

KC/BSN-ENV/: 20

30-May-23

To,
Inspector General of Forests
Ministry of Environment, Forest and Climate Change,
Integrated Regional Office,
Hyderabad 3rd Floor, Aranya Bhawan, Opp. RBI,
Safiabad - 500004, Hyderabad,
Telangana

Dear Sir,

Sub: - Submission of Environmental clearance compliance reports of M/s.Kesoram cement
Factory and Lime stone Mines -Reg

Ref: 1. Ec Kesoram cement Factory: J-11011/55/2006-IA II (I).
2. EC Basantnagar Mines: J-11015/142/2006-IA II (M)
3. EC Takkalapalli Mines: J-11015/143/2006-IA-II (M)

In reference of the above subject matter and referred letter, we are submitting
herewith the point wise compliance of conditions of above environmental
clearance letter for the period **October-2022 to March-2023** and also we are
submitting the stack data, ambient air quality data, Ambient noise levels data,
effluent water quality data for the period along with report.

This is for your kind information please.
Yours faithfully

For **Kesoram Cements Factory, Basantnagar**
Cement division unit of Kesoram Industries Ltd



S.GOVINDA RAO
FACTORY MANAGER

Encl: A/a.

Cc: 1. To Environmental Engineer
T.S. Pollution Control Board,
Regional Office - Ramagundam

2. CPCB Regional Directorate (South)
Nisarga Bhawan, A-Block
1st and 2nd Floor, Thimmaiah Road
7th D-Main, shivnagar, Bengaluru-560079

**ENVIRONMENTAL CLEARANCE COMPLIANCE STATUS REPORT
FOR THE PERIOD OCT-22 TO MAR-23**



**BASANTNAGAR
LIME STONE MINES**



**M/S KESORAM INDUSTRIES LIMITED
POST: BASANTNAGAR – 505 187
DIST: PEDDAPALLI (TS)**



B K BIRLA GROUP OF COMPANIES

BASANTNAGAR LIME STONE MINES

ENVIRONMENTAL CLEARANCE COMPLIANCE STATUS REPORT

FOR THE PERIOD 01.10.2022 TO 31.03.2023

EC Order No: J-11015/142/2006-IA.II (M), Dated February 19, 2007

| Sl.No | Conditions | Status of compliance |
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| A. Specific conditions | | |
| (i) | Top soil Shall be stacked properly with proper slope with adequate safe guards and shall be backfilled for reclamation and rehabilitation of mined out areas. | Top Soil, stacked designated area, this will be utilized for Green Belt Development all around mine area and spreading over the dumps and Reclaimed and Rehabilitated area for development of Green belt. |
| (ii) | Overburden shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. The maximum of the dump shall not exceed 30m, each stage shall preferably be of 10m and overall slope of the dump shall not exceed 28°. The mine pit area shall reclaimed by backfilling the OB in Phased manner. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance shall be submitted to the Ministry of environment & Forest on six monthly basis. | <p>Generated Overburden were stacked at earmarked dump site(s) only.</p> <p>The mine pit area will be reclaimed by backfilling the OB in Phased manner.</p> <p>The OB dumps are vegetated with suitable native species to prevent erosion and surface run off.</p> |
| (iii) | <p>Garland drains shall be constructed to arrest silt and sediment flows from soil and mineral dumps. The water so collected shall be utilized for watering the mine area, roads, greenbelt development etc. The drains shall be regularly de-silted Particularly after monsoon and maintained properly.</p> <p>Garland drain(size, gradient and length) shall be constructed for both mine pit and waste dump and sump capacity shall be designed keeping 50% safety margin over and above peak sudden rainfall(based on 50 years data) and maximum discharge in the area adjoining the mine site.</p> <p>Sump capacity shall also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and de-silted at regular intervals.</p> | <p>The Garland drains of requisite size were constructed along the dumps and other areas to arrest silt and sediments. Collected water is being utilized for watering the mine area, roads, greenbelt development etc.</p> <p>All garland drains are maintained properly and de siltation is being carried out with regular intervals. Adequate size of sump is constructed in the lowermost benches with proper measures.</p> <p>Photos are enclosed</p> |
| (iv) | Drilling and blasting shall be using dust extractors/wet drilling. | <p>We are being adopted by wet drilling and using safe blasting techniques.</p> <p>The drilling and blasting operation is carried out during daytime only.</p> |
| (v) | Plantation shall be raised in an area of 157.90 ha including greenbelt of adequate width by planting the native species around the ML area, roads, OB dump sites etc., in consultation with local DFO/ Agriculture Department. The density of the trees shall be around 2000 plants per ha. | <p>Greenbelt developed are maintained in phased manner with Local adaptive native species around the ML area, roads, OB dump sites etc.</p> <p>Photos are enclosed</p> |

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| (vi) | The project authority shall implement suitable conservation measures to augment ground water resources in the area in consultation with the regional Director, Central Ground water board. | We Made a garland drain depth of 2mts & width 2mts to collect the rainwater in to mines for recharging ground water and harvesting purpose. |
| (vii) | Regular Monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers during the mine operation. the monitoring shall be carried out four times in a year –pre-monsoon (April-may), monsoon (August),Post monsoon (November) and winter (January) and the data thus collected may be sent regularly to MOEF,CENTRAL GROUND WATER authority and regional Director Central Ground Water Board. | <ol style="list-style-type: none"> 1. Ground water levels of each season & quality are being monitored on quarterly basis by engaging MOEF&CC certified third party laboratory. 2. Data of the same is being submitted to CGWA New Delhi, MOEF&CC IRO Hyderabad, CGWB RO Hyderabad and District Ground Officer Peddapalli on regular intervals. |
| (viii) | Prior permission from the competent authority shall be obtained for drawl of ground water, if any | Presently, no groundwater is drawl, all the water quantity required for mines for dust suppression etc is being met from mines rainwater harvesting sump and necessary permission will be obtained from competent authority as and when required. |
| (ix) | Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles shall be covered with a tarpaulin and shall not be over loaded. | <ol style="list-style-type: none"> 1.Vehicular emissions are being monitored Regularly and complying regulatory norms. 2.Regular maintenance is carried out for the Vehicles used in the mining operations. 3.overloading of the vehicles is not being Practiced. 4.Water sprinklers and tanker are arranged on Haul roads to control of fugitive emissions. |
| (x) | A Final mine Closure plan, along with details of corpus fund, shall be submitted to the ministry of Environment & forests 5 years in advance of final mine closure for approval. | Final Mine Closure Plan (FMCP) shall be submitted to IBM and MOEF&CC as per prevailing rules for necessary approval. As our Mining Lease is valid up to 2030 |
| B.GENERAL CONDITIONS. | | |
| i | No change in mining technology and scope of working shall be made without prior approval of the ministry of Environment & forests. | Prior approval will be taken form MOEF&CC if there is any change in the scope of working. |
| ii | No change in the calendar plan including excavation, quantum of mineral limestone and waste shall be made. | There is no change in the calendar plan for the production of quantum of mineral limestone and waste. |
| iii | Conservation measures for protection of flora and fauna in the core & buffer zone shall be drawn up in consultation with the local forest and wild life department. | Conservation measures are being taken up in core & buffer zone in consultation with local forest and wildlife department. |
| iv | Four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for RPM,SPM,SO ₂ ,NO _x Monitoring location of the stations should be decided based on the meteorological data, features and environmentally and ecologically sensitive targets and frequency of monitoring should be under taken in consultation with the state pollution control board. | <p>Four ambient air quality-monitoring stations each in core and buffer zone have been established. Ambient air quality monitoring (PM 10, PM 2.5, SO₂ & NO_x) of core zone and buffer zone is being carried out though MoEF recognized 3rd party.</p> <p>Monitoring reports are being submitted regularly to TSPCB Regional Office at Ramagundam.</p> <p>Ambient air quality monitoring is enclosed.</p> |

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| v | Data on ambient air quality (RPM, SPM, SO ₂ , and NO _X) should be regularly submitted to the Ministry including its regional office located at Bangalore and the State pollution control board /Central pollution control board once in six months. | Data of ambient air quality (PM ₁₀ , PM _{2.5} , SO ₂ and NO _X) is being submitted to the MOEFCC IRO Hyderabad, CPCB RD at Bangalore and TSPCB Regional office, and Ramagundam once in six months along with compliance report. |
| vi | Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangement on haul road, loading and unloading and at transfer points shall be provided and properly maintained. | 1. Fugitive dust emissions from all the sources are being controlled. Blast hole drill machines are provided with wet drill system, 2. Water spraying on haul roads and on mineral heaps while loading and unloading at crusher hopper and at conveyor transfer points etc. 3. Blasting is carried during non-windy times. |
| vii | Measures shall be taken for control of noise levels below 85 Db in the work environment. Workers engaged in operations of HEMM, etc. shall be provided with ear plugs/muffs. | Noise levels are being monitored and maintained within the prescribed limits. Personnel protective equipment like ear plugs/muffs is provided to all workers engaged in mining operations. Data of the noise levels are enclosed. |
| viii | Industrial waste water (workshop and waste water from the mine) should be properly collected, treated as so to conform to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of Workshop effluents. | No waste water is generating from our Limestone mine. Only Garage workshop wastewater is being collected in Oil and Grease trap (3 chamber tank) and after settling and clean water is utilizing for dust suppression over haulage road. |
| ix | Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. | Persons working in dusty areas are being wearing Protective respiratory devices and adequate training and information on safety and health aspects is being carried out on a regular basis. |
| x | Occupational health surveillance program of the workers shall be under taken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed. | Occupational health surveillance program of the workers is being carried out on a regular basis. |
| xi | A separate environmental management cell with suitable qualified personnel shall be set-up under the control of a senior executive, who will report directly to the head of the organization. | A separate environmental management cell exists with a suitable qualified environmental officer to carry out various management and monitoring functions under the control of senior executive. |
| xii | The project authorities shall inform to the Regional Office located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work. | This is an existing and ongoing project |
| xiii | The funds earmarked for environmental protection measures shall be kept in separate account and should not be delivered for other purpose. Year wise expenditure shall be reported to the Ministry and its Regional Office located at Bangalore. | Funds earmarked (capital & revenue) for environmental protection measures are being utilized in separate account and Year wise expenditure is being regularly submitted to Ministry and its Regional Office. |
| xiv | The Project authorities shall inform to the Regional Office located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land developmental work. | This is an existing and ongoing project |

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| xv | The Regional office of this Ministry located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the regional office by furnishing the requisite data/information/monitoring reports. | Full cooperation will be provided to the officer (s) of the Regional Office by furnishing the requisite data/information/monitoring reports. |
| xvi | A copy of clearance letter will be marked to concerned panchayat/local NGO, if any, from whom suggestion/representation has been received while processing the proposal. | 1. At the time of EC granted already we have sent the copy of EC to our Concerned Panchayat. 2. EC order has been placed on our website. |
| xvii | State Pollution Control Board should display a copy the clearance letter at the Regional office, District Industry Centre and collector office/Tehsildar office for 30 days. | It's board's jurisdiction. |
| xviii | The Project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the Project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the ministry of environment and forests at http://envfor.nic.in and a copy of the same shall be forwarded to the Regional Office of this Ministry located Bangalore. | An advertisement has been published in below two local newspapers on 19.02.2007 1) Eenadu- Telugu 2) Deccan Chronical- English and copies were submitted to MOEF & CC, New Delhi and their regional office at Bangalore Copy is enclosed. |

**ENVIRONMENTAL CLEARANCE COMPLIANCE STATUS REPORT
FOR THE PERIOD OCT-22 TO MAR-23**



**TAKKALLAPALLI
LIMESTONE MINES**



**M/S KESORAM INDUSTRIES LIMITED
POST: BASANTNAGAR – 505 187
DIST: PEDDAPALLI (T.S)**



B K BIRLA GROUP OF COMPANIES

TAKKALAPALLI LIME STONE MINES

ENVIRONMENTAL CLEARANCE COMPLIANCE STATUS REPORT

FOR THE PERIOD 01.10.2022 TO 31.03.2023

EC Order No: J-11015/143/2006-IA.II (M), Dated February 6, 2007

| Sl.No | Specific Conditions | Compliance status |
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| i. | Top soil if any should be stacked properly with proper slope at ear marked site (s) with adequate measures and should be used for reclamation and rehabilitation of mined out area. | Top Soil, stacked designated area, this will be utilized for Green Belt Development all around mine area and spreading over the dumps and Reclaimed and Rehabilitated area for development of Green belt. |
| ii. | External OB dumps and other wastes should be stacked at earmarked sites only and should not be kept active for long period till its use for backfilling. Toe walls around the waste dumps shall be made to ensure and to prevent erosion and surface runoff. The total height of the dumps shall not exceed 30 m, each stage should preferably be of 10 m. Overall slope of the dump shall not exceed 28 deg, The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas use of geo textiles shall be undertaken for stabilization of the dumps. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests on six monthly basis. | Generated Overburden were stacked at earmarked dump site(s) only. Height of the dump yards as per the standards. All along the dump yard we made safety berm at the height of 2 Mtrs & Width 2 Mtrs at the bottom of the dump yard. |
| iii. | Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from mine working. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly de-silted particularly after monsoon and maintained properly. | Catch drains and siltation ponds of appropriate size were constructed to arrest silt and sediment flows from mine working. The water is being utilized for watering the mine area, roads, green belt development etc. The drains will be regularly de-silted particularly after monsoon and maintained properly. |
| iv. | Garland drain (size, gradient and length) shall be constructed for both mine pit and sump capacity should be designed keeping 50 % safety margin over and above peak sudden rainfall(based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper setting of site material. Sedimentation pits should be constructed at the corners of the garland drains and de-silted at regular intervals. | The Garland drains of requisite size were constructed along the dumps and other areas to arrest silt and sediments. Collected water is being utilized for watering the mine area, roads, greenbelt development etc. All garland drains are maintained properly and de siltation is being carried out with regular intervals. Adequate size of sump is constructed in the lowermost benches with proper measures. |

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| v. | Plantation shall be raised in the area of 16.88 ha including a green belt of adequate width by planting the native species around ML area, roads and external OB dumps etc in consultation with the local DFO / Agriculture Department at the end of mine life. The density of the trees should be around 2500 plants per ha. | Greenbelt developed are maintained in face manner with Local adaptive native species around the ML area, roads, OB dump sites etc. |
| vi. | The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the regional director central ground water board. | We have developed Network of drains to connect the pit for harvesting and recharge. |
| vii. | Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out two times in a year. Pre-monsoon (April – May) Post monsoon (November) and the data thus collected may be sent regularly to MoEF, Central Ground Water Authority and regional director Central Ground Water board. | <ol style="list-style-type: none"> 1. Ground water levels of each season & quality are being monitored on quarterly basis by engaging MOEF&CC certified third party laboratory. 2. Data of the same is being submitted to CGWA New Delhi, MOEF&CC IRO Hyderabad, CGWB RO Hyderabad and District Ground Officer Peddapalli on regular intervals. |
| viii. | Existing ecological status of the project area shall be conserved and protected. The project proponent should take all possible precautionary measures mining operation for conservation and protection of endangered fauna (Schedule – I), if any spotted in the project area. Action plans for the same shall be prepared with the consultation of DFO / wildlife department along with allocation of funds for this purpose and shall be submitted to RO of the Ministry at Bangalore. | <p>Ecological Conservation measures are being taken up in core & buffer zone in consultation with local forest and wildlife department.</p> <p>We have established deer park and action plan is being submitted regularly.</p> |
| ix. | Permission from the competent authority should be obtained for drawl of ground water if any required for the project. | Presently, no groundwater is drawl, all the water quantity required for mines for dust suppression etc. is being met from mines rainwater harvesting sump and necessary permission will be obtained from competent authority as and when required. |
| x. | Suitable rain water harvesting measures on long – term basis shall be planned and implemented consultation with Regional Director. CGWB | We have developed Network of drains to divert water of mines catchment area to mines sump. A sumps with capacity of 1.0 lakh m3 rain water storage harvesting and recharge. |
| xi. | The working depth of the mines shall be restricted above the ground water table. Prior approval shall be obtained from MoEF, in case, working depth of mine intersect the ground water table. | Prior approval will be taken from MOEF, in case, working depth of mine intersect the ground water table. |
| xii. | Vehicular emissions should be kept under control and regularly monitored. Measures shall be kept for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles should be covered with a tarpaulin and shall not be overloaded. | <ol style="list-style-type: none"> 1.Vehicular emissions are being monitored Regularly and complying regulatory norms. 2.Regular maintenance is carried out for the Vehicles used in the mining operations. 3.overloading of the vehicles is not being Practiced. 4.Water tanker is arranged on Haul roads to control of fugitive emissions. |

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| xiii. | The voids created at the end of mining shall be converted into water body with shallow depths not exceeding 30m. The higher benches of the excavated void/mine pit shall be terraced and plantation done to stabilize the slopes. Peripheral fencing shall be done along the excavated area. | At present depth of the pit is 10 mtrs only. |
| xiv. | At the end of the mine life the mined out area should be back filled to the extent possible, leveled and reclaimed by plantation. | At the end of the mine life the mined out area will be back filled, leveled and reclaimed by plantation. |
| xv. | Dimension of the retaining wall at the toe of dumps and OB benches within the mine to check run-off and siltation should be based on the rain fall data. | Dimension of the retaining wall at the toe of dumps is 2.0 mtrs height and 2.0 mtrs width to check run-off and siltation. |
| xvi. | Consent to operate should be obtained from SPCB before starting production from the mine. | Consent to operate already obtained from SPCB before starting production from the mine. |
| xvii. | Sewage treatment plant should be installed for colony. ETP should also be provided for workshop and mineral separation plant wastewater. | Sewage treatment plant was installed for colony ETP. Workshop waste water is being collected in Oil and Grease trap (3 chamber tank) |
| xviii. | A final Mine Closure plan along with details of Corpus fund should be submitted to the Ministry of Environment & Forest 5 years in advance of final mine closure for approval. | Final Mine Closure Plan (FMCP) shall be submitted to IBM and MOEF&CC as per prevailing rules for necessary approval. As our Mining Lease is valid up to 22-12-2052 |
| Sl. No | General Conditions | Compliance status |
| i. | No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests | Prior approval will be taken from MOEF&CC if there is any change in the scope of working |
| ii. | No change in the calendar plan including excavation, quantum of mineral and waste should be made | There is no change in the calendar plan for the production of quantum of mineral limestone and waste. |
| iii. | Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for RPM, SPM, SO ₂ , NO _x monitoring. Location of the stations should be decided based on the meteorological data. Topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board. | Four ambient air quality-monitoring stations each in core and buffer zone have been established. Ambient air quality monitoring (PM 10, PM 2.5, SO ₂ & NO _x) of core zone and buffer zone is being carried out through MoEF recognized 3 rd party. Monitoring reports are being submitted regularly to TSPCB Regional Office at Ramagundam. Ambient air quality monitoring data is enclosed. |
| iv. | Data on ambient air quality (RPM, SPM, SO ₂ , and NO _x) should be regularly submitted to the Ministry including its Regional office Bangalore and the state Pollution Control Board / Central Pollution Control Board once in six months. | Data of ambient air quality (PM ₁₀ , PM _{2.5} , SO ₂ and NO _x) is being submitted to the MOEF&CC IRO Hyderabad, CPCB RD at Bangalore and TSPCB Regional office, and Ramagundam once in six months along with compliance report. |
| v. | Fugitive dust emission from all the sources should be controlled regularly. Water spray arrangement on haul roads, loading and at transfer points should be provided and properly maintained. | 1. Fugitive dust emissions from all the sources are being controlled. Drill machines are provided with wet drilling system, 2. Water spraying on haul roads and on mineral heaps while loading and unloading at |

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| | | crusher hopper and at conveyer transfer points etc. 3. Blasting is carried during non-windy times. |
| vi. | Measures should be taken for control of noise level below 85 dBA in the work environment workers engaged in operations of HEMM etc should be provided with earplugs / muffs. | Noise levels are being monitored and maintained within the prescribed limits. Personnel protective equipment like ear plugs/muffs is provided to all workers engaged in mining operations. Data of the noise levels are enclosed. |
| vii. | Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May 1993 and 31 st December 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents. | No waste water is generating from our Limestone mines. Only Garage workshop wastewater is being collected in Oil and Grease trap (3 chamber tank) and after settling and clean water is utilizing for dust suppression over haulage road. |
| viii. | Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any clarifications due to exposure to dust and take corrective measures, if needed | Persons working in dusty areas are being wearing Protective respiratory devices and adequate training and information on safety and health aspects is being carried out on a regular basis. |
| ix. | A separate environment management cell with suitable qualified personnel shall be set-up under the control of a Senior Executive who will report directly to the Head of the Organization. | A separate environmental management cell exists with a suitable qualified environmental officer to carry out various management and monitoring functions under the control of senior executive. |
| x. | The fund earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose Year wise expenditure should be reported to the Ministry and its Regional office located at Bangalore. | Funds earmarked (capital & revenue) for environmental protection measures are being utilized in separate account and Year wise expenditure is being regularly submitted to Ministry and its Regional Office. |
| xi. | The Regional office of this ministry located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should provide a set of filled in questioner EIA and EMP and extends full co- operation to the officer (s) of the Regional office by furnishing the requisite data/ information/ monitoring reports. | Full cooperation will be provided to the officer (s) of the Regional Office by furnishing the requisite data/information/monitoring reports. |
| xii. | The project authorities shall inform to the Regional office located at Bangalore regarding data of financial closures and final approval of the project by the concerned authorities and the date of start of land development work. | This is an existing and ongoing project |
| xiii. | A copy of clearance letter will be marked to concerned Panchayat/ local NGO, if any from whom and suggestion/ representation has been received while processing the proposal. | 1. At the time of EC granted already we have sent the copy of EC to our Concerned Panchayat. 2. EC order has been placed on our website. |

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| xiv. | State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry and Collector's office / Tehsildhar's office for 30 days. | It's board's jurisdiction. |
| xv. | The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and may also be seen at web site of the Ministry of Environment and Forests at http://rnvfor.nic.in and a copy of the same should be forwarded to the Regional office of this Ministry located at Bangalore. | Environmental Clearance is published in Telugu and English Newspapers. Copy is enclosed |

FUGITIVE EMISSIONS CONTROL MEASURES

We have provided the Enclosures, silo's, sheds, water sprinklers, Rain guns, Water Tanker, Water Jet ,TPS and concrete roads for control of fugitive emission in plant & Mines.

1. Dust Supression

2. Road Sweeping& TPS Vehicle

3. Water tanker

4. MUCKPILE LOADING WITH WATER

5. WATER SPRINKLING

6. WET DRILLING



DUST FREE OPERATION AT MINES



MUCK-PILE LOADING



A.C Cabin

DUST FREE LOADING OF LIMESTONE



PLANTATION AT MINES



**TREES ON BOTH SIDES OF THE MAIN HAUL ROAD BETWEEN
MINES AND CRUSHER**



AFFORESTATION ON THE WASTE DUMP



GREENBELT DEVELOPED ON BACK FILLED AREA



Water reservoirs in mined out area



Water Conservation

Trusted Technology - Solid Strength



TPH Water Reservoir

Mines Water Reservoir



RAIN WATER HARVESTING AT MINES AREA



AWARENESS PROGRAMMES ON ENVIRONMENT



PRIZES WON IN ME&MC WEEK

Basantnagar Limestone Mining Lease

- 1st Prize in Mineral Beneficiation
- 1st Prize in Mineral Conservation
- 2nd Prize in Waste Dump Management
- 2nd Prize in reclamation & Rehabilitation

Takkalapalli Limestone Mining Lease

- 3rd Prize in Mineral Beneficiation
- 3rd Prize in Waste Dump Management



FIMI Environmental National Award



Advertisement of Environmental Clearance in the News paper

Takkalapalli Lime Stone Mines:

10.2.2007

DECCAN Chronicle

The largest circulated English daily published in Andhra Pradesh

KESORAM CEMENT

NOTICE

The General Public is hereby informed that M/s Kesoram Cement, Basantnagar, Karimnagar District, have been accorded **ENVIRONMENTAL CLEARANCE** by Ministry of Environment & Forest, New Delhi for Mining 0.35 Million Tonnes Per Annum of Limestone from TAKKALLAPALLY LIMESTONE MINES vide letter No.J-11015/143/2006-1A-II(M),Dtd.08.02.2007. The Environmental Clearance Letter copy is available with the State Pollution Control Board and also available on the Ministry's website www.epyfoc.nic.in. This is issued for the notice of all General Public.

56/
Basantnagar L. Nagesh Gowd
09-02-2007 Factory Manager,

తేజనాంధ్రుడు

THE LARGEST CIRCULATED DAILY IN ANDHRA PRADESH

కేసరం సిమెంట్ 10-2-2007 తదివారు పేటి పుస్తకం 33 సంఖ్య 182

కేసరం సిమెంట్

ప్రకటన

పాఠానం ప్రజానికానికి అనుమతించుటకై తెలియజేయుచున్నాము
మనం M/s. కేసరం సిమెంట్, అమంకేపల్లి, కరీంనగర్ జిల్లా
రాజకీయం సం. J-11015/143/2006-1A-II(M) తది.
8-2-2007 తదివారు అనుమతి పుస్తకం ముద్రా పుస్తకం పుస్తకం
0.35 మిలియన్ టన్నుల ప్రతివేళ్లకు ప్రతివేళ్ల వారం మిల్లీ అన్
ఎన్వైరాన్మెంట్ కి హాల్స్, స్టాటిస్టిక్ అండ్ ఎన్వైరాన్మెంట్
క్లియరెన్స్ అన్వైరాన్మెంట్, రాష్ట్ర పాలిటెక్నిక్ నియంత్రణ బోర్డు మరియు
ఎన్వైరాన్మెంట్ క్లియరెన్స్ అండ్ అనుమతించుటకై తెలియజేయుచున్నాము
మరియు మిల్లీ పేజీల www.epyfoc.nic.in మరియు
కాళా అనుమతించుటకై తెలియజేయుచున్నాము. పాఠానం ప్రజానికాన్వైరాన్మెంట్
నివారణకు తెలియజేయుచున్నాము.

సం/
L. నగేశ్ గౌడ్
9-2-2007 ఫ్యాక్టరీ మేనేజర్

Basantnagar Limestone Mines:

P.

→ JPCT(A)

File

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THE LARGEST CIRCULATED DAILY IN ANDHRA PRADESH

శనివారం 24-2-2007 శనివారం వీధి సంఖ్య 23, పంపిణీ 196

కే-ఆర్-ఎమ్ సిమెంట్

ప్రకటన

సంపాదక ప్రాసెసింగ్ అండ్ మేనేజ్మెంట్ కంపెనీ లిమిటెడ్, అనంతపూర్, కరీంనగర్ జిల్లా, ఆంధ్రప్రదేశ్.
M/s. కే.ఆర్.ఎమ్ సిమెంట్, అనంతపూర్, కరీంనగర్ జిల్లా, ఆంధ్రప్రదేశ్.
 రిజిస్ట్రేషన్ నెం. J-11015/142/2006-1A, II(M) తేదీ 19-2-2007
 ఆంధ్రప్రదేశ్ ప్రభుత్వం నుండి సంగ్రహించిన 1.00
 మండ్ల 1.95 హెక్టార్ల ట్రాక్టర్ మైనింగ్ నిధి వల్ల
 వసూలు కి భద్రవల మంధ్రాల్ కె.ఎం. స్టూడెంట్ నుండి ఎక్సైజ్ వసూలు
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 తరఫు వల్ల నిధి వసూలు లేదా
 మంధ్రాల్ కె.ఎం. స్టూడెంట్ నుండి ఎక్సైజ్ వసూలు
 పంపిణీ లేదా యిచ్చి వెబ్ సైట్ www.karimnagar.cem.com పై
 ప్రకటన అందించినట్లు సారాంశ ప్రకటనకుండానే పంపిణీ
 నిధి వల్ల ఈ ప్రకటన లాభిదాని అవుతుంది.

అనంతపూర్ నం:- L. వాణివరం
 22-2-2007 రాష్ట్ర మేనేజర్

ENVIRONMENTAL MONITORING REPORT

of

TAKKALLAPALLI LIMESTONE MINING LEASE

**M/s KESORAM INDUSTRIES LIMITED.,
(UNIT: KESORAM CEMENT)
TAKKALLAPALLI VILLAGE,
PEDDAPALLI DISTRICT, TELANGANA STATE**

WINTER SEASON-2023

Prepared by



**M/s KIWIS ECO LABORATORIES PVT LTD.,
(Recognized by MoEF, GOI, New Delhi Certified by ISO 9001:2015,
ISO 14001:2015 & OHSAS 45001:2018)
Plot No. 19, ALEAP Industrial Estate, Sy.No.342 Near Pragathi Nagar,
Quthbullapur Mandal Rangareddy Dist,
Hyderabad, Telangana -500090**

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1.0 INTRODUCTION

Kesoram Cement (KC), a unit of Kesoram Industries Ltd, is a pioneer in cement manufacturing. KC isan ISO 9001-2015, ISO 14001-2015and ISO 45001-2018 certified company located at Basanthnagar Village of Peddapalli District, Telangana State.

This report highlights the monitoring carried for Takkallapalli limestone mining lease as per the statutory requirement of Indian Bureau of Mines [IBM].

1.1 LOCATION OF KESORAMCEMENT [TAKKALLAPALLI LIMESTONE MINING LEASE]

Kesoram Cement, Takkallapalli Limestone Mining Lease is located at Takkallapalli village, which is 14 Km away from Peddapalli town. The mine site lies between East longitude 79°20' - 79°25' and North latitude 18°40'-18°45' and is covered under Survey of India toposheet No.56 N/5 & 56 N/6.

The site is connected by Broad gauge railway line of South Central Railway on Hyderabad - Ballarsha and it is about 3 Km from the mine. Nearest Airport to the mine is Hyderabad and is located at 210 Km. River Godavari is flowing at a distance of 20 Km towards North direction from the mine.

Figure-1.1 shows the location map of mine in Peddapalli district in Telangana state.

Figure-1.2 shows the key map of the mine site with surrounding features such as roads, railway line and plant boundary.

Figure-1.3 shows the 10 km radius extent around the mine site of Kesoram.

The salient features of the mine are givenin**Table1.1**.

The purpose of the study is to assess the water quality in and around the Takkallapalli Limestone Mining Lease of Kesoram Cement mine area in the Winter Season - 2023.

