4.Processing**: Industrial scale investigation data on physical charecteristics data,details of petrofabric studies, setting up of cutting,polishing plant (optional), list of equipments, manpower details. **5. Infrastructure and services, construction activities:** Full details. **6.Costing:**Detailed break-up of capital cost, operating cost, details of working capital. **7. Marketing:** Overview, specific market aspects. **8. Economic viability**: Cash flow forecast, inflation effects, sensitivity studies. **9.Other factors:** Statutory provisions relating to labour, land, mining, taxation, etc.

ECONOMIC AXIS

E3(IntrinsicallyEconomic)	E2 (Potentially Economic)	E1 (Economic)
1.Reconnaissance to detailed geological study, rough estimates of coloured and non coloured varieties, general idea about forest /non - forest and land use status. **2**. The activities as above or less than that required for **E2.**	**1.**General and detailed exploration. **2.**Rough identification of marketable varieties. **3**. General knowledge of forest/non-forest and other land use data.	**1**.Detailed exploration. **2**.Mining report/mining plan/working mines. **3.** Specific identification of marketable varieties. **4.**Specific knowledge of forest/non-forest and other land use data.

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