Name of the Project: Sonari Lignite Project, District Barmer (Rajasthan) Project Code: Thermal & Coal Clearance letter No. J-11015/186/2006-IA.II(M) dated 17th July, 2007

Period of Compliance Report: April-2022 to September-2022

S.	(A) Specific Conditions:	Status of implementation:
I	Mining shall be carried out as per statuette at a safe distance from the villages located within the mine lease area.	Lignite mining is carried out as per statuette & at safe distance from the villagers located within the mining lease area.
II	Top Soil shall be stacked properly with proper slope at earmarked site (s) and should not be kept active and shall be used for reclamation and development of green belt.	Top soil is being stacked separately at earmarked site and is being used for reclamation & rehabilitation of the mined out areas.
III	OB should be stacked at earmarked one external OB dumpsite within ML area for three years only and shall be a maximum height of 30 M only and consist of three benches of 10 M each. The ultimate slope of the dump shall not exceed 28°. The OB dumps shall be vegetatively reclaimed. Monitoring and management of reclaimed dumpsite should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional Office located at Lucknow on a yearly basis.	Over-burden has been dumped at earmarked site as proposed in EIA & EMP and an overall slope of 28° is being maintained. Partial backfilling has commenced. Monitoring and management of rehabilitation areas will continue till the vegetation becomes self-sustaining. Status of compliances is being sent regularly.
IV	Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted and maintained properly.	Catch drains and siltation ponds of appropriate sizes have been constructed to arrest silt and sediments flows from OB dump and mineral dumps. The water so collected will be utilized for water spraying in the mine area, roads & for green belt development etc; and the drains will be regularly maintained properly.
	sump capacity should be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity should also be provided adequate retention period to allow proper settling of silt material.	The Garland drains sump capacity has been constructed keeping in view 50% over & above safety margin for peak sudden rainfall & proper settling of silt material is also being allowed.
V	Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.	Dimension of the retaining is Height 2 Mtrs. X 1 Mtr. Width & 1 Km. Length. To check run of siltation is being provided based on rainfall data.
VI	Permanent haul roads shall be metal topped. Water sprinkling system should be provided to check fugitive emissions haulage roads, transfer points, etc.	Regular water sprinkling / spraying system has been provided to check fugitive emissions at haulage roads and transfer points with the help of 20 KL water tanker available at the site
		and daily water dust suppuration by water spraying under the control of mines manager and shift incharge and check on regular basis.
VII	Mining shall not involve drilling and blasting operations. No lignite handling plant or washery shall be installed in the ML without prior permission of the Ministry.	No drilling & blasting is needed for lignite mining because formation of over burden is soft. No lignite handling plant & washery is installed in the
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VIII The total area brought under afforestation at the	
end of mine life (post mining land use) shall not be less than 775 ha. and shall include reclaimed external OB dump, reclaimed quarry area, green belt including plantation along ML boundary, roads, around infrastructure area and vacant / undisturbed area by planting native species in consultation with the local DFO / Agriculture Department. The density of the trees should be around 2000 plants per Ha. Plant species selected shall be local species suitable for growth in arid climatic conditions.	Total area to be brought under afforestation at the end of mine life will not be less than 775 Hect. and will include quarry area, green belt including plantation along mining lease boundary, roads, around infrastructure area and vacant / undisturbed area; by planting native species in consultation with DFO / Agricultural Deptt. The density of the trees have kept as per the norms of MoEF clearance. 8000 Nos. plants planted different species like Acacia, Nilotica, Acaciatortalis, Neem, Sisam etc.
IX Backfilling shall begin from 3 rd year of mining operations. A Progressive Mine Closure Plan shall be implemented from the 3 rd Year of mining operation and the OB generated shall be backfilled. Plantation shall be developed over the backfilled area.	Backfilling begin from November, 2014, i.e. at the end of 3 rd year of Mining operations. Progressive mining closure plan shall be implemented from the 3 rd year of mining operation and OB generated will be backfilled & plantation will be undertaken in the backfilled area simultaneously.
X The project authorities shall provide for grazing, if required, in the reclaimed land / quarry area, in consultation with local villagers.	RSMM will provide areas for grazing, if required.
XI Prior approval of the competent authority such as the SGWB / CGWA shall be obtained for using ground water for the project.	Prior approval will be taken for using ground water for the project if required.
XII Mining shall not intersect ground water. A detailed hydro-geological study of the impact of mining on the ground water regime shall be prepared and submitted to Ministry within two years of grant of this environmental clearance.	No groundwater table is likely to be intersected during mining. A detailed. hydro-geological study of the impact of mining on the ground water regime has already been submitted to the Ministry alongwith EIA & EMP Report.
XIII Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity should be done four times a year in pre-monsoon (May), Monsoon (August), post monsoon (November) and winter (January) seasons and for quality in May. Data thus collected should be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one	There are no wells around the village and the mine area because there is no availability of ground water. The drinking water source is about 15 Kms. away from the mines' site i.e. at Bharka PHED Tube Well.
month of monitoring. The project proponent shall undertake continuous monitoring/surveillance of quality of mine seepage water to address the impact of mining on ground water regime on long-term basis. During Post- mining period, the proponent shall undertake monitoring of mine pit water quality and ground water regime in the area on a long term basis (for at least three years) to assess the impact of mining during post mining period. The proponent shall also carry out appropriate treatment technology of mine water in case of Acid Mine Drainage problem resulting from high sulphur labels from lignite/rocks and treatment of TDS to prescribe levels before discharge of mine water outside the premises during mining operation. Prior approval of	There is no mine seepage in the mining area and there is no Acid Mine Drainage. There is no need of Prior approval of SGWB/CGWA because there is no availability of ground water in mining area.