FIG - 1 LOCATION MAP

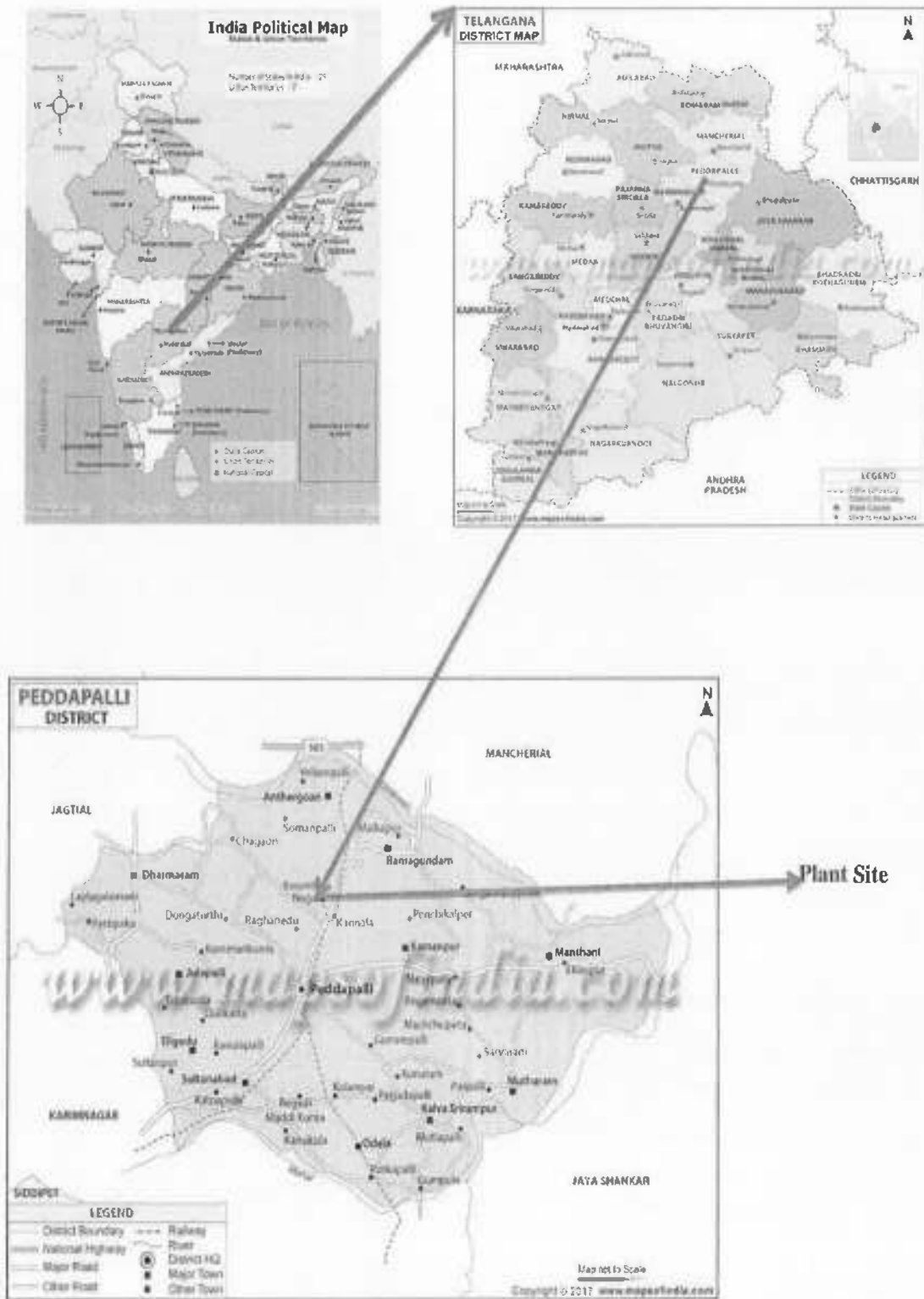
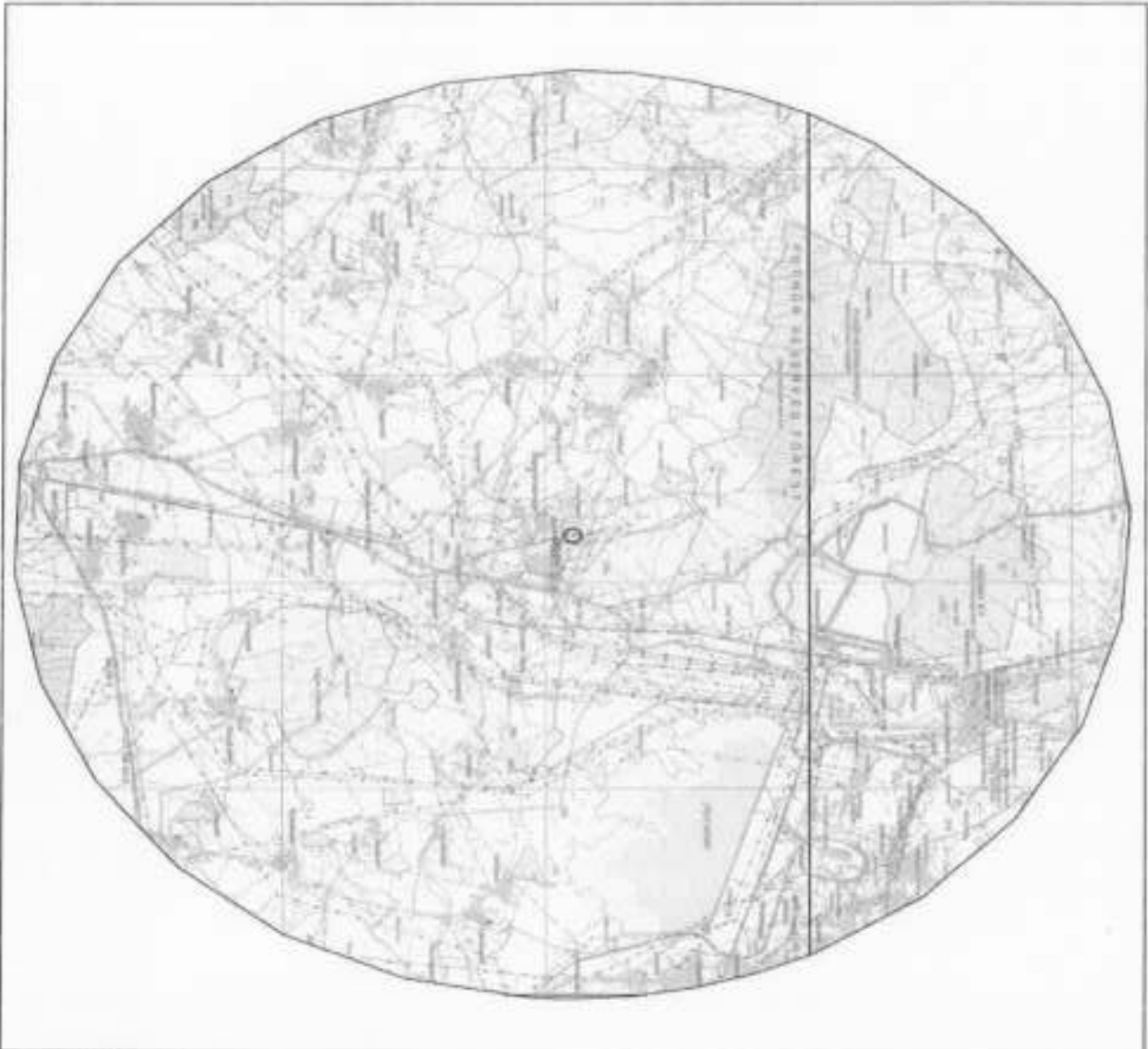


FIG - 2
TOPOGRAPHICAL MAP SHOWING 10 KM RADIUS AROUND
THE PLANT SITE



Client:
KESORAM CEMENT

PROJECT:
KESORAM CEMENT PLANT
JASANTHANGAL VILLAGE, PEDDAPALLI DIST, TELANGANA STATE

PREPARED BY:
KIWIS ECO LABORATORIES PVT LTD
HYDERABAD

CONSTRUCTION DETAILS

1. The project is located at the site of the existing plant. The site is situated in the village of Jasanthangal, Peddapalli District, Telangana State. The site is bounded by the following coordinates: Easting: 44473, Northing: 11510, Easting: 44473, Northing: 11510.

2. The project is a 10 km radius around the plant site. The map shows the topographical features of the area, including roads, rivers, and contour lines. The plant site is marked with a small circle and labeled 'O'.

3. The map is oriented with North at the top. The scale of the map is 1:50,000.

4. The map is prepared by Kiwis Eco Laboratories Pvt Ltd, Hyderabad.

5. The map is prepared on 11/11/2023.

6. The map is prepared for the project of Kesoram Cement Plant, Jasanthangal Village, Peddapalli District, Telangana State.

7. The map is prepared for the purpose of environmental monitoring.

8. The map is prepared for the use of the client.

9. The map is prepared for the use of the project.

10. The map is prepared for the use of the site.

11. The map is prepared for the use of the area.

12. The map is prepared for the use of the region.

13. The map is prepared for the use of the state.

14. The map is prepared for the use of the country.

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FIG - 3
TOPOGRAPHICAL MAP SHOWING THE PLANT SITE

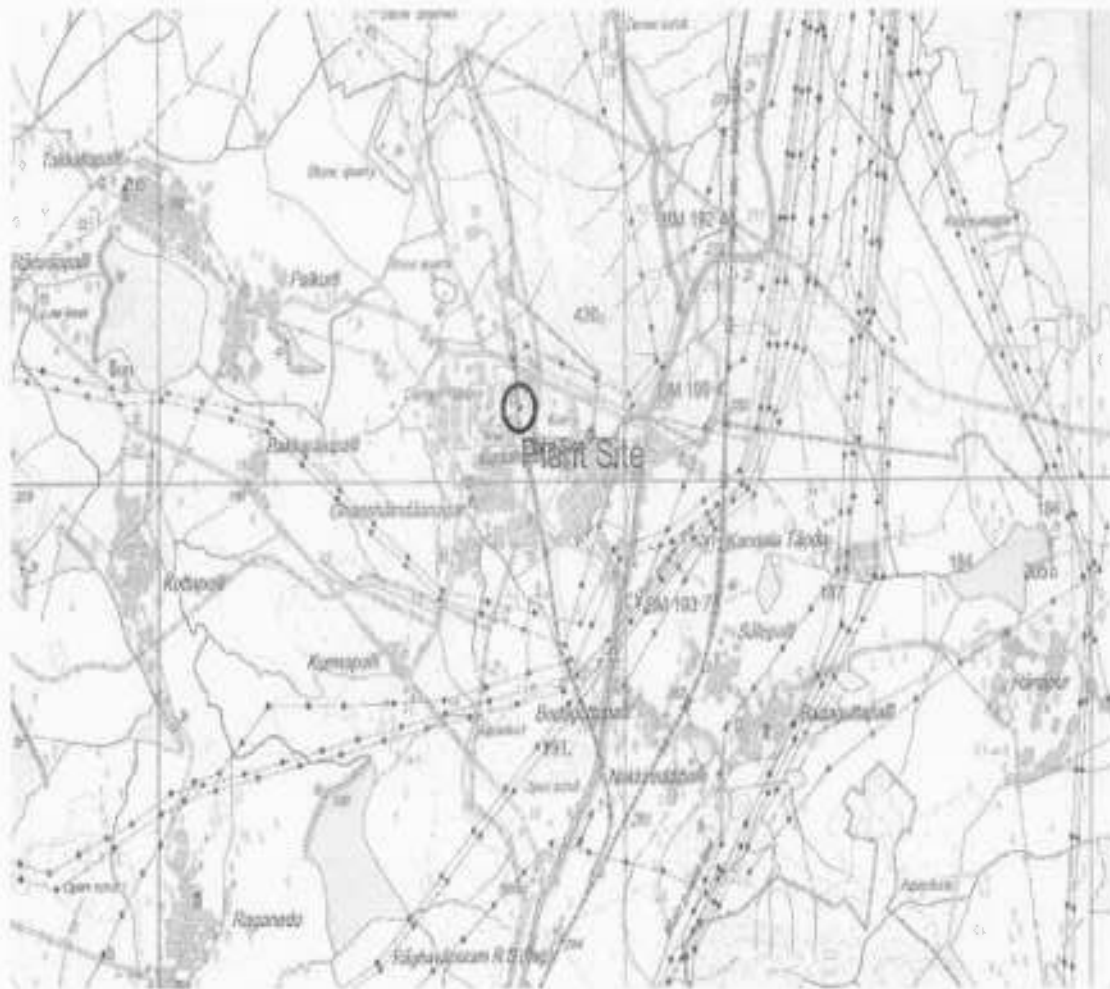


TABLE-1.1
SAILENT FEATURES OF THE MINE

| | | |
|----|------------------------------|--|
| 1 | Altitude | 180m above MSL |
| 2 | Longitude | 79°20' to 79°25' East |
| 3 | Latitude | 18°40' to 18°45' North |
| 4 | Maximum day Temperature, °C | 38 |
| 5 | Minimum day Temperature, °C | 10.2 |
| 6 | Maximum relative humidity, % | 72 |
| 7 | Minimum relative humidity, % | 40 |
| 8 | Annual rainfall, mm | 1107 (Average annual rainfall observed during the past 10 years) |
| 9 | Land availability, acres | 890.20 |
| 10 | Topography | Plant/Mine area is located in a flat terrain |
| 11 | Nearest Highway | NH-16 (2 km from mine site) |
| 12 | Nearest Railway Line | 3 km connecting Kazipet-Ballarsha |
| 13 | Nearest Railway station | Ramagundam railway station is located at 5.5 km connecting Kazipet-Ballarsha NE direction. |
| 14 | Nearest city | Hyderabad-175 km-SW direction |
| 15 | Nearest Industries | National Thermal Power Corporation-7.0 km-ENE |
| 16 | Nearest village | Palakurthy - 0.7 km-SSW. |
| 17 | Nearest Airport | Hyderabad-175 km |
| 18 | Nearest Reserve forest | Putnuru Reserve forest (scrub forest) - 4.0 km |
| 19 | Nearest Sanctuary | None within 10 km |
| 20 | Nearest national Park | None within 10 km |
| 21 | Historical places | None within 10 km |

The team of engineers from Kiwis Eco Laboratories (P) Ltd. has carried the study for environmental parameters like water quality during study period.

This report consists of monitoring results and data analysis of the above assignments awarded to M/s. Kiwis Eco Laboratories (P) Ltd. by M/s. Kesoram Cement.

2.0 SCOPE AND MONITORING LOCATIONS

The scope of the study includes detailed characterization of environmental monitoring of air quality, water quality and Ground Water Levels, noise level measurement in and around the existing captive Limestone Mines of Kesoram Cement, located near Takkallapalli Village in Peddapalli District, Telangana State.

2.1 AMBIENT AIR QUALITY

Ambient air quality monitoring was carried at Sixteen different locations for two shifts in a day for two days continuously for two weeks for Winter Season-2023.

Air quality levels were monitored and carried out for significant parameters like SPM, RPM (PM10), and PM2.5, SO₂, NO₂ & CO as per the methods prescribed by Central Pollution Control Board. Frequency of sampling and methodology adopted is detailed below:

2.1.1 DURATION PERIOD & FREQUENCY OF SAMPLING

Duration period & frequency of sampling adopted was as per guidelines of Indian Bureau of Mines. Details of the same are given below:

Duration : 2 weeks

Period : 2 Shifts for 8hours / day (SPM, RPM (PM 10), PM 2.5, SO₂, NO₂, and CO)

Day: 2days

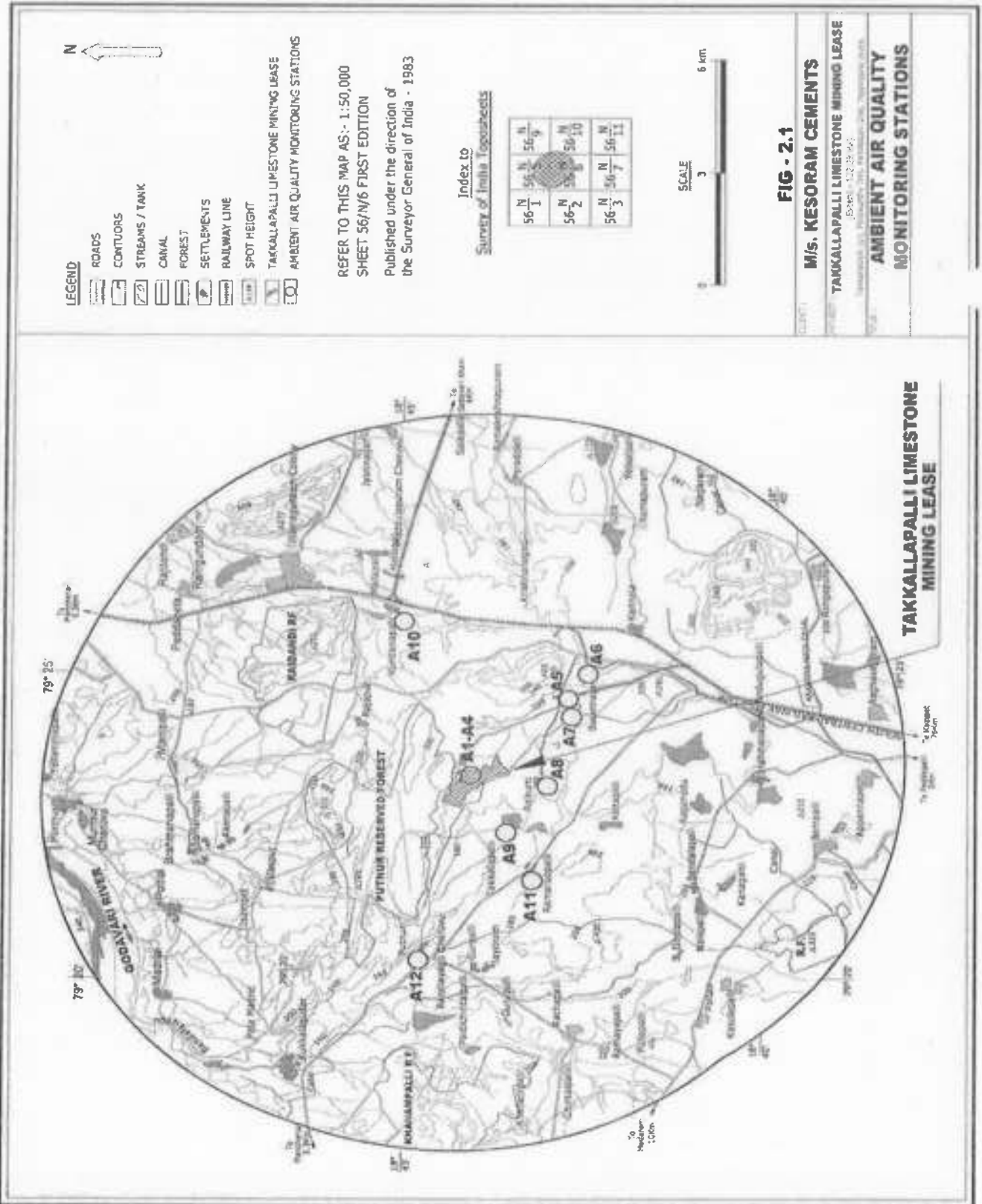
The existing Ambient Air Quality status (AAQ) has been monitored for SPM, RPM (PM10), and PM2.5, SO₂, NO₂ and CO. Pre-calibrated Respirable dust samplers have been used for the monitoring of the existing AAQ status. Methodologies adopted for sampling and analysis were, as per the approved methods of Central Pollution Control Board (CPCB) & Indian Standard (IS) 5182.

2.1.2 AMBIENT AIR QUALITY (AAQ) SAMPLING LOCATIONS

Ambient air quality of the study area has been assessed during Winter Season-2023 through a network of sixteen ambient air quality stations. The locations of ambient air quality monitoring stations in and around the mines are given in Fig-2.1 & Table-2.1.

TABLE- 2.1
AMBIENT AIR QUALITY LOCATIONS

| Station Code | Locations | Distance w.r.t. Mine (Km) | Direction w.r.t. Mine |
|--------------|-----------------------|---------------------------|-----------------------|
| A-1 | Mines Office | -- | -- |
| A-2 | Drilling Area | -- | -- |
| A-3 | Loading Area | -- | -- |
| A-4 | Haulage Road | -- | -- |
| A-5 | Crushing Area | -- | -- |
| A-6 | Colony (Guest House) | 1.3 | SE |
| A-7 | Workers Colony | 0.4 | S |
| A-8 | Kannala Village | 1.7 | SE |
| A-9 | Palakurthy Village | 0.9 | SW |
| A-10 | Takkallapalli Village | 1.4 | W |
| A-11 | Kothapalli Village | 3.0 | WSW |
| A-12 | Kundanapalli Village | 3.5 | NE |
| A-13 | Raganedu Village | 4.3 | SW |
| A-14 | Kurmapalli Village | 2.3 | SW |
| A-15 | Putnuru village | 4.0 | WNW |
| A-16 | Ramaraopalli village | 2.5 | SW |



2.2 WATER QUALITY

Fourteen water samples were collected from various locations in and around the mine site. Out of Fourteen samples, ten samples were collected from nearby villages i.e. ground/Bore well water, one sample from surface pond [Takkallapalli pond], two samples from reservoir and one sample from workshop of mine office.

Samples were collected for assessment of the existing PhysicoChemical quality. The monitoring for water quality was carried out and assessed as per IS: 10500 and GSR 422(E) Standards.

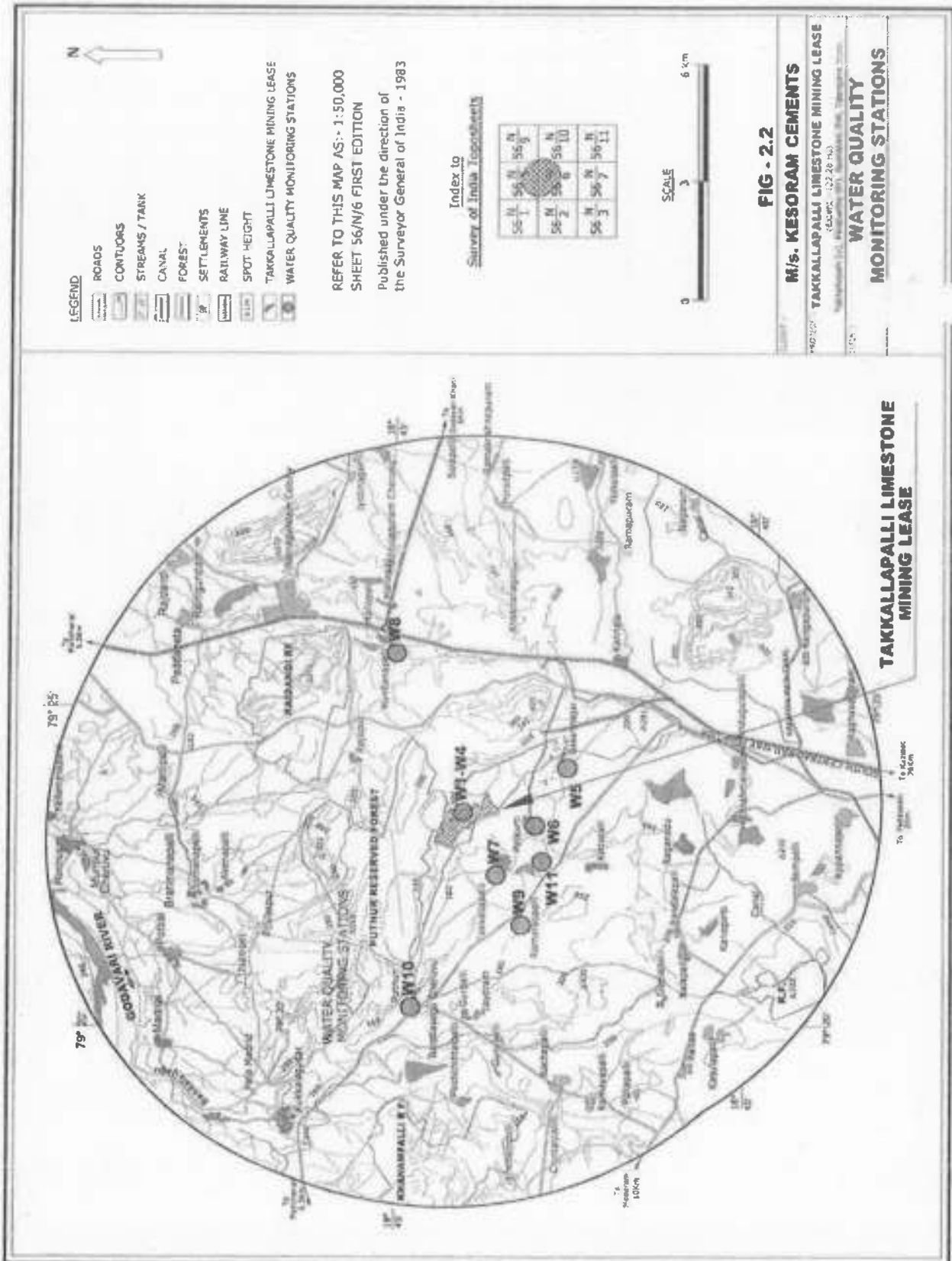
2.2.1 WATER QUALITY SAMPLE LOCATIONS

In order to assess the quality of water, Fourteen samples were collected from different locations like mine pit, surface water, ground water and potable water during the Winter season - 2023.

The location of water quality monitoring stations in and around the mines is given in Fig-2.2 & Table- 2.2.

TABLE-2.2
WATER SAMPLING LOCATIONS

| CODE | LOCATIONS | Distance w.r.t. Mine (km) | Direction w.r.t Mine | PURPOSE |
|------|-------------------------------------|---------------------------|----------------------|----------------|
| W-1 | Reservoir B-Block | --- | --- | Industrial use |
| W-2 | Reservoir E-Block | --- | --- | Industrial use |
| W-3 | Workshop Effluent | Adjacent | SSE | Industrial use |
| W-4 | Basanthnagar Village (open well) | 0.6 | S | Domestic |
| W-5 | Palakurthy Village | 0.9 | SW | Domestic |
| W-6 | Takkallapalli Village | 1.4 | W | Domestic |
| W-7 | Kundanapalli Village | 3.5 | NE | Domestic |
| W-8 | Takkallapalli Pond | 1.5 | W | Domestic |
| W-9 | Kannala Village | 1.7 | SE | Domestic |
| W-10 | Kothapalli Village | 3.0 | SSW | Domestic |
| W-11 | Raginedu Village | 4.3 | SW | Domestic |
| W-12 | Kurmapalli Village | 2.3 | SW | Domestic |
| W-13 | Ramaraopalli Village | 2.5 | SW | Domestic |
| W-14 | Near Laxmipuram Village (open well) | --- | --- | Domestic |

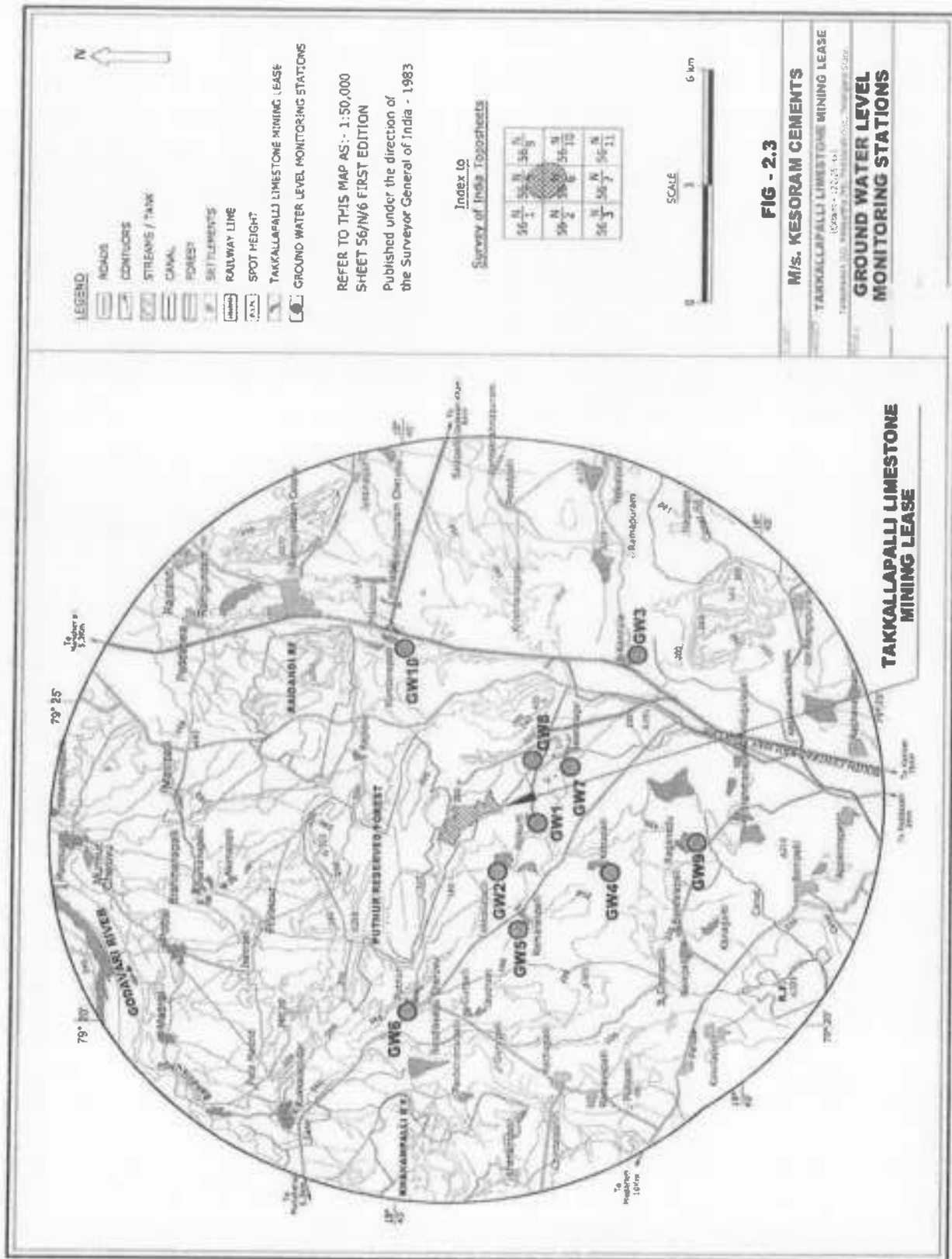


2.3 GROUND WATER LEVEL

Water levels were monitored at ten locations in and around the mines. The location of water level monitoring stations in and around the mines was given in Fig-2.3 & Table - 2.3.

TABLE-2.3
MONITORING LOCATIONS OF GROUND WATER LEVEL

| S.NO. | LOCATIONS | Distance w.r.t. Mine (km) | Direction w.e.t Mine |
|-------|-----------------------|---------------------------|----------------------|
| 1 | Basanth Nagar | 0.6 | S |
| 2 | Palakurthy Village | 0.9 | SW |
| 3 | Kundanapalli Village | 3.5 | NE |
| 4 | Kannala Village | 1.7 | SE |
| 5 | Takkallapalli Village | 1.4 | W |
| 6 | Kothapalli Village | 3.0 | SSW |
| 7 | Raginedu Village | 4.3 | SW |
| 8 | Kurmapalli Village | 2.3 | SW |
| 9 | Laxmipuram Village | -- | -- |
| 10 | Ramaraopalli Village | 2.5 | SW |

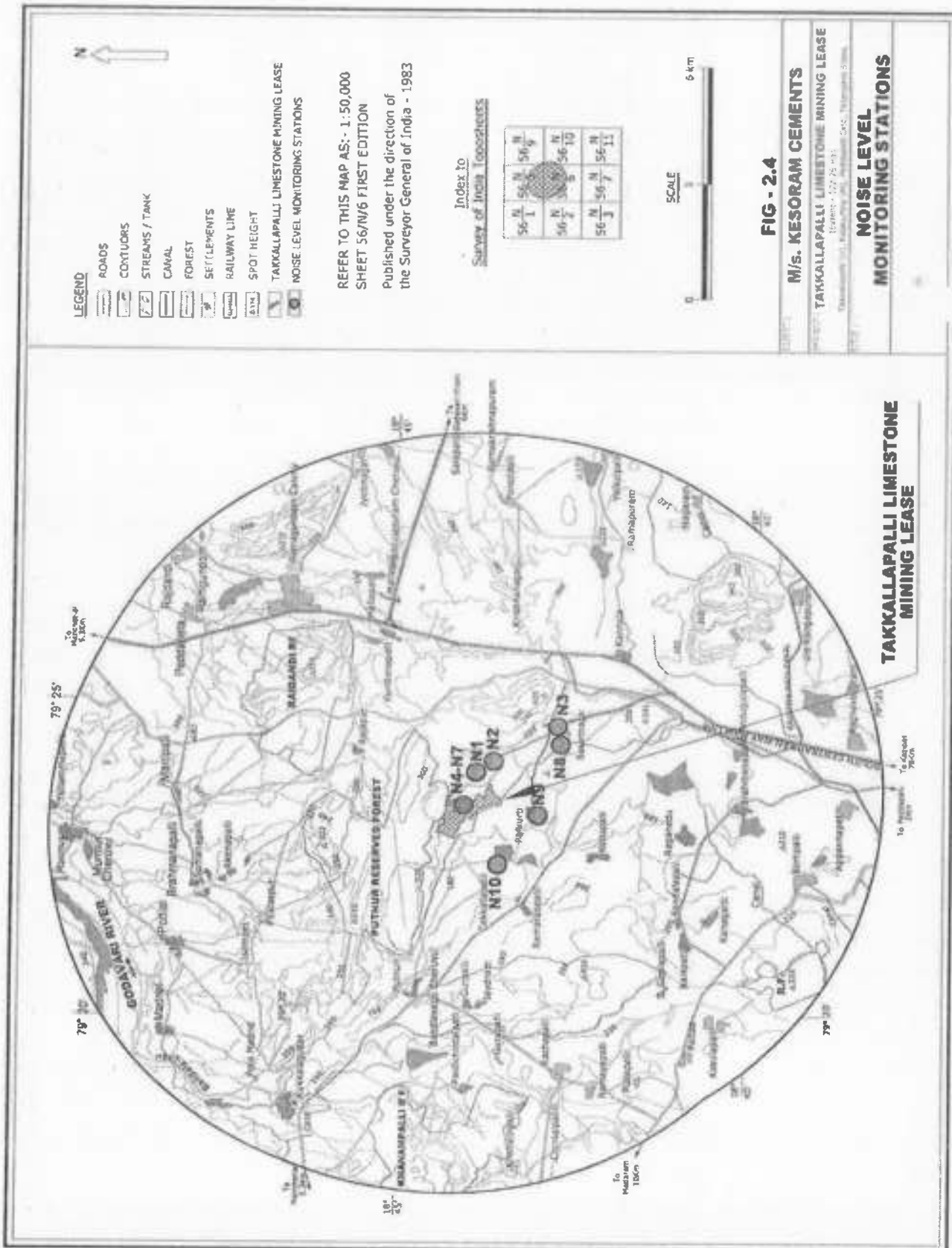


2.4 NOISE LEVEL MEASUREMENT

In order to assess the present quality of Noise level, Noise level measurement was carried at ten locations in and around the mine area. The locations of monitoring stations are given in Fig-2.4 and Table -2.4.

