

EC COMPLIANCE REPORT OF STONE ALONG WITH ASSOCIATED MINOR MINERALS OF KALALI AND KALYANA MINING PROJECT

ToR Letter No. IA-J-11015/34/2018-IA-II(M), dated 10th May
2018

**Khasra No. 223 min, 224 to 228 & 72 ,
Lease Area- 64.40 Hectors
Project Category- B1**

**Production Capacity- 5.8 MTPA
Lease Period- 18 years
Study Period- March - May 2018**

Project Proponent

**M/s Ridhi Sidhi -KSM Resources-JV
Khatoni No. 1049, Behind Hotel Mejban,
Loharu Road, Charkhi Dadri, Haryana**



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June, 2020

M/s Riddhi Siddhi KSM Resources is operating a mine of stone along with associated minor minerals of production Capacity-5.8MTPA at Kalali and Kalyan mining Project.		
A	Specific conditions:-	
1.	The PP shall construct the three pucca link roads connected to the SH-17 at the mining site before the start of mining.	Road infrastructure for smooth movement of traffic is being developed by the project proponent.
2.	The PP shall constructed the Haul roads of the 10 meter wide as proposed in EIA.	Haul roads of adequate size are being developed by the project proponent.
3.	Traffic management plan as submitted shall be implemented in letter and spirit. Apart, a detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of the service roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.	Traffic movement plan has been presented in the EIA report, the same will be complied.
4.	No tree cutting has been proposed in the project 2500 Plants per hectare should be planted and maintained. The Existing tree will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed the plantation in 30.40 hectare area will be carried out including statutory boundary barrier.	Green area development will be carried out to prevent pollution. Native species will be planted.
5.	The Project Proponent shall obtain all necessary clearance/permission from all relevant agencies before commencement of work.	Necessary permissions from competent authorities will be obtained as and when required.
6.	Consent to establish/operate for the project shall be obtained from the state pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of pollution) Act, 1974.	CTE & CTO have been obtained from HSPCB. Copies collectively enclosed as Annexure 1.
7.	The PP shall deposit the half of CER fund in the C.M. Fund and rest shall be used as per the schedule and also to develop 2 ponds in the village Kuleri near Agroha with technical support from the Haryana Pond and Waste Water Authority.	Half of the CER amount will be deposited in CM fund and the other half used for pond development.
8.	The PP shall take precautions to suppress the dust in and around the mining site. The PP shall use mixed cannon water sprinkle for dust suppression instead of conventional sprinkles for efficient dust suppression.	Adequate dust suppression measures are being implanted.

9.	The PP shall manage the overburden at the mining site.	OB will be managed as per approved mining plan
10.	The PP shall create environment division unit in the project for implementing the conditions of Environment clearance.	Environment division is present for implementing EC conditions.
11.	The PP shall obtain the permission regarding withdrawal of ground water from CGWA before the start of the project and also obtained the CTO from HSPCB after the approval from CGWA	There is no use of Ground Water as per the plan. If bore-well will be required in future, the permission from the CGWA will be obtained.
12.	Any change in stipulations of EC of the approved mining plan will lead to Environment Clearance void-ab-initio and PP will have to seek fresh Environment Clearance.	Noted
13.	The PP shall adhere to the approved mining plan and approved closure plan by the competent authority.	Noted
14.	Action plan for the public hearing issues shall be compiled in the letter and spirit.	Public hearing issues will be addressed
15.	The proponent will provide adequate sanitary facility in the form of mobile toilets to the labours engaged for the project work.	Adequate sanitary facilities have been provided for labours.
16.	Project proponent shall comply all the measures, conditions suggested in the approved mining plan with post closure mine plan, Environmental Management Plan (EMP) in a letter and spirit.	Noted for compliance
17.	PP shall make channels to divert rain water run-off from surrounding catchment area to enroute water in the excavated pit to ensure water collection for sustained ground water recharge	Rain water harvesting for ground water recharge will be carried out.
18.	The PP shall restrict maximum mining depth 4meters above the Ground Water Table i.e. upto 214mrl.	Noted
19.	The PP shall divert the first order stream in post mining to save the natural drainage system.	Adequate measures to save natural drainage system will be implemented.

B:	Statutory compliance:-	
1.	This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable	Noted
2.	The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Others before commencing the mining operations.	We are complying with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Others before commencing the mining operations.
3.	The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India &Ors.	There is no illegal mining operation as this being a green belt project.
4.	This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.	Not applicable.
5.	This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act,1980, if applicable to the Project.	Not applicable.
6.	Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish/Consent to Operate from the concerned State Pollution Control Board/Committee.	CTE & CTO have been obtained from HSPCB. Copies collectively enclosed as Annexure 1.

7.	The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS), Mines & Geology Department, Haryana and Indian Bureau of Mines from time to time. Also adhere to Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules. 2012.	M/s Riddhi Siddhi KSM Resources has complied with the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. It has adhere to various circulars issued by Directorate General Mines Safety (DGMS), Mines & Geology Department, Haryana and Indian Bureau of Mines from time to time. Also adhere to Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules. 2012.
8.	The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.	The lease area handed over by Department of Mines and Geology , Haryana does not includes private land. Hence, no need of consent.
9.	The Project Proponent shall follow the mitigation measures provided in MoEF & CC Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".	There is no habitation within 500 meter and due mitigations measures have been implemented as per the Om No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014.
10.	The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.	No withdrawal of ground water is proposed for the project.
11.	A copy of EC letter will be marked to concerned Panchayat/ local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.	Public notice regarding grant of EC has been published in local newspapers, copy attached as Annexure 2.
12.	State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.	Noted

13.	The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEF & CC Regional Office for compliance and record.	Public notice regarding grant of EC has been published in local newspapers, copy attached as Annexure 2.
14.	The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease of is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.	Noted
I.	Air Quality monitoring and preservation	
i.	The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatologically data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM25, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and Use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.	Third party ambient air quality monitoring is being carried out by NABL & MOEF approved lab. Reports attached as Annexure 3. Three AAQ sampling machines for will be installed in due course of time as dust is the only source of air pollution.

ii.	<p>Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM25 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipment/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/Central Pollution Control Board.</p>	<p>Adequate dust suppression measures are being implemented.</p>
II.	Water quality monitoring and preservation	
i.	<p>In case, immediate mining scheme envisages intersection of the ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations, The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.</p>	<p>Ground water table will not be intersected and no dewatering is required. If ground water is intersected, prior permission will be obtained from competent authority.</p>
ii.	<p>Regular monitoring of the flow rate of the springs and perennial Nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be Incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.</p>	<p>Ground water quality is being monitored around mine area. Reports attached as Annexure 3.</p>

iii.	<p>Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezometer installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.</p>	<p>This condition is not applicable since ground water is not being intersected.</p>
iv.	<p>The Project Proponent shall undertake regular monitoring of natural water course water resources/ springs and perennial Nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post- onsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.</p>	<p>Ground water quality is being monitored around mine area. Reports attached as Annexure 3.</p>

v.	Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No.J-20012/1/2006- IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.	Not applicable since very insignificant quantity of water is required for mining operations. As such there is no acid mine drainage and metal contamination since our mining operation is for stone along with associated minor minerals.
vi.	Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consulting with Central Groundwater Department. A report on amount of water reached needs to be submitted to Regional Office MoEF &CC annually.	Garland drainage will be made all round the pit to prevent the entry of surface/ rain water inside the pits.
vii.	Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standard shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.	There is no significant quantity of industrial waste water generation. Water is mainly used for dust suppression.
viii.	The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/committee.	Water audit will get conducted in due course of time.
III.	Noise and vibration monitoring and prevention	
i.	The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.	The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer will be monitored periodically as per applicable DGMS guidelines.

ii.	The illumination and sound at night at project site disturb the villages in respect of both human and animal population. Consequent sleeping disorder and stress may affect the health in the village located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/mask away from the villagers and keeping the noise level well within the prescribed limits for day/night hours.	The major mining activities are carried out from 6:00 AM to 6:00 PM only so the biological clock of the villages is not disturbed at night. During operation time we have controlled the noise level as per the guidelines. Therefore, we are ensured that the noise level is well within the prescribed limits for day/night hours.
iii.	The Project Proponent shall take measures for control of noise level below 85 dba in the work environment. The worker engaged in operations of HENN, etc. should be provided with earplugs / muffs. All personnel including labourers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that worker/ personals/ labourers are working without personal protective equipment.	The M/s Riddhi Siddhi KSM Resources has taken measures for control of noise level below 85 dba in the work environment. The worker engaged in operations of HENN, etc. Has been provided with earplugs / muffs. All personnel including labourers working in dusty areas has been provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. We will be responsible in case it has been found that worker/ personals/ labourers are working without personal protective equipment.
IV.	Mining Plan	
i.	The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, Which entail adverse environmental impact, even if it is a part of approved mining plan modified after grant of EC granted by State Govt. in the form to short Term Permit (STP), Query license or any other name.	Noted for compliance. Mining will be carried out as per approved mining plan and EIA report.

ii.	The project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and climate Change and SEIAA for record and verification.	Approved mining plan has already been submitted to SEIAA during EIA appraisal.
iii.	The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation become self-sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office.	Mine reclamation will be carried out as per approved mining plan and progressive mine closure plan.
V.	Land Reclamation	
i.	The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only. The physical parameters of the OB dump like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.	During the plan period and by the end of conceptual period no waste is likely to be generated as no overburden is to be encountered since the rock is outcropping from top. We have taken vegetation on topsoil for land reclamation and plantation.
ii.	The reject/waste generated during the mining operation shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhere to maintain the stability of waste dumps.	During the plan period and by the end of conceptual period no waste is likely to be generated as the rock is outcropping from top. The reject/waste generated during the mining operation will be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope is governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations will be strictly adhere to maintain the stability of waste dumps.