- 5	SGWB/CGWA shall be obtained in case of abstraction of groundwater in the core zone and in the over exploited buffer zone, which are critical/semi critical from exploitation of groundwater. (As per Modification Letter dated 13.08.2010)	
XIV	The company shall put up artificial ground water recharge measures for augmentation of ground water resource. The project authorities should meet water requirement of nearby village (s) in case the village wells go dry due to dewatering of mine.	Ground water recharge measures have been proposed, which are under progress. There are no wells around the village & mine area; because, there is no availability of ground water. Drinking water source is about 15 kms. away from the mine site i.e. at Bharka (PHED tubewell).
XV	ETP should also be provided for workshop treating workshop effluents and an STP for the colony and only treated effluents meeting prescribed standards shall be discharged out of ML area.	There is no colony at mine site & all the employees are living in Barmer town. The existing contractor not having any workshop only washing of machinery at Camp Site.
XVI	For monitoring land use pattern and for post mining land use, a time series of land-use maps, based on satellite imagery (on a scale of 1 : 5,000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series), and the report submitted to MoEF and its Regional Office at Lucknow.	Digital processing of the entire lease area using remote sensing technique is being undertaken once in three years for monitoring land use pattern and will be submitted to MOEF & its Regional Office.
XVII	Pre-project study on characterization of dust shall be taken up and a pre-project health survey shall be carried out. Besides carrying out regular periodic health check up of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check up for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmedabad within a period of one year and the results reported to this Ministry and to DGMS.	As per the norms of DGMS regular periodic health checkups of the workers & 10% of the workers identified from work force engaged in active mining operation are being checked for occupational diseases and hearing impairment, if any. RSMML is also having facility for medical checkups for labours as well as villagers living nearby.
XVIII	R&R shall be as per norms of State Government and completed within an agreed time schedule.	R&R as per the norms of State Government have been completed within agreed time schedule.
XIX	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 final mine closure for approval.	Final mine closure plan along- with details of Corpus funds will be submitted to the Ministry five years in advance.
XX	Consent to Operate shall be obtained before starting mining operations after fulfilling the	Consent to operate has been obtained for enhanced capacity of mines. It is valid

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C No	(A) Concret Conditioner	Chatus of implementation:
I.	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forest.	No change has been carried out in mining technology and scope of working.
II.	No change in the calendar plan including excavation, quantum of mineral and waste should be made.	No changes in the calendar plan beyond approved quantities for excavation, quantum of mineral lignite and overburden have been made.
III.	Four ambient air quality-monitoring stations should be established in the core zone as well as the buffer zone for SPM, RPM, $SO_2 NO_X$ monitoring. Locations of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultations with the State Pollution Control Board.	Ambient air monitoring stations are established in core zone as well as in buffer zone for RPM, SPM ,SO ₂ , NOx in consultation with RSPCB. Reports are enclosed.
IV.	Data on ambient air quality (SPM, RPM, SO_2 NO_X)should be regularly submitted to the Ministry including its Regional Office at Lucknow and the State Pollution Control Board and the Central Pollution Control Board once in six months.	Six (6) monthly ambient air quality (RPM, SPM, SO ₂ , NOx) reports are sending to MoEF, Regional Office at Lucknow and RSPCB regularly. Reports are enclosed.
V.	Fugitive dust emissions from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading & unloading) points should be provided and properly maintained.	Regular water spraying is carried out on haulage roads, loading & unloading points to protect fugitive dust emissions. Proper monitoring & data recording are being undertaken. The permanent haul roads available are being used and regular water sprinkling / spraying system with the help of 20 Kal. Water tanker available at site and daily water tanker spraying are being checked by Manager and Shift Incharge on regular basis.
VI.	Adequate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM etc. should be provided with ear plugs / muffs.	Measures are being taken for controlling & managing noise levels below 85 dBA. Ear plugs & muffs are being provided to all HEMM operators, supervisors etc. Report enclosed.
VII.	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated: 19 th May, 1993 and 31 st December, 1993 or as amended from time to time before discharge. Oil and grease trap should be installed before discharge of workshop effluents.	Industrial waste waters from work- shops are being properly collected as per the standard prescribed rules.
VIII.	Vehicular emissions should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally.	Vehicular emissions are being checked & controlled. During the despatch to power plant or open market tarpaulin sheets are used for loaded trucks.
IX.	Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.	Environmental laboratory has been established just adjoining of Giral Lignite Mine. Adequate numbers and types of pollution monitoring equipments, like dust sampler, noise meter, wind monitor etc. have been provided.
Χ.	Personnel working in dusty areas should wear	Persons working in dusty areas are being
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	 protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed. 	provided protective respiratory devices and also imparted adequate training & information on safety and health at V.T. center at Mines. Health check-ups of all the employees are being conducted periodically, as per the norms of National Institute of Miners Health, Nagpur.
XI.	A separate environmental management cell with suitable qualified personnel should be set up under the control of a Senior Executive, who will report directly to the Head of the Company.	A separate Environmental Management Cell (comprising qualified personnel) has been setup and persons are directly reporting to the competent authority.
XII.	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year-wise expenditure should be reported to this Ministry and its Regional Office at Lucknow.	The funds earmarked for environmental control measures are not being utilized for any other purpose. Year-wise expenditure on environmental protection measures will be reported accordingly.
XIII.	A copy of the will be marked to concerned Panchayat / Local NGO, if any, from whom any suggestion / representation has been received while processing the proposal.	Copy of clearance letter has been sent to concerned Panchayat & local NGO for their information.
XIV.	State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Center and Collector's Office / Tehsildar's Office for 30 days.	Already requested all concerned for displaying the copy of clearance letter.
XV.	The Project authorities should advertise at least in two local news papers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven	It has been advertised in two local newspapers widely circulated around the project.
	days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and may also been seen at the website of the Ministry of Environment & Forests at http://envfor.nic.in.	