TABLE-2.4
NOISE LEVEL MEASUREMENT LOCATIONS

| Location Code | Location Name | Distance w.r.t. Mine (km) | Direction w.e.t. Mine |
|---------------|----------------------------|---------------------------|-----------------------|
| N 1 | Mines Office | 0.8 | E |
| N 2 | Near Haulage Road | 1.0 | ESE |
| N 3 | Near Loading Area | -- | -- |
| N 4 | Near Dumper Cabin | -- | -- |
| N 5 | Near Crusher Hopper | 2.4 | SE |
| N 6 | Near Drilling Cabin | -- | -- |
| N 7 | Near Dozing Area | -- | -- |
| N 8 | Near Workers Colony | 2.2 | SSE |
| N 9 | Near Palakurthy Village | 0.7 | SSW |
| N 10 | Near Takkallapalli Village | 1.2 | W |

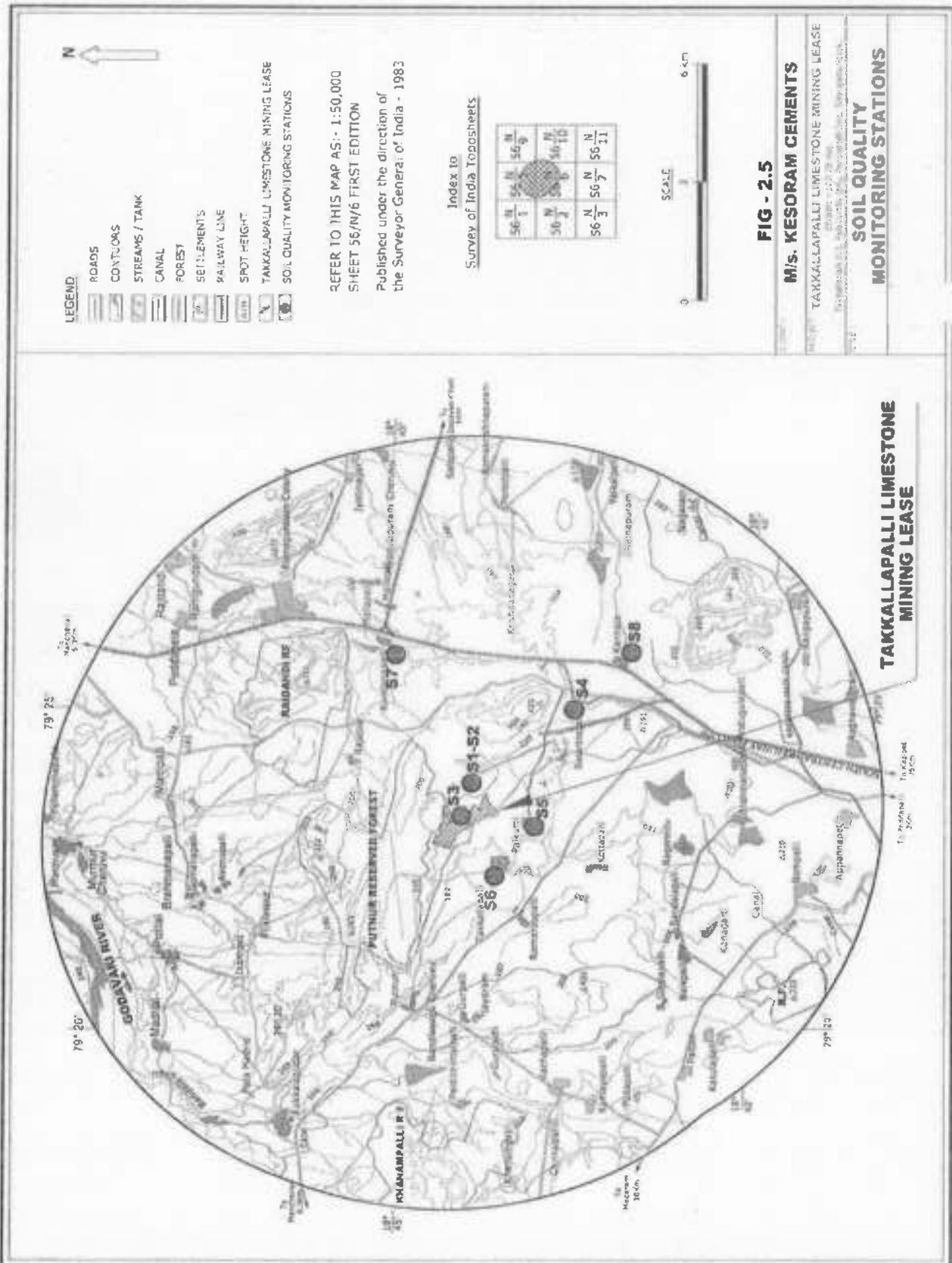


2.5 SOIL QUALITY

In order to assess the present quality of soil, nine samples were collected from different locations in and around the mines. Detailed description of the locations is given below. The location of the sampling stations is shown in Table-2.5 & Fig-2.5.

TABLE-2.5
DESCRIPTION OF THE SOIL SAMPLING LOCATIONS

| Location Code | Location Name | Distance w.r.t. Mine (km) | Direction w.e.t. Mine |
|---------------|-----------------------|---------------------------|-----------------------|
| S1 | E-Block Top Soil | --- | --- |
| S2 | F-Block Top Soil | --- | --- |
| S3 | I-Block Top Soil | --- | --- |
| S 4 | Basanthnagar Village | -- | -- |
| S5 | Palakurthy Village | 2.4 | WNW |
| S6 | Ramaraopalli Village | 4.7 | WNW |
| S7 | Kannala Village | 1.3 | SE |
| S8 | Takkallapalli Village | 3.6 | WNW |
| S9 | Raginedu Village | 4.4 | SW |



3.0 DATA ANALYSIS

3.1 AMBIENT AIR QUALITY OBSERVATION

Summary of the ambient air quality (AAQ) at each location is given in following table and data is given Annexure - I.

SUMMARY OF AAQ (8Hourly Average)

| Code No. | Locations | Concentration | | | | | | | | | | | |
|----------|-----------------------|----------------------------------|-----|---|------|-------------------------------------|------|--|------|--|------|-------------------------------|-----|
| | | SPM ($\mu\text{g}/\text{m}^3$) | | RPM(PM 10) ($\mu\text{g}/\text{m}^3$) | | PM 2.5 ($\mu\text{g}/\text{m}^3$) | | SO ₂ ($\mu\text{g}/\text{m}^3$) | | NO ₂ ($\mu\text{g}/\text{m}^3$) | | CO (mg/m^3) | |
| | | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min |
| A1 | Mines Office | 265 | 234 | 78.0 | 60.8 | 42.2 | 28.2 | 14.9 | 12.6 | 16.8 | 14.0 | <1 | <1 |
| A2 | Drilling Area | 318 | 272 | 85.5 | 83.0 | 36.5 | 31.1 | 13.3 | 11.2 | 15.6 | 13.2 | <1 | <1 |
| A3 | Loading Area | 315 | 275 | 89.7 | 86.0 | 38.5 | 35.1 | 16.3 | 13.0 | 18.8 | 15.3 | <1 | <1 |
| A4 | Haulage Road | 279 | 240 | 85.2 | 82.1 | 34.2 | 31.2 | 13.6 | 11.0 | 15.9 | 13.0 | <1 | <1 |
| A5 | Crushing Area | 248 | 226 | 83.9 | 80.2 | 34.6 | 31.5 | 14.6 | 11.9 | 16.9 | 13.5 | <1 | <1 |
| A6 | Colony(Guest House) | 128 | 110 | 56.5 | 53.4 | 21.2 | 18.2 | 13.6 | 10.3 | 15.5 | 12.5 | <1 | <1 |
| A7 | Workers Colony | 128 | 106 | 53.2 | 50.0 | 18.3 | 15.2 | 13.3 | 10.2 | 15.5 | 12.0 | <1 | <1 |
| A8 | Kannala Village | 148 | 120 | 64.2 | 60.2 | 19.9 | 16.5 | 13.6 | 10.2 | 15.9 | 12.5 | <1 | <1 |
| A9 | Palakurthy Village | 136 | 120 | 53.6 | 50.0 | 18.5 | 15.2 | 14.9 | 11.6 | 16.9 | 13.2 | <1 | <1 |
| A10 | Takkallapalli Village | 126 | 112 | 52.2 | 49.2 | 20.3 | 15.0 | 13.6 | 10.2 | 15.9 | 12.4 | <1 | <1 |
| A11 | Kothapalli Village | 112 | 90 | 47.2 | 44.0 | 17.2 | 14.0 | 14.6 | 11.2 | 16.9 | 13.1 | <1 | <1 |
| A12 | Kundanapalli Village | 108 | 92 | 49.6 | 46.2 | 17.6 | 14.3 | 13.9 | 11.0 | 15.5 | 13.4 | <1 | <1 |
| A13 | Raginedu Village | 112 | 91 | 51.5 | 48.0 | 18.6 | 15.0 | 13.6 | 10.2 | 15.3 | 12.0 | <1 | <1 |
| A14 | Kurmapalli Village | 109 | 90 | 50.9 | 47.1 | 17.7 | 14.2 | 13.5 | 11.3 | 15.6 | 13.5 | <1 | <1 |
| A15 | Putnuru Village | 119 | 96 | 50.3 | 47.7 | 18.6 | 15.2 | 12.6 | 9.4 | 14.8 | 11.2 | <1 | <1 |
| A16 | Ramaraopalli Village | 109 | 91 | 48.6 | 45.0 | 17.9 | 14.2 | 13.9 | 10.9 | 15.6 | 12.1 | <1 | <1 |

Note: CO at all locations was found <1 ppm

3.2 WATER QUALITY OBSERVATION

To assess the quality of water in and around the mines, the samples were collected at different locations during study period i.e. Winter - 2023. The Water Quality analysis report is enclosed as Annexure - II and the Summary of the same is given below:

3.2.1 RESERVOIR WATER/WORK SHOP/ TAKKALLAPALLI POND/MINE PIT

The water samples at these locations were collected at the Reservoir, Workshop Takkallapalli pond and mine pit. The wastewater after treatment at workshop is used for greenbelt development in mine area. On comparison of results with GSR 422 (E) (Inland Surface Water) standard, it was found that all parameters are well within the limits. The analysis results of the sample are given below. The following table shows the summary of the water quality.

Summary of Water Quality [Bore well]

| S.No | Parameters | Reservoir B-Block | Reservoir E-Block | Workshop Effluent | Takkalla palli pond | General Standards For Discharge Of Effluents Into In land Surface Water of GSR 422(E) |
|------|-----------------------------------|-------------------|-------------------|-------------------|---------------------|---|
| 1 | pH | 8.08 | 7.56 | 7.56 | 8.16 | 5.5-9.0 |
| 2 | BOD,mg/l | <4.0 | < 4.0 | 6.0 | <4.0 | 30 |
| 3 | COD,mg/l | 12.04 | 20.08 | 16.0 | <5.0 | 250 |
| 4 | TSS,mg/l | Nil | Nil | 12.0 | Nil | 100 |
| 5 | TDSmg/l | 440.0 | 423.0 | 740.0 | 546.0 | 2100 |
| 6 | Sulphatesas SO ₄ ,mg/l | 175.34 | 198.39 | 85.61 | 93.02 | 1000 |
| 7 | Chloridesas Cl,mg/l | 9.85 | 14.78 | 177.39 | 73.91 | 1000 |
| 8 | Oil&Grease, mg/l | <5.0 | <5.0 | 3.5 | <5.0 | 10 |

3.2.2 GROUND WATER [BORE WELL/OPEN WELL]

The water sample at these locations was collected at the borewells/openwell. The water is used for domestic purpose & drinking purpose. The analysis results of the sample are given below. The following table shows the summary of the water quality.

**Environmental Monitoring Report at Takkallapalli Limestone Mining Lease
Takkallapalli Village, Peddapalli District, Telangana State.**

Winter Season-2023

| S.No | Parameters | Basantnagar Village open wellwater | Palakurthy Village | Takkalla palli Village | Kundana palli Village | Kannala Village | Kotha palli Village | Raginedu Village | Kurmapalli Village | Drinking Water Standards IS-10500-2012 | |
|------|--|------------------------------------|--------------------|------------------------|-----------------------|-----------------|---------------------|------------------|--------------------|--|---|
| | | | | | | | | | | Acceptable Limits | Max Permissible limits in absence of alternate source |
| 1 | pH | 7.45 | 7.85 | 7.09 | 7.51 | 7.28 | 7.18 | 7.22 | 7.14 | 6.5-8.5 | No Relaxation |
| 2 | TDS, mg/l | 435.0 | 685.0 | 796.0 | 385.0 | 448.0 | 454.0 | 440.0 | 995.0 | 500 | 2000 |
| 3 | Total Hardness as CaCO ₃ , mg/l | 255.0 | 385.0 | 450.0 | 230.0 | 270.0 | 260.0 | 250.0 | 580.0 | 200 | 600 |
| 4 | Chlorides as Cl, mg/l | 56.66 | 98.55 | 123.18 | 49.27 | 44.34 | 51.74 | 59.13 | 162.61 | 250 | 1000 |
| 5 | Fluoride as F, mg/l | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.0 | 1.5 |
| 6 | Sulphates as SO ₄ , mg/l | 67.5 | 77.38 | 61.74 | 51.03 | 60.91 | 72.03 | 55.15 | 104.54 | 200 | 400 |
| 7 | Iron as Fe, mg/l | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | 1.0 | No Relaxation |

| S.No | Parameters | Ramaraopalli Village | Near Laxmipuram Village (open well) | Drinking Water Standards IS-10500-2012 | |
|------|--|----------------------|-------------------------------------|--|---|
| | | | | Acceptable Limits | Max Permissible limits in absence of alternate source |
| 1 | pH | 7.64 | 7.39 | 6.5-8.5 | No Relaxation |
| 2 | TDS, mg/l | 905.4 | 888.0 | 500 | 2000 |
| 3 | Total Hardness as CaCO ₃ , mg/l | 530.0 | 505.0 | 200 | 600 |
| 4 | Chlorides as Cl, mg/l | 135.5 | 142.9 | 250 | 1000 |
| 5 | Fluoride as F, mg/l | <0.5 | <0.5 | 1.0 | 1.5 |
| 6 | Sulphates as SO ₄ , mg/l | 99.19 | 110.31 | 200 | 400 |
| 7 | Iron as Fe, mg/l | <0.3 | <0.3 | 1.0 | No Relaxation |

3.3 GROUND WATER LEVEL MEASUREMENT

Ground Water Level Monitoring Data is given in **Annexure-III**.

3.4 NOISE LEVEL MEASUREMENT

Noise Level Measurement values is given in **Annexure-IV**.

3.5 SOIL QUALITY MONITORING

The analysis data for nine soil samples is given in **Annexure-V**.



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ISO 14001:2015 & OHSMS 45001:2018Plot No. 19, ALEAP Industrial Estate,
SY. No's 342, Near Pragathi Nagar,
Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Page 1 of 1

Report No: KIWIS/AAQ/COM/23/1520**Name and address of the client****M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease ,
Takkallapalli Village, Palakurthy Mandal,
Peddapalli District, Telangana state.**

Date of report : 06-03-2023
Sample Collected by : Kivis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Mines office**TEST RESULT**

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|-------|--------------------------|-------------|--------------------|----------------|-------------|-------------|------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 01.02.2023 | A | 28.1°C & 60% | 256 | 78.0 | 42.2 | 14.3 | 16.6 | <1 |
| 01.02.2023 | B | 28.0°C & 61% | 258 | 76.0 | 40.6 | 14.9 | 16.8 | <1 |
| 02.02.2023 | A | 29.5°C & 61% | 263 | 72.3 | 38.6 | 13.9 | 15.2 | <1 |
| 02.02.2023 | B | 28.1°C & 63% | 265 | 70.6 | 36.5 | 13.2 | 15.8 | <1 |
| 24.02.2023 | A | 28.5°C & 61% | 241 | 66.5 | 34.5 | 12.2 | 14.1 | <1 |
| 24.02.2023 | B | 27.9°C & 63% | 246 | 64.8 | 32.2 | 12.8 | 14.6 | <1 |
| 25.02.2023 | A | 28.4°C & 64% | 239 | 62.2 | 30.6 | 12.1 | 14.0 | <1 |
| 25.02.2023 | B | 27.2°C & 65% | 234 | 60.8 | 28.2 | 12.3 | 14.5 | <1 |
| Standards as per IBM | | | 700 (µg/m³) | 350 (µg/m³) | - | 5.0 (mg/m³) | 6.0 (mg/m³) | 40 (mg/m³) |
| NAAQ Standards for Rural and Residential Areas | | | - | - | 60 (µg/m³) | - | - | - |

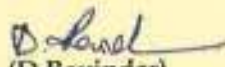
Note : Monitoring was carried out for 8 hourly intervals**A-shift - 06.00 to 14.00 hrs****B-Shift - 14.00 to 22.00 hrs**

Test reports shall not be reproduced except in full, without written approval of the laboratory


PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By


(D.Ravindar)
(Sr.Chemist)

Authorized Signatory


(N.Ajay Goud)
(Sr.Chemist)***End of the Report***

Note : This report is subject to the terms and conditions mentioned overleaf



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Report No: KIWIS/AAQ/COM/23/1521

Name and address of the client

**M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease ,
Takkallapalli Village, Palakurthy Mandal,
Peddapalli District, Telangana state.**

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Drilling Area

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Temp & Humidity (°C & %) | Result | | | | | |
|--|-------|--------------------------|-------------|--------------------|----------------|-------------|-------------|------------|
| | | | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 01.02.2023 | A | 28.1°C & 60% | 318 | 88.5 | 36.5 | 12.2 | 14.3 | <1 |
| 01.02.2023 | B | 28.0°C & 61% | 310 | 88.0 | 36.0 | 12.0 | 14.1 | <1 |
| 02.02.2023 | A | 29.5°C & 61% | 298 | 86.4 | 35.4 | 13.1 | 15.6 | <1 |
| 02.02.2023 | B | 28.1°C & 63% | 290 | 86.9 | 35.2 | 13.3 | 15.2 | <1 |
| 24.02.2023 | A | 28.5°C & 61% | 285 | 84.5 | 34.1 | 12.5 | 14.1 | <1 |
| 24.02.2023 | B | 27.9°C & 63% | 281 | 84.2 | 34.3 | 12.9 | 14.8 | <1 |
| 25.02.2023 | A | 28.4°C & 64% | 274 | 83.0 | 33.5 | 11.8 | 13.2 | <1 |
| 25.02.2023 | B | 27.2°C & 65% | 272 | 83.2 | 33.1 | 11.2 | 13.8 | <1 |
| Standards as per IBM | | | 700 (µg/m³) | 350 (µg/m³) | - | 5.0 (mg/m³) | 6.0 (mg/m³) | 40 (mg/m³) |
| NAAQ Standards for Rural and Residential Areas | | | - | - | 60 (µg/m³) | - | - | - |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By

(D.Ravindar)
(Sr.Chemist)

Authorized Signatory

(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf

Report No: KIWIS/AAQ/COM/23/1522

Name and address of the client

M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease ,
Takkallapalli Village, Palakurthy Mandal,
Peddapalli District, Telangana state.

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Loading Area

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|-------|--------------------------|-------------|--------------------|----------------|-------------|-------------|------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 01.02.2023 | A | 28.1°C & 60% | 315 | 89.5 | 38.2 | 16.3 | 18.8 | <1 |
| 01.02.2023 | B | 28.0°C & 61% | 310 | 89.7 | 38.5 | 16.0 | 18.2 | <1 |
| 02.02.2023 | A | 29.5°C & 61% | 298 | 88.6 | 37.6 | 15.9 | 17.1 | <1 |
| 02.02.2023 | B | 28.1°C & 63% | 292 | 88.2 | 37.2 | 15.2 | 17.3 | <1 |
| 24.02.2023 | A | 28.5°C & 61% | 284 | 87.5 | 36.5 | 14.5 | 16.2 | <1 |
| 24.02.2023 | B | 27.9°C & 63% | 282 | 87.2 | 36.0 | 14.2 | 16.5 | <1 |
| 25.02.2023 | A | 28.4°C & 64% | 279 | 86.2 | 35.8 | 13.9 | 15.5 | <1 |
| 25.02.2023 | B | 27.2°C & 65% | 275 | 86.0 | 35.1 | 13.0 | 15.3 | <1 |
| Standards as per IBM | | | 700 (µg/m³) | 350 (µg/m³) | - | 5.0 (mg/m³) | 6.0 (mg/m³) | 40 (mg/m³) |
| NAAQ Standards for Rural and Residential Areas | | | - | - | 60 (µg/m³) | - | - | - |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

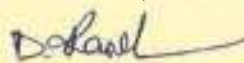
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PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023


PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By


 (D.Ravindar)
 (Sr.Chemist)

Authorized Signatory


 (N.Ajay Goud)
 (Sr.Chemist)

End of the Report



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Report No: KIWIS/AAQ/COM/23/1523

Name and address of the client

**M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease , Takkallapalli
Village, Palakurthy Mandal,
Peddapalli District, Telangana state.**

Date of report : 06-03-2023
Sample Collected by : Kivis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Haulage Road

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|-------|--------------------------|-------------|--------------------|----------------|-------------|-------------|------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 01.02.2023 | A | 28.1°C & 60% | 279 | 85.2 | 34.2 | 13.6 | 15.9 | <1 |
| 01.02.2023 | B | 28.0°C & 61% | 275 | 85.0 | 34.0 | 13.2 | 15.4 | <1 |
| 02.02.2023 | A | 29.5°C & 61% | 264 | 84.2 | 33.5 | 12.2 | 14.6 | <1 |
| 02.02.2023 | B | 28.1°C & 63% | 260 | 84.0 | 33.2 | 12.3 | 14.2 | <1 |
| 24.02.2023 | A | 28.5°C & 61% | 258 | 83.9 | 32.5 | 11.9 | 13.5 | <1 |
| 24.02.2023 | B | 27.9°C & 63% | 254 | 83.5 | 32.2 | 11.7 | 13.2 | <1 |
| 25.02.2023 | A | 28.4°C & 64% | 244 | 82.1 | 31.6 | 11.3 | 13.4 | <1 |
| 25.02.2023 | B | 27.2°C & 65% | 240 | 82.5 | 31.2 | 11.0 | 13.0 | <1 |
| Standards as per IBM | | | 700 (µg/m³) | 350 (µg/m³) | - | 5.0 (mg/m³) | 6.0 (mg/m³) | 40 (mg/m³) |
| NAAQ Standards for Rural and Residential Areas | | | - | - | 60 (µg/m³) | - | - | - |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

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PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By

(D.Ravindar)
(Sr.Chemist)

Authorized Signatory

(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



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Report No: KIWIS/AAQ/COM/23/1525

Name and address of the client

**M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease,
Takkallapalli Village, Palakurthy Mandal,
Peddapalli District, Telangana state.**

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Crushing Area

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shi ft | Result | | | | | | |
|--|--------|--------------------------|-------------|--------------------|----------------|-------------|-------------|------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 03.02.2023 | A | 28.1°C & 60% | 248 | 83.5 | 4.8 | 14.6 | 16.9 | <1 |
| 03.02.2023 | B | 28.0°C & 61% | 242 | 83.9 | 34.6 | 14.4 | 16.6 | <1 |
| 04.02.2023 | A | 29.5°C & 61% | 236 | 82.6 | 33.5 | 13.9 | 15.5 | <1 |
| 04.02.2023 | B | 28.1°C & 63% | 232 | 82.2 | 33.2 | 13.7 | 15.3 | <1 |
| 26.02.2023 | A | 28.5°C & 61% | 228 | 81.9 | 32.1 | 12.4 | 14.8 | <1 |
| 26.02.2023 | B | 27.9°C & 63% | 226 | 81.7 | 32.3 | 12.6 | 14.2 | <1 |
| 27.02.2023 | A | 28.4°C & 64% | 218 | 80.6 | 31.9 | 11.9 | 13.8 | <1 |
| 27.02.2023 | B | 27.2°C & 65% | 216 | 80.2 | 31.5 | 12.8 | 13.5 | <1 |
| Standards as per IBM | | | 700 (µg/m³) | 350 (µg/m³) | - | 5.0 (mg/m³) | 6.0 (mg/m³) | 40 (mg/m³) |
| NAAQ Standards for Rural and Residential Areas | | | - | - | 60 (µg/m³) | - | - | - |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By

(D.Ravindar)
(Sr.Chemist)

Authorized Signatory

(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf

**Report No: KIWIS/AAQ/COM/23/1526****Name and address of the client****M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease ,
Takkallapalli Village, Palakurthy Mandal,
Peddapalli District, Telangana state.**

Date of report : 06-03-2023
 Sample Collected by : Kiwis Eco Laboratories Private Limited
 Sample Condition : Samples received in Self sealed Covers and Sample Bottles
 Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
 Sample description/Code : Ambient Air Quality Monitoring
 Sub Contract Testing : NA

Location : Colony(Guest house)**TEST RESULT**

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|---------------------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 03.02.2023 | A | 28.1°C & 60% | 128 | 56.5 | 21.2 | 13.2 | 15.5 | <1 |
| 03.02.2023 | B | 28.0°C & 61% | 124 | 56.2 | 21.0 | 13.6 | 15.0 | <1 |
| 04.02.2023 | A | 29.5°C & 61% | 126 | 55.9 | 20.6 | 12.1 | 14.9 | <1 |
| 04.02.2023 | B | 28.1°C & 63% | 124 | 55.7 | 20.1 | 12.3 | 14.6 | <1 |
| 26.02.2023 | A | 28.5°C & 61% | 118 | 54.2 | 19.5 | 11.9 | 13.2 | <1 |
| 26.02.2023 | B | 27.9°C & 63% | 116 | 54.0 | 19.2 | 11.6 | 13.0 | <1 |
| 27.02.2023 | A | 28.4°C & 64% | 112 | 53.8 | 18.8 | 10.3 | 12.9 | <1 |
| 27.02.2023 | B | 27.2°C & 65% | 110 | 53.4 | 18.2 | 10.5 | 12.5 | <1 |
| NAAQ Standards for Rural and Residential Areas | 8-hourly standard | | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | 24- hourly standard | | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified |

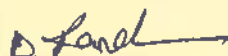
Note : Monitoring was carried out for 8 hourly intervals**A-shift - 06.00 to 14.00 hrs****B-Shift - 14.00 to 22.00 hrs**

Test reports shall not be reproduced except in full, without written approval of the laboratory


PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By


 (D.Ravindar)
 (Sr.Chemist)

Authorized Signatory


 (N.Ajay Goud)
 (Sr.Chemist)
End of the Report



KIWIS/QF/7.8/03

KIWIS

ECO LABORATORIES PVT. LTD.
 Recognized by MoEF, GOI, New Delhi,
 Certified by ISO 9001:2015,
 ISO 14001:2015 & OHSMS 45001:2018

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 Email : kiwislabhyd@gmail.com
 Ph : 99666 61485 / 040-23816333

Page 1 of 1

Report No: KIWIS/AAQ/COM/23/1527**Name and address of the client**

M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease ,
Takkallapalli Village, Palakurthy Mandal,
Peddapalli District, Telangana state.

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Workers Colony**TEST RESULT**

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shi ft | Result | | | | | | |
|--|---------------------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 03.02.2023 | A | 28.5°C & 60% | 128 | 53.2 | 18.3 | 13.3 | 15.5 | <1 |
| 03.02.2023 | B | 27.9°C & 61% | 124 | 53.0 | 18.0 | 13.1 | 15.1 | <1 |
| 04.02.2023 | A | 29.5°C & 59% | 118 | 52.5 | 17.8 | 12.8 | 14.5 | <1 |
| 04.02.2023 | B | 27.8°C & 60% | 116 | 52.1 | 17.4 | 12.4 | 14.3 | <1 |
| 26.02.2023 | A | 28.6°C & 60% | 112 | 51.6 | 16.6 | 11.6 | 13.6 | <1 |
| 26.02.2023 | B | 27.6°C & 61% | 110 | 51.4 | 16.3 | 11.2 | 13.2 | <1 |
| 27.02.2023 | A | 28.4°C & 62% | 108 | 50.8 | 15.5 | 10.5 | 12.4 | <1 |
| 27.02.2023 | B | 27.9°C & 63% | 106 | 50.2 | 15.2 | 10.2 | 12.0 | <1 |
| NAAQ Standards for Rural and Residential Areas | 8-hourly standard | Not specified | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | 24- hourly standard | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified | Not specified |

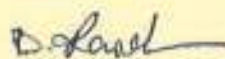
Note : Monitoring was carried out for 8 hourly intervals**A-shift - 06.00 to 14.00 hrs****B-Shift - 14.00 to 22.00 hrs**

Test reports shall not be reproduced except in full, without written approval of the laboratory

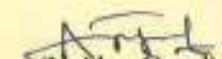
PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By


 (D.Ravindar)
 (Sr.Chemist)

Authorized Signatory


 (N.Ajay Goud)
 (Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



KIWIS/QF/7.8/03

KIWIS

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ISO 14001:2015 & OHSMS 45001:2018

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SY. No's 342, Near Pragathi Nagar,
Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Page 1 of 1

Report No: KIWIS/AAQ/COM/23/1528**Name and address of the client**

**M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease ,
Takkallapalli Village, Palakurthy Mandal,
Peddapalli District, Telangana state.**

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Kannala Village**TEST RESULT**

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|---------------------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 03.02.2023 | A | 29.5°C & 60% | 148 | 64.2 | 19.9 | 13.6 | 15.9 | <1 |
| 03.02.2023 | B | 28.0°C & 61% | 146 | 64.0 | 19.6 | 13.2 | 15.2 | <1 |
| 04.02.2023 | A | 29.2°C & 60% | 136 | 63.1 | 18.6 | 12.5 | 14.5 | <1 |
| 04.02.2023 | B | 28.3°C & 60% | 132 | 63.3 | 18.2 | 12.1 | 14.2 | <1 |
| 26.02.2023 | A | 28.9°C & 60% | 128 | 62.2 | 17.7 | 11.6 | 13.6 | <1 |
| 26.02.2023 | B | 27.6°C & 61% | 124 | 62.5 | 17.3 | 11.3 | 13.1 | <1 |
| 27.02.2023 | A | 28.7°C & 62% | 122 | 60.6 | 16.8 | 10.9 | 12.9 | <1 |
| 27.02.2023 | B | 27.5°C & 63% | 120 | 60.2 | 16.5 | 10.2 | 12.5 | <1 |
| NAAQ Standards for Rural and Residential Areas | 8-hourly standard | Not specified | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | 24- hourly standard | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals**A-shift - 06.00 to 14.00 hrs****B-Shift - 14.00 to 22.00 hrs**

Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By

(D.Ravindar)
(Sr.Chemist)

Authorized Signatory

(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



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Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Page 1 of 1

Report No: KIWIS/AAQ/COM/23/1529

Name and address of the client

**M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease , Takkallapalli
Village, Palakurthy Mandal,
Peddapalli District, Telangana state.**

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Palakurthy Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shi ft | Result | | | | | | |
|--|---------------------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 05.02.2023 | A | 29.2°C & 60% | 136 | 53.6 | 18.5 | 14.4 | 16.9 | <1 |
| 05.02.2023 | B | 27.8°C & 61% | 134 | 53.0 | 18.2 | 14.9 | 16.7 | <1 |
| 06.02.2023 | A | 29.6°C & 60% | 132 | 52.5 | 17.7 | 13.6 | 15.5 | <1 |
| 06.02.2023 | B | 28.0°C & 62% | 130 | 52.1 | 17.3 | 13.1 | 15.1 | <1 |
| 28.02.2023 | A | 28.9°C & 60% | 128 | 51.6 | 16.2 | 12.5 | 14.8 | <1 |
| 28.02.2023 | B | 27.4°C & 60% | 124 | 51.9 | 16.1 | 12.2 | 14.4 | <1 |
| 01.03.2023 | A | 28.6°C & 62% | 122 | 50.2 | 15.9 | 11.8 | 13.2 | <1 |
| 01.03.2023 | B | 27.5°C & 63% | 120 | 50.0 | 15.2 | 11.6 | 13.5 | <1 |
| NAAQ Standards for Rural and Residential Areas | 8-hourly standard | Not specified | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | 24- hourly standard | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By

(D.Ravindar)
(Sr.Chemist)

Authorized Signatory

(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



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Plot No. 19, ALEAP Industrial Estate,
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Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/AAQ/COM/23/1530

Name and address of the client

*M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease , Takkallapalli
Village, Palakurthy Mandal,
Peddapalli District, Telangana state.*