iii.	The reclamation of waste dump sites shall be done in scientific manners as per the Approved Mining Plan cum progressive Mine Closure Plan.	The reclamation of waste dump site will be done in scientific manners as per the Approved Mining Plan cum progressive Mine Clouse Plan.
iv.	The slope of dump shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climate parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidates with the help of dozer/ compactors thereby ensuring proper filling/ levelling of dump mass. In critical areas, use of geo textiles/geo-membranes/clay linear/Bentonite etc. shall be undertaken for stabilization of the dump.	Noted for compliance.
v.	The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional officer of MoEF&CC/SEIAA.	M/s Riddhi Siddhi KSM Resources will carry out slope stability study in case the dump height is more than 30 meters.
vi.	Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, minerals yards and Top Soil/OB/Waste dumps to prevent run off of water of sediments directly into the water bodies (Nallah/ River/ Pond etc.). the collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. the drains/ sedimentation sumps etc. shall be de-sited regularly, particularly after monsoon season, and maintained properly.	Catch drains, settling tanks and siltation ponds of appropriate size has been constructed around the mine working, minerals yards and Top Soil/OB/Waste dumps to prevent run off of water of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water is being utilized for watering the mine area, roads, green belt development, plantation etc. the drains/ sedimentation sumps etc. will be de-sited regularly, particularly after monsoon season, and maintained properly.
vii.	Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sedimentation flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structure over and above peak rainfall (based on 50 years data) and maximum discharged in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/silt material. The sedimentation pits/ sumps shall be constructed at the corner of the garland drains.	Check dams of appropriate size, gradient and length will be constructed around mine pit and OB dumps to prevent storm run-off and sedimentation flow into adjoining water bodies. A safety margin of 50% will be kept for designing of sump structure over and above peak rainfall (based on 50 years data) and maximum discharged in the mine and its adjoining area which will also help in providing adequate retention time period thereby allowing proper settling of sediments/silt material. The sedimentation pits/ sumps will be constructed at the corner of the garland drains.

viii.	The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhere to maintained the stability of dumps. The topsoil shall be used land reclamation and plantation purpose.	The top soil, if any, will temporarily be stored at earmarked site(s) within the mine lease only and will not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope is talked as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations will be strictly adhere to maintained the stability of dumps. The topsoil will be used land reclamation and plantation purpose.
VI.	Transportation	
i.	No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a ‘bypass’ road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after requires strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution under Control (PUC) certified for all the vehicles from authorized pollution testing centres.	Road infrastructure for smooth movement of traffic is being developed by the project proponent. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling is carrying out regularly. Vehicular emissions is kept under control and regularly monitored. Project has obtained the Pollution under Control (PUC) certified for all the vehicles from authorized pollution testing centres.

ii.	<p>The main haulage road within the mine lease should be provided with a permanent water sprinkler arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipment like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.</p>	<p>Adequate measures for control of dust through various dust suppression techniques will be implemented.</p>
VII.	Green Belt	
i.	<p>The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.</p>	<p>M/s Riddhi Siddhi KSM Resources has started developing greenbelt in 7.5m wide safety zone all along the mine lease boundary.</p>
ii.	<p>The Project Proponent shall carryout plantation/afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also adhered. The density of the tree should be around 2500 sapling per Hectare. Adequate budgetary provision shall be made for protection and care of trees.</p>	<p>Green belt development will take place as per the approved mining plan and EIA report.</p>

iii.	<p>The Project Proponent shall make necessary alternative arrangement for livestock feed developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implemented the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/protected against felling and plantation of such trees should be promoted.</p>	<p>The proposed mine lease area is in Kalali village, which bears negligible density and species in the area, which are coming within the mine lease.</p>
iv.	<p>The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt. and implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.</p>	<p>The M/s Riddhi Siddhi KSM Resources has arranged the biodiversity management plan in considering of precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. The Plan is approved by Chief Wild Life Warden of the State Govt. and implemented in consultation with the State Forest and Wildlife Department.</p>
<p>VIII. Public Hearing and Human Health Issues</p>		
i.	<p>The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the worker engaged in the mining activities, as per the DGMS guidelines. The record shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. the check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same way may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.</p>	<p>We have appointed a local doctor who comes for regular examination of the worker engaged in the mining activities. We are funding in Kalali Kalayana and carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups will undertake once in six months and necessary remedial/ preventive measures will be taken.</p>

ii.	<p>The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risk to health and determine appropriate control measures to protect the health and well being of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighbourhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, and Diarrhoea in children under five, respiratory infection due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.</p>	<p>We are demonstrating commitment to work towards 'Zero Harm' from our mining activities and doing Health Risk Assessment (HRA) for identification workplace hazards and assess the potential risk to health and determining the appropriate control measures to protect the health and wellbeing of workers and nearby community. We maintain accurate and systematic records of the HRA. The HRA for neighbourhood was postpone due to Covid-19 lockdown in which we have to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, and Diarrhoea in children under five, respiratory infection due to bio mass cooking. We will create awareness and educate the nearby community and workers for sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. We will carryout base line HRA for all the category of workers and thereafter every five years.</p>
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<p>iii.</p>	<p>The Proponent shall carryout Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigation relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric: for lead exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) estimation in Blood; for Inorganic Chromium-Fortnightly skin inspection of hands and forearms by a responsible person. Except routine test all test would be carried out in a Lab accredited by NABH. Record of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would ne obligatory for the State Mines Department to make arrangements for the safe and secure storage of the records including X-Rays. Only conventional X-Ray must meet ILO criteria (17 x 14 inches and of god quality).</p>	<p>We will carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigation relevant to the exposure by a responsible person. Except routine test all test will be carried out in a Lab accredited by NABL.</p>
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iv.	<p>The Proponent shall maintained a record of performance indicators for workers which includes:</p> <p>(a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 – 24.9,</p> <p>(b) the final Chest X-Ray compared with the base line X-Ray should not show any capacities,</p> <p>(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one (FEV1), Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and effect of age,</p> <p>(d) Their hearing should not be affected. As a proof an Audiogram (first and last need to be presented),</p> <p>(e) They should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement,</p> <p>(f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.</p>	<p>Records will be maintained as per EC conditions.</p>
v.	<p>The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should be provided with adequate training and information on safety and health aspects.</p>	<p>We are periodically providing protective respiratory devices and adequate training and information to the personnel working in dusty areas on safety and health aspects.</p>
vi.	<p>Project Proponent shall make provision for the housing for workers/labours or shall construct labour campus within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structure, which can be removed after the completion of the project related infrastructure. The domestic wastewater should be treated with STP in order to avoid contamination of underground water.</p>	<p>We are making provision for the housing for workers/labours or construct labour campus locally. However most of the labour comes from nearby villages and does not require housing.</p>

vii.	The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.	The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing will be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame.
IX.	Corporate Environment Responsibility (CER)	
i.	The activity and budget earmarked for Corporate Environment Responsibility (CER) as per Ministry O.M No 22-65/2017-I1. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase document latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.	Half of the CER amount will be deposited in CM fund and the other half used for pond development.
ii.	Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purpose. The wise expenditure of such funds should be reported to the MoEF&CC and its Concerned Regional Office.	M/s Riddhi Siddhi KSM Resources will take care of the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purpose. The wise expenditure of such funds will be reported to the MoEF&CC and its Concerned Regional Office.
X.	Miscellaneous	
i.	The mining lease holders shall, after ceasing mining operation, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.	Re-grassing and mine reclamation will be carried out at as per approved mining plan.
ii.	The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.	M/s Riddhi Siddhi KSM Resources will prepare digital map (land use & land cover) of the entire lease area purpose of monitoring land use pattern and will submit a report to concerned Regional Office of the MoEF&CC in the end of the 5 th year.

iii.	The Project Authorities should inform to the Regional Office regarding date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	Noted
iv.	The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environment safeguard to the MoEF&CC & its concerned Regional Office, Central Pollution Board and State Pollution Control Board.	We will submit six monthly compliance reports on the status of the implementation of the stipulated environment safeguard to the MoEF&CC & its concerned Regional Office, Central Pollution Board and State Pollution Control Board.
v.	A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environment Scientists and Mining Engineering shall be appointed and submit a report to RO, MoEF & CC.	A separate 'Environmental Management Cell' with suitable qualified manpower is done by setting-up under the control of our senior Executive Mr. Vikas Malik who will directly report to Head of the Organization.
vi.	The concerned Regional Office of the MoEF & CC including other authorized organization shall randomly monitor compliance of the stipulated conditions. The project authorities should extent full cooperation to the MoEFF & CC officer(s) including other authorized officer by furnishing the requisite data/information.	The concerned Regional Office of the MoEF & CC including other authorized organization randomly monitor compliance of the stipulated conditions. We extent our full cooperation to the MoEFF & CC officer(s) including other authorized officer by furnishing the requisite data/information.
vii.	The SEIAA, Haryana reserve the right to add new conditions, modify/annual any of the stipulated conditions and/or revoke the clearance if implementation of any of the condition stipulated by SEIAA, Haryana or any other competent authorities is not satisfactory.	We are abide with the SEIAA, Haryana rights to add new conditions, modify/annual any of the stipulated conditions and/or revoke the clearance if implementation of any of the condition stipulated by SEIAA, Haryana or any other competent authorities is not satisfactory.
viii.	Failure to comply with any of the conditions mentioned above may result in withdrawal of the clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted
ix.	All the other statutory clearance such as the approvals for storage of diesel from the Chief Controller of Explosives, Fire department, Civil Aviation Department, Forest Conservation Act, 1980 and wildlife (protection) Act, 1972 etc. shall be obtained, as may be applicable, by Project Proponent from the competent authority before the start of mining operation.	All the other statutory clearance have been taken or will be taken as and when required.

x.	That the grant of this EC is issued from the environment angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or nay other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time being in force with the industry/unit/project proponent. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 National Green Tribunal Act, 2010.	Noted
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Annexure- 1

CTE & CTO from HSPCB



HARYANA STATE POLLUTION CONTROL BOARD

SCF-32, sector 13, HUDA, Bhiwani Ph. 01664-240259

Website: www.hspcb.gov.in E-Mail - hspcb.pkl@sifymail.com

Telephone No.: 0172-2577870-73



No. HSPCB/Consent/ : 313100419CRDCTE6702638

Dated:19/08/2019

To.

