

**INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

Review and updation of Mining Plan REPORT

Bangalore regional office

Mine file No : KNT/RCH/AU/1/BNG

Mine code : 27KAR16001

- (i) Name of the Inspecting : **P005**) **C.PARAMESHWARAN**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Dr. P Sangurmamath/ Solanki Geologist./ Prakash Mines M
Official with
Designation
- (iv) Date of Inspection : 09/11/2017
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **HUTTI**
- (b) **Registration NO.** : **IBM/4362/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Underground
- (e) Postal address
- State : KARNATAKA
- District : RAICHUR
- Village : HUTTI
- Taluka : LINGASUGUR
- Post office : HUTTI
- Pin Code : 584115
- FAX No. : 08537-275054 (F),
- E-mail : hygominhutti@bsnl.in
- Phone : 08537-275026 (O), 94822380
- (f) Police Station : HUTTI
- (g) First opening date : 19/12/1978
- (h) Weekly day of rest : SUN
2. Address for : At & Po- HUTTI,
correspondance Tq- Lingasugur, Dist- Raichur
KARNATAKA - 584 115
3. (a) Lease Number : KAR0589
- (b) Lease area : 528.35
- (c) Period of lease : 30
- (d) Date of Expiry : 19/12/2008
4. Mineral worked : GOLD Main
SILVER Associated

5. Name and Address of the

Lessee : HUTTI GOLD MINES COMPANY LTD
 At & Po- Hutti Tq-Lingsugur
 584 115 RAICHUR KARNATAKA
 Phone:08537-275025
 FAX :08537-275054

Owner : HUTTI GOLD MINES COMPANY LTD
 Shri A.K.Monnappa, IAS, MD
 3rd Floor, KHB Shopping
 Complex, National Games
 Village, Koramangala
 BANGALORE KARNATAKA
 Phone: 080-25710501, 2
 FAX :

Agent : PRAKASH
 At & Po- HUTTI Tq-Lingsugur
 RAICHUR KARNATAKA
 Phone: 08537-275034
 FAX : 08537-275054

Mining Engineer

Name : PRAKASH, Full Time
 Qualification : B. Tech. Mining, 1st Class
 Appointment/ : 15/11/2011
 Termination date

Geologist

Name : PRABHAKAR.SANGURMATH, Full Time
 Qualification : M.Sc(AG), Ph.D
 Appointment/ : 01/04/1996
 Termination date

Manager

Name : SHANTH KUMAR
 Qualification : Dip. in Mining, First Class
 Appointment/ : 08/12/2011
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	01/12/1993
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	13/04/2000
		Mining Scheme rule 12 MCDR1988	11/09/2003
		Renewal under rule 24 MCR1960	18/08/2008
		Mining Scheme rule 12 MCDR1988	13/02/2014
		MP review under 17(1) MCR 2016	14/02/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Surface : 1200m Underground: 1000m Total : 3200m	Nil 145m	The proposed exploration was completed in the previous year as the drilling was outsourced to M/s DBM Geotek Construction Ltd. Mumbai. Drilling has been carried out using the in-house underground machineries. As the proposed drilling was completed in the previous year
1b	Exploration over lease area for geological axis 1 or 2	Given.	Area Explored under G1 Stage 227.96 G2 Stage 147.72H G3 Stage 118.23 Ha Un-mineralized area : 34.44 Ha	Ug exploration are in progress.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	given	Surface exploration & underground undertaken.	The proposed surface exploration was outsourced to M/s DBM Geotek Construction Ltd. Mumbai and the more than the budgeted target was reached in the previous year. The cost of drilling per meter was Rs. 3609/- .