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Head & In-Charge (Lignite)

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(ARUN SINGH) Head & In-Charge (Lignite) Rajasthan State Mines & Minerals Ltd. * Khanij Bhawan, Tilak Marg JAIPUR-302005



Approved by Ministry of Environment and Forest, Government of India as Environmental Laboratory RSPCB ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S) JDA/UDII

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TEST REPORT

Report No .:	RSMML/Barmer/Air/2022/09/06	Date :	30.09.2022
Issued To :	M/s Rajasthan State Mines & Minerals Ltd. Sonari Lignite Mines Barmer. Barmer, Rajasthan	Type of Unit	Mmes
Type of Sample :	Ambient Air Quality Monitoring	Point of Collection	Weigh Bridger
Unit's representative :	Mr. Ashok Maru	Sample Collection By	Unit's Representative
Sampling Duration	24 (Hrs.)	Sampling Plan :	IS 5182:2000 (Part 14) RA 2014

RESULTS

S. No.	Date of Sampling	Nitrogen Dioxide NO2 [µg/m ³]	Particulate Matter (PM 2.5) [µg/m ³]	Sulphur Dioxide SO2 [µg/m ³]	Particulate Matter (PM 10) [µg/m ³]
1	04.09.2022	13.62	25.82	3.46	57.26
2	11.09.2022	12.55	27,41	3.71	55.46
3	19.09.2022	13.10	26.92	4.13	58.43
4	26.09.2022	12.61	27.45	· 4.28	59.48
Limits as per National Ambient Air Quality Standard, 2009		80.00	60.00	80.00	100.00

Notes :-

The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.

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Senior Analyst Mal Yogi

(Report No: RSMML/Barmer/Air/2022/09/06)

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C-Scheme, Jaipur - 3	302001, Rajasthan			Sitapura, Jaipur - 302022, Raj	jasthan			
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Website : www.team	testhouse.com			Email : director@teamtesthou	ise.com,			
Email : team.bdhead	@ginail.com			Email : marketinglab@teamte	esthouse.com			

TEST REPORT

Report No.:	RSMML/Barmer/Air/2022/09/07	Date :	30.09.2022
Issued To :	M/s Rajasthan State Mines & Minerals Ltd. Sonari Lignite Mines Barmer, Barmer, Rajasthan	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Point of Collection	Mining Area
Unit's representative :	Mr. Ashok Maru	Sample Collection By	Unit's Representative
Sampling Duration	24 (Hrs.)	Sampling Plan :	IS 51\$2:2000 (Part 14) R.A. 2014

RESULTS

S. No.	Date of Sampling	Nitrogen Dioxide NO2 [µg/m ³]	Particulate Matter (PM 2.5) [µg/m ³]	Sulphur Dioxide SO2 [µg/m³]	Particulate Matter (PM 10) [µg/m ³]
1	05.09.2022	10,92	31.48	3.62	63.70
2 .	12.09.2022	• 11.85	27.42	3.71	65.19
3	20.09.2022	12.42	28.61	4.32	68.30
4	27.09.2022	10.57	35.82	3.68	64.41
Limits as per National Ambient Air Quality Standard, 2009		\$0.00	60.00	\$0.00	100.00

Notes :-

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The results listed referionly to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied. ż

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TEST REPORT

Report No.: RSMML/Barmer/Air/2022/09/05		Date :	30.09.2022
Issued To :	M/s Rajasthan State Mines & Minerals Ltd. Sonari Lignite Mines Barmer, Barmer, Rajasthan	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Point of Collection	Site Office
Unit's representative :	Mr. Ashok Maru	Sample Collection By	Unit's Representative
Sampling Duration	24 (Hrs.)	Sampling Plan :	IS 5182:2000 (Part 14) RA 2014

RESULTS

S. No.	Date of Sampling	Nitrogen Dioxide NO2 [µg/m ³]	Particulate Matter (PM 2.5) [µg/m ³]	Sulphur Dioxide SO2 [µg/m ³]	Particulate Matter (PM 10) [µg/m ³]
1	04.09.2022	11.7	27.46	4.31	58.14
2	11.09.2022	12.5	25.52 *	3.57	61.35
3.	19.09.2022	10.6	26.45	4.78	. 57.52
4	26.09.2022	11.3	24.73	4.13	59.37
Limits as Air Quality	per National Ambient Standard, 2009	* 80.00 -	60.00	80.00	100.00