M/s : **Ridhi Sidhi KSM Resources JV**
223min,224 to 228 & 72, Village Kalali & Kalyana, District Charkhi Dadri, Haryan
CHARKHI
127306

Sub. : Grant of consent to Establish to M/s Ridhi Sidhi KSM Resources JV

Please refer to your application no. 6702638 received on dated 2019-07-02 in regional office Jind.

With reference to your above application for consent to establish,M/s Ridhi Sidhi KSM Resources JV is here by granted consent as per following specification/Terms and conditions.

Consent Under	AIR/WATER
Period of consent	19/08/2019 - 18/08/2024
Industry Type	Mining and ore beneficiation
Category	RED
Investment(In Lakh)	784.0
Total Land Area (Sq. meter)	644000.0
Total Builtup Area (Sq. meter)	0.0
Quantity of effluent	
1. Trade	0.0 KL/Day
2. Domestic	2.0 KL/Day
Number of outlets	1.0
Mode of discharge	
1. Domestic	Septic tank
2. Trade	
Permissible Domestic Effluent Parameters	
1. BOD	30 mg/l
2. COD	250 mg/l
3. TSS	100 mg/l
Permissible Trade Effluent Parameters	
1. NA	mg/l
Number of stacks	1
Height of stack	
1. NA	

Permissible Emission parameters	
1. PM10	100
2. PM2.5	60
Capacity of boiler	
1. NA	Ton/hr
Type of Furnace	
1. NA	
Type of Fuel	
1. Diesel	KL/day

Regional Officer, Jind
Haryana State Pollution Control Board.

Terms and conditions

1. The industry has declared that the quantity of effluent shall be 2 KL/Day i.e 0KL/Day for Trade Effluent, 0 KL/Day for Cooling, 2 KL/Day for Domestic and the same should not exceed .
2. The above 'Consent to Establish' is valid for 60 months from the date of its issue to be extended for another one year at the discretion of the Board or till the time the unit starts its trial production whichever is earlier. The unit will have to set up the plant and obtain consent during this period.
3. The officer/official of the Board shall have the right to access and inspection of the industry in connection with the various processes and the treatment facilities being provided simultaneously with the construction of building/machinery. The effluent should conform the effluent standards as applicable
4. That necessary arrangement shall be made by the industry for the control of Air Pollution before commissioning the plant. The emitted pollutants will meet the emission and other standards as laid/will be prescribed by the Board from time to time.
5. The applicant will obtain consent under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21/22 of the Air (Prevention & Control of Pollution) Act,1981 as amended to-date-even before starting trial production
6. The above Consent to Establish is further subject to the conditions that the unit complies with all the laws/rules/decisions and competent directions of the Board/Government and its functionaries in all respects before commissioning of the operation and during its actual working strictly.
7. No in-process or post-process objectionable emission or the effluent will be allowed, if the scheme furnished by the unit turns out to be defective in any actual experience
8. The Electricity Department will give only temporary connection and permanent connection to the unit will be given after verifying the consent granted by the Board, both under Water Act and Air Act.
9. Unit will raise the stack height of DG Set/Boiler as per Board's norms.
10. Unit will maintain proper logbook of Water meter/sub meter before/after commissioning.

11. That in the case of an industry or any other process the activity is located in an area approved and that in case the activity is sited in an residential or institutional or commercial or agricultural area, the necessary permission for siting such industry and process in an residential or institutional or commercial or agricultural area or controlled area under Town and Country Planning laws CLU or Municipal laws has to be obtained from the competent Authority in law permitting this deviation and be submitted in original with the request for consent to operate.
12. That there is no discharge directly or indirectly from the unit or the process into any interstate river or Yamuna River or River Ghaggar.
13. That the industry or the unit concerned is not sited within any prohibited distances according to the Environmental Laws and Rules, Notification, Orders and Policies of Central Pollution control Board and Haryana State Pollution Control Board.
14. That of the unit is discharging its sewage or trade effluent into the public sewer meant to receive trade effluent from industries etc. then the permission of the Competent Authority owing and operating such public sewer giving permission letter to his unit shall be submitted at time of consent to operate.
15. That if at any time, there is adverse report from any adjoining neighbor or any other aggrieved party or Municipal Committee or Zila Parishad or any other public body against the unit's pollution; the Consent to Establish so granted shall be revoked.
16. That all the financial dues required under the rules and policies of the Board have been deposited in full by the unit for this Consent to Establish.
17. In case of change of name from previous Consent to Establish granted, fresh Consent to Establish fee shall be levied.
18. Industry should adopt water conservation measures to ensure minimum consumption of water in their Process. Ground water based proposals of new industries should get clearance from Central Ground Water Authority for scientific development of previous resource.
19. That the unit will take all other clearances from concerned agencies, whenever required.
20. That the unit will not change its process without the prior permission of the Board.
21. That the Consent to Establish so granted will be invalid, if the unit falls in Aravali Area or non conforming area.
22. That the unit will comply with the Hazardous Waste Management Rules and will also make the non-leachate pit for storage of Hazardous waste and will undertake not to dispose off the same except for pit in their own premises or with the authorized disposal authority.
23. That the unit will submit an undertaking that it will comply with all the specific and general conditions as imposed in the above Consent to Establish within 30 days failing which Consent to Establish will be revoked.
24. That unit will obtain EIA from MoEF, if required at any stage.
25. In case of unit does not comply with the above conditions within the stipulated period, Consent to Establish will be revoked.
26. That unit will obtain consent to operate from the board before the start of product activity.

Specific Conditions

Other Conditions :

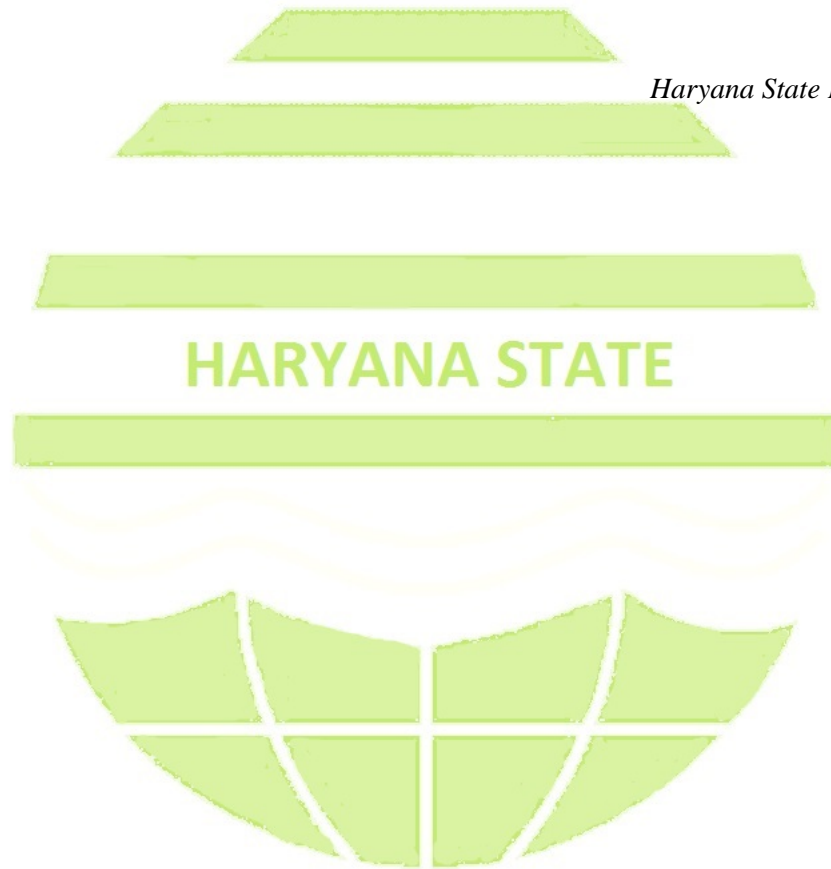
(I) The previous unit EC is consider temporary for this unit, the said project will submit fresh EC in the said firm name as soon as possible. (II)The unit will apply for consent to operate before starting production activity and will comply with each condition of EC obtained by previous firm from MOEF(III)Unit will apply for HW authorization & make agreement with board authorized agency for safe disposal of Hazardous waste as per HOWM Rules,2016. (IV) Unit will take all necessary clearances from all the concerned departments / agencies. (V) The said unit will make Dust Suppression and wet drilling by using 36 KLD water through sprinklers etc.(VI)Unit will obtain necessary permission from Mines and Geology Department in compliance of Hon'ble Punjab & Haryana High court Chandigarh order dt.27.05.2019. (VII). The unit will abide with the directions/guidelines HSPCB/CPCB/ any court decision/ direction of any competent authority. (VIII). This CTE is prejudice to any action under the provisions of applicable laws / acts / notification / courts order to be taken in respect of any violation at any stage without any claim of the unit. If the unit fails to comply the provisions of water/air act, conditions of CTE, various applicable provisions of concerned departments / agencies / authorities / any relevant decision of court, the consent to establish so granted shall be revoked automatically without giving any notice.

Sanjeev
Kumar

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Regional Officer, Jind

Haryana State Pollution Control Board.





