



## THE HUTTI GOLD MINES COMPANY LIMITED

(A Government of Karnataka Enterprise)

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CIN NO.: U85110KA1947SGC001321

No. HGML/MET/ENV/HUTTI/MoEF&CC/2018-19/

Date: 20/05/2019

**The Additional Principal Chief Conservator of Forest (Centre)**

Ministry of Environment Forest & Climate Change,

Regional Office (Southern Zone), Kendriya Sadan,

IV Floor, E & F wings, 17<sup>th</sup> Main Road,

II Block, Koramangala,

**Bangalore - 560 034**

Sir,

**Sub: Compliance for the MoEF conditions for six monthly ( Oct 2018 to March 19) Hira-Buddini Gold Mine of M/s. The Hutti Gold Mines Co. Ltd. Raichur (Dist), Karnataka- reg.**

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With reference to the above cited subject, please find enclosed six monthly compliance report ( October 2018 to March 2019) Hira-Buddini Gold Mines, as per the stipulated specific conditions of the Environmental Clearance (Annex-I).

Submitted for your kind perusal.

Thanking You,

Yours faithfully,

**General Manager (Co-ordination)**

**Encl:** As stated.

**Hira-Buddini Gold Mine of M/s. Hutti Gold Mines Company Ltd for 21.825 Ha Mining lease area, at village-Hutti, Tehsil-Manvi, District-Raichur, Karnataka**

***F.NO.J-11015/396/2005-IA-II(M)***

The total mine lease area of the project is 21.825 Ha Forest land is not involved out of 21.825 Ha lease area, 1.0 Ha is earmarked for overburden dump, 1.50 Ha for built up area/ infrastructure, 0.5 Ha for road, 4.0 Ha for green belt development and 14.825 Ha for other (undisturbed area). There is no National Park/Sanctuary/Biosphere reserve etc located within core and buffer zone. The targeted production capacity of the mine is 0.073 million tonnes per annum Mining is underground by semi-mechanized method Blasting is involved.

## COMPLIANCE REPORT

Oct2018-Mar2019

**Project:** Hira-Buddini Gold Mine of M/s The Hutti Gold Mines Co Ltd., for 21.825 ha mining lease area at village Hira-Buddini, Tehsil – Manvi, District- Raichur, Karnataka – Environment Clearance.

**Ref:** F.No.J-11015/396/2005-IA-II (M)

Sl No.	Specific Conditions Stipulated	Compliance Status
I	Study report on subsidence and stage wise development plan starting from 5 <sup>th</sup> year of operation till the end of the mine at an interval of 5 years should be submitted to the Ministry within six months.	Reached-175 mts, massive rock, so far no subsidence has not been occurred.
II	The project authorities should take all safety measures in accordance of guidelines and consultation of Director General Mines Safety (DGMS) during development & mining operation.	All safety measures are being taken in accordance of guidelines and consultation of Director General Mines Safety (DGMS) for development & Same will be continued for mining operation.
III	All preventive measures are to be taken keeping in view the presence of structural feature like fractured zones, faults, seepage of ground water etc during operation of mine to avoid subsidence.	All preventive measures will be taken to avoid subsidence.
IV	Adequate system for ventilation shall be provided during mining operation	The Mine is ventilated by an exhaust fan of 12.5 HP, 1000 mm dia, installed at ventilation shaft, east side and it is a single stage, axial flow, discharging a maximum of 1800 m3 of air per minute. In order to provide fresh air to all the workings in underground, suitable ventilation accessories such as ventilation doors & regulators are deployed judiciously
V	Adequate arrangement / system should be made for dewatering of mine water, as working will intersect ground water tables	The water encountered in the mine is pumped with suitable pumps. Water sump is made in the first level at the main cross-cut at northern dead end. Adequate pumping arrangements with compressed air/electrical pump are arranged. Water sump will be made in each level. Per day about 125 KL. Of water is pumped out from the underground sump, for this purpose 40 HP submersible pump is installed. Sump has a storage capacity of about 35,000 lts. The quality of water is good; the pumped water is stored in a pond and used for surface work & afforestation. Natural drainage is not altered due to mining operations. Hence, no effect in the core and buffer zone.