Notes :-

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Report No: RSMML/Barmer/Air/2022/09/05)

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Email : team.bdhcad@gmail.com

Email : marketinglab@teamtesthouse.com

TEST REPORT

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Report No.:	RSMML/Barmer/Air/2022/09/08	Date :	30.09.2022
Issued To :	M/s Rajasthan State Mines & Minerals Ltd. Sonari Lignite Mines Barmer, Barmer, Rajasthan	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Point of Collection	Contractor Camp
Unit's representative :	Mr. Ashok Maru	Sample Collection By	Unit's Representative
Sampling Duration	24 (Hrs.)	Sampling Plan :	IS 5182:2000 (Part 14) RA 2014

RESULTS

S. No.	Date of Sampling	Nitrogen Dioxide NO2 [µg/m ³]	Particulate Matter (PM 2.5) [µg/m ³]	Sulphur Dioxide SO2 [µg/m³]	Particulate Matter (PM 10) [µg/m ³]
1	05.09.2022	11.31	21.48	3.55	52.61
2	12.09.2022	12.45	26.73	4.28	55.45
3	20.09.2022	10.76	25.42	3.91	56.43
.4	27.09.2022	11.45	24.81	3.65	52.80
Limits as Air Quality	per National Ambient y Standard, 2009	80.00	60.00	80.00	100.00

Notes :-

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Senior Analyst

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TEST REPORT

Report No./ULR No. :	RSMM/WW/22/02	Date :	30-09-2022
Issued To :	M/S Rajasthan State Mines & Minerals Limited Sonari Lignite Mines, Barmer Barmer, (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Liquid Effluents	Date of Sample Collection/Monitori ng :	23-09-2022
Point of Collection	Sonari Mines	Date of Receipt :	25-09-2022
Date of Test/Analysis :	25-09-2022 to 29-09-2022	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2ltr.	Sample Collected By :	Unit's Representative
Unit's representative :	Mr Ashok Maru	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Total Suspended Solids [mg/l]	89	APHA.2017:2540-D	100
2	Biochemical Oxygen Demand (BOD) [mg/l]	24	APHA 2017:5210-B	30
3	Chemical Oxygen Demand (COD) [mg/l]	166	APHA:2017 : 5220-C	250
4	pH	7.03	APHA:2017 : 4500 H+B	5.5 - 9.0
5	Oil & Grease [mg/l]	5	APHA 2017 : 5520 B	10

Notes :

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Kumar SL

Rajesh Maheshwari Authorized Signatory (Report No: RSMM/WW/22/02)



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Email : team.bdhead@gmail.com

Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	ort No./ULR RSMM/S/22/03		30-09-2022	
Issued To :	ssued To : M/S Rajasthan State Mines & Minerals Limited Sonari Lignite Mines, Barmer Barmer, (Rajasthan),		Mines	
Type of Sample :	Soil Sample	Date of Sample Collection/Monitori ng:	23-09-2022	
Point of Collection	f Collection Near to Sonari Pit N- Side		25-09-2022	
Date of Test/Analysis :	e of25-09-2022 to 29-09-2022		Not Available	
Quantity of Sample :	- *	Sample Collected By :	Unit's Representative	
Unit's representative :	nit's Mr Ashok Maru presentative :		Fit for testing	

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S.No	Parameters	Observed Value	Testing Protocol
1	Electrical Conductivity (EC) [micromho/cm]	709	Method Manual
2	pH	8.33	Method Manual
3	Moisture [%]	6.78	Method Manual
4	Calcium Carbonate (%)	1.15	Method Manual
5	Available Nitrogen [%]	0.09	Method Manual
6	Available Phosphorous [Kg/ha]	11.6	Method Manual
7	Available Potassium [Kg/ha]	132	Method Manual
8	Organic Carbon [%]	0.34	Method Manual

Notes :

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Sen Runan, Mal Yogi

Rajesh Maheshwart Authorized Signatory (Report No: RSMM/S/22/03)



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C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.comLaboratory : G1-584, RHCO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	RSMM/S/22/04	Date	30-09-2022
Issued To :	M/S Rajasthan State Mines & Minerals Limited Sonari Lignite Mines, Barmer Barmer, (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Soil Sample	Date of Sample Collection/Monitori ng :	23-09-2022
Point of Collection	Near to Sonari Pit E- Side	Date of Receipt :	25-09-2022
Date of Test/Analysis :	25-09-2022 to 29-09-2022	Sampling Plan : .	Not Available
Quantity of Sample :	-	Sample Collected By :	Unit's Representative
Unit's representative :	Mr Ashok Maru	Condition of Sample	Fit for testing

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-	-	-	-	-	_

S.No	Parameters	Observed Value	Testing Protocol
1	Electrical Conductivity (EC) [micromho/cm]	649	Method Manual
2	pH	8.24	Method Manual
3	Moisture [%]	7.12	Method Manual
4	Calcium Carbonate (%)	1.07	Method Manual
5	Available Nitrogen [%]	0.05	Method Manual
6	Available Phosphorous [Kg/ha]	14 7	Method Manual
7	Available Potassium [Kg/ha]	104	Method Manual
8	Organic Carbon [%]	0.44	Method Manual

Notes :-

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The results listed refer only to the tested sample (s) & parameters (s) Endorsement of products is neither inferred nor implied.