HARYANA STATE POLLUTION CONTROL BOARD
SCF-32, sector 13, HUDA, Bhiwani Ph. 01664-240259



E-mail: hspcb.pkl@sify.com

No. HSPCB/Consent/ : 313100419CRDCTO6870943

Dated:03/09/2019

To.

M/s :Ridhi Sidhi KSM Resources JV
223min,224 to 228 & 72, Village Kalali & Kalyana, District Charkhi Dadri, Haryan

Subject: Grant of consent to operate to M/s Ridhi Sidhi KSM Resources JV.

Please refer to your application no. 6870943 received on dated 2019-08-21 in regional office Jind. With reference to your above application for consent to operate, M/s Ridhi Sidhi KSM Resources JV is here by granted consent as per following specification/Terms and conditions.

Consent Under	BOTH
Period of consent	29/08/2019 - 30/09/2024
Industry Type	Mining and ore beneficiation
Category	RED
Investment(In Lakh)	784.0
Total Land Area(Sq. meter)	644000.0
Total Builtup Area(Sq. meter)	0.0
Quantity of effluent	
1. Trade	0.0 KL/Day
2. Domestic	1.0 KL/Day
Number of outlets	1.0
Mode of discharge	
1. Domestic	Septic tank
2. Trade	
Domestic Effluent Parameters	
1. BOD	30 mg/l
2. COD	250 mg/l
3. TSS	100 mg/l
4. pH	9.0
Trade Effluent Parameters	
1. BOD	30 mg/l
2. COD	250 mg/l
3. TSS	100 mg/l
Number of stacks	1
Height of stack	
1. NA	

Emission parameters	
1. PM2.5	60
2. PM10	100
Product Details	
1. Rock Stone	4833 Metric Tonnes/day
Capacity of boiler	
1. NA	Ton/hr
Type of Furnace	
1. NA	
Type of Fuel	
1. Diesel	KL/day
Raw Material Details	
Rock Stone	4833 Metric Tonnes/Day

*Regional Officer, Jind
Haryana State Pollution Control Board.*

Terms and conditions

1. The applicants shall maintain good house keeping both within factory and in the premises. All hose pipelines valves, storage tanks etc. shall be leak proof. In plant allowable pollutants levels, if specified by State Board should be met strictly.
2. The applicant/company shall comply with and carry out directive/orders issued by the Board in this consent order at all subsequent times without negligence of his /its part. The applicant/company shall be liable for such legal action against him as per provision of the law/act in case of violation of any order/directives. Issued at any time and or non compliance of the terms and conditions of his consent order.
3. The applicant shall make an application for grant of consent at least 90 days before the date of expiry of this consent.
4. Necessary fee as prescribed for obtaining renewal consent shall be paid by the applicant alongwith the consent application.
5. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above required variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard vary all or such condition and there upon the applicant shall be bound to comply with the conditions so varied.
6. The industry shall provide adequate arrangement for fighting the accidental leakages, discharge of any pollutants gas/liquids from the vessels, mechanical equipment etc. which are likely to cause environment pollution.
7. The industry shall comply noise pollution (Regulation and control) Rules, 2000.
8. The industry shall comply all the direction/Rules/Instructions as may be issued by the MOEF/CPCB/HSPCB from time to time.
9. The industry shall ensure that various characteristics of the effluents remain within the tolerance limits as specified in EPA Standard and as amended from time to time and at no time the concentration of any characteristics should exceed these limits for discharge.

10. The industry would immediately submit the revised application to the Board in the event of any change in the raw material in process, mode of treatment/discharge of effluent. In case of change of process at any stage during the consent period, the industry shall submit fresh consent application alongwith the consent to operate fee, if found due, which may be on any account and that shall be paid by the industry and the industry would immediately submit the consent application to the Board in the event of any change during the year in the raw material, quantity, quality of the effluent, mode of discharge, treatment facilities etc.

11. The officer/official of the Board shall reserve the right to access for the inspection of the industry in connection with the various process and the treatment facilities. The consent to operate is subject to review by the Board at any time.

12. Permissible limits for any pollutants mentioned in the consent to operate order should not exceed the concentration permitted in the effluent by the Board.

13. The industry shall pay the balance fee, in case it is found due from the industry at any time later on.

14. If the industry fails to adhere to any of the conditions of this consent to operate order, the consent to operate so granted shall automatically lapse.

15. If the industry is closed temporarily at its own, they shall inform the Board and obtain permission before restart of the unit.

16. The industry shall comply all the Directions/ Rules/Instructions issued from time to time by the Board.

HARYANA STATE Specific Conditions :

. (i). That the unit will submit the analysis report from the Board lab within three month from the date of issue of first consent to operate. (ii). That the unit will run and maintain the APCM & green belt. (iii). That the unit will apply for renewal of consent to operate before 90 days from the expiry of this CTO. (iv). The said mining project will make strict compliance of EC granted by MOEF/SEIAA. (v). The said unit will submit half yearly Environment management report as per EC condition & board policy for mining projects. (vi). The previous unit EC is consider temporary for this unit ,the said project will obtain fresh EC from SEIAA and then submit fresh EC in the said firm name as soon as possible . (vii). Unit will apply for HW authorization & make agreement with board authorized agency for safe disposal of Hazardous waste as per HOWM Rules,2016. (viii). The said unit will make Dust Suppression and wet drilling by using water through sprinklers etc. (ix) unit will install AAQMS at three locations within mining lease area for EC compliance (copy of comprehensive inspection report on prescribed Performa along with photographs) (x) Unit will take all necessary clearances from all the concerned departments / agencies. (xi). The unit will abide with the directions/guidelines HSPCB/CPCB/ any court decision/ direction of any competent authority. (xii) This CTO is without prejudice to any action under the provisions of applicable laws / acts / notification / courts order to be taken in respect of any violation at any stage without any claim of the unit. If the unit fails to comply the provisions of EC/CTE/CTO, various applicable provisions of concerned departments / agencies / authorities / any relevant decision of court, the consent to operate so granted shall be revoked automatically without giving any notice.

Sanjeev
Kumar

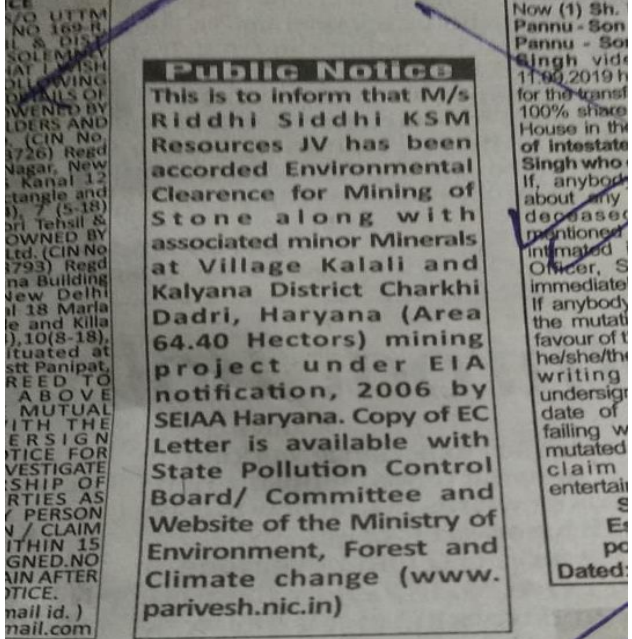

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Regional Officer, Jind

Haryana State Pollution Control Board.

Annexure- 2

EC published in Newspaper

S. No	Description	Public notice regarding grant of EC
1.	Public notice, regarding grant of EC, published in newspaper "The Times of India".	 <p>The image shows a public notice from 'The Times of India'. The notice text is: "Public Notice This is to inform that M/s Riddhi Siddhi KSM Resources JV has been accorded Environmental Clearance for Mining of Stone along with associated minor Minerals at Village Kalali and Kalyana District Charkhi Dadri, Haryana (Area 64.40 Hectors) mining project under EIA notification, 2006 by SEIAA Haryana. Copy of EC Letter is available with State Pollution Control Board/ Committee and Website of the Ministry of Environment, Forest and Climate change (www.parivesh.nic.in)".</p>
2.	Public notice, regarding grant of EC, published in newspaper "Dainik Jagran".	 <p>The image shows a public notice from 'Dainik Jagran'. The notice text is: "Public Notice This is to inform that M/s Riddhi Siddhi KSM Resources JV has been accorded Environmental Clearance for Mining of Stone along with associated minor Minerals at Village Kalali and Kalyana District Charkhi Dadri, Haryana (Area 64.40 Hectors) mining project under EIA notification, 2006 by SEIAA Haryana. Copy of EC Letter is available with State Pollution Control Board/ Committee and Website of the Ministry of Environment, Forest and Climate change (www.parivesh.nic.in)".</p>

Annexure- 3

Monitoring Report



Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)
Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number: VEL/RS/A/01
Issued To: M/s Ridhi Sidhi KSM Resources,
Khatoni Number 1049, Behind Hotel
Mejban, Laharu Road, Charkhi Dadri,
Haryana
Name & address of Project : Stone Mine (Associated Minor Mineral),
Production Capacity -5.8 MTPA, Distt-
Charkhi Dadri, Haryana.
Sample Description : Ambient Air Quality Monitoring

Report No.: VEL/A/2003/17/0013
Format No.: 7.8 F-01
Party Reference No.: NIL
Reporting Date: 21/03/2020
Period of Analysis: 17/03/2020 to 21/03/2020
Receipt Date: 17/03/2020

General Information:-

Sample collected by : Vardan Enviro Lab Representative
Sampling Location : Up Wind Direction(Near Mine Site)
Instrument Used : RDS & FPS with all accessories
Instrument Code : --
Instrument Calibration Status : Calibrated
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 16/03/2020 to 17/03/2020
Time of Monitoring : 09:05 AM to 09:05 AM
Ambient Temperature (°C) : Min 20.0, Max 28.5
Surrounding Activity : Human, Vehicular & Mining Activities
Scope of Monitoring : Regulatory Requirement
Sampling & Analysis Protocol : IS: 5182
Parameter Required : PM₁₀, PM_{2.5}, NO₂ & SO₂

TEST RESULTS

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	#SOP No. VEL/SOP/01, Section No. SP 63	48.4	µg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS: 5182 (P-23) Gravimetric Method	87.8	µg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS: 5182 (P-6) Jacob & Hochheiser	27.6	µg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS: 5182 (P-2) Modified West and Gaeke	13.8	µg/m ³	80

*NAAQS – National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009

SOP-As per Laboratory Standard Operating Procedure.