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Takkallapalli Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Sh ift | Result | | | | | | |
|--|--------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 05.02.2023 | A | 29.5°C & 60% | 126 | 52.2 | 20.3 | 13.6 | 15.9 | <1 |
| 05.02.2023 | B | 27.8°C & 61% | 124 | 52.0 | 18.8 | 13.1 | 15.2 | <1 |
| 06.02.2023 | A | 29.2°C & 60% | 122 | 51.6 | 18.5 | 12.8 | 14.5 | <1 |
| 06.02.2023 | B | 28.1°C & 62% | 120 | 51.8 | 17.6 | 12.0 | 14.3 | <1 |
| 28.02.2023 | A | 28.6°C & 60% | 118 | 50.9 | 17.4 | 11.6 | 13.8 | <1 |
| 28.02.2023 | B | 27.1°C & 61% | 116 | 50.7 | 16.8 | 11.4 | 13.6 | <1 |
| 01.03.2023 | A | 28.6°C & 61% | 114 | 49.8 | 16.2 | 10.6 | 12.8 | <1 |
| 01.03.2023 | B | 27.5°C & 62% | 112 | 49.2 | 15.2 | 10.2 | 12.4 | <1 |
| NAAQ Standards for Rural and Residential Areas | | 8-hourly standard | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | | 24- hourly standard | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By

(D.Ravindar)
(Sr.Chemist)

Authorized Signatory

(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Report No: KIWIS/AAQ/COM/23/1531

Name and address of the client

**M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease ,
Takkallapalli Village, Palakurthy Mandal,
Peddapalli District, Telangana state.**

Date of report : 06-03-2023
Sample Collected by : KIWIS Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Kothapalli Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shi ft | Result | | | | | | |
|--|--------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 05.02.2023 | A | 29.8°C & 60% | 112 | 47.2 | 17.2 | 14.2 | 16.9 | <1 |
| 05.02.2023 | B | 28.0°C & 61% | 110 | 47.0 | 17.0 | 14.6 | 16.2 | <1 |
| 06.02.2023 | A | 29.6°C & 61% | 108 | 46.5 | 16.5 | 13.2 | 15.5 | <1 |
| 06.02.2023 | B | 28.2°C & 62% | 100 | 46.3 | 16.2 | 13.0 | 15.3 | <1 |
| 28.02.2023 | A | 28.7°C & 61% | 98 | 45.2 | 15.5 | 12.5 | 14.6 | <1 |
| 28.02.2023 | B | 27.3°C & 60% | 96 | 45.1 | 15.8 | 12.8 | 14.8 | <1 |
| 01.03.2023 | A | 28.9°C & 61% | 92 | 44.2 | 14.2 | 11.2 | 13.3 | <1 |
| 01.03.2023 | B | 27.3°C & 63% | 90 | 44.0 | 14.0 | 11.6 | 13.1 | <1 |
| NAAQ Standards for Rural and Residential Areas | | 8-hourly standard | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | | 24- hourly standard | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs


Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By


(D.Ravindar)
(Sr.Chemist)

Authorized Signatory


(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



KIWIS/QF/7.8/03

KIWISECO LABORATORIES PVT. LTD.
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Report No: KIWIS/AAQ/COM/23/1532

Name and address of the client

M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease,
Takkallapalli Village, Palakurthy Mandal,
Peddapalli District, Telangana state.Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self-sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Kundanapalli Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|---------------------|--------------------------|--------------------------|---------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m ³) | RPM(PM 10) (µg/m ³) | PM 2.5 (µg/m ³) | SO ₂ (µg/m ³) | NO ₂ (µg/m ³) | CO (mg/m ³) |
| 05.02.2023 | A | 29.9°C & 60% | 108 | 49.6 | 17.6 | 12.2 | 14.9 | <1 |
| 05.02.2023 | B | 28.5°C & 62% | 106 | 49.3 | 17.3 | 12.6 | 14.7 | <1 |
| 06.02.2023 | A | 29.6°C & 60% | 104 | 48.5 | 16.5 | 13.2 | 15.1 | <1 |
| 06.02.2023 | B | 28.1°C & 61% | 102 | 48.2 | 16.2 | 13.9 | 15.5 | <1 |
| 28.02.2023 | A | 28.0°C & 60% | 98 | 47.7 | 15.8 | 12.2 | 14.8 | <1 |
| 28.02.2023 | B | 27.0°C & 61% | 96 | 47.3 | 15.4 | 12.5 | 14.6 | <1 |
| 01.03.2023 | A | 28.9°C & 62% | 94 | 46.5 | 14.7 | 11.6 | 13.9 | <1 |
| 01.03.2023 | B | 27.2°C & 62% | 92 | 46.2 | 14.3 | 11.9 | 13.4 | <1 |
| NAAQ Standards for Rural and Residential Areas | 8-hourly standard | | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m ³) |
| | 24- hourly standard | | 200(µg/m ³) | 100(µg/m ³) | 60(µg/m ³) | 80(µg/m ³) | 80(µg/m ³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By

(D.Ravindar)
(Sr.Chemist)

Authorized Signatory

(N.AjayGond)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



KIWIS/QF/7.8/03

KIWIS

ECO LABORATORIES PVT. LTD.
Recognized by MoEF, GOI, New Delhi,
Certified by ISO 9001:2015,
ISO 14001:2015 & OHSMS 45001:2018

Plot No. 19, ALEAP Industrial Estate,
SY. No's 342, Near Pragathi Nagar,
Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/AAQ/COM/23/1533

Name and address of the client

**M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease,
Takkallapalli Village, Palakurthy Mandal,
Peddapalli District, Telangana state.**

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Raginedu Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shi ft | Result | | | | | | |
|--|--------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 07-01-1900 | A | 28.9°C & 62% | 112 | 51.5 | 18.6 | 12.3 | 14.4 | <1 |
| 07.02.2023 | B | 28.3°C & 62% | 110 | 51.0 | 18.2 | 12.1 | 14.0 | <1 |
| 08.02.2023 | A | 29.0°C & 61% | 108 | 50.6 | 17.5 | 13.6 | 15.3 | <1 |
| 08.02.2023 | B | 28.8°C & 61% | 106 | 50.3 | 17.3 | 13.5 | 15.1 | <1 |
| 02.03.2023 | A | 28.1°C & 62% | 97 | 49.8 | 16.6 | 11.5 | 13.6 | <1 |
| 02.03.2023 | B | 27.0°C & 62% | 95 | 49.4 | 16.8 | 11.3 | 13.1 | <1 |
| 03.03.2023 | A | 28.7°C & 63% | 93 | 48.2 | 15.2 | 10.4 | 12.5 | <1 |
| 03.03.2023 | B | 27.4°C & 64% | 91 | 48.0 | 15.0 | 10.2 | 12.0 | <1 |
| NAAQ Standards for Rural and Residential Areas | | 8-hourly standard | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | | 24- hourly standard | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By

(D.Ravindar)
(Sr.Chemist)

Authorized Signatory

(N.Ajay Soud)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



•••KIWIS/QF/7.8/03

KIWIS

ECO LABORATORIES PVT. LTD.
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ISO 14001:2015 & OHSMS 45001:2018

Plot No. 19, ALEAP Industrial Estate,
SY. No's 342, Near Pragathi Nagar,
Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/AAQ/COM/23/1534

Name and address of the client

**M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease ,
Takkallapalli Village, Palakurthy Mandal,
Peddapalli District, Telangana state.**

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Kurmapalli Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|---------------------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 07-01-1900 | A | 28.9°C & 62% | 109 | 50.2 | 17.7 | 12.6 | 14.9 | <1 |
| 07.02.2023 | B | 28.3°C & 62% | 107 | 50.9 | 17.3 | 12.4 | 14.7 | <1 |
| 08.02.2023 | A | 29.0°C & 61% | 103 | 49.6 | 16.9 | 13.5 | 15.6 | <1 |
| 08.02.2023 | B | 28.8°C & 61% | 101 | 49.3 | 16.4 | 13.0 | 15.1 | <1 |
| 02.03.2023 | A | 28.1°C & 62% | 98 | 48.5 | 15.8 | 12.2 | 14.2 | <1 |
| 02.03.2023 | B | 27.0°C & 62% | 96 | 48.2 | 15.2 | 12.4 | 14.6 | <1 |
| 03.03.2023 | A | 28.7°C & 63% | 92 | 47.1 | 14.2 | 11.6 | 13.9 | <1 |
| 03.03.2023 | B | 27.4°C & 64% | 90 | 47.3 | 14.6 | 11.3 | 13.5 | <1 |
| NAAQ Standards for Rural and Residential Areas | 8-hourly standard | | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | 24- hourly standard | | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

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PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By

(D.Ravindar)
(Sr.Chemist)

Authorized Signatory

(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



-KIWIS/QF/7.8/03

KIWIS

ECO LABORATORIES PVT. LTD.
Recognized by MoEF, GOI, New Delhi,
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Plot No. 19, ALEAP Industrial Estate,
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Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/AAQ/COM/23/1535

Name and address of the client

**M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease ,
Takkallapalli Village, Palakurthy Mandal,
Peddapalli District, Telangana state.**

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelining (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Putnuru Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shi ft | Result | | | | | | |
|--|---------------------|-----------------------------|----------------|-----------------------|-------------------|----------------|----------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 07-01-1900 | A | 30.2°C & 62% | 119 | 50.3 | 18.6 | 12.6 | 14.8 | <1 |
| 07.02.2023 | B | 28.1°C & 62% | 117 | 50.2 | 18.4 | 12.3 | 14.6 | <1 |
| 08.02.2023 | A | 29.9°C & 61% | 114 | 49.8 | 17.8 | 11.5 | 13.3 | <1 |
| 08.02.2023 | B | 27.2°C & 61% | 112 | 49.7 | 17.4 | 11.7 | 13.1 | <1 |
| 02.03.2023 | A | 28.6°C & 62% | 108 | 48.5 | 16.2 | 10.3 | 12.8 | <1 |
| 02.03.2023 | B | 27.3°C & 62% | 106 | 48.1 | 16.0 | 10.6 | 12.5 | <1 |
| 03.03.2023 | A | 29.8°C & 63% | 98 | 47.9 | 15.8 | 9.8 | 11.9 | <1 |
| 03.03.2023 | B | 27.0°C & 64% | 96 | 47.7 | 15.2 | 9.4 | 11.2 | <1 |
| NAAQ Standards for Rural and Residential Areas | 8-hourly standard | | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | 24- hourly standard | | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By

(D.Ravindar)
(Sr.Chemist)

Authorized Signatory

(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



..KIWIS/QF/7.8/03

KIWIS

ECO LABORATORIES PVT. LTD.
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Plot No. 19, ALEAP Industrial Estate,
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Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Page 1 of 1

Report No: KIWIS/AAQ/COM/23/1536

Name and address of the client

**M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease ,
Takkallapalli Village, Palakurthy Mandal,
Peddapalli District, Telangana state.**

Date of report : 06-03-2023
Sample Collected by : KIWIS Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Ramaraopalli Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|---------------------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 07-01-1900 | A | 29.5°C & 62% | 109 | 48.6 | 17.9 | 13.6 | 15.6 | <1 |
| 07.02.2023 | B | 28.0°C & 62% | 107 | 48.2 | 17.5 | 13.9 | 15.4 | <1 |
| 08.02.2023 | A | 29.0°C & 61% | 104 | 47.8 | 16.5 | 12.2 | 14.8 | <1 |
| 08.02.2023 | B | 28.0°C & 61% | 101 | 47.4 | 16.2 | 12.4 | 14.4 | <1 |
| 02.03.2023 | A | 28.5°C & 62% | 97 | 46.5 | 15.8 | 11.6 | 13.9 | <1 |
| 02.03.2023 | B | 27.4°C & 62% | 95 | 46.1 | 15.1 | 11.1 | 13.3 | <1 |
| 03.03.2023 | A | 28.3°C & 63% | 93 | 45.5 | 14.8 | 10.5 | 12.5 | <1 |
| 03.03.2023 | B | 27.1°C & 64% | 91 | 45.0 | 14.2 | 10.1 | 12.1 | <1 |
| NAAQ Standards for Rural and Residential Areas | 8-hourly standard | | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | 24- hourly standard | | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By

(D.Ravindar)
(Sr.Chemist)

Authorized Signatory

(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf

Report No:KIWIS/NOISE/COM/23/1524
 Name and address of the client:

M/s.Kesoram Industries Limited
Takkallapalli Limestone Mining Lease ,
Takkallapalli Village, Palakurthy Mandal,
Peddapalli District, Telangana state.

Date of report : 06-03-2023
 Date of sampling : 01-02-2023 to 03-02-2023
 Sample registration no : NOISE/COM/02/23/2320-2323,2332-2335 &2344-2345
 Sample Collected by : Kiwis Eco Laboratories Private Limited
 Sample description/Code : Noise level Monitoring
 Sub Contract Testing : NA

TESTRESULT

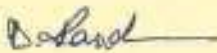
| S.No | Sampling Location | Date of Monitoring | Units | Result | | Standard Limit | |
|------|----------------------------|--------------------|--------|---------|-----------|----------------|------------|
| | | | | Leq Day | Leq Night | Day Time | Night time |
| 1 | Mines Office | 01-02-2023 | dB (A) | 65.2 | 55.9 | 75 | 70 |
| 2 | Near Haulage Road | 01-02-2023 | dB (A) | 64.6 | 54.5 | | |
| 3 | Near Loading Area | 01-02-2023 | dB (A) | 71.8 | 60.8 | | |
| 4 | Near Dumper Cabin | 01-02-2023 | dB (A) | 68.8 | 59.2 | | |
| 5 | Near Crusher Hopper | 02-02-2023 | dB (A) | 70.5 | 60.6 | | |
| 6 | Near Drilling Cabin | 02-02-2023 | dB (A) | 73.1 | 58.7 | | |
| 7 | Near Dozing Area | 02-02-2023 | dB (A) | 70.2 | 58.8 | | |
| 8 | Near Workers Colony | 02-02-2023 | dB (A) | 52.3 | 41.9 | 55 | 45 |
| 9 | Near Palakurthy Village | 03-02-2023 | dB (A) | 51.6 | 42.2 | | |
| 10 | Near Takkallapalli Village | 03-02-2023 | dB (A) | 51.8 | 43.4 | | |

Opinion and interpretation: Nil


NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
 Integrated Sound Level Meter, Make:LUTRON, ModelNo:SL- 4033 SD, Calibration valid up to:01-08-2023

Checked By


 (D.Ravindar)
 (Sr.Chemist)

Authorized Signatory


 (N.Ajay Goud)
 (Sr.Chemist)

End of the Report

Report No: **KIWIS/W/COM/23/1415**

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Limestone mining, Lease,
Thakkellapalli Village, Plakurthy Mandal,
Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 Sample Collected by : Kiwis Eco Laboratories Private Limited
 Date of sampling : 24-02-2023 Sample Collected in : Samples received in Plastic bottles
 Sample received on : 25-02-2023 Sampling Procedure : KIWIS/SOP/ Lab - 258
 Analysis starting date : 25-02-2023 Sample registration no : W/COM/02/23/2237
 Analysis completion date : 06-03-2023 Sample description/Code : Water Quality Monitoring
 Sub Contract Testing : NA Name of the Location : Palakurthy Nagar Village

Environmental Conditions During Monitoring: 27.8°C & 48%

1. W/COM/02/23/2237: PN/24/02/2023/01 (Palakurthy Nagar Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------|-------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H* B | 7.85 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 1060.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 685.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 295.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 385.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 70.84 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 50.31 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 98.55 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 77.38 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf

Report No: KIWIS/W/COM/23/1414

Name and address of the client

M/s. Kesoram Industries Limited
 Thakkellapalli Limestone mining, Lease,
 Thakkellapalli Village, Plakurthy Mandal,
 Peddapalli District, Telangana State
 Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2236
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Basanth Nagar Village

Environmental Conditions During Monitoring: 27.8°C & 48%

1. W/COM/02/23/2236: BN/24/02/2023/01 (Basantn Nagar Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------|-------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H+B | 7.45 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 640.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 435.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 180.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 255.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 60.72 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 24.54 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 56.66 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 67.5 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



KIWIS/QF/7.8/01

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Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Page 2 of 2

Report No: KIWIS/W/COM/23/1414

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|------------|-----------------------------|--------|------------------------------|---|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 0.54 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 35.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 2.6 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁺⁶ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN ⁻ | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |


Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By


(O. Chowdeswararao)
(Sr.Chemist)

Authorized Signatory


(Dr.NaliniVijayalaxmi)
(Manager Laboratory)***End of the Report***

Note : This report is subject to the terms and conditions mentioned overleaf

Report No: KIWIS/W/COM/23/1415

Samples are analyzed "as is where basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 3.5 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 68.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 6.6 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁶⁺ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN ⁻ | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |

Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

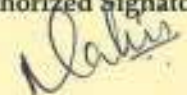
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Checked By



(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory



(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf

**Report No: KIWIS/W/COM/23/1416****Name and address of the client****M/s. Kesoram Industries Limited**
Thakkellapalli Limestone mining, Lease,
Thakkellapalli Village, Plakurthy Mandal,
Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited

Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles

Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258

Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2238

Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring

Sub Contract Testing : NA **Name of the Location** : Kundanapalli Village

Environmental Conditions During Monitoring: 27.5°C & 47%**1. W/COM/02/23/2238: KD/24/02/2023/01 (Kundanapalli Village)**

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------|-------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H* B | 7.51 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 628.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 385.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 165.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 230.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 56.67 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 20.86 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl ⁻ B | 49.27 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 51.03 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



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Ranga Reddy Dist. Telangana - 500 090
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/W/COM/23/1416

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 0.84 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 28.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 3.7 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁺⁶ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN ⁻ | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coli form | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |


Methods follow: APHA 23rd Edition

NA: Not Applicable


Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By


(O. Chowdeswararao)
(Sr.Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



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Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Page 1 of 2

Report No: KIWIS/W/COM/23/1417

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Limestone mining, Lease,
Thakkellapalli Village, Plakurthy Mandal,
Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 Sample Collected by : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 Sample Collected in : Samples received in Plastic bottles
Sample received on : 25-02-2023 Sampling Procedure : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 Sample registration no : W/COM/02/23/2239
Analysis completion date : 06-03-2023 Sample description/Code : Water Quality Monitoring
Sub Contract Testing : NA Name of the Location : Kannala Village

Environmental Conditions During Monitoring: 27.6°C & 47%

1. W/COM/02/23/2239: K/24/02/2023/01 (Kannala Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------------|-------------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H* B | 7.28 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 683.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 448.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 210.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 270.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 62.74 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 26.99 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 44.34 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 60.91 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



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Ph : 99666 61485 / 040-23816333

Page 2 of 2

Report No: **KIWIS/W/COM23/1417**

Samples are analyzed "as Received basis"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 0.62 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 25.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 3.6 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁺⁶ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN ⁻ | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |

Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By

(O. Chowdeswararao)
(Sr.Chemist)

Authorized Signatory

(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



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Page 1 of 2

Report No: KIWIS/W/COM/23/1418

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Limestone mining, Lease,
Thakkellapalli Village, Plakurthy Mandal,
Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2240
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Thakkellapalli Village

Environmental Conditions During Monitoring: 27.8°C & 46%

1. W/COM/02/23/2240: TK/24/02/2023/01 (Thakkellapalli Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------|-------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H+B | 7.09 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 1254.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 796.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 350.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 450.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 101.2 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 47.85 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 ClB | 123.18 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 61.74 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



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Page 2 of 2

Report No: KIWIS/W/COM/23/1418

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|------------|-----------------------------|--------|------------------------------|---|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 12.5 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 85.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 3 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁶⁺ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN ⁻ | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |

Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By

(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory

(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)***End of the Report***

Note : This report is subject to the terms and conditions mentioned overleaf



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Page 1 of 2

Report No: KIWIS/W/COM/23/1419

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Limestone mining, Lease,
Thakkellapalli Village, Plakurthy Mandal,
Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2241
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Kothapalli Village

Environmental Conditions During Monitoring: 27.6°C & 47%

1. W/COM/02/23/2241: KP/24/02/2023/01 (Kothapalli Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------|-------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H+ B | 7.18 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 655.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 454.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 180.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 260.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 72.86 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 18.4 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 51.74 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 72.03 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



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KIWIS

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Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Page 2 of 2

Report No: KIWS/W/COM/23/1419

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|------------|-----------------------------|--------|------------------------------|---|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 1.15 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 33.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 3.6 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁺⁶ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN ⁻ | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |

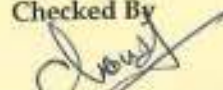
Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



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Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

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Report No: KIWIS/W/COM/23/1420

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Limestone mining, Lease,
Thakkellapalli Village, Plakurthy Mandal,
Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2242
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Raginedu Village
Environmental Conditions During Monitoring: 27.7°C & 48%

1. W/COM/02/23/2242: R/24/02/2023/01 (Raginedu Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------|-------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H+B | 7.22 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 1209.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 440.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 195.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 250.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 58.69 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 24.54 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 59.13 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 55.15 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



KIWIS/QF/7.8/01

KIWISECO LABORATORIES PVT. LTD.
Recognized by MoEF, GOI, New Delhi,
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Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Page 2 of 2

Report No: KIWIS/W/COM/23/1420

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 1.25 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 40.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 2.4 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁺⁶ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN- | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |

Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By

(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory

(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)***End of the Report***

Note : This report is subject to the terms and conditions mentioned overleaf



KIWIS/QF/7.8/01

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Page 1 of 2

Report No: KIWIS/W/COM/23/1421

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Limestone mining, Lease,
Thakkellapalli Village, Plakurthy Mandal,
Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2243
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Kurmapalli Village

Environmental Conditions During Monitoring: 27.8°C & 47%

1. W/COM/02/23/2243: KM/24/02/2023/01 (Kurmapalli Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------|-------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H* B | 7.14 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 1468.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 995.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 400.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 580.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 107.27 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 76.08 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 ClB | 162.61 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 104.54 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf

**Report No: KIWIS/W/COM/23/1421**

Samples are analyzed "as Received basis is"


| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 15.2 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 110.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 3.3 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁺⁶ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN- | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |

Methods follow: APHA 23rd Edition

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)
End of the Report

**Report No: KIWIS/W/COM/23/1422****Name and address of the client**

M/s. Kesoram Industries Limited
Thakkellapalli Limestone mining, Lease,
Thakkellapalli Village, Plakurthy Mandal,
Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2244
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Laxmipuram Village

Environmental Conditions During Monitoring: 27.9°C & 48%**1. W/COM/02/23/2244: LP/24/02/2023/01 (Laxmipuram Village)**

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------|-------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H+B | 7.39 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 1346.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 888.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 340.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 505.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 111.32 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 55.22 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 142.9 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 110.31 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



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Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Page 2 of 2

Report No: KIWIS/W/COM/23/1422

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|------------|-----------------------------|--------|------------------------------|---|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 16.4 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 92.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 4.3 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁶⁺ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN ⁻ | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |


Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)***End of the Report***

Note : This report is subject to the terms and conditions mentioned overleaf



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Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Page 1 of 2

Report No: KIWIS/W/COM/23/1423

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Limestone mining, Lease,
Thakkellapalli Village, Plakurthy Mandal,
Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 Sample Collected by : KIWIS Eco Laboratories Private Limited
Date of sampling : 24-02-2023 Sample Collected in : Samples received in Plastic bottles
Sample received on : 25-02-2023 Sampling Procedure : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 Sample registration no : W/COM/02/23/2245
Analysis completion date : 06-03-2023 Sample description/Code : Water Quality Monitoring
Sub Contract Testing : NA Name of the Location : Ramaraopalli Village

Environmental Conditions During Monitoring: 27.6°C & 47%

1. W/COM/02/23/2245: RP/24/02/2023/01 (Ramaraopalli Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------|-------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H* B | 7.64 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 1408.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 905.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 385.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 530.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 80.96 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 79.76 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 135.5 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 99.19 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf

**Report No: KIWIS/W/COM/23/1423**

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 12.8 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 84.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 5.1 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁶⁺ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN- | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |


Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)
End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



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Page 1 of 2

Report No: KIWIS/W/COM/23/1424

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Limestone mining, Lease,
Thakkellapalli Village, Plakurthy Mandal,
Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 Sample Collected by : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 Sample Collected in : Samples received in Plastic bottles
Sample received on : 25-02-2023 Sampling Procedure : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 Sample registration no : W/COM/02/23/2246
Analysis completion date : 06-03-2023 Sample description/Code : Water Quality Monitoring
Sub Contract Testing : NA Name of the Location : Putnuru Village

Environmental Conditions During Monitoring: 28.0°C & 49%

1. W/COM/02/23/2246: P/24/02/2023/01 (Putnuru Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------|-------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H-B | 7.15 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 1241.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 835.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 320.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 480.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 89.05 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 62.58 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 147.82 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 86.84 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf

**Report No: KIWIS/W/COM/23/1424**

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 16.1 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 91.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 4.2 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁺⁶ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN- | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |


Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)
End of the Report



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Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/W/COM/23/1410

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Limestone mining, Lease,
Thakkellapalli Village, Plakurthy Mandal,
Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2247
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Reservoir E-Block
Environmental Conditions During Monitoring: 27.8°C & 49%

1 W/COM/02/23/2247: Reservoir E-Block

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 2296-1992 Inland Surface Water Standards | | | | |
|------|---------------------------------|-------|-----------------------------|--------|---|---------|---------|---------|---------|
| | | | | | A | B | C | D | E |
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 10 | 300 | 300 | - | - |
| 2 | pH @ 27.2°C | | APHA 4500H ⁺ B | 7.56 | 6.5-8.5 | 6.5-8.5 | 6.0-9.0 | 6.5-8.5 | 6.0-8.5 |
| 3 | Total Dissolved Solids | mg/L | APHA 2540 C | 423.0 | 500 | - | 1500 | - | 2100 |
| 4 | Total Suspended Solids | mg/L | APHA 2540 D | Nil | - | - | - | - | - |
| 5 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 75.0 | - | - | - | - | - |
| 6 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 285.0 | 200 | - | - | - | - |
| 7 | Calcium as Ca | mg/L | APHA 3500 Ca B | 70.84 | 200 | - | - | - | - |
| 8 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 25.77 | 200 | - | - | - | - |
| 9 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl ⁻ B | 14.78 | 250 | - | 600 | - | 600 |
| 10 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 198.39 | 400 | - | 400 | - | 1000 |
| 11 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 3.45 | 20 | - | 50 | - | - |
| 12 | Iron as Fe | mg/L | APHA 3500 Fe B | <0.3 | 0.3 | - | 0.5 | - | - |
| 13 | Fluoride as F | mg/L | APHA 4500F- D | < 0.5 | 1.5 | 1.5 | 1.5 | - | - |

Note : This report is subject to the terms and conditions mentioned overleaf



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Page 2 of 2

Report No: KIWIS/W/COM/23/1410

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 2296-1992 Inland Surface Water Standards | | | | |
|------|--|------|---------------------|--------|---|---|---|---|---|
| | | | | | A | B | C | D | E |
| 14 | Boron as B | mg/L | APHA 4500 B C | <0.1 | - | - | - | - | - |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 8.5 | - | - | - | - | - |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 1.5 | - | - | - | - | - |
| 17 | Dissolved Oxygen | mg/L | APHA 2005; 4500 O C | 5.8 | 6 | 5 | 4 | 4 | - |
| 18 | Chemical Oxygen Demand | mg/L | APHA 5220 B | 20.08 | - | - | - | - | - |
| 19 | Biochemical Oxygen Demand (3 Days at 27OC) | mg/L | IS : 3025 (P-44) | < 4.0 | 2 | 3 | 3 | - | - |
| 20 | Oil & Grease | mg/L | APHA 5520 B | <5.0 | - | - | - | - | - |
| 21 | Sulphides as S | mg/l | IS 3025 PART-29 | Nil | - | - | - | - | - |

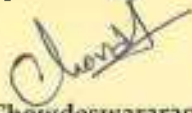
NA: Not Applicable

Methods follow: APHA 23rd Edition

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
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Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report



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Report No: KIWIS/W/COM/23/1411

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Limestone mining, Lease,
Thakkellapalli Village, Plakurthy Mandal,
Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023

Sample Collected by : Kiwis Eco Laboratories Private Limited

Date of sampling : 24-02-2023

Sample Collected in : Samples received in Plastic bottles

Sample received on : 25-02-2023

Sampling Procedure : KIWIS/SOP/ Lab - 258

Analysis starting date : 25-02-2023

Sample registration no : W/COM/02/23/2248

Analysis completion date : 06-03-2023

Sample description/Code : Water Quality Monitoring

Sub Contract Testing : NA

Name of the Location : Reservoir B-Block

Environmental Conditions During Monitoring: 27.6°C&47%

1 W/COM/02/23/2248: Reservoir B-Block

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 2296-1992 Inland Surface Water Standards | | | | |
|------|---------------------------------|-------|-----------------------------|--------|---|---------|---------|---------|---------|
| | | | | | A | B | C | D | E |
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 10 | 300 | 300 | - | - |
| 2 | pH @ 25.0°C | | APHA 4500H+ B | 8.08 | 6.5-8.5 | 6.5-8.5 | 6.0-9.0 | 6.5-8.5 | 6.0-8.5 |
| 3 | Total Dissolved Solids | mg/L | APHA 2540 C | 440.0 | 500 | - | 1500 | - | 2100 |
| 4 | Total Suspended Solids | mg/L | APHA 2540 D | Nil | - | - | - | - | - |
| 5 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 125.0 | - | - | - | - | - |
| 6 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 320.0 | 200 | - | - | - | - |
| 7 | Calcium as Ca | mg/L | APHA 3500 Ca B | 76.91 | 200 | - | - | - | - |
| 8 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 30.67 | 200 | - | - | - | - |
| 9 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl ⁻ C | 9.85 | 250 | - | 600 | - | 600 |
| 10 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 175.34 | 400 | - | 400 | - | 1000 |
| 11 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 2.28 | 20 | - | 50 | - | - |
| 12 | Iron as Fe | mg/L | APHA 3500 Fe B | <0.3 | 0.3 | - | 0.5 | - | - |
| 13 | Fluoride as F | mg/L | APHA 4500F D | < 0.5 | 1.5 | 1.5 | 1.5 | - | - |



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Page 2 of 2

Report No : KIWIS/W/COM/23/1411

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 2296-1992 Inland Surface Water Standards | | | | |
|------|--|------|---------------------|--------|---|---|---|---|---|
| | | | | | A | B | C | D | E |
| 14 | Boron as B | mg/L | APHA 4500 B C | <0.1 | - | - | - | - | - |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 6.5 | - | - | - | - | - |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 1.6 | - | - | - | - | - |
| 17 | Dissolved Oxygen | mg/L | APHA 2005; 4500 O C | 5.9 | 6 | 5 | 4 | 4 | - |
| 18 | Chemical Oxygen Demand | mg/L | APHA 5220 B | 12.04 | - | - | - | - | - |
| 19 | Biochemical Oxygen Demand (3 Days at 27OC) | mg/L | IS : 3025 (P-44) | < 4.0 | 2 | 3 | 3 | - | - |
| 20 | Oil & Grease | mg/L | APHA 5520 B | <5.0 | - | - | - | - | - |
| 21 | Sulphides as S | mg/l | IS 3025 PART-29 | Nil | - | - | - | - | - |


Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
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Checked By


(O. Chowdeswararao)
(Sr.Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report



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Report No: KIWIS/W/COM/23/1412**Name and address of the client**

M/s. Kesoram Industries Limited
Thakkellapalli Limestone mining, Lease,
Thakkellapalli Village, Plakurthy Mandal,
Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2249
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Thakkellapalli Pond

Environmental Conditions During Monitoring: 27.9°C&48%**1. W/COM/02/23/2249: Thakkellapalli Pond**

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 2296-1992 Inland Surface Water Standards | | | | |
|------|---------------------------------|-------|-----------------------------|--------|---|---------|---------|---------|---------|
| | | | | | A | B | C | D | E |
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 10 | 300 | 300 | - | - |
| 2 | pH @ 27.2°C | | APHA 4500H+ B | 8.16 | 6.5-8.5 | 6.5-8.5 | 6.0-9.0 | 6.5-8.5 | 6.0-8.5 |
| 3 | Total Dissolved Solids | mg/L | APHA 2540 C | 546.0 | 500 | - | 1500 | - | 2100 |
| 4 | Total Suspended Solids | mg/L | APHA 2540 D | Nil | - | - | - | - | - |
| 5 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 210.0 | - | - | - | - | - |
| 6 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 310.0 | 200 | - | - | - | - |
| 7 | Calcium as Ca | mg/L | APHA 3500 Ca B | 62.74 | 200 | - | - | - | - |
| 8 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 36.81 | 200 | - | - | - | - |
| 9 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl ⁻ B | 73.91 | 250 | - | 600 | - | 600 |
| 10 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 93.02 | 400 | - | 400 | - | 1000 |
| 11 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 1.44 | 20 | - | 50 | - | - |
| 12 | Iron as Fe | mg/L | APHA 3500 Fe B | <0.3 | 0.3 | - | 0.5 | - | - |
| 13 | Fluoride as F | mg/L | APHA 4500F- D | < 0.5 | 1.5 | 1.5 | 1.5 | - | - |