This report is not to be reproduced wholly or in part and can not be used evidence in the court of law and should not be used in any advertising media without our special permission in writing

The samples will be destroyed after 15 days from the date of issue of test report unless otherwise specified.

0 Purah Mai Yogi Senior Analyst

Rajesh Mahashwarl Authorized Signatory (Report No: RSMM/S/22/04)

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	Rajasthan State Mines & Minerals Ltd.						
		Unit: So	onari Lignite	Project, E	Barmer		
	So	und Monitoring rec	ord for the	e month	of September -2022		
S	N Date	Locations		db	Remarks		
0.	Date	Locations	Min.	Max.			
1	13.09.2022	Manager Office (In Side)	25.6	30.8			
2	13.09.2022	Manager Office (Out Side)	26.3	31.0			
3	13.09.2022	Sonari Village	25.5	30.5			
4	13.09.2022	Weigh-Bridge (In Side)	36.4	41.3	Trucks are in operation for weighing		
5	13.09.2022	Weigh Bridge (Out Side)	38.3	43.0	Trucks are in operation for weighing		
6	13.09.2022	Camp	25.2	30.3	1983 A. 1997		
7	13.09.2022	Plantation Area	25.1	29.5			
8,	13.09.2022	SON-19 (Inside Cabin)	51.0	55.6	Kobelco SK-220 XD LC is in operation for Lignite loading		
9	13.09.2022	SON-19 (Outside Cabin)	60.3	.65.4	Kobelco SK-220 XD LC is in operation for Lignite loading		
10	13.09.2022	SON-19 (Inside Cabin)	50.5	55.7	Volvo Ex-480 BLC is in operation for I/B loading		
11	13.09.2022	SON-19 (Outside Cabin)	60.2	65.3	Volvo Ex-480 BLC is in operation for I/B loading		
12	13.09.2022	SON-22 (Inside Cabin)	49.6	54.2	Volvo EC-300 DL is in operation for Lignite loading		
13	13.09.2022	SON-22 (Outside Cabin)	59.7	64.0	Volvo EC-300 DL is in operation for Lignite loading		
14	13.09.2022	SON-24 (Inside Cabin)	50.4	55.2	Volvo EC-290 BLC is in operation for O/B loading		
15	13.09.2022	SON-24 (Outside Cabin)	59.5	64.8	Volvo EC-290 BLC is in operation for O/B loading		
6	13.09.2022	SON-33 (Inside Cabin)	49.4	54.6	Volvo Ex-480 BLC is in operation for O/B loading		
7	13.09.2022	SON-33 (Outside Cabin)	59.2	64.3	Volvo Ex-480 BLC is in operation for O/B loading		
8	13.09.2022	Dump Yard	42.3	46.3	Dumpers are in operation for O/B unloading.		
9	13.09.2022	Haul Road	42.5	46.5	Dumpers are crossing with lignite		

Rajasthan State Mines & Minerals Ltd.							
		Unit: Sor	ari Lignite	Project, E	Barmer		
	Sou	und Monitoring re-	cord for t	he mont	h of August -2022		
S.N	Date	Locations		db	Remarks		
			Min.	Max.	incinal k3		
1	20.08.2022	Manager Office (In Side)	25.2	30.1			
2 ·	20.08.2022	Manager Office (Out Side)	25.0	29.3			
3	20.08.2022	Sonari Village	24.7	29.4			
4	20.08.2022	Weigh-Bridge (In Side)	35.8	. 40.2	Trucks are in operation for weighing		
5	20.08.2022	Weigh Bridge (Out Side)	37.5	42.7	Trucks are in operation for weighing		
6	20.08.2022	Camp	24.3	30.1			
7	20.08.2022	Plantation Area	24.5	29.0			
8 ·	20.08.2022	SON-33 (Inside Cabin)	50.2	54.7	Volvo Ex-480 BLC is in operation for O/B loading		
9	20.08.2022	SON-33 (Outside Cabin)	59.0	63.5	Volvo Ex-480 BLC is in operation for O/B loading		
10	20.08.2022	SON-33 (Inside Cabin)	50.1	55.3	Volvo Ex-480 BLC is in operation for O/B loading		
11	22.08.2022	SON-33 (Outside Cabin)	59.6	64.2	Volvo Ex-480 BLC is in operation for O/B loading		
12.	20.08.2022	SON-22 (Inside Cabin)	49.3	54.0	Volvo EC-300 DL is in operation for Lignite loading		
13	20.08.2022	SON-22 (Outside Cabin)	58.8	63.5	Volvo EC-300 DL is in operation for Lignite loading		
14	20.08.2022	SON-22 (Inside Cabin)	51.0	54.4	Volvo EC-290 BLC is in operation for I/B loading		
15	20.08.2022	SON-22 (Outside Cabin)	59.5	64.1	Volvo EC-290 BLC is in operation for I/B loading		
16	20.08.2022	SON-19 (Inside Cabin)	50.2	55.4	Kobelco SK-220 XD LC is in operation for Lignite loading		
17	20.08.2022	SON-19 (Outside Cabin)	60.0	65.7	Kobelco SK-220 XD LC is in operation for Lignite loading		
18	20.08.2022	Dump Yard	40.2	45.4	Dumpers are in operation for O/B unloading.		
19	20.08.2022	Haul Road	41.3	46.2	loading		