Ridhi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager



NOTE: a) The results listed refer only to the tested samples & applicable parameters
b) Total liabilities of our lab will be restricted to the invoice amount only
c) The sample will be destroyed after retention time unless otherwise specified
d) This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law

www.vardan.co.in



Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)
Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number: VEL/ RS /A/02
Issued To: M/s Ridhi Sidhi KSM Resources,
Khatoni Number 1049, Behind Hotel
Mejban, Laharu Road, Charkhi Dadri,
Haryana
Name & Address of Project: Stone Mine (Associated Minor Mineral),
Production Capacity -5.8 MTPA, Distt-
Charkhi Dadri, Haryana.
Sample Description Ambient Air Quality Monitoring

Report No.: VEL/A/2003/17/0014
Format No.: 7.8 F-01
Party Reference No.: NIL
Reporting Date: 21/03/2020
Period of Analysis 17/03/2020 to 21/03/2020
Receipt Date: 17/03/2020

General Information:-

Sample collected by : Vardan Enviro Lab Representative
Sampling Location : Down Wind direction (500 mtr from mine site)
Instrument Used : RDS & FPS with all accessories
Instrument Code : --
Instrument Calibration Status : Calibrated
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 16/03/2020 to 17/03/2020
Time of Monitoring : 09:15 AM to 09:15 AM
Ambient Temperature (°C) : Min 20.0, Max 28.5
Surrounding Activity : Human, Vehicular & Mining Activities
Scope of Monitoring : Regulatory Requirement
Sampling & Analysis Protocol : IS:5182
Parameter Required : PM₁₀, PM_{2.5}, NO₂ & SO₂

TEST RESULTS

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	#SOP No. VEL/SOP/01, Section No. SP 63	46.5	µg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS: 5182 (P-23) Gravimetric Method	85.2	µg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS: 5182 (P-6) Jacob & Hochheiser	24.3	µg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS: 5182 (P-2) Modified West and Gaeke	11.5	µg/m ³	80

*NAAQS – National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009
SOP -As per Laboratory Standard Operating Procedure.

Ridhi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager



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Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number: VEL/RS/A/03
Issued To: M/s Ridhi Sidhi KSM Resources,
Khatoni Number 1049, Behind Hotel
Mejban, Laharu Road, Charkhi Dadri,
Haryana
Name & Address of Project: Stone Mine (Associated Minor Mineral),
Production Capacity -5.8 MTPA, Distt-
Charkhi Dadri, Haryana.
Sample Description: Ambient Air Quality Monitoring

Report No.: VEL/A/2003/17/0015
Format No.: 7.8 F-01
Party Reference No.: NIL
Reporting Date: 21/03/2020
Period of Analysis: 17/03/2020 to 21/03/2020
Receipt Date: 17/03/2020

General Information:-

Sample collected by : Vardan Enviro Lab Representative
Sampling Location : Down Wind direction (Kaliyana Village)
Instrument Used : RDS & FPS with all accessories
Instrument Code : --
Instrument Calibration Status : Calibrated
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 16/03/2020 to 17/03/2020
Time of Monitoring : 09:35 AM to 09:35 AM
Ambient Temperature (°C) : Min 20.0, Max 28.5
Surrounding Activity : Human, Vehicular & Other Activities
Scope of Monitoring : Regulatory Requirement
Sampling & Analysis Protocol : IS:5182
Parameter Required : PM₁₀, PM_{2.5}, NO₂ & SO₂

TEST RESULTS

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	*SOP No. VEL/SOP/01, Section No. SP 63	47.2	µg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS: 5182 (P-23) Gravimetric Method	86.7	µg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS: 5182 (P-6) Jacob & Hochheiser	24.8	µg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS: 5182 (P-2) Modified West and Gaeke	10.8	µg/m ³	80

*NAAQS – National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009

SOP -As per Laboratory Standard Operating Procedure.

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Deputy Technical Manager



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ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number: VEL/RS/AN/01
Issued To: M/s Ridhi Sidhi KSM Resources,
Khatoni Number 1049, Behind Hotel
Mejban, Laharu Road, Charkhi Dadri,
Haryana
Name & Address of Project: Stone Mine (Associated Minor Mineral),
Production Capacity -5.8 MTPA, Distt-
Charkhi Dadri, Haryana.
Sample Description: AMBIENT NOISE LEVEL MONITORING

Report No.: VEL/AN/2003/17/013
Format No.: 7.8 F-01
Party Reference No.: NIL
Reporting Date: 21/03/2020
Receipt Date: 17/03/2020

General Information:-

Sample collected by : Vardan EnviroLab Representative
Sampling Location : **Up Wind Direction (Near Mine Site)**
Instrument Used : Sound Level Meter
Instrument Calibration Status : Calibrated
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : **16/03/2020 to 17/03/2020**
Time of Monitoring : 06:00 AM to 06:00AM
Surrounding Activity : Human, Vehicular & Mining Activities
Scope of Monitoring : Regulatory Requirement
Sampling & Analysis Protocol : **IS-9989**
Sampling Duration : 24 Hours
Parameter Required : L_{max} , L_{min} , & L_{eq}

S. No.	Parameters	Protocol	Test Result dB (A)		Unit
			Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 06:00 am)	
1.	L_{max}	IS-9989	74.1	68.1	dB(A)
2.	L_{min}	IS-9989	61.2	47.9	dB(A)
3.	L_{eq}	IS-9989	69.7	58.6	dB(A)
4.	As per #DGMS Limits in dB(*A) L_{eq}	-	75.0	70.0	dB(A)

Note- * A "decibel" is a unit in which noise is measured. #DGMS-Directorate General of Mines & Safety.

Ridhi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager



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ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number: VEL/RS/AN/02
Issued To: M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana
Name & Address of Project: Stone Mine (Associated Minor Mineral), Production Capacity -5.8 MTPA, Distt- Charkhi Dadri, Haryana.
Sample Description : AMBIENT NOISE LEVEL MONITORING

Report No.: VEL/AN/2003/17/014
Format No.: 7.8 F-01
Party Reference No.: NIL
Reporting Date: 21/03/2020
Receipt Date: 17/03/2020

General Information:-

Sample collected by : Vardan Enviro Lab Representative
Sampling Location : Down Wind Direction (500 mtr from mine site)
Instrument Used : Sound Level Meter
Instrument Calibration Status : Calibrated
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 16/03/2020 to 17/03/2020
Time of Monitoring : 06:00 AM to 06:00AM
Surrounding Activity : Vehicular & Mining Activities
Scope of Monitoring : Regulatory Requirement
Sampling & Analysis Protocol : IS-9989
Sampling Duration : 24 Hours
Parameter Required : L_{max} , L_{min} , & L_{eq}

S. No.	Parameters	Protocol	Test Result dB (A)		Unit
			Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 06:00 am)	
1.	L_{max}	IS-9989	75.5	69.4	dB(A)
2.	L_{min}	IS-9989	64.2	58.6	dB(A)
3.	L_{eq}	IS-9989	69.1	63.4	dB(A)
4.	As per #DGMS Limits in dB(*A) Leq	-	75.0	70.0	dB(A)

Note- * A "decibel" is a unit in which noise is measured. #DGMS-Directorate General of Mines & Safety.

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager



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ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number: VEL/RS/AN/03 **Report No.:** VEL/AN/2003/17/015
Issued To: M/s Ridhi Sidhi KSM Resources, Khatoni **Format No.:** 7.8 F-01
Number 1049, Behind Hotel Mejban, Laharu **Party Reference No.:** NIL
Road, Charkhi Dadri, Haryana **Reporting Date:** 21/03/2020
Name & Address of Project: Stone Mine (Associated Minor Mineral), **Receipt Date:** 17/03/2020
Production Capacity -5.8 MTPA, Distt-
Charkhi Dadri, Haryana.
Sample Description : AMBIENT NOISE LEVEL MONITORING

General Information:-

Sample collected by : Vardan Enviro Lab Representative
Sampling Location : Down Wind Direction (Kaliyana Village)
Instrument Used : Sound Level Meter
Instrument Calibration Status : Calibrated
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 16/03/2020 to 17/03/2020
Time of Monitoring : 06:00 AM to 06:00AM
Surrounding Activity : Human & Vehicular Activities
Scope of Monitoring : Regulatory Requirement
Sampling & Analysis Protocol : IS-9989
Sampling Duration : 24 Hours
Parameter Required : L_{max} , L_{min} , & L_{eq}

S. No.	Parameters	Protocol	Test Result dB (A)		Unit
			Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 06:00 am)	
1.	L_{max}	IS-9989	53.6	44.2	dB(A)
2.	L_{min}	IS-9989	41.4	35.4	dB(A)
3.	L_{eq}	IS-9989	48.1	39.6	dB(A)
4.	CPCB Limits in dB(A) Leq (Residential Area)	-	55.0	45.0	dB(A)

Note- * A "decibel" is a unit in which noise is measured.

Rudhi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager



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ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number: VEL/RS/S/01
Issued To: M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana

Name & Address of Project: Stone Mine (Associated Minor Mineral), Production Capacity -5.8 MTPA, Distt- Charkhi Dadri, Haryana.