Note : This report is subject to the terms and conditions mentioned overleaf



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Page 2 of 2

Report No: KIWIS/W/COM/23/1412

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 2296-1992 Inland Surface Water Standards | | | | |
|------|--|------|--------------------|--------|---|---|---|---|---|
| | | | | | A | B | C | D | E |
| 14 | Boron as B | mg/L | APHA 4500 B C | <0.1 | - | - | - | - | - |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 45.5 | - | - | - | - | - |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 1.6 | - | - | - | - | - |
| 17 | Dissolved Oxygen | mg/L | APHA 2005; 4500 OC | 5.7 | 6 | 5 | 4 | 4 | - |
| 18 | Chemical Oxygen Demand | mg/L | APHA 5220 B | <5.0 | - | - | - | - | - |
| 19 | Biochemical Oxygen Demand (3 Days at 27OC) | mg/L | IS : 3025 (P-44) | < 4.0 | 2 | 3 | 3 | - | - |
| 20 | Oil & Grease | mg/L | APHA 5520 B | <5.0 | - | - | - | - | - |
| 21 | Sulphides as S | mg/l | IS 3025 PART-29 | Nil | - | - | - | - | - |


Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
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Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

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Report No: KIWIS/W/COM/23/1413

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Limestone mining, Lease,
Thakkellapalli Village, Plakurthy Mandal,
Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023

Sample Collected by : Client

Date of sampling : 24-02-2023

Sample Condition : Samples received in Plastic Container

Sample received on : 25-02-2023

Sampling Procedure : KIWIS/SOP/Lab - 258

Analysis starting date : 25-02-2023

Sample registration no : WW/COM/02/23/2250

Analysis completion date : 06-03-2023

Sample description/Code : Waste Water Quality Monitoring

Sub Contract Testing : NA

Name of the Location : Workshop Effluent

Environmental Conditions During Monitoring:27.5 °C&50%

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | Standards IS:2490 |
|------|--|------|-----------------------------|--------|----------------------|
| 1 | pH @ 25.0°C | - | APHA 4500H+ B | 7.56 | 5.5 - 9.0 |
| 2 | Total Dissolved Solids | mg/L | APHA 2540 C | 740.0 | 2100 |
| 3 | Total Suspended Solids | mg/L | APHA 2540 D | 12.0 | 100 |
| 4 | Chemical Oxygen Demand | mg/L | APHA 5220 B | 16.0 | 250 |
| 5 | Biochemical Oxygen Demand (3 Days at 27°C) | mg/L | IS : 3025 (P-44) | 6.0 | 100 |
| 6 | Oil & Grease | mg/L | APHA 5520 B | 3.5 | 10.0 |
| 7 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 177.39 | - |
| 8 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 85.61 | - |


Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
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(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

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Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Name and address of the client

*M/s. Kesoram industries limited
Thakkellapalli Limestone mining Lease ,
Thakkellapalli village,Palakurthy Mondal,
peddapalli district, Telangana state*

Date of report : 06-03-2023

Sample description/Code : Groundwater Level

Date of sampling : 24-02-2023

RESULT

| S.No | Registration Numbers | Location | Unit | Result |
|------|-----------------------|--------------------------|--------|--------|
| 1 | W/COM/02/2023/1988/01 | Basanth Nagar | Meters | 5.5 |
| 2 | W/COM/02/2023/1988/02 | Palakurthy Nagar Village | Meters | 9.0 |
| 3 | W/COM/02/2023/1988/03 | Kundanapalli Village | Meters | 6.1 |
| 4 | W/COM/02/2023/1988/04 | Kannala Village | Meters | 5.7 |
| 5 | W/COM/02/2023/1988/05 | Thakkellapalli | Meters | 6.3 |
| 6 | W/COM/02/2023/1988/06 | Kothapalli | Meters | 9.1 |
| 7 | W/COM/02/2023/1988/07 | Ragineedu | Meters | 7.0 |
| 8 | W/COM/02/2023/1988/08 | Kurmapalli Village | Meters | 6.6 |
| 9 | W/COM/02/2023/1988/09 | Laxmipuram Village | Meters | 5.8 |
| 10 | W/COM/02/2023/1988/10 | Ramaraopalli | Meters | 8.9 |
| 11 | W/COM/02/2023/1988/11 | Putnuru Village | Meters | 9.3 |

Checked By

(D.Ravindar)
(Sr.Chemist)

Authorized Signatory

(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



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Report No: KIWIS/S/2023/1449

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Lime stone mining Lease, Thakkellapalli
village, Palakurthy Mandal Peddapalli District,
Telangana State
Contact Number: 9966639930

| | | | |
|---------------------------------|---------------------|---|---|
| Date of report | : 06-03-2023 | Sample Collected by | : Kivis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2256 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At E Block Top Soil |
| | | Environmental Conditions During Monitoring : 27.5 °C & 46% | |

1. S/COM/02/2023/2256: KIL /24/02/2023/01 (At E Block Top Soil)



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Page 2 of 2

Report No: KIWIS/S/2023/1449

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 8.24 |
| 2 | Moisture Content | % | IS 9235-1979 | 5.2 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.62 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 2530.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 295.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 220.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 30.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 235.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 60.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 37 |
| | Silt | % | STIDA&CGI | 27 |
| | Clay | % | STIDA&CGI | 36 |
| 11 | Soil Type | - | IS 2720 | Clay Loam |


Opinion and interpretation: Nil

NA: Not Applicable

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Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report



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Report No: KIWIS/S/2023/1450

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Lime stone mining
Lease, Thakkellapalli village, Palakurthy Mandal
Peddapalli District, Telangana State
Contact Number: 9966639930

| | | | |
|---------------------------------|---------------------|--------------------------------|---|
| Date of report | : 06-03-2023 | Sample Collected by | : KIWIS Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2257 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At F Block Top Soil |

Environmental Conditions During Monitoring : 27.2 °C & 47%

1. S/COM/02/2023/2257 : KIL /24/02/2023/01 (At F Block Top Soil)



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Report No: KIWIS/S/2023/1450

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 8.63 |
| 2 | Moisture Content | % | IS 9235-1979 | 5.4 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.51 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 1985.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 345.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 365.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 45.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 320.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 55.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 38 |
| | Silt | % | STIDA&CGI | 28 |
| | Clay | % | STIDA&CGI | 34 |
| 11 | Soil Type | - | IS 2720 | Clay Loam |


Opinion and interpretation: Nil

NA: Not Applicable

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Checked By


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(Sr. Chemist)

Authorized Signatory


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(Manager Laboratory)

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Report No: KIWIS/S/2023/1451

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Lime stone mining
Lease, Thakkellapalli village, Palakurthy Mandal
Peddapalli District, Telangana State
Contact Number: 9966639930

| | | | |
|---------------------------------|---------------------|---|---|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2258 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At I Block Top Soil |
| | | Environmental Conditions During Monitoring : 27.6 °C & 48% | |

1. S/COM/02/2023/2258: KIL /24/02/2023/01 (At I Block Top Soil)



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Report No: KIWIS/S/203/1451

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 8.46 |
| 2 | Moisture Content | % | IS 9235-1979 | 5.3 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.57 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 2195.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 430.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 240.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 38.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 252.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 65.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 42 |
| | Silt | % | STIDA&CGI | 22 |
| | Clay | % | STIDA&CGI | 36 |
| 11 | Soil Type | - | IS 2720 | Clay Loam |


Opinion and interpretation: Nil

NA: Not Applicable

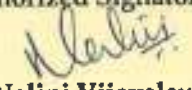
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Checked By


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(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

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Report No: KIWIS/S/COM/2023/1452

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Lime stone mining
Lease, Thakkellapalli village, Palakurthy Mandal
Peddapalli District, Telangana State
Contact Number: 9966639930

| | | | |
|---------------------------------|---------------------|---|---|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2250 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At Basanth Nagar Village Soil |
| | | Environmental Conditions During Monitoring : 27.3C & 45% | |

1. S/COM/02/2023/2250: KIL /24/02/2023/01 (At Basanth Nagar Village Soil)



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Report No: KIWIS/S/COM/2023/1452

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 8.35 |
| 2 | Moisture Content | % | IS 9235-1979 | 4.32 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.48 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 1985.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 325.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 264.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 48.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 365.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 60.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 58 |
| | Silt | % | STIDA&CGI | 18 |
| | Clay | % | STIDA&CGI | 24 |
| 11 | Soil Type | - | IS 2720 | Sandy Clay Loam |


Opinion and interpretation: Nil

NA: Not Applicable

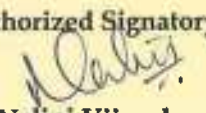
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(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

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Report No: KIWIS/S/COM/2023/1453

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Lime stone mining
Lease, Thakkellapalli village, Palakurthy Mandal
Peddapalli District, Telangana State
Contact Number: 9966639930

| | | | |
|---------------------------------|---------------------|--------------------------------|---|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2251 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At Palakurthy village |

Environmental Conditions During Monitoring : 27.1C & 46%

1. S/COM/02/2023/2251 : KIL /24/02/2023/01 (At Palakurthy Village)



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Report No: KIWIS/S/COM/2023/1451

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 8.45 |
| 2 | Moisture Content | % | IS 9235-1979 | 4.2 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.55 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 1795.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 265.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 285.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 45.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 395.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 65.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 56 |
| | Silt | % | STIDA&CGI | 19 |
| | Clay | % | STIDA&CGI | 25 |
| 11 | Soil Type | - | IS 2720 | Sandy Clay Loam |

Opinion and interpretation: Nil

NA: Not Applicable

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Sr.Chemist

Authorized Signatory

(Dr. Nalini Vijayalaxmi)
Managing Laboratory

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Report No: KIWIS/S/COM/2023/1454

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Lime stone mining Lease,
Thakkellapalli village, Palakurthy Mandal
Peddapalli District, Telangana State
Contact Number: 9966639930

| | | | |
|---------------------------------|---------------------|---|---|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2252 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At Ramaraopalli village |
| | | Environmental Conditions During Monitoring : 27.8C & 45% | |

1. S/COM/02/2023/2252: KIL /24/02/2023/01 (At Ramaraopalli Village)



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Report No: KIWIS/S/COM/2023/1454

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 7.82 |
| 2 | Moisture Content | % | IS 9235-1979 | 5.6 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.68 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 2465.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 410.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 390.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 85.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 425.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 70.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 34 |
| | Silt | % | STIDA&CGI | 30 |
| | Clay | % | STIDA&CGI | 36 |
| 11 | Soil Type | - | IS 2720 | Clay Loam |


Opinion and interpretation: Nil

NA: Not Applicable

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Authorized Signatory


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Managing Laboratory

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Report No: KIWIS/S/COM/2023/1455

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Lime stone mining Lease,
Thakkellapalli village,Palakurthy Mandal
Peddapalli District, Telangana State
Contact Number:9966639930

| | | | |
|---------------------------------|---------------------|--------------------------------|---|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2253 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At Kannala village |

Environmental Conditions During Monitoring : 27.4C & 46%

1. S/COM/02/2023/2253: KIL /24/02/2023/01(At KannalaVillage)



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Report No: KIWIS/S/COM/2023/1455

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 8.44 |
| 2 | Moisture Content | % | IS 9235-1979 | 5.8 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.68 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 1735.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 295.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 330.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 50.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 375.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 55.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 60 |
| | Silt | % | STIDA&CGI | 18 |
| | Clay | % | STIDA&CGI | 22 |
| 11 | Soil Type | - | IS 2720 | Sandy Clay Loam |

Opinion and interpretation: Nil

NA: Not Applicable

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Authorized Signatory

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Managing Laboratory

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Report No: KIWIS/S/COM/2023/1456

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Lime stone mining
Lease, Thakkellapalli village, Palakurthy Mandal
Peddapalli District, Telangana State
Contact Number: 9966639930

| | | | |
|---------------------------------|---------------------|--------------------------------|---|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2254 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At Thakellapalli village |

Environmental Conditions During Monitoring : 27.8C & 46%

1. S/COM/02/2023/2254: KIL /24/02/2023/01(At Thakellapalli Village)



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Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 8.48 |
| 2 | Moisture Content | % | IS 9235-1979 | 6.5 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.75 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 1995.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 410.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 315.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 55.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 305.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 75.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 35 |
| | Silt | % | STIDA&CGI | 28 |
| | Clay | % | STIDA&CGI | 37 |
| 11 | Soil Type | - | IS 2720 | Clay Loam |

Opinion and interpretation: Nil

NA: Not Applicable

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Sr. Chemist

Authorized Signatory

(Dr. Nalini Vijayalaxmi)
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Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Page 1 of 2

Report No: KIWIS/S/COM/2023/1457

Name and address of the client

M/s. Kesoram Industries Limited
Thakkellapalli Lime stone mining
Lease, Thakkellapalli village, Palakurthy Mandal
Peddapalli District, Telangana State
Contact Number: 9966639930

| | | | |
|---------------------------------|---------------------|--------------------------------|---|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2255 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At Raginedu village |

Environmental Conditions During Monitoring : 27.8C & 46%

1. S/COM/02/2023/2255: KIL /24/02/2023/01 (At Raginedu Village)



KIWIS

ECO LABORATORIES PVT. LTD.
Recognized by MoEF, GOI, New Delhi,
Certified by ISO 9001:2015,
ISO 14001:2015 & OHSMS 45001:2018

Plot No. 19, ALEAP Industrial Estate,
SY. No's 342, Near Pragathi Nagar,
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Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Page 2 of 2

Report No: KIWIS/S/COM/2023/1457

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 8.56 |
| 2 | Moisture Content | % | IS 9235-1979 | 4.8 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.59 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 1665.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 290.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 275.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 60.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 365.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 55.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 45 |
| | Silt | % | STIDA&CGI | 25 |
| | Clay | % | STIDA&CGI | 28 |
| 11 | Soil Type | - | IS 2720 | Clay Loam |

Opinion and interpretation: Nil

NA: Not Applicable

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

STIDA&CGI: Soil Testing in India; Department of Agriculture & Cooperation Ministry of Agriculture Government of India

Checked By


(O. Chowdeswararao)
Sr. Chemist

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
Managing Laboratory

End of the Report

ENVIRONMENTAL MONITORING REPORT

of

BASANTNAGAR LIME STONE MINING LEASE

**M/s. KESORAM INDUSTRIES LTD.,
(UNIT: KESORAM CEMENT)**

**PALAKURTHY & TAKKALLAPALLI
VILLAGES, PEDDAPALLI (DIST.),
TELANGANA STATE.**

WINTER SEASON-2023

Prepared by



**M/s KIWIS ECO LABORATORIES PVT LTD.,
(Recognized by MoEF, GOI, New Delhi
Certified by ISO 9001:2015, ISO 14001:2015 & OHSAS 45001:2018)
Plot No. 19, ALEAP Industrial Estate, Sy.No.342
Near Pragathi Nagar, Quthbullapur Mandal
RangareddyDist, Hyderabad, Telangana - 500090**

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1.0 INTRODUCTION

Kesoram Cement (KC), a unit of Kesoram Industries Ltd. is a pioneer in cement manufacturing. KC is an ISO 9001, ISO 14001 and ISO 18001 certified company located at Basantnagar Village of Peddapalli District, Telangana State.

This report highlights the monitoring carried for Basantnagar Limestone and mining lease as per the statutory requirement of Indian Bureau of Mines [IBM].

1.1 LOCATION OF KESORAM CEMENT

[BASANTNAGAR LIMESTONE MINING LEASE]

Kesoram Cement, Basantnagar Limestone Mining Lease is located at Basantnagar on Karimnagar Hyderabad Highway, which is 10 Km away from Peddapalli town. The mine site lies between East longitude 79°20' 79°25' and North latitude 18°40' 18°45' and is covered under Survey of India toposheet No.56 N/5 & 56 N/6.

The site is connected by Broad gauge railway line of South Central Railway on Hyderabad - Ballarsha and it is about 3 Km from the mine. Nearest Airport to the mine is Hyderabad and is located at 210 Km. River Godavari is flowing at a distance of 20 Km towards North direction from the mine.

Figure-1.1 shows the location map of mine in Peddapalli District in Telangana.

Figure-1.2 shows the key map of the mine with surrounding features such as roads and railway line.

Figure-1.3 shows the 10 km radial extent around the mine of Kesoram. The salient features of the mine are given in Table 1.1.

The purpose of the study is to assess the water quality and Water Level in and around the Basantnagar Limestone Mining Lease of Kesoram Cement Ltd.

FIG - 1 LOCATION MAP

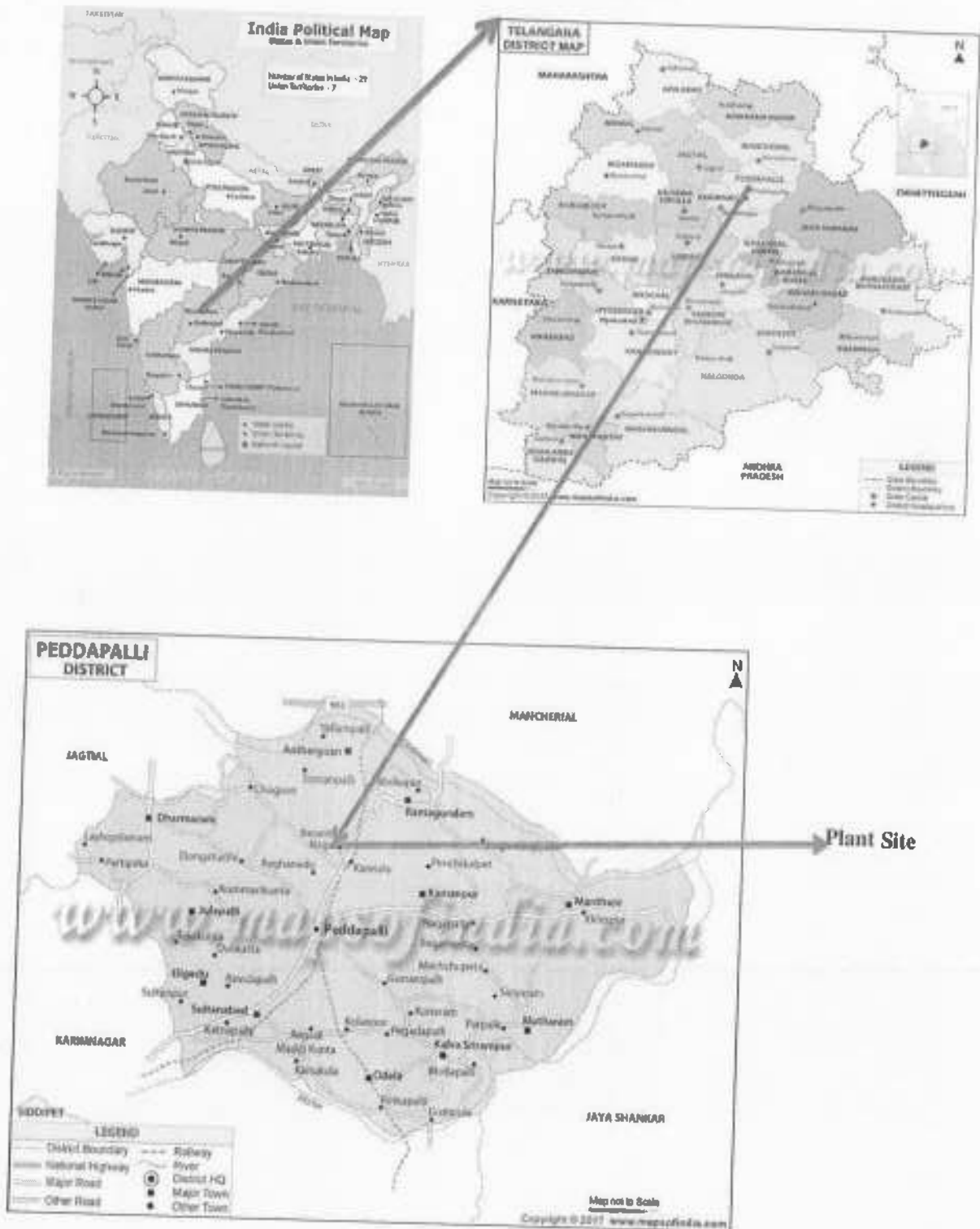


Fig: 1.2 TOPOGRAPHICAL MAP SHOWING 10 KM RADIUS AROUND THE PLANT

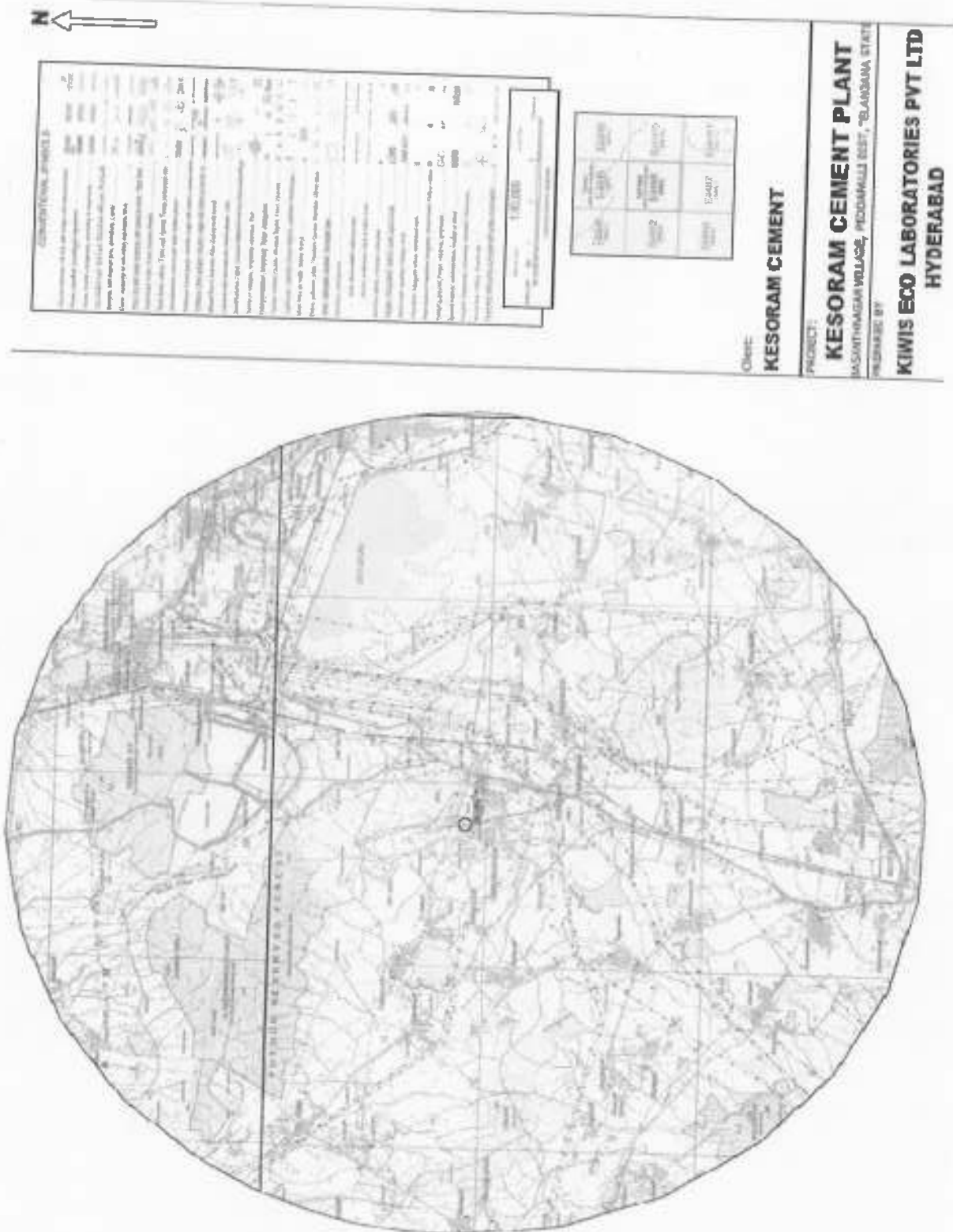


FIG - 3
TOPOGRAPHICAL MAP SHOWING THE PLANT SITE

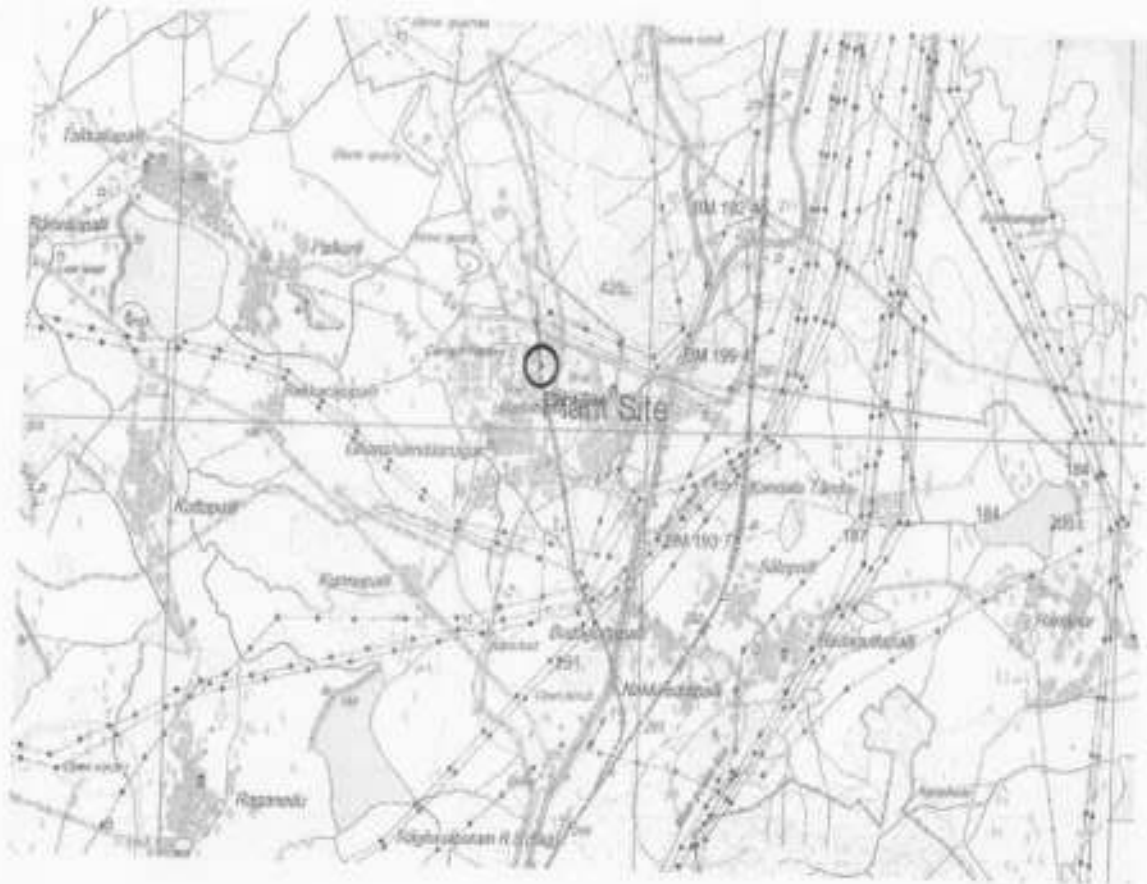


TABLE-1.1
SAILENT FEATURES OF THE MINE

| | | |
|----|------------------------------|--|
| 1 | Altitude | 180m above MSL |
| 2 | Longitude | 79°20' to 79°25' East |
| 3 | Latitude | 18°40' to 18°45' North |
| 4 | Maximum day Temperature, °C | 48 |
| 5 | Minimum day Temperature, °C | 11.2 |
| 6 | Maximum relative humidity, % | 76 |
| 7 | Minimum relative humidity, % | 43 |
| 8 | Annual rainfall, mm | 1107 (Average annual rainfall observed during the past 10 years) |
| 9 | Land availability, acres | 890.20 |
| 10 | Topography | Plant/Mine area is located in a flat terrain |
| 11 | Nearest Highway | NH-16 (2km from mine site) |
| 12 | Nearest Railway Line | 2.6km connecting Kazipet-Ballarsha |
| 13 | Nearest Railway station | Raghavapuram railway station is located at 3.0 km connecting Kazipet-Ballarsha |
| 14 | Nearest city | Hyderabad-210km |
| 15 | Nearest Industries | National Thermal Power Corporation-6.5km-ENE |
| 16 | Nearest village | Palakurthy |
| 17 | Nearest Airport | Hyderabad-210km |
| 18 | Nearest Reserve forest | Putnuru Reserve forest (scrub forest) - 4.0km |
| 19 | Nearest Sanctuary | None within 10km |
| 20 | Nearest national Park | None within 10km |
| 21 | Historical places | None within 10km |

The team of engineers from M/s. Kiwis Eco Laboratories Pvt Ltd has carried out the Study for the above environmental parameters during the Winter Season - 2023.

This report consists of monitoring results and data analysis of the above assignments awarded to M/s. Kiwis Eco Laboratories Pvt Ltd.

2.0 SCOPE AND MONITORING LOCATIONS

The scope of the study includes detailed characterization of environmental monitoring of water quality and water level in and around the existing captive Limestone Mines of Kesoram Cement, located near Basanthnagar in Peddapalli District, Telangana State.

Thirteen water samples from various locations in and around the mine were collected for assessment of the existing physico-chemical quality.

The monitoring for water quality was carried out and assessed as per IS: 10500 and GSR 422(E) Standards. The Water level measurement was carried out at ten locations.

2.1 AMBIENT AIR QUALITY

Ambient air quality monitoring was carried at sixteen different locations for two shifts in a day for two days continuously for two weeks for Winter Season-2023.

Air quality levels were monitored and carried out for significant parameters like SPM, RPM (PM10) and PM2.5, SO₂, NO₂ & CO as per the methods prescribed by Central Pollution Control Board. Frequency of sampling and methodology adopted is detailed below

2.1.1 DURATION PERIOD & FREQUENCY OF SAMPLING

Duration period & frequency of sampling adopted was as per guidelines of Indian Bureau of Mines. Details of the same are given below:

Duration : 2 weeks

Period : 2 shifts for 8 hours/day (SPM, RPM (PM10) and PM2.5, SO₂, NO₂ & CO)

Day: 2 Days

The existing Ambient Air Quality status (AAQ) has been monitored for SPM, RPM (PM10), and PM2.5, SO₂, NO₂ and CO. Pre-calibrated Respirable dust samplers have been used for the monitoring of the existing AAQ status. Methodologies adopted for sampling and analysis were, as per the approved

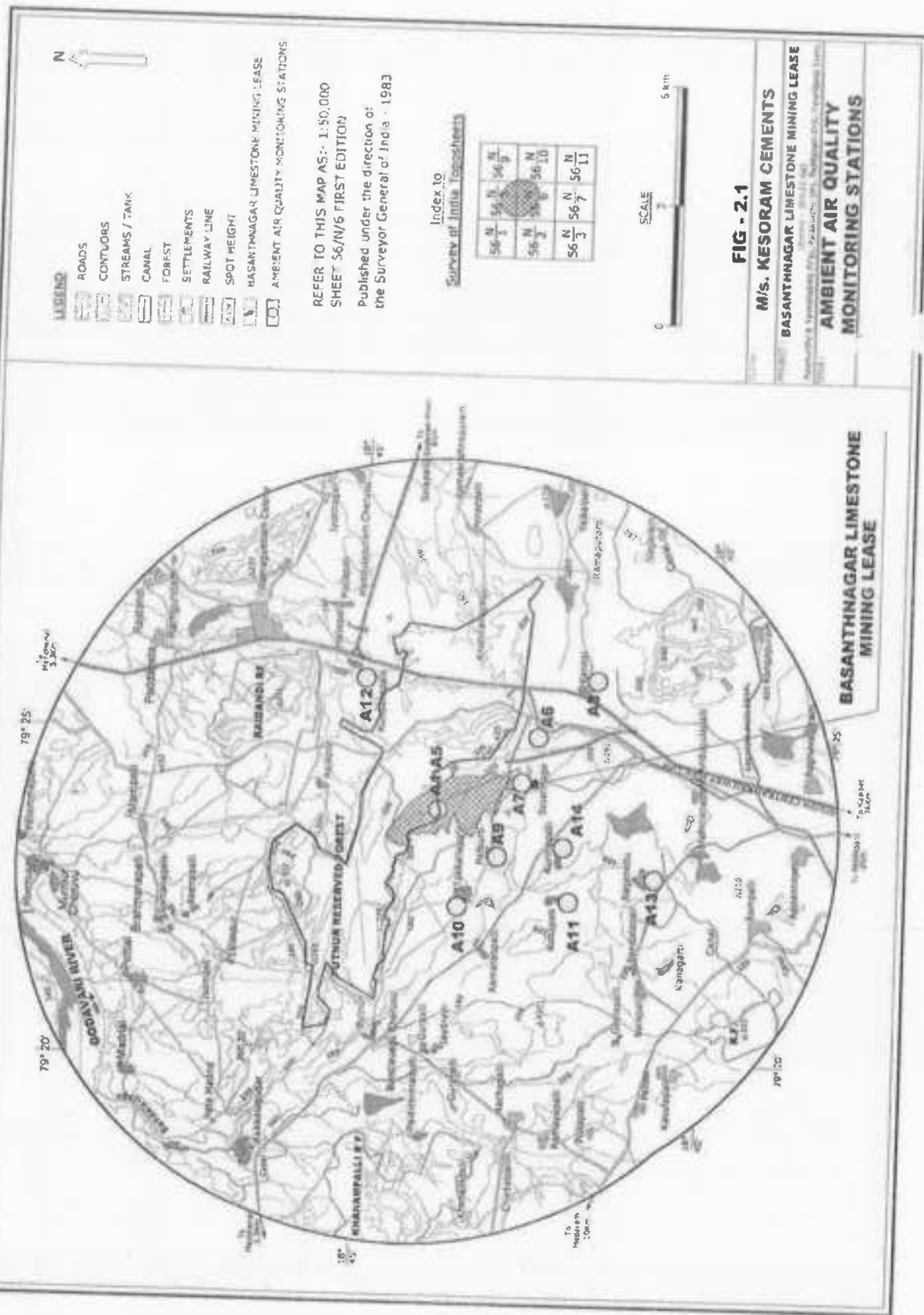
methods of Central Pollution Control Board (CPCB) & Indian Standard (IS) 5182.