		Rajasthan St	ate Min	es & N	linerals Ltd.
		'Unit: Sor	nari Lignite	Project, E	Barmer
	S	ound Monitoring r	ecord for	the mo	nth of July -2022
C N Date		Locations	db		Remarks
5.14	Date	Locations	Min.	Max.	
1	25.07.2022	Manager Office (In Side)	26.3	31.0	
2	25.07.2022	Manager Office (Out Side)	27.4	32.3	•
3	25.07.2022	Sonari Village	26.5	31.2	
4	25.07.2022	Weigh-Bridge (In Side)	37.0	42.1	Trucks are in operation for weighing
5	25.07.2022	Weigh Bridge (Out Side)	39.6	44.8	Trucks are in operation for weighing
6	25.07.2022	Camp	26.5	31.6	
7	25.07.2022	Plantation Area	25.2	30.4	Produkt States and
8	25.07.2022	SON-33 (Inside Cabin)	51.3	56.2	Volvo Ex-480 BLC is in operation for O/B loading
9	25.07.2022	SON-33 (Outside Cabin)	61.2	66.3	Volvo Ex-480 BLC is in operation for O/B loading
10	25.07.2022	SON-19 (Inside Cabin)	49.5	54.2	Kobelco SK-220 XD LC is in operation for Lignite loading
11	25.07.2022	SON-19 (Outside Cabin)	60.5	65.3	Kobelco SK-220 XD LC is in operation for Lignite loading
12	25.07.2022	SON-22 (Inside Cabin)	50.1	55.6	Volvo Ex-480 BLC is in operation for O/B loading
13	25.07.2022	SON-22 (Outside Cabin)	59.5	64.2	Volvo Ex-480 BLC is in operation for O/B loading
14	25.07.2022	SON-22 (Inside Cabin)	50.3	55.4	Volvo EC-290 BLC is in operation for I/B loading
15	25.07.2022	SON-22 (Outside Cabin)	60.6	65.3	Volvo EC-290 BLC is in operation for I/B loading
16	25.07.2022	SON-24 (Inside Cabin)	50.7	55.1	Volvo EC-300 DL is in operation for Lignite loading
17	25.07.2022	SON-24 (Outside Cabin)	60.3	65.2	Volvo EC-300 DL is in operation for Lignite loading
18	25.07.2022	Dump Yard	42.1	46.3	Dumpers are in operation for O/B unloading
19	25.07.2022	Haul Road	43.2	48.1	Dumpers are crossing with lignite loading

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Rajasthan State Mines & Minerals Ltd.							
Unit: Sonari Lignite Project, Barmer							
Sound Monitoring record for the month of June -2022							
SN Date		Locations	db		Remarks		
5.N	N Date Locations Min. Max.		Max.				
1	27.06.2022	Manager Office (In Side)	27.5	32.4	h.		
2	27.06.2022	Manager Office (Out Side)	28.0	33.2			
3	27.06.2022	Sonari Village	27.1	32.5			
4	27.06.2022	Weigh-Bridge (In Side)	38.4	43.6	Trucks are in operation for weighing		
5.	27.06.2022	Weigh Bridge . (Out Side)	40.3	46.0	Trucks are in operation for weighing		
6	27.06.2022	Camp	27.1	31.3			
7	27.06.2022	Plantation Area	27.0	32.4			
8	27.06.2022	SON-19 (Inside Cabin)	50.2	55.8	Volvo EC-300 DL is in operation for Lignite loading		
9	27.06.2022	SON-19 (Outside Cabin)	60.1	65.7	Volvo EC-300 DL is in operation for Lignite loading		
10	27.06.2022	SON-19 (Inside Cabin)	50.3	54.6	Volvo Ex-480 BLC is in operation for O/B loading		
11	27.06.2022	SON-19 (Outside Cabin)	60.4	65.0	Volvo Ex-480 BLC is in operation for O/B loading		
12	27.06.2022	SON-22 (Inside Cabin)	49.3	54.4	Kobelco SK-220 XD LC is in operation for Lignite loading		
13	27.06.2022	SON-22 (Outside Cabin)	60.7	65.2	Kobelco SK-220 XD LC is in operation for Lignite loading		
14	27.06.2022	SON-22 (Inside Cabin)	51.2	56.3	Volvo EC-290 BLC is in operation for I/B loading		
15	27.06.2022	SON-22 (Outside Cabin)	61.3	66.4	Volvo EC-290 BLC is in operation for I/B loading		
16	27.06.2022	SON-24 (Inside Cabin)	49.0	54.3	Kobelco SK-380 BLC is in operation for O/B loading		
17	27.06.2022	SON-24 (Outside Cabin)	59.4	64.5	Kobelco SK-380 BLC is in operation for O/B loading		
18	27.06.2022	Dump Yard	44.5	49.1	Dumpers are in operation for O/B unloading.		
19	27.06.2022	Haul Road	45.3	50. <u></u>	Dumpers are crossing with lignite loading		