Sample Description: SOIL
Sampling Location: Near Mine Site
Sampling & Analysis Protocol: IS 2720, USEPA 3050B & USDA

Report No.: VEL/S/2003/17/013
Format No.: 7.8 F-01
Party Reference No.: NIL
Reporting Date: 21/03/2020
Period of Analysis: 17/03/2020 to 21/03/2020
Receipt Date: 17/03/2020
Sampling Date: 17/03/2020
Type of Sampling: Composite
Sampling Quantity: 2.0 Kg
Packing Status: Temp Sealed

S. No.	Parameter	Test-Method	Result	Unit
1.	pH (at 25 °C)	IS : 2720 (P-26) by pH Meter	7.67	--
2.	Conductivity	IS:14767 by Conductivity meter	0.378	mS/cm
3.	Soil Texture	IS : 2720 (P-22, RA2003)	Sandy	--
4.	Color	SOP , SP-78,Issue No.-01& Issue Date-14/02/2013	Brownish	--
5.	Water holding capacity	SOP , SP-81,Issue No.-01& Issue Date-14/02/2013	31.23	%
6.	Bulk density	SOP , SP-80,Issue No.-01& Issue Date-14/02/2013	1.78	gm/cc
7.	Chloride as Cl	SOP , SP-85,Issue No.-01& Issue Date-14/02/2013	43.40	mg/100g
8.	Calcium as Ca	SOP , SP-82,Issue No.-01& Issue Date-14/02/2013	41.76	mg/100g
9.	Sodium as Na	SOP , SP-84,Issue No.-01& Issue Date-14/02/2013	38.34	mg/kg
10.	Potassium as K	SOP , SP-84,Issue No.-01& Issue Date-14/02/2013	133.21	kg/hect.
11.	Organic Matter	IS:2720 (P-22) Titrimetric Method	0.75	%
12.	Magnesium as Mg	SOP , SP-83,Issue No.-01& Issue Date-14/02/2013	21.67	mg/100g
13.	Available Nitrogen as N	IS:14684 Distillation Method	141.89	kg./hect.
14.	Available Phosphorus	SOP , SP-86,Issue No.-01& Issue Date-14/02/2013	25.60	kg./hect.
15.	Zinc (as Zn)	USEPA 3050B	6.56	mg/kg
16.	Manganese (as Mn)	USEPA 3050B	4.34	mg/kg
17.	Lead (as Pb)	USEPA 3050B	1.56	mg/kg
18.	Cadmium (as Cd)	USEPA 3050B	1.67	mg/kg
19.	#Chromium (as Cr)	USEPA 3050B	1.30	mg/kg
20.	Copper (as Cu)	USEPA 3050B	3.26	mg/kg

*SOP-Laboratory standard operating procedure. #This parameter is not covered in our NABL scope.

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager



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ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:	VEL/RS/S/02	Report No.:	VEL/S/2003/17/014
Issued To:	M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana	Format No.:	7.8 F-01
Name & Address of Project:	Stone Mine (Associated Minor Mineral), Production Capacity -5.8 MTPA, Distt- Charkhi Dadri, Haryana.	Party Reference No.:	NIL
Sample Description:	SOIL	Reporting Date:	21/03/2020
Sampling Location:	Village - Kaliyana	Period of Analysis:	17/03/2020 to 21/03/2020
Sampling & Analysis Protocol:	IS 2720, USEPA 3050B & USDA	Receipt Date:	17/03/2020
		Sampling Date:	17/03/2020
		Type of Sampling:	Composite
		Sampling Quantity:	2.0 Kg
		Packing Status:	Temp Sealed

S. No.	Parameter	Test-Method	Result	Unit
1.	pH (at 25 °C)	IS : 2720 (P-26) by pH Meter	7.61	--
2.	Conductivity	IS:14767 by Conductivity meter	0.378	mS/cm
3.	Soil Texture	IS : 2720 (P-22, RA2003)	Sandy	--
4.	Color	SOP , SP-78,Issue No.-01& Issue Date-14/02/2013	Brownish	--
5.	Water holding capacity	SOP , SP-81,Issue No.-01& Issue Date-14/02/2013	36.23	%
6.	Bulk density	SOP , SP-80,Issue No.-01& Issue Date-14/02/2013	1.54	gm/cc
7.	Chloride as Cl	SOP , SP-85,Issue No.-01& Issue Date-14/02/2013	56.76	mg/100g
8.	Calcium as Ca	SOP , SP-82,Issue No.-01& Issue Date-14/02/2013	34.62	mg/100g
9.	Sodium as Na	SOP , SP-84,Issue No.-01& Issue Date-14/02/2013	37.36	mg/kg
10.	Potassium as K	SOP , SP-84,Issue No.-01& Issue Date-14/02/2013	152.54	kg/hect.
11.	Organic Matter	IS:2720 (P-22) Titrimetric Method	0.47	%
12.	Magnesium as Mg	SOP , SP-83,Issue No.-01& Issue Date-14/02/2013	18.71	mg/100g
13.	Available Nitrogen as N	IS:14684 Distillation Method	142.54	kg./hect.
14.	Available Phosphorus	SOP , SP-86,Issue No.-01& Issue Date-14/02/2013	26.62	kg./hect.
15.	Zinc (as Zn)	USEPA 3050B	6.36	mg/kg
16.	Manganese (as Mn)	USEPA 3050B	3.28	mg/kg
17.	Lead (as Pb)	USEPA 3050B	1.19	mg/kg
18.	Cadmium (as Cd)	USEPA 3050B	1.46	mg/kg
19.	#Chromium (as Cr)	USEPA 3050B	0.58	mg/kg
20.	Copper (as Cu)	USEPA 3050B	5.25	mg/kg

*SOP-Laboratory standard operating procedure. #This parameter is not covered in our NABL scope.

Rudhi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager



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Test Report

Sample Number:	VEL/RS/W/01	Report No.:	VEL/W/1911/08/025
Issued To:	M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana	Format No.:	7.8 F-01
Name & Address of Project	Stone Mine (Associated Minor Mineral), Production Capacity -5.8 MTPA, Distt- Charkhi Dadri, Haryana.	Party Reference No.:	NIL
Sample Description:	Ground Water Sample	Reporting Date:	13/11/2019
Sampling Location:	Near Mine Site	Period of Analysis:	08/11/2019 to 13/11/2019
Sample Collected by	Vardan Enviro Lab representative	Receipt Date:	08/11/2019
Sampling & Analysis Protocol:	IS :10500-2012&APHA	Sampling Date:	08/11/2019
		Sampling Quantity:	2.0 Ltr
		Sampling Type:	Grab
		Preservation:	Refrigerated
		Parameter Required:	As Per Work Order

S. No.	Parameter	Test-Method	Result	Unit	Limits of IS:10500 -2012	
					Requirement (Acceptable Limit)	Permissible limit in the Absence of Alternate Source
1.	pH (at 25 °C)	APHA ,4500-H ⁺ B Electrometric Method	7.28	--	6.5 to 8.5	No Relaxation
2.	Colour	APHA ,2120 B, Visual Comparison Method	*BDL (**DL 5Hazen)	Hazen	5	15
3.	Turbidity	APHA, 2130 B, Nephelometric Method	*BDL (**DL 0.1 NTU)	NTU	1	5
4.	Odour	APHA, 2150 B , Threshold Test Method	Agreeable	--	Agreeable	Agreeable
5.	Taste	APHA , 2160 B, Threshold Test Method	Agreeable	--	Agreeable	Agreeable
6.	Total Hardness as CaCO ₃	APHA , 2340 C, EDTA Titrimetric Method	157.56	mg/l	200	600
7.	Calcium as Ca	APHA, 3500 Ca B, EDTA Titrimetric Method	43.20	mg/l	75	200
8.	Alkalinity as CaCO ₃	APHA , 2320 B, Titrimetric Method	142.43	mg/l	200	600
9.	Chloride as Cl	APHA, 4500-Cl ⁻ B, Argentometric Method	51.20	mg/l	250	1000
10.	#Cyanide as CN	APHA , 4500 CN ⁻ D	*BDL (**DL 0.02 mg/l)	mg/l	0.05	No Relaxation
11.	Magnesium as Mg	APHA , 3500 Mg B, Calculation Method	12.09	mg/l	30	100
12.	Total Dissolved Solids	APHA , 2540 C, Gravimetric Method	370.00	mg/l	500	2000
13.	Sulphate as SO ₄	APHA , 4500 E, Turbidimetric Method	41.20	mg/l	200	400
14.	Fluoride as F	APHA , 4500-F ⁻ D, SPADNS Method	0.21	mg/l	1.0	1.5
15.	Nitrate as NO ₃	IS 3025 (P-34) ,Chromotropic Method	4.52	mg/l	45	No Relaxation
16.	Iron as Fe	APHA , 3500-Fe B 1,10 Phenanthroline Method	0.21	mg/l	0.3	No relaxation
17.	#Aluminium as Al	APHA , 3111 B	*BDL (**DL 0.03 mg/l)	mg/l	0.03	0.2
18.	Boron	APHA, 4500B C, Carmine Method	0.30	mg/l	0.5	1
19.	Total Chromium as Cr	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL (**DL 0.03 mg/l)	mg/l	0.05	No Relaxation

Rushi Chaudhary

 (Tested By)