Sl. No.	Specific Conditions Stipulated	Compliance Status
Vi	External OB dumps and other wastes should be stacked at earmarked sites only and should not be kept active for long period till its use for backfilling. Toe walls around the waste dumps shall be made to ensure and to prevent erosion and surface runoff.	During mine development for the planned period, only 1000 tonnes of waste rock (OB) is to be generated and the same will be used for civil work and as road ballast. The remaining quantity will be dumped in the dumping site proposed for dump within the lease area.
Vii	Plantation shall be raised in an area of 16.25 ha on in ML area roads, etc. consultation with the local DFO/ Agriculture Department at the end of the mine life. The density of the trees should be around 2500 plants per ha.	Plantation is being done with the consultation of local DFO. Till date total- 31000 saplings have been planted covering about 22.0 Acres.
Viii	The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground water Board.	Conservation measures will be taken to augment ground water resources in the area.
IX	Regular monitoring of ground water level & quality should be carried out by establishing a network of existing wells. The monitoring should be carried out two times in a year – pre monsoon (April-May), post monsoon (November) and the data thus collected may be sent regularly to MOEF, Regional Director Central Ground Water Board	Regular monitoring of ground water & quality assessment is being done by establishing a network of existing wells. Report will be sent to MOEF, Regional Director Central Ground Water Board.
X	Existing ecological status of the project area shall be conserved and protected. The project proponent should take all possible precautionary measures during mining operation for conservation and protection of Schedule – 1 fauna spotted in the project area, if any. Action plans for the same shall be prepared with the consultation of DFO /wildlife department along with allocation of funds for this purpose and shall be submitted to R.O of the ministry at Bangalore.	As it is underground mine, there is no much surface disturbance is anticipated. However HGML will take all possible steps to maintain the status quo.  Due to lack of vegetation/forest growth in the area, existence of wild life is practically nil.
XI	Permission from the competent authority should be obtained for drawl of ground water if any, required for the project .	Will be obtained if it found necessary.
XII	Suitable rainwater harvesting measures on long term basis shall be planed and implemented in consultation with Regional Director, CGWB.	Rain fall is scanty (about 500 to 600 mm. per annum) and the climate is generally hot & dry. The temperature, during the summer shoots up to 42 <sup>o</sup> C.

<b>XIII</b>	Vehicular emissions should be kept under control & regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operation & in transportation of mineral. The vehicles should be covered with a tarpaulin & shall not be overloaded.	Vehicular emissions is being monitored regularly & Kept under control. The vehicles will not be overloaded.
<b>XIV</b>	Consent to operate should be obtained from Karnataka SPCB before starting production from the mine.	Yet to be obtained.  (before the process starts)
<b>XV</b>	A final mine closure plan along with details of corpus fund should be submitted to the ministry of environment & forests 5 years in advance of mine closure for approval	A final mine closure plan will be submitted to the ministry of environment & forests 5 years in advance of mine closure for approval.

<b>Sl No.</b>	<b>General Conditions</b>	<b>Compliance Status</b>
<b>I</b>	No change in mining technology & scope of working should be made without prior approval of the Ministry of Environment & Forests.	Mining technology & Scope of work will be followed as per approval of the Ministry of Environment & Forests.
<b>II</b>	No change in the calendar plan including excavation quantum of mineral & waste should be made`	As per calendar plan including excavation quantum of mineral & waste will be made.
<b>III</b>	Data on ambient air quality (RPM,SPM,SO2,NOx) should be regularly submitted to the Ministry including its regional office located at Bangalore & the SPCB/ CPCB once in 6 months	Data on ambient air quality will be submitted to the ministry, Regional office, SPCB/CPCB once in 6 months.
<b>IV</b>	Fugitive dust emission from all the sources should be controlled regularly. Water spray arrangement on loading & unloading & at transfer points should be provided & properly maintained.	Fugitive dust emission from all the sources will be controlled regularly. Water spray arrangement on loading & unloading & at transfer points will be provided & properly maintained.
<b>V</b>	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc should be provided with earplugs / muffs.	Measures will be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc will be provided with earplugs / muffs.

VI	Industrial waste water (workshop & waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 <sup>th</sup> May 1993 & 31 <sup>st</sup> December 1993 or as amended from time to time. Oil & grease trap shall be installed before discharge of workshop effluents	There is no generation of industrial waste water as the beneficiation being carried out at Hutti. Oil & grease will be generated in small amount & is trapped by spreading the gunny bags in the workshop area
VII	Personal working in dusty areas should wear protective respiratory devices & they should also be provided with adequate training & information on safety & health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust & take corrective measures, if needed.	Provided protective respiratory devices and also provided with adequate training & information on safety & health aspects. Occupational health surveillance program of the workers will be undertaken periodically to observe any contractions due to exposure to dust & take corrective measures, if needed.
VIII	The funds earmarked for environmental protection measures should be kept in separate account & should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry & its regional office located at Bangalore.	Will not be diverted for other purpose. Year wise expenditure will be reported to the Ministry & its regional office located at Bangalore.  Expenditure 2017-2018 Rs: 18 Lakhs
IX	The Regional office of this ministry located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should provide a set of filled in questionnaires EIA & EMP report & extend full co-operation to the officer (S) of the Regional office by furnishing the requisite data / information monitoring reports	HGML will provide a set of filled in questionnaires, EIA & EMP report & extend full co-operation to the officer (S) of the Regional office by furnishing the requisite data / information & monitoring reports
X	The project authorities shall inform to the Regional office located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities & the date of start of land development work.	Will be informed to the Regional office located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities & the date of start of land development work.
XI	The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the SPCB & may also be seen at web site of MOEF at <a href="http://envfor.nic.in">http://envfor.nic.in</a> & copy of the same should be forwarded to the Regional Office of this Ministry located at Bangalore	Already advertised in two local news papers and paper clippings have already sent to R.O MOEF, Bangalore. (Complied)  Please refer HGML's letter  NO.EMC/GM/2007 Date: 03 / 04 / 2007.