		Rajasthan Sta	ate Min	es & M	linerals Ltd.		
Unit: Sonari Lignite Project, Barmer							
Sound Monitoring record for the month of May -2022							
C NL Data		Locations	db		Remarks		
5.1	Date	Locations	Min.	Max.			
1	20.05.2022	Manager Office (In Side)	26.3	31.5			
2	20.05.2022	Manager Office (Out Side)	27.5	32.6			
3	20.05.2022	Sonari Village	26.8	31.3	-		
4	20.05.2022	Weigh-Bridge (In Side)	38.1	43.0	Trucks are in operation for weighing		
5	20.05.2022	Weigh Bridge (Out Side)	39.5	45.2	Trucks are in operation for weighing		
6	20.05.2022	Camp	26.0	30.1	1 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -		
7	20.05.2022	Plantation Area	27.3	31.2	503 (j. 1996)		
8	20.05.2022	SON-19 (Inside Cabin)	49.6	54.4	Volvo EC-480 BLC is in operation for O/B loading		
9	20.05.2022	SON-19 (Outside Cabin)	59.3	64.2	Volvo EC-480 BLC is in operation for O/B loading		
10	20.05.2022	SON-06 (Inside Cabin)	51.4	56.2	Volvo EC-300 DL is in operation for Lignite loading		
11	20.05.2022	SON-06 (Outside Cabin)	61.3	66.3	Volvo EC-300 DL is in operation for Lignite loading		
12	20.05.2022	SON-19 (Inside Cabin)	50.5	· 55.6	Kobelco SK-380 BLC is in operation for O/B loading		
13	20.05.2022	SON-19 (Outside Cabin)	59.4	64.7	Kobelco SK-380 BLC is in operation for O/B loading.		
14	20.05.2022	SON-22 (Inside Cabin)	50.3	55.4	Volvo EC-290 BLC is in operation for I/B loading		
15	20.05.2022	SON-22 (Outside Cabin)	60.2	64.7	Volvo EC-290 BLC is in operation for I/B loading		
16	20.05.2022	SON-24 (Inside Cabin)	48.8	53.7 *	Volvo Ex-480 BLC is in operation for O/B loading		
17	20.05.2022	SON-24 (Outside Cabin)	59.7	64.2	Volvo Ex-480 BLC is in operation for O/B loading		
18	20.05.2022	Dump Yard	43.4	48.0	Dumpers are in operation for O/B unloading.		
19	20.05.2022	Haul Road	44.0	49.2	Dumpers are crossing with lignite loading		

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	•	Unit: Sor	nari Lignite	Project, B	armer
	S	ound Monitoring r	ecord for	the mon	th of April -2022
C N	Date	Locations	db		Remarks
5.1			Min.	Max.	, , , , , , , , , , , , , , , , , , ,
1	13.04.2022	Manager Office (In Side)	25.6	30.7	
2	13.04.2022	Manager Office (Out Side)	27.2	32.0	
3	13.04.2022	Sonari Village	27.0	32.1	
4	13.04.2022	Weigh-Bridge (In Side)	37.2	42.3	Trucks are in operation for weighing
5	13.04.2022	Weigh Bridge (Out Side)	39.4	44.6	Trucks are in operation for weighing
6	13.04.2022	Cảmp	25.3	29.7	
7	13.04.2022	Plantation Area	26.2	30.4	
8	13.04.2022	SON-24 (Inside Cabin)	51.3	55.8	Volvo Ex-480 BLC is in operation for O/B loading
9	13.04.2022	SON-24 (Outside Cabin)	61.0	65.4	Volvo Ex-480 BLC is in operation for O/B loading
10	13.04.2022	SON-06 (Inside Cabin)	50.6	55.4	Volvo EC-290 BLC is in operation for Lignite loading
11	13.04.2022	SON-06 (Outside Cabin)	60.8	65.6	Volvo EC-290 BLC is in operation for Lignite loading
12	13.04.2022	SON-19 (Inside Cabin)	49.0	54.2	Kobelco SK-220 BLC is in operation for I/B loading
13	13.04.2022	SON-19 (Outside Cabin)	58.7	63.4	Kobelco SK-220 BLC is in operation for I/B loading
14	13.04.2022	SON-19 (Inside Cabin)	49.1	54.8	Volvo Ex-480 BLC is in operation for O/B loading
15	13.04.2022	SON-19 (Outside Cabin)	59.6	64.2	Volvo Ex-480 BLC is in operation for O/B loading
16	13.04.2022	SON-22 (Inside Cabin)	50.2	55.4	Volvo Ex-480 BLC is in operation for O/B loading
17	13.04.2022	SON-22 (Outside Cabin)	61.6	66.0	Volvo Ex-480 BLC is in operation for O/B loading
18	13.04.2022	Dump Yard	42.3	47.1	Dumpers are in operation for O/B unloading.
. 19	13.04.2022	Haul Road	43.4	48.3	Dumpers are crossing with lignite loading

Rajasthan State Mines & Minerals Ltd.