Analyst

Subodh Shekhawat

 (Checked By)
 Deputy Technical Manager



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Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)
 Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
 ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample No.: VEL/RS/W/01				Report No: VEL/W/1911/04/025		
S. No	Parameter	Test-Method	Result	Unit	Limits of IS:10500-2012	
					Requirement (Acceptable) Limit	Permissible limit in the Absence of Alternate Source
20.	Phenolic Compounds	APHA, 5530 C Chloroform Extraction Method	*BDL(**DL 0.001 mg/l)	mg/l	0.001	0.002
21.	#Mineral Oil	Clause 6 of IS:3025(Part 39)	*BDL(**DL 0.01mg/l)	mg/l	0.5	No Relaxation
22.	Anionic Detergents as MBAS	APHA, 5540 C MBAS Method	*BDL(**DL 0.02 mg/l)	mg/l	0.2	1.0
23.	Zinc as Zn	APHA , 3111 B, Direct Air, Acetylene Flame Method	0.32	mg/l	5	15
24.	Copper as Cu	APHA , 3111 B, Direct Air, Acetylene Flame Method	0.17	mg/l	0.05	1.5
25.	Manganese as Mn	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.06 mg/l)	mg/l	0.1	0.3
26.	Cadmium as Cd	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.003mg/l)	mg/l	0.003	No Relaxation
27.	Lead as Pb	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.01 mg/l)	mg/l	0.01	No Relaxation
28.	#Selenium as Se	APHA , 3114 B, Manual Hydride Generation	*BDL(**DL 0.01 mg/l)	mg/l	0.01	No Relaxation
29.	#Arsenic as As	APHA , 3114 B, Manual Hydride Generation	*BDL(**DL 0.01 mg/l)	mg/l	0.01	0.05
30.	#Mercury as Hg	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL (**DL 0.001 mg/l)	mg/l	0.001	No Relaxation
31.	Total Coliform	IS 1622,1981	<2	MPN/100ml	Shall not be detectable in any 100 ml sample	
32.	E. Coli	IS 1622,1981	Absent	MPN/100ml	Shall not be detectable in any 100 ml sample	

Note: - *BDL-Below Detection Limit, **DL- Detection Limit
 #These parameter are not covered in our NABL scope.

Rushi Chaudhary

 (Tested By)
 Analyst

Subodh Shekhawat

 (Checked By)
 Deputy Technical Manager



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Test Report

Sample Number:	VEL/RS/W/02	Report No.:	VEL/W/1911/08/026
Issued To:	M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana	Format No.:	7.8 F-01
Name & Address of Project	Stone Mine (Associated Minor Mineral), Production Capacity -5.8 MTPA, Distt- Charkhi Dadri, Haryana.	Party Reference No.:	NIL
Sample Description:	Ground Water Sample	Reporting Date:	13/11/2019
Sampling Location:	Village- Kaliyana	Period of Analysis:	08/11/2019 to 13/11/2019
Sample Collected by	Vardan Enviro Lab representative	Receipt Date:	08/11/2019
Sampling & Analysis Protocol:	IS :10500-2012&APHA	Sampling Date:	08/11/2019
		Sampling Quantity:	2.0 Ltr
		Sampling Type:	Grab
		Preservation:	Refrigerated
		Parameter Required:	As Per Work Order

S. No.	Parameter	Test-Method	Result	Unit	Limits of IS:10500 -2012	
					Requirement (Acceptable Limit)	Permissible limit in the Absence of Alternate Source
1.	pH (at 25 °C)	APHA ,4500-H ⁺ B Electrometric Method	7.67	--	6.5 to 8.5	No Relaxation
2.	Colour	APHA ,2120 B, Visual Comparison Method	*BDL (**DL 5Hazen)	Hazen	5	15
3.	Turbidity	APHA, 2130 B, Nephelometric Method	*BDL (**DL 0. 1 NTU)	NTU	1	5
4.	Odour	APHA, 2150 B , Threshold Test Method	Agreeable	--	Agreeable	Agreeable
5.	Taste	APHA , 2160 B, Threshold Test Method	Agreeable	--	Agreeable	Agreeable
6.	Total Hardness as CaCO ₃	APHA , 2340 C, EDTA Titrimetric Method	162.35	mg/l	200	600
7.	Calcium as Ca	APHA, 3500 Ca B, EDTA Titrimetric Method	47.12	mg/l	75	200
8.	Alkalinity as CaCO ₃	APHA , 2320 B, Titrimetric Method	136.40	mg/l	200	600
9.	Chloride as Cl	APHA, 4500-Cl ⁻ B, Argentometric Method	59.25	mg/l	250	1000
10.	#Cyanide as CN	APHA , 4500 CN ⁻ D	*BDL(**DL 0.02 mg/l)	mg/l	0.05	No Relaxation
11.	Magnesium as Mg	APHA , 3500 Mg B, Calculation Method	10.88	mg/l	30	100
12.	Total Dissolved Solids	APHA , 2540 C, Gravimetric Method	410.00	mg/l	500	2000
13.	Sulphate as SO ₄	APHA , 4500 E, Turbidimetric Method	31.42	mg/l	200	400
14.	Fluoride as F	APHA , 4500-F D, SPADNS Method	0.31	mg/l	1.0	1.5
15.	Nitrate as NO ₃	IS 3025 (P-34) ,Chromotropic Method	7.45	mg/l	45	No Relaxation
16.	Iron as Fe	APHA , 3500-Fe B 1,10 Phenanthroline Method	0.20	mg/l	0.3	No relaxation
17.	#Aluminium as Al	APHA , 3111 B	*BDL(**DL 0.03 mg/l)	mg/l	0.03	0.2
18.	Boron	APHA, 4500B C, Carmine Method	0.41	mg/l	0.5	1
19.	Total Chromium as Cr	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.03 mg/l)	mg/l	0.05	No Relaxation

Ruchi Chaudhary

 (Tested By)

Analyst

Subodh Shekhawat

 (Checked By)
 Deputy Technical Manager



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NOTE :
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Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)
Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample No.: VEL/RS/W/02			Report No: VEL/W/1911/04/026			
S. No	Parameter	Test-Method	Result	Unit	Limits of IS:10500-2012	
					Requirement (Acceptable) Limit	Permissible limit in the Absence of Alternate Source
20.	Phenolic Compounds	APHA, 5530 C Chloroform Extraction Method	*BDL(**DL 0.001 mg/l)	mg/l	0.001	0.002
21.	#Mineral Oil	Clause 6 of IS:3025(Part 39)	*BDL(**DL 0.01mg/l)	mg/l	0.5	No Relaxation
22.	Anionic Detergents as MBAS	APHA, 5540 C MBAS Method	*BDL(**DL 0.02 mg/l)	mg/l	0.2	1.0
23.	Zinc as Zn	APHA , 3111 B, Direct Air, Acetylene Flame Method	0.24	mg/l	5	15
24.	Copper as Cu	APHA , 3111 B, Direct Air, Acetylene Flame Method	0.15	mg/l	0.05	1.5
25.	Manganese as Mn	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.06 mg/l)	mg/l	0.1	0.3
26.	Cadmium as Cd	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.003mg/l)	mg/l	0.003	No Relaxation
27.	Lead as Pb	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.01 mg/l)	mg/l	0.01	No Relaxation
28.	#Selenium as Se	APHA , 3114 B, Manual Hydride Generation	*BDL(**DL 0.01 mg/l)	mg/l	0.01	No Relaxation
29.	#Arsenic as As	APHA , 3114 B, Manual Hydride Generation	*BDL(**DL 0.01 mg/l)	mg/l	0.01	0.05
30.	#Mercury as Hg	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL (**DL 0.001 mg/l)	mg/l	0.001	No Relaxation
31.	Total Coliform	IS 1622,1981	<2	MPN/100ml	Shall not be detectable in any 100 ml sample	
32.	E. Coli	IS 1622,1981	Absent	MPN/100ml	Shall not be detectable in any 100 ml sample	

Note: - *BDL-Below Detection Limit, **DL- Detection Limit
#These parameter are not covered in our NABL scope.

Ruchi Chaudhary
(Tested By)
Analyst

Subodh Shekhawat
(Checked By)
Deputy Technical Manager



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Test Report

Sample Number:	VEL/RS/W/01	Report No.:	VEL/W/2001/08/025
Issued To:	M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana	Format No.:	7.8 F-01
Name & Address of Project	Stone Mine (Associated Minor Mineral), Production Capacity -5.8 MTPA, Distt- Charkhi Dadri, Haryana.	Party Reference No.:	NIL
Sample Description:	Ground Water Sample	Reporting Date:	13/01/2020
Sampling Location:	Near Mine Site	Period of Analysis:	08/01/2020 to 13/01/2020
Sample Collected by	Vardan Enviro Lab representative	Receipt Date:	08/01/2020
Sampling & Analysis Protocol:	IS :10500-2012&APHA	Sampling Date:	08/01/2020
		Sampling Quantity:	2.0 Ltr
		Sampling Type:	Grab
		Preservation:	Refrigerated
		Parameter Required:	As Per Work Order