1d	Balance area to be explored to bring Geological axis in 1 or 2	Given	G3 Stage :118.23 Ha Un-mineralized area 34.44 Ha	The area in the northern part of the lease, which falls in G2 level of exploration will be upgrade to G1 level by exploratory mine development by means of decline shaft, whereas the southern extension of the G2 and G3 level exploration will be upgraded to G1 level by exploratory mine development.
1e	Balance reserve as on 01/04/20	Given in the approved document.	Reserves: 9.41 Million Tonnes Grade:5.43 g/t Au	As above.
1f	General remarks of inspecting officers on geology, exploration etc	Given for both surface & underground.	As per the proposals, things are getting done both outside agency & through inhouse.	satisfactory.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Mallappa Shaft, Central Shaft , Village Shaft and Gre'y Shafts of Hutti Gold Mine	Carried out the developments in the proposed shafts and the details are furnished in (Annex-I)	Yes details are furnished.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	NIL	NIL	It is an underground gold mine, related developemnts are done.
2c	Stripping ratio or ore to OB ratio	Ore : 334785 Tonnes Waste Rock : 794 Tonnes Ore: Waste : 1:0.002	Ore : 2,22,643 Tonnes (Annex-I) Waste Rock:12,681 (Annex-II) Ore : Waste : 1:0.0.05	Given as above.

2d	Quantity of topsoil generation in m3	NIL	Since, it is an underground mine parameters related to topsoil and overburden does not arise.	Since, it is an underground mine parameters related to topsoil and overburden does not arise.
2e	Quantity of overburden generation in m3	NIL	NIL	Since, it is an underground mine parameters related to topsoil and overburden does not arise.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Given proposals pertaining to UG Mine.	Yes accordingly carried out in the mine.	Yes done accordingly in the mine.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2,36,990 tonnes of production was proposed from Stopes at different reefs and primary and stope developments points from different levels of Strike Reef, zone-I Reef, Village Reef, Middle Reef and Oakley's Reef.	Annex-I	the existing reefs, along with all the underground development works like shaft sinking, development, in a more scientific manner.

3b	Quantity of ROM mineral production proposed	2,36,990 tonnes of production was proposed from Stopes at different reefs and primary and stope developments points from different levels of Strike Reef, zone-I Reef, Village Reef, Middle Reef and Oakley's Reef.	Total 2,22,643 tonnes of ore generated. (From Stopes : 160930 tonnes and from developments :61713 tonnes) The details of primary developments/stopes operated during the period April-2017 to 31.10.2017 are as shown in Annex-I	Reasons for deviation: i) Due to want of more tonnage for newly established Sag Mill the more thrust was given for preparation of stopes than the developments. ii) Major breakdown of machineries (Compressor) are set back the development. iii) The main thrust was given to the Raises/Winzes development to establish the ventilation and prove the ore reserves blocks. However, the Mine development, surface and underground diamond drilling is carried out in a systematic way to locate the blind
3c	Recovery of sailable/usable mineral from ROM production	2,79,325 tonnes	2,78,637 tonnes	As reported from U/G stoping.

3d	Quantity of mineral reject generation	794 tonnes	12,681 tonnes	Reasons for more production of mineral reject: i) The sinking of Circular Shaft in waste rock has been outsourced to Sri. Ram EPC Limited, Chennai-600008, which has caused the increase in waste rock production. Circular shaft sinking : 123.50m, generated 12,681 tonnes of waste rock and from main haulage drives and cross cuts black rock generation was not proposed.
3e	Grade of mineral rejects generation and threshold value declared.	NA	NA	Since, it is an underground gold mine and whatever the grade of mineral reject generated in this mine is zero.
3f	Quantity of sub grade mineral generation.	NA	NA	Since, it is an underground mine, whatever the ore is generated is milled. All the developments are being done in ore zones. Mine reject is generated only in the shaft sinking and development of haulage drives and cross cuts.
3g	Grade of sub grade mineral generation	NA	NA	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	NA	NA	Mechanized method.