Sonari lignite Project, Barmer

SPM Sample results for the month of September, 2022

Sample					·
.no.	Date	Location *	RPM(µg/M³)	SPM(µg/M³)	TSPM (µg/M³)
1	19.09.2022	Site Office	68.091	88.603	156.694
2	20.09.2022	Site Office	89.220	104.133	193.353
3	21.09.2022	Contractor camp	86.720	105.149	191.869
4	23.09.2022	Contractor camp	114.021	128.306	242.327
5	26.09.2022	Weigh Bridge	, 115.659	139.560	255.219
6	27.09.2022	Weigh Bridge	143.360	153.387	296.747
7	28.09.2022	Mining Area	142.321	161.350	303.671
8	30.09.2022	Mining Area	139.153	171.693	310.846

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Manager (Geology) Sonari lignite Mines, Barmer

Rajasthan State Mines & Minerals Ltd.						
		Sonari lig	gnite Project, B	armer		
SPM Sample results for the month of June, 2022						
Sample						
.no.	Date	Location	RPM(µg/M³)	SPM(µg/M³)	TSPM (µg/M³)	
1	20.06.2022	Site Office	60.989	89.835	150.824	
2	22.06.2022	Site Office	89.026	100.672	189.698	
3	24.06.2022	Weigh Bridge	117.195	131.216	248.411	
4	27.06.2022	Weigh Bridge	128.919	* 163.495	292.414	
5	28.06.2022	Mining Area	145.799	156.639	302.438	
6	29.06.2022	Mining Area	146.612	159.620	306.232	

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Manager (Geology) Sonari lignite Mines, Barmer

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Rajasthan State Mines & Minerals Limited (A Government of Rejustion f aterprise)

S.B.I., LIMP STONE

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CENTRAL LABORATORY An INT 90112015 Certained Laboratory

REF. F19 (8)/LIG - B-2022-23/1505 Date 29.09.2022 Issued to:

GENERAL MANAGER LIGNITE PROJECT. BARMER.

Ref: GLP/Chem.Ana./2022-23/578

DATE-24/09/2022

Sample Received On Date: 29,09,2022

SAMPLE PARTICULARS

Two Samples of Drinking Water from GIRAL and SONARI Mines

л	(A)	nalysed as per 18-1514: 1990)	•
S. No.	Properties	RSMM/1B/9-22/2623 Giral-01	RSMM/1B/09-22/2624 Sonari -02
1.	p ^{ri}	7.70	7.60
2.	Temperature 'C	22.9	22.9
3.	Alkalinity Phenolphthalein (CaCO ₃)	Nil	Nil
4.	Alkalinity Methyl Orange (CaCO ₂)	60	50
5.	Total Hardness	160	160
6.	Calcium Hardness	60	80
7.	Magnesium Hardness	100	80
8.	Carbonate Hardness	60	50
9.	Non Carbonate Hardness	7()	110
10.	Chlorides as Cl	9()	80
11.	Sulphate	1.1	15
12.	Fluoride		-
13.	TDS	252	264

TEST DESILI TS

Note All results except at Sr. No.1& 2 are in m2/Lit.

Shake (Dr. SHALENDRA SINGH, YADAV) Sr. Manager & Incharge (Lab)

Note : (1) The above Analysis Results Pertain to the Sample received in the Laboratory .

國和國際原則相同目的 111 Rajasthan State Mines & Minerals Limited (V tous er anter ale of Magaethe of Categories) man SIDE LIMESTONE R. Marst Parch Sugar, Cricent Darse, Baad, Jacopse, 1991) 1991 - State Constant, Cricent Darse, Baad, Jacopse, 1996 1991 - Scholey, Taca, Bad, 9419 Darass, Permapathyr 100 Phone in a s CENTRAL LABORATORY As 150 9091 2015 Conflict Taboratory RET. 1419 (8) 11G - B/2022 23/ 758 14 - A Date 01.02.2022 Issued to: Ref: (il.P/Chem Ann./2022-23/97 Bit-GENERAL MANAGER LIGNITE PROJECT. DATE-27/06/2022 BARMER, Sample Received On Date: 01.07.2022 (1) (新)(1) SAMPLE PARTICULARS R. Two Samples of Drinking Water from GIRAL and SONARI Mines ER TEST RESULTS (Analysed as per IS-1514: 1990) RSMM/1B/07-22/1262 RSMM/1B/7-22/1261 P. S. Sonari -02 Giral-01 Properties No. 7.80 1. 7.6 1.5.4 Temperature "C 22.8 22.8 2. Alkalinity Phenolphthalein 3. Nil Nil $(CaCO_3)$ 12 Alkalinity Methyl Orange 4. 70 75 $(CaCO_3)$ 180 Total Hardness 190 The second 5. 150 Calcium Hardness 160 6. 4 Magnesium Hardness 30 7. 30 No. 70 8. Carbonate Hardness 75 Non Carbonate Hardness 110 9. 115 4 140 Chlorides as Cl 10. 150 31 11. Sulphate : . • 33 12. Fluoride -.-- A.A. 13. TDS 300 310 2.96 Note: All results except at Sr. No.1& 2 are in mg Lit.

Slider (Dr. SHALENDRA SINGH, YADA' Sr. Manager & Incharge (Lab)

Note: (1) The above Analysis Results Pertain to the Sample received in the Laboratory

Scanned with CamScanner