S. No.	Parameter	Test-Method	Result	Unit	Limits of IS:10500 -2012	
					Requirement (Acceptable Limit)	Permissible limit in the Absence of Alternate Source
1.	pH (at 25 °C)	APHA ,4500-H ⁺ B Electrometric Method	7.41	--	6.5 to 8.5	No Relaxation
2.	Colour	APHA ,2120 B, Visual Comparison Method	*BDL (**DL 5Hazen)	Hazen	5	15
3.	Turbidity	APHA, 2130 B, Nephelometric Method	*BDL (**DL 0. 1 NTU)	NTU	1	5
4.	Odour	APHA, 2150 B , Threshold Test Method	Agreeable	--	Agreeable	Agreeable
5.	Taste	APHA , 2160 B, Threshold Test Method	Agreeable	--	Agreeable	Agreeable
6.	Total Hardness as CaCO ₃	APHA , 2340 C, EDTA Titrimetric Method	132.43	mg/l	200	600
7.	Calcium as Ca	APHA, 3500 Ca B, EDTA Titrimetric Method	37.84	mg/l	75	200
8.	Alkalinity as CaCO ₃	APHA , 2320 B, Titrimetric Method	151.54	mg/l	200	600
9.	Chloride as Cl	APHA, 4500-Cl B, Argentometric Method	53.93	mg/l	250	1000
10.	#Cyanide as CN	APHA , 4500 CN ⁻ D	*BDL(**DL 0.02 mg/l)	mg/l	0.05	No Relaxation
11.	Magnesium as Mg	APHA , 3500 Mg B, Calculation Method	13.88	mg/l	30	100
12.	Total Dissolved Solids	APHA , 2540 C, Gravimetric Method	389.00	mg/l	500	2000
13.	Sulphate as SO ₄	APHA , 4500 E, Turbidimetric Method	41.10	mg/l	200	400
14.	Fluoride as F	APHA , 4500-F D, SPADNS Method	0.24	mg/l	1.0	1.5
15.	Nitrate as NO ₃	IS 3025 (P-34) ,Chromotropic Method	5.52	mg/l	45	No Relaxation
16.	Iron as Fe	APHA , 3500-Fe B 1,10 Phenanthroline Method	0.18	mg/l	0.3	No relaxation
17.	#Aluminium as Al	APHA , 3111 B	*BDL(**DL 0.03 mg/l)	mg/l	0.03	0.2
18.	Boron	APHA, 4500B C, Carmine Method	0.32	mg/l	0.5	1
19.	Total Chromium as Cr	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.03 mg/l)	mg/l	0.05	No Relaxation

Rudhi Chaudhary

 (Tested By)
 Analyst

Subodh Shekhawat

 (Checked By)
 Deputy Technical Manager



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Vardan EnviroLab

Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)
Branch Off: Plot No. 24 & 25, Narayan Vihar, Block-B, Jaipur - 302035 (Rajasthan)
ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample No.: VEL/RS/W/01			Report No: VEL/W/2001/03/025			
S. No	Parameter	Test-Method	Result	Unit	Limits of IS:10500-2012	
					Requirement (Acceptable) Limit	Permissible limit in the Absence of Alternate Source
20.	Phenolic Compounds	APHA, 5530 C Chloroform Extraction Method	*BDL(**DL 0.001 mg/l)	mg/l	0.001	0.002
21.	#Mineral Oil	Clause 6 of IS:3025(Part 39)	*BDL(**DL 0.01mg/l)	mg/l	0.5	No Relaxation
22.	Anionic Detergents as MBAS	APHA, 5540 C MBAS Method	*BDL(**DL 0.02 mg/l)	mg/l	0.2	1.0
23.	Zinc as Zn	APHA , 3111 B, Direct Air, Acetylene Flame Method	0.40	mg/l	5	15
24.	Copper as Cu	APHA , 3111 B, Direct Air, Acetylene Flame Method	0.18	mg/l	0.05	1.5
25.	Manganese as Mn	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.06 mg/l)	mg/l	0.1	0.3
26.	Cadmium as Cd	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.003 mg/l)	mg/l	0.003	No Relaxation
27.	Lead as Pb	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.01 mg/l)	mg/l	0.01	No Relaxation
28.	#Selenium as Se	APHA , 3114 B, Manual Hydride Generation	*BDL(**DL 0.01 mg/l)	mg/l	0.01	No Relaxation
29.	#Arsenic as As	APHA , 3114 B, Manual Hydride Generation	*BDL(**DL 0.01 mg/l)	mg/l	0.01	0.05
30.	#Mercury as Hg	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL (**DL 0.001 mg/l)	mg/l	0.001	No Relaxation
31.	Total Coliform	IS 1622,1981	<2	MPN/100ml	Shall not be detectable in any 100 ml sample	
32.	E. Coli	IS 1622,1981	Absent	MPN/100ml	Shall not be detectable in any 100 ml sample	

Note: - *BDL-Below Detection Limit, **DL- Detection Limit
#These parameter are not covered in our NABL scope.

Ruchi Chaudhary
(Tested By)

Analyst

Subodh Shekhawat
(Checked By)

Deputy Technical Manager



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Test Report

Sample Number:	VEL/RS/W/02	Report No.:	VEL/W/2001/08/026
Issued To:	M/s Ridhi Sidhi KSM Resources, Khatoni Number 1049, Behind Hotel Mejban, Laharu Road, Charkhi Dadri, Haryana	Format No.:	7.8 F-01
Name & Address of Project	Stone Mine (Associated Minor Mineral), Production Capacity -5.8 MTPA, Distt- Charkhi Dadri, Haryana.	Party Reference No.:	NIL
		Reporting Date:	13/01/2020
Sample Description:	Ground Water Sample	Period of Analysis:	08/01/2020 to 13/01/2020
		Receipt Date:	08/01/2020
		Sampling Date:	08/01/2020
Sampling Location:	Village- Kaliyana	Sampling Type:	Grab
Sample Collected by	Vardan Enviro Lab representative	Preservation:	Refrigerated
Sampling & Analysis Protocol:	IS :10500-2012&APHA	Parameter Required:	As Per Work Order

S. No.	Parameter	Test-Method	Result	Unit	Limits of IS:10500 -2012	
					Requirement (Acceptable Limit)	Permissible limit in the Absence of Alternate Source
1.	pH (at 25 °C)	APHA ,4500-H ⁺ B Electrometric Method	7.51	--	6.5 to 8.5	No Relaxation
2.	Colour	APHA ,2120 B, Visual Comparison Method	*BDL (**DL 5Hazen)	Hazen	5	15
3.	Turbidity	APHA, 2130 B, Nephelometric Method	*BDL (**DL 0. 1 NTU)	NTU	1	5
4.	Odour	APHA, 2150 B , Threshold Test Method	Agreeable	--	Agreeable	Agreeable
5.	Taste	APHA , 2160 B, Threshold Test Method	Agreeable	--	Agreeable	Agreeable
6.	Total Hardness as CaCO ₃	APHA , 2340 C, EDTA Titrimetric Method	141.32	mg/l	200	600
7.	Calcium as Ca	APHA, 3500 Ca B, EDTA Titrimetric Method	35.24	mg/l	75	200
8.	Alkalinity as CaCO ₃	APHA , 2320 B, Titrimetric Method	149.34	mg/l	200	600
9.	Chloride as Cl	APHA, 4500-Cl ⁻ B, Argentometric Method	48.87	mg/l	250	1000
10.	#Cyanide as CN	APHA , 4500 CN ⁻ D	*BDL(**DL 0.02 mg/l)	mg/l	0.05	No Relaxation
11.	Magnesium as Mg	APHA , 3500 Mg B, Calculation Method	12.97	mg/l	30	100
12.	Total Dissolved Solids	APHA , 2540 C, Gravimetric Method	374.00	mg/l	500	2000
13.	Sulphate as SO ₄	APHA , 4500 E, Turbidimetric Method	38.87	mg/l	200	400
14.	Fluoride as F	APHA , 4500-F D, SPADNS Method	0.21	mg/l	1.0	1.5
15.	Nitrate as NO ₃	IS 3025 (P-34) ,Chromotropic Method	5.43	mg/l	45	No Relaxation
16.	Iron as Fe	APHA , 3500-Fe B 1,10 Phenanthroline Method	0.21	mg/l	0.3	No relaxation
17.	#Aluminium as Al	APHA , 3111 B	*BDL(**DL 0.03 mg/l)	mg/l	0.03	0.2
18.	Boron	APHA, 4500B C, Carmine Method	0.41	mg/l	0.5	1
19.	Total Chromium as Cr	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.03 mg/l)	mg/l	0.05	No Relaxation

Ruchi Chaudhary

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 Analyst

Subodh Shekhawat

 (Checked By)
 Deputy Technical Manager



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Test Report

Sample No.: VEL/RS/W/02			Report No: VEL/W/2001/03/026			
S. No	Parameter	Test-Method	Result	Unit	Limits of IS:10500-2012	
					Requirement (Acceptable) Limit	Permissible limit in the Absence of Alternate Source
20.	Phenolic Compounds	APHA, 5530 C Chloroform Extraction Method	*BDL(**DL 0.001 mg/l)	mg/l	0.001	0.002
21.	#Mineral Oil	Clause 6 of IS:3025(Part 39)	*BDL(**DL 0.01mg/l)	mg/l	0.5	No Relaxation
22.	Anionic Detergents as MBAS	APHA, 5540 C MBAS Method	*BDL(**DL 0.02 mg/l)	mg/l	0.2	1.0
23.	Zinc as Zn	APHA , 3111 B, Direct Air, Acetylene Flame Method	0.34	mg/l	5	15
24.	Copper as Cu	APHA , 3111 B, Direct Air, Acetylene Flame Method	0.21	mg/l	0.05	1.5
25.	Manganese as Mn	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.06 mg/l)	mg/l	0.1	0.3
26.	Cadmium as Cd	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.003 mg/l)	mg/l	0.003	No Relaxation
27.	Lead as Pb	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL(**DL 0.01 mg/l)	mg/l	0.01	No Relaxation
28.	#Selenium as Se	APHA , 3114 B, Manual Hydride Generation	*BDL(**DL 0.01 mg/l)	mg/l	0.01	No Relaxation
29.	#Arsenic as As	APHA , 3114 B, Manual Hydride Generation	*BDL(**DL 0.01 mg/l)	mg/l	0.01	0.05
30.	#Mercury as Hg	APHA , 3111 B, Direct Air, Acetylene Flame Method	*BDL (**DL 0.001 mg/l)	mg/l	0.001	No Relaxation
31.	Total Coliform	IS 1622,1981	<2	MPN/100ml	Shall not be detectable in any 100 ml sample	
32.	E. Coli	IS 1622,1981	Absent	MPN/100ml	Shall not be detectable in any 100 ml sample	

Note: - *BDL-Below Detection Limit, **DL- Detection Limit
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