2.1.2 AMBIENT AIR QUALITY (AAQ) SAMPLING LOCATIONS

Ambient air quality of the study area has been assessed during Post Monsoon Season-2023 through a network of sixteen ambient air quality stations. The locations of 16 ambient air quality monitoring stations in and around the mines are given in Table-2.1.

TABLE- 2.1
AMBIENT AIR QUALITY LOCATIONS

| Station Code | Locations | Distance w.r.t. Mine (Km) | Direction w.r.t. Mine |
|--------------|-----------------------|---------------------------|-----------------------|
| A-1 | Mines Office | -- | -- |
| A-2 | Drilling Area | -- | -- |
| A-3 | Loading Area | -- | -- |
| A-4 | Haulage Road | -- | -- |
| A-5 | Crushing Area | -- | -- |
| A-6 | Colony (Guest House) | 1.3 | SE |
| A-7 | Workers Colony | 0.4 | S |
| A-8 | Kannala Village | 1.7 | SE |
| A-9 | Palakurthy Village | 0.9 | SW |
| A-10 | Takkallapalli Village | 1.4 | W |
| A-11 | Kothapalli Village | 3.0 | WSW |
| A-12 | Kundanapalli Village | 3.5 | NE |
| A-13 | Raganedu Village | 4.3 | SW |
| A-14 | Kurmapalli Village | 2.3 | SW |
| A-15 | Putnuru village | 4.0 | WNW |
| A-16 | Ramaraopalli village | 2.5 | SW |



2.2 WATER QUALITY

Fourteen water samples were collected from various locations in and around the mine site. Out of Fourteen samples, ten samples were collected from nearby villages i.e. ground/Bore well water, one sample from surface pond [Takkallapalli pond] two samples from reservoir and one sample from workshop of mine office.

Samples were collected for assessment of the existing Physico Chemical quality. The monitoring for water quality was carried out and assessed as per IS: 10500 and GSR 422(E) Standards.

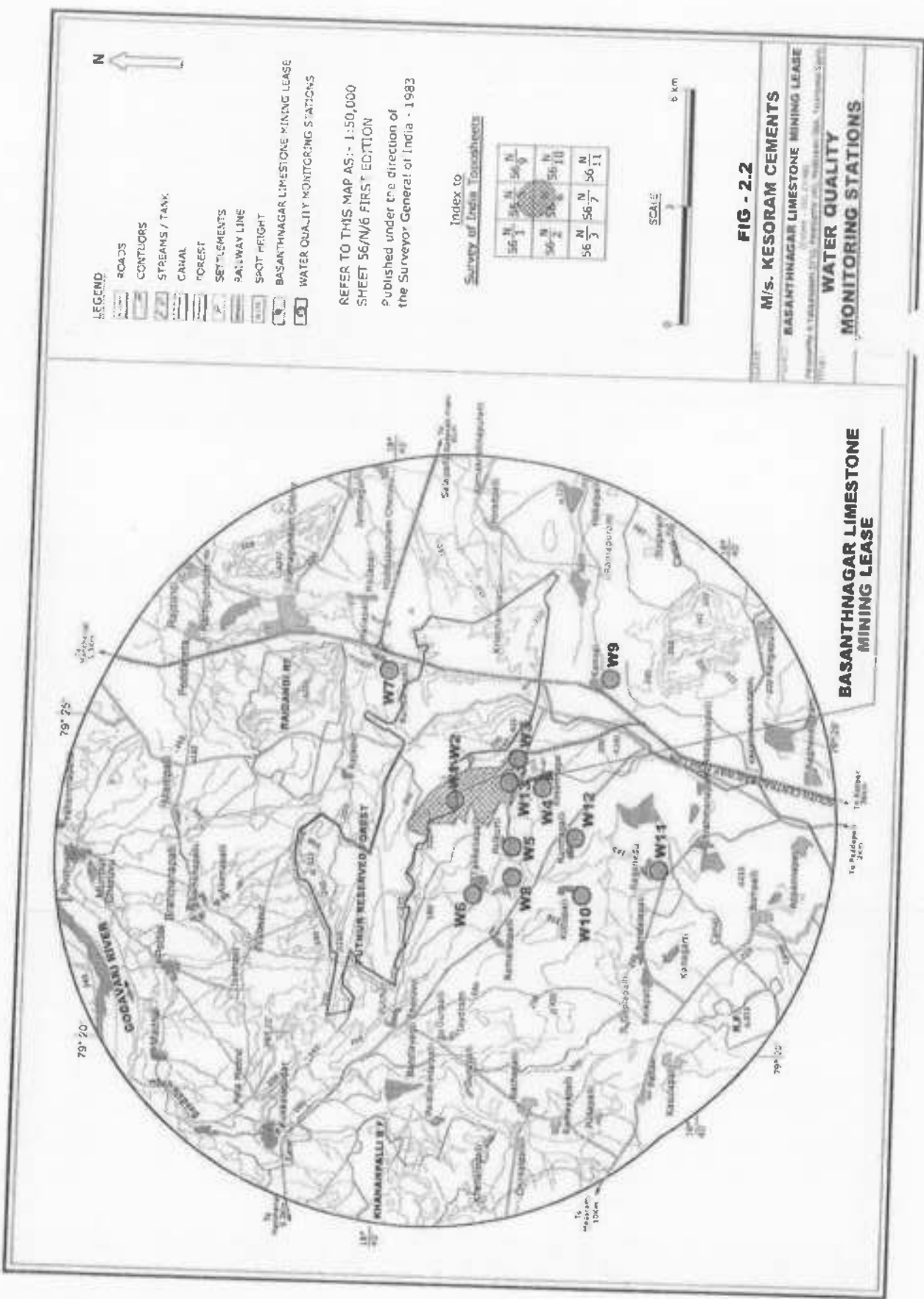
2.2.1 WATER QUALITY SAMPLE LOCATIONS

In order to assess the quality of water, Fourteen samples were collected from different locations like mine pit, surface water, ground water and potable water during the Winter season - 2023.

The location of water quality monitoring stations in and around the mines is given in Fig-4 & Table- 2.2.

TABLE-2.2
WATER SAMPLING LOCATIONS

| CODE | LOCATIONS | Distance w.r.t. Mine [km] | Direction w.r.t. Mine | PURPOSE |
|------|-------------------------------------|---------------------------|-----------------------|----------------|
| W-1 | Reservoir B-Block | --- | --- | Industrial use |
| W-2 | Reservoir E-Block | --- | --- | Industrial use |
| W-3 | Workshop Effluent | Adjacent | SSE | Industrial use |
| W-4 | Basanthnagar Village (open well) | 0.6 | S | Domestic |
| W-5 | Palakurthy Village | 0.9 | SW | Domestic |
| W-6 | Takkallapalli Village | 1.4 | W | Domestic |
| W-7 | Kundanapalli Village | 3.5 | NE | Domestic |
| W-8 | Takkallapalli Pond | 1.5 | W | Domestic |
| W-9 | Kannala Village | 1.7 | SE | Domestic |
| W-10 | Kothapalli Village | 3.0 | SSW | Domestic |
| W-11 | Raginedu Village | 4.3 | SW | Domestic |
| W-12 | Kurmapalli Village | 2.3 | SW | Domestic |
| W-13 | Ramaraopalli Village | 2.5 | SW | Domestic |
| W-14 | Near Laxmipuram Village (open well) | --- | --- | Domestic |

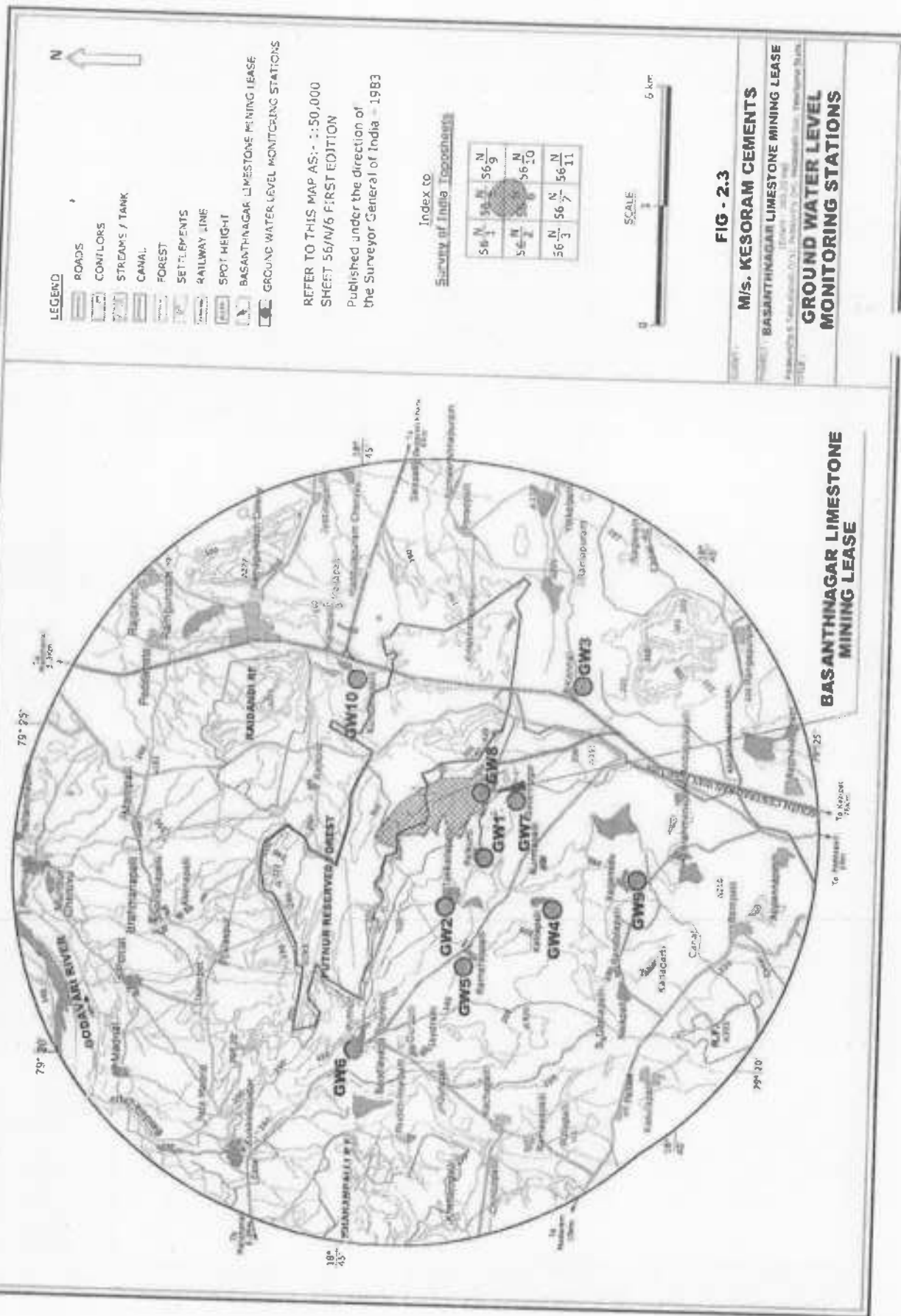


2.3 GROUND WATER LEVEL

Water levels were monitored at ten locations in and around the mines. The location of water level monitoring stations in and around the mines was given in Table-2.2.

TABLE-2.3
MONITORING LOCATIONS OF GROUND WATER LEVEL

| S.NO | LOCATIONS | Distance w.r.t.Mine[km] | Direction w.r.t Mine |
|------|-----------------------|----------------------------|-------------------------|
| 1 | Basanth Nagar | 0.6 | S |
| 2 | Palakurthy Village | 0.9 | SW |
| 3 | Kundanapalli Village | 3.5 | NE |
| 4 | Kannala Village | 1.7 | SE |
| 5 | Takkallapalli Village | 1.4 | W |
| 6 | Kothapalli Village | 3.0 | SSW |
| 7 | Raginedu Village | 4.3 | SW |
| 8 | Kurmapalli Village | 2.3 | SW |
| 9 | Laxmipuram Village | -- | -- |
| 10 | Ramaraopalli Village | 2.5 | SW |

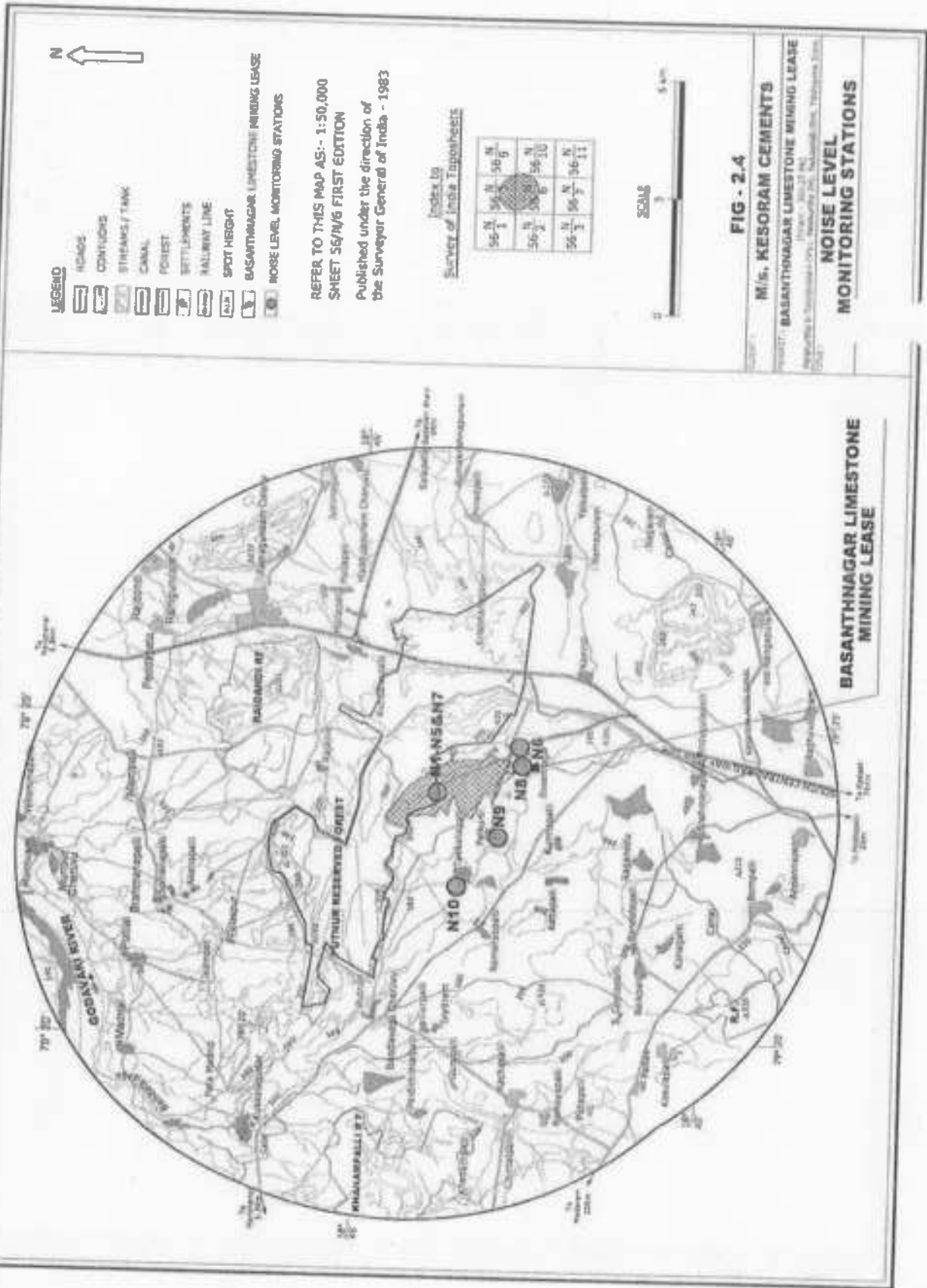


2.4 NOISE LEVEL MEASUREMENT

In order to assess the present quality of Noise level, Noise level measurement was carried at ten locations in and around the mine area. The locations of monitoring stations are given in Table - 2.4.

TABLE- 2.4
NOISE LEVEL MEASUREMENT LOCATIONS

| Station Code | Location Name | Distance w.r.t. Mine (Km) | Direction w.r.t. Mine |
|--------------|----------------------------|---------------------------|-----------------------|
| N1 | Mines Office | -- | -- |
| N2 | Near Haulage Road | -- | -- |
| N3 | Near Loading Area | -- | -- |
| N4 | Near Dumper Cabin | 0.4 | SSE |
| N5 | Near Crusher Hopper | -- | -- |
| N6 | Near Drilling Cabin | -- | -- |
| N7 | Near Dozing Area | -- | -- |
| N8 | Near Workers Colony | 0.4 | S |
| N9 | Near Palakurthy Village | 0.9 | SW |
| N10 | Near Takkallapalli Village | 1.4 | W |

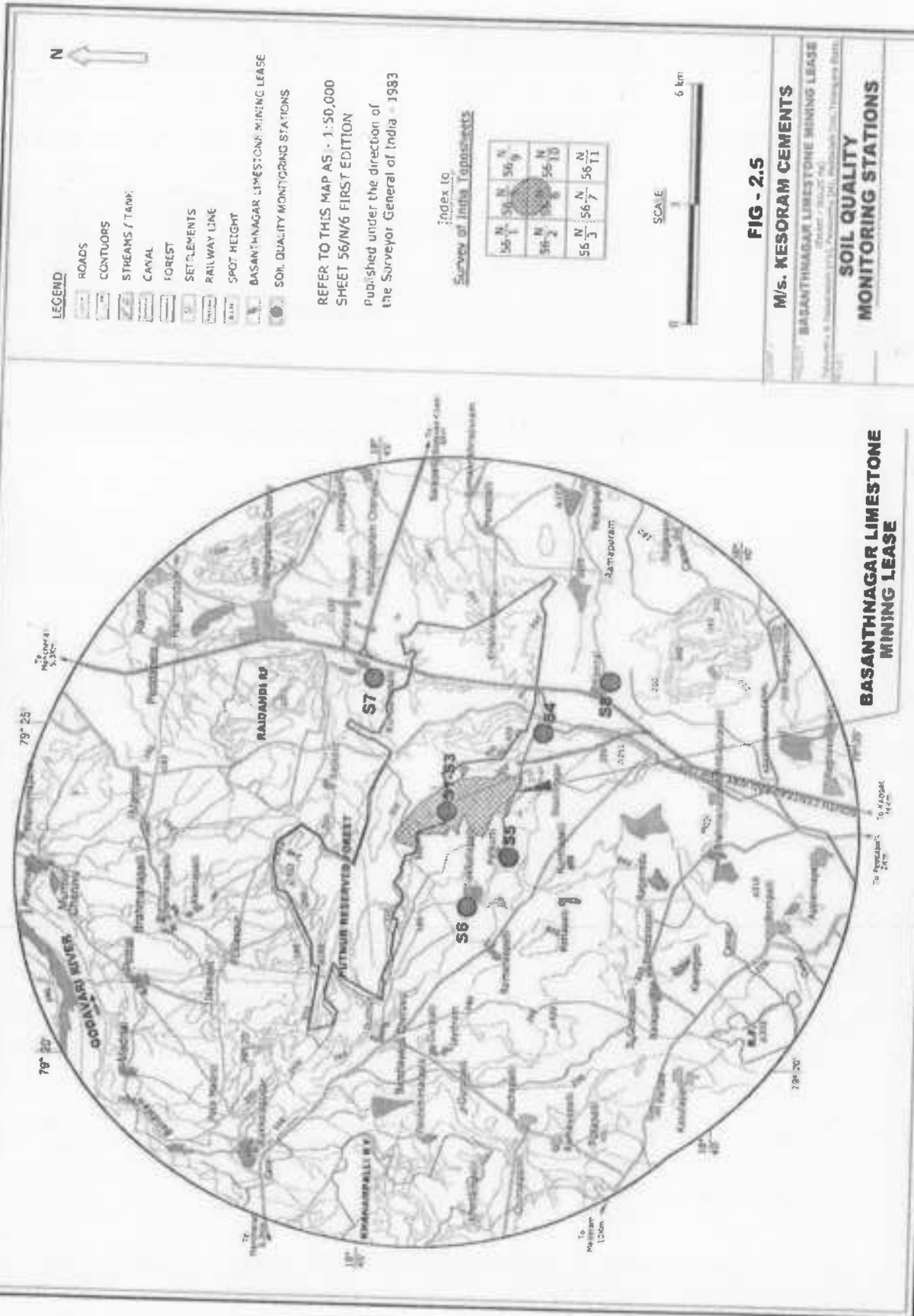


2.5 SOIL QUALITY

In order to assess the present quality of soil, Nine samples were collected from different locations in and around the mines. Detailed description of the locations is given below. The location of the sampling stations is shown in Table-2.5.

TABLE-2.5
SOIL SAMPLING LOCATIONS

| COD E | LOCATIONS | Distance w.r.t.Mine(km) | Direction w.r.t Mine |
|-------|-----------------------|-------------------------|----------------------|
| S1 | E-Block Top Soil | --- | --- |
| S2 | F-Block Top Soil | --- | --- |
| S3 | I-Block Top Soil | --- | --- |
| S4 | Basanthnagar village | -- | -- |
| S5 | Palakurthy Village | 2.4 | WNW |
| S6 | Ramaraopalli village | 4.7 | WNW |
| S7 | Kannala Village | 1.3 | SE |
| S8 | Takkallapalli Village | 3.6 | WNW |
| S9 | Raginedu Village | 4.4 | SW |



3.0 DATA ANALYSIS

3.1 AMBIENT AIR QUALITY OBSERVATION

Summary of the ambient air quality (AAQ) at each location is given in following table and data is given in Annexure - I.

SUMMARY OF AAQ (8 HOURLY AVERAGE)

| Code No. | Locations | Concentration | | | | | | | | | | | |
|----------|--------------------------|----------------------------------|-----|--|------|-------------------------------------|------|--|------|--|------|-------------------------------|-----|
| | | SPM ($\mu\text{g}/\text{m}^3$) | | RPM (PM 10) ($\mu\text{g}/\text{m}^3$) | | PM 2.5 ($\mu\text{g}/\text{m}^3$) | | SO ₂ ($\mu\text{g}/\text{m}^3$) | | NO ₂ ($\mu\text{g}/\text{m}^3$) | | CO (mg/m^3) | |
| | | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min |
| A1 | Mines Office | 265 | 234 | 78.0 | 60.8 | 42.2 | 28.2 | 14.9 | 12.6 | 16.8 | 14.0 | <1 | <1 |
| A2 | Drilling Area | 318 | 272 | 85.5 | 83.0 | 36.5 | 31.1 | 13.3 | 11.2 | 15.6 | 13.2 | <1 | <1 |
| A3 | Loading Area | 315 | 275 | 89.7 | 86.0 | 38.5 | 35.1 | 16.3 | 13.0 | 18.8 | 15.3 | <1 | <1 |
| A4 | Haulage Road | 279 | 240 | 85.2 | 82.1 | 34.2 | 31.2 | 13.6 | 11.0 | 15.9 | 13.0 | <1 | <1 |
| A5 | Crushing Area | 248 | 226 | 83.9 | 80.2 | 34.6 | 31.5 | 14.6 | 11.9 | 16.9 | 13.5 | <1 | <1 |
| A6 | Colony (Guest House) | 128 | 110 | 56.5 | 53.4 | 21.2 | 18.2 | 13.6 | 10.3 | 15.5 | 12.5 | <1 | <1 |
| A7 | Workers Colony | 128 | 106 | 53.2 | 50.0 | 18.3 | 15.2 | 13.3 | 10.2 | 15.5 | 12.0 | <1 | <1 |
| A8 | Kannala Village | 148 | 120 | 64.2 | 60.2 | 19.9 | 16.5 | 13.6 | 10.2 | 15.9 | 12.5 | <1 | <1 |
| A9 | Palakurthy Nagar Village | 136 | 120 | 53.6 | 50.0 | 18.5 | 15.2 | 14.9 | 11.6 | 16.9 | 13.2 | <1 | <1 |
| A10 | Takkallapalli Village | 126 | 112 | 52.2 | 49.2 | 20.3 | 15.0 | 13.6 | 10.2 | 15.9 | 12.4 | <1 | <1 |
| A11 | Kothapalli Village | 112 | 90 | 47.2 | 44.0 | 17.2 | 14.0 | 14.6 | 11.2 | 16.9 | 13.1 | <1 | <1 |
| A12 | Kundanapalli Village | 108 | 92 | 49.6 | 46.2 | 17.6 | 14.3 | 13.9 | 11.0 | 15.5 | 13.4 | <1 | <1 |
| A13 | Raginedu Village | 112 | 91 | 51.5 | 48.0 | 18.6 | 15.0 | 13.6 | 10.2 | 15.3 | 12.0 | <1 | <1 |
| A14 | Kurmapalli Village | 109 | 90 | 50.9 | 47.1 | 17.7 | 14.2 | 13.5 | 11.3 | 15.6 | 13.5 | <1 | <1 |
| A15 | Putnuru Village | 119 | 96 | 50.3 | 47.7 | 18.6 | 15.2 | 12.6 | 9.4 | 14.8 | 11.2 | <1 | <1 |
| A16 | Ramaraopalli Village | 109 | 91 | 48.6 | 45.0 | 17.9 | 14.2 | 13.9 | 10.9 | 15.6 | 12.1 | <1 | <1 |

Note: CO at all locations was found <1 ppm

3.2 WATER QUALITY OBSERVATION

To assess the quality of water in and around the mines, the samples were collected at different locations during study period i.e. Winter Season - 2023. The water quality report is enclosed as Annexure - II and the summary of the same is given below:

3.2.1 GROUND WATER (BORE WELL)

The water samples at these locations were collected at the bore wells/open well. The water is used for domestic purpose & drinking purpose. The analysis results of the sample are given below. The following table shows the summary of the water quality.

Summary of Water Quality [Bore well/Open well]

| S.No | Parameters | Basantnagar Village open wellwater | Palakurthy Village | Takkallapalli Village | Kundanapalli Village | Kannala Village | Kothapalli Village | Ragineedu Village | Kurmapalli Village | Drinking Water Standards IS-10500-2012 | |
|------|--|------------------------------------|--------------------|-----------------------|----------------------|-----------------|--------------------|-------------------|--------------------|--|---|
| | | | | | | | | | | Acceptable Limits | Max Permissible limits in absence of alternate source |
| 1 | pH | 7.45 | 7.85 | 7.09 | 7.51 | 7.28 | 7.18 | 7.22 | 7.14 | 6.5-8.5 | No Relaxation |
| 2 | TDS, mg/l | 435.0 | 685.0 | 796.0 | 385.0 | 448.0 | 454.0 | 440.0 | 995.0 | 500 | 2000 |
| 3 | Total Hardness as CaCO ₃ , mg/l | 255.0 | 385.0 | 450.0 | 230.0 | 270.0 | 260.0 | 250.0 | 580.0 | 200 | 600 |
| 4 | Chlorides as Cl, mg/l | 56.66 | 98.55 | 123.18 | 49.27 | 44.34 | 51.74 | 59.13 | 162.61 | 250 | 1000 |
| 5 | Fluoride as F, mg/l | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.0 | 1.5 |
| 6 | Sulphates as SO ₄ , mg/l | 67.5 | 77.38 | 61.74 | 51.03 | 60.91 | 72.03 | 55.15 | 104.54 | 200 | 400 |
| 7 | Iron as Fe, mg/l | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | 1.0 | No Relaxation |

| S.No | Parameters | Ramaraopal li Village | Near Laxmipura m Village (open well) | Drinking Water Standards IS-10500- 2012 | |
|------|--|--------------------------|---|--|--|
| | | | | Acceptable Limits | Max Permissible limits in absence of alternate source |
| 1 | pH | 7.64 | 7.39 | 6.5-8.5 | No Relaxation |
| 2 | TDS, mg/l | 905.4 | 888.0 | 500 | 2000 |
| 3 | Total Hardness as CaCO ₃ , mg/l | 530.0 | 505.0 | 200 | 600 |
| 4 | Chlorides as Cl, mg/l | 135.5 | 142.9 | 250 | 1000 |
| 5 | Fluoride as F, mg/l | <0.5 | <0.5 | 1.0 | 1.5 |
| 6 | Sulphates as SO ₄ , mg/l | 99.19 | 110.31 | 200 | 400 |
| 7 | Iron as Fe, mg/l | <0.3 | <0.3 | 1.0 | No Relaxation |

3.2.2 RESERVOIR WATER/WORK SHOP/TAKKALLAPALLI POND

The water samples at these locations were collected at the Reservoir, Work shop and Takkallapalli pond. The wastewater after treatment at workshop is used for greenbelt development in mine area. On comparison of results with GSR 422 (E) (Inland Surface Water) standard, it was found that all parameters are well within the limits. The analysis results of the sample are given in below. The following table shows the summary of the water quality.

SUMMARY OF WATER QUALITY

| S.No | Parameters | Reservoir B-Block | ReservoirE -Block | Workshop Effluent | Takkalla palli pond | General Standards For Discharge Of Effluents Into In land Surface Water of GSR 422(E) |
|------|----------------------------------|----------------------|----------------------|----------------------|------------------------|---|
| 1 | pH | 8.08 | 7.56 | 7.56 | 8.16 | 5.5-9.0 |
| 2 | BOD,mg/1 | <4.0 | < 4.0 | 6.0 | <4.0 | 30 |
| 3 | COD,mg/1 | 12.04 | 20.08 | 16.0 | <5.0 | 250 |
| 4 | TSS,mg/1 | Nil | Nil | 12.0 | Nil | 100 |
| 5 | TDSmg/1 | 440.0 | 423.0 | 740.0 | 546.0 | 2100 |
| 6 | SulphatesasSO ₄ ,mg/1 | 175.34 | 198.39 | 85.61 | 93.02 | 1000 |
| 7 | ChloridesasCl,mg/1 | 9.85 | 14.78 | 177.39 | 73.91 | 1000 |
| 8 | Oil & Grease,mg/1 | <5.0 | <5.0 | 3.5 | <5.0 | 10 |

3.3 GROUND WATER LEVEL MEASUREMENT

Water Quality analysis report and data is given in **Annexure-III**.

3.4 NOISE LEVEL MEASUREMENT

Noise Level Monitoring Data is given in **Annexure-IV**.