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	NA	NA	Nil
3j	Provision of drilling and blasting in mineral benches	Given in ug workings.	Yes it is being done in developments & stopings.	Yes drilling & blasting mining operation cannot be done.
3k	Provision of mining machineries in mineral benches	List of machineries used is attached as Annex-II.	Yes this machineries are pertaining to ug and are being carried out in the shafts.	It is being followed.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Given in the document.	Yes it is followed.	Since, it is an underground mine. The size of the stopping blocks after the study conducted by NIRM recommended a size of 90m height by 90m. length for stopes up to 20 L i.e. 687 mts. depth with a rib pillar of 8 mts. thickness, and crown pillar of 8 to 10 Mts. thickness. However, keeping safety in view the stopping block as decided in consultation with DGMS the strike length is reduced to 60 mts.
3m	Total area covered under excavation/pits	Given in the approved document.	Yes the excavations are hidden in UG workings.	Yes it is not seen outside like open cast mine.
3n	Ore to OB ratio for the pit/mine during the year.	Ore: Waste : 1:0.002	Ore : Waste : 1:0.05	As reported in the approved document.

3o	Total area put in use under different heads at the end of year	Given in the document.	It is given and as per the proposals it is followed.	It is an underground mine and the details are given accordingly in the different heads. Approx=345.35 ha on surface.
3p	Production of ROM mineral during the last five year period as applicable	Given in the document.	2012-13=469076t 2013-14=374764t 2014-15=468718t @ 3.44 2015-16=522901t @2.77 2016-17=583396t @ 3.10g/t.(hoisted figure)	Production figure is more than the hoisted figure due to various reasons not reported in the report. (3.23gm/t to 3.07g/t, difference of 0.18g/t. Reasons nt justified.
3q	General remarks of inspecting officers on method of mining etc.	Proposals drawn for scientific mining.	Work also carried out systematically, but the production and the hoisting figures are not tallying.	Violation issued for difference of gold hoisted than the production.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Given in the document.	At times waste is hoisted to the surface dumping yard. some times filled in the old stopes.	Depends up on the need this has been done.
4b	Location of topsoil, OB and mineral reject dumps	Given for waste rock & top soil not applicable.	Only waste, that is black rock will be brought to surafce for dumping and some times used for back filling.	yes depends up on the situation, the waste rock is used.
4c	Number of dumps within lease area and outside of lease area	Given dumps on the surface.	02 (Tailing dumps within the lease area), Besides, waste rock brought from UG used to dump separately.	Same is followed.

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Yes proposals drawn accordingly.	Northern end of lease area (between the boundary pillars BP-A and BP-2) BP-A Latitude : 1792684.9874 Longitude : 677523.2244 BP-B Latitude : 1792466.7590 Longitude : 675299.9530	On the surface without any intrance to the workings.
4e	Number of active and alive dumps.	two dumps on surface.	One active , one dead.	New tailing dump (37 Ha)
4f	Number of dead dumps.	Given in the approved document.	one dump only.	Old tailing dump (25 Ha)
4g	Number of dumps established.	given proposals.	One only.	yes one only.
4h	Whether Retaining wall or garland drain all along dumps are there.	given in the proposals.	1664 m	Garland drain covering both old and new tailing dumps
4i	Length of Retaining wall or garland drain all along dumps	Given in the document.	1200m length.	Garland drain has been constructed around the tailing dam and keeping dimensions average 1.2km x 1.5m x 2m (LxWxH) to collect seepage water
4j	Number of settling ponds	given in the proposls.	2 nos.	Yes done within the lease.
4k	Specific comments of inspecting officer on waste dump management	given appropriately in the document.	Mine is underground mine, accordingly tailing dams are constructed.	The mine is working as per the plan.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Proposals drawn for systematic operation.	yes, whenever stope is exhausted, the steps have been taken to fill the stopes as per the plan in a phased manner.	The system is established to do in a phased manner.
5b	Area under backfilling of mined out area	44,529 tonnes	42,045 tonnes	The quantity of mill tailings used for back filling.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Given for stope filling.	Used mill tailings and also waste rock to be taken to the stoped out area.	yes system is followed.
5d	Total area fully reclaimed and rehabilitated	proposed for phased manner	accordingly, wherever applicable.	It is an underground mine
5e	General remarks of inspecting officers on backfilling and reclamation etc.	UG stope filling proposals drawn.	same is being followed in the stopes.	Yes it is followed and done accordingly.

Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	submitted	Submitted on 12/07/2017	Yes submitted.
6b	Area available for rehabilitation (ha) .	No proposals on the surface	But in UG the worked out area will be filled through waste & closed finally.	It is an underground mine
6c	afforestation done (ha).	2.00 Ha	2.00 Ha	On surface.
6d	No. of saplings planted during the year	6000 nos.	5900 nos.	within the proposals.
6e	Cumulative no .of plants	38000	26570	Survival rate is 48 %
6f	Any other method of rehabilitation	No proposals.	NA	Nil
6g	Cost incurred on watch and care during the year	No proposals.	NA	Nil

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	15,734m3 44,529 MT	14,857m3 42,045 MT 1.00Ha	NA	It is an underground mine
		No proposals.			
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Given in the document.	8 Acres Rehabilitation of waste dump by covering Coir Matting		Undertaken.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Given in the document.	Yes done on the mill tailings dump.		yes done.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposals.	Nil		Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposals.	Nil		Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposals.	Nil		Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposalas.	Nil		Nil

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposals.	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Given	Undertaken regularly.	Yes found to be normal.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	No proposals.	Whatever applicable to the surface features done.	This is done with respective underground mine.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Given	Done as per the proposals.	It is an underground mine
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Given	Done from UG and collected in surface finally inthe plant.	The entire development is done ore zone and whole thing is milled.
7c	Different grade of mineral sorted out at mines.	No proposals.	Done at the surface through mill & not in underground.	It is an underground mine
7d	Any beneficiation process at mines	Yes proposed for surface milling plant.	SAG & BALL PLANT of 2000 TPD is operating.	Yes as per the plan, al the ROM will be brought to surface for ore beneficiiation.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Proposals drawn.	Done as per the proposals.	But the final recovery of gold is getting losed,without any remedy.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposals.	nil	It is an underground mine.
8b	Concurrent use or storage of topsoil	No proposals.	Nil	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposals for underground mine and not for surface.	Yes work is being carried out as per UG.	Yes it is being done.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No propsals	nil	The classified tailings are being used to fill the empty stopes
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No propsals for the surface	Every thing pertains to underground mining.	Work is being carried out based on the underground mining.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Given	Done as proposed	Yes as per the existing situations.
8g	Survival rate	100	48%	same as above.
8h	Water sprinkling on roads to control airborne dust	proposed for surface water sprinkling and not in underground.	Yes it is being carried out.	Water sprinkling on roads to control airborne dust is in practice
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	proposed for mainly in underground working and related to surface.	Yes work is mainly on underground.	Yes it is well maintained.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	yes submitted	As per the format.	Satisfactory.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Details are furnished in A.R.	As observed during the last inspection, officers were working.	yes found satisfactory.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given on surface	Given for surface and not for underground.	yes given accordingly.
9d	Scrutiny of Annual return on afforestation	Given as per the format.	Nil	Done afforestation on surface.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No proposals.	NA	nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	given in the format.	3800 nos with 60% survival.	As reported is correct.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given in the format.	Yes it is Rs. 2706/gms. (1293.58kgs of gold & Rs. 35008.30 lakhs. 127.63 kgs of silver & 49.49 lakhs.)	reported figures.
9h	Scrutiny of Annual return on fixed assets	Given as per the format	Not furnished, it is mentioned that the account will be furnished after the finalization of annual account.	It is not complete information.
9k	Scrutiny of Annual return on mining machineries	furnished.	Yes used as per the proposals in the respective places.	Yes used as proposed in the underground mines.

Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed			Show cause position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17	Rule 19(1)	12/12/2017	MCDR17	Rule 19(1)	12/12/2017
MCDR17	Rule 26(2)	12/12/2017	MCDR17	Rule 26(2)	12/12/2017
MCDR17	Rule 30(1)	12/12/2017	MCDR17	Rule 30(1)	12/12/2017
MCDR17	Rule 45(5)(c)	12/12/2017	MCDR17	Rule 45(5)	12/12/2017
MCDR17	Rule 11(1)	12/12/2017			
Rule 45(7)		28/08/2018			

Date :

(C. PARAMESHWARAN)

Indian Bureau of Mines