## Hira-Buddini Gold Mine

### Ambient Air Quality Monitoring Report

Oct2018-Mar2019

SL. No.	Location	Oct-Nov-18				Dec18-Jan19				Feb – Mar19			
		SPM	NOx	SO2	RPM	SPM	NOx	SO2	RPM	SPM	NOX	SO2	RPM
1	Drill shop	122.4	4.81	2.37	48.9	120.6	4.86	2.36	48.4	120.3	4.89	2.34	48.6
2	HPGP workers shed	91.5	2.33	0.52	43.2	97.6	2.32	0.53	43.8	97.6	2.33	0.58	43.5
3	M L Boundary (Southern)	78.3	2.56	1.14	62.6	78.2	2.56	1.17	62.6	78.4	2.55	1.18	62.6
4	Buddinni village	105.4	3.36	0.68	44.6	105.8	3.38	0.64	44.8	105.8	3.46	0.68	44.4
5	Huda Village	163.6	2.56	0.45	45.8	162.5	2.56	0.45	45.8	163.1	2.58	0.47	46.6
6	Hira Village	120.2	3.51	0.72	43.2	121.6	3.56	0.76	46.1	121.8	3.58	0.74	46.4
7	Madarkal village	98.84	3.24	1.26	52.4	98.4	3.27	1.24	52.2	99.6	3.36	1.35	53.8

All units are in  $\mu\text{g} / \text{M}^3$

## Water Quality Report of Hira-Buddinni Gold Mine

Oct2018-Mar2019

Sl. No.	Parameters	HB1	HB2	HB3	HB4	HB5	HB6
1	Color & Odour	Colorless & Odorless	Colorless & Odorless	Colorless & Odorless	Colorless & Odorless	Colorless & Odorless	Colorless & Odorless
2	pH	8.1	8.0	7.5	7.72	8.05	8.12
3	TDS ppm	546	562	519	527	536	642.5
4	TSS	NIL	NIL	NIL	NIL	NIL	NIL
5	Chloride mg/l	27.54	25.56	18.48	20.24	19.16	18.43
6	Sulphate mg/l	55.22	60.24	27.6	43.63	12.64	14.88
7	Free NH <sub>3</sub> mg/l	3.54	NIL	4.62	NIL	NIL	NIL
8	Oil & grease	NIL	NIL	NIL	NIL	NIL	NIL
9	D.O mg/l	3.96	3.74	4.6	3.56	4.13	4.35
10	BOD mg/l	6.55	6.34	6.7	6.6	6.5	6.6
11	COD	NIL	NIL	NIL	NIL	NIL	NIL
12	Cu ppm	0.018	0.016	0.016	0.03	0.04	0.04
13	Fe mg/l	0.54	0.82	0.34	0.24	0.21	0.26
14	Mn ppm	0.056	0.074	BDL	0.067	0.058	0.034
15	CN	NIL	NIL	NIL	NIL	NIL	NIL
16	Pb ppm	0.026	0.034	BDL	0.04	0.02	0.03
17	Zn ppm	0.07	0.04	BDL	0.09	0.04	0.07

HB1- HBGP Mine site pitwater discharge

HB2 - HBGP Mine site U/G level seepage water

HB3 – HBGP Mine site near check dam

HB4 - Buddinni village well (Drinking water)

HB5 – Huda Village well (Drinking water)

HB6 – Madarkal village well (Drinking water)

**Note:** All values are average of Oct2018-Mar2019



## Hira-Buddinni Gold Mine

### Noise Level Report

Oct2018-Mar2019

Sl. No.	Station	Time	Noise Level. dB(A)		
			Min	Max	Avg
1	DG Set / compressor	8.35AM	72	74	73.0
2	Exhaust fan	8.50 AM	78	76	77.0
3	Tipper loading	9.10AM	65	77	71.0

### Dust fall Rate Monitoring Report of Hira-Buddinni Gold Mine

Seasons / Month	Wt in gm	Dust fall rate (T/sq.km/day)	Dust fall rate (T/sq.km/month)
Oct-Nov	0.036	0.005	0.134
Dec-Jan	0.586	0.084	2.636
Feb-Mar	0.616	0.094	2.747

### Soil Quality Report of Oct2018-Mar2019

SL. No.	Location	Physical characteristics		Chemical characteristics			
		pH	Bulk density g/cc	Phosphorus ppm	Chlorides ppm	Aluminum ppm	Iron ppm
1	HBGP mine site	8.2	1.34	0.054	0.024	6.24	4.58
2	Worker Shed	7.6	1.35	0.066	0.017	7.74	5.84
3	Chinchargi	7.6	1.16	0.056	0.016	4.7	5.34