3.5 SOIL QUALITY MONITORING

The analysis data for nine soil samples is given in **Annexure-V**

Annexure-I

Environment Monitoring Reports

Report No: KIWIS/AAQ/COM/23/1503

Name and address of the client

M/s.Kesoram Industries Limited
Basanth nagar Limestone Mining Lease ,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Mines office

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|-------|--------------------------|-------------|--------------------|----------------|-------------|-------------|------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 01.02.2023 | A | 28.1°C & 60% | 256 | 78.0 | 42.2 | 14.3 | 16.6 | <1 |
| 01.02.2023 | B | 28.0°C & 61% | 258 | 76.0 | 40.6 | 14.9 | 16.8 | <1 |
| 02.02.2023 | A | 29.5°C & 61% | 263 | 72.3 | 38.6 | 13.9 | 15.2 | <1 |
| 02.02.2023 | B | 28.1°C & 63% | 265 | 70.6 | 36.5 | 13.2 | 15.8 | <1 |
| 24.02.2023 | A | 28.5°C & 61% | 241 | 66.5 | 34.5 | 12.2 | 14.1 | <1 |
| 24.02.2023 | B | 27.9°C & 63% | 246 | 64.8 | 32.2 | 12.8 | 14.6 | <1 |
| 25.02.2023 | A | 28.4°C & 64% | 239 | 62.2 | 30.6 | 12.1 | 14.0 | <1 |
| 25.02.2023 | B | 27.2°C & 65% | 234 | 60.8 | 28.2 | 12.3 | 14.5 | <1 |
| Standards as per IBM | | | 700 (µg/m³) | 350 (µg/m³) | - | 5.0 (mg/m³) | 6.0 (mg/m³) | 40 (mg/m³) |
| NAAQ Standards for Rural and Residential Areas | | | - | - | 60 (µg/m³) | - | - | - |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By


 (D.Ravindar)
 (Sr.Chemist)

Authorized Signatory


 (N.A) Jay Goud
 (Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf

Report No: KIWIS/AAQ/COM/23/1504

Name and address of the client

**M/s.Kesoram Industries Limited
Basanth nagar Limestone Mining Lease ,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.**

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Drilling Area

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|-------|--------------------------|-------------|--------------------|----------------|-------------|-------------|------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 01.02.2023 | A | 28.1°C & 60% | 318 | 88.5 | 36.5 | 12.2 | 14.3 | <1 |
| 01.02.2023 | B | 28.0°C & 61% | 310 | 88.0 | 36.0 | 12.0 | 14.1 | <1 |
| 02.02.2023 | A | 29.5°C & 61% | 298 | 86.4 | 35.4 | 13.1 | 15.6 | <1 |
| 02.02.2023 | B | 28.1°C & 63% | 290 | 86.9 | 35.2 | 13.3 | 15.2 | <1 |
| 24.02.2023 | A | 28.5°C & 61% | 285 | 84.5 | 34.1 | 12.5 | 14.1 | <1 |
| 24.02.2023 | B | 27.9°C & 63% | 281 | 84.2 | 34.3 | 12.9 | 14.8 | <1 |
| 25.02.2023 | A | 28.4°C & 64% | 274 | 83.0 | 33.5 | 11.8 | 13.2 | <1 |
| 25.02.2023 | B | 27.2°C & 65% | 272 | 83.2 | 33.1 | 11.2 | 13.8 | <1 |
| Standards as per IBM | | | 700 (µg/m³) | 350 (µg/m³) | - | 5.0 (mg/m³) | 6.0 (mg/m³) | 40 (mg/m³) |
| NAAQ Standards for Rural and Residential Areas | | | - | - | 60 (µg/m³) | - | - | - |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

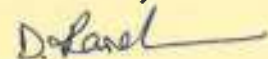
Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023


CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By



(D.Ravindar)
(Sr.Chemist)

Authorized Signatory



(N. Ajay Goud)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf

Report No: KIWIS/AAQ/COM/23/1506

Name and address of the client

M/s.Kesoram Industries Limited
Basanth nagar Limestone Mining Lease ,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.

Date of report : 06-03-2023
 Sample Collected by : Kiwis Eco Laboratories Private Limited
 Sample Condition : Samples received in Self sealed Covers and Sample Bottles
 Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
 Sample description/Code : Ambient Air Quality Monitoring
 Sub Contract Testing : NA

Location : Loading Area

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|-------|--------------------------|--------------------------|---------------------------------|-----------------------------|--------------------------|--------------------------|-------------------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m ³) | RPM(PM 10) (µg/m ³) | PM 2.5 (µg/m ³) | SO2 (µg/m ³) | NO2 (µg/m ³) | CO (mg/m ³) |
| 01.02.2023 | A | 28.1°C & 60% | 315 | 89.5 | 38.2 | 16.3 | 18.8 | <1 |
| 01.02.2023 | B | 28.0°C & 61% | 310 | 89.7 | 38.5 | 16.0 | 18.2 | <1 |
| 02.02.2023 | A | 29.5°C & 61% | 298 | 88.6 | 37.6 | 15.9 | 17.1 | <1 |
| 02.02.2023 | B | 28.1°C & 63% | 292 | 88.2 | 37.2 | 15.2 | 17.3 | <1 |
| 24.02.2023 | A | 28.5°C & 61% | 284 | 87.5 | 36.5 | 14.5 | 16.2 | <1 |
| 24.02.2023 | B | 27.9°C & 63% | 282 | 87.2 | 36.0 | 14.2 | 16.5 | <1 |
| 25.02.2023 | A | 28.4°C & 64% | 279 | 86.2 | 35.8 | 13.9 | 15.5 | <1 |
| 25.02.2023 | B | 27.2°C & 65% | 275 | 86.0 | 35.1 | 13.0 | 15.3 | <1 |
| Standards as per IBM | | | 700 (µg/m ³) | 350 (µg/m ³) | - | 5.0 (mg/m ³) | 6.0 (mg/m ³) | 40 (mg/m ³) |
| NAAQ Standards for Rural and Residential Areas | | | - | - | 60 (µg/m ³) | - | - | - |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

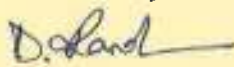
Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023


PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By


 (D.Ravindar)
 (Sr.Chemist)

Authorized Signatory


 (N.Ajay Goud)
 (Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf

Report No: KIWIS/AAQ/COM/23/1507

Name and address of the client

**M/s.Kesoram Industries Limited
Basant nagar Limestone Mining Lease ,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.**

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Haulage Road

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|---|-------|--------------------------|--------------------|--------------------|-------------------|--------------------|--------------------|-------------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 01.02.2023 | A | 28.1°C & 60% | 279 | 85.2 | 34.2 | 13.6 | 15.9 | <1 |
| 01.02.2023 | B | 28.0°C & 61% | 275 | 85.0 | 34.0 | 13.2 | 15.4 | <1 |
| 02.02.2023 | A | 29.5°C & 61% | 264 | 84.2 | 33.5 | 12.2 | 14.6 | <1 |
| 02.02.2023 | B | 28.1°C & 63% | 260 | 84.0 | 33.2 | 12.3 | 14.2 | <1 |
| 24.02.2023 | A | 28.5°C & 61% | 258 | 83.9 | 32.5 | 11.9 | 13.5 | <1 |
| 24.02.2023 | B | 27.9°C & 63% | 254 | 83.5 | 32.2 | 11.7 | 13.2 | <1 |
| 25.02.2023 | A | 28.4°C & 64% | 244 | 82.1 | 31.6 | 11.3 | 13.4 | <1 |
| 25.02.2023 | B | 27.2°C & 65% | 240 | 82.5 | 31.2 | 11.0 | 13.0 | <1 |
| Standards as per IBM | | | 700 (µg/m³) | 350 (µg/m³) | - | 5.0 (mg/m³) | 6.0 (mg/m³) | 40 (mg/m³) |
| NAAQ Standards for Rural and Residential Areas | | | - | - | 60 (µg/m³) | - | - | - |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

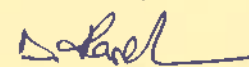
Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By


(D.Ravindar)
(Sr.Chemist)

Authorized Signatory


(N.Ajay Goud)
(Sr.Chemist)

Report No: KIWIS/AAQ/COM/23/1508

Name and address of the client

**M/s.Kesoram Industries Limited
Basanth nagar Limestone Mining Lease ,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.**

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Crushing Area

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|-------|--------------------------|-------------|--------------------|----------------|-------------|-------------|------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 03.02.2023 | A | 28.1°C & 60% | 248 | 83.5 | 4.8 | 14.6 | 16.9 | <1 |
| 03.02.2023 | B | 28.0°C & 61% | 242 | 83.9 | 34.6 | 14.4 | 16.6 | <1 |
| 04.02.2023 | A | 29.5°C & 61% | 236 | 82.6 | 33.5 | 13.9 | 15.5 | <1 |
| 04.02.2023 | B | 28.1°C & 63% | 232 | 82.2 | 33.2 | 13.7 | 15.3 | <1 |
| 26.02.2023 | A | 28.5°C & 61% | 228 | 81.9 | 32.1 | 12.4 | 14.8 | <1 |
| 26.02.2023 | B | 27.9°C & 63% | 226 | 81.7 | 32.3 | 12.6 | 14.2 | <1 |
| 27.02.2023 | A | 28.4°C & 64% | 218 | 80.6 | 31.9 | 11.9 | 13.8 | <1 |
| 27.02.2023 | B | 27.2°C & 65% | 216 | 80.2 | 31.5 | 12.8 | 13.5 | <1 |
| Standards as per IBM | | | 700 (µg/m³) | 350 (µg/m³) | - | 5.0 (mg/m³) | 6.0 (mg/m³) | 40 (mg/m³) |
| NAAQ Standards for Rural and Residential Areas | | | - | - | 60 (µg/m³) | - | - | - |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

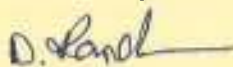
Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023


PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By


(D.Ravindar)
(Sr.Chemist)

Authorized Signatory


(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf

Report No: KIWIS/AAQ/COM/23/1509

Name and address of the client

M/s.Kesoram Industries Limited
Basanth nagar Limestone Mining Lease ,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Colony(Guest house)

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|---------------------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 03.02.2023 | A | 28.1°C & 60% | 128 | 56.5 | 21.2 | 13.2 | 15.5 | <1 |
| 03.02.2023 | B | 28.0°C & 61% | 124 | 56.2 | 21.0 | 13.6 | 15.0 | <1 |
| 04.02.2023 | A | 29.5°C & 61% | 126 | 55.9 | 20.6 | 12.1 | 14.9 | <1 |
| 04.02.2023 | B | 28.1°C & 63% | 124 | 55.7 | 20.1 | 12.3 | 14.6 | <1 |
| 26.02.2023 | A | 28.5°C & 61% | 118 | 54.2 | 19.5 | 11.9 | 13.2 | <1 |
| 26.02.2023 | B | 27.9°C & 63% | 116 | 54.0 | 19.2 | 11.6 | 13.0 | <1 |
| 27.02.2023 | A | 28.4°C & 64% | 112 | 53.8 | 18.8 | 10.3 | 12.9 | <1 |
| 27.02.2023 | B | 27.2°C & 65% | 110 | 53.4 | 18.2 | 10.5 | 12.5 | <1 |
| NAAQ Standards for Rural and Residential Areas | 8-hourly standard | | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | 24- hourly standard | | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

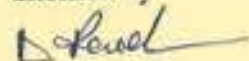
Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023


CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By



(D.Ravindar)
(Sr.Chemist)

Authorized Signatory



(N.A)ay Goud)
(Sr.Chemist)

End of the Report



KIWIS/QF/7.8/03

ECO LABORATORIES PVT. LTD.
Recognized by MoEF, GOI, New Delhi,
Certified by ISO 9001:2015,
ISO 14001:2015 & OHSMS 45001:2018

Plot No. 19, ALEAP Industrial Estate,
SY. No's 342, Near Pragathi Nagar,
Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Page 1 of 1

Report No: KIWIS/AAQ/COM/23/1510

Name and address of the client

M/s.Kesoram Industries Limited
Basant nagar Limestone Mining Lease,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Workers Colony

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|---------------------|--------------------------|--------------------------|---------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m ³) | RPM(PM 10) (µg/m ³) | PM 2.5 (µg/m ³) | SO ₂ (µg/m ³) | NO ₂ (µg/m ³) | CO (mg/m ³) |
| 03.02.2023 | A | 28.5°C & 60% | 128 | 53.2 | 18.3 | 13.3 | 15.5 | <1 |
| 03.02.2023 | B | 27.9°C & 61% | 124 | 53.0 | 18.0 | 13.1 | 15.1 | <1 |
| 04.02.2023 | A | 29.5°C & 59% | 118 | 52.5 | 17.8 | 12.8 | 14.5 | <1 |
| 04.02.2023 | B | 27.8°C & 60% | 116 | 52.1 | 17.4 | 12.4 | 14.3 | <1 |
| 26.02.2023 | A | 28.6°C & 60% | 112 | 51.6 | 16.6 | 11.6 | 13.6 | <1 |
| 26.02.2023 | B | 27.6°C & 61% | 110 | 51.4 | 16.3 | 11.2 | 13.2 | <1 |
| 27.02.2023 | A | 28.4°C & 62% | 108 | 50.8 | 15.5 | 10.5 | 12.4 | <1 |
| 27.02.2023 | B | 27.9°C & 63% | 106 | 50.2 | 15.2 | 10.2 | 12.0 | <1 |
| NAAQ Standards for Rural and Residential Areas | 8-hourly standard | | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m ³) |
| | 24- hourly standard | | 200(µg/m ³) | 100(µg/m ³) | 60(µg/m ³) | 80(µg/m ³) | 80(µg/m ³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

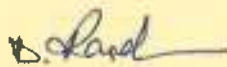
B-Shift - 14.00 to 22.00 hrs

Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By


(D.Ravindar)
(Sr.Chemist)

Authorized Signatory


(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf

Report No: KIWIS/AAQ/COM/23/1511

Name and address of the client

M/s.Kesoram Industries Limited
Basant nagar Limestone Mining Lease,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Kannala Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|--------------------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 03.02.2023 | A | 29.5°C & 60% | 148 | 64.2 | 19.9 | 13.6 | 15.9 | <1 |
| 03.02.2023 | B | 28.0°C & 61% | 146 | 64.0 | 19.6 | 13.2 | 15.2 | <1 |
| 04.02.2023 | A | 29.2°C & 60% | 136 | 63.1 | 18.6 | 12.5 | 14.5 | <1 |
| 04.02.2023 | B | 28.3°C & 60% | 132 | 63.3 | 18.2 | 12.1 | 14.2 | <1 |
| 26.02.2023 | A | 28.9°C & 60% | 128 | 62.2 | 17.7 | 11.6 | 13.6 | <1 |
| 26.02.2023 | B | 27.6°C & 61% | 124 | 62.5 | 17.3 | 11.3 | 13.1 | <1 |
| 27.02.2023 | A | 28.7°C & 62% | 122 | 60.6 | 16.8 | 10.9 | 12.9 | <1 |
| 27.02.2023 | B | 27.5°C & 63% | 120 | 60.2 | 16.5 | 10.2 | 12.5 | <1 |
| NAAQ Standards for Rural and Residential Areas | 8-hourly standard | Not specified | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | 24-hourly standard | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs


Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023


PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By


(D.Ravindar)
(Sr.Chemist)

Authorized Signatory


(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Report No: KIWIS/AAQ/COM/23/1512

Name and address of the client

M/s.Kesoram Industries Limited
Basant nagar Limestone Mining Lease ,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Palakurthy Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shi ft | Result | | | | | | |
|--|---------------------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 05.02.2023 | A | 29.2°C & 60% | 136 | 53.6 | 18.5 | 14.4 | 16.9 | <1 |
| 05.02.2023 | B | 27.8°C & 61% | 134 | 53.0 | 18.2 | 14.9 | 16.7 | <1 |
| 06.02.2023 | A | 29.6°C & 60% | 132 | 52.5 | 17.7 | 13.6 | 15.5 | <1 |
| 06.02.2023 | B | 28.0°C & 62% | 130 | 52.1 | 17.3 | 13.1 | 15.1 | <1 |
| 28.02.2023 | A | 28.9°C & 60% | 128 | 51.6 | 16.2 | 12.5 | 14.8 | <1 |
| 28.02.2023 | B | 27.4°C & 60% | 124 | 51.9 | 16.1 | 12.2 | 14.4 | <1 |
| 01.03.2023 | A | 28.6°C & 62% | 122 | 50.2 | 15.9 | 11.8 | 13.2 | <1 |
| 01.03.2023 | B | 27.5°C & 63% | 120 | 50.0 | 15.2 | 11.6 | 13.5 | <1 |
| NAAQ Standards for Rural and Residential Areas | 8-hourly standard | Not specified | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | 24- hourly standard | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

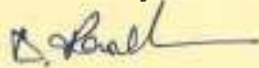
Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By



(D.Ravindar)
(Sr.Chemist)

Authorized Signatory



(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Report No: KIWIS/AAQ/COM/23/1513

Name and address of the client

M/s.Kesoram Industries Limited
Basantnagar Limestone Mining Lease ,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Takkalapalli Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|-------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 05.02.2023 | A | 29.5°C & 60% | 126 | 52.2 | 20.3 | 13.6 | 15.9 | <1 |
| 05.02.2023 | B | 27.8°C & 61% | 124 | 52.0 | 18.8 | 13.1 | 15.2 | <1 |
| 06.02.2023 | A | 29.2°C & 60% | 122 | 51.6 | 18.5 | 12.8 | 14.5 | <1 |
| 06.02.2023 | B | 28.1°C & 62% | 120 | 51.8 | 17.6 | 12.0 | 14.3 | <1 |
| 28.02.2023 | A | 28.6°C & 60% | 118 | 50.9 | 17.4 | 11.6 | 13.8 | <1 |
| 28.02.2023 | B | 27.1°C & 61% | 116 | 50.7 | 16.8 | 11.4 | 13.6 | <1 |
| 01.03.2023 | A | 28.6°C & 61% | 114 | 49.8 | 16.2 | 10.6 | 12.8 | <1 |
| 01.03.2023 | B | 27.5°C & 62% | 112 | 49.2 | 15.2 | 10.2 | 12.4 | <1 |
| NAAQ Standards for Rural and Residential Areas | | 8-hourly standard | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | | 24- hourly standard | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

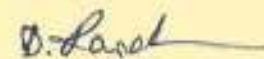
Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

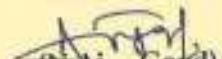
Checked By



(D.Ravindar)

(Sr.Chemist)

Authorized Signatory



(N.Ajay Goud)

(Sr.Chemist)

End of the Report

Report No: KIWIS/AAQ/COM/23/1514

Name and address of the client

M/s.Kesoram Industries Limited
Basanth nagar Limestone Mining Lease ,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Kothapalli Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shi ft | Result | | | | | | |
|--|---------------------|-------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C& %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 05.02.2023 | A | 29.8°C & 60% | 112 | 47.2 | 17.2 | 14.2 | 16.9 | <1 |
| 05.02.2023 | B | 28.0°C & 61% | 110 | 47.0 | 17.0 | 14.6 | 16.2 | <1 |
| 06.02.2023 | A | 29.6°C & 61% | 108 | 46.5 | 16.5 | 13.2 | 15.5 | <1 |
| 06.02.2023 | B | 28.2°C & 62% | 100 | 46.3 | 16.2 | 13.0 | 15.3 | <1 |
| 28.02.2023 | A | 28.7°C & 61% | 98 | 45.2 | 15.5 | 12.5 | 14.6 | <1 |
| 28.02.2023 | B | 27.3°C & 60% | 96 | 45.1 | 15.8 | 12.8 | 14.8 | <1 |
| 01.03.2023 | A | 28.9°C & 61% | 92 | 44.2 | 14.2 | 11.2 | 13.3 | <1 |
| 01.03.2023 | B | 27.3°C & 63% | 90 | 44.0 | 14.0 | 11.6 | 13.1 | <1 |
| NAAQ Standards for Rural and Residential Areas | 8-hourly standard | Not specified | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | 24- hourly standard | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

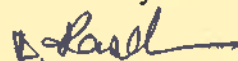
Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

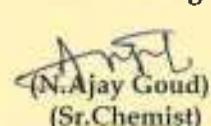
CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By



(D.Ravindar)
(Sr.Chemist)

Authorized Signatory



(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf

Report No: KIWIS/AAQ/COM/23/1515

Name and address of the client

M/s.Kesoram Industries Limited
Basanth nagar Limestone Mining Lease ,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Kundanapalli Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|-------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 05.02.2023 | A | 29.9°C & 60% | 108 | 49.6 | 17.6 | 12.2 | 14.9 | <1 |
| 05.02.2023 | B | 28.5°C & 62% | 106 | 49.3 | 17.3 | 12.6 | 14.7 | <1 |
| 06.02.2023 | A | 29.6°C & 60% | 104 | 48.5 | 16.5 | 13.2 | 15.1 | <1 |
| 06.02.2023 | B | 28.1°C & 61% | 102 | 48.2 | 16.2 | 13.9 | 15.5 | <1 |
| 28.02.2023 | A | 28.0°C & 60% | 98 | 47.7 | 15.8 | 12.2 | 14.8 | <1 |
| 28.02.2023 | B | 27.0°C & 61% | 96 | 47.3 | 15.4 | 12.5 | 14.6 | <1 |
| 01.03.2023 | A | 28.9°C & 62% | 94 | 46.5 | 14.7 | 11.6 | 13.9 | <1 |
| 01.03.2023 | B | 27.2°C & 62% | 92 | 46.2 | 14.3 | 11.9 | 13.4 | <1 |
| NAAQ Standards for Rural and Residential Areas | | 8-hourly standard | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | | 24- hourly standard | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By



(D.Ravindar)
(Sr.Chemist)

Authorized Signatory



(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Report No: KIWIS/AAQ/COM/23/1516

Name and address of the client

M/s.Kesoram Industries Limited
Basanth nagar Limestone Mining Lease ,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Raginedu Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shi ft | Result | | | | | | |
|--|--------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 07-01-1900 | A | 28.9°C & 62% | 112 | 51.5 | 18.6 | 12.3 | 14.4 | <1 |
| 07.02.2023 | B | 28.3°C & 62% | 110 | 51.0 | 18.2 | 12.1 | 14.0 | <1 |
| 08.02.2023 | A | 29.0°C & 61% | 108 | 50.6 | 17.5 | 13.6 | 15.3 | <1 |
| 08.02.2023 | B | 28.8°C & 61% | 106 | 50.3 | 17.3 | 13.5 | 15.1 | <1 |
| 02.03.2023 | A | 28.1°C & 62% | 97 | 49.8 | 16.6 | 11.5 | 13.6 | <1 |
| 02.03.2023 | B | 27.0°C & 62% | 95 | 49.4 | 16.8 | 11.3 | 13.1 | <1 |
| 03.03.2023 | A | 28.7°C & 63% | 93 | 48.2 | 15.2 | 10.4 | 12.5 | <1 |
| 03.03.2023 | B | 27.4°C & 64% | 91 | 48.0 | 15.0 | 10.2 | 12.0 | <1 |
| NAAQ Standards for Rural and Residential Areas | | 8-hourly standard | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | | 24- hourly standard | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

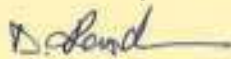
Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By



(D.Ravindar)
(Sr.Chemist)

Authorized Signatory


(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Report No: KIWIS/AAQ/COM/23/1517

Name and address of the client

M/s.Kesoram Industries Limited
Basanth nagar Limestone Mining Lease ,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Kurmapalli Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|---------------------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 07-01-1900 | A | 28.9°C & 62% | 109 | 50.2 | 17.7 | 12.6 | 14.9 | <1 |
| 07.02.2023 | B | 28.3°C & 62% | 107 | 50.9 | 17.3 | 12.4 | 14.7 | <1 |
| 08.02.2023 | A | 29.0°C & 61% | 103 | 49.6 | 16.9 | 13.5 | 15.6 | <1 |
| 08.02.2023 | B | 28.8°C & 61% | 101 | 49.3 | 16.4 | 13.0 | 15.1 | <1 |
| 02.03.2023 | A | 28.1°C & 62% | 98 | 48.5 | 15.8 | 12.2 | 14.2 | <1 |
| 02.03.2023 | B | 27.0°C & 62% | 96 | 48.2 | 15.2 | 12.4 | 14.6 | <1 |
| 03.03.2023 | A | 28.7°C & 63% | 92 | 47.1 | 14.2 | 11.6 | 13.9 | <1 |
| 03.03.2023 | B | 27.4°C & 64% | 90 | 47.3 | 14.6 | 11.3 | 13.5 | <1 |
| NAAQ Standards for Rural and Residential Areas | 8-hourly standard | | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | 24- hourly standard | | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs

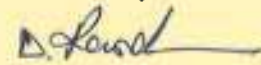
Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023

PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By



(D.Ravindar)
(Sr.Chemist)

Authorized Signatory



(N.Ajay Goud)
(Sr.Chemist)

End of the Report



WIS/QF/7.8/03
KIWIS
ECO LABORATORIES PVT. LTD.
Recognized by MoEF, GOI, New Delhi,
Certified by ISO 9001:2015,
ISO 14001:2015 & OHSMS 45001:2018

Plot No. 19, ALEAP Industrial Estate,
SY. No's 342, Near Pragathi Nagar,
Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Page 1 of 1

Report No:KIWIS/AAQ/COM/23/1518

Name and address of the client

M/s.Kesoram Industries Limited
Basanth nagar Limestone Mining Lease ,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Putnuru Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shi ft | Result | | | | | | |
|--|---------------------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 07-01-1900 | A | 30.2°C & 62% | 119 | 50.3 | 18.6 | 12.6 | 14.8 | <1 |
| 07.02.2023 | B | 28.1°C & 62% | 117 | 50.2 | 18.4 | 12.3 | 14.6 | <1 |
| 08.02.2023 | A | 29.9°C & 61% | 114 | 49.8 | 17.8 | 11.5 | 13.3 | <1 |
| 08.02.2023 | B | 27.2°C & 61% | 112 | 49.7 | 17.4 | 11.7 | 13.1 | <1 |
| 02.03.2023 | A | 28.6°C & 62% | 108 | 48.5 | 16.2 | 10.3 | 12.8 | <1 |
| 02.03.2023 | B | 27.3°C & 62% | 106 | 48.1 | 16.0 | 10.6 | 12.5 | <1 |
| 03.03.2023 | A | 29.8°C & 63% | 98 | 47.9 | 15.8 | 9.8 | 11.9 | <1 |
| 03.03.2023 | B | 27.0°C & 64% | 96 | 47.7 | 15.2 | 9.4 | 11.2 | <1 |
| NAAQ Standards for Rural and Residential Areas | 8-hourly standard | | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | 24- hourly standard | | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs


Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023


PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By


(D.Ravindar)
(Sr.Chemist)

Authorized Signatory


(N.Ajay Goud)
(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf

Report No: KIWIS/AAQ/COM/23/1519

Name and address of the client

M/s.Kesoram Industries Limited
Basanth nagar Limestone Mining Lease ,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.

Date of report : 06-03-2023
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample Condition : Samples received in Self sealed Covers and Sample Bottles
Sampling Procedure : CPCB Guidelines (NAAQMS/36/2012-13)
Sample description/Code : Ambient Air Quality Monitoring
Sub Contract Testing : NA

Location : Ramaraopalli Village

TEST RESULT

Samples are analyzed "as is where basis is"

| Date Of Sampling | Shift | Result | | | | | | |
|--|---------------------|--------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| | | Temp & Humidity (°C & %) | SPM (µg/m³) | RPM(PM 10) (µg/m³) | PM 2.5 (µg/m³) | SO2 (µg/m³) | NO2 (µg/m³) | CO (mg/m³) |
| 07-01-1900 | A | 29.5°C & 62% | 109 | 48.6 | 17.9 | 13.6 | 15.6 | <1 |
| 07.02.2023 | B | 28.0°C & 62% | 107 | 48.2 | 17.5 | 13.9 | 15.4 | <1 |
| 08.02.2023 | A | 29.0°C & 61% | 104 | 47.8 | 16.5 | 12.2 | 14.8 | <1 |
| 08.02.2023 | B | 28.0°C & 61% | 101 | 47.4 | 16.2 | 12.4 | 14.4 | <1 |
| 02.03.2023 | A | 28.5°C & 62% | 97 | 46.5 | 15.8 | 11.6 | 13.9 | <1 |
| 02.03.2023 | B | 27.4°C & 62% | 95 | 46.1 | 15.1 | 11.1 | 13.3 | <1 |
| 03.03.2023 | A | 28.3°C & 63% | 93 | 45.5 | 14.8 | 10.5 | 12.5 | <1 |
| 03.03.2023 | B | 27.1°C & 64% | 91 | 45.0 | 14.2 | 10.1 | 12.1 | <1 |
| NAAQ Standards for Rural and Residential Areas | 8-hourly standard | | Not specified | Not specified | Not specified | Not specified | Not specified | 2(mg/m³) |
| | 24- hourly standard | | 200(µg/m³) | 100(µg/m³) | 60(µg/m³) | 80(µg/m³) | 80(µg/m³) | Not specified |

Note : Monitoring was carried out for 8 hourly intervals

A-shift - 06.00 to 14.00 hrs

B-Shift - 14.00 to 22.00 hrs


Test reports shall not be reproduced except in full, without written approval of the laboratory

PM₁₀ Instrument Model: LataEnvirotech APM-860, Calibration valid up to: 24-04-2023


PM_{2.5} Instrument Model: LataEnvirotech APM-154, Calibration valid up to: 24-04-2023

CO Analyzer Instrument Model: VS70-CO, Calibration valid up to: 21-02-2024

Checked By


(D.Ravindar)
(Sr.Chemist)

Authorized Signatory


(N. Ajay Godd)
(Sr.Chemist)

End of the Report

Report No:KIWIS/NOISE/COM/23/1507
Name and address of the client:

M/s.Kesoram Industries Limited
Basanth nagar Limestone Mining Lease ,
Palakurthy & Takkallapalli Villages, Palakurthy
Mondal, Peddapalli District, Telangana State.

Date of report : 06-03-2023
Date of sampling : 01-02-2023 to 03-02-2023
Sample registration no : NOISE/COM/02/23/2320-2323,2332-,2335 &2344-2345
Sample Collected by : Kiwis Eco Laboratories Private Limited
Sample description/Code : Noise level Monitoring
Sub Contract Testing : NA

TESTRESULT

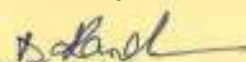
| S.No | Sampling Location | Date of Monitoring | Units | Result | | Standard Limit | |
|------|----------------------------|--------------------|--------|---------|-----------|----------------|------------|
| | | | | Leq Day | Leq Night | Day Time | Night time |
| 1 | Mines Office | 01-02-2023 | dB (A) | 65.2 | 55.9 | 75 | 70 |
| 2 | Near Haulage Road | 01-02-2023 | dB (A) | 64.6 | 54.5 | | |
| 3 | Near Loading Area | 01-02-2023 | dB (A) | 71.8 | 60.8 | | |
| 4 | Near Dumper Cabin | 01-02-2023 | dB (A) | 68.8 | 59.2 | | |
| 5 | Near Crusher Hopper | 02-02-2023 | dB (A) | 70.5 | 60.6 | | |
| 6 | Near Drilling Cabin | 02-02-2023 | dB (A) | 73.1 | 58.7 | | |
| 7 | Near Dozing Area | 02-02-2023 | dB (A) | 70.2 | 58.8 | | |
| 8 | Near Workers Colony | 02-02-2023 | dB (A) | 52.3 | 41.9 | 55 | 45 |
| 9 | Near Palakurthy Village | 03-02-2023 | dB (A) | 51.6 | 42.2 | | |
| 10 | Near Takkallapalli Village | 03-02-2023 | dB (A) | 51.8 | 43.4 | | |

Opinion and interpretation: Nil

NA: Not Applicable

- Test reports shall not be reproduced except in full, without written approval of the laboratory
 Integrated Sound Level Meter, Make:LUTRON, ModelNo:SL- 4033 SD, Calibration valid up to:01-08-2023

Checked By


 (D.Ravindar)
 (Sr.Chemist)

Authorized Signatory


 (N. Ajay Goud)
 (Sr.Chemist)

End of the Report

Report No: KIWIS/W/COM/23/1429

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages ,
Plakurthy Mandal, Peddapalli District,
Telangana State

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2236
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Basanth Nagar Village

Environmental Conditions During Monitoring: 27.8°C & 48%

1. W/COM/02/23/2236: BN/24/02/2023/01 (Basant Nagar Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------|-------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H*B | 7.45 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 640.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 435.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 180.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 255.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 60.72 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 24.54 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 56.66 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 67.5 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



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ISO 14001:2015 & OHSMS 45001:2018

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Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/W/COM/23/1429

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|------------|-----------------------------|--------|------------------------------|---|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 0.54 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 35.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 2.6 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁶⁺ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN- | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |


Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report

Report No: KIWIS/W/COM/23/1430

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2237
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Palakurthy Nagar Village
Environmental Conditions During Monitoring: 27.8°C & 48%

1. W/COM/02/23/2237: PN/24/02/2023/01 (Palakurthy Nagar Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------|-------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H*B | 7.85 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 1060.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 685.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 295.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 385.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 70.84 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 50.31 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 98.55 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 77.38 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf

Report No: **KIWIS/W/COM/23/1430**

Samples are analyzed "as is where basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 3.5 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 68.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 6.6 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁺⁶ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN- | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |


Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By


 (O. Chowdeswararao)
 (Sr. Chemist)

Authorized Signatory


 (Dr. Nalini Vijayalaxmi)
 (Manager Laboratory)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



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Plot No. 19, ALEAP Industrial Estate,
SY. No's 342, Near Pragathi Nagar,
Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/W/COM/23/1431

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2238
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Kundanapalli Village

Environmental Conditions During Monitoring: 27.5°C & 47%

1. W/COM/02/23/2238: KD/24/02/2023/01 (Kundanapalli Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------|-------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H* B | 7.51 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 628.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 385.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 165.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 230.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 56.67 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 20.86 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 49.27 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 51.03 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



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SY. No's 342, Near Pragathi Nagar,
Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/W/COM/23/1431

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 0.84 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 28.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 3.7 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁺⁶ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN- | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coli form | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |


Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



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Page 1 of 2

Report No: KIWIS/W/COM/23/1432

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2239
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Kannala Village

Environmental Conditions During Monitoring: 27.6°C & 47%

1. W/COM/02/23/2239: K/24/02/2023/01 (Kannala Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------------|-------------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H* B | 7.28 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 683.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 448.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 210.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 270.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 62.74 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 26.99 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 44.34 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 60.91 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



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Page 2 of 2

Report No: **KIWIS/W/COM23/1432**

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 0.62 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 25.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 3.6 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁺⁶ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN ⁻ | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |


Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report



KIWIS

ECO LABORATORIES PVT. LTD.
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Plot No. 19, ALEAP Industrial Estate,
SY. No's 342, Near Pragathi Nagar,
Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/W/COM/23/1433

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2240
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Thakkellapalli Village

Environmental Conditions During Monitoring: 27.8°C & 46%

1. W/COM/02/23/2240: TK/24/02/2023/01 (Thakkellapalli Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------------|-------------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H*B | 7.09 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 1254.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 796.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 350.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 450.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 101.2 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 47.85 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl ⁻ B | 123.18 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 61.74 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



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Page 2 of 2

Report No: KIWIS/W/COM/23/1433

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 12.5 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 85.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 3 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁺⁶ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN- | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |

Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By

(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory

(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report



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Plot No. 19, ALEAP Industrial Estate,
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Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/W/COM/23/1434

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages, Plakurthy
Mandal, Peiddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2241
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Kothapalli Village

Environmental Conditions During Monitoring: 27.6°C & 47%

1. W/COM/02/23/2241: KP/24/02/2023/01 (Kothapalli Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------------|-------------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H ⁺ B | 7.18 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 655.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 454.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 180.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 260.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 72.86 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 18.4 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl ⁻ B | 51.74 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 72.03 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



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Page 2 of 2

Report No: KIWIS/W/COM/23/1434

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 1.15 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 33.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 3.6 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁺⁶ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN- | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |


Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini VijayaLaxmi)
(Manager Laboratory)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



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Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/W/COM/23/1435

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2242
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Raginedu Village

Environmental Conditions During Monitoring: 27.7°C & 48%

1. W/COM/02/23/2242: R/24/02/2023/01 (Raginedu Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------------|-------------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H* B | 7.22 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 1209.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 440.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 195.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 250.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 58.69 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 24.54 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 59.13 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 55.15 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



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Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Page 2 of 2

Report No: KIWIS/W/COM/23/1435

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 1.25 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 40.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 2.4 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁺⁶ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN ⁻ | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |


Methods follow: APHA 23rd Edition

NA: Not Applicable

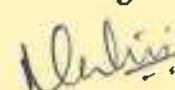
Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



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Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/W/COM/23/1436

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages, Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2243
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Kurmapalli Village

Environmental Conditions During Monitoring: 27.8°C & 47%

1. W/COM/02/23/2243: KM/24/02/2023/01 (Kurmapalli Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------|-------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H* B | 7.14 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 1468.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 995.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 400.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 580.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 107.27 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 76.08 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl ⁻ B | 162.61 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 104.54 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



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Page 2 of 2

Report No: KIWIS/W/COM/23/1436

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 15.2 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 110.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 3.3 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁺⁶ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN ⁻ | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |

Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By

(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory

(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



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Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/W/COM/23/1437

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2244
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Laxmipuram Village

Environmental Conditions During Monitoring: 27.9°C & 48%

1. W/COM/02/23/2244: LP/24/02/2023/01 (Laxmipuram Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------------|-------------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H*B | 7.39 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 1346.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 888.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 340.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 505.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 111.32 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 55.22 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 ClB | 142.9 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 110.31 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



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Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Page 2 of 2

Report No: **KIWIS/W/COM/23/1437**

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 16.4 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 92.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 4.3 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁶⁺ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN- | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |

Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By

(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory

(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



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Quthbullpur Mandal and Municipality,
Ranga Reddy Dist. Telangana - 500 090.
Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/W/COM/23/1438

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2245
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Ramaraopalli Village

Environmental Conditions During Monitoring: 27.6°C & 47%

1. W/COM/02/23/2245: RP/24/02/2023/01 (Ramaraopalli Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------------|-------------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H* B | 7.64 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 1408.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 905.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 385.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 530.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 80.96 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 79.76 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 135.5 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 99.19 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



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Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: **KIWIS/W/COM/23/1438**

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|-----------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 12.8 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 84.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 5.1 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁶ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN- | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |


Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



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Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/W/COM/23/1439

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 **Sample Collected by** : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 **Sample Collected in** : Samples received in Plastic bottles
Sample received on : 25-02-2023 **Sampling Procedure** : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 **Sample registration no** : W/COM/02/23/2246
Analysis completion date : 06-03-2023 **Sample description/Code** : Water Quality Monitoring
Sub Contract Testing : NA **Name of the Location** : Putnuru Village

Environmental Conditions During Monitoring: 28.0°C & 49%

1. W/COM/02/23/2246: P/24/02/2023/01 (Putnuru Village)

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|---------------------------------|-------|-----------------------------|-----------|------------------------------------|-------------------------------------|
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 5 | 15 |
| 2 | Odour | - | APHA 2150 B | Agreeable | Agreeable | Agreeable |
| 3 | pH @ 25.0°C | - | APHA 4500H*B | 7.15 | 6.5-8.5 | No relaxation |
| 4 | Turbidity | NTU | APHA 2130 B | <1.0 | 1 | 5 |
| 5 | Electrical Conductivity | µS/cm | APHA 2510 - B | 1241.0 | Not Specified | Not Specified |
| 6 | Total Dissolved solids | mg/L | APHA 2540 C | 835.0 | 500 | 2000 |
| 7 | Total Suspended Solids | mg/L | APHA 2540 D | <10.0 | Not Specified | Not Specified |
| 8 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 320.0 | 200 | 600 |
| 9 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 480.0 | 200 | 600 |
| 10 | Calcium as Ca | mg/L | APHA 3500 Ca B | 89.05 | 75 | 200 |
| 11 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 62.58 | 30 | 100 |
| 12 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 147.82 | 250 | 1000 |
| 13 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 86.84 | 200 | 400 |

Note : This report is subject to the terms and conditions mentioned overleaf



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Email : kiwislabhyd@gmail.com
Ph : 99666 61485 / 040-23816333

Report No: KIWIS/W/COM/23/1439

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 10500 (Acceptable Limits) | IS 10500 (Permissible Limits) |
|------|------------------------------|---------------|-----------------------------|--------|------------------------------------|--|
| 14 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 16.1 | 45 | No relaxation |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 91.0 | Not Specified | Not Specified |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 4.2 | Not Specified | Not Specified |
| 17 | Fluoride as F | mg/L | APHA 4500F- D | <0.5 | 1.0 | 1.5 |
| 18 | Iron as Fe | mg/L | APHA 3500 Fe B | < 0.3 | 0.3 | No relaxation |
| 19 | Boron as B | mg/L | APHA 4500 B C | <0.1 | 0.5 | 1.0 |
| 20 | Lead as Pb | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 21 | Manganese as Mn | mg/L | APHA 3111 B | <0.1 | 0.1 | 0.3 |
| 22 | Cadmium as Cd | mg/L | APHA 3111 B | <0.003 | 0.003 | No relaxation |
| 23 | Chromium as Cr ⁺⁶ | mg/L | APHA 3500 Cr B | <0.05 | 0.05 | No relaxation |
| 24 | Copper as Cu | mg/L | APHA 3111 B | <0.05 | 0.05 | 1.5 |
| 25 | Total arsenic (as As) | mg/L | APHA 3500 As B | <0.01 | 0.01 | 0.05 |
| 26 | Selenium (as Se) | mg/L | APHA 3111 B | <0.01 | 0.01 | No relaxation |
| 27 | Cyanide as CN- | mg/L | APHA 4500 CN- C, E | <0.05 | 0.05 | No relaxation |
| 28 | Zinc as Zn | mg/L | APHA 3111 B | < 5.0 | 5 | 15 |
| 29 | Mercury (as Hg) | mg/L | APHA 3112 B | <0.001 | 0.001 | No relaxation |
| 30 | Total Coliform | MPN/100 ml | APHA 9221B | Absent | Not Specified | Shall not be detectable in any 100ml sample |


Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory

Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report



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Page 1 of 2

Report No: KIWIS/W/COM/23/1425

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

| | | | |
|--------------------------|--------------|---|--|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic bottles |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : W/COM/02/23/2247 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Water Quality Monitoring |
| Sub Contract Testing | : NA | Name of the Location | : Reservoir E-Block |
| | | Environmental Conditions During Monitoring: | : 27 .8°C&49% |

1 W/COM/02/23/2247: Reservoir E-Block

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 2296-1992 Inland Surface Water Standards | | | | |
|------|---------------------------------|-------|-----------------------------|--------|---|---------|---------|---------|---------|
| | | | | | A | B | C | D | E |
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 10 | 300 | 300 | - | - |
| 2 | pH @ 27.2°C | | APHA 4500H* B | 7.56 | 6.5-8.5 | 6.5-8.5 | 6.0-9.0 | 6.5-8.5 | 6.0-8.5 |
| 3 | Total Dissolved Solids | mg/L | APHA 2540 C | 423.0 | 500 | - | 1500 | - | 2100 |
| 4 | Total Suspended Solids | mg/L | APHA 2540 D | Nil | - | - | - | - | - |
| 5 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 75.0 | - | - | - | - | - |
| 6 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 285.0 | 200 | - | - | - | - |
| 7 | Calcium as Ca | mg/L | APHA 3500 Ca B | 70.84 | 200 | - | - | - | - |
| 8 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 25.77 | 200 | - | - | - | - |
| 9 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl ⁻ B | 14.78 | 250 | - | 600 | - | 600 |
| 10 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 198.39 | 400 | - | 400 | - | 1000 |
| 11 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 3.45 | 20 | - | 50 | - | - |
| 12 | Iron as Fe | mg/L | APHA 3500 Fe B | <0.3 | 0.3 | - | 0.5 | - | - |
| 13 | Fluoride as F | mg/L | APHA 4500F ⁻ D | < 0.5 | 1.5 | 1.5 | 1.5 | - | - |

Note : This report is subject to the terms and conditions mentioned overleaf



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Ph : 99666 61485 / 040-23816333

Page 2 of 2

Report No: KIWIS/W/COM/23/1425

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 2296-1992 Inland Surface Water Standards | | | | |
|------|--|------|---------------------|--------|---|---|---|---|---|
| | | | | | A | B | C | D | E |
| 14 | Boron as B | mg/L | APHA 4500 B C | <0.1 | - | - | - | - | - |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 8.5 | - | - | - | - | - |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 1.5 | - | - | - | - | - |
| 17 | Dissolved Oxygen | mg/L | APHA 2005; 4500 O C | 5.8 | 6 | 5 | 4 | 4 | - |
| 18 | Chemical Oxygen Demand | mg/L | APHA 5220 B | 20.08 | - | - | - | - | - |
| 19 | Biochemical Oxygen Demand (3 Days at 27OC) | mg/L | IS : 3025 (P-44) | < 4.0 | 2 | 3 | 3 | - | - |
| 20 | Oil & Grease | mg/L | APHA 5520 B | <5.0 | - | - | - | - | - |
| 21 | Sulphides as S | mg/l | IS 3025 PART-29 | Nil | - | - | - | - | - |


Methods follow: APHA 23rd Edition

Opinion and interpretation: Nil

NA: Not Applicable

- Reports pertained only to the submitted sample
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Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report



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Ph : 99666 61485 / 040-23816333

Report No: KIWIS/W/COM/23/1426

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 Sample Collected by : Kiwis Eco Laboratories Private Limited
Date of sampling : 24-02-2023 Sample Collected in : Samples received in Plastic bottles
Sample received on : 25-02-2023 Sampling Procedure : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 Sample registration no : W/COM/02/23/2248
Analysis completion date : 06-03-2023 Sample description/Code : Water Quality Monitoring
Sub Contract Testing : NA Name of the Location : Reservoir B-Block
Environmental Conditions During Monitoring: 27.6°C&47%

1 W/COM/02/23/2248: Reservoir B-Block

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 2296-1992 Inland Surface Water Standards | | | | |
|------|---------------------------------|-------|-----------------------------|--------|---|---------|---------|---------|---------|
| | | | | | A | B | C | D | E |
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 10 | 300 | 300 | - | - |
| 2 | pH @ 25.0°C | | APHA 4500H+ B | 8.08 | 6.5-8.5 | 6.5-8.5 | 6.0-9.0 | 6.5-8.5 | 6.0-8.5 |
| 3 | Total Dissolved Solids | mg/L | APHA 2540 C | 440.0 | 500 | - | 1500 | - | 2100 |
| 4 | Total Suspended Solids | mg/L | APHA 2540 D | Nil | - | - | - | - | - |
| 5 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 125.0 | - | - | - | - | - |
| 6 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 320.0 | 200 | - | - | - | - |
| 7 | Calcium as Ca | mg/L | APHA 3500 Ca B | 76.91 | 200 | - | - | - | - |
| 8 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 30.67 | 200 | - | - | - | - |
| 9 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl ⁻ C | 9.85 | 250 | - | 600 | - | 600 |
| 10 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 175.34 | 400 | - | 400 | - | 1000 |
| 11 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 2.28 | 20 | - | 50 | - | - |
| 12 | Iron as Fe | mg/L | APHA 3500 Fe B | <0.3 | 0.3 | - | 0.5 | - | - |
| 13 | Fluoride as F | mg/L | APHA 4500F- D | < 0.5 | 1.5 | 1.5 | 1.5 | - | - |

Note : This report is subject to the terms and conditions mentioned overleaf



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Ph : 99666 61485 / 040-23816333

Page 2 of 2

Report No : KIWIS/W/COM/23/1426

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 2296-1992 Inland Surface Water Standards | | | | |
|------|--|------|--------------------|--------|---|---|---|---|---|
| | | | | | A | B | C | D | E |
| 14 | Boron as B | mg/L | APHA 4500 B C | <0.1 | - | - | - | - | - |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 6.5 | - | - | - | - | - |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 1.6 | - | - | - | - | - |
| 17 | Dissolved Oxygen | mg/L | APHA 2005; 4500 OC | 5.9 | 6 | 5 | 4 | 4 | - |
| 18 | Chemical Oxygen Demand | mg/L | APHA 5220 B | 12.04 | - | - | - | - | - |
| 19 | Biochemical Oxygen Demand (3 Days at 27OC) | mg/L | IS : 3025 (P-44) | < 4.0 | 2 | 3 | 3 | - | - |
| 20 | Oil & Grease | mg/L | APHA 5520 B | <5.0 | - | - | - | - | - |
| 21 | Sulphides as S | mg/l | IS 3025 PART-29 | Nil | - | - | - | - | - |


Methods follow: APHA 23rd Edition

NA: Not Applicable

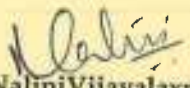
Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
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Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report



KIWIS/QF/7.8/01

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Page 1 of 2

Report No: KIWIS/W/COM/23/1427**Name and address of the client**

M/s. Kesoram Industries Limited
Basant nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023 Sample Collected by : KIWIS Eco Laboratories Private Limited
Date of sampling : 24-02-2023 Sample Collected in : Samples received in Plastic bottles
Sample received on : 25-02-2023 Sampling Procedure : KIWIS/SOP/ Lab - 258
Analysis starting date : 25-02-2023 Sample registration no : W/COM/02/23/2249
Analysis completion date : 06-03-2023 Sample description/Code : Water Quality Monitoring
Sub Contract Testing : NA Name of the Location : Thakkellapalli Pond

Environmental Conditions During Monitoring: 27.9°C&48%

1. W/COM/02/23/2249: Thakkellapalli Pond

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 2296-1992 Inland Surface Water Standards | | | | |
|------|---------------------------------|-------|-----------------------------|--------|---|---------|---------|---------|---------|
| | | | | | A | B | C | D | E |
| 1 | Color | Pt-Co | APHA 2120 C | <5.0 | 10 | 300 | 300 | - | - |
| 2 | pH @ 27.2°C | | APHA 4500H+ B | 8.16 | 6.5-8.5 | 6.5-8.5 | 6.0-9.0 | 6.5-8.5 | 6.0-8.5 |
| 3 | Total Dissolved Solids | mg/L | APHA 2540 C | 546.0 | 500 | - | 1500 | - | 2100 |
| 4 | Total Suspended Solids | mg/L | APHA 2540 D | Nil | - | - | - | - | - |
| 5 | Alkalinity as CaCO ₃ | mg/L | APHA 2320 B | 210.0 | - | - | - | - | - |
| 6 | Hardness as CaCO ₃ | mg/L | APHA 2340 C | 310.0 | 200 | - | - | - | - |
| 7 | Calcium as Ca | mg/L | APHA 3500 Ca B | 62.74 | 200 | - | - | - | - |
| 8 | Magnesium as Mg | mg/L | APHA 3500-Mg B | 36.81 | 200 | - | - | - | - |
| 9 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl ⁻ B | 73.91 | 250 | - | 600 | - | 600 |
| 10 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 93.02 | 400 | - | 400 | - | 1000 |
| 11 | Nitrate as NO ₃ | mg/L | APHA 4500 NO ₃ B | 1.44 | 20 | - | 50 | - | - |
| 12 | Iron as Fe | mg/L | APHA 3500 Fe B | <0.3 | 0.3 | - | 0.5 | - | - |
| 13 | Fluoride as F | mg/L | APHA 4500F- D | < 0.5 | 1.5 | 1.5 | 1.5 | - | - |

Note : This report is subject to the terms and conditions mentioned overleaf



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Page 2 of 2

Report No: KIWIS/W/COM/23/1427

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | IS 2296-1992 Inland Surface Water Standards | | | | |
|------|--|------|---------------------|--------|---|---|---|---|---|
| | | | | | A | B | C | D | E |
| 14 | Boron as B | mg/L | APHA 4500 B C | <0.1 | - | - | - | - | - |
| 15 | Sodium as Na | mg/L | APHA 3500 Na B | 45.5 | - | - | - | - | - |
| 16 | Potassium as K | mg/L | APHA 3500 K B | 1.6 | - | - | - | - | - |
| 17 | Dissolved Oxygen | mg/L | APHA 2005; 4500 O C | 5.7 | 6 | 5 | 4 | 4 | - |
| 18 | Chemical Oxygen Demand | mg/L | APHA 5220 B | <5.0 | - | - | - | - | - |
| 19 | Biochemical Oxygen Demand (3 Days at 27OC) | mg/L | IS : 3025 (P-44) | < 4.0 | 2 | 3 | 3 | - | - |
| 20 | Oil & Grease | mg/L | APHA 5520 B | <5.0 | - | - | - | - | - |
| 21 | Sulphides as S | mg/l | IS 3025 PART-29 | Nil | - | - | - | - | - |


Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

- Reports pertained only to the submitted sample
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Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)***End of the Report***

Note : This report is subject to the terms and conditions mentioned overleaf



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Report No: KIWIS/W/COM/23/1428

Name and address of the client

M/s. Kesoram Industries Limited
Basant nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages, Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

Date of report : 06-03-2023

Sample Collected by : Client

Date of sampling : 24-02-2023

Sample Condition : Samples received in Plastic Container

Sample received on : 25-02-2023

Sampling Procedure : KIWIS/SOP/ Lab - 258

Analysis starting date : 25-02-2023

Sample registration no : WW/COM/02/23/2250

Analysis completion date : 06-03-2023

Sample description/Code : Waste Water Quality Monitoring

Sub Contract Testing : NA

Name of the Location : Workshop Effluent

Environmental Conditions During Monitoring:27.5 °C&50%

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result | Standards IS:2490 |
|------|--|------|-----------------------------|--------|----------------------|
| 1 | pH @ 25.0°C | - | APHA 4500H+ B | 7.56 | 5.5 - 9.0 |
| 2 | Total Dissolved Solids | mg/L | APHA 2540 C | 740.0 | 2100 |
| 3 | Total Suspended Solids | mg/L | APHA 2540 D | 12.0 | 100 |
| 4 | Chemical Oxygen Demand | mg/L | APHA 5220 B | 16.0 | 250 |
| 5 | Biochemical Oxygen Demand (3 Days at 27°C) | mg/L | IS : 3025 (P-44) | 6.0 | 100 |
| 6 | Oil & Grease | mg/L | APHA 5520 B | 3.5 | 10.0 |
| 7 | Chlorides as Cl ⁻ | mg/L | APHA 4500 Cl-B | 177.39 | - |
| 8 | Sulphates as SO ₄ | mg/L | APHA 4500 SO ₄ D | 85.61 | - |

Methods follow: APHA 23rd Edition

NA: Not Applicable

Opinion and interpretation: Nil

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Authorized Signatory

(O.Chowdeswararao)
(Sr.Chemist)

(Dr.Nalini Vijayalaxmi)
(Manager Laboratory)

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Name and address of the client

*M/s. Kesoram industries limited project
Basanth nagar Limestone Mining
Lease, Thakellapalli Village, Basanth nagar
mandal, Peddapalli district, Telangana.*

Date of report : 06-03-2023

Sample description/Code : Groundwater Level

Date of sampling : 24-02-2023

RESULT

| S.No | Registration Numbers | Location | Unit | Result |
|------|-----------------------|--------------------------|--------|--------|
| 1 | W/COM/02/2023/1988/01 | Basanth Nagar | Meters | 5.5 |
| 2 | W/COM/02/2023/1988/02 | Palakurthy Nagar Village | Meters | 9.0 |
| 3 | W/COM/02/2023/1988/03 | Kundanapalli Village | Meters | 6.1 |
| 4 | W/COM/02/2023/1988/04 | Kannala Village | Meters | 5.7 |
| 5 | W/COM/02/2023/1988/05 | Thakkellapalli | Meters | 6.3 |
| 6 | W/COM/02/2023/1988/06 | Kothapalli | Meters | 9.1 |
| 7 | W/COM/02/2023/1988/07 | Raginedu | Meters | 7.0 |
| 8 | W/COM/02/2023/1988/08 | Kurmapalli Village | Meters | 6.6 |
| 9 | W/COM/02/2023/1988/09 | Laxmipuram Village | Meters | 5.8 |
| 10 | W/COM/02/2023/1988/10 | Ramaraopalli | Meters | 8.9 |
| 11 | W/COM/02/2023/1988/11 | Putnuru Village | Meters | 9.3 |

Checked By

(D.Ravindar)
(Sr.Chemist)

Authorized Signatory

(Sr.Chemist)

End of the Report

Note : This report is subject to the terms and conditions mentioned overleaf



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Report No: KIWIS/S/COM/2023/1457

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

| | | | |
|---------------------------------|---------------------|---|---|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2256 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At E Block Top Soil |
| | | Environmental Conditions During Monitoring : 27.5 °C & 46% | |

1. S/COM/02/2023/2256: KIL /24/02/2023/01(At E Block Top Soil)



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Page 2 of 2

Report No: KIWIS/S/COM/2023/1457

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 8.24 |
| 2 | Moisture Content | % | IS 9235-1979 | 5.2 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.62 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 2530.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 295.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 220.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 30.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 235.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 60.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 37 |
| | Silt | % | STIDA&CGI | 27 |
| | Clay | % | STIDA&CGI | 36 |
| 11 | Soil Type | - | IS 2720 | Clay Loam |

Opinion and interpretation: Nil

NA: Not Applicable

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Checked By

(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory

(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report



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Report No: KIWIS/S/COM/2023/1458

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

| | | | |
|---------------------------------|---------------------|---|---|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2257 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At F Block Top Soil |
| | | Environmental Conditions During Monitoring : 27.2 °C & 47% | |

1. S/COM/02/2023/2257 : KIL /24/02/2023/01(At F Block Top Soil)



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Report No: KIWIS/S/COM/2023/1458

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 8.63 |
| 2 | Moisture Content | % | IS 9235-1979 | 5.4 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.51 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 1985.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 345.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 365.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 45.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 320.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 55.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 38 |
| | Silt | % | STIDA&CGI | 28 |
| | Clay | % | STIDA&CGI | 34 |
| 11 | Soil Type | - | IS 2720 | Clay Loam |


Opinion and interpretation: Nil

NA: Not Applicable

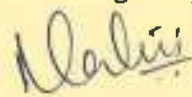
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Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

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Report No: KIWIS/S/2023/1459

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

| | | | |
|---------------------------------|---------------------|---|---|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2258 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At I Block Top Soil |
| | | Environmental Conditions During Monitoring : 27.6 °C & 48% | |

1. S/COM/02/2023/2258: KIL /24/02/2023/01(At I Block Top Soil)



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Report No: KIWIS/S/203/1459

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 8.46 |
| 2 | Moisture Content | % | IS 9235-1979 | 5.3 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.57 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 2195.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 430.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 240.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 38.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 252.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 65.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 42 |
| | Silt | % | STIDA&CGI | 22 |
| | Clay | % | STIDA&CGI | 36 |
| 11 | Soil Type | - | IS 2720 | Clay Loam |


Opinion and interpretation: Nil

NA: Not Applicable


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Checked By


(O. Chowdeswararao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report



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Report No: KIWIS/S/2023/1460

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

| | | | |
|---------------------------------|---------------------|---|---|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2250 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At Basanth Nagar Village Soil |
| | | Environmental Conditions During Monitoring | : 27.3C & 45% |

1. S/COM/02/2023/2250: KIL /24/02/2023/01(At Basanth Nagar Village Soil)



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Report No: KIWIS/S/2023/1460

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 8.35 |
| 2 | Moisture Content | % | IS 9235-1979 | 4.32 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.48 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 1985.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 325.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 264.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 48.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 365.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 60.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 58 |
| | Silt | % | STIDA&CGI | 18 |
| | Clay | % | STIDA&CGI | 24 |
| 11 | Soil Type | - | IS 2720 | Sandy Clay Loam |


Opinion and interpretation: Nil

NA: Not Applicable


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Agriculture Government of India

Checked By


(O. Chowdeswara rao)
(Sr. Chemist)

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
(Manager Laboratory)

End of the Report



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Page 1 of 2

Report No: KIWIS/S/2023/1461

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

| | | | |
|---------------------------------|---------------------|---|---|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2251 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At Palakurthy village |
| | | Environmental Conditions During Monitoring | : 27.1C & 46% |

1. S/COM/02/2023/2251 : KIL /24/02/2023/01(At Palakurthy Village)



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Page 2 of 2

Report No: KIWIS/S/2023/1461

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 8.45 |
| 2 | Moisture Content | % | IS 9235-1979 | 4.2 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.55 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 1795.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 265.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 285.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 45.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 395.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 65.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 56 |
| | Silt | % | STIDA&CGI | 19 |
| | Clay | % | STIDA&CGI | 25 |
| 11 | Soil Type | - | IS 2720 | Sandy Clay Loam |


Opinion and interpretation: Nil

NA: Not Applicable

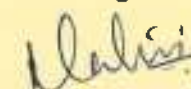
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Checked By


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Sr. Chemist

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
Managing Laboratory

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Report No: KIWIS/S/2023/1462

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

| | | | |
|---------------------------------|---------------------|---|---|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2252 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At Ramaraopalli village |
| | | Environmental Conditions During Monitoring | : 27.8C & 45% |

1. S/COM/02/2023/2252: KIL /24/02/2023/01(At Ramaraopalli Village)



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Page 2 of 2

Report No: KIWIS/S/2023/1462

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 7.82 |
| 2 | Moisture Content | % | IS 9235-1979 | 5.6 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.68 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 2465.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 410.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 390.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 85.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 425.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 70.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 34 |
| | Silt | % | STIDA&CGI | 30 |
| | Clay | % | STIDA&CGI | 36 |
| 11 | Soil Type | - | IS 2720 | Clay Loam |


Opinion and interpretation: Nil

NA: Not Applicable

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(O. Chowdeswararao)
Sr. Chemist

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
Managing Laboratory

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Report No: KIWIS/S/2023/1463

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

| | | | |
|---------------------------------|---------------------|---|---|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2253 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At Kannala village |
| | | Environmental Conditions During Monitoring : 27.4C & 46% | |

1. S/COM/02/2023/2253: KIL /24/02/2023/01(At Kannala Village)



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Report No: KIWIS/S/2023/1463

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 8.44 |
| 2 | Moisture Content | % | IS 9235-1979 | 5.8 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.68 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 1735.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 295.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 330.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 50.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 375.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 55.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 60 |
| | Silt | % | STIDA&CGI | 18 |
| | Clay | % | STIDA&CGI | 22 |
| 11 | Soil Type | - | IS 2720 | Sandy Clay Loam |

Opinion and interpretation: Nil

NA: Not Applicable

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(O.Chowdeswararao)
Sr.Chemist

Authorized Signatory

(Dr. Nalini Vijayalaxmi)
Managing Laboratory

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Report No: KIWIS/S/2023/1464

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Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

| | | | |
|---------------------------------|--------------|---|--|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2254 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At Thakellapalli village |
| | | Environmental Conditions During Monitoring : 27.8C & 46% | |

1. S/COM/02/2023/2254: KIL /24/02/2023/01(At Thakellapalli Village)



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Report No: KIWIS/S/2023/1464

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 8.48 |
| 2 | Moisture Content | % | IS 9235-1979 | 6.5 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.75 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 1995.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 410.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 315.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 55.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 305.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 75.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 35 |
| | Silt | % | STIDA&CGI | 28 |
| | Clay | % | STIDA&CGI | 37 |
| 11 | Soil Type | - | IS 2720 | Clay Loam |

Opinion and interpretation: Nil

NA: Not Applicable

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Checked By

(O.Chowdeswararao)
Sr.Chemist

Authorized Signatory

(Dr. Nalini Vijayalaxmi)
Managing Laboratory

End of the Report



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Report No: KIWIS/S/COM/2023/1465

Name and address of the client

M/s. Kesoram Industries Limited
Basanth nagar Limestone mining, Lease,
Thakkellapalli & Plakurthy Villages , Plakurthy
Mandal, Peddapalli District, Telangana State
Contact Number:9966639930

| | | | |
|---------------------------------|---------------------|--------------------------------|---|
| Date of report | : 06-03-2023 | Sample Collected by | : Kiwis Eco Laboratories Private Limited |
| Date of sampling | : 24-02-2023 | Sample Collected in | : Samples received in Plastic Covers |
| Sample received on | : 25-02-2023 | Sampling Procedure | : KIWIS/SOP/ Lab - 258 |
| Analysis starting date | : 25-02-2023 | Sample registration no | : S/COM/02/2023/2255 |
| Analysis completion date | : 06-03-2023 | Sample description/Code | : Soil Quality Monitoring |
| Sub Contract Testing | : NA | Name of the location | : At Raginedu village |

Environmental Conditions During Monitoring : 27.8C & 46%

1. S/COM/02/2023/2255: KIL /24/02/2023/01(At Raginedu Village)



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Report No: KIWIS/S/COM/2023/1465

Samples are analyzed "as Received basis is"

| S.No | Parameter | Unit | Method | Result |
|------|---------------------------|--------|------------------------------------|-----------|
| 1 | pH | - | IS 2720 (Part 26)-1987 (RA:2002) | 8.56 |
| 2 | Moisture Content | % | IS 9235-1979 | 4.8 |
| 3 | Organic carbon | % | IS 2720 (part 22) - 1972 (RA:2010) | 0.59 |
| 4 | Ava. Calcium as Ca | mg/kg | STIDA&CGI | 1665.0 |
| 5 | Ava. Magnesium as Mg | mg/kg | STIDA&CGI | 290.0 |
| 6 | Ava. Nitrogen as N | Kg/hac | STIDA&CGI | 275.0 |
| 7 | Ava. Phosphates as P | Kg/hac | FAO 2007 | 60.0 |
| 8 | Ava. Potassium as K | Kg/hac | FAO 2007 | 365.0 |
| 9 | Available Chlorides as Cl | mg/kg | STIDA&CGI | 55.0 |
| 10 | Texture | | | |
| | Sand | % | STIDA&CGI | 45 |
| | Silt | % | STIDA&CGI | 25 |
| | Clay | % | STIDA&CGI | 28 |
| 11 | Soil Type | - | IS 2720 | Clay Loam |

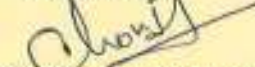
Opinion and interpretation: Nil

NA: Not Applicable

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Checked By


(O. Chowdeswararao)
Sr. Chemist

Authorized Signatory


(Dr. Nalini Vijayalaxmi)
Managing Laboratory

End